



209 W. McKay Street
Carlsbad, New Mexico 88220
Tel. 432-701-2159
www.ntgenvironmental.com

October 21, 2024

Mike Bratcher
District Supervisor
Oil Conservation Division, District 2
811 S. First Street
Artesia, New Mexico 88210

Re: Site Characterization and Remediation Work Plan
Devon Energy Production Company
Arcturus 18 Fed 1 & 2 Battery
Unit A, Section 18, Township 19S, Range 31E
Site Coordinates: 32.66623066, -103.9007637
Eddy County, New Mexico
Incident ID: nAPP2426141700

Introduction

On behalf of Devon Energy Production Company (Devon), New Tech Global Environmental, LLC (NTGE) has prepared this Site Characterization and Remediation Work Plan for submittal to the New Mexico Oil Conservation Division (NMCOD) District 2 Office in Artesia, New Mexico to document site assessment, remedial action activities, and sample analysis results for the release number: nAPP2426141700 – Arcturus 18 Fed 1 & 2 Battery (Site). The Site is in Unit Letter A, Section 18, of Township 19 South and Range 31 East in Eddy County, New Mexico. The GPS coordinates for the release site are 32.66623066° N latitude and -103.9007637° W longitude. The site location with respect to the nearest town is shown on Figure 1 and the topography of the area is shown on Figure 2.

Background

Based on the Release Notification C-141 Form, the release was discovered on September 16, 2024, where Devon discovered a leak on a water line from the heater treater unit. Upon discovery, the Site was shut-in and repairs ensued. The spill resulted in a release of approximately ten (10) barrels (bbls) of produced water of which five (5) were recovered for an approximate net loss of five (5) bbls of produced water. The release area is shown on Figure 3.

Creating a Better
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For Oil & Gas
Operations

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Groundwater and Site Characterization

Based on a review of the New Mexico Office of State Engineers and USGS databases, there is one water well (CP-1907) within a ½-mile radius of the Site reportedly drilled to a depth of fifty-five (55) feet (ft) below ground surface (bgs) with no water encountered. No other receptors (playas, wetlands, waterways, lakebeds, or ordinance boundaries) are located within each specific boundary or distance from the Site. According to the Karst Potential Map, the Site is located within a Medium Karst area. The Site characterization documentation (Points of Diversion, Karst Potential, Significant Watercourse Map, Wetlands Map, and FEMA Map) are attached to the report.

NTGE characterized the Site according to Table I, Closure Criteria for Soils Impacted by a Release, from the New Mexico Administrative Code (NMCA) Title 19, Chapter 15, Part 29, Section 12 (NMAC 19.15.29.12).

General Site Characterization and Groundwater:

Site Characterization	Average Groundwater Depth (ft)
Medium Karst	≥55

Table 3.1 Closure Criteria for Soils Impacted by a Release (NMAC 19.15.29.12 & 19.15.29.13)

Regulatory Standard	Chloride	TPH (GRO+DRO+MRO)	GRO+DRO	BTEX	Benzene
19.15.23.12 Remediation and Closure Criteria for Soils Impacted by a Release	10,000 mg/kg	2,500 mg/kg	1,000 mg/kg	50 mg/kg	10 mg/kg
19.15.23.13 Restoration, Reclamation, and Re-Vegetation	600 mg/kg	100 mg/kg	---	50 mg/kg	10 mg/kg

Notes:

--- = not defined

Initial Soil Delineation Assessment Summary and Findings

On September 18, 2024, NTGE conducted site assessment activities to assess the extent of impacts at the Site. Five (5) vertical sample points (V-1 through V-5) were installed within the release area, while ten (10) horizontal sample points (H-1 through H-10) were installed adjacent to the release area in order to characterize the impacts. Soil samples were collected at half foot (0.5) to one (1) foot (ft) intervals from depths ranging from zero (0) to six (6) ft bgs with a geotechnical hand auger. The hand auger was decontaminated with Alconox[®] and deionized water between soil borings to prevent cross-contamination.

Soil samples were placed directly into laboratory provided sample containers, placed on ice, and transported under proper chain-of-custody protocol to Cardinal Laboratories in Hobbs, New Mexico for analysis of TPH (EPA method 8015 modified), BTEX (EPA Method 8021B), and chloride (Method SM4500Cl-B). The analytical results indicated that Chloride concentrations

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exceeded the NMOCD regulatory limits in the areas of V-1 through V-5 at various depths ranging from zero (0) to five (5) ft bgs. Analytical results also identified that horizontal delineation sample H-3 and H-10 exhibited presence of spill impacts due to elevated concentration of TPH and chloride at depths ranging from zero (0) to half foot (0.5) ft bgs. All other samples were below NMOCD regulatory criteria for the site.

On September 27, 2024, NTGE returned to continue with the horizontal delineation assessment of the release. A total of two (2) horizontal samples (H-3A and H-10A) were installed adjacent to the release area, collected at a half foot intervals, and were delivered to Cardinal Laboratories in Hobbs, New Mexico for the analysis of BTEX, TPH, and chlorides. Analytical results indicated that all samples were below NMOCD regulatory criteria for the site. Analytical results are included in Table 1, while soil boring locations are shown on Figure 3.

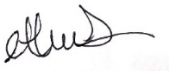
Proposed Work Plan

After receiving and evaluating the soil boring data, NTGE proposes to excavate the area of V-2 to a depth of four (4) ft bgs, V-3 to a depth of six (6) ft bgs, V-4 to a depth of two (2) ft bgs, and V-5 to a depth of one (1) ft bgs to ensure that the impacted soil has been removed from the Site. Approximately 476 cubic yards of impacted material will be excavated and transported offsite for disposal at an NMOCD approved landfill. The proposed excavation map is shown on Figure 4.

Due to the presence of production equipment (i.e., separators and associated pipelines) in the vicinity of area V-1, excavation of soil is not feasible as the result of associated safety concerns in encroaching the infrastructure. NTGE proposes to address the remaining soil impacts at the time of facility decommissioning or in the event infrastructure modifications are made in the area that would alleviate safety concerns, whichever is sooner. The infrastructure in and around the excavation is shown on Figure 3 and Figure 4.

If you have any questions regarding this letter, please contact us at (432)-701-2159.

Sincerely,
NTG Environmental



Ethan Sessums
Project Manager

Attachments:

- Tables
- Figures
- Site Characterization Documentation
- Photographic Log
- Laboratory Reports and Chain-of-Custody Documents

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TABLES

Table 1
Summary of Soil Analytical Data - Delineation Samples
Arcturus 18 Fed 1
Devon Energy Production Company
Eddy County, New Mexico

Sample ID	Sample Date	Depth (ft bgs)	Benzene	Toluene	Ethylbenzene	Xylenes	BTEX	TPH					Chloride
								GRO (C6-C10)	DRO (C10-C28)	GRO + DRO (C6-C28)	MRO (C28-C35)	Total GRO/DRO/MRO (C6-C35)	
			(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	
			Table I Closure Criteria for Soil 51-100 feet Depth to Groundwater 19.15.29 NMAC										
			10 mg/kg	---	---	---	50 mg/kg	---	---	1,000 mg/kg	---	2,500 mg/kg	10,000 mg/kg
Vertical Delineation Samples													
V-1	9/18/2024	0-0.5	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	8,800
	9/18/2024	1'	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	6,930
	9/18/2024	2'	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	5,000
	9/18/2024	3'	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	2,560
	9/18/2024	4'	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	256
V-2	9/18/2024	0-0.5	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	10,000
	9/18/2024	1'	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	8,400
	9/18/2024	2'	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	8,530
	9/18/2024	3'	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	4,800
	9/18/2024	4'	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	448
V-3	9/18/2024	0-0.5	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	5,360
	9/18/2024	1'	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	8,240
	9/18/2024	2'	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	10,000
	9/18/2024	3'	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	10,400
	9/18/2024	4'	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	8,400
	9/18/2024	5'	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	4,160
V-4	9/18/2024	6'	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	448
	9/18/2024	0-0.5	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	12,700
	9/18/2024	1'	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	5,860
V-5	9/18/2024	2'	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	192
	9/18/2024	0-0.5	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	8,530
	9/18/2024	1'	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	176
Horizontal Delineation Samples													
H-1	9/18/2024	0-0.5	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	32.0
H-2	9/18/2024	0-0.5	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	32.0
H-3	9/18/2024	0-0.5	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	179	179	90.4	269.4	384
H-3A	9/27/2024	0-0.5	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	<16.0
H-4	9/18/2024	0-0.5	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	16.0
H-5	9/18/2024	0-0.5	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	80.0
H-6	9/18/2024	0-0.5	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	32.0
H-7	9/18/2024	0-0.5	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	160
H-8	9/18/2024	0-0.5	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	224
H-9	9/18/2024	0-0.5	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	480
H-10	9/18/2024	0-0.5	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	10,400
H-10A	9/27/2024	0-0.5	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	96.0

Notes:

- Values reported in mg/kg
- < = Value Less Than Reporting Limit (RL)
- Bold indicates Analyte Detected
- BTEX analyses by EPA Method SW 8021B

SP-1

Sample Point Excavated

- TPH analyses by EPA Method SW 8015 Mod.

- GRO/DRO/MRO - Gasoline/Diesel/Motor Oil

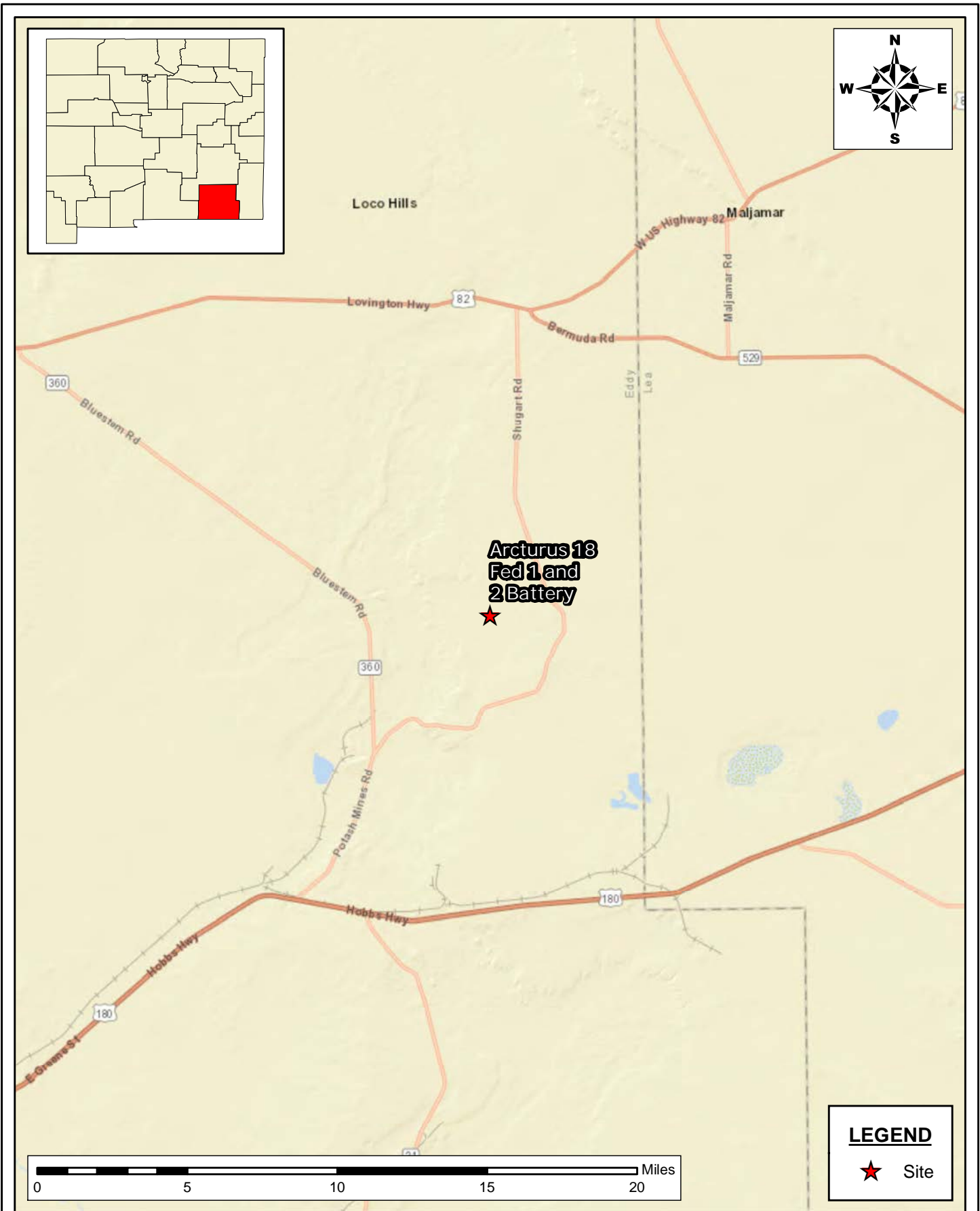
- Yellow shaded cells indicate analytical samples that exceed the NMAC 19.15.29.12 Table I Closure Criteria for the site.

- Peach shaded cells indicate analytical samples that exceed the NMAC 19.15.29.13 Table I Closure Criteria for the site (Surface to 4 Feet Below Grade).

- Not Analyzed

FIGURES

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SITE LOCATION MAP
SITE CHARACTERIZATION AND REMEDIATION WORK PLAN
 DEVON ENERGY PRODUCTION COMPANY
 ARCTURUS 18 FED 1 AND 2 BATTERY
 EDDY COUNTY, NEW MEXICO

SCALE: As Shown Date: 10/14/2024 PROJECT #:249148

New Tech Global Environmental, LLC
 911 Regional Park Drive
 Houston, Texas 77060
 T - 281.872.9300
 F - 281.872.4521
 Web: www.ntgenviroinmental.com



NOTES:

1. Base Image: ESRI Maps & Data 2013
2. Map Projection: NAD 1983

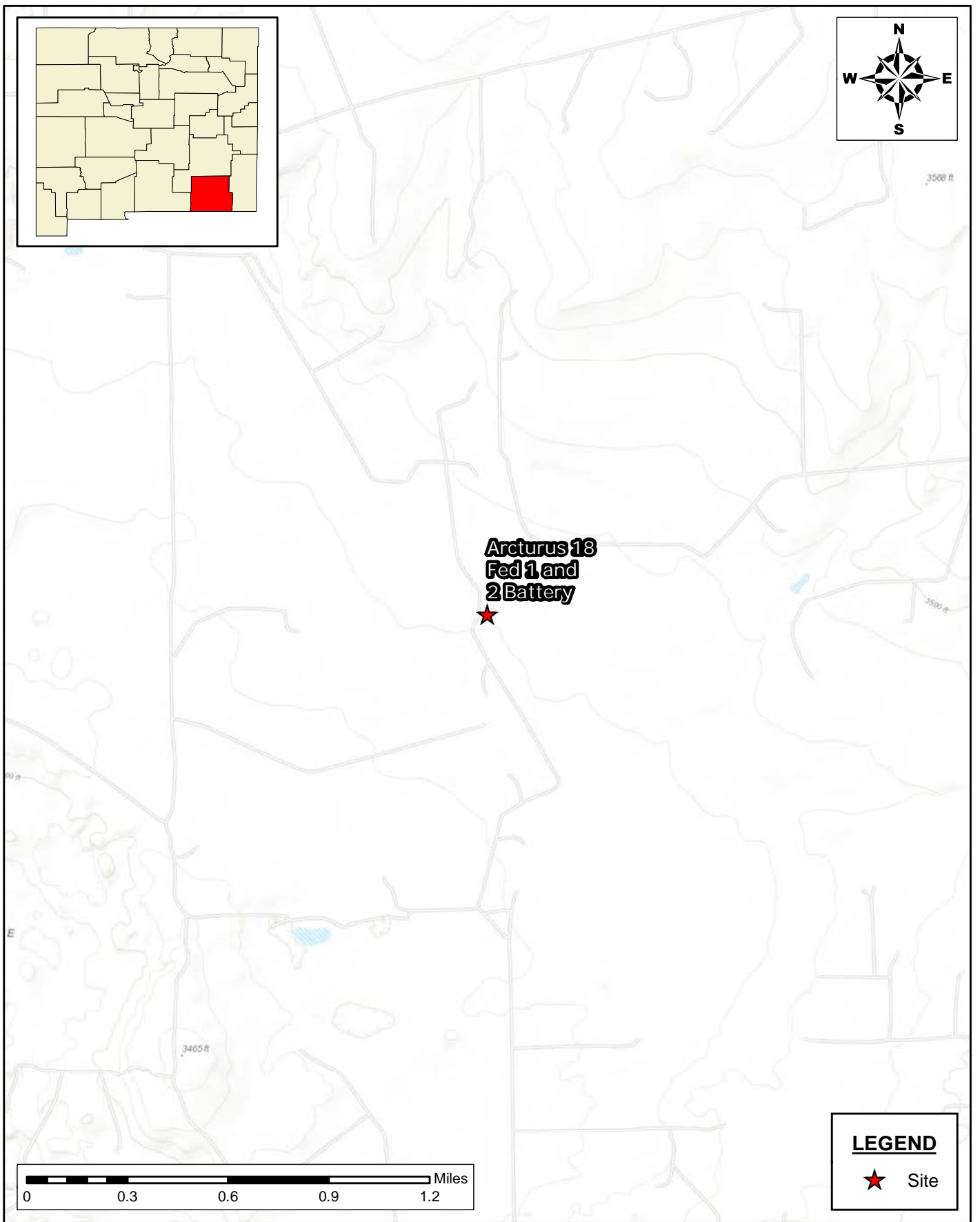
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FIGURE 1

SHEET NUMBER:

1 of 1

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TOPOGRAPHIC MAP
SITE CHARACTERIZATION AND REMEDIATION WORK PLAN
DEVON ENERGY PRODUCTION COMPANY
ARCTURUS 18 FED 1 AND 2 BATTERY
EDDY COUNTY, NEW MEXICO

SCALE: As Shown Date: 10/14/2024 PROJECT #:249148



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NOTES:

1. Base Image: ESRI Maps & Data 2013
2. Map Projection: NAD 1983

DRAWING NUMBER:

FIGURE 2

SHEET NUMBER:

1 of 1

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**INITIAL ASSESSMENT MAP
SITE CHARACTERIZATION AND REMEDIATION WORK PLAN
DEVON ENERGY PRODUCTION COMPANY
ARCTURUS 18 FED 1 AND 2 BATTERY
EDDY COUNTY, NEW MEXICO**

SCALE: As Shown Date: 10/14/2024 PROJECT #:249148



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Houston, Texas 77060
T - 281.872.9300
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NOTES:

1. Base Image: ESRI Maps & Data 2013
2. Map Projection: NAD 1983

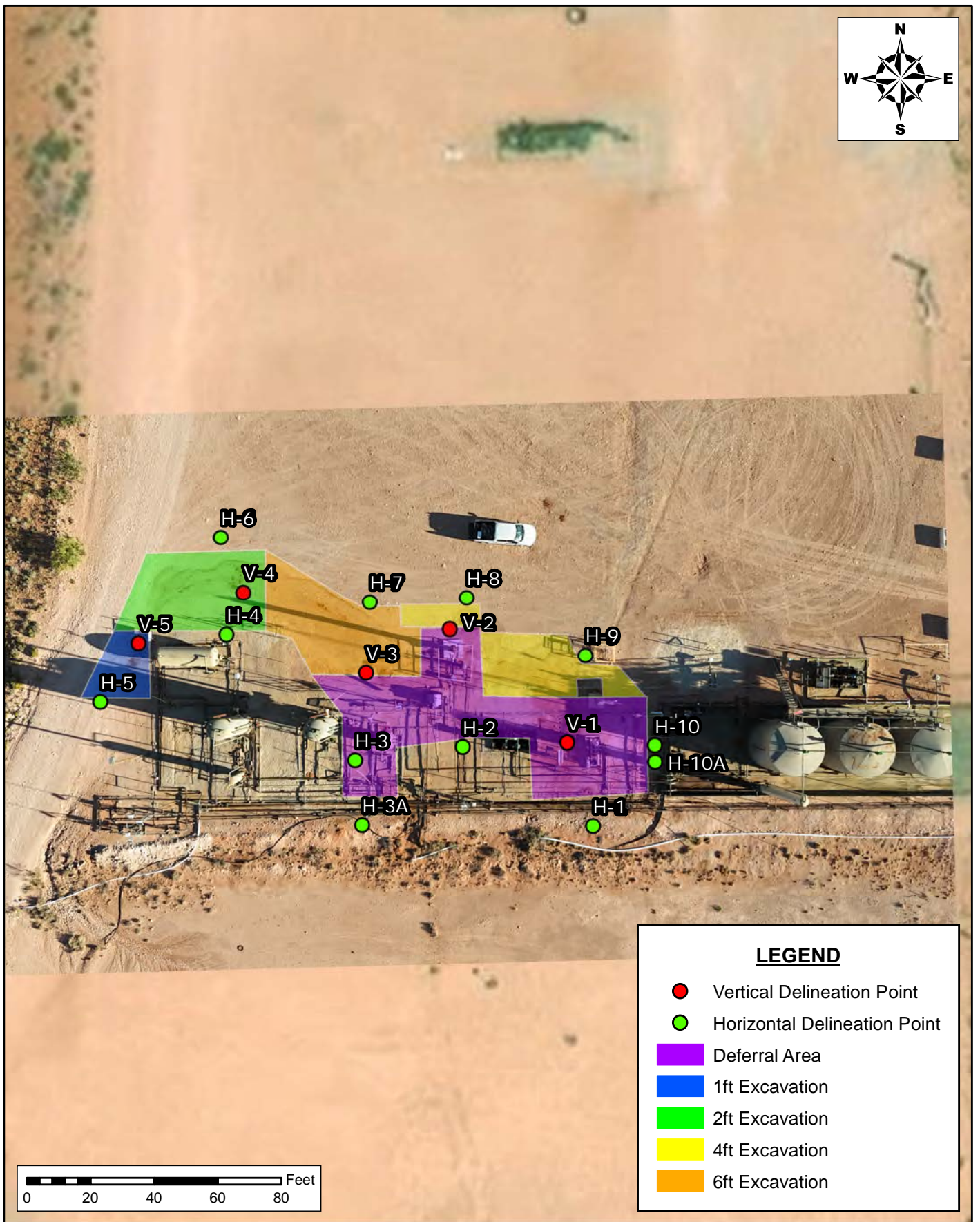
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FIGURE 3

SHEET NUMBER:

1 of 1

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PROPOSED EXCAVATION MAP
SITE CHARACTERIZATION AND REMEDIATION WORK PLAN
DEVON ENERGY PRODUCTION COMPANY
ARCTURUS 18 FED 1 AND 2 BATTERY
EDDY COUNTY, NEW MEXICO

SCALE: As Shown Date: 10/14/2024 PROJECT #:249148

New Tech Global Environmental, LLC
911 Regional Park Drive
Houston, Texas 77060
T - 281.872.9300
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Web: www.ntgenviromental.com



NOTES:

1. Base Image: ESRI Maps & Data 2013
2. Map Projection: NAD 1983

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FIGURE 4

SHEET NUMBER:

1 of 1

Proposed Excavation Map

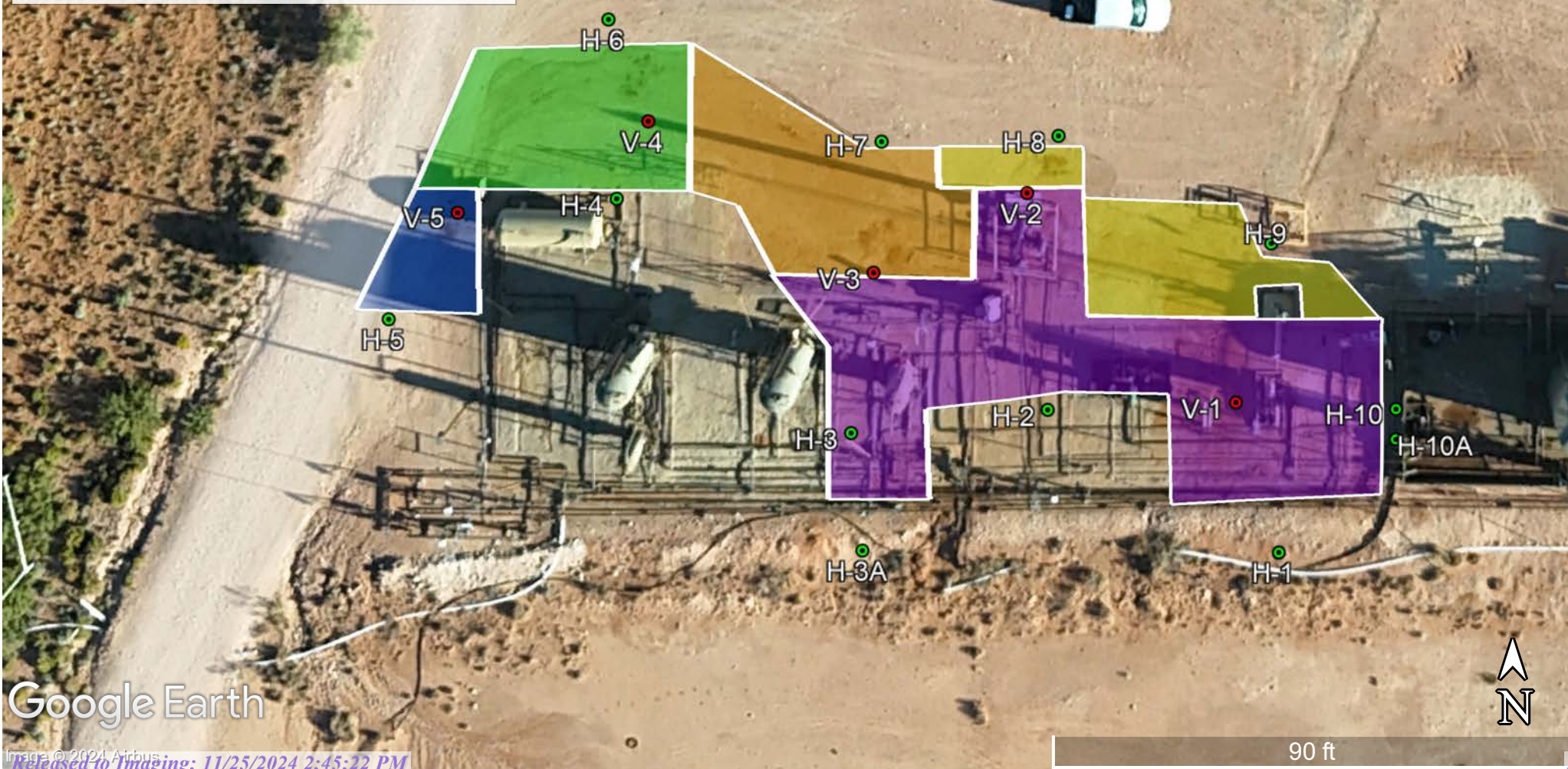
Devon Energy Production Company, LP
Arcturus 18 Fed 1 and 2 Battery
Eddy County, New Mexico
32.66623066,-103.9007637

Area of Yellow: 890 sqft x 4ft ~ 132 CY
Area of Orange: 1,138 sqft x 6ft ~ 253 CY
Area of Green: 1,049 sqft x 2ft ~ 78 CY
Area of Blue: 353 sqft x 1ft ~ 13 CY
Total Volume Excavated: 476 CY

sqft - Square Feet
CY - Cubic Yard

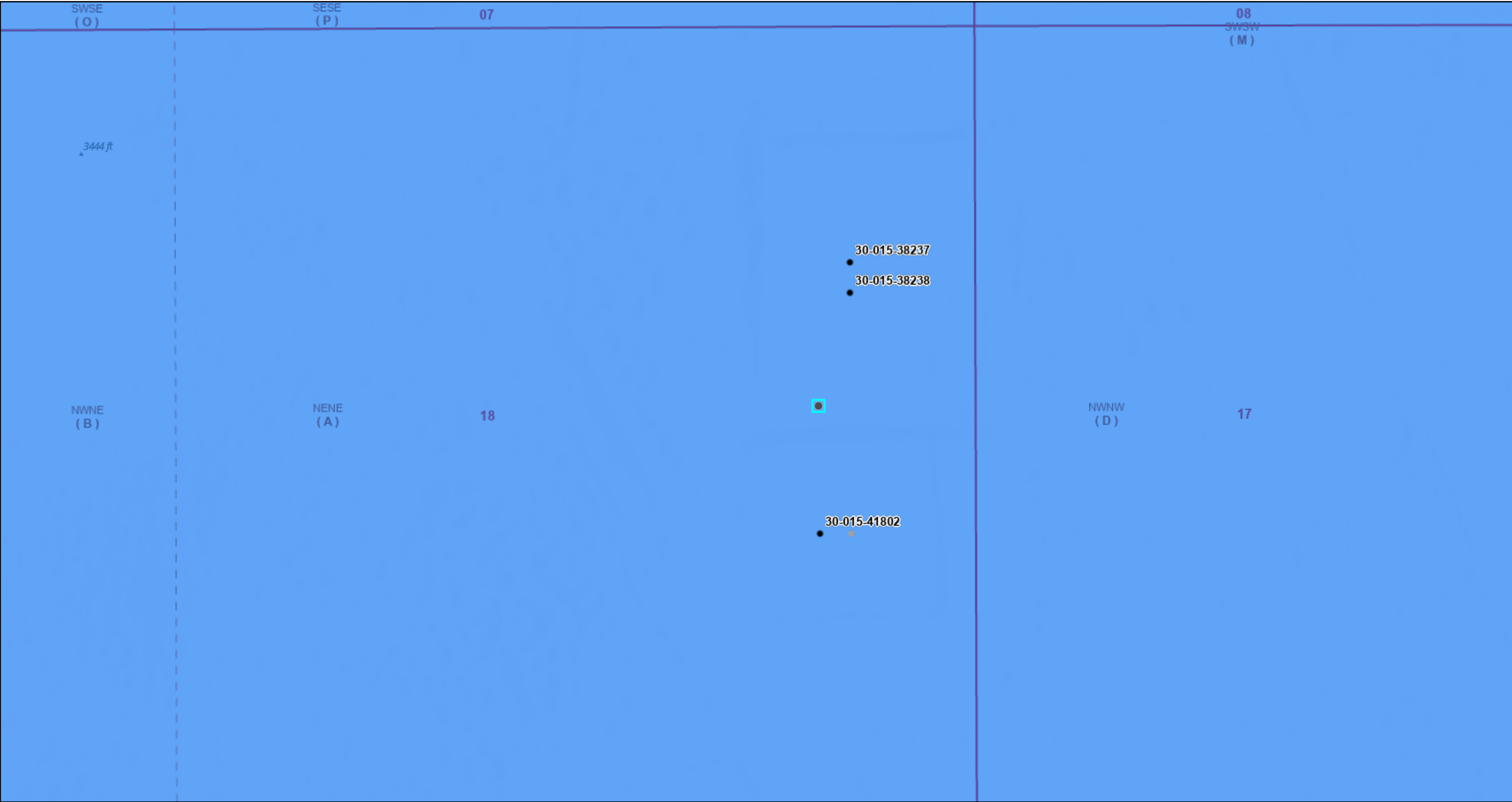
Legend

- 1ft Excavation
- 2ft Excavation
- 4ft Excavation
- 6ft Excavation
- Deferral Area
- Horizontal Delineation Point
- Vertical Delineation Point



SITE CHARACTERIZATION INFORMATION

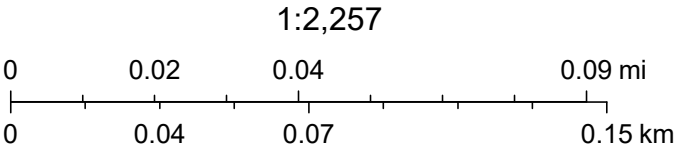
Karst Potential Map



9/25/2024, 2:29:55 PM

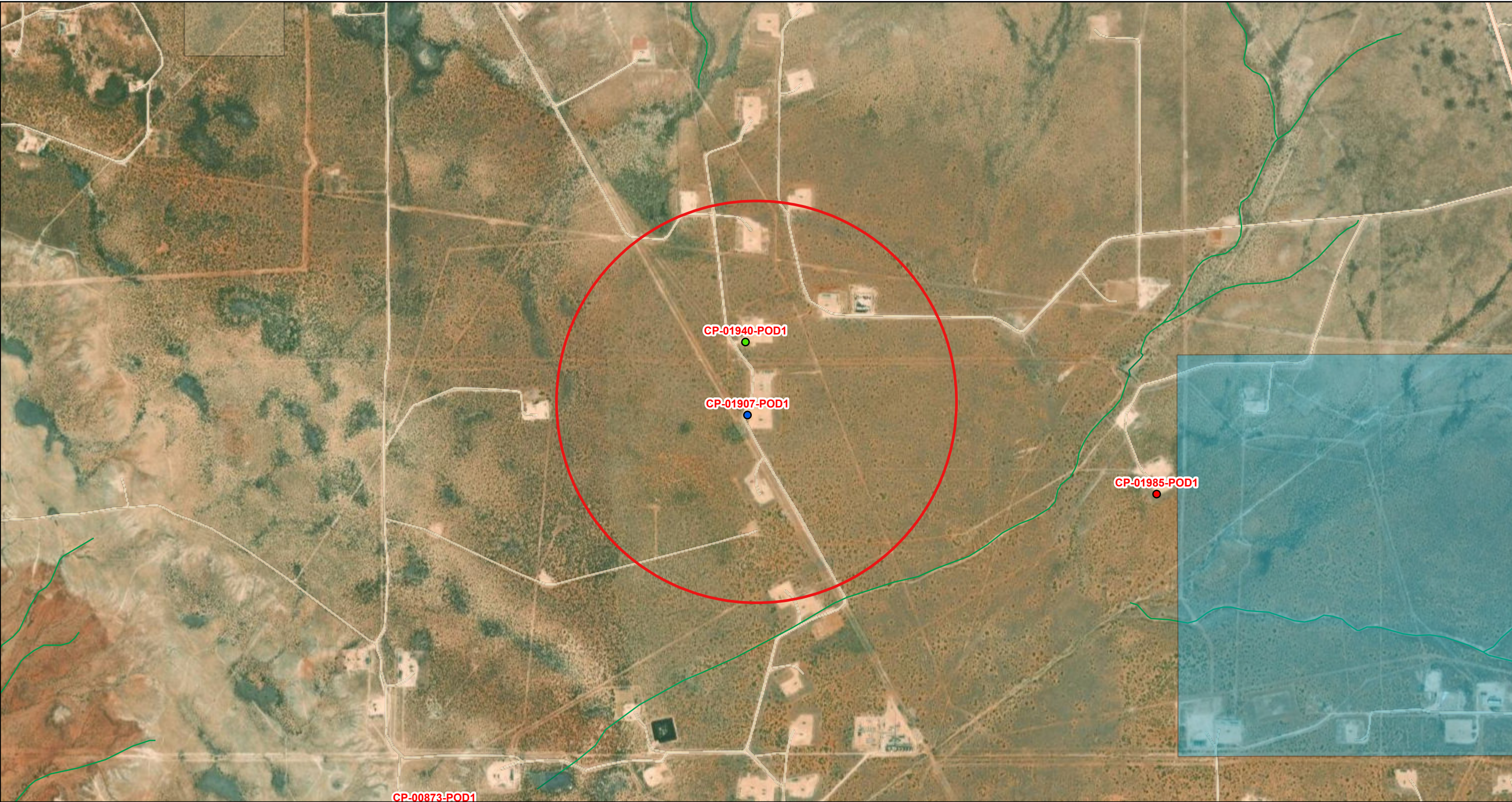
Wells - Large Scale Karst Occurrence Potential

- Oil, Active
- Oil, Cancelled
- Medium
- PLSS First Division
- PLSS Second Division



BLM, OCD, New Mexico Tech, Oil Conservation Division of the New Mexico Energy, Minerals and Natural Resources Department., Sources: Esri, Airbus DS, USGS, NGA, NASA, CGIAR, N Robinson, NCEAS, NLS, OS, NMA, Geodatastyrelsen, Rijkswaterstaat, GSA,

OSE POD Location Map



9/25/2024, 2:35:43 PM

Override 1

Active

Pending

Plugged

OSE District Boundary

New Mexico State Trust Lands

Subsurface Estate

Both Estates

NHD Flowlines

Artificial Path

Connector

Stream River

1:18,056

00.170.350.7 mi

00.30.61.2 km

Esri, HERE, iPC, Esri, HERE, Garmin, iPC, Maxar



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: CP-1907

Well owner: Devon Energy

Phone No.: 575-748-1838

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: Jackie D. Atkins (Atkins Engineering Associates Inc.)
- 2) New Mexico Well Driller License No.: 1249 Expiration Date: 04/30/23
- 3) Well plugging activities were supervised by the following well driller(s)/rig supervisor(s): Shane Eldridge, Cameron Pruitt
- 4) Date well plugging began: 7/13/2022 Date well plugging concluded: 7/13/2022
- 5) GPS Well Location: Latitude: 32 deg, 39 min, 55.76 sec
Longitude: 103 deg, 54 min, 4.95 sec, WGS 84
- 6) Depth of well confirmed at initiation of plugging as: 55 ft below ground level (bgl),
by the following manner: water level probe
- 7) Static water level measured at initiation of plugging: n/a ft bgl
- 8) Date well plugging plan of operations was approved by the State Engineer: 5/23/2022
- 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):

QSE DTI AUG 11 2022 PM 4:05

- For each interval plugged, describe within the following columns:**

III. SIGNATURE:

Jack Atkins

8/4/2022

Date _____

4_CP-1907_Well Record and Log-forsign

Final Audit Report

2022-08-04

Created:	2022-08-04
By:	Lucas Middleton (lucas@atkinseng.com)
Status:	Signed
Transaction ID:	CBJCHBCAABAA4kcEI3zlePHJkrfQIIUnN4avqQDcQdni

"4_CP-1907_Well Record and Log-forsign" History

-  Document created by Lucas Middleton (lucas@atkinseng.com)
2022-08-04 - 8:42:42 PM GMT- IP address: 64.17.71.25
-  Document emailed to Jack Atkins (jack@atkinseng.com) for signature
2022-08-04 - 8:44:35 PM GMT
-  Email viewed by Jack Atkins (jack@atkinseng.com)
2022-08-04 - 9:16:24 PM GMT- IP address: 64.90.153.232
-  Document e-signed by Jack Atkins (jack@atkinseng.com)
Signature Date: 2022-08-04 - 9:18:32 PM GMT - Time Source: server- IP address: 64.90.153.232
-  Agreement completed.
2022-08-04 - 9:18:32 PM GMT

USE OF AUG 11 2022 PM 4:05



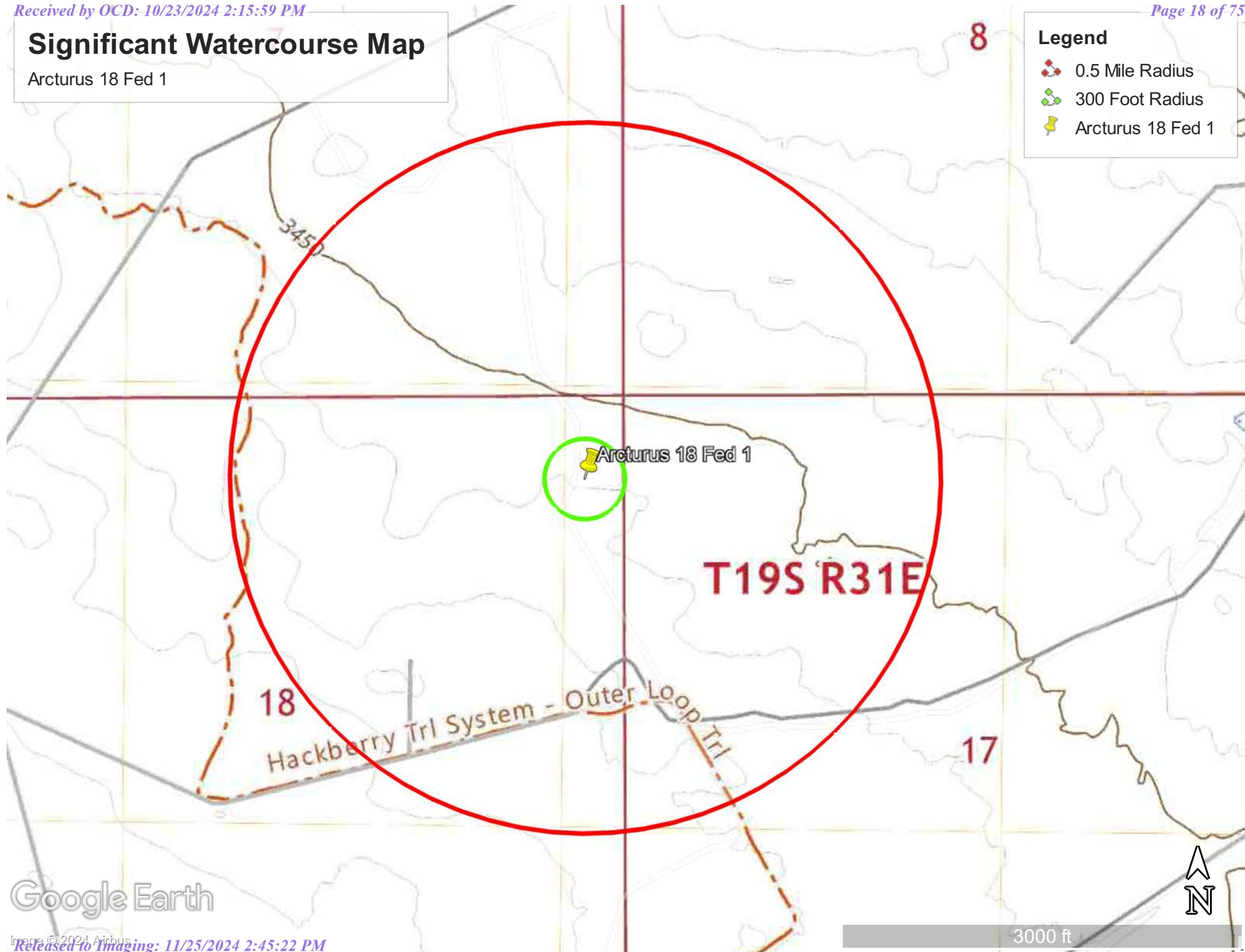
Adobe Acrobat Sign

Significant Watercourse Map

Arcturus 18 Fed 1

Legend

- 0.5 Mile Radius
- 300 Foot Radius
- Arcturus 18 Fed 1



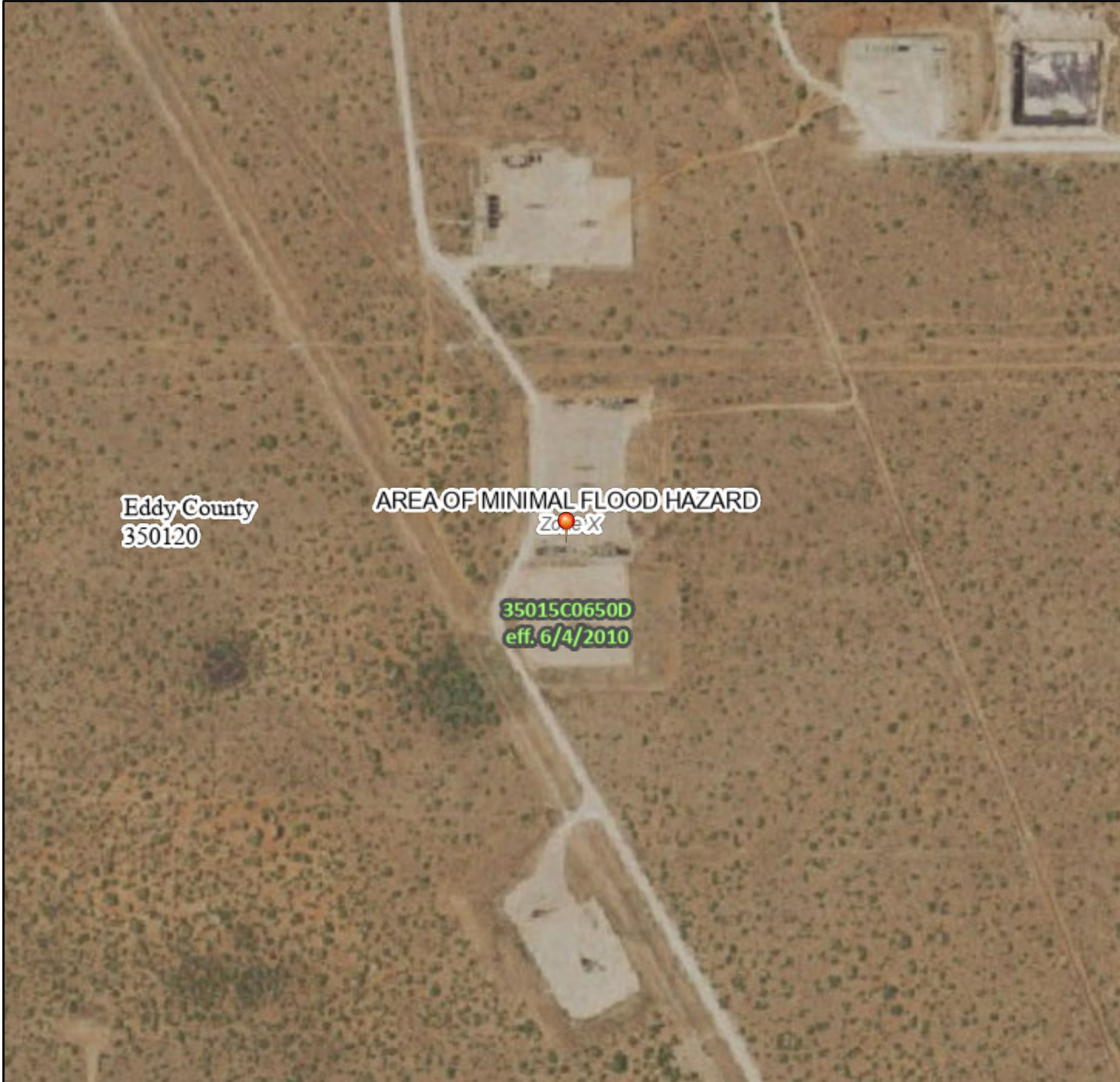
Google Earth

3000 ft

National Flood Hazard Layer FIRMette



103°54'22"W 32°40'13"N



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

1:6,000

103°53'45"W 32°39'42"N

Legend

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

SPECIAL FLOOD HAZARD AREAS		Without Base Flood Elevation (BFE) Zone A, V, A99
		With BFE or Depth Zone AE, AO, AH, VE, AR
		Regulatory Floodway
OTHER AREAS OF FLOOD HAZARD		0.2% Annual Chance Flood Hazard, Areas of 1% annual chance flood with average depth less than one foot or with drainage areas of less than one square mile Zone X
		Future Conditions 1% Annual Chance Flood Hazard Zone X
		Area with Reduced Flood Risk due to Levee. See Notes. Zone X
		Area with Flood Risk due to Levee Zone D
OTHER AREAS		NO SCREEN Area of Minimal Flood Hazard Zone X
		Effective LOMRs
		Area of Undetermined Flood Hazard Zone D
GENERAL STRUCTURES		Channel, Culvert, or Storm Sewer
		Levee, Dike, or Floodwall
OTHER FEATURES		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 displayed on the map is an approximate point selected by the user and does not represent an authoritative property location.

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

The flood hazard information is derived directly from the authoritative NFHL web services provided by FEMA. This map was exported on 9/25/2024 at 4:32 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.








Wetlands Map






September 25, 2024

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.

PHOTOGRAPHIC LOG

PHOTOGRAPHIC LOG
Devon Energy Production Company, LP
Arcturus 18 Fed 1 and 2 Battery

Photograph No. 1

Facility: Arcturus 18 Fed 1 and 2 Battery

County: Eddy County, New Mexico

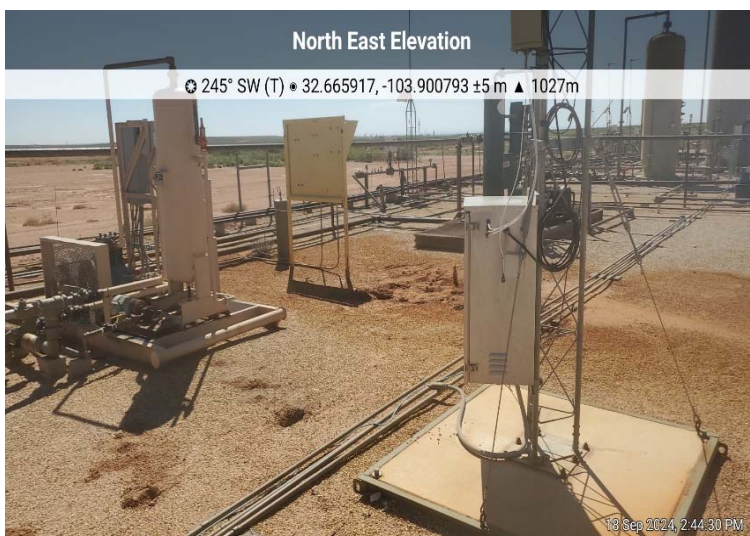
Description:
Area of concern

**Photograph No. 2**

Facility: Arcturus 18 Fed 1 and 2 Battery

County: Eddy County, New Mexico

Description:
Area of concern

**Photograph No. 3**

Facility: Arcturus 18 Fed 1 and 2 Battery

County: Eddy County, New Mexico

Description:
Area of concern



PHOTOGRAPHIC LOG
Devon Energy Production Company, LP
Arcturus 18 Fed 1 and 2 Battery

Photograph No. 4

Facility: Arcturus 18 Fed 1 and 2 Battery

County: Eddy County, New Mexico

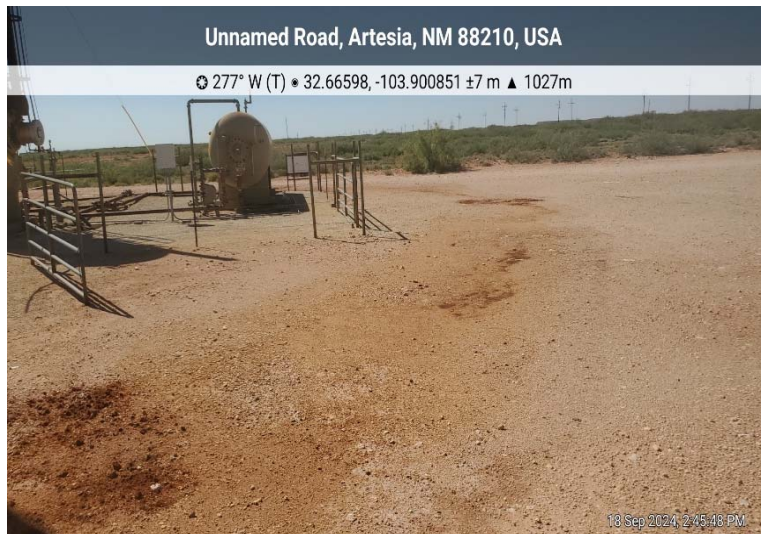
Description:
Area of concern

**Photograph No. 5**

Facility: Arcturus 18 Fed 1 and 2 Battery

County: Eddy County, New Mexico

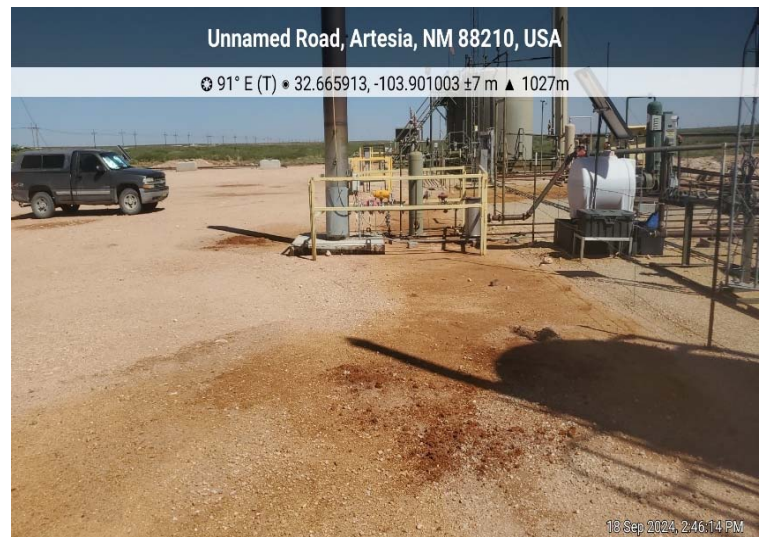
Description:
Area of concern

**Photograph No. 6**

Facility: Arcturus 18 Fed 1 and 2 Battery

County: Eddy County, New Mexico

Description:
Area of concern



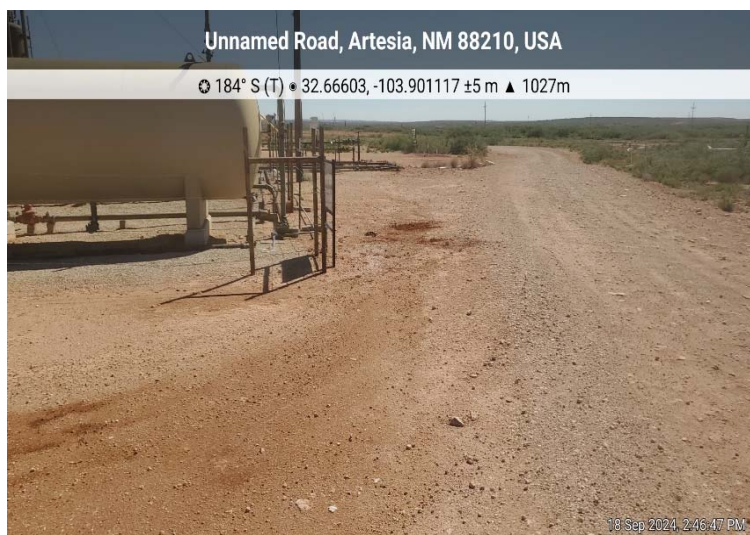
PHOTOGRAPHIC LOG
Devon Energy Production Company, LP
Arcturus 18 Fed 1 and 2 Battery

Photograph No. 7

Facility: Arcturus 18 Fed 1 and 2 Battery

County: Eddy County, New Mexico

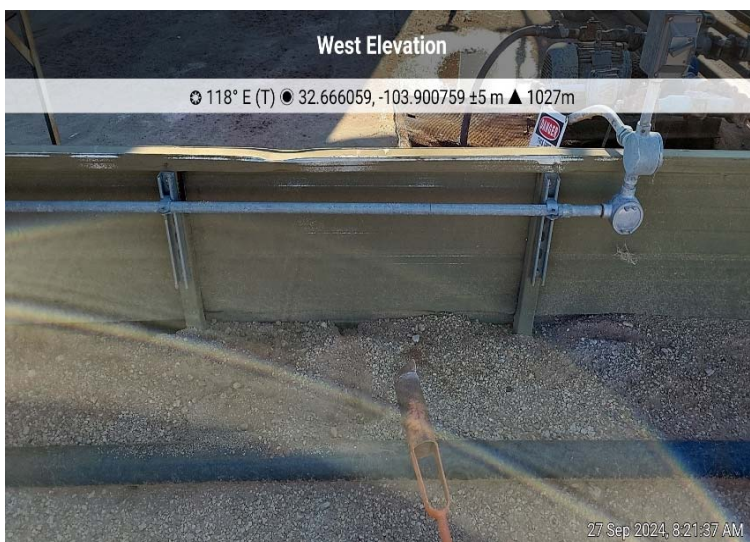
Description:
Area of concern

**Photograph No. 8**

Facility: Arcturus 18 Fed 1 and 2 Battery

County: Eddy County, New Mexico

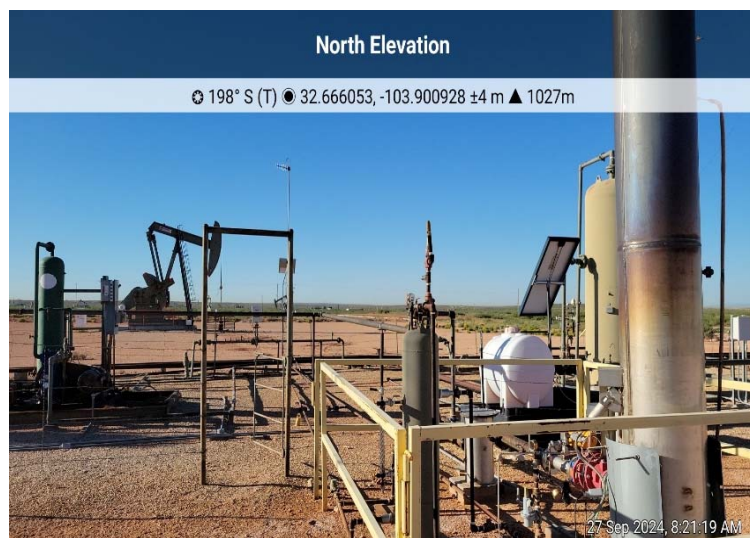
Description:
Area of concern

**Photograph No. 9**

Facility: Arcturus 18 Fed 1 and 2 Battery

County: Eddy County, New Mexico

Description:
Area of concern



LABORATORY REPORTS AND CHAIN-OF-CUSTODY DOCUMENTS



PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

September 24, 2024

ETHAN SESSUMS

NTG ENVIRONMENTAL

701 TRADEWINDS BLVD. SUITE C

MIDLAND, TX 79706

RE: ARCTURUS 18 FED 1

Enclosed are the results of analyses for samples received by the laboratory on 09/18/24 16:30.

Cardinal Laboratories is accredited through Texas NELAP under certificate number TX-C24-00112. Accreditation applies to drinking water, non-potable water and solid and chemical materials. All accredited analytes are denoted by an asterisk (*). For a complete list of accredited analytes and matrices visit the TCEQ website at www.tceq.texas.gov/field/qa/lab_accred_certif.html.

Cardinal Laboratories is accredited through the State of Colorado Department of Public Health and Environment for:

Method EPA 552.2	Haloacetic Acids (HAA-5)
Method EPA 524.2	Total Trihalomethanes (TTHM)
Method EPA 524.4	Regulated VOCs (V1, V2, V3)

Accreditation applies to public drinking water matrices.

This report meets NELAP requirements and is made up of a cover page, analytical results, and a copy of the original chain-of-custody. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

A handwritten signature in black ink that reads "Celey D. Keene". The signature is fluid and cursive, with the first name "Celey" and last name "Keene" clearly distinguishable.

Celey D. Keene

Lab Director/Quality Manager



PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

Analytical Results For:

NTG ENVIRONMENTAL
 ETHAN SESSUMS
 701 TRADEWINDS BLVD. SUITE C
 MIDLAND TX, 79706
 Fax To:

Received: 09/18/2024
 Reported: 09/24/2024
 Project Name: ARCTURUS 18 FED 1
 Project Number: 249148
 Project Location: DEVON -LEA COUNTY, NM

Sampling Date: 09/18/2024
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Shalyn Rodriguez

Sample ID: V - 1 0-.5 (H245693-01)

BTX 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	09/20/2024	ND	2.16	108	2.00	0.377	
Toluene*	<0.050	0.050	09/20/2024	ND	2.24	112	2.00	0.262	
Ethylbenzene*	<0.050	0.050	09/20/2024	ND	2.28	114	2.00	0.403	
Total Xylenes*	<0.150	0.150	09/20/2024	ND	6.89	115	6.00	0.375	
Total BTX	<0.300	0.300	09/20/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID) 106 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: HM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	8800	16.0	09/19/2024	ND	416	104	400	0.00	

TPH 8015M		mg/kg		Analyzed By: ms					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	09/19/2024	ND	211	106	200	1.07	
DRO >C10-C28*	<10.0	10.0	09/19/2024	ND	203	102	200	1.49	
EXT DRO >C28-C36	<10.0	10.0	09/19/2024	ND					

Surrogate: 1-Chlorooctane 84.1 % 48.2-134

Surrogate: 1-Chlorooctadecane 104 % 49.1-148

Cardinal Laboratories

*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager



PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

Analytical Results For:

NTG ENVIRONMENTAL
 ETHAN SESSUMS
 701 TRADEWINDS BLVD. SUITE C
 MIDLAND TX, 79706
 Fax To:

Received: 09/18/2024
 Reported: 09/24/2024
 Project Name: ARCTURUS 18 FED 1
 Project Number: 249148
 Project Location: DEVON -LEA COUNTY, NM

Sampling Date: 09/18/2024
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Shalyn Rodriguez

Sample ID: V - 1 1' (H245693-02)

BTEx 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	09/20/2024	ND	2.12	106	2.00	0.158	
Toluene*	<0.050	0.050	09/20/2024	ND	1.97	98.5	2.00	0.218	
Ethylbenzene*	<0.050	0.050	09/20/2024	ND	1.99	99.4	2.00	0.0168	
Total Xylenes*	<0.150	0.150	09/20/2024	ND	5.90	98.4	6.00	0.0891	
Total BTEX	<0.300	0.300	09/20/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID) 94.2 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: HM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	6930	16.0	09/19/2024	ND	416	104	400	0.00	

TPH 8015M		mg/kg		Analyzed By: ms					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	09/19/2024	ND	211	106	200	1.07	
DRO >C10-C28*	<10.0	10.0	09/19/2024	ND	203	102	200	1.49	
EXT DRO >C28-C36	<10.0	10.0	09/19/2024	ND					

Surrogate: 1-Chlorooctane 83.4 % 48.2-134

Surrogate: 1-Chlorooctadecane 102 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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Analytical Results For:

NTG ENVIRONMENTAL
 ETHAN SESSUMS
 701 TRADEWINDS BLVD. SUITE C
 MIDLAND TX, 79706
 Fax To:

Received: 09/18/2024
 Reported: 09/24/2024
 Project Name: ARCTURUS 18 FED 1
 Project Number: 249148
 Project Location: DEVON -LEA COUNTY, NM

Sampling Date: 09/18/2024
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Shalyn Rodriguez

Sample ID: V - 1 2' (H245693-03)

BTEX 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	09/20/2024	ND	2.12	106	2.00	0.158		
Toluene*	<0.050	0.050	09/20/2024	ND	1.97	98.5	2.00	0.218		
Ethylbenzene*	<0.050	0.050	09/20/2024	ND	1.99	99.4	2.00	0.0168		
Total Xylenes*	<0.150	0.150	09/20/2024	ND	5.90	98.4	6.00	0.0891		
Total BTEX	<0.300	0.300	09/20/2024	ND						

Surrogate: 4-Bromofluorobenzene (PID) 94.0 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	5000	16.0	09/19/2024	ND	416	104	400	0.00		

TPH 8015M		mg/kg		Analyzed By: ms					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	09/19/2024	ND	211	106	200	1.07	
DRO >C10-C28*	<10.0	10.0	09/19/2024	ND	203	102	200	1.49	
EXT DRO >C28-C36	<10.0	10.0	09/19/2024	ND					

Surrogate: 1-Chlorooctane 85.4 % 48.2-134

Surrogate: 1-Chlorooctadecane 106 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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Analytical Results For:

NTG ENVIRONMENTAL
 ETHAN SESSUMS
 701 TRADEWINDS BLVD. SUITE C
 MIDLAND TX, 79706
 Fax To:

Received: 09/18/2024
 Reported: 09/24/2024
 Project Name: ARCTURUS 18 FED 1
 Project Number: 249148
 Project Location: DEVON -LEA COUNTY, NM

Sampling Date: 09/18/2024
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Shalyn Rodriguez

Sample ID: V - 1 3' (H245693-04)

BTX 8021B			mg/kg		Analyzed By: JH				
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	09/20/2024	ND	2.12	106	2.00	0.158	
Toluene*	<0.050	0.050	09/20/2024	ND	1.97	98.5	2.00	0.218	
Ethylbenzene*	<0.050	0.050	09/20/2024	ND	1.99	99.4	2.00	0.0168	
Total Xylenes*	<0.150	0.150	09/20/2024	ND	5.90	98.4	6.00	0.0891	
Total BTX	<0.300	0.300	09/20/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID) 92.9 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: HM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	2560	16.0	09/19/2024	ND	416	104	400	0.00	

TPH 8015M		mg/kg		Analyzed By: ms					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	09/19/2024	ND	211	106	200	1.07	
DRO >C10-C28*	<10.0	10.0	09/19/2024	ND	203	102	200	1.49	
EXT DRO >C28-C36	<10.0	10.0	09/19/2024	ND					

Surrogate: 1-Chlorooctane 86.8 % 48.2-134

Surrogate: 1-Chlorooctadecane 107 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

Analytical Results For:

NTG ENVIRONMENTAL
 ETHAN SESSUMS
 701 TRADEWINDS BLVD. SUITE C
 MIDLAND TX, 79706
 Fax To:

Received: 09/18/2024
 Reported: 09/24/2024
 Project Name: ARCTURUS 18 FED 1
 Project Number: 249148
 Project Location: DEVON -LEA COUNTY, NM

Sampling Date: 09/18/2024
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Shalyn Rodriguez

Sample ID: V - 1 4' (H245693-05)

BTEx 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	09/20/2024	ND	2.12	106	2.00	0.158	
Toluene*	<0.050	0.050	09/20/2024	ND	1.97	98.5	2.00	0.218	
Ethylbenzene*	<0.050	0.050	09/20/2024	ND	1.99	99.4	2.00	0.0168	
Total Xylenes*	<0.150	0.150	09/20/2024	ND	5.90	98.4	6.00	0.0891	
Total BTEX	<0.300	0.300	09/20/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID) 93.9 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: HM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	256	16.0	09/19/2024	ND	416	104	400	0.00	

TPH 8015M		mg/kg		Analyzed By: ms					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	09/19/2024	ND	211	106	200	1.07	
DRO >C10-C28*	<10.0	10.0	09/19/2024	ND	203	102	200	1.49	
EXT DRO >C28-C36	<10.0	10.0	09/19/2024	ND					

Surrogate: 1-Chlorooctane 84.9 % 48.2-134

Surrogate: 1-Chlorooctadecane 104 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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Analytical Results For:

NTG ENVIRONMENTAL
 ETHAN SESSUMS
 701 TRADEWINDS BLVD. SUITE C
 MIDLAND TX, 79706
 Fax To:

Received: 09/18/2024
 Reported: 09/24/2024
 Project Name: ARCTURUS 18 FED 1
 Project Number: 249148
 Project Location: DEVON -LEA COUNTY, NM

Sampling Date: 09/18/2024
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Shalyn Rodriguez

Sample ID: V - 2 0-.5 (H245693-06)

BTEx 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	09/20/2024	ND	2.12	106	2.00	0.158		
Toluene*	<0.050	0.050	09/20/2024	ND	1.97	98.5	2.00	0.218		
Ethylbenzene*	<0.050	0.050	09/20/2024	ND	1.99	99.4	2.00	0.0168		
Total Xylenes*	<0.150	0.150	09/20/2024	ND	5.90	98.4	6.00	0.0891		
Total BTEX	<0.300	0.300	09/20/2024	ND						

Surrogate: 4-Bromofluorobenzene (PID) 94.8 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	10000	16.0	09/19/2024	ND	416	104	400	0.00		

TPH 8015M		mg/kg		Analyzed By: ms					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	09/19/2024	ND	211	106	200	1.07	
DRO >C10-C28*	169	10.0	09/19/2024	ND	203	102	200	1.49	
EXT DRO >C28-C36	27.5	10.0	09/19/2024	ND					

Surrogate: 1-Chlorooctane 82.9 % 48.2-134

Surrogate: 1-Chlorooctadecane 105 % 49.1-148

Cardinal Laboratories

*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager



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Analytical Results For:

NTG ENVIRONMENTAL
 ETHAN SESSUMS
 701 TRADEWINDS BLVD. SUITE C
 MIDLAND TX, 79706
 Fax To:

Received: 09/18/2024
 Reported: 09/24/2024
 Project Name: ARCTURUS 18 FED 1
 Project Number: 249148
 Project Location: DEVON -LEA COUNTY, NM

Sampling Date: 09/18/2024
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Shalyn Rodriguez

Sample ID: V - 2 1' (H245693-07)

BTEx 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	09/20/2024	ND	2.12	106	2.00	0.158	
Toluene*	<0.050	0.050	09/20/2024	ND	1.97	98.5	2.00	0.218	
Ethylbenzene*	<0.050	0.050	09/20/2024	ND	1.99	99.4	2.00	0.0168	
Total Xylenes*	<0.150	0.150	09/20/2024	ND	5.90	98.4	6.00	0.0891	
Total BTEX	<0.300	0.300	09/20/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID) 94.9 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	8400	16.0	09/19/2024	ND	416	104	400	0.00		

TPH 8015M		mg/kg		Analyzed By: ms					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	09/19/2024	ND	211	106	200	1.07	
DRO >C10-C28*	<10.0	10.0	09/19/2024	ND	203	102	200	1.49	
EXT DRO >C28-C36	<10.0	10.0	09/19/2024	ND					

Surrogate: 1-Chlorooctane 83.7 % 48.2-134

Surrogate: 1-Chlorooctadecane 102 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

Analytical Results For:

NTG ENVIRONMENTAL
 ETHAN SESSUMS
 701 TRADEWINDS BLVD. SUITE C
 MIDLAND TX, 79706
 Fax To:

Received: 09/18/2024
 Reported: 09/24/2024
 Project Name: ARCTURUS 18 FED 1
 Project Number: 249148
 Project Location: DEVON -LEA COUNTY, NM

Sampling Date: 09/18/2024
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Shalyn Rodriguez

Sample ID: V - 2 2' (H245693-08)

BTEX 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	09/20/2024	ND	2.12	106	2.00	0.158	
Toluene*	<0.050	0.050	09/20/2024	ND	1.97	98.5	2.00	0.218	
Ethylbenzene*	<0.050	0.050	09/20/2024	ND	1.99	99.4	2.00	0.0168	
Total Xylenes*	<0.150	0.150	09/20/2024	ND	5.90	98.4	6.00	0.0891	
Total BTEX	<0.300	0.300	09/20/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID) 94.7 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	8530	16.0	09/19/2024	ND	416	104	400	0.00		

TPH 8015M		mg/kg		Analyzed By: ms					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	09/19/2024	ND	211	106	200	1.07	
DRO >C10-C28*	<10.0	10.0	09/19/2024	ND	203	102	200	1.49	
EXT DRO >C28-C36	<10.0	10.0	09/19/2024	ND					

Surrogate: 1-Chlorooctane 77.2 % 48.2-134

Surrogate: 1-Chlorooctadecane 95.6 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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Analytical Results For:

NTG ENVIRONMENTAL
 ETHAN SESSUMS
 701 TRADEWINDS BLVD. SUITE C
 MIDLAND TX, 79706
 Fax To:

Received: 09/18/2024
 Reported: 09/24/2024
 Project Name: ARCTURUS 18 FED 1
 Project Number: 249148
 Project Location: DEVON -LEA COUNTY, NM

Sampling Date: 09/18/2024
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Shalyn Rodriguez

Sample ID: V - 2 3' (H245693-09)

BTEx 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	09/20/2024	ND	2.12	106	2.00	0.158	
Toluene*	<0.050	0.050	09/20/2024	ND	1.97	98.5	2.00	0.218	
Ethylbenzene*	<0.050	0.050	09/20/2024	ND	1.99	99.4	2.00	0.0168	
Total Xylenes*	<0.150	0.150	09/20/2024	ND	5.90	98.4	6.00	0.0891	
Total BTEX	<0.300	0.300	09/20/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID) 93.8 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: CT					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	4800	16.0	09/20/2024	ND	416	104	400	0.00	QM-07

TPH 8015M		mg/kg		Analyzed By: ms					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	09/19/2024	ND	211	106	200	1.07	
DRO >C10-C28*	<10.0	10.0	09/19/2024	ND	203	102	200	1.49	
EXT DRO >C28-C36	<10.0	10.0	09/19/2024	ND					

Surrogate: 1-Chlorooctane 91.0 % 48.2-134

Surrogate: 1-Chlorooctadecane 110 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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Analytical Results For:

NTG ENVIRONMENTAL
 ETHAN SESSUMS
 701 TRADEWINDS BLVD. SUITE C
 MIDLAND TX, 79706
 Fax To:

Received: 09/18/2024
 Reported: 09/24/2024
 Project Name: ARCTURUS 18 FED 1
 Project Number: 249148
 Project Location: DEVON -LEA COUNTY, NM

Sampling Date: 09/18/2024
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Shalyn Rodriguez

Sample ID: V - 2 4' (H245693-10)

BTEx 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	09/20/2024	ND	2.12	106	2.00	0.158	
Toluene*	<0.050	0.050	09/20/2024	ND	1.97	98.5	2.00	0.218	
Ethylbenzene*	<0.050	0.050	09/20/2024	ND	1.99	99.4	2.00	0.0168	
Total Xylenes*	<0.150	0.150	09/20/2024	ND	5.90	98.4	6.00	0.0891	
Total BTEX	<0.300	0.300	09/20/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID) 94.2 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: CT					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	448	16.0	09/20/2024	ND	416	104	400	0.00	

TPH 8015M		mg/kg		Analyzed By: ms					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	09/19/2024	ND	211	106	200	1.07	
DRO >C10-C28*	<10.0	10.0	09/19/2024	ND	203	102	200	1.49	
EXT DRO >C28-C36	<10.0	10.0	09/19/2024	ND					

Surrogate: 1-Chlorooctane 86.0 % 48.2-134

Surrogate: 1-Chlorooctadecane 104 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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Analytical Results For:

NTG ENVIRONMENTAL
 ETHAN SESSUMS
 701 TRADEWINDS BLVD. SUITE C
 MIDLAND TX, 79706
 Fax To:

Received: 09/18/2024
 Reported: 09/24/2024
 Project Name: ARCTURUS 18 FED 1
 Project Number: 249148
 Project Location: DEVON -LEA COUNTY, NM

Sampling Date: 09/18/2024
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Shalyn Rodriguez

Sample ID: V - 3 0-.5 (H245693-11)

BTEx 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	09/20/2024	ND	2.12	106	2.00	0.158	
Toluene*	<0.050	0.050	09/20/2024	ND	1.97	98.5	2.00	0.218	
Ethylbenzene*	<0.050	0.050	09/20/2024	ND	1.99	99.4	2.00	0.0168	
Total Xylenes*	<0.150	0.150	09/20/2024	ND	5.90	98.4	6.00	0.0891	
Total BTEX	<0.300	0.300	09/20/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID) 93.8 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: CT					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	5360	16.0	09/20/2024	ND	416	104	400	0.00	

TPH 8015M		mg/kg		Analyzed By: ms					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	09/19/2024	ND	211	106	200	1.07	
DRO >C10-C28*	<10.0	10.0	09/19/2024	ND	203	102	200	1.49	
EXT DRO >C28-C36	<10.0	10.0	09/19/2024	ND					

Surrogate: 1-Chlorooctane 88.2 % 48.2-134

Surrogate: 1-Chlorooctadecane 108 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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Analytical Results For:

NTG ENVIRONMENTAL
 ETHAN SESSUMS
 701 TRADEWINDS BLVD. SUITE C
 MIDLAND TX, 79706
 Fax To:

Received: 09/18/2024
 Reported: 09/24/2024
 Project Name: ARCTURUS 18 FED 1
 Project Number: 249148
 Project Location: DEVON -LEA COUNTY, NM

Sampling Date: 09/18/2024
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Shalyn Rodriguez

Sample ID: V - 3 1' (H245693-12)

BTEx 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	09/20/2024	ND	2.12	106	2.00	0.158		
Toluene*	<0.050	0.050	09/20/2024	ND	1.97	98.5	2.00	0.218		
Ethylbenzene*	<0.050	0.050	09/20/2024	ND	1.99	99.4	2.00	0.0168		
Total Xylenes*	<0.150	0.150	09/20/2024	ND	5.90	98.4	6.00	0.0891		
Total BTEX	<0.300	0.300	09/20/2024	ND						

Surrogate: 4-Bromofluorobenzene (PID) 94.6 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: CT						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	8240	16.0	09/20/2024	ND	416	104	400	0.00		

TPH 8015M		mg/kg		Analyzed By: ms					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	09/19/2024	ND	211	106	200	1.07	
DRO >C10-C28*	<10.0	10.0	09/19/2024	ND	203	102	200	1.49	
EXT DRO >C28-C36	<10.0	10.0	09/19/2024	ND					

Surrogate: 1-Chlorooctane 84.5 % 48.2-134

Surrogate: 1-Chlorooctadecane 102 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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Analytical Results For:

NTG ENVIRONMENTAL
 ETHAN SESSUMS
 701 TRADEWINDS BLVD. SUITE C
 MIDLAND TX, 79706
 Fax To:

Received: 09/18/2024
 Reported: 09/24/2024
 Project Name: ARCTURUS 18 FED 1
 Project Number: 249148
 Project Location: DEVON -LEA COUNTY, NM

Sampling Date: 09/18/2024
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Shalyn Rodriguez

Sample ID: V - 3 2' (H245693-13)

BTEx 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	09/20/2024	ND	2.12	106	2.00	0.158	
Toluene*	<0.050	0.050	09/20/2024	ND	1.97	98.5	2.00	0.218	
Ethylbenzene*	<0.050	0.050	09/20/2024	ND	1.99	99.4	2.00	0.0168	
Total Xylenes*	<0.150	0.150	09/20/2024	ND	5.90	98.4	6.00	0.0891	
Total BTEX	<0.300	0.300	09/20/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID) 94.2 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: CT					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	10000	16.0	09/20/2024	ND	416	104	400	0.00	

TPH 8015M		mg/kg		Analyzed By: ms					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	09/19/2024	ND	211	106	200	1.07	
DRO >C10-C28*	<10.0	10.0	09/19/2024	ND	203	102	200	1.49	
EXT DRO >C28-C36	<10.0	10.0	09/19/2024	ND					

Surrogate: 1-Chlorooctane 90.5 % 48.2-134

Surrogate: 1-Chlorooctadecane 110 % 49.1-148

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Analytical Results For:

NTG ENVIRONMENTAL
 ETHAN SESSUMS
 701 TRADEWINDS BLVD. SUITE C
 MIDLAND TX, 79706
 Fax To:

Received: 09/18/2024
 Reported: 09/24/2024
 Project Name: ARCTURUS 18 FED 1
 Project Number: 249148
 Project Location: DEVON -LEA COUNTY, NM

Sampling Date: 09/18/2024
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Shalyn Rodriguez

Sample ID: V - 3 3' (H245693-14)

BTEx 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	09/20/2024	ND	2.12	106	2.00	0.158	
Toluene*	<0.050	0.050	09/20/2024	ND	1.97	98.5	2.00	0.218	
Ethylbenzene*	<0.050	0.050	09/20/2024	ND	1.99	99.4	2.00	0.0168	
Total Xylenes*	<0.150	0.150	09/20/2024	ND	5.90	98.4	6.00	0.0891	
Total BTEX	<0.300	0.300	09/20/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID) 94.4 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: CT					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	10400	16.0	09/20/2024	ND	416	104	400	0.00	

TPH 8015M		mg/kg		Analyzed By: ms					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	09/19/2024	ND	211	106	200	1.07	
DRO >C10-C28*	<10.0	10.0	09/19/2024	ND	203	102	200	1.49	
EXT DRO >C28-C36	<10.0	10.0	09/19/2024	ND					

Surrogate: 1-Chlorooctane 93.2 % 48.2-134

Surrogate: 1-Chlorooctadecane 112 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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Analytical Results For:

NTG ENVIRONMENTAL
 ETHAN SESSUMS
 701 TRADEWINDS BLVD. SUITE C
 MIDLAND TX, 79706
 Fax To:

Received: 09/18/2024
 Reported: 09/24/2024
 Project Name: ARCTURUS 18 FED 1
 Project Number: 249148
 Project Location: DEVON -LEA COUNTY, NM

Sampling Date: 09/18/2024
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Shalyn Rodriguez

Sample ID: V - 3 4' (H245693-15)

BTEx 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	09/20/2024	ND	2.12	106	2.00	0.158	
Toluene*	<0.050	0.050	09/20/2024	ND	1.97	98.5	2.00	0.218	
Ethylbenzene*	<0.050	0.050	09/20/2024	ND	1.99	99.4	2.00	0.0168	
Total Xylenes*	<0.150	0.150	09/20/2024	ND	5.90	98.4	6.00	0.0891	
Total BTEX	<0.300	0.300	09/20/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID) 95.1 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: CT					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	8400	16.0	09/20/2024	ND	416	104	400	0.00	

TPH 8015M		mg/kg		Analyzed By: ms					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	09/19/2024	ND	211	106	200	1.07	
DRO >C10-C28*	<10.0	10.0	09/19/2024	ND	203	102	200	1.49	
EXT DRO >C28-C36	<10.0	10.0	09/19/2024	ND					

Surrogate: 1-Chlorooctane 86.8 % 48.2-134

Surrogate: 1-Chlorooctadecane 104 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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Analytical Results For:

NTG ENVIRONMENTAL
 ETHAN SESSUMS
 701 TRADEWINDS BLVD. SUITE C
 MIDLAND TX, 79706
 Fax To:

Received: 09/18/2024
 Reported: 09/24/2024
 Project Name: ARCTURUS 18 FED 1
 Project Number: 249148
 Project Location: DEVON -LEA COUNTY, NM

Sampling Date: 09/18/2024
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Shalyn Rodriguez

Sample ID: V - 3 5' (H245693-16)

BTEx 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	09/20/2024	ND	2.12	106	2.00	0.158	
Toluene*	<0.050	0.050	09/20/2024	ND	1.97	98.5	2.00	0.218	
Ethylbenzene*	<0.050	0.050	09/20/2024	ND	1.99	99.4	2.00	0.0168	
Total Xylenes*	<0.150	0.150	09/20/2024	ND	5.90	98.4	6.00	0.0891	
Total BTEX	<0.300	0.300	09/20/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID) 93.8 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: CT					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	4160	16.0	09/20/2024	ND	416	104	400	0.00	

TPH 8015M		mg/kg		Analyzed By: ms					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	09/19/2024	ND	211	106	200	1.07	
DRO >C10-C28*	<10.0	10.0	09/19/2024	ND	203	102	200	1.49	
EXT DRO >C28-C36	<10.0	10.0	09/19/2024	ND					

Surrogate: 1-Chlorooctane 78.2 % 48.2-134

Surrogate: 1-Chlorooctadecane 95.9 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

Analytical Results For:

NTG ENVIRONMENTAL
 ETHAN SESSUMS
 701 TRADEWINDS BLVD. SUITE C
 MIDLAND TX, 79706
 Fax To:

Received: 09/18/2024
 Reported: 09/24/2024
 Project Name: ARCTURUS 18 FED 1
 Project Number: 249148
 Project Location: DEVON -LEA COUNTY, NM

Sampling Date: 09/18/2024
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Shalyn Rodriguez

Sample ID: V - 3 6' (H245693-17)

BTEx 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	09/20/2024	ND	2.12	106	2.00	0.158	
Toluene*	<0.050	0.050	09/20/2024	ND	1.97	98.5	2.00	0.218	
Ethylbenzene*	<0.050	0.050	09/20/2024	ND	1.99	99.4	2.00	0.0168	
Total Xylenes*	<0.150	0.150	09/20/2024	ND	5.90	98.4	6.00	0.0891	
Total BTEX	<0.300	0.300	09/20/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID) 94.1 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: CT					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	448	16.0	09/20/2024	ND	416	104	400	0.00	

TPH 8015M		mg/kg		Analyzed By: ms					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	09/19/2024	ND	211	106	200	1.07	
DRO >C10-C28*	<10.0	10.0	09/19/2024	ND	203	102	200	1.49	
EXT DRO >C28-C36	<10.0	10.0	09/19/2024	ND					

Surrogate: 1-Chlorooctane 87.8 % 48.2-134

Surrogate: 1-Chlorooctadecane 109 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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Analytical Results For:

NTG ENVIRONMENTAL
 ETHAN SESSUMS
 701 TRADEWINDS BLVD. SUITE C
 MIDLAND TX, 79706
 Fax To:

Received: 09/18/2024
 Reported: 09/24/2024
 Project Name: ARCTURUS 18 FED 1
 Project Number: 249148
 Project Location: DEVON -LEA COUNTY, NM

Sampling Date: 09/18/2024
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Shalyn Rodriguez

Sample ID: V - 4 0-.5 (H245693-18)

BTEx 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	09/20/2024	ND	2.12	106	2.00	0.158	
Toluene*	<0.050	0.050	09/20/2024	ND	1.97	98.5	2.00	0.218	
Ethylbenzene*	<0.050	0.050	09/20/2024	ND	1.99	99.4	2.00	0.0168	
Total Xylenes*	<0.150	0.150	09/20/2024	ND	5.90	98.4	6.00	0.0891	
Total BTEX	<0.300	0.300	09/20/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID) 94.2 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: CT					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	12700	16.0	09/20/2024	ND	416	104	400	0.00	

TPH 8015M		mg/kg		Analyzed By: ms					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	09/19/2024	ND	211	106	200	1.07	
DRO >C10-C28*	<10.0	10.0	09/19/2024	ND	203	102	200	1.49	
EXT DRO >C28-C36	<10.0	10.0	09/19/2024	ND					

Surrogate: 1-Chlorooctane 84.4 % 48.2-134

Surrogate: 1-Chlorooctadecane 104 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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Analytical Results For:

NTG ENVIRONMENTAL
 ETHAN SESSUMS
 701 TRADEWINDS BLVD. SUITE C
 MIDLAND TX, 79706
 Fax To:

Received: 09/18/2024
 Reported: 09/24/2024
 Project Name: ARCTURUS 18 FED 1
 Project Number: 249148
 Project Location: DEVON -LEA COUNTY, NM

Sampling Date: 09/18/2024
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Shalyn Rodriguez

Sample ID: V - 4 1' (H245693-19)

BTEx 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	09/20/2024	ND	2.12	106	2.00	0.158	
Toluene*	<0.050	0.050	09/20/2024	ND	1.97	98.5	2.00	0.218	
Ethylbenzene*	<0.050	0.050	09/20/2024	ND	1.99	99.4	2.00	0.0168	
Total Xylenes*	<0.150	0.150	09/20/2024	ND	5.90	98.4	6.00	0.0891	
Total BTEX	<0.300	0.300	09/20/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID) 94.5 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: CT					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	5860	16.0	09/20/2024	ND	416	104	400	0.00	

TPH 8015M		mg/kg		Analyzed By: ms					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	09/19/2024	ND	211	106	200	1.07	
DRO >C10-C28*	<10.0	10.0	09/19/2024	ND	203	102	200	1.49	
EXT DRO >C28-C36	<10.0	10.0	09/19/2024	ND					

Surrogate: 1-Chlorooctane 94.5 % 48.2-134

Surrogate: 1-Chlorooctadecane 116 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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Analytical Results For:

NTG ENVIRONMENTAL
 ETHAN SESSUMS
 701 TRADEWINDS BLVD. SUITE C
 MIDLAND TX, 79706
 Fax To:

Received: 09/18/2024
 Reported: 09/24/2024
 Project Name: ARCTURUS 18 FED 1
 Project Number: 249148
 Project Location: DEVON -LEA COUNTY, NM

Sampling Date: 09/18/2024
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Shalyn Rodriguez

Sample ID: V - 4 2' (H245693-20)

BTEx 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	09/20/2024	ND	2.12	106	2.00	0.158	
Toluene*	<0.050	0.050	09/20/2024	ND	1.97	98.5	2.00	0.218	
Ethylbenzene*	<0.050	0.050	09/20/2024	ND	1.99	99.4	2.00	0.0168	
Total Xylenes*	<0.150	0.150	09/20/2024	ND	5.90	98.4	6.00	0.0891	
Total BTEX	<0.300	0.300	09/20/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID) 93.7 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: CT					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	192	16.0	09/20/2024	ND	416	104	400	0.00	

TPH 8015M		mg/kg		Analyzed By: ms					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	09/19/2024	ND	211	106	200	1.07	
DRO >C10-C28*	<10.0	10.0	09/19/2024	ND	203	102	200	1.49	
EXT DRO >C28-C36	<10.0	10.0	09/19/2024	ND					

Surrogate: 1-Chlorooctane 83.1 % 48.2-134

Surrogate: 1-Chlorooctadecane 102 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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Analytical Results For:

NTG ENVIRONMENTAL
 ETHAN SESSUMS
 701 TRADEWINDS BLVD. SUITE C
 MIDLAND TX, 79706
 Fax To:

Received: 09/18/2024
 Reported: 09/24/2024
 Project Name: ARCTURUS 18 FED 1
 Project Number: 249148
 Project Location: DEVON -LEA COUNTY, NM

Sampling Date: 09/18/2024
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Shalyn Rodriguez

Sample ID: V - 5 0-.5 (H245693-21)

BTEx 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	09/20/2024	ND	2.12	106	2.00	0.158	
Toluene*	<0.050	0.050	09/20/2024	ND	1.97	98.5	2.00	0.218	
Ethylbenzene*	<0.050	0.050	09/20/2024	ND	1.99	99.4	2.00	0.0168	
Total Xylenes*	<0.150	0.150	09/20/2024	ND	5.90	98.4	6.00	0.0891	
Total BTEX	<0.300	0.300	09/20/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID) 94.7 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: CT					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	8530	16.0	09/20/2024	ND	416	104	400	0.00	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	09/19/2024	ND	213	106	200	5.77	
DRO >C10-C28*	<10.0	10.0	09/19/2024	ND	206	103	200	3.89	
EXT DRO >C28-C36	<10.0	10.0	09/19/2024	ND					

Surrogate: 1-Chlorooctane 101 % 48.2-134

Surrogate: 1-Chlorooctadecane 125 % 49.1-148

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Analytical Results For:

NTG ENVIRONMENTAL
 ETHAN SESSUMS
 701 TRADEWINDS BLVD. SUITE C
 MIDLAND TX, 79706
 Fax To:

Received: 09/18/2024
 Reported: 09/24/2024
 Project Name: ARCTURUS 18 FED 1
 Project Number: 249148
 Project Location: DEVON -LEA COUNTY, NM

Sampling Date: 09/18/2024
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Shalyn Rodriguez

Sample ID: V - 5 1' (H245693-22)

BTEx 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	09/20/2024	ND	2.35	118	2.00	0.452	
Toluene*	<0.050	0.050	09/20/2024	ND	2.42	121	2.00	2.91	
Ethylbenzene*	<0.050	0.050	09/20/2024	ND	2.59	130	2.00	4.51	
Total Xylenes*	<0.150	0.150	09/20/2024	ND	7.82	130	6.00	5.90	
Total BTEX	<0.300	0.300	09/20/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID) 121 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: CT					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	176	16.0	09/20/2024	ND	416	104	400	0.00	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	09/19/2024	ND	213	106	200	5.77	
DRO >C10-C28*	<10.0	10.0	09/19/2024	ND	206	103	200	3.89	
EXT DRO >C28-C36	<10.0	10.0	09/19/2024	ND					

Surrogate: 1-Chlorooctane 98.1 % 48.2-134

Surrogate: 1-Chlorooctadecane 120 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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Analytical Results For:

NTG ENVIRONMENTAL
 ETHAN SESSUMS
 701 TRADEWINDS BLVD. SUITE C
 MIDLAND TX, 79706
 Fax To:

Received: 09/18/2024
 Reported: 09/24/2024
 Project Name: ARCTURUS 18 FED 1
 Project Number: 249148
 Project Location: DEVON -LEA COUNTY, NM

Sampling Date: 09/18/2024
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Shalyn Rodriguez

Sample ID: H - 1 0-.5 (H245693-23)

BTEx 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	09/20/2024	ND	2.35	118	2.00	0.452	
Toluene*	<0.050	0.050	09/20/2024	ND	2.42	121	2.00	2.91	
Ethylbenzene*	<0.050	0.050	09/20/2024	ND	2.59	130	2.00	4.51	
Total Xylenes*	<0.150	0.150	09/20/2024	ND	7.82	130	6.00	5.90	
Total BTEX	<0.300	0.300	09/20/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID) 108 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: CT					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	32.0	16.0	09/20/2024	ND	416	104	400	0.00	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	09/19/2024	ND	213	106	200	5.77	
DRO >C10-C28*	<10.0	10.0	09/19/2024	ND	206	103	200	3.89	
EXT DRO >C28-C36	<10.0	10.0	09/19/2024	ND					

Surrogate: 1-Chlorooctane 87.1 % 48.2-134

Surrogate: 1-Chlorooctadecane 105 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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Analytical Results For:

NTG ENVIRONMENTAL
 ETHAN SESSUMS
 701 TRADEWINDS BLVD. SUITE C
 MIDLAND TX, 79706
 Fax To:

Received: 09/18/2024
 Reported: 09/24/2024
 Project Name: ARCTURUS 18 FED 1
 Project Number: 249148
 Project Location: DEVON -LEA COUNTY, NM

Sampling Date: 09/18/2024
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Shalyn Rodriguez

Sample ID: H - 2 0-.5 (H245693-24)

BTEx 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	09/20/2024	ND	2.35	118	2.00	0.452	
Toluene*	<0.050	0.050	09/20/2024	ND	2.42	121	2.00	2.91	
Ethylbenzene*	<0.050	0.050	09/20/2024	ND	2.59	130	2.00	4.51	
Total Xylenes*	<0.150	0.150	09/20/2024	ND	7.82	130	6.00	5.90	
Total BTEX	<0.300	0.300	09/20/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID) 112 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: CT					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	32.0	16.0	09/20/2024	ND	416	104	400	0.00	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	09/19/2024	ND	213	106	200	5.77	
DRO >C10-C28*	<10.0	10.0	09/19/2024	ND	206	103	200	3.89	
EXT DRO >C28-C36	<10.0	10.0	09/19/2024	ND					

Surrogate: 1-Chlorooctane 103 % 48.2-134

Surrogate: 1-Chlorooctadecane 125 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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Analytical Results For:

NTG ENVIRONMENTAL
 ETHAN SESSUMS
 701 TRADEWINDS BLVD. SUITE C
 MIDLAND TX, 79706
 Fax To:

Received: 09/18/2024
 Reported: 09/24/2024
 Project Name: ARCTURUS 18 FED 1
 Project Number: 249148
 Project Location: DEVON -LEA COUNTY, NM

Sampling Date: 09/18/2024
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Shalyn Rodriguez

Sample ID: H - 3 0-.5 (H245693-25)

BTEx 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	09/20/2024	ND	2.35	118	2.00	0.452	
Toluene*	<0.050	0.050	09/20/2024	ND	2.42	121	2.00	2.91	
Ethylbenzene*	<0.050	0.050	09/20/2024	ND	2.59	130	2.00	4.51	
Total Xylenes*	<0.150	0.150	09/20/2024	ND	7.82	130	6.00	5.90	
Total BTEX	<0.300	0.300	09/20/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID) 115 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: CT					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	384	16.0	09/20/2024	ND	416	104	400	0.00	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	09/19/2024	ND	213	106	200	5.77	
DRO >C10-C28*	179	10.0	09/19/2024	ND	206	103	200	3.89	
EXT DRO >C28-C36	90.4	10.0	09/19/2024	ND					

Surrogate: 1-Chlorooctane 105 % 48.2-134

Surrogate: 1-Chlorooctadecane 133 % 49.1-148

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Analytical Results For:

NTG ENVIRONMENTAL
 ETHAN SESSUMS
 701 TRADEWINDS BLVD. SUITE C
 MIDLAND TX, 79706
 Fax To:

Received: 09/18/2024
 Reported: 09/24/2024
 Project Name: ARCTURUS 18 FED 1
 Project Number: 249148
 Project Location: DEVON -LEA COUNTY, NM

Sampling Date: 09/18/2024
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Shalyn Rodriguez

Sample ID: H - 4 0-.5 (H245693-26)

BTEX 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	09/20/2024	ND	2.35	118	2.00	0.452	
Toluene*	<0.050	0.050	09/20/2024	ND	2.42	121	2.00	2.91	
Ethylbenzene*	<0.050	0.050	09/20/2024	ND	2.59	130	2.00	4.51	
Total Xylenes*	<0.150	0.150	09/20/2024	ND	7.82	130	6.00	5.90	
Total BTEX	<0.300	0.300	09/20/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID) 119 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: CT						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	16.0	16.0	09/20/2024	ND	416	104	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	09/19/2024	ND	213	106	200	5.77	
DRO >C10-C28*	<10.0	10.0	09/19/2024	ND	206	103	200	3.89	
EXT DRO >C28-C36	<10.0	10.0	09/19/2024	ND					

Surrogate: 1-Chlorooctane 94.2 % 48.2-134

Surrogate: 1-Chlorooctadecane 118 % 49.1-148

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Analytical Results For:

NTG ENVIRONMENTAL
 ETHAN SESSUMS
 701 TRADEWINDS BLVD. SUITE C
 MIDLAND TX, 79706
 Fax To:

Received: 09/18/2024
 Reported: 09/24/2024
 Project Name: ARCTURUS 18 FED 1
 Project Number: 249148
 Project Location: DEVON -LEA COUNTY, NM

Sampling Date: 09/18/2024
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Shalyn Rodriguez

Sample ID: H - 5 0-.5 (H245693-27)

BTEx 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	09/20/2024	ND	2.35	118	2.00	0.452	
Toluene*	<0.050	0.050	09/20/2024	ND	2.42	121	2.00	2.91	
Ethylbenzene*	<0.050	0.050	09/20/2024	ND	2.59	130	2.00	4.51	
Total Xylenes*	<0.150	0.150	09/20/2024	ND	7.82	130	6.00	5.90	
Total BTEX	<0.300	0.300	09/20/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID) 114 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: CT					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	80.0	16.0	09/20/2024	ND	416	104	400	0.00	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	09/19/2024	ND	213	106	200	5.77	
DRO >C10-C28*	<10.0	10.0	09/19/2024	ND	206	103	200	3.89	
EXT DRO >C28-C36	<10.0	10.0	09/19/2024	ND					

Surrogate: 1-Chlorooctane 106 % 48.2-134

Surrogate: 1-Chlorooctadecane 132 % 49.1-148

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Analytical Results For:

NTG ENVIRONMENTAL
 ETHAN SESSUMS
 701 TRADEWINDS BLVD. SUITE C
 MIDLAND TX, 79706
 Fax To:

Received: 09/18/2024
 Reported: 09/24/2024
 Project Name: ARCTURUS 18 FED 1
 Project Number: 249148
 Project Location: DEVON -LEA COUNTY, NM

Sampling Date: 09/18/2024
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Shalyn Rodriguez

Sample ID: H - 6 0-.5 (H245693-28)

BTEX 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	09/20/2024	ND	2.35	118	2.00	0.452		
Toluene*	<0.050	0.050	09/20/2024	ND	2.42	121	2.00	2.91		
Ethylbenzene*	<0.050	0.050	09/20/2024	ND	2.59	130	2.00	4.51		
Total Xylenes*	<0.150	0.150	09/20/2024	ND	7.82	130	6.00	5.90		
Total BTEX	<0.300	0.300	09/20/2024	ND						

Surrogate: 4-Bromofluorobenzene (PID) 109 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: CT						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	32.0	16.0	09/20/2024	ND	416	104	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	09/19/2024	ND	213	106	200	5.77	
DRO >C10-C28*	<10.0	10.0	09/19/2024	ND	206	103	200	3.89	
EXT DRO >C28-C36	<10.0	10.0	09/19/2024	ND					

Surrogate: 1-Chlorooctane 110 % 48.2-134

Surrogate: 1-Chlorooctadecane 138 % 49.1-148

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Analytical Results For:

NTG ENVIRONMENTAL
 ETHAN SESSUMS
 701 TRADEWINDS BLVD. SUITE C
 MIDLAND TX, 79706
 Fax To:

Received: 09/18/2024
 Reported: 09/24/2024
 Project Name: ARCTURUS 18 FED 1
 Project Number: 249148
 Project Location: DEVON -LEA COUNTY, NM

Sampling Date: 09/18/2024
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Shalyn Rodriguez

Sample ID: H - 7 0-.5 (H245693-29)

BTEx 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	09/20/2024	ND	2.35	118	2.00	0.452	
Toluene*	<0.050	0.050	09/20/2024	ND	2.42	121	2.00	2.91	
Ethylbenzene*	<0.050	0.050	09/20/2024	ND	2.59	130	2.00	4.51	
Total Xylenes*	<0.150	0.150	09/20/2024	ND	7.82	130	6.00	5.90	
Total BTEX	<0.300	0.300	09/20/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID) 118 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: HM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	160	16.0	09/19/2024	ND	416	104	400	0.00	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	09/19/2024	ND	213	106	200	5.77	
DRO >C10-C28*	<10.0	10.0	09/19/2024	ND	206	103	200	3.89	
EXT DRO >C28-C36	<10.0	10.0	09/19/2024	ND					

Surrogate: 1-Chlorooctane 110 % 48.2-134

Surrogate: 1-Chlorooctadecane 138 % 49.1-148

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Analytical Results For:

NTG ENVIRONMENTAL
 ETHAN SESSUMS
 701 TRADEWINDS BLVD. SUITE C
 MIDLAND TX, 79706
 Fax To:

Received: 09/18/2024
 Reported: 09/24/2024
 Project Name: ARCTURUS 18 FED 1
 Project Number: 249148
 Project Location: DEVON -LEA COUNTY, NM

Sampling Date: 09/18/2024
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Shalyn Rodriguez

Sample ID: H - 8 0-.5 (H245693-30)

BTX 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	09/20/2024	ND	2.35	118	2.00	0.452	
Toluene*	<0.050	0.050	09/20/2024	ND	2.42	121	2.00	2.91	
Ethylbenzene*	<0.050	0.050	09/20/2024	ND	2.59	130	2.00	4.51	
Total Xylenes*	<0.150	0.150	09/20/2024	ND	7.82	130	6.00	5.90	
Total BTX	<0.300	0.300	09/20/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID) 115 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: HM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	224	16.0	09/19/2024	ND	416	104	400	0.00	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	09/19/2024	ND	213	106	200	5.77	
DRO >C10-C28*	<10.0	10.0	09/19/2024	ND	206	103	200	3.89	
EXT DRO >C28-C36	<10.0	10.0	09/19/2024	ND					

Surrogate: 1-Chlorooctane 104 % 48.2-134

Surrogate: 1-Chlorooctadecane 130 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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Analytical Results For:

NTG ENVIRONMENTAL
 ETHAN SESSUMS
 701 TRADEWINDS BLVD. SUITE C
 MIDLAND TX, 79706
 Fax To:

Received: 09/18/2024
 Reported: 09/24/2024
 Project Name: ARCTURUS 18 FED 1
 Project Number: 249148
 Project Location: DEVON -LEA COUNTY, NM

Sampling Date: 09/18/2024
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Shalyn Rodriguez

Sample ID: H - 9 0-.5 (H245693-31)

BTEx 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	09/20/2024	ND	2.35	118	2.00	0.452	
Toluene*	<0.050	0.050	09/20/2024	ND	2.42	121	2.00	2.91	
Ethylbenzene*	<0.050	0.050	09/20/2024	ND	2.59	130	2.00	4.51	
Total Xylenes*	<0.150	0.150	09/20/2024	ND	7.82	130	6.00	5.90	
Total BTEX	<0.300	0.300	09/20/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID) 112 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: HM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	480	16.0	09/19/2024	ND	416	104	400	0.00	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	09/19/2024	ND	213	106	200	5.77	
DRO >C10-C28*	<10.0	10.0	09/19/2024	ND	206	103	200	3.89	
EXT DRO >C28-C36	<10.0	10.0	09/19/2024	ND					

Surrogate: 1-Chlorooctane 111 % 48.2-134

Surrogate: 1-Chlorooctadecane 140 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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Analytical Results For:

NTG ENVIRONMENTAL
 ETHAN SESSUMS
 701 TRADEWINDS BLVD. SUITE C
 MIDLAND TX, 79706
 Fax To:

Received: 09/18/2024
 Reported: 09/24/2024
 Project Name: ARCTURUS 18 FED 1
 Project Number: 249148
 Project Location: DEVON -LEA COUNTY, NM

Sampling Date: 09/18/2024
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Shalyn Rodriguez

Sample ID: H - 10 0-5 (H245693-32)

BTX 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	09/20/2024	ND	2.35	118	2.00	0.452	
Toluene*	<0.050	0.050	09/20/2024	ND	2.42	121	2.00	2.91	
Ethylbenzene*	<0.050	0.050	09/20/2024	ND	2.59	130	2.00	4.51	
Total Xylenes*	<0.150	0.150	09/20/2024	ND	7.82	130	6.00	5.90	
Total BTX	<0.300	0.300	09/20/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID) 113 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: HM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	10400	16.0	09/19/2024	ND	416	104	400	0.00	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	09/19/2024	ND	213	106	200	5.77	
DRO >C10-C28*	<10.0	10.0	09/19/2024	ND	206	103	200	3.89	
EXT DRO >C28-C36	<10.0	10.0	09/19/2024	ND					

Surrogate: 1-Chlorooctane 112 % 48.2-134

Surrogate: 1-Chlorooctadecane 140 % 49.1-148

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Notes and Definitions

QM-07	The spike recovery was outside acceptance limits for the MS and/or MSD. The batch was accepted based on acceptable LCS recovery.
BS-3	Blank spike recovery outside of lab established statistical limits, but still within method limits. Data is not adversely affected.
ND	Analyte NOT DETECTED at or above the reporting limit
RPD	Relative Percent Difference
**	Samples not received at proper temperature of 6°C or below.
***	Insufficient time to reach temperature.
-	Chloride by SM4500Cl-B does not require samples be received at or below 6°C Samples reported on an as received basis (wet) unless otherwise noted on report

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A handwritten signature in cursive script, appearing to read "Celey D. Keene", written in black ink.

Celey D. Keene, Lab Director/Quality Manager



101 East Marland, Hobbs, NM 88240
(575) 393-2326 FAX (575) 393-2476

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

Company Name: <u>VTUE</u> Project Manager: <u>ethan seburns</u> Address: <u>209 W Wacker St</u> City: <u>Carlsbad</u> State: <u>NM</u> Zip: <u>88220</u> Phone #: <u>24854240</u> Fax #: _____ Project #: <u>249148</u> Project Owner: <u>Sevon</u> Project Name: <u>Arcturus 18 Fed 1</u> Project Location: <u>Len County</u> Sampler Name: <u>carl seburn</u>		BILL TO P.O. #: <u>2141761</u> Company: _____ Attn: _____ Address: _____ City: _____ State: _____ Zip: _____ Phone #: _____ Fax #: _____			
FOR LAB USE ONLY		ANALYSIS REQUEST			
Lab I.D. <u>11245093</u>	Sample I.D. <div style="display: flex; justify-content: space-between;"> <div style="width:45%;"> <u>V-1 0-.5</u> <u>V-1 1'</u> <u>V-1 2'</u> <u>V-1 3'</u> <u>V-1 4'</u> <u>V-2 0-.5</u> <u>V-2 1'</u> <u>V-2 2'</u> <u>V-2 3'</u> <u>V-2 4'</u> </div> <div style="width:45%;"> <div style="display: flex; justify-content: space-between;"> <div style="width:45%;"> (G)RAB OR (C)OMP. # CONTAINERS GROUNDWATER WASTEWATER SOIL <input checked="" type="checkbox"/> OIL SLUDGE OTHER : ACID/BASE: ICE / COOL OTHER : </div> <div style="width:45%;"> DATE TIME </div> </div> </div> </div>	MATRIX <input checked="" type="checkbox"/> SOIL <input type="checkbox"/> OIL <input type="checkbox"/> SLUDGE <input type="checkbox"/> OTHER :	PRESERV <input checked="" type="checkbox"/>	SAMPLING	TPH Chlorides BTEX
Relinquished By: <u>[Signature]</u> Date: <u>9-18-24</u> Received By: <u>[Signature]</u> Date: <u>9-18-24</u>		REMARKS: Verbal Result: <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Add'l Phone #: _____ All Results are emailed. Please provide Email address: _____			
Relinquished By: <u>[Signature]</u> Date: <u>9-18-24</u> Received By: <u>[Signature]</u> Date: <u>9-18-24</u>		REMARKS: Verbal Result: <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Add'l Phone #: _____ All Results are emailed. Please provide Email address: _____			
Delivered By: (Circle One) Sampler - UPS - Bus - Other: _____		Observed Temp. °C: <u>5.0</u> Corrected Temp. °C: <u>4.4</u> Sample Condition: Cool Intact <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Bacteria (only) Sample Condition <input checked="" type="checkbox"/> Standard <input type="checkbox"/> Rush Bacteria (only) Sample Condition <input type="checkbox"/> Cool Intact <input type="checkbox"/> Yes <input type="checkbox"/> No Bacteria (only) Sample Condition <input type="checkbox"/> Cool Intact <input type="checkbox"/> Yes <input type="checkbox"/> No			



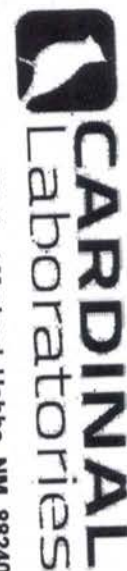
101 East Marland, Hobbs, NM 88240
(575) 393-2326 FAX (575) 393-2476

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

Company Name: <u>VTUE</u>		BILL TO		ANALYSIS REQUEST	
Project Manager: <u>Steven Seburns</u>		P.O. #: <u>2141701</u>			
Address: <u>709 W McLean St</u>		Company:			
City: <u>Carlsbad</u>		Attn:			
State: <u>NM</u>		Address:			
Zip: <u>88220</u>		City:			
Phone #: <u>505 246 5456</u>		State:			
Fax #:		Zip:			
Project #: <u>249148</u>		Project Owner: <u>Dejon</u>			
Project Name: <u>Arcturus 18 Fed 1</u>		Phone #:			
Project Location: <u>Lea County</u>		Fax #:			
Sample Name: <u>2405 40m cell</u>		PRESERV		SAMPLING	
<small>FOR LAB USE ONLY</small>		MATRIX			
		<input type="checkbox"/> (G)RAB OR (C)OMP.			
		# CONTAINERS			
		GROUNDWATER			
		WASTEWATER			
		SOIL			
		OIL			
		SLUDGE			
		OTHER:			
		ACID/BASE:			
		ICE / COOL			
		OTHER:			
Lab I.D.		Sample I.D.		DATE	
				TIME	
<u>1145003</u>		<u>V-3 0-1.5</u>		<u>9-18 10:30</u>	
<u>12</u>		<u>V-3 1</u>			
<u>13</u>		<u>V-3 2</u>			
<u>14</u>		<u>V-3 3</u>			
<u>15</u>		<u>V-3 4</u>			
<u>16</u>		<u>V-3 5</u>			
<u>17</u>		<u>V-3 6</u>			
<u>18</u>		<u>V-3 0-5</u>			
<u>19</u>		<u>V-4 1</u>			
<u>20</u>		<u>V-4 2</u>			
<small>PLEASE NOTE: Liability and Damages. Cardinal's liability and clients exclusive remedy for any claim arising from this report shall be limited to the amount paid by the client for this service. In no event shall Cardinal be liable for incidental or consequential damages, including without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise.</small>					
Relinquished By:		Date: <u>9-18-24</u>		Received By: <u>Shediquay</u>	
Relinquished By:		Date: <u>9-18-24</u>		Received By: <u>Shediquay</u>	
Time:		Time:		Time:	
Delivered By: (Circle One)		Observed Temp. °C <u>50.2</u>		Sample Condition	
Sampler - UPS - Bus - Other:		Corrected Temp. °C <u>44.4</u>		Cool Intact <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
				Intact <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
				Checked By: <u>SR</u>	
				Turnaround Time:	
				Standard <input type="checkbox"/> Bacteria (only) <input checked="" type="checkbox"/>	
				Cool Intact <input type="checkbox"/> Observed Temp. °C	
				Corrected Temp. °C	
				Thermometer ID #140	
				Correction Factor -0.5°C	
REMARKS:					
Verbal Result: <input type="checkbox"/> Yes <input type="checkbox"/> No Add Phone #:					
All Results are emailed. Please provide Email address:					

FORM 006 R 3.0 06/07/24

† Cardinal cannot accept verbal changes. Please email changes to celey.keene@cardinallabsnm.com



101 East Marland, Hobbs, NM 88240
(575) 393-2326 FAX (575) 393-2476

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

Company Name: <u>VTUE</u>		P.O. #: <u>7141701</u>		BILL TO		ANALYSIS REQUEST											
Project Manager: <u>Steven Seburns</u>		Company:															
Address: <u>209 W McLean St</u>		Attn:															
City: <u>Carlsbad</u>		Address:															
Phone #: <u>505 246 5456</u> Fax #:		City:															
Project #: <u>249148</u>		State:															
Project Name: <u>Arcturus 18 Fed 1</u>		Phone #:															
Project Location: <u>Lea County</u>		Fax #:															
Sampler Name: <u>SAVANKELL</u>		PRESERV		SAMPLING													
FOR LAB USE ONLY																	
Lab I.D.	Sample I.D.	(G)RAB OR (C)OMP.	# CONTAINERS	GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER:	ACID/BASE:	ICE / COOL	OTHER:	DATE	TIME			
<u>1145403</u>	<u>V-5 0-5</u>	<u>6</u>	<u>1</u>			<u>X</u>							<u>9-18</u>	<u>9:50</u>	<u>TPH</u>	<u>Chlorides</u>	<u>BTEX</u>
<u>31</u>	<u>V-5 1</u>																
<u>32</u>	<u>V-5 0-5</u>																
<u>33</u>	<u>H-1 0-5</u>																
<u>34</u>	<u>H-2 0-5</u>																
<u>35</u>	<u>H-3 0-5</u>																
<u>36</u>	<u>H-4 0-5</u>																
<u>37</u>	<u>H-5 0-5</u>																
<u>38</u>	<u>H-6 0-5</u>																
<u>39</u>	<u>H-7 0-5</u>																
	<u>H-8 0-5</u>																

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Relinquished By: [Signature] Date: 9-18-24 Received By: Stockingers Time: 4:30

Delivered By: (Circle One) Observed Temp. °C: 5.0 Sample Condition: COOL Intact: Yes Checked By: [Signature] (Initials)

Sampler - UPS - Bus - Other: Corrected Temp. °C: 4.4 Cool Intact: Yes No No No

Turnaround Time: Standard Rush ☒ Bacteria (only) Sample Condition: ☒ Cool Intact: ☒ Observed Temp. °C: 5.0 Corrected Temp. °C: 4.4

Thermometer ID #140 Correction Factor -0.5°C

Verbal Result: ☐ Yes ☐ No ☐ Add'l Phone #:

All Results are emailed. Please provide Email address:

REMARKS:

† Cardinal cannot accept verbal changes. Please email changes to celey.keene@cardinallabsnm.com

CARDINAL
Laboratories

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(575) 393-2326 FAX (575) 393-2476

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

[illegible]



PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

October 03, 2024

ETHAN SESSUMS

NTG ENVIRONMENTAL

701 TRADEWINDS BLVD. SUITE C

MIDLAND, TX 79706

RE: ARCTURUS 18 FED 1

Enclosed are the results of analyses for samples received by the laboratory on 09/27/24 11:10.

Cardinal Laboratories is accredited through Texas NELAP under certificate number TX-C24-00112. Accreditation applies to drinking water, non-potable water and solid and chemical materials. All accredited analytes are denoted by an asterisk (*). For a complete list of accredited analytes and matrices visit the TCEQ website at www.tceq.texas.gov/field/qa/lab_accred_certif.html.

Cardinal Laboratories is accredited through the State of Colorado Department of Public Health and Environment for:

Method EPA 552.2	Haloacetic Acids (HAA-5)
Method EPA 524.2	Total Trihalomethanes (TTHM)
Method EPA 524.4	Regulated VOCs (V1, V2, V3)

Accreditation applies to public drinking water matrices.

This report meets NELAP requirements and is made up of a cover page, analytical results, and a copy of the original chain-of-custody. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

A handwritten signature in black ink that reads "Celey D. Keene". The signature is fluid and cursive, with the first name "Celey" and last name "Keene" clearly distinguishable.

Celey D. Keene

Lab Director/Quality Manager



PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

Analytical Results For:

NTG ENVIRONMENTAL
 ETHAN SESSUMS
 701 TRADEWINDS BLVD. SUITE C
 MIDLAND TX, 79706
 Fax To:

Received: 09/27/2024
 Reported: 10/03/2024
 Project Name: ARCTURUS 18 FED 1
 Project Number: 249148
 Project Location: DEVON -EDDY COUNTY, NM

Sampling Date: 09/27/2024
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Tamara Oldaker

Sample ID: H - 3A 0-6" (H245894-01)

BTEx 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	09/30/2024	ND	1.98	98.8	2.00	3.56	
Toluene*	<0.050	0.050	09/30/2024	ND	2.09	105	2.00	4.00	
Ethylbenzene*	<0.050	0.050	09/30/2024	ND	2.23	111	2.00	7.17	
Total Xylenes*	<0.150	0.150	09/30/2024	ND	6.73	112	6.00	9.05	
Total BTEX	<0.300	0.300	09/30/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID) 102 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	<16.0	16.0	09/30/2024	ND	416	104	400	0.00	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	09/30/2024	ND	180	90.0	200	0.397	
DRO >C10-C28*	<10.0	10.0	09/30/2024	ND	187	93.6	200	2.09	
EXT DRO >C28-C36	<10.0	10.0	09/30/2024	ND					

Surrogate: 1-Chlorooctane 91.6 % 48.2-134

Surrogate: 1-Chlorooctadecane 103 % 49.1-148

Cardinal Laboratories

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Celey D. Keene, Lab Director/Quality Manager



PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

Analytical Results For:

NTG ENVIRONMENTAL
 ETHAN SESSUMS
 701 TRADEWINDS BLVD. SUITE C
 MIDLAND TX, 79706
 Fax To:

Received: 09/27/2024
 Reported: 10/03/2024
 Project Name: ARCTURUS 18 FED 1
 Project Number: 249148
 Project Location: DEVON -EDDY COUNTY, NM

Sampling Date: 09/27/2024
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Tamara Oldaker

Sample ID: H - 10A 0-6" (H245894-03)

BTEx 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	09/30/2024	ND	1.98	98.8	2.00	3.56		
Toluene*	<0.050	0.050	09/30/2024	ND	2.09	105	2.00	4.00		
Ethylbenzene*	<0.050	0.050	09/30/2024	ND	2.23	111	2.00	7.17		
Total Xylenes*	<0.150	0.150	09/30/2024	ND	6.73	112	6.00	9.05		
Total BTEX	<0.300	0.300	09/30/2024	ND						

Surrogate: 4-Bromofluorobenzene (PID) 112 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	96.0	16.0	09/30/2024	ND	416	104	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	09/30/2024	ND	180	90.0	200	0.397	
DRO >C10-C28*	<10.0	10.0	09/30/2024	ND	187	93.6	200	2.09	
EXT DRO >C28-C36	<10.0	10.0	09/30/2024	ND					

Surrogate: 1-Chlorooctane 92.4 % 48.2-134

Surrogate: 1-Chlorooctadecane 105 % 49.1-148

Cardinal Laboratories

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Celey D. Keene, Lab Director/Quality Manager

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Notes and Definitions

ND	Analyte NOT DETECTED at or above the reporting limit
RPD	Relative Percent Difference
**	Samples not received at proper temperature of 6°C or below.
***	Insufficient time to reach temperature.
-	Chloride by SM4500Cl-B does not require samples be received at or below 6°C Samples reported on an as received basis (wet) unless otherwise noted on report

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A handwritten signature in cursive script, appearing to read "Celey D. Keene", written in black ink.

Celey D. Keene, Lab Director/Quality Manager



Chain of Custody

Work Order No: H245894

Project Manager:	Ethan Sessums	Bill to: (if different)	Date Woodall
Company Name:	NTG Environmental	Company Name:	Devon Energy Production
Address:	209 W McKay St	Address:	
City, State ZIP:	Carlsbad, NM 88220	City, State ZIP:	
Phone:	432-701-2159	Email:	esessums@ntglobal.com
Project Name:	ARCTURUS 18 FED 1 BATTERY		
Project Number:	249148	<input checked="" type="checkbox"/> Routine	<input type="checkbox"/> Rush
Project Location:	Eddy Co. NM	Due Date:	
Sampler's Name:	Clayton Turnas	TAT starts the day received by the lab, if received by 4:30pm	
PO #	21411701		

Work Order Comments	
Program: UST/PST <input type="checkbox"/> PRP <input type="checkbox"/> Brownfields <input type="checkbox"/> RRC <input type="checkbox"/> Superfund	
State of Project:	
Reporting Level II <input type="checkbox"/> Level III <input type="checkbox"/> PST/UST <input type="checkbox"/> RRP <input type="checkbox"/> Level IV <input type="checkbox"/>	
Deliverables: EDD <input type="checkbox"/> ADAPT <input type="checkbox"/> Other:	

SAMPLE RECEIPT		Temp Blank: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>		Wet Ice: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>		Thermometer ID: 140		Correction Factor: -0.65		Temperature Reading: 0.18		Corrected Temperature: -0.53	
Received Intact:	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Thermometer ID:											
Cooler Custody Seals:	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Correction Factor:											
Sample Custody Seals:	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Temperature Reading:											
Total Containers:	4	Corrected Temperature:											

Sample Identification	Depth (ft bgs)	Date	Time	Soil	Water	Grab/Comp	# of Cont	Parameters	ANALYSIS REQUEST	Preservative Codes	Sample Comments
H-3A	0-6"	9/27/2024	7:00	X		Grab	1	X	X	X	
H-3B	0-6"	9/27/2024	7:03	X		Grab	1	X	X	X	
H-10A	0-6"	9/27/2024	7:06	X		Grab	1	X	X	X	
H-10B	1-1.5'	9/27/2024	7:09	X		Grab	1	X	X	X	

NOTE: HOLD B SAMPLES UNTIL RESULTS ARE RECEIVED FOR A SAMPLES

Additional Comments:

Notice: Signature of this document and relinquishment of samples constitutes a valid purchase order from client company to Xenco, its affiliates and subcontractors. It assigns standard terms and conditions of service. Xenco will be liable only for the cost of samples and shall not assume any responsibility for any losses or expenses incurred by the client if such losses are due to circumstances beyond the control of Xenco. A minimum charge of \$85.00 will be applied to each project and a charge of \$5 for each sample submitted to Xenco, but not analyzed. These terms will be enforced unless previously negotiated.

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
		9-27-24 1110			

Sante Fe Main Office
Phone: (505) 476-3441

General Information
Phone: (505) 629-6116

Online Phone Directory
<https://www.emnrd.nm.gov/ocd/contact-us>

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

QUESTIONS

Action 395246

QUESTIONS

Operator: DEVON ENERGY PRODUCTION COMPANY, LP 333 West Sheridan Ave. Oklahoma City, OK 73102	OGRID: 6137
	Action Number: 395246
	Action Type: [C-141] Site Char./Remediation Plan C-141 (C-141-v-Plan)

QUESTIONS

Prerequisites	
Incident ID (n#)	nAPP2426141700
Incident Name	NAPP2426141700 ARCTURUS 18 FED 1 & 2 BATTERY @ 0
Incident Type	Produced Water Release
Incident Status	Remediation Plan Received
Incident Facility	[fAPP2129453521] ARCTURUS 18 FED 1&2 BATTERY

Location of Release Source	
<i>Please answer all the questions in this group.</i>	
Site Name	ARCTURUS 18 FED 1 & 2 BATTERY
Date Release Discovered	09/16/2024
Surface Owner	Federal

Incident Details	
<i>Please answer all the questions in this group.</i>	
Incident Type	Produced Water 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	
<i>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.</i>	
Crude Oil Released (bbbls) Details	Not answered.
Produced Water Released (bbbls) Details	Cause: Equipment Failure Flow Line - Production Produced Water Released: 10 BBL Recovered: 5 BBL Lost: 5 BBL.
Is the concentration of chloride in the produced water >10,000 mg/l	Yes
Condensate Released (bbbls) 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)	found a leak coming from a water line coming from a treater to the water tanks. 9.7 bbbls spilled onto pad. 5 bbbls recovered.

Sante Fe Main Office
Phone: (505) 476-3441

General Information
Phone: (505) 629-6116

Online Phone Directory
<https://www.emnrd.nm.gov/ocd/contact-us>

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

QUESTIONS, Page 2

Action 395246

QUESTIONS (continued)

Operator: DEVON ENERGY PRODUCTION COMPANY, LP 333 West Sheridan Ave. Oklahoma City, OK 73102	OGRID: 6137
	Action Number: 395246
	Action Type: [C-141] Site Char./Remediation Plan C-141 (C-141-v-Plan)

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: James Raley Title: EHS Professional Email: jim.raley@dvsn.com Date: 10/23/2024
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Sante Fe Main Office
Phone: (505) 476-3441

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

QUESTIONS, Page 3

Action 395246

QUESTIONS (continued)

Operator: DEVON ENERGY PRODUCTION COMPANY, LP 333 West Sheridan Ave. Oklahoma City, OK 73102	OGRID: 6137
	Action Number: 395246
	Action Type: [C-141] Site Char./Remediation Plan C-141 (C-141-v-Plan)

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 51 and 75 (ft.)
What method was used to determine the depth to ground water	NM OSE iWaters Database Search
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 1 and 5 (mi.)
Any lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark)	Greater than 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	Greater than 5 (mi.)
Any other fresh water well or spring	Greater than 5 (mi.)
Incorporated municipal boundaries or a defined municipal fresh water well field	Greater than 5 (mi.)
A wetland	Greater than 5 (mi.)
A subsurface mine	Greater than 5 (mi.)
An (non-karst) unstable area	Greater than 5 (mi.)
Categorize the risk of this well / site being in a karst geology	Medium
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
<i>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.</i>	
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)	12700
TPH (GRO+DRO+MRO) (EPA SW-846 Method 8015M)	269
GRO+DRO (EPA SW-846 Method 8015M)	179
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	10/21/2024
On what date will (or did) the final sampling or liner inspection occur	11/11/2024
On what date will (or was) the remediation complete(d)	02/02/2025
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	3431
What is the estimated volume (in cubic yards) that will be remediated	476

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, Page 4

Action 395246

QUESTIONS (continued)

Operator: DEVON ENERGY PRODUCTION COMPANY, LP 333 West Sheridan Ave. Oklahoma City, OK 73102	OGRID: 6137
	Action Number: 395246
	Action Type: [C-141] Site Char./Remediation Plan C-141 (C-141-v-Plan)

QUESTIONS

Remediation Plan (continued)	
<i>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.</i>	
This remediation will (or is expected to) utilize the following processes to remediate / reduce contaminants:	
<i>(Select all answers below that apply.)</i>	
(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	HALFWAY DISPOSAL AND LANDFILL [FEEM0112334510]
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.
<i>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>	
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: James Raley Title: EHS Professional Email: jim.raley@dv.com Date: 10/23/2024
<i>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.</i>	

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QUESTIONS, Page 5

Action 395246

QUESTIONS (continued)

Operator: DEVON ENERGY PRODUCTION COMPANY, LP 333 West Sheridan Ave. Oklahoma City, OK 73102	OGRID: 6137
	Action Number: 395246
	Action Type: [C-141] Site Char./Remediation Plan C-141 (C-141-v-Plan)

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, Page 6

Action 395246

QUESTIONS (continued)

Operator: DEVON ENERGY PRODUCTION COMPANY, LP 333 West Sheridan Ave. Oklahoma City, OK 73102	OGRID: 6137
	Action Number: 395246
	Action Type: [C-141] Site Char./Remediation Plan C-141 (C-141-v-Plan)

QUESTIONS

Sampling Event Information	
Last sampling notification (C-141N) recorded	{Unavailable.}

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	No

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CONDITIONS

Action 395246

CONDITIONS

Operator: DEVON ENERGY PRODUCTION COMPANY, LP 333 West Sheridan Ave. Oklahoma City, OK 73102	OGRID: 6137
	Action Number: 395246
	Action Type: [C-141] Site Char./Remediation Plan C-141 (C-141-v-Plan)

CONDITIONS

Created By	Condition	Condition Date
rhamlet	The Remediation Plan is Conditionally Approved. All samples must be analyzed for all constituents listed in Table I of 19.15.29.12 NMAC. Floor confirmation samples should be delineated/excavated to meet closure criteria standards from Table 1 of the OCD Spill Rule for site assessment/characterization/proven depth to water determination. Sidewall/Edge samples should be delineated/excavated to 600 mg/kg for chlorides and 100 mg/kg for TPH to define the edge of the release. The release area will need confirmation samples representing no more than 200 ft2. All sidewall samples should be taken from the sidewall of the excavation. Please make sure that the edge of the release extent is accurately defined. All off-pad areas must meet reclamation/revegetation standards set forth in the OCD Spill Rule.	11/25/2024
rhamlet	If you believe certain areas will require a deferral, please make sure that they have been fully delineated and specify the exact soil sample locations. The OCD needs to see that every measure has been taken to remediate the release before a deferral can be granted. After all possible contaminated soil has been removed, a formal deferral request will need to be uploaded to the OCD Permitting Portal for review.	11/25/2024