

<b>Impacted Soil</b>	
Saturated Soil (inches)	
	3
Area (sq. ft.)	
	2983
<b>Standing fluids</b>	
inches of standing fluid	
bbl estimate of standing fluids	
barrels recovered (if known)	
	0
<b>Soil type</b>	
	Sand
<b>Spill type</b>	
	produced water
<b>Barrel estimate in soil</b>	
	70.8
Barrel estimate (standing fluids/ recovered+in soil)	
	70.8



August 5, 2025

**New Mexico Oil Conservation Division**

1220 South St. Francis Drive  
Santa Fe, New Mexico 87505

**Re: Remediation Work Plan Addendum  
Pipeline 800 Feet NW of Yukon Gold 31 CTB 2  
Incident Number: nAPP2422256945  
Eddy County, New Mexico**

To Whom it May Concern:

Ensolum, LLC (Ensolum), on behalf of Devon Energy Production Company, LP (Devon), has prepared this *Remediation Work Plan Addendum* (RWPA) to document assessment and soil sampling activities performed at the Pipeline 800 Feet NW of Yukon Gold 31 CTB 2 (Site) and to address concern held by the New Mexico Oil Conservation Division (NMOCD) regarding the original *Remediation Work Plan* submitted on March 12, 2025. Devon is submitting this RWPA, describing analytical results from soil sampling activities and karst survey results associated with Incident Number nAPP2422256945 and proposing excavation of the subject matter release prior to submitting a *Closure Request*.

**BACKGROUND**

The Site is located in Unit B, Section 31, Township 23 South, Range 30 East, in Eddy County, New Mexico (32.265278°, -103.917778°) and is associated with oil and gas exploration and production operations on Federal Land managed by the Bureau of Land Management (BLM).

On August 8, 2024, a blown gasket on a blind flange resulted in the release of approximately 4 barrels (bbls) of produced water into a pipeline right-of-way (ROW). Devon reported the release to the NMOCD via email on August 9, 2024, and submitted a Release Notification Form C-141 (Form C-141) on August 15, 2024. The release was assigned Incident Number nAPP2422256945.

On May 07, 2025, NMOCD denied the *Remediation Work Plan* for Incident Number nAPP2422256945 for the following reasons:

- 1) *The ephemeral stream within 200 feet of the release has a defined bed & bank and is identified by a dashed blue line on a standard USGS topographic map. The National Wetland Inventory Mapper lists this as a wetland (riverine). Impacts go down to 41' and Devon says they will only excavate to a depth of 10 feet where practicable. In addition, this release is in an area of high karst, which may cause an imminent risk to ground water and as such must be remediated to the strictest Closure Criteria.*
- 2) *The reported volume of fluids released is 4 BBL. In Google Earth imagery from 8/21/2024, a 75' x 31' stain can be seen. Chlorides extend to 41 ft below ground surface. Update the volume of produced water released to reflect the amount of contamination found during delineation.*

- 3) Include pertinent information regarding the pipelines including the owners/operators, the depths and what types of lines.
- 4) Under the Site Characterization portion of the C-141 application the following minimum distances should be updated as they are incorrect: any playa lake (1000ft-1/2 mi N) and a wetland (100-200 feet to west).

In order to address NMOCD's concerns regarding spill volume, Ensolum, personnel will use a saturation depth of 3 inches based on the original spill volume calculation completed by Devon and increase the release footprint to 2,983 square feet based on laboratory analytical results. The estimated volume lost is approximately 70.8 bbls of produced water.

## SITE CHARACTERIZATION AND CLOSURE CRITERIA

The Site was characterized to assess the applicability of Table I, Closure Criteria for Soils Impacted by a Release, of Title 19, Chapter 15, Part 29, Section 12 (19.15.29.12) of the New Mexico Administrative Code (NMAC). Site Assessment/Characterization is described below. Potential Site receptors are identified on Figure 1.

The closest permitted groundwater well with depth to groundwater data is New Mexico Office of the State Engineer (NMOSE) well C-04905 POD1, located approximately 2,141 feet southwest of the Site. The well had a reported depth to groundwater greater than 105 feet below ground surface (bgs) and a total depth of 105 feet bgs. There are no regional or Site-specific hydrogeological conditions, such as shallow surface water, karst features, wetlands, or vegetation to suggest the Site is conducive to shallower groundwater. All wells used for depth to groundwater determination are presented in Figure 1. The referenced well record is included in Appendix A.

The closest continuously flowing or significant watercourse to the Site is an ephemeral stream, located approximately 217 feet west of the Site. The ephemeral stream measures approximately 25 feet wide and 7 to 10 feet in depth. The ephemeral stream remains dry and only flows as a direct result of precipitation. Based on a reported depth to groundwater south of the Site that is greater than 105 feet bgs, the ephemeral stream is not directly supplied with ground water (losing stream) and cannot sustain flow itself. The ephemeral stream is truncated approximately 1,500 feet north and downgradient of the Site by a lease road, which interrupts the feature and alters the natural flow of water, indicating ties to a significant water nexus based on the Clean Water Act has been interrupted. As such, the ephemeral stream does not meet the requirements of a watercourse within 300 feet of the Site; however, the ephemeral stream does have defined bed and bank and as such, meets the NMAC definition of a watercourse.

The Site is greater than 200 feet from a lakebed, sinkhole, or playa lake and greater than 300 feet from an occupied residence, school, hospital, institution, and church, though the water course is also defined as a riverine, which is a category of a wetland and it is within 300 feet of the release. The Site is greater than 1,000 feet to a freshwater well or spring and is not within a 100-year floodplain or overlying a subsurface mine. The Site is potentially underlain by unstable geology (high potential karst designation area). Site receptors are identified on Figure 1.

Advanced Geophysics, a BLM approved third-party cave and karst contractor, conducted a desktop survey, aerial survey, and geophysical survey of the Site. In summary, the aerial and geophysical karst surveys did not identify any karst features within 200 meters of the release extent. Results of the geophysical study indicated a well-layered geologic system and no anomalies, consistent with air-filled subsurface voids, were found within the survey area, indicating stable ground that would not pose a



safety concern or act as an immediate conduit to groundwater. Based on the results of the karst and geophysical surveys, the Site does not appear to be underlain by unstable geology. The detailed report provided by Advanced Geophysics is included in Appendix B.

Based on the results of the Site Characterization, the following NMOCD Table I Closure Criteria (Closure Criteria) apply:

- Benzene: 10 milligrams per kilogram (mg/kg)
- Benzene, toluene, ethylbenzene, and total xylenes (BTEX): 50 mg/kg
- Total petroleum hydrocarbons (TPH): 100 mg/kg
- Chloride: 600 mg/kg

## SITE ASSESSMENT AND DELINEATION SOIL SAMPLING ACTIVITIES

Beginning on August 15, 2024, Ensolum personnel were onsite to delineate the lateral extent of the release as indicated by field observations and information provided in the C-141. Four lateral soil samples (SS01 through SS04) were collected at ground surface just beyond the edge of the observed release extent. On September 24, 2024, four boreholes (BH01 through BH04) were advanced via hand auger within the release extent to assess the vertical extent of the release. Boreholes BH01 through BH03 were advanced to a terminal depth of 2 feet bgs and borehole BH04 was advanced to a terminal depth of 16 feet bgs.

Ensolum personnel returned to the Site on October 29, 2024, to collect two additional lateral delineation soil samples (SS05 and SS06) at ground surface and to advance borehole BH04 to a terminal depth of 21 feet bgs. On January 28, 2025, Ensolum contracted Cascade Environmental to advance borehole BH04 to a terminal depth of 45 feet bgs with a Terrasonic 150CC drilling rig. All delineation soil samples were field screened for chloride using Hach® chloride QuanTab® test strips. During drilling activities, Ensolum observed soil conditions for indications of karst features (i.e. voids, recalcification, perched water, or other features) since the Site is located within a BLM-designated high potential karst location. Ensolum observed silty sand from the ground surface to a depth of approximately 33 feet bgs where it transitioned into a silt with gravel for approximately 4 feet. Fat clay was observed at 37 feet bgs until the terminus of the boring at 45 feet bgs. Ensolum did not observe any karst features beneath the Site.

Field screening results and observations for the boreholes were logged on lithologic/soil sampling logs, which are included in Appendix C. Photographic documentation of delineation activities is included in Appendix D.

All soil samples were placed directly into pre-cleaned glass jars, labeled with the location, date, time, sampler name, method of analysis, and immediately placed on ice. The soil samples were transported under strict chain-of-custody procedures to Envirotech Analytical Laboratory (Envirotech) in Farmington, New Mexico, for analysis of the following chemicals of concern (COCs): BTEX following United States Environmental Protection Agency (EPA) Method 8021B; TPH-gasoline range organics (GRO), TPH-diesel range organics (DRO), and TPH-oil range organics (ORO) following EPA Method 8015M/D; and chloride following EPA Method 300.0.

## LABORATORY ANALYTICAL RESULTS

Laboratory analytical results for lateral delineation soil samples (SS01 through SS06) were all in compliance with the strictest Closure Criteria at ground surface. Boreholes BH01 and BH03 were all in

compliance with the strictest Closure Criteria at ground surface to a terminal depth of 2 feet bgs. Laboratory analytical results for boreholes BH02 indicated concentrations of TPH exceeded the Site Closure Criteria at ground surface and in compliance at a depth of 1-foot and 2 feet bgs. Borehole BH04 contained concentrations of TPH and chloride that exceeded the Site Closure Criteria at ground surface and concentrations of chloride that exceeded the Site Closure Criteria at depths ranging from 2 feet to 43 feet bgs. Laboratory results are summarized in Table 1 and laboratory analytical reports are included in Appendix E.

## PROPOSED REMEDIATION WORK PLAN

Results of assessment and delineation activities indicated the presence of limited TPH-impacted soil at ground surface near the point of release and chloride-impacted soil in a footprint of approximately 2,983 square feet to a maximum depth of 43 feet bgs in one location (BH04). The Site Closure Criteria is defined by the presence of an ephemeral stream, located approximately 217 feet west of the Site, which meets the NMOCD definition of a significant watercourse and wetland (designated as a riverine). Groundwater has been reasonably assessed to be greater than 105 feet bgs beneath the Site. While the watercourse/riverine is considered a sensitive receptor as it relates to the Site, the potential to have existing impacts migrate to the ephemeral stream appears to be low, especially if proper remedial actions are taken to mitigate lateral migration of impacts. As such, Devon respectfully requests a variance in the Site Closure Criteria to apply the current one (strictest Closure Criteria) based on the nearby sensitive receptor (watercourse and riverine) but apply the appropriate Closure Criteria based on the depth to groundwater determination (greater than 100 feet bgs) to soil below 10 feet bgs. This depth was determined based on the elevation of the base of the watercourse in relation to the Site.

Devon proposes to complete excavation activities at the Site according to the following actions:

- Excavate to the depth of the ephemeral stream to prevent possible run-off and the lateral/downstream movements of COCs from the release area or until the maximum extent practicable (MEP) within the pipeline ROW. Devon recognizes the ephemeral stream is considered a significant watercourse and wetland per NMOCD and it has the potential to transport contaminants and as such, excavation of impacted to the base depth of the ephemeral stream will reduce potential COC transport. Since the ephemeral stream is a losing stream, recharge of the stream is from upgradient water sources and potential seepage of the higher sidewalls through precipitation migrating through the loose subsurface and collecting in the watercourse. By removing impacted soil to the depth of the watercourse, any potential seepage through the subsurface towards the ephemeral stream would be absent of COCs, thus protecting surface and groundwater. This approach is equally protective of human health, the environment, and groundwater. The reported depth to ground water greater than 105 feet bgs, which provides at least 62 feet of distance between the chloride impacted soil (43 feet bgs) to the groundwater table, which should be sufficient distance to be protective, especially with the fat clay encountered at depth acting as a retardant of further migration. Devon believes these actions will be equally protective of human health, the environment, and groundwater.
- There are two major pipelines, one DCP high pressure gas line and one Devon Energy produced water line, which run the extent of the excavation area where significant hazards are associated with excavation via mechanical means. Devon intends to excavate to a depth of 10 feet bgs where practicable; however, NMOCD will be notified if significant structural or safety concerns arise during excavation, the lines are approximately 4-5 feet bgs.
- The excavation will be completed with mechanical equipment and the proposed excavation extent and depths are depicted on Figure 3.

Devon Energy Production Company, LP  
Remediation Work Plan Addendum  
Pipeline 800 Feet NW of Yukon Gold 31 CTB 2



- The impacted areas measure approximately 1,479 square feet (Area 1) and 1,504 square feet (Area 2) in size and an estimated 815 cubic yards of impacted soil will require excavation. This work will include addressing the TPH impacted soil in boreholes BH02 and BH04 at ground surface, see Figure 3.
- A Bentomat ST clay liner will be installed in the 10-foot excavation area (Area 1) to prevent chloride from migrating vertically toward the surface or laterally to the nearby ephemeral stream, which will add additional protection to surface and groundwater (Figure 4).
- Impacted soil and waste containing soil will be transferred to an approved landfill facility for disposal.
- The excavation will be backfilled and recontoured to match pre-existing conditions and the off-pad areas will be reseeded with a seed mixture approved by the BLM.
- A karst survey was completed by Advanced Geophysics on and no anomalies, consistent with air-filled subsurface voids, were found within the survey area, indicating stable ground that would not pose a safety concern or act as an immediate conduit to groundwater.

Devon will complete the proposed excavation and soil sampling activities within 180 days of the date of approval of this RWP by the NMOCD and update the volume lost via the NMOCD website at the time of submission.

If you have any questions or comments, please contact Ms. Ashley Giovengo at (575) 988-0055 or [agiovengo@ensolum.com](mailto:agiovengo@ensolum.com).

Sincerely,  
**Ensolum, LLC**

A handwritten signature in black ink, appearing to read "Ashley Giovengo", written over a light blue grid background.

Ashley Giovengo  
Associate Principal

A handwritten signature in black ink, appearing to read "Daniel R. Moir", written over a light blue grid background.

Daniel R. Moir, PG (licensed in WY & TX)  
Senior Managing Geologist

cc: Jim Raley, Devon

Devon Energy Production Company, LP  
Remediation Work Plan Addendum  
Pipeline 800 Feet NW of Yukon Gold 31 CTB 2



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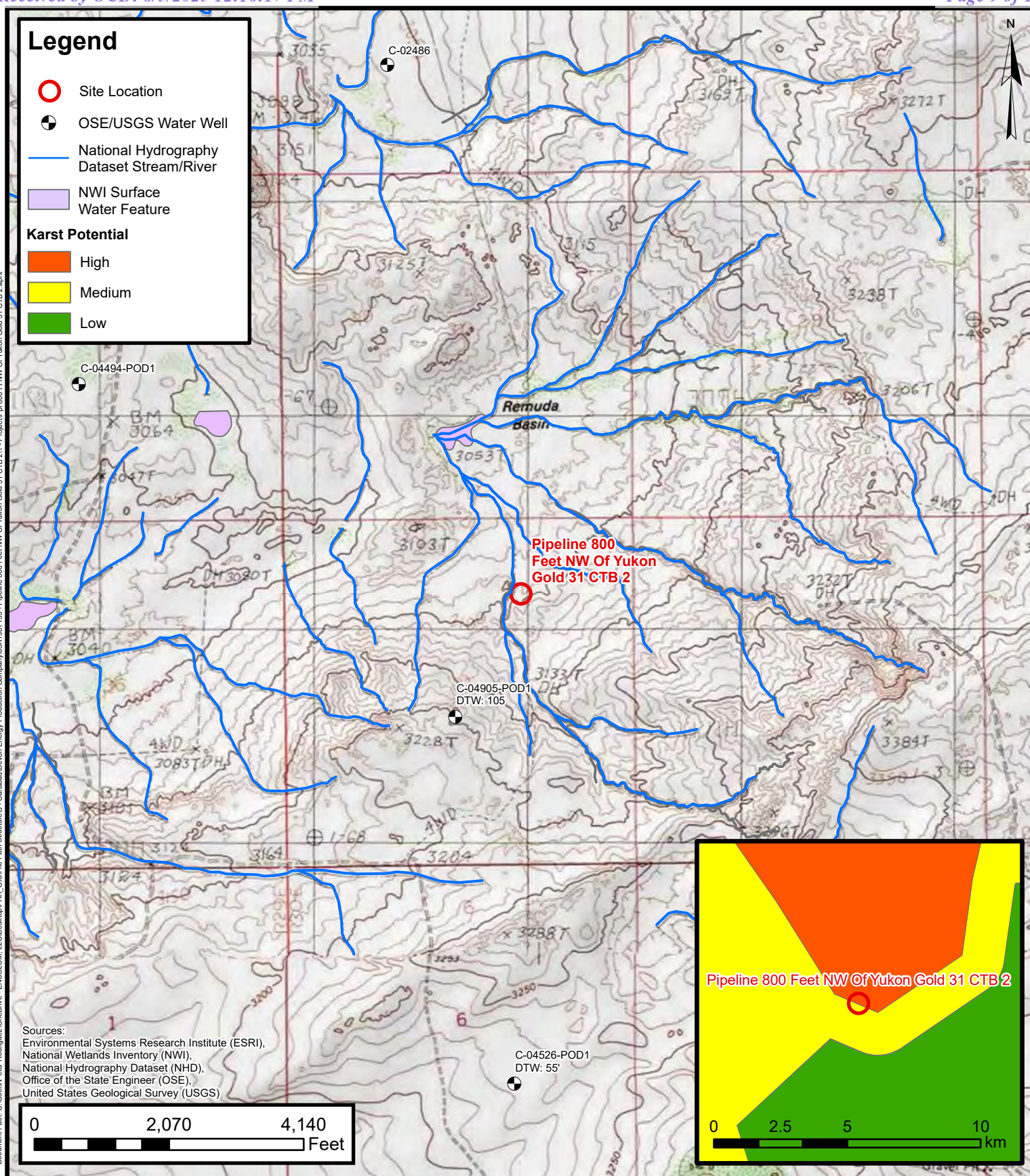
**Appendices:**

Figure 1	Site Receptor Map
Figure 2	Delineation Soil Sample Locations
Figure 3	Proposed Excavation Extent
Table 1	Soil Sample Analytical Results (Delineation Soil Samples)
Appendix A	Well Log and Record
Appendix B	Karst Survey
Appendix C	Photographic Log
Appendix D	Lithologic Soil Sampling Logs
Appendix E	Laboratory Analytical Reports & Chain-of-Custody Documentation
Appendix F	NMOCD Correspondence



FIGURES

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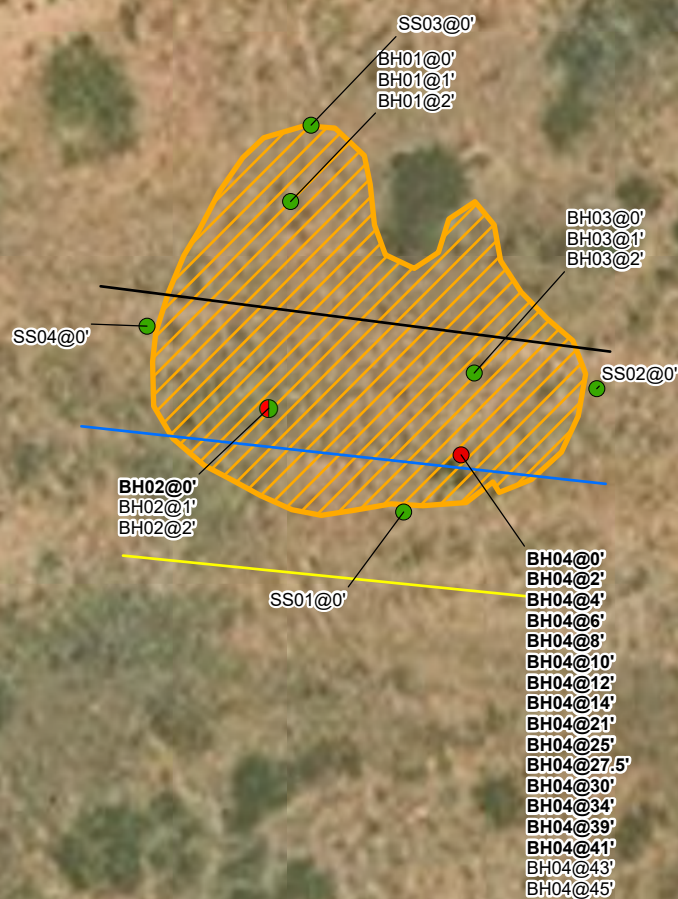


Devon Energy Production Company, LP  
Pipeline 800 Feet NW Of Yukon Gold 31 CTB 2  
Incident Number: nAPP2422256945  
Unit B, Sec. 31, T23S, R30E  
Eddy County, New Mexico

**FIGURE**  
**1**

## Legend

- Delineation Soil Sample in Compliance with Closure Criteria
- Delineation Soil Sample with Concentrations Exceeding Closure Criteria
- ● Delineation Soil Sample with Concentrations Previously Exceeding Closure Criteria
- Enlink Delaware Crude Pipeline LLC
- DCP Midstream High Pressure Gas line
- Devon Energy Produced Water Line
- Release Extent
- Dry Wash



Notes:  
 Sample ID @ Depth Below Ground Surface.  
 Samples in bold indicate sample exceeded applicable closure criteria.

0 10 20 40 60 80  
 Feet

Sources: Environmental Systems Research Institute (ESRI)

## Delineation Soil Sample Locations

Devon Energy Production Company, LP  
 Pipeline 800 Feet NW of Yukon Gold 31 CTB 2  
 Incident Number: nAPP2422256945  
 NWNE, Sec 31, T23W, R30N  
 Eddy County, New Mexico

FIGURE  
 2



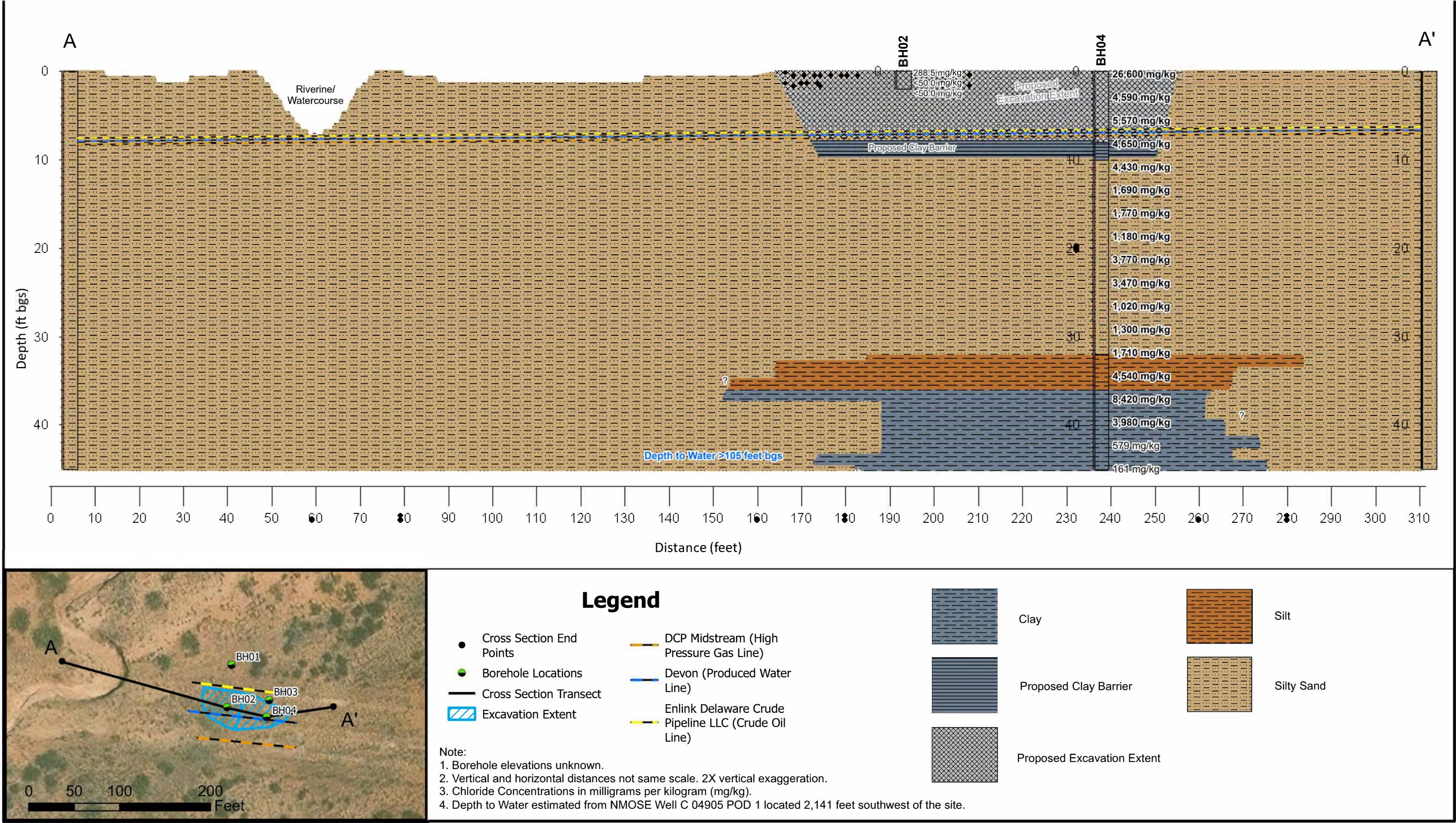
**Legend**

- Enlink Delaware Crude Pipeline LLC
- DCP Midstream High Pressure Gas line
- Devon Energy Produced Water Line
- Excavation Area 1:  
1,479 sq. ft., Depth - 10 feet bgs, Volume - 548 cu. yards
- Excavation Area 2:  
1,504 sq. ft., Depth - 1-foot bgs, Volume - 56 cu. yards
- Dry Wash

**Proposed Excavation Extent**

Devon Energy Production Company, LP  
Pipeline 800 Feet NW of Yukon Gold 31 CTB 2  
Incident Number: nAPP2422256945  
NWNE, Sec 31, T23W, R30N  
Eddy County, New Mexico

**FIGURE**  
**3**



**Cross Section A-A'**  
Devon Energy Production Company, LP  
Pipeline 800 Feet NW of Yukon Gold 31 CTB 2  
Incident Number: nAPP2422256945  
NWNE, Sec 31, T23W, R30N  
Eddy County, New Mexico

**FIGURE**  
**4**



TABLES

<b>TABLE 1</b> <b>SOIL SAMPLE ANALYTICAL RESULTS</b> Pipeline 800 Feet NW of Yukon Gold 31 CTB 2 Devon Energy Production Company, LP Eddy County, New Mexico										
Sample Designation	Date	Depth (feet bgs)	Benzene (mg/kg)	Total BTEX (mg/kg)	TPH GRO (mg/kg)	TPH DRO (mg/kg)	TPH ORO (mg/kg)	GRO+DRO (mg/kg)	Total TPH (mg/kg)	Chloride (mg/kg)
<b>NMOCD Table I Closure Criteria (NMAC 19.15.29)</b>			<b>10</b>	<b>50</b>	<b>NE</b>	<b>NE</b>	<b>NE</b>	<b>NE</b>	<b>100</b>	<b>600</b>
<b>Delineation Soil Samples</b>										
SS01	8/15/2024	0	<0.0250	<0.0500	<20.0	<25.0	<50.0	<25.0	<50.0	48.0
SS02	8/15/2024	0	<0.0250	<0.0500	<20.0	<25.0	<50.0	<25.0	<50.0	<20.0
SS03	8/15/2024	0	<0.0250	<0.0500	<20.0	<25.0	<50.0	<25.0	<50.0	<20.0
SS04	8/15/2024	0	<0.0250	<0.0500	<20.0	<25.0	<50.0	<25.0	<50.0	<20.0
SS05	10/29/2024	0	<0.0250	<0.0500	<20.0	<25.0	<50.0	<25.0	<50.0	25.5
SS06	10/29/2024	0	<0.0250	<0.0500	<20.0	<25.0	<50.0	<25.0	<50.0	44.6
BH01	9/24/2024	0	<0.0250	<0.0500	<20.0	<25.0	<50.0	<25.0	<50.0	<20.0
BH01	9/24/2024	1	<0.0250	<0.0500	<20.0	<25.0	<50.0	<25.0	<50.0	<20.0
BH01	9/24/2024	2	<0.0250	<0.0500	<20.0	<25.0	<50.0	<25.0	<50.0	<20.0
BH02	9/24/2024	0	<0.0250	<0.0500	<20.0	194	94.5	194	<b>288.5</b>	370
BH02	9/24/2024	1	<0.0250	<0.0500	<20.0	<25.0	<50.0	<25.0	<50.0	43.7
BH02	9/24/2024	2	<0.0250	<0.0500	<20.0	<25.0	<50.0	<25.0	<50.0	98.5
BH03	9/24/2024	0	<0.0250	<0.0500	<20.0	<25.0	<50.0	<25.0	<50.0	<20.0
BH03	9/24/2024	1	<0.0250	<0.0500	<20.0	<25.0	<50.0	<25.0	<50.0	82.0
BH03	9/24/2024	2	<0.0250	<0.0500	<20.0	<25.0	<50.0	<25.0	<50.0	<20.0

**Notes:**

bgs: below ground surface

mg/kg: milligrams per kilogram

NMOCD: New Mexico Oil Conservation Division

NMAC: New Mexico Administrative Code

Grey text represents samples that have been excavated

&lt;": Laboratory Analytical result is less than reporting limit

Concentrations in **bold** exceed the NMOCD Table I Closure Criteria or reclamation standard where applicable.

\* Indicates sample was collected in area to be reclaimed after remediation is complete; reclamation for chloride in the top 4 feet is 600 mg/kg and total TPH is 100 mg/kg.

GRO: Gasoline Range Organics

DRO: Diesel Range Organics

ORO: Oil Range Organics

TPH: Total Petroleum Hydrocarbon

BTEX: Benzene, Toluene, Ethylbenzene, and Xylenes

**TABLE 1 - Continued**  
**SOIL SAMPLE ANALYTICAL RESULTS**  
 Pipeline 800 Feet NW of Yukon Gold 31 CTB 2  
 Devon Energy Production Company, LP  
 Eddy County, New Mexico

Sample Designation	Date	Depth (feet bgs)	Benzene (mg/kg)	Total BTEX (mg/kg)	TPH GRO (mg/kg)	TPH DRO (mg/kg)	TPH ORO (mg/kg)	GRO+DRO (mg/kg)	Total TPH (mg/kg)	Chloride (mg/kg)
<b>NMOCD Table I Closure Criteria (NMAC 19.15.29)</b>			<b>10</b>	<b>50</b>	<b>NE</b>	<b>NE</b>	<b>NE</b>	<b>NE</b>	<b>100</b>	<b>600</b>
<b>Delineation Soil Samples</b>										
BH04	9/24/2024	0	<0.0250	<0.0500	<20.0	1,560	1,350	1,560	<b>2,910</b>	<b>26,600</b>
BH04	9/24/2024	2	<0.0250	<0.0500	<20.0	<25.0	<50.0	<25.0	<50.0	<b>4,590</b>
BH04	9/24/2024	4	<0.0250	<0.0500	<20.0	<25.0	<50.0	<25.0	<50.0	<b>5,570</b>
BH04	9/24/2024	6	<0.0250	<0.0500	<20.0	<25.0	<50.0	<25.0	<50.0	<b>4,650</b>
BH04	9/24/2024	8	<0.0250	<0.0500	<20.0	<25.0	<50.0	<25.0	<50.0	<b>4,430</b>
BH04	9/24/2024	10	<0.0250	<0.0500	<20.0	<25.0	<50.0	<25.0	<50.0	<b>1,690</b>
BH04	9/24/2024	12	<0.0250	<0.0500	<20.0	<25.0	<50.0	<25.0	<50.0	<b>1,770</b>
BH04	9/24/2024	14	<0.0250	<0.0500	<20.0	<25.0	<50.0	<25.0	<50.0	<b>1,180</b>
BH04	9/24/2024	16	<0.0250	<0.0500	<20.0	<25.0	<50.0	<25.0	<50.0	<b>3,770</b>
BH04	10/29/2024	21	<0.0250	<0.0500	<20.0	<25.0	<50.0	<25.0	<50.0	<b>3,470</b>
BH04	1/28/2025	25	<0.0250	<0.0500	<20.0	<25.0	<50.0	<25.0	<50.0	<b>1,020</b>
BH04	1/28/2025	27.5	<0.0250	<0.0500	<20.0	<25.0	<50.0	<25.0	<50.0	<b>1,300</b>
BH04	1/28/2025	30	<0.0250	<0.0500	<20.0	<25.0	<50.0	<25.0	<50.0	<b>1,710</b>
BH04	1/28/2025	34	<0.0250	<0.0500	<20.0	<25.0	<50.0	<25.0	<50.0	<b>4,540</b>
BH04	1/28/2025	39	<0.0250	<0.0500	<20.0	<25.0	<50.0	<25.0	<50.0	<b>8,420</b>
BH04	1/28/2025	41	<0.0250	<0.0500	<20.0	<25.0	<50.0	<25.0	<50.0	<b>3,980</b>
BH04	1/28/2025	43	<0.0250	<0.0500	<20.0	<25.0	<50.0	<25.0	<50.0	579
BH04	1/28/2025	45	<0.0250	<0.0500	<20.0	<25.0	<50.0	<25.0	<50.0	161

**Notes:**

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Grey text represents samples that have been excavated

&lt;": Laboratory Analytical result is less than reporting limit

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GRO: Gasoline Range Organics

DRO: Diesel Range Organics

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TPH: Total Petroleum Hydrocarbon

BTEX: Benzene, Toluene, Ethylbenzene, and Xylenes



## APPENDIX A

### Well Log and Record

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2904 W 2nd St.  
Roswell, NM 88201  
voice: 575.624.2420  
fax: 575.624.2421  
[www.atkinseng.com](http://www.atkinseng.com)

February 10, 2025

DII-NMOSE  
1900 W 2<sup>nd</sup> Street  
Roswell, NM 88201

*Hand Delivered to the DII Office of the State Engineer*

Re: Well Record C-04905 Pod-1

To whom it may concern:

Attached please find a well log & record and a plugging record, in duplicate, for a one (1) soil borings, C-04905 Pod-1.

If you have any questions, please contact me at 575.499.9244 or [lucas@atkinseng.com](mailto:lucas@atkinseng.com).

Sincerely,

A handwritten signature in black ink, appearing to read "Lucas Middleton".

Lucas Middleton

Enclosures: as noted above

DSE DII ROSWELL, NM  
10 FEB 25 PM 1:08



# WELL RECORD & LOG

OFFICE OF THE STATE ENGINEER

[www.ose.state.nm.us](http://www.ose.state.nm.us)

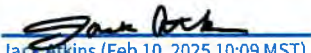
1. GENERAL AND WELL LOCATION	OSE POD NO. (WELL NO.) POD 1 (TW-1)		WELL TAG ID NO. N/A		OSE FILE NO(S). C-04905			
	WELL OWNER NAME(S) XTO Energy, Inc.				PHONE (OPTIONAL)			
	WELL OWNER MAILING ADDRESS 3104 E. Greene St.				CITY Carlsbad	STATE NM	ZIP 88220	
	WELL LOCATION (FROM GPS)	DEGREES LATITUDE 32	MINUTES 15	SECONDS 36.40 N	* ACCURACY REQUIRED: ONE TENTH OF A SECOND			
		LONGITUDE 103	55	16.09 W	* DATUM REQUIRED: WGS 84			
DESCRIPTION RELATING WELL LOCATION TO STREET ADDRESS AND COMMON LANDMARKS - PLSS (SECTION, TOWNSHIP, RANGE) WHERE AVAILABLE NE NE SW Sec. 31, T23S, R30E, NMPM								
2. DRILLING & CASING INFORMATION	LICENSE NO. 1249		NAME OF LICENSED DRILLER Jackie D. Atkins			NAME OF WELL DRILLING COMPANY Atkins Engineering Associates, Inc.		
	DRILLING STARTED 01/13/2025	DRILLING ENDED 01/13/2025	DEPTH OF COMPLETED WELL (FT) Temporary Well Material		BORE HOLE DEPTH (FT) ±101	DEPTH WATER FIRST ENCOUNTERED (FT) N/A		
	COMPLETED WELL IS: <input type="checkbox"/> ARTESIAN *add Centralizer info below <input checked="" type="checkbox"/> DRY HOLE <input type="checkbox"/> SHALLOW (UNCONFINED)				STATIC WATER LEVEL IN COMPLETED WELL (FT) N/A	DATE STATIC MEASURED 1/13/25, 1/24/25		
	DRILLING FLUID: <input type="checkbox"/> AIR <input type="checkbox"/> MUD ADDITIVES - SPECIFY:							
	DRILLING METHOD: <input type="checkbox"/> ROTARY <input type="checkbox"/> HAMMER <input type="checkbox"/> CABLE TOOL <input checked="" type="checkbox"/> OTHER - SPECIFY: Hollow Stem Auger					CHECK HERE IF PITLESS ADAPTER IS INSTALLED <input type="checkbox"/>		
	DEPTH (feet bgl) FROM TO		BORE HOLE DIAM. (inches)	CASING MATERIAL AND/OR GRADE (include each casing string, and note sections of screen)	CASING CONNECTION TYPE (add coupling diameter)	CASING INSIDE DIAM. (inches)	CASING WALL THICKNESS (inches)	SLOT SIZE (inches)
	0 105		±6.25	Soil Boring	--	--	--	--
3. ANNULAR MATERIAL	DEPTH (feet bgl) FROM TO		BORE HOLE DIAM. (inches)	LIST ANNULAR SEAL MATERIAL AND GRAVEL PACK SIZE-RANGE BY INTERVAL *(if using Centralizers for Artesian wells- indicate the spacing below)		AMOUNT (cubic feet)	METHOD OF PLACEMENT	
				N/A				

FOR OSE INTERNAL USE

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

FILE NO.	POD NO.	TRN NO.
LOCATION	WELL TAG ID NO.	PAGE 1 OF 2

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10 FEB '25 11:43

4. HYDROGEOLOGIC LOG OF WELL	DEPTH (feet bgl)		THICKNESS (feet)	COLOR AND TYPE OF MATERIAL ENCOUNTERED - INCLUDE WATER-BEARING CAVITIES OR FRACTURE ZONES (attach supplemental sheets to fully describe all units)	WATER BEARING? (YES / NO)	ESTIMATED YIELD FOR WATER- BEARING ZONES (gpm)
	FROM	TO				
	0	29	29	Sand, fine-grained, poorly-graded, unconsolidated, Reddish Brown	Y    ✓ N	
	29	39	10	Sand, fine-grained, poorly-graded, with limestone layers, Reddish Brown	Y    ✓ N	
	39	105	66	Sand, fine-grained, poorly-graded, unconsolidated, Reddish Brown	Y    ✓ N	
					Y    N	
					Y    N	
					Y    N	
					Y    N	
					Y    N	
					Y    N	
					Y    N	
					Y    N	
					Y    N	
					Y    N	
					Y    N	
					Y    N	
					Y    N	
					Y    N	
					Y    N	
					Y    N	
					Y    N	
METHOD USED TO ESTIMATE YIELD OF WATER-BEARING STRATA:					TOTAL ESTIMATED WELL YIELD (gpm):	
<input type="checkbox"/> PUMP <input type="checkbox"/> AIR LIFT <input type="checkbox"/> BAILER <input type="checkbox"/> OTHER - SPECIFY:						
5. TEST; RIG SUPERVISION	WELL TEST	TEST RESULTS - ATTACH A COPY OF DATA COLLECTED DURING WELL TESTING, INCLUDING DISCHARGE METHOD, START TIME, END TIME, AND A TABLE SHOWING DISCHARGE AND DRAWDOWN OVER THE TESTING PERIOD.				
	MISCELLANEOUS INFORMATION: Temporary well material removed and soil boring backfilled using drill cuttings from total depth to ten feet below ground surface(bgs), then hydrated bentonite chips ten feet bgs to surface.  Remuda N 31 State					
	PRINT NAME(S) OF DRILL RIG SUPERVISOR(S) THAT PROVIDED ONSITE SUPERVISION OF WELL CONSTRUCTION OTHER THAN LICENSEE: Shane Eldridge, Cameron Pruitt					
6. SIGNATURE	THE UNDERSIGNED HEREBY CERTIFIES THAT, TO THE BEST OF HIS OR HER KNOWLEDGE AND BELIEF, THE FOREGOING IS A TRUE AND CORRECT RECORD OF THE ABOVE DESCRIBED HOLE AND THAT HE OR SHE WILL FILE THIS WELL RECORD WITH THE STATE ENGINEER AND THE PERMIT HOLDER WITHIN 30 DAYS AFTER COMPLETION OF WELL DRILLING:  <div style="display: flex; justify-content: space-between;"> <div>               Jackie D. Atkins              Jack Atkins (Feb 10, 2025 10:09 MST)           </div> <div>             02/10/2025              DATE           </div> </div> <div style="display: flex; justify-content: space-between; margin-top: 10px;"> <div>SIGNATURE OF DRILLER / PRINT SIGNEE NAME</div> <div></div> </div>					

FOR OSE INTERNAL USE

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

FILE NO.

POD NO.

TRN NO.

LOCATION

WELL TAG ID NO.

PAGE 2 OF 2

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# 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: C-04905-POD-1

Well owner: XTO Energy, Inc. Phone No.: \_\_\_\_\_

Mailing address: 3104 E. Greene St.

City: Carlsbad State: New Mexico Zip code: 88220

## 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: 04/30/25
- 3) Well plugging activities were supervised by the following well driller(s)/rig supervisor(s): Lucas Middleton
- 4) Date well plugging began: 01/24/2025 Date well plugging concluded: 01/24/2025
- 5) GPS Well Location: Latitude: 32 deg, 15 min, 36.40 sec  
Longitude: 103 deg, 55 min, 16.09 sec, WGS 84
- 6) Depth of well confirmed at initiation of plugging as: 105 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: 11/07/2024
- 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):

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

For each interval plugged, describe within the following columns:

Depth (ft bgl)	Plugging Material Used (include any additives used)	Volume of Material Placed (gallons)	Theoretical Volume of Borehole/ Casing (gallons)	Placement Method (tremie pipe, other)	Comments ("casing perforated first", "open annular space also plugged", etc.)
0-10'	Hydrated Bentonite	Approx. 15 gallons	15 gallons	Boring	
10'-105'	Drill Cuttings	Approx. 152 gallons	152 gallons	Boring	

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

### III. SIGNATURE:

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

  
Jackie Atkins (Feb 10, 2025 10:09 MST)

Signature of Well Driller

02/10/2025

Date




# C-4905-WR-20 Well Record and Log-packet-forsign-Remuda

Final Audit Report

2025-02-10

Created:	2025-02-10
By:	Lucas Middleton (lucas@atkinseng.com)
Status:	Signed
Transaction ID:	CBJCHBCAABAAAw844kgxDWuG6fKEWiGE6yy_sKeUcVh

## "C-4905-WR-20 Well Record and Log-packet- forsign-Remuda" History

-  Document created by Lucas Middleton (lucas@atkinseng.com)  
2025-02-10 - 4:59:26 PM GMT
-  Document emailed to Jack Atkins (jack@atkinseng.com) for signature  
2025-02-10 - 5:01:24 PM GMT
-  Email viewed by Jack Atkins (jack@atkinseng.com)  
2025-02-10 - 5:06:09 PM GMT
-  Document e-signed by Jack Atkins (jack@atkinseng.com)  
Signature Date: 2025-02-10 - 5:09:27 PM GMT - Time Source: server
-  Agreement completed.  
2025-02-10 - 5:09:27 PM GMT

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**Adobe Acrobat Sign**



## APPENDIX B

### Karst Survey

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# **Aerial and Geophysical Cave and Karst Investigation: Pipeline 800 ft. NW of Yukon Gold 31 CTB 2**

**Report Delivered: 07/16/2025**

**Prepared for:  
Ensolum, LLC  
3122 National Parks HWY  
Carlsbad, NM 88220**

**Prepared By:  
Advanced Geophysics, LLC  
2821 White Plains Dr.  
Midlothian, Texas 76065**



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# Executive summary

## Introduction

**Ensolum, LLC** requested an aerial and geophysical karst survey following a release along a pipeline 800 feet northwest of Yukon Gold 31 CTB 2, located at 32.265278, -103.917778. The objective of the surveys was to assess the stability of the site by investigating surface and subsurface conditions for the presence of potential karst features.

## Findings

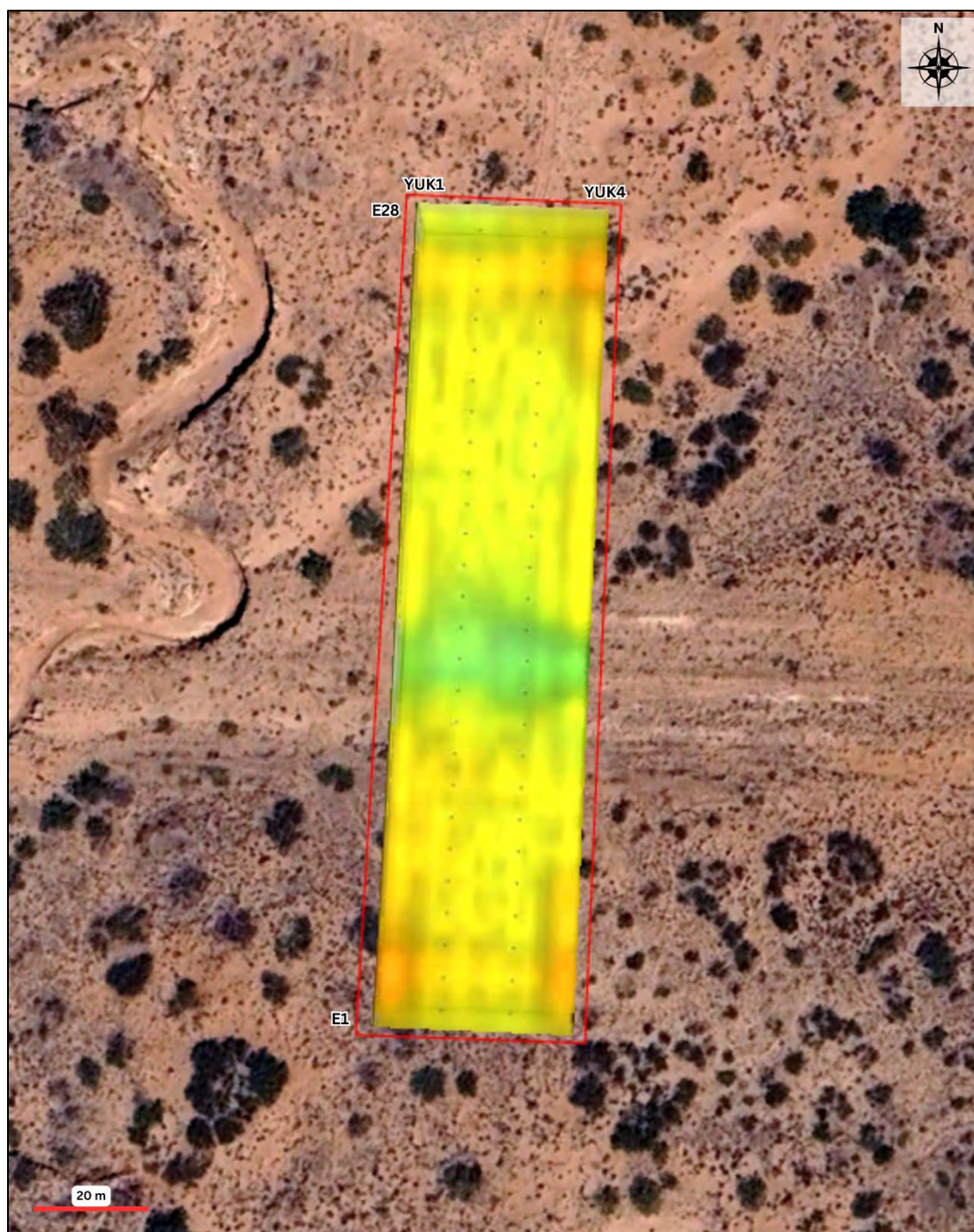
- The aerial survey revealed:
  - **No anomalies** were identified within the 200-meter (656 ft) buffer of the release.
- The geophysical survey revealed:
  - **No anomalies** that could be interpreted as areas of increased porosity or air-filled voids/conduits were identified.

## Recommendations

- **Mitigation Planning:**
  - Any subsurface voids encountered during construction, or any phase of the remediation process must be reported to the Bureau of Land Management Karst Division or the New Mexico State Lands Office Resource Division.
  - Mitigation measures should align with guidelines in the **Bureau of Land Management Cave and Karst Management Handbook (H-8380-1)** or the **Natural Resources Conservation Service Conservation Practice Standard for Karst Sinkhole Treatment (Code 527)**.

## Conclusions

Aerial and geophysical surveys conducted in the vicinity of a release that occurred along a pipeline 800 feet northwest of Yukon Gold 31 CTB 2 did not reveal any surface or subsurface anomalies indicative of karst features. In the absence of such features, both at and below the surface, the site is characterized as stable.



**Figure A.** Aerial view of the location of the release with integrated geophysical overlay, illustrating the results of the electrical resistivity survey.

## 1.0 INTRODUCTION

The following report has been prepared for Ensolum, LLC, to determine the presence or absence of surface and subsurface voids surrounding a release along a pipeline 800 feet northwest of Yukon Gold 31 CTB 2, located at 32.265278, -103.917778, within Eddy County, New Mexico (**Figure 1**). To delineate the subsurface features, a geophysical survey (electrical resistivity tomography) was conducted, processed, and interpreted by Kaleb Henry of Advanced Geophysics, LLC. The aerial karst survey was conducted and processed by SWCA Environmental Consultants. The aerial data was then reviewed and interpreted by Kaleb Henry of Advanced Geophysics, LLC.

The aerial and electrical resistivity surveys were requested by Ensolum, LLC on June 23, 2025. Upon the request, the client provided coordinates (listed above) for the well pad, as well as a Google Earth shape file (**Output.kmz**) to ensure the survey encompassed the entire release.

### 1.1 Summary of Results

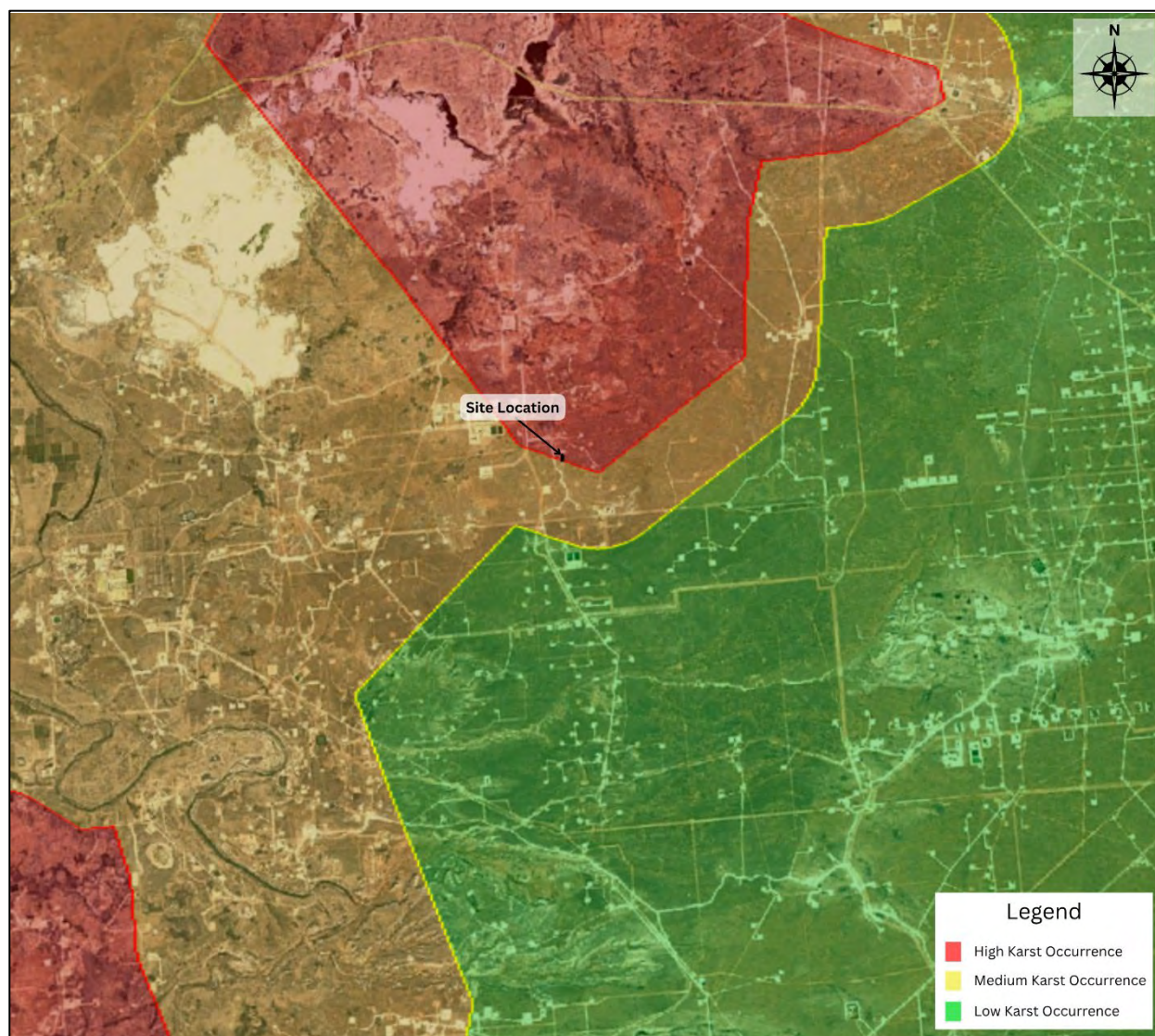
Aerial and geophysical surveys conducted at the location of a release along a pipeline 800 feet northwest of Yukon Gold 31 CTB 2 did not identify any surface or subsurface anomalies indicative of karst features. However, due to the resolution limitations, smaller fractures and voids/conduits may be present but went undetected. Given the absence of definitive karst features in both the aerial and geophysical surveys, the site is characterized as stable.

### 1.2 Site Location

The site is located approximately 17.42 kilometers (10.83 miles) southeast of Loving, New Mexico, and approximately 16.63 kilometers (10.33 miles) east of US Highway 285, within the NWNE quarters of Section 31, Township 23 South, Range 30 East, in Eddy County, New Mexico. The release occurred on the Bureau of Land Management land.

### 1.3 Bureau of Land Management Characterization

The BLM have identified four divisions of karst potential: low, medium, high, and critical. These regions are characterized based on the known occurrence of karst features, underlying geologic formations, and potential impacts to freshwater aquifers. The survey was conducted within an area characterized as high karst occurrence zone by the (BLM) – Carlsbad Office<sup>[1]</sup>.



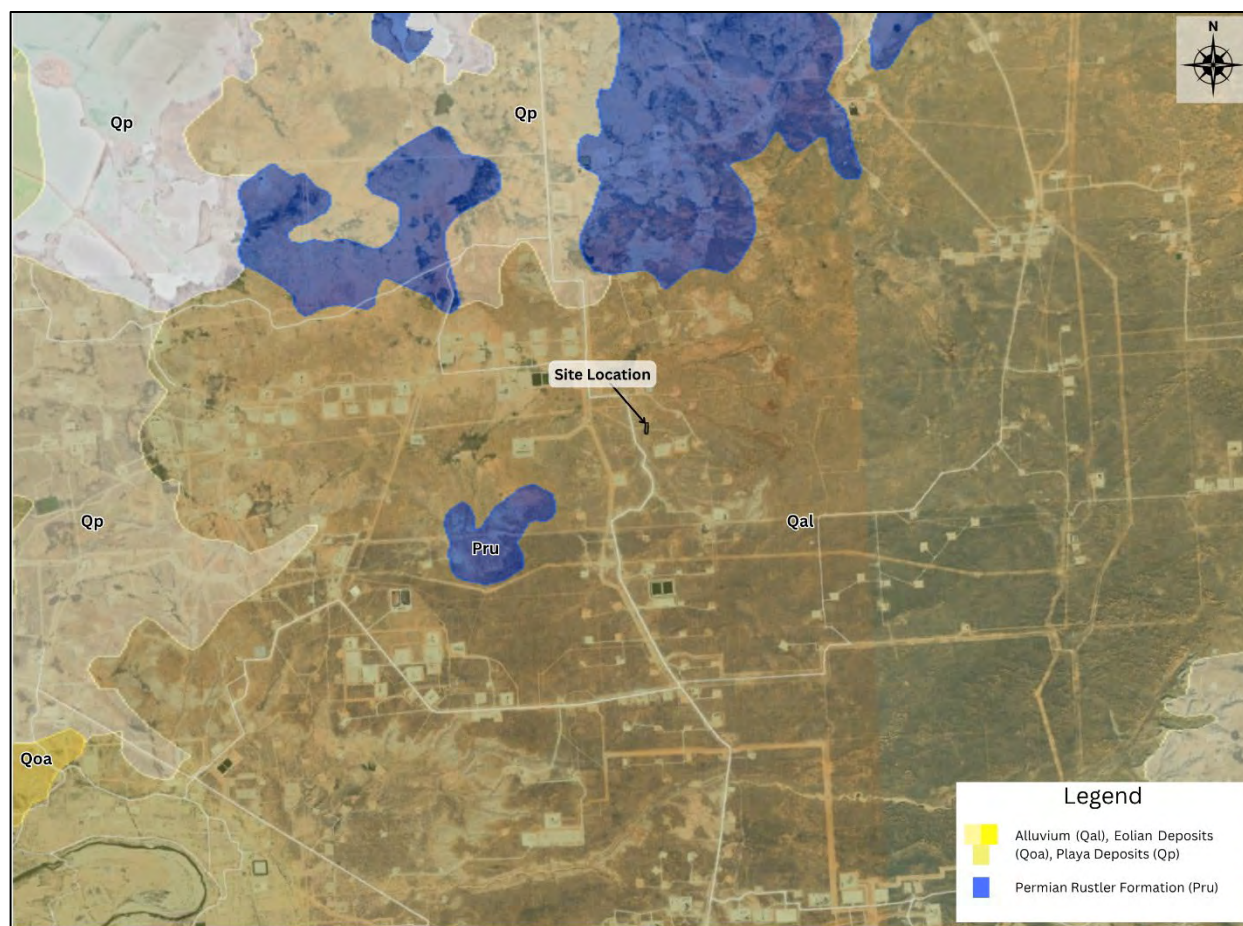
**Figure 1.** Aerial overview of the site location, illustrating the surrounding karst occurrence zones. Map provided by Google Earth in datum WSG-84. Karst occurrence map provided by Bureau of Land Management – Carlsbad Office.

## 2.0 LOCAL GEOLOGY AND ENVIRONMENT

### 2.1 Geologic Setting

The site is located within a region known for its extensive karst development, due to the underlying Rustler Formation. The Rustler Formation was deposited during the mid-to-late Ochoan, as the Delaware Basin transitioned from a hypersaline sea to a terrestrial environment<sup>[3][6]</sup>. This transition led to a complex array of depositional environments, resulting in the formation of five distinct members within the Rustler Formation: Los Medaños, Culebra Dolomite, Tamarisk, Magenta Dolomite, and Forty-niner, listed in ascending order. The Tamarisk and Forty-niner Members, in particular, exhibit the most diverse salt pan to mudflat facies within the Rustler Formation, comprising mudstone, halite, and gypsum<sup>[16]</sup>. These evaporite facies are highly prone to dissolution by downward-migrating meteoric waters, which can create various karst features such as conduits, sinkholes, and cavernous porosity. Once initiated, these features can expand rapidly due to the high solubility of halite and gypsum/anhydrite. Halite, with a solubility rate of 360 g/L at 77°F, is approximately two orders of magnitude more soluble than gypsum<sup>[15]</sup>. Gypsum, in turn, has a solubility rate of approximately 2.531 g/L at 68°F, which is around four orders of magnitude higher than that of limestone (calcium carbonate)<sup>[9]</sup>.

The high solubility of these evaporite facies facilitates the rapid development of complex cave systems, which can form within days, weeks, or years, depending on the surrounding hydrogeologic conditions<sup>[13]</sup>. These cave systems serve as preferential flow paths for shallow groundwater recharge, creating a dynamic and continuously evolving karst-aquifer system<sup>[11]</sup>.



**Figure 2.** Geologic formations surrounding the site location. Permian Rustler Formation (Pr), Quaternary alluvial, eolian, and playa deposits (Qal, Qoa, Qp). Background image provided by Google Earth in datum WSG-84. Geologic unit overlay provided by the United State Geologic Society (USGS) and the Bureau of Economic Geology, UT-Austin.

## 2.2 Environmental Setting

The site is located within an area known as the Chihuahuan Desert Thornscrub, where vegetation is sparse. Vegetation surrounding the surveyed location primarily consists of grass with and few creosote bushes. The site is mantled by a soil series classified as Kermit-Berino, characterized by fine sandy textures and a profile depth reaching up to 203.2 centimeters (80 inches)<sup>[14]</sup>. These soils are described as excessively well-drained, primarily due to their high transmissivity rates<sup>[14]</sup>.

The environment surrounding the survey has been characterized as an evaporitic karst terrain, due to the underlying geologic formations. The Rustler Formation has many documented sinkholes, conduits, and caves, which are highly susceptible to enlargement by dissolution as surface water migrates downward through the formation. These conduits can facilitate the rapid recharge of the groundwater aquifers.

### 3.0 METHODOLOGY

#### 3.1 Description of Geophysical Survey

This project consisted of four parallel two-dimensional (2-D) direct current (DC) resistivity survey lines. These surveys were conducted using an Advanced Geosciences' Inc. (AGI) SuperSting™ (R8/IP) multi-electrode earth resistivity meter. The lines were performed using a dipole-dipole array configuration consisting of 28 electrodes arranged southwest-to-northeast (electrodes 1 to 28), with a 5-meter (16.4 ft) electrode spacing and 10-meter (32.8 ft) line spacing oriented from northwest-to-southeast (lines 1 to 4). This set up was designed to ensure high accuracy and enhanced shallow depth resolution. Due to the electrode spacing and configuration, the near surface resolution is approximately **2.5 meters (8.2 ft)**, with the total depth of investigation ranging from **31.3 to 35.4 meters (102.6 to 116.1 ft)** below ground surface (bgs). Each electrode location was recorded using an EMLID RS3 GPS unit with an estimated horizontal location error of 5 centimeters (2 in). The KML file (**Pipeline 800 ft NW of Yukon Gold 31 CTB 2.kml**) and the corresponding raw dataset (**Pipeline 800 ft NW of Yukon Gold 31 CTB 2\_Report.csv**) produced during the data collection were submitted to Ensolum, LLC upon submission of the report.

The electrical contact resistance between the ground and each electrode was maintained below 5,000  $\Omega\text{m}$ . If initial electrode contact resistance exceeded 5,000  $\Omega\text{m}$ , then electrodes would be wetted with well water prior to the survey to lower contact resistance below 5,000  $\Omega\text{m}$ . Each electrical resistivity line was conducted using time estimates of 800 ms and cycled twice per electrode pair. The SuperSting™ (R8/IP) was set to inject a 2,000 mA current for each survey measurement and was set to reach a maximum error threshold of 2% between measurement cycles. Recorded resistivity measurements were processed with EarthImager™ 2-D/3-D inversion modeling software, produced by AGI. To improve inverted resistivity models, data outliers which account for less than 10% of total data, were removed using data misfit histograms. Terrain correction was incorporated into resistivity sections to better constrain the relationship between topography and electrical resistivity analyses.

The surveyed lines (YUK1.stg – YUK4.stg) were completed by Kaleb Henry and Ralph Reyes on July 3, 2025.

### 3.2 Electrical Resistivity Theory

Electrical resistivity tomography is predicated on the response of electrical current flowing through subsurface material, from transmitter electrodes to potential electrodes. As the current migrates through the underlying media, a potential difference (apparent resistivity) in current is measured. There are three primary factors for determining the electrical resistivity of a subsurface material: Lithology, saturation, and porosity. As porosity increases, resistance to the flow of electrical current is increased, due to the theoretically infinite resistiveness of air. When an area of increased porosity/void is encountered within the subsurface a sharp contrast in electrical resistiveness to the surrounding material is measured and recorded. This theory, coupled with knowledge of the underlying geology, allows an experienced geophysicist to develop an accurate interpretation of the subsurface features.

NOTE: Conducting electrical resistivity surveys in areas with known subsurface metallic structures can lead to inaccurate representations of subsurface conditions. Metallic elements tend to create preferential pathways for electrical current, resulting in non-uniform current distributions that may cause inversion algorithms to misinterpret the acquired data. Additionally, these structures can generate shadow zones due to electromagnetic shielding, which impedes current penetration into deeper subsurface layers. Consequently, this may lead to artificially elevated or reduced resistivity values in the final interpretation.

### 3.3 Description of Aerial Survey

An aerial karst survey near the release along the pipeline 800 ft NW of Yukon Gold 31 CTB 2 was conducted by a Federal Aviation Administration (FAA) –licensed drone pilot affiliated with SWCA Environmental Consultants. Survey parameters were developed by Kaleb Henry of Advanced Geophysics to ensure compliance with the stringent requirements established by the Bureau of Land Management – Carlsbad Field Office (BLM-CFO), which are recognized by the New Mexico Oil Conservation Division (NMOCD) and the New Mexico State Land Office (NMSLO).

The aerial survey utilized a preplanned flight path flown at low elevations, with aerial transects spaced to achieve an estimated 70–80% imagery overlap. This overlap minimizes errors during the image-stitching process and enhances the accuracy and resolution of the final imagery products. Following data collection, the images were stitched to produce an orthomosaic image, which was then processed to generate a highly accurate Digital Elevation Model (DEM). A Lower Relief Model (LRM) was subsequently derived from the DEM to

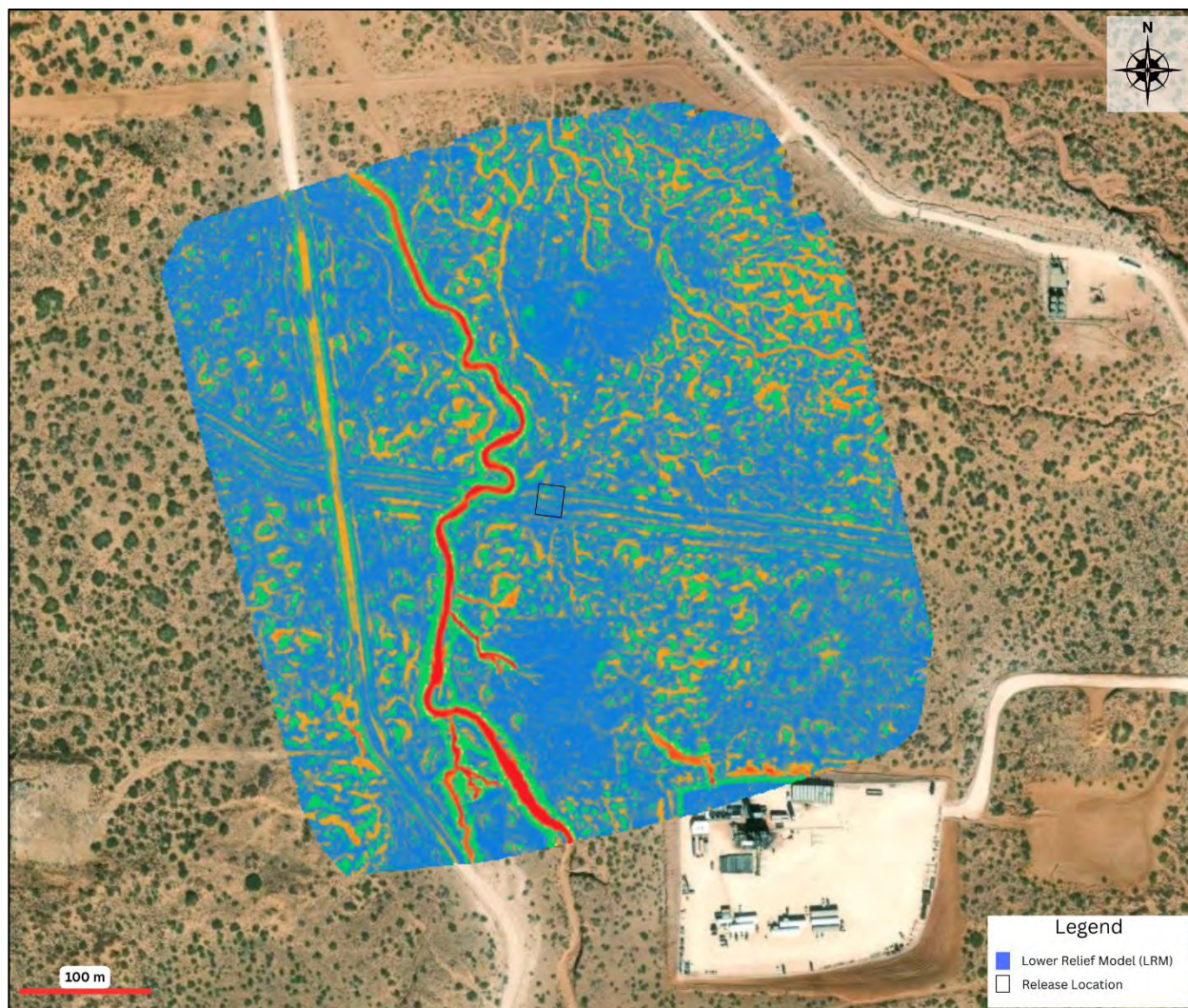
highlight sharp changes in elevation (approximately 5 cm). The LRM, along with the DEM and orthomosaic imagery, was carefully examined and analyzed by an experienced cave and karst specialist.

The aerial imagery used in the survey has a resolution of approximately 5 cm (2 in), enabling a trained geologist to identify small-scale karst features with a high degree of detail. However, it is important to recognize the potential presence of artificial artifacts within the LRM, as shadowing and dense vegetation can result in the misrepresentation of topographic highs or lows.

### 3.4 Survey Results

#### 3.4.1 Aerial Karst Survey

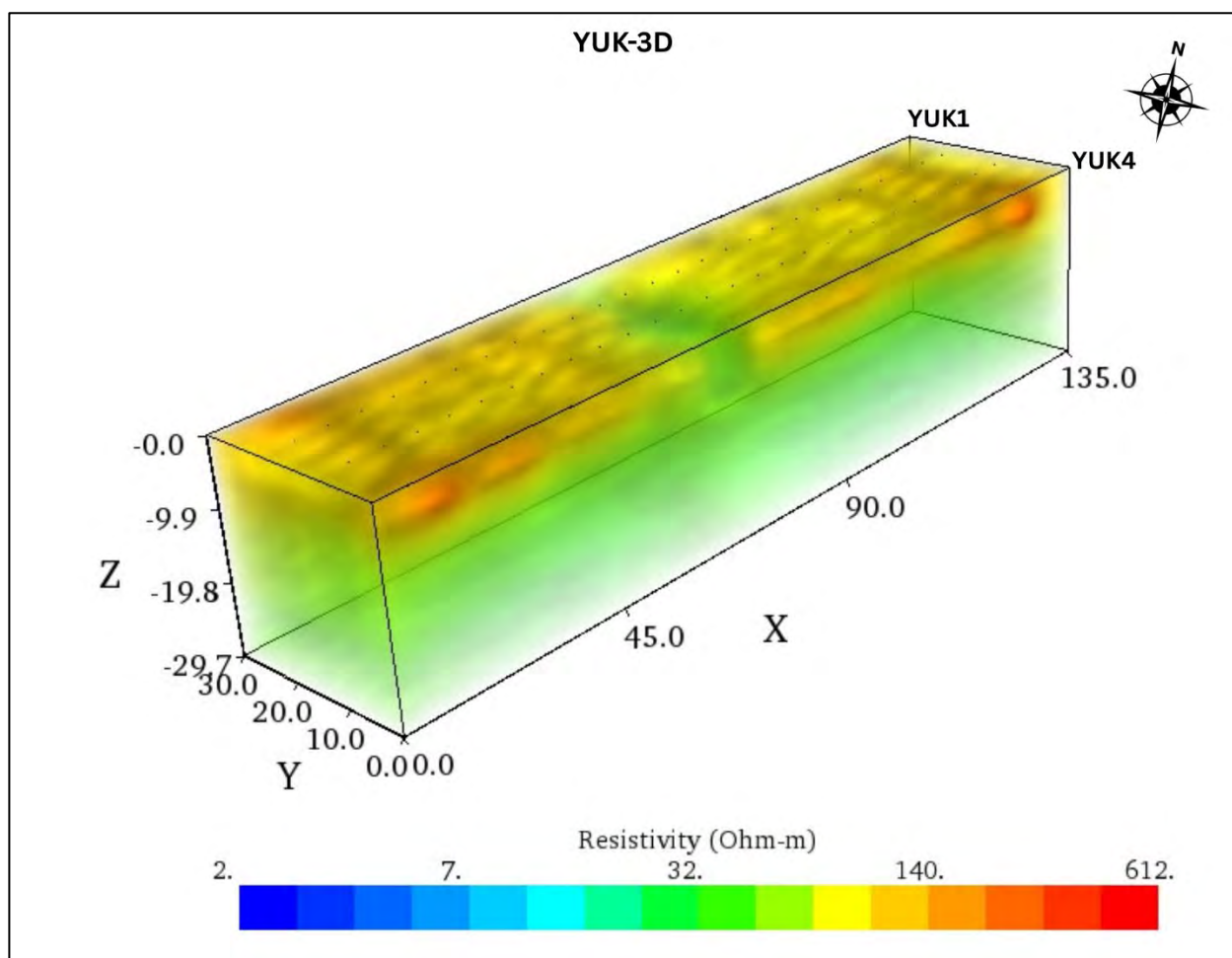
The aerial karst survey did not identify any anomalies exhibiting characteristics consistent with surficial karst features within the 200-meter (656-foot) buffer surrounding the release along the pipeline 800 ft NW of Yukon Gold 31 CTB 2 (**Figure 3**). However, any karst features that may have developed after the date of the survey are not captured in this report.



**Figure 3.** Lower Relief Model (LRM) of the area surrounding the release along the pipeline 800 ft NW of Yukon Gold 31 CTB 2, delineated by the black block. The blue gradient represents variations in surface elevation, with green indicating areas of higher elevation and orange to red denoting areas of lower elevation.

### 3.4.2 Geophysical Karst Survey

The geophysical survey did not identify any subsurface anomalies that could be characterized as air-filled voids or areas of increased porosity (**Figure 4**). However, due to the resolution limitations, smaller fractures and voids/conduits may be present but went undetected.



**Figure 4.** 3-D image of the subsurface surrounding the release along the pipeline 800 ft NW of Yukon Gold 31 CTB 2. This model was created by combining the 2-D resistivity lines YUK1 through YUK4.

## 4.0 SUMMARY AND RECOMMENDATIONS

Aerial and geophysical karst surveys conducted along the pipeline approximately 800 feet northwest of the Yukon Gold 31 CTB 2 site did not identify any surface or subsurface anomalies indicative of karst development. However, due to the resolution limitations of the geophysical methods employed, smaller subsurface fractures or voids/conduits may be present but went undetected. Similarly, surficial features with diameters less than one meter (3.28 feet) may not be visible in the drone imagery due to spatial resolution constraints. Additionally, any karst features, whether surface or subsurface, that may have formed after the date of the surveys are not reflected in this report.

The underlying geologic formation at the surveyed location is highly susceptible to dissolution, which facilitates the rapid development and expansion of subsurface voids and conduits, within a timescale ranging from days to a few months. The progression of these processes can be significantly accelerated in the absence of appropriate mitigation measures. Infrastructure systems that contain or transport fluids pose a heightened risk in such settings. In the event of a structural failure or unnoticed leakage, the unintended introduction of fluids into the subsurface can intensify dissolution processes, potentially triggering rapid subsidence or collapse.

Any karst features encountered during construction, drilling or remediation processes should be immediately reported to either the New Mexico State Land Office Resources Division, or the Bureau of Land Management Karst Division, in order to request a Cave and Karst Specialist. Any implemented procedures to mitigate a cave or karst feature should follow the **Bureau of Land Management Cave and Karst Management Handbook, H-8380-1**, or the **Natural Resources Conservation Service Conservation Practice Standard for Karst Sinkhole Treatment, Code 527**.

## 5.0 DISCLAIMER AND LIMITATIONS OF USE

This report has been prepared exclusively for the use of Ensolum, LLC. It is not intended for use or reliance by any third party without the prior written consent of Advanced Geophysics, LLC. Any unauthorized use or reliance upon this report by third parties is strictly prohibited and shall be at the sole risk of the user.

The findings, analyses, and interpretations contained herein are based upon the professional judgment of qualified geoscientists at Advanced Geophysics, LLC, utilizing data acquired through recognized industry-standard geophysical methods. These interpretations are inherently non-definitive and are subject to verification through appropriate field investigations.

The geological and environmental conditions described reflect the state of the site during the time of the geophysical survey, conducted on July 3, 2025. Advanced Geophysics, LLC assumes

no responsibility for any changes to site conditions that may have occurred subsequent to this time period. It is acknowledged that subsurface conditions, particularly within karst or evaporitic terrains, are inherently dynamic and subject to natural processes such as dissolution, which may result in rapid and unanticipated changes.

This report is further subject to limitations associated with the resolution capabilities of the geophysical methodologies employed. Certain subsurface features, including but not limited to minor voids or fractures, may exist below the detection threshold of the instruments used and, as such, may not have been identified herein. The absence of geophysical anomalies should not be construed as conclusive evidence of the absence of subsurface risks or hazards.

To the best of our knowledge and belief, the information presented in this report is accurate as of the date of issuance. No warranty, express or implied, is made as to the completeness or accuracy of the data, interpretations, or conclusions contained herein.

## 6.0 REFERENCES

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2. Horton, J.D., 2017, The State Geologic Map Compilation (SGMC) geodatabase of the conterminous United States (ver. 1.1, August 2017): U.S. Geological Survey data release
3. Adams, J.E., 1972. Semi-cyclicity in the Castile anhydrite, in Elam, J.G. and Chuber, S. (eds), *Cyclic Sedimentation in the Permian Basin*. West Texas Geological Society, p. 196-202.
4. Anderson, R.Y., Dean, W.E., Kirkland, D.W. and Snider, H.I., 1972. Permian Castile varved evaporite sequence. West Texas and New Mexico. *GSA Bulletin*, v. 83, p. 59- 85.
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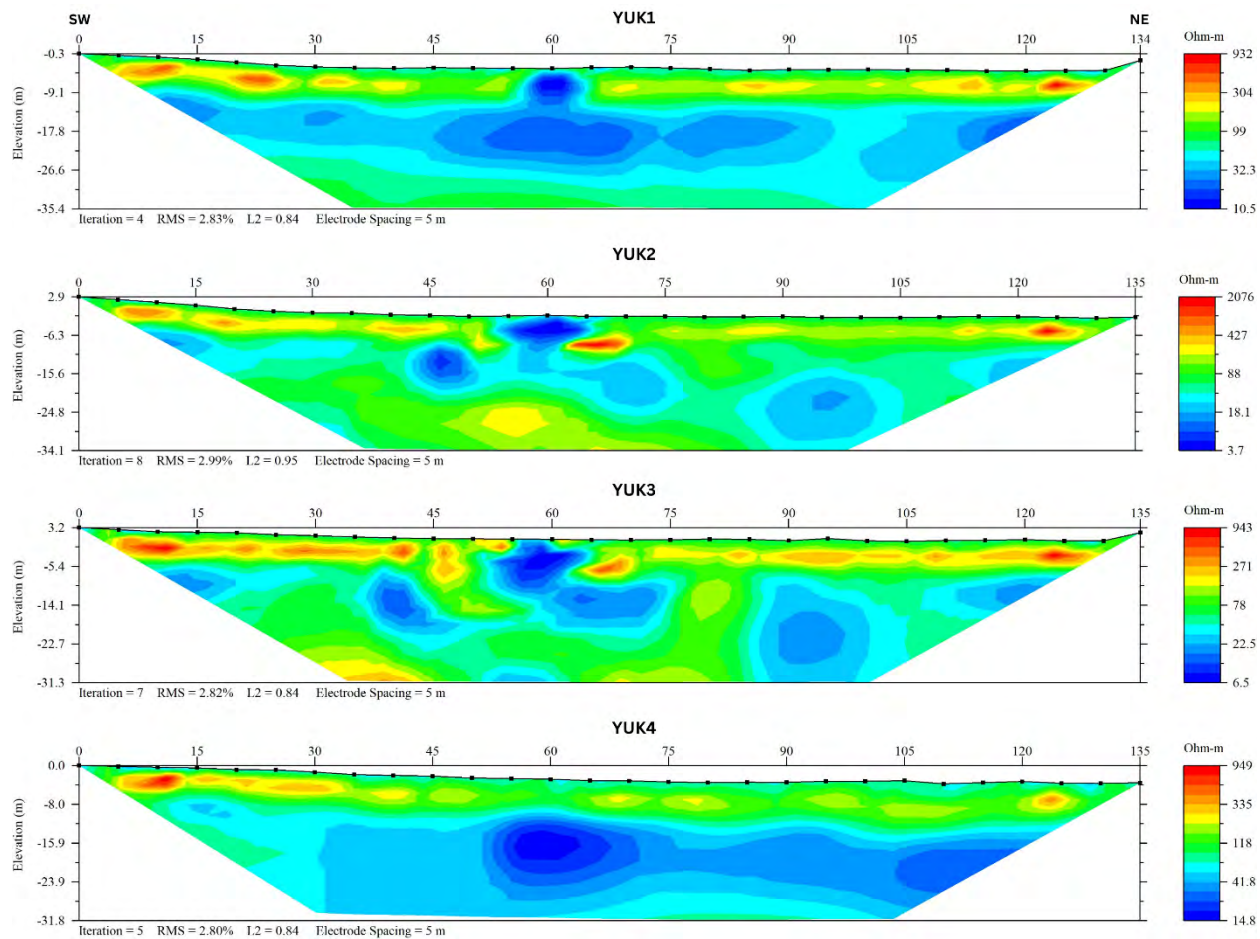
## 7.0 APPENDICES

### 7.1 Electrical Resistivity Data

The KML file (**Pipeline 800 ft NW of Yukon Gold 31 CTB 2.kml**) and the corresponding raw dataset (**Pipeline 800 ft NW of Yukon Gold 31 CTB 2\_Report.csv**), which document the precise locations of all electrodes, are also available upon request. The STG files were processed and modeled using EarthImager™ 2D/3D, provided by AGI. During the modeling process, data outliers which account for less than 10% of total data were removed using data misfit histograms. Terrain correction was incorporated into resistivity sections to better constrain the relationship between topography and electrical resistivity analyses.

The resistivity lines were collected from northwest-to-southeast, and the electrodes were oriented from southwest-to-northeast. The surveys reached a maximum depth of 35.4 meters (116.1 ft). Due to the resolution limitations, small fractures and voids/conduits may be present but went undetected.

## 7.2 Electrical Resistivity Images








## APPENDIX C


### Lithologic Soil Sampling Logs


---

 <b>ENSOLUM</b>		Sample Name: BH01		Date: 9/24/2024				
		Site Name: Yukon Gold Pipeline Release						
		Incident Number: nAPP2422256945						
		Job Number: 03A1987139						
<b>LITHOLOGIC / SOIL SAMPLING LOG</b>								
Coordinates: 32.265448, -103.917756				Logged By: Brandon Deal		Method: Hand Auger		
				Hole Diameter: 3"		Total Depth: 2'		
Comments: Field screening conducted with HACH Chloride Test Strips for chloride. Chloride test performed with 1:4 dilution factor of soil to distilled water. No correction factors included.								
Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample ID	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithologic Descriptions
D			N	BH01	0	0		Silty Sand - Brown, Fine Grained, Poorly Graded, Moist, NonPlastic, NonCohesive
D	<168		N	BH01	1	1	SM	
D	<168		N	BH01	2	2		
Total Depth = 2'								

 <b>ENSOLUM</b>		Sample Name: BH02		Date: 9/24/2024				
		Site Name: Yukon Gold Pipeline Release						
		Incident Number: nAPP2422256945						
		Job Number: 03A1987139						
<b>LITHOLOGIC / SOIL SAMPLING LOG</b>								
Coordinates: 32.265319, -103.917773			Logged By: Brandon Deal		Method: Hand Auger			
			Hole Diameter: 3"		Total Depth: 2'			
Comments: Field screening conducted with HACH Chloride Test Strips for chloride. Chloride test performed with 1:4 dilution factor of soil to distilled water. No correction factors included.								
Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample ID	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithologic Descriptions
D			Y	BH02	0	0		Silty Sand - Brown, Fine Grained, Poorly Graded, Moist, NonPlastic, NonCohesive
D	<168		N	BH02	1	1	SM	
D	168		N	BH02	2	2		
Total Depth =2'								

 <b>ENSOLUM</b>		Sample Name: BH03		Date: 9/24/2024				
		Site Name: Yukon Gold Pipeline Release						
		Incident Number: nAPP2422256945						
		Job Number: 03A1987139						
<b>LITHOLOGIC / SOIL SAMPLING LOG</b>								
Coordinates: 32.265340, -103.917623				Logged By: Brandon Deal		Method: Hand Auger		
				Hole Diameter: 3"		Total Depth: 2'		
Comments: Field screening conducted with HACH Chloride Test Strips for chloride. Chloride test performed with 1:4 dilution factor of soil to distilled water. No correction factors included.								
Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample ID	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithologic Descriptions
D			Y	BH03	0	0		Silty Sand - Brown, Fine Grained, Poorly Graded, Moist, NonPlastic, NonCohesive
D	<168		N	BH03	1	1	SM	
D	<168		N	BH03	2	2		
Total Depth = 2'								

								Sample Name: BH04		Date: 9/24/2024	
								Site Name: Yukon Gold Pipeline Release			
								Incident Number: nAPP2422256945			
								Job Number: 03A1987139			
<b>LITHOLOGIC / SOIL SAMPLING LOG</b>								Logged By: Cole Burton		Method: Backhoe	
Coordinates: 32.265289, -103.917633								Hole Diameter: 3'		Total Depth: 45'	
Comments: Field screening conducted with HACH Chloride Test Strips and PID for chloride and vapor, respectively. Chloride test performed with 1:4 dilution factor of soil to distilled water. No correction factors included.											
Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample ID	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithologic Descriptions			
M			Y	BH04	0	0	SM	Silty Sand - Brown, Fine Grained, Poorly Graded, Moist, NonPlastic, NonCohesive			
M	>3,427		N	BH04	1	1					
M	>3,427		N	BH04	2	2					
M	>3,427		N	BH04	3	3					
M	>3,427		N	BH04	4	4					
M	>3,427		N	BH04	5	5					
M	>3,427		N	BH04	6	6					
M	>3,427		N	BH04	7	7					
M	>3,427		N	BH04	8	8					
M	>3,427		N	BH04	9	9					
M	>3,427		N	BH04	10	10					
M	>3,427		N	BH04	11	11					
M	>3,427		N	BH04	12	12					

								Sample Name: BH04		Date: 1/28/2025	
								Site Name: Yukon Gold Pipeline Release			
								Incident Number: nAPP2422256945			
								Job Number: 03A1987139			
<b>LITHOLOGIC / SOIL SAMPLING LOG</b>								Logged By: Cole Burton		Method: Backhoe	
Coordinates: 32.265289, -103.917633								Hole Diameter: 3'		Total Depth: 45'	
Comments: Field screening conducted with HACH Chloride Test Strips and PID for chloride and vapor, respectively. Chloride test performed with 1:4 dilution factor of soil to distilled water. No correction factors included.											
Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample ID	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithologic Descriptions			
M	>3,427		N	BH04	13	13	SM	Silty Sand - Brown, Fine Grained, Poorly Graded, Moist, NonPlastic, NonCohesive			
M	>3,427		N	BH04	14	14					
M	>3,427		N	BH04	15	15					
M	>3,427		N	BH04	16	16					
M	1200		N	BH04	25	16					
M	1300		N	BH04	27.5	27.5	ML	Silt with Gravel - White, NonCohesive, NonPlastic, Medium Gravel, Well Graded			
M	1600		N	BH04	30	30					
M	3600		N	BH04	33	33					
M	3600		N	BH04	34	34	CH	Fat Clay with Gravel - Red, Medium Gravel, Well Graded, Low Plasticity			
D	3300		N	BH04	37	37					
D	3200		N	BH04	39	39					
D	450		N	BH04	40	40	CH	Fat Clay with Gravel - Red, Small Gravel, Well Graded, Low Plasticity			
D	450		N	BH04	41	41					
D	250		N	BH04	43	43					
D	250		N	BH04	45	45					
Total Depth = 45'											



## APPENDIX D

### Photographic Log



### Photographic Log

Devon Energy Production Company, LP  
Pipeline 800 ft NW of Yukon Gold 31 CTB 2  
nAPP2422256945



Photograph 1  
Date: 8/8/2024  
Description: Initial Release  
View: West



Photograph 2  
Date: 8/8/2024  
Description: Initial Release  
View: Northeast



Photograph 3  
Date: 8/15/2024  
Description: Spill Area  
View: Southeast

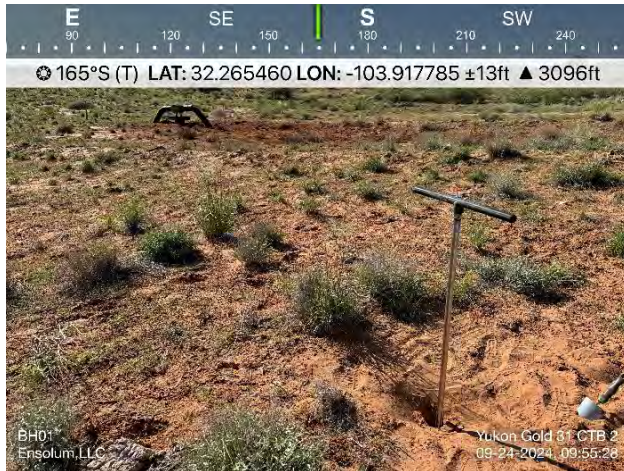


Photograph 4  
Date: 8/15/2024  
Description: Spill Area  
View: Northwest

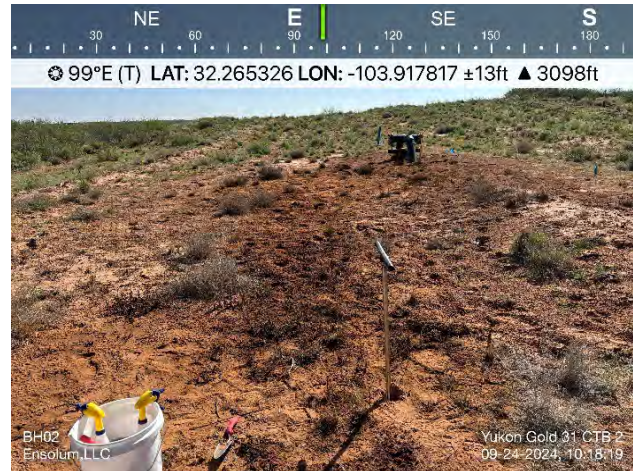


### Photographic Log

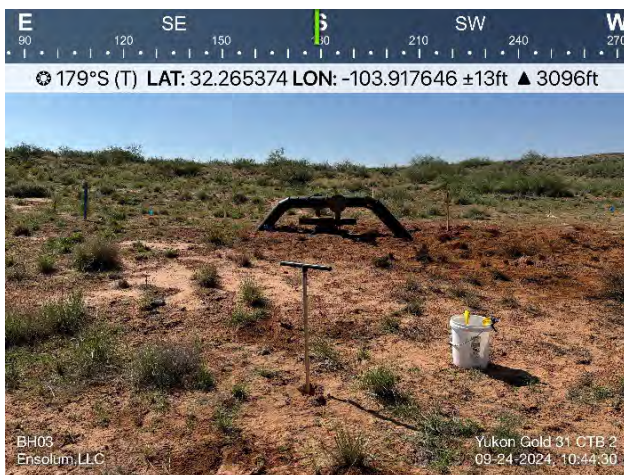
Devon Energy Production Company, LP  
Pipeline 800 ft NW of Yukon Gold 31 CTB 2  
nAPP2422256945



Photograph 5 Date: 9/24/2024  
Description: Vertical Delineation BH01  
View: South



Photograph 6 Date: 9/24/2024  
Description: Vertical Delineation BH02  
View: East



Photograph 7 Date: 9/24/2024  
Description: Vertical Delineation BH03  
View: South



Photograph 8 Date: 9/24/2024  
Description: Vertical Delineation BH04  
View: South



### Photographic Log

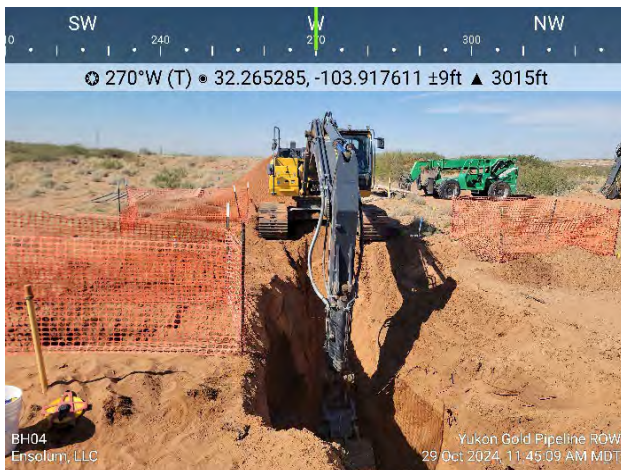
Devon Energy Production Company, LP  
Pipeline 800 ft NW of Yukon Gold 31 CTB 2  
nAPP2422256945



Photograph 9  
Description: Spotting pipeline  
View: Southeast



Photograph 10  
Description: BH04  
View: Northwest



Photograph 11  
Description: BH04  
View: West

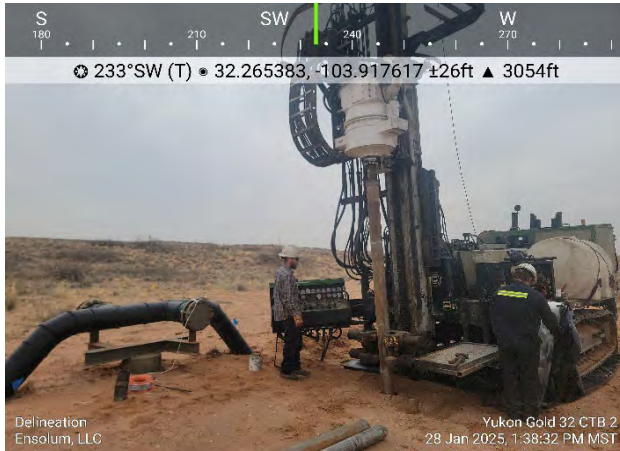


Photograph 12  
Description: Backfill pothole  
View: West



### Photographic Log

Devon Energy Production Company, LP  
Pipeline 800 ft NW of Yukon Gold 31 CTB 2  
nAPP2422256945



Photograph 13  
Description: BH04  
View: Southwest

Date: 1/28/2025



Photograph 14  
Description: BH04  
View: Southwest

Date: 1/28/2025



## APPENDIX E

### Laboratory Analytical Reports & Chain-of-Custody Documentation

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Report to:  
Ashley Giovengo



# envirotech

*Practical Solutions for a Better Tomorrow*

## Analytical Report

Devon Energy - Carlsbad

Project Name: Yukon Pipeline Release

Work Order: E408154

Job Number: 01058-0007

Received: 8/19/2024

Revision: 1

Report Reviewed By:

Walter Hinchman  
Laboratory Director  
8/22/24

5796 U.S. Hwy 64  
Farmington, NM 87401

Phone: (505) 632-1881  
Envirotech-inc.com



Envirotech Inc. certifies the test results meet all requirements of TNI unless noted otherwise.  
Statement of Data Authenticity: Envirotech Inc. attests the data reported has not been altered in any way.  
Partial or incomplete reproduction of this report is prohibited, unless approved by Envirotech Inc.  
Envirotech Inc. holds the Utah TNI certification NM00979 for data reported.  
Envirotech Inc. holds the Texas TNI certification T104704557 for data reported.

Date Reported: 8/22/24

Ashley Giovengo  
6488 7 Rivers Hwy  
Artesia, NM 88210



Project Name: Yukon Pipeline Release  
Workorder: E408154  
Date Received: 8/19/2024 8:30:00AM

Ashley Giovengo,

Thank you for choosing Envirotech, Inc. as your analytical testing laboratory for the sample(s) received on, 8/19/2024 8:30:00AM, under the Project Name: Yukon Pipeline Release.

The analytical test results summarized in this report with the Project Name: Yukon Pipeline Release apply to the individual samples collected, identified and submitted bearing the project name on the enclosed chain-of-custody. Subcontracted sample analyses not conducted by Envirotech, Inc., are attached in full as issued by the subcontract laboratory.

Please review the Chain-of-Custody (COC) and Sample Receipt Checklist (SRC) for any issues regarding sample receipt temperature, containers, preservation etc. To best understand your test results, review the entire report summarizing your sample data and the associated quality control batch data.

All reported data in this analytical report were analyzed according to the referenced method(s) and are in compliance with the latest NELAC/TNI standards, unless otherwise noted. Samples or analytical quality control parameters not meeting specific QC criteria are qualified with a data flag. Data flag definitions are located in the Notes and Definitions section of this analytical report.

If you have any questions concerning this report, please feel free to contact Envirotech, Inc.

Respectfully,

**Walter Hinchman**  
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Cell: 775-287-1762  
[whinchman@envirotech-inc.com](mailto:whinchman@envirotech-inc.com)

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Envirotech Web Address: [www.envirotech-inc.com](http://www.envirotech-inc.com)

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Sample Summary

Devon Energy - Carlsbad	Project Name:	Yukon Pipeline Release	Reported:
6488 7 Rivers Hwy	Project Number:	01058-0007	
Artesia NM, 88210	Project Manager:	Ashley Giovengo	08/22/24 13:54

Client Sample ID	Lab Sample ID	Matrix	Sampled	Received	Container
SS01 - 0'	E408154-01A	Soil	08/15/24	08/19/24	Glass Jar, 2 oz.
SS02 - 0'	E408154-02A	Soil	08/15/24	08/19/24	Glass Jar, 2 oz.
SS03 - 0'	E408154-03A	Soil	08/15/24	08/19/24	Glass Jar, 2 oz.
SS04 - 0'	E408154-04A	Soil	08/15/24	08/19/24	Glass Jar, 2 oz.



Sample Data

Devon Energy - Carlsbad 6488 7 Rivers Hwy Artesia NM, 88210	Project Name: Yukon Pipeline Release Project Number: 01058-0007 Project Manager: Ashley Giovengo	Reported: 8/22/2024 1:54:31PM
---	--	----------------------------------

SS01 - 0'

E408154-01

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
<b>Volatile Organic Compounds by EPA 8260B</b>	mg/kg	mg/kg	Analyst: RKS		Batch: 2434001	
Benzene	ND	0.0250	1	08/19/24	08/19/24	
Ethylbenzene	ND	0.0250	1	08/19/24	08/19/24	
Toluene	ND	0.0250	1	08/19/24	08/19/24	
o-Xylene	ND	0.0250	1	08/19/24	08/19/24	
p,m-Xylene	ND	0.0500	1	08/19/24	08/19/24	
Total Xylenes	ND	0.0250	1	08/19/24	08/19/24	
Surrogate: Bromofluorobenzene		101 %	70-130	08/19/24	08/19/24	
Surrogate: 1,2-Dichloroethane-d4		95.8 %	70-130	08/19/24	08/19/24	
Surrogate: Toluene-d8		99.2 %	70-130	08/19/24	08/19/24	
<b>Nonhalogenated Organics by EPA 8015D - GRO</b>	mg/kg	mg/kg	Analyst: RKS		Batch: 2434001	
Gasoline Range Organics (C6-C10)	ND	20.0	1	08/19/24	08/19/24	
Surrogate: Bromofluorobenzene		101 %	70-130	08/19/24	08/19/24	
Surrogate: 1,2-Dichloroethane-d4		95.8 %	70-130	08/19/24	08/19/24	
Surrogate: Toluene-d8		99.2 %	70-130	08/19/24	08/19/24	
<b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b>	mg/kg	mg/kg	Analyst: NV		Batch: 2434003	
Diesel Range Organics (C10-C28)	ND	25.0	1	08/19/24	08/19/24	
Oil Range Organics (C28-C36)	ND	50.0	1	08/19/24	08/19/24	
Surrogate: n-Nonane		98.1 %	50-200	08/19/24	08/19/24	
<b>Anions by EPA 300.0/9056A</b>	mg/kg	mg/kg	Analyst: JM		Batch: 2434006	
Chloride	48.0	20.0	1	08/19/24	08/19/24	



Sample Data

Devon Energy - Carlsbad 6488 7 Rivers Hwy Artesia NM, 88210	Project Name: Yukon Pipeline Release Project Number: 01058-0007 Project Manager: Ashley Giovengo	Reported: 8/22/2024 1:54:31PM
---	--	----------------------------------

SS02 - 0'

E408154-02

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
<b>Volatile Organic Compounds by EPA 8260B</b>						
	mg/kg	mg/kg		Analyst: RKS		Batch: 2434001
Benzene	ND	0.0250	1	08/19/24	08/19/24	
Ethylbenzene	ND	0.0250	1	08/19/24	08/19/24	
Toluene	ND	0.0250	1	08/19/24	08/19/24	
o-Xylene	ND	0.0250	1	08/19/24	08/19/24	
p,m-Xylene	ND	0.0500	1	08/19/24	08/19/24	
Total Xylenes	ND	0.0250	1	08/19/24	08/19/24	
Surrogate: Bromofluorobenzene		101 %	70-130	08/19/24	08/19/24	
Surrogate: 1,2-Dichloroethane-d4		98.4 %	70-130	08/19/24	08/19/24	
Surrogate: Toluene-d8		98.6 %	70-130	08/19/24	08/19/24	
<b>Nonhalogenated Organics by EPA 8015D - GRO</b>						
	mg/kg	mg/kg		Analyst: RKS		Batch: 2434001
Gasoline Range Organics (C6-C10)	ND	20.0	1	08/19/24	08/19/24	
Surrogate: Bromofluorobenzene		101 %	70-130	08/19/24	08/19/24	
Surrogate: 1,2-Dichloroethane-d4		98.4 %	70-130	08/19/24	08/19/24	
Surrogate: Toluene-d8		98.6 %	70-130	08/19/24	08/19/24	
<b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b>						
	mg/kg	mg/kg		Analyst: NV		Batch: 2434003
Diesel Range Organics (C10-C28)	ND	25.0	1	08/19/24	08/19/24	
Oil Range Organics (C28-C36)	ND	50.0	1	08/19/24	08/19/24	
Surrogate: n-Nonane		102 %	50-200	08/19/24	08/19/24	
<b>Anions by EPA 300.0/9056A</b>						
	mg/kg	mg/kg		Analyst: JM		Batch: 2434006
Chloride	ND	20.0	1	08/19/24	08/19/24	



Sample Data

Devon Energy - Carlsbad	Project Name:	Yukon Pipeline Release	Reported: 8/22/2024 1:54:31PM
6488 7 Rivers Hwy	Project Number:	01058-0007	
Artesia NM, 88210	Project Manager:	Ashley Giovengo	

SS03 - 0'

E408154-03

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
<b>Volatile Organic Compounds by EPA 8260B</b>						
	mg/kg	mg/kg		Analyst: RKS		Batch: 2434001
Benzene	ND	0.0250	1	08/19/24	08/19/24	
Ethylbenzene	ND	0.0250	1	08/19/24	08/19/24	
Toluene	ND	0.0250	1	08/19/24	08/19/24	
o-Xylene	ND	0.0250	1	08/19/24	08/19/24	
p,m-Xylene	ND	0.0500	1	08/19/24	08/19/24	
Total Xylenes	ND	0.0250	1	08/19/24	08/19/24	
Surrogate: Bromofluorobenzene		102 %	70-130	08/19/24	08/19/24	
Surrogate: 1,2-Dichloroethane-d4		98.2 %	70-130	08/19/24	08/19/24	
Surrogate: Toluene-d8		98.5 %	70-130	08/19/24	08/19/24	
<b>Nonhalogenated Organics by EPA 8015D - GRO</b>						
	mg/kg	mg/kg		Analyst: RKS		Batch: 2434001
Gasoline Range Organics (C6-C10)	ND	20.0	1	08/19/24	08/19/24	
Surrogate: Bromofluorobenzene		102 %	70-130	08/19/24	08/19/24	
Surrogate: 1,2-Dichloroethane-d4		98.2 %	70-130	08/19/24	08/19/24	
Surrogate: Toluene-d8		98.5 %	70-130	08/19/24	08/19/24	
<b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b>						
	mg/kg	mg/kg		Analyst: NV		Batch: 2434003
Diesel Range Organics (C10-C28)	ND	25.0	1	08/19/24	08/19/24	
Oil Range Organics (C28-C36)	ND	50.0	1	08/19/24	08/19/24	
Surrogate: n-Nonane		103 %	50-200	08/19/24	08/19/24	
<b>Anions by EPA 300.0/9056A</b>						
	mg/kg	mg/kg		Analyst: JM		Batch: 2434006
Chloride	ND	20.0	1	08/19/24	08/19/24	



Sample Data

Devon Energy - Carlsbad 6488 7 Rivers Hwy Artesia NM, 88210	Project Name: Yukon Pipeline Release Project Number: 01058-0007 Project Manager: Ashley Giovengo	Reported: 8/22/2024 1:54:31PM
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SS04 - 0'

E408154-04

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
<b>Volatile Organic Compounds by EPA 8260B</b>						
	mg/kg	mg/kg		Analyst: RKS		Batch: 2434001
Benzene	ND	0.0250	1	08/19/24	08/19/24	
Ethylbenzene	ND	0.0250	1	08/19/24	08/19/24	
Toluene	ND	0.0250	1	08/19/24	08/19/24	
o-Xylene	ND	0.0250	1	08/19/24	08/19/24	
p,m-Xylene	ND	0.0500	1	08/19/24	08/19/24	
Total Xylenes	ND	0.0250	1	08/19/24	08/19/24	
Surrogate: Bromofluorobenzene		100 %	70-130	08/19/24	08/19/24	
Surrogate: 1,2-Dichloroethane-d4		97.7 %	70-130	08/19/24	08/19/24	
Surrogate: Toluene-d8		96.8 %	70-130	08/19/24	08/19/24	
<b>Nonhalogenated Organics by EPA 8015D - GRO</b>						
	mg/kg	mg/kg		Analyst: RKS		Batch: 2434001
Gasoline Range Organics (C6-C10)	ND	20.0	1	08/19/24	08/19/24	
Surrogate: Bromofluorobenzene		100 %	70-130	08/19/24	08/19/24	
Surrogate: 1,2-Dichloroethane-d4		97.7 %	70-130	08/19/24	08/19/24	
Surrogate: Toluene-d8		96.8 %	70-130	08/19/24	08/19/24	
<b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b>						
	mg/kg	mg/kg		Analyst: NV		Batch: 2434003
Diesel Range Organics (C10-C28)	ND	25.0	1	08/19/24	08/19/24	
Oil Range Organics (C28-C36)	ND	50.0	1	08/19/24	08/19/24	
Surrogate: n-Nonane		102 %	50-200	08/19/24	08/19/24	
<b>Anions by EPA 300.0/9056A</b>						
	mg/kg	mg/kg		Analyst: JM		Batch: 2434006
Chloride	ND	20.0	1	08/19/24	08/19/24	



QC Summary Data

Devon Energy - Carlsbad	Project Name:	Yukon Pipeline Release	Reported:
6488 7 Rivers Hwy	Project Number:	01058-0007	
Artesia NM, 88210	Project Manager:	Ashley Giovengo	8/22/2024 1:54:31PM

Volatile Organic Compounds by EPA 8260B

Analyst: RKS

Analyte	Result	Reporting Limit	Spike Level	Source Result	Rec	Rec Limits	RPD	RPD Limit	Notes
	mg/kg	mg/kg	mg/kg	mg/kg	%	%	%	%	

Blank (2434001-BLK1)

Prepared: 08/19/24 Analyzed: 08/19/24

Benzene	ND	0.0250							
Ethylbenzene	ND	0.0250							
Toluene	ND	0.0250							
o-Xylene	ND	0.0250							
p,m-Xylene	ND	0.0500							
Total Xylenes	ND	0.0250							
Surrogate: Bromofluorobenzene	0.509		0.500		102	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.475		0.500		95.0	70-130			
Surrogate: Toluene-d8	0.497		0.500		99.4	70-130			

LCS (2434001-BS1)

Prepared: 08/19/24 Analyzed: 08/19/24

Benzene	2.33	0.0250	2.50		93.4	70-130			
Ethylbenzene	2.32	0.0250	2.50		92.9	70-130			
Toluene	2.18	0.0250	2.50		87.1	70-130			
o-Xylene	2.26	0.0250	2.50		90.6	70-130			
p,m-Xylene	4.54	0.0500	5.00		90.9	70-130			
Total Xylenes	6.81	0.0250	7.50		90.8	70-130			
Surrogate: Bromofluorobenzene	0.509		0.500		102	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.470		0.500		93.9	70-130			
Surrogate: Toluene-d8	0.490		0.500		98.0	70-130			

LCS Dup (2434001-BSD1)

Prepared: 08/19/24 Analyzed: 08/19/24

Benzene	2.43	0.0250	2.50		97.4	70-130	4.19	23	
Ethylbenzene	2.46	0.0250	2.50		98.4	70-130	5.81	27	
Toluene	2.32	0.0250	2.50		92.6	70-130	6.17	24	
o-Xylene	2.43	0.0250	2.50		97.2	70-130	7.07	27	
p,m-Xylene	4.84	0.0500	5.00		96.9	70-130	6.38	27	
Total Xylenes	7.27	0.0250	7.50		97.0	70-130	6.61	27	
Surrogate: Bromofluorobenzene	0.506		0.500		101	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.474		0.500		94.7	70-130			
Surrogate: Toluene-d8	0.490		0.500		97.9	70-130			



QC Summary Data

Devon Energy - Carlsbad	Project Name:	Yukon Pipeline Release	Reported:
6488 7 Rivers Hwy	Project Number:	01058-0007	
Artesia NM, 88210	Project Manager:	Ashley Giovengo	8/22/2024 1:54:31PM

Nonhalogenated Organics by EPA 8015D - GRO

Analyst: RKS

Analyte	Result	Reporting Limit	Spike Level	Source Result	Rec	Rec Limits	RPD	RPD Limit	Notes
	mg/kg	mg/kg	mg/kg	mg/kg	%	%	%	%	

Blank (2434001-BLK1) Prepared: 08/19/24 Analyzed: 08/19/24

Gasoline Range Organics (C6-C10)	ND	20.0							
Surrogate: Bromofluorobenzene	0.509		0.500		102	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.475		0.500		95.0	70-130			
Surrogate: Toluene-d8	0.497		0.500		99.4	70-130			

LCS (2434001-BS2) Prepared: 08/19/24 Analyzed: 08/19/24

Gasoline Range Organics (C6-C10)	42.8	20.0	50.0		85.7	70-130			
Surrogate: Bromofluorobenzene	0.513		0.500		103	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.486		0.500		97.2	70-130			
Surrogate: Toluene-d8	0.494		0.500		98.8	70-130			

LCS Dup (2434001-BSD2) Prepared: 08/19/24 Analyzed: 08/19/24

Gasoline Range Organics (C6-C10)	47.9	20.0	50.0		95.7	70-130	11.1	20	
Surrogate: Bromofluorobenzene	0.524		0.500		105	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.473		0.500		94.6	70-130			
Surrogate: Toluene-d8	0.502		0.500		100	70-130			



QC Summary Data

Devon Energy - Carlsbad	Project Name:	Yukon Pipeline Release	Reported:
6488 7 Rivers Hwy	Project Number:	01058-0007	
Artesia NM, 88210	Project Manager:	Ashley Giovengo	8/22/2024 1:54:31PM

Nonhalogenated Organics by EPA 8015D - DRO/ORO

Analyst: KH

Analyte	Result mg/kg	Reporting Limit mg/kg	Spike Level mg/kg	Source Result mg/kg	Rec %	Rec Limits %	RPD %	RPD Limit %	Notes
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Blank (2434003-BLK1)					Prepared: 08/19/24 Analyzed: 08/19/24				
Diesel Range Organics (C10-C28)	ND	25.0							
Oil Range Organics (C28-C36)	ND	50.0							
Surrogate: n-Nonane	53.3		50.0		107	50-200			

LCS (2434003-BS1)					Prepared: 08/19/24 Analyzed: 08/19/24				
Diesel Range Organics (C10-C28)	195	25.0	250		78.1	38-132			
Surrogate: n-Nonane	48.4		50.0		96.8	50-200			

Matrix Spike (2434003-MS1)					Source: E408151-01		Prepared: 08/19/24 Analyzed: 08/19/24		
Diesel Range Organics (C10-C28)	187	25.0	250	ND	74.7	38-132			
Surrogate: n-Nonane	46.5		50.0		93.0	50-200			

Matrix Spike Dup (2434003-MSD1)					Source: E408151-01		Prepared: 08/19/24 Analyzed: 08/19/24		
Diesel Range Organics (C10-C28)	194	25.0	250	ND	77.7	38-132	4.01	20	
Surrogate: n-Nonane	50.7		50.0		101	50-200			



QC Summary Data

Devon Energy - Carlsbad	Project Name:	Yukon Pipeline Release	Reported:
6488 7 Rivers Hwy	Project Number:	01058-0007	
Artesia NM, 88210	Project Manager:	Ashley Giovengo	8/22/2024 1:54:31PM

Anions by EPA 300.0/9056A

Analyst: JM

Analyte	Result	Reporting Limit	Spike Level	Source Result	Rec	Rec Limits	RPD	RPD Limit	Notes
	mg/kg	mg/kg	mg/kg	mg/kg	%	%	%	%	

Blank (2434006-BLK1)					Prepared: 08/19/24 Analyzed: 08/19/24				
Chloride	ND	20.0							
LCS (2434006-BS1)					Prepared: 08/19/24 Analyzed: 08/19/24				
Chloride	252	20.0	250		101	90-110			
Matrix Spike (2434006-MS1)					Source: E408154-04		Prepared: 08/19/24 Analyzed: 08/19/24		
Chloride	255	20.0	250	ND	102	80-120			
Matrix Spike Dup (2434006-MSD1)					Source: E408154-04		Prepared: 08/19/24 Analyzed: 08/19/24		
Chloride	254	20.0	250	ND	102	80-120	0.587	20	

QC Summary Report Comment:  
Calculations are based off of the raw (non-rounded) data. However, for reporting purposes all QC data is rounded to three significant figures.  
Therefore, hand calculated values may differ slightly.



Definitions and Notes

Devon Energy - Carlsbad	Project Name:	Yukon Pipeline Release	
6488 7 Rivers Hwy	Project Number:	01058-0007	Reported:
Artesia NM, 88210	Project Manager:	Ashley Giovengo	08/22/24 13:54

- ND Analyte NOT DETECTED at or above the reporting limit
- NR Not Reported
- RPD Relative Percent Difference
- DNI Did Not Ignite
- DNR Did not react with the addition of acid or base.

Note (1): Methods marked with \*\* are non-accredited methods.

Note (2): Soil data is reported on an "as received" weight basis, unless reported otherwise.



[illegible]

## Envirotech Analytical Laboratory

Printed: 8/19/2024 11:47:04AM

## Sample Receipt Checklist (SRC)

Instructions: Please take note of any NO checkmarks.

If we receive no response concerning these items within 24 hours of the date of this notice, all the samples will be analyzed as requested.

Client:	Devon Energy - Carlsbad	Date Received:	08/19/24 08:30	Work Order ID:	E408154
Phone:	(505) 382-1211	Date Logged In:	08/16/24 16:14	Logged In By:	Noe Soto
Email:	ashley.giovengo@wescominc.com	Due Date:	08/23/24 17:00 (4 day TAT)		

Chain of Custody (COC)

1. Does the sample ID match the COC? Yes
2. Does the number of samples per sampling site location match the COC? Yes
3. Were samples dropped off by client or carrier? Yes
4. Was the COC complete, i.e., signatures, dates/times, requested analyses? Yes
5. Were all samples received within holding time? Yes

Note: Analysis, such as pH which should be conducted in the field, i.e., 15 minute hold time, are not included in this discussion.

Carrier: CourierComments/ResolutionSample Turn Around Time (TAT)

6. Did the COC indicate standard TAT, or Expedited TAT? Yes

Sample Cooler

7. Was a sample cooler received? Yes
8. If yes, was cooler received in good condition? Yes
9. Was the sample(s) received intact, i.e., not broken? Yes
10. Were custody/security seals present? No
11. If yes, were custody/security seals intact? NA
12. Was the sample received on ice? If yes, the recorded temp is 4°C, i.e., 6°±2°C? Yes

Note: Thermal preservation is not required, if samples are received w/i 15 minutes of sampling

13. If no visible ice, record the temperature. Actual sample temperature: 4°C

Sample Container

14. Are aqueous VOC samples present? No
15. Are VOC samples collected in VOA Vials? NA
16. Is the head space less than 6-8 mm (pea sized or less)? NA
17. Was a trip blank (TB) included for VOC analyses? NA
18. Are non-VOC samples collected in the correct containers? Yes
19. Is the appropriate volume/weight or number of sample containers collected? Yes

Field Label

20. Were field sample labels filled out with the minimum information:  
Sample ID? Yes  
Date/Time Collected? Yes  
Collectors name? No

Sample Preservation

21. Does the COC or field labels indicate the samples were preserved? No
22. Are sample(s) correctly preserved? NA
24. Is lab filtration required and/or requested for dissolved metals? No

Multiphase Sample Matrix

26. Does the sample have more than one phase, i.e., multiphase? No
27. If yes, does the COC specify which phase(s) is to be analyzed? NA

Subcontract Laboratory

28. Are samples required to get sent to a subcontract laboratory? No
29. Was a subcontract laboratory specified by the client and if so who? NA Subcontract Lab: NA

Client Instruction

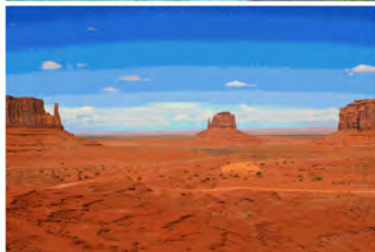
Signature of client authorizing changes to the COC or sample disposition.

Date



envirotech Inc.

Report to:  
Ashley Giovengo



# envirotech

*Practical Solutions for a Better Tomorrow*

## Analytical Report

Devon Energy - Carlsbad

Project Name: Yukon Pipeline Release

Work Order: E409239

Job Number: 01058-0007

Received: 9/26/2024

Revision: 1

Report Reviewed By:

Walter Hinchman  
Laboratory Director  
10/2/24

5796 U.S. Hwy 64  
Farmington, NM 87401

Phone: (505) 632-1881  
Envirotech-inc.com



Envirotech Inc. certifies the test results meet all requirements of TNI unless noted otherwise.  
Statement of Data Authenticity: Envirotech Inc. attests the data reported has not been altered in any way.  
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Envirotech Inc. holds the Utah TNI certification NM00979 for data reported.  
Envirotech Inc. holds the Texas TNI certification T104704557 for data reported.

Date Reported: 10/2/24

Ashley Giovengo  
6488 7 Rivers Hwy  
Artesia, NM 88210



Project Name: Yukon Pipeline Release  
Workorder: E409239  
Date Received: 9/26/2024 8:10:00AM

Ashley Giovengo,

Thank you for choosing Envirotech, Inc. as your analytical testing laboratory for the sample(s) received on, 9/26/2024 8:10:00AM, under the Project Name: Yukon Pipeline Release.

The analytical test results summarized in this report with the Project Name: Yukon Pipeline Release apply to the individual samples collected, identified and submitted bearing the project name on the enclosed chain-of-custody. Subcontracted sample analyses not conducted by Envirotech, Inc., are attached in full as issued by the subcontract laboratory.

Please review the Chain-of-Custody (COC) and Sample Receipt Checklist (SRC) for any issues regarding sample receipt temperature, containers, preservation etc. To best understand your test results, review the entire report summarizing your sample data and the associated quality control batch data.

All reported data in this analytical report were analyzed according to the referenced method(s) and are in compliance with the latest NELAC/TNI standards, unless otherwise noted. Samples or analytical quality control parameters not meeting specific QC criteria are qualified with a data flag. Data flag definitions are located in the Notes and Definitions section of this analytical report.

If you have any questions concerning this report, please feel free to contact Envirotech, Inc.

Respectfully,

**Walter Hinchman**  
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Envirotech Web Address: [www.envirotech-inc.com](http://www.envirotech-inc.com)

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## Sample Summary

Devon Energy - Carlsbad	Project Name:	Yukon Pipeline Release	Reported:
6488 7 Rivers Hwy	Project Number:	01058-0007	
Artesia NM, 88210	Project Manager:	Ashley Giovengo	10/02/24 14:38

Client Sample ID	Lab Sample ID	Matrix	Sampled	Received	Container
BH01-0'	E409239-01A	Soil	09/24/24	09/26/24	Glass Jar, 2 oz.
BH01-1'	E409239-02A	Soil	09/24/24	09/26/24	Glass Jar, 2 oz.
BH01-2'	E409239-03A	Soil	09/24/24	09/26/24	Glass Jar, 2 oz.
BH02-0'	E409239-04A	Soil	09/24/24	09/26/24	Glass Jar, 2 oz.
BH02-1'	E409239-05A	Soil	09/24/24	09/26/24	Glass Jar, 2 oz.
BH02-2'	E409239-06A	Soil	09/24/24	09/26/24	Glass Jar, 2 oz.
BH03-0'	E409239-07A	Soil	09/24/24	09/26/24	Glass Jar, 2 oz.
BH03-1'	E409239-08A	Soil	09/24/24	09/26/24	Glass Jar, 2 oz.
BH03-2'	E409239-09A	Soil	09/24/24	09/26/24	Glass Jar, 2 oz.
BH04-0'	E409239-10A	Soil	09/24/24	09/26/24	Glass Jar, 2 oz.
BH04-2'	E409239-11A	Soil	09/24/24	09/26/24	Glass Jar, 2 oz.
BH04-4'	E409239-12A	Soil	09/24/24	09/26/24	Glass Jar, 2 oz.
BH04-6'	E409239-13A	Soil	09/24/24	09/26/24	Glass Jar, 2 oz.
BH04-8'	E409239-14A	Soil	09/24/24	09/26/24	Glass Jar, 2 oz.
BH04-10'	E409239-15A	Soil	09/24/24	09/26/24	Glass Jar, 2 oz.
BH04-12'	E409239-16A	Soil	09/24/24	09/26/24	Glass Jar, 2 oz.
BH04-14'	E409239-17A	Soil	09/24/24	09/26/24	Glass Jar, 2 oz.
BH04-16'	E409239-18A	Soil	09/24/24	09/26/24	Glass Jar, 2 oz.



Sample Data

Devon Energy - Carlsbad 6488 7 Rivers Hwy Artesia NM, 88210	Project Name: Yukon Pipeline Release Project Number: 01058-0007 Project Manager: Ashley Giovengo	Reported: 10/2/2024 2:38:17PM
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BH01-0'  
E409239-01

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
<b>Volatile Organics by EPA 8021B</b>	mg/kg	mg/kg	Analyst: CG		Batch: 2439090	
Benzene	ND	0.0250	1	09/26/24	09/29/24	
Ethylbenzene	ND	0.0250	1	09/26/24	09/29/24	
Toluene	ND	0.0250	1	09/26/24	09/29/24	
o-Xylene	ND	0.0250	1	09/26/24	09/29/24	
p,m-Xylene	ND	0.0500	1	09/26/24	09/29/24	
Total Xylenes	ND	0.0250	1	09/26/24	09/29/24	
Surrogate: 4-Bromochlorobenzene-PID	86.4 %	70-130		09/26/24	09/29/24	
<b>Nonhalogenated Organics by EPA 8015D - GRO</b>	mg/kg	mg/kg	Analyst: CG		Batch: 2439090	
Gasoline Range Organics (C6-C10)	ND	20.0	1	09/26/24	09/29/24	
Surrogate: 1-Chloro-4-fluorobenzene-FID	95.6 %	70-130		09/26/24	09/29/24	
<b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b>	mg/kg	mg/kg	Analyst: NV		Batch: 2439094	
Diesel Range Organics (C10-C28)	ND	25.0	1	09/26/24	10/02/24	
Oil Range Organics (C28-C36)	ND	50.0	1	09/26/24	10/02/24	
Surrogate: n-Nonane	106 %	50-200		09/26/24	10/02/24	
<b>Anions by EPA 300.0/9056A</b>	mg/kg	mg/kg	Analyst: DT		Batch: 2439087	
Chloride	ND	20.0	1	09/26/24	09/26/24	

Sample Data

Devon Energy - Carlsbad 6488 7 Rivers Hwy Artesia NM, 88210	Project Name: Yukon Pipeline Release Project Number: 01058-0007 Project Manager: Ashley Giovengo	Reported: 10/2/2024 2:38:17PM
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BH01-1'

E409239-02

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
<b>Volatile Organics by EPA 8021B</b>	mg/kg	mg/kg	Analyst: CG		Batch: 2439090	
Benzene	ND	0.0250	1	09/26/24	09/29/24	
Ethylbenzene	ND	0.0250	1	09/26/24	09/29/24	
Toluene	ND	0.0250	1	09/26/24	09/29/24	
o-Xylene	ND	0.0250	1	09/26/24	09/29/24	
p,m-Xylene	ND	0.0500	1	09/26/24	09/29/24	
Total Xylenes	ND	0.0250	1	09/26/24	09/29/24	
Surrogate: 4-Bromochlorobenzene-PID	86.8 %	70-130		09/26/24	09/29/24	
<b>Nonhalogenated Organics by EPA 8015D - GRO</b>	mg/kg	mg/kg	Analyst: CG		Batch: 2439090	
Gasoline Range Organics (C6-C10)	ND	20.0	1	09/26/24	09/29/24	
Surrogate: 1-Chloro-4-fluorobenzene-FID	96.1 %	70-130		09/26/24	09/29/24	
<b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b>	mg/kg	mg/kg	Analyst: NV		Batch: 2439094	
Diesel Range Organics (C10-C28)	ND	25.0	1	09/26/24	10/02/24	
Oil Range Organics (C28-C36)	ND	50.0	1	09/26/24	10/02/24	
Surrogate: n-Nonane	118 %	50-200		09/26/24	10/02/24	
<b>Anions by EPA 300.0/9056A</b>	mg/kg	mg/kg	Analyst: DT		Batch: 2439087	
Chloride	ND	20.0	1	09/26/24	09/26/24	



Sample Data

Devon Energy - Carlsbad 6488 7 Rivers Hwy Artesia NM, 88210	Project Name: Yukon Pipeline Release Project Number: 01058-0007 Project Manager: Ashley Giovengo	Reported: 10/2/2024 2:38:17PM
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BH01-2'

E409239-03

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
<b>Volatile Organics by EPA 8021B</b>	mg/kg	mg/kg	Analyst: CG		Batch: 2439090	
Benzene	ND	0.0250	1	09/26/24	09/29/24	
Ethylbenzene	ND	0.0250	1	09/26/24	09/29/24	
Toluene	ND	0.0250	1	09/26/24	09/29/24	
o-Xylene	ND	0.0250	1	09/26/24	09/29/24	
p,m-Xylene	ND	0.0500	1	09/26/24	09/29/24	
Total Xylenes	ND	0.0250	1	09/26/24	09/29/24	
Surrogate: 4-Bromochlorobenzene-PID	87.4 %	70-130		09/26/24	09/29/24	
<b>Nonhalogenated Organics by EPA 8015D - GRO</b>	mg/kg	mg/kg	Analyst: CG		Batch: 2439090	
Gasoline Range Organics (C6-C10)	ND	20.0	1	09/26/24	09/29/24	
Surrogate: 1-Chloro-4-fluorobenzene-FID	96.4 %	70-130		09/26/24	09/29/24	
<b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b>	mg/kg	mg/kg	Analyst: NV		Batch: 2439094	
Diesel Range Organics (C10-C28)	ND	25.0	1	09/26/24	10/02/24	
Oil Range Organics (C28-C36)	ND	50.0	1	09/26/24	10/02/24	
Surrogate: n-Nonane	116 %	50-200		09/26/24	10/02/24	
<b>Anions by EPA 300.0/9056A</b>	mg/kg	mg/kg	Analyst: DT		Batch: 2439087	
Chloride	ND	20.0	1	09/26/24	09/26/24	



Sample Data

Devon Energy - Carlsbad 6488 7 Rivers Hwy Artesia NM, 88210	Project Name: Yukon Pipeline Release Project Number: 01058-0007 Project Manager: Ashley Giovengo	Reported: 10/2/2024 2:38:17PM
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BH02-0'

E409239-04

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
<b>Volatile Organics by EPA 8021B</b>	mg/kg	mg/kg	Analyst: CG		Batch: 2439090	
Benzene	ND	0.0250	1	09/26/24	09/29/24	
Ethylbenzene	ND	0.0250	1	09/26/24	09/29/24	
Toluene	ND	0.0250	1	09/26/24	09/29/24	
o-Xylene	ND	0.0250	1	09/26/24	09/29/24	
p,m-Xylene	ND	0.0500	1	09/26/24	09/29/24	
Total Xylenes	ND	0.0250	1	09/26/24	09/29/24	
Surrogate: 4-Bromochlorobenzene-PID	87.4 %	70-130		09/26/24	09/29/24	
<b>Nonhalogenated Organics by EPA 8015D - GRO</b>	mg/kg	mg/kg	Analyst: CG		Batch: 2439090	
Gasoline Range Organics (C6-C10)	ND	20.0	1	09/26/24	09/29/24	
Surrogate: 1-Chloro-4-fluorobenzene-FID	96.6 %	70-130		09/26/24	09/29/24	
<b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b>	mg/kg	mg/kg	Analyst: NV		Batch: 2439094	
Diesel Range Organics (C10-C28)	194	25.0	1	09/26/24	10/02/24	
Oil Range Organics (C28-C36)	94.5	50.0	1	09/26/24	10/02/24	
Surrogate: n-Nonane	104 %	50-200		09/26/24	10/02/24	
<b>Anions by EPA 300.0/9056A</b>	mg/kg	mg/kg	Analyst: DT		Batch: 2439087	
Chloride	370	20.0	1	09/26/24	09/26/24	



Sample Data

Devon Energy - Carlsbad 6488 7 Rivers Hwy Artesia NM, 88210	Project Name: Yukon Pipeline Release Project Number: 01058-0007 Project Manager: Ashley Giovengo	Reported: 10/2/2024 2:38:17PM
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BH02-1'

E409239-05

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
<b>Volatile Organics by EPA 8021B</b>	mg/kg	mg/kg	Analyst: CG		Batch: 2439090	
Benzene	ND	0.0250	1	09/26/24	09/29/24	
Ethylbenzene	ND	0.0250	1	09/26/24	09/29/24	
Toluene	ND	0.0250	1	09/26/24	09/29/24	
o-Xylene	ND	0.0250	1	09/26/24	09/29/24	
p,m-Xylene	ND	0.0500	1	09/26/24	09/29/24	
Total Xylenes	ND	0.0250	1	09/26/24	09/29/24	
Surrogate: 4-Bromochlorobenzene-PID	88.3 %	70-130		09/26/24	09/29/24	
<b>Nonhalogenated Organics by EPA 8015D - GRO</b>	mg/kg	mg/kg	Analyst: CG		Batch: 2439090	
Gasoline Range Organics (C6-C10)	ND	20.0	1	09/26/24	09/29/24	
Surrogate: 1-Chloro-4-fluorobenzene-FID	96.7 %	70-130		09/26/24	09/29/24	
<b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b>	mg/kg	mg/kg	Analyst: NV		Batch: 2439094	
Diesel Range Organics (C10-C28)	ND	25.0	1	09/26/24	10/02/24	
Oil Range Organics (C28-C36)	ND	50.0	1	09/26/24	10/02/24	
Surrogate: n-Nonane	103 %	50-200		09/26/24	10/02/24	
<b>Anions by EPA 300.0/9056A</b>	mg/kg	mg/kg	Analyst: DT		Batch: 2439087	
Chloride	43.7	20.0	1	09/26/24	09/26/24	



Sample Data

Devon Energy - Carlsbad 6488 7 Rivers Hwy Artesia NM, 88210	Project Name: Yukon Pipeline Release Project Number: 01058-0007 Project Manager: Ashley Giovengo	Reported: 10/2/2024 2:38:17PM
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BH02-2'

E409239-06

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
<b>Volatile Organics by EPA 8021B</b>	mg/kg	mg/kg	Analyst: CG		Batch: 2439090	
Benzene	ND	0.0250	1	09/26/24	09/29/24	
Ethylbenzene	ND	0.0250	1	09/26/24	09/29/24	
Toluene	ND	0.0250	1	09/26/24	09/29/24	
o-Xylene	ND	0.0250	1	09/26/24	09/29/24	
p,m-Xylene	ND	0.0500	1	09/26/24	09/29/24	
Total Xylenes	ND	0.0250	1	09/26/24	09/29/24	
Surrogate: 4-Bromochlorobenzene-PID	88.3 %	70-130		09/26/24	09/29/24	
<b>Nonhalogenated Organics by EPA 8015D - GRO</b>	mg/kg	mg/kg	Analyst: CG		Batch: 2439090	
Gasoline Range Organics (C6-C10)	ND	20.0	1	09/26/24	09/29/24	
Surrogate: 1-Chloro-4-fluorobenzene-FID	96.9 %	70-130		09/26/24	09/29/24	
<b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b>	mg/kg	mg/kg	Analyst: NV		Batch: 2439094	
Diesel Range Organics (C10-C28)	ND	25.0	1	09/26/24	10/02/24	
Oil Range Organics (C28-C36)	ND	50.0	1	09/26/24	10/02/24	
Surrogate: n-Nonane	107 %	50-200		09/26/24	10/02/24	
<b>Anions by EPA 300.0/9056A</b>	mg/kg	mg/kg	Analyst: DT		Batch: 2439087	
Chloride	98.5	20.0	1	09/26/24	09/26/24	



Sample Data

Devon Energy - Carlsbad 6488 7 Rivers Hwy Artesia NM, 88210	Project Name: Yukon Pipeline Release Project Number: 01058-0007 Project Manager: Ashley Giovengo	Reported: 10/2/2024 2:38:17PM
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BH03-0'

E409239-07

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
<b>Volatile Organics by EPA 8021B</b>	mg/kg	mg/kg	Analyst: CG		Batch: 2439090	
Benzene	ND	0.0250	1	09/26/24	09/30/24	
Ethylbenzene	ND	0.0250	1	09/26/24	09/30/24	
Toluene	ND	0.0250	1	09/26/24	09/30/24	
o-Xylene	ND	0.0250	1	09/26/24	09/30/24	
p,m-Xylene	ND	0.0500	1	09/26/24	09/30/24	
Total Xylenes	ND	0.0250	1	09/26/24	09/30/24	
Surrogate: 4-Bromochlorobenzene-PID	88.2 %	70-130		09/26/24	09/30/24	
<b>Nonhalogenated Organics by EPA 8015D - GRO</b>	mg/kg	mg/kg	Analyst: CG		Batch: 2439090	
Gasoline Range Organics (C6-C10)	ND	20.0	1	09/26/24	09/30/24	
Surrogate: 1-Chloro-4-fluorobenzene-FID	98.8 %	70-130		09/26/24	09/30/24	
<b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b>	mg/kg	mg/kg	Analyst: NV		Batch: 2439094	
Diesel Range Organics (C10-C28)	ND	25.0	1	09/26/24	10/02/24	
Oil Range Organics (C28-C36)	ND	50.0	1	09/26/24	10/02/24	
Surrogate: n-Nonane	109 %	50-200		09/26/24	10/02/24	
<b>Anions by EPA 300.0/9056A</b>	mg/kg	mg/kg	Analyst: DT		Batch: 2439087	
Chloride	ND	20.0	1	09/26/24	09/26/24	



## Sample Data

Devon Energy - Carlsbad  
6488 7 Rivers Hwy  
Artesia NM, 88210

Project Name: Yukon Pipeline Release  
Project Number: 01058-0007  
Project Manager: Ashley Giovengo

**Reported:**  
10/2/2024 2:38:17PM

BH03-1'

E409239-08

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
<b>Volatile Organics by EPA 8021B</b>						
	mg/kg	mg/kg	Analyst: CG		Batch: 2439090	
Benzene	ND	0.0250	1	09/26/24	09/30/24	
Ethylbenzene	ND	0.0250	1	09/26/24	09/30/24	
Toluene	ND	0.0250	1	09/26/24	09/30/24	
o-Xylene	ND	0.0250	1	09/26/24	09/30/24	
p,m-Xylene	ND	0.0500	1	09/26/24	09/30/24	
Total Xylenes	ND	0.0250	1	09/26/24	09/30/24	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>						
	89.3 %	70-130		09/26/24	09/30/24	
<b>Nonhalogenated Organics by EPA 8015D - GRO</b>						
	mg/kg	mg/kg	Analyst: CG		Batch: 2439090	
Gasoline Range Organics (C6-C10)	ND	20.0	1	09/26/24	09/30/24	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>						
	97.1 %	70-130		09/26/24	09/30/24	
<b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b>						
	mg/kg	mg/kg	Analyst: NV		Batch: 2439094	
Diesel Range Organics (C10-C28)	ND	25.0	1	09/26/24	10/02/24	
Oil Range Organics (C28-C36)	ND	50.0	1	09/26/24	10/02/24	
<i>Surrogate: n-Nonane</i>						
	113 %	50-200		09/26/24	10/02/24	
<b>Anions by EPA 300.0/9056A</b>						
	mg/kg	mg/kg	Analyst: DT		Batch: 2439087	
Chloride	82.0	20.0	1	09/26/24	09/26/24	



Sample Data

Devon Energy - Carlsbad 6488 7 Rivers Hwy Artesia NM, 88210	Project Name: Yukon Pipeline Release Project Number: 01058-0007 Project Manager: Ashley Giovengo	Reported: 10/2/2024 2:38:17PM
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BH03-2'

E409239-09

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
<b>Volatile Organics by EPA 8021B</b>	mg/kg	mg/kg	Analyst: CG		Batch: 2439090	
Benzene	ND	0.0250	1	09/26/24	09/30/24	
Ethylbenzene	ND	0.0250	1	09/26/24	09/30/24	
Toluene	ND	0.0250	1	09/26/24	09/30/24	
o-Xylene	ND	0.0250	1	09/26/24	09/30/24	
p,m-Xylene	ND	0.0500	1	09/26/24	09/30/24	
Total Xylenes	ND	0.0250	1	09/26/24	09/30/24	
Surrogate: 4-Bromochlorobenzene-PID	90.1 %	70-130		09/26/24	09/30/24	
<b>Nonhalogenated Organics by EPA 8015D - GRO</b>	mg/kg	mg/kg	Analyst: CG		Batch: 2439090	
Gasoline Range Organics (C6-C10)	ND	20.0	1	09/26/24	09/30/24	
Surrogate: 1-Chloro-4-fluorobenzene-FID	96.7 %	70-130		09/26/24	09/30/24	
<b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b>	mg/kg	mg/kg	Analyst: NV		Batch: 2439094	
Diesel Range Organics (C10-C28)	ND	25.0	1	09/26/24	10/02/24	
Oil Range Organics (C28-C36)	ND	50.0	1	09/26/24	10/02/24	
Surrogate: n-Nonane	109 %	50-200		09/26/24	10/02/24	
<b>Anions by EPA 300.0/9056A</b>	mg/kg	mg/kg	Analyst: DT		Batch: 2439087	
Chloride	ND	20.0	1	09/26/24	09/27/24	



Sample Data

Devon Energy - Carlsbad 6488 7 Rivers Hwy Artesia NM, 88210	Project Name: Yukon Pipeline Release Project Number: 01058-0007 Project Manager: Ashley Giovengo	Reported: 10/2/2024 2:38:17PM
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BH04-0'

E409239-10

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
<b>Volatile Organics by EPA 8021B</b>	mg/kg	mg/kg	Analyst: CG		Batch: 2439090	
Benzene	ND	0.0250	1	09/26/24	09/30/24	
Ethylbenzene	ND	0.0250	1	09/26/24	09/30/24	
Toluene	ND	0.0250	1	09/26/24	09/30/24	
o-Xylene	ND	0.0250	1	09/26/24	09/30/24	
p,m-Xylene	ND	0.0500	1	09/26/24	09/30/24	
Total Xylenes	ND	0.0250	1	09/26/24	09/30/24	
Surrogate: 4-Bromochlorobenzene-PID	90.7 %	70-130		09/26/24	09/30/24	
<b>Nonhalogenated Organics by EPA 8015D - GRO</b>	mg/kg	mg/kg	Analyst: CG		Batch: 2439090	
Gasoline Range Organics (C6-C10)	ND	20.0	1	09/26/24	09/30/24	
Surrogate: 1-Chloro-4-fluorobenzene-FID	95.9 %	70-130		09/26/24	09/30/24	
<b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b>	mg/kg	mg/kg	Analyst: NV		Batch: 2439094	
Diesel Range Organics (C10-C28)	1560	25.0	1	09/26/24	10/02/24	
Oil Range Organics (C28-C36)	1350	50.0	1	09/26/24	10/02/24	
Surrogate: n-Nonane	121 %	50-200		09/26/24	10/02/24	
<b>Anions by EPA 300.0/9056A</b>	mg/kg	mg/kg	Analyst: DT		Batch: 2439087	
Chloride	26600	1000	50	09/26/24	09/27/24	



Sample Data

Devon Energy - Carlsbad 6488 7 Rivers Hwy Artesia NM, 88210	Project Name: Yukon Pipeline Release Project Number: 01058-0007 Project Manager: Ashley Giovengo	Reported: 10/2/2024 2:38:17PM
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BH04-2'

E409239-11

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
<b>Volatile Organics by EPA 8021B</b>	mg/kg	mg/kg	Analyst: CG		Batch: 2439090	
Benzene	ND	0.0250	1	09/26/24	09/30/24	
Ethylbenzene	ND	0.0250	1	09/26/24	09/30/24	
Toluene	ND	0.0250	1	09/26/24	09/30/24	
o-Xylene	ND	0.0250	1	09/26/24	09/30/24	
p,m-Xylene	ND	0.0500	1	09/26/24	09/30/24	
Total Xylenes	ND	0.0250	1	09/26/24	09/30/24	
Surrogate: 4-Bromochlorobenzene-PID	91.6 %	70-130		09/26/24	09/30/24	
<b>Nonhalogenated Organics by EPA 8015D - GRO</b>	mg/kg	mg/kg	Analyst: CG		Batch: 2439090	
Gasoline Range Organics (C6-C10)	ND	20.0	1	09/26/24	09/30/24	
Surrogate: 1-Chloro-4-fluorobenzene-FID	96.3 %	70-130		09/26/24	09/30/24	
<b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b>	mg/kg	mg/kg	Analyst: NV		Batch: 2439094	
Diesel Range Organics (C10-C28)	ND	25.0	1	09/26/24	10/02/24	
Oil Range Organics (C28-C36)	ND	50.0	1	09/26/24	10/02/24	
Surrogate: n-Nonane	119 %	50-200		09/26/24	10/02/24	
<b>Anions by EPA 300.0/9056A</b>	mg/kg	mg/kg	Analyst: DT		Batch: 2439087	
Chloride	4590	100	5	09/26/24	09/27/24	



Sample Data

Devon Energy - Carlsbad 6488 7 Rivers Hwy Artesia NM, 88210	Project Name: Yukon Pipeline Release Project Number: 01058-0007 Project Manager: Ashley Giovengo	Reported: 10/2/2024 2:38:17PM
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BH04-4'

E409239-12

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
<b>Volatile Organics by EPA 8021B</b>	mg/kg	mg/kg	Analyst: CG		Batch: 2439090	
Benzene	ND	0.0250	1	09/26/24	09/30/24	
Ethylbenzene	ND	0.0250	1	09/26/24	09/30/24	
Toluene	ND	0.0250	1	09/26/24	09/30/24	
o-Xylene	ND	0.0250	1	09/26/24	09/30/24	
p,m-Xylene	ND	0.0500	1	09/26/24	09/30/24	
Total Xylenes	ND	0.0250	1	09/26/24	09/30/24	
Surrogate: 4-Bromochlorobenzene-PID	91.3 %	70-130		09/26/24	09/30/24	
<b>Nonhalogenated Organics by EPA 8015D - GRO</b>	mg/kg	mg/kg	Analyst: CG		Batch: 2439090	
Gasoline Range Organics (C6-C10)	ND	20.0	1	09/26/24	09/30/24	
Surrogate: 1-Chloro-4-fluorobenzene-FID	96.8 %	70-130		09/26/24	09/30/24	
<b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b>	mg/kg	mg/kg	Analyst: NV		Batch: 2439094	
Diesel Range Organics (C10-C28)	ND	25.0	1	09/26/24	10/02/24	
Oil Range Organics (C28-C36)	ND	50.0	1	09/26/24	10/02/24	
Surrogate: n-Nonane	115 %	50-200		09/26/24	10/02/24	
<b>Anions by EPA 300.0/9056A</b>	mg/kg	mg/kg	Analyst: DT		Batch: 2439087	
Chloride	5570	100	5	09/26/24	09/27/24	



Sample Data

Devon Energy - Carlsbad 6488 7 Rivers Hwy Artesia NM, 88210	Project Name: Yukon Pipeline Release Project Number: 01058-0007 Project Manager: Ashley Giovengo	Reported: 10/2/2024 2:38:17PM
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BH04-6'

E409239-13

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
<b>Volatile Organics by EPA 8021B</b>	mg/kg	mg/kg	Analyst: CG		Batch: 2439090	
Benzene	ND	0.0250	1	09/26/24	09/30/24	
Ethylbenzene	ND	0.0250	1	09/26/24	09/30/24	
Toluene	ND	0.0250	1	09/26/24	09/30/24	
o-Xylene	ND	0.0250	1	09/26/24	09/30/24	
p,m-Xylene	ND	0.0500	1	09/26/24	09/30/24	
Total Xylenes	ND	0.0250	1	09/26/24	09/30/24	
Surrogate: 4-Bromochlorobenzene-PID	91.9 %	70-130		09/26/24	09/30/24	
<b>Nonhalogenated Organics by EPA 8015D - GRO</b>	mg/kg	mg/kg	Analyst: CG		Batch: 2439090	
Gasoline Range Organics (C6-C10)	ND	20.0	1	09/26/24	09/30/24	
Surrogate: 1-Chloro-4-fluorobenzene-FID	95.1 %	70-130		09/26/24	09/30/24	
<b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b>	mg/kg	mg/kg	Analyst: NV		Batch: 2439094	
Diesel Range Organics (C10-C28)	ND	25.0	1	09/26/24	10/02/24	
Oil Range Organics (C28-C36)	ND	50.0	1	09/26/24	10/02/24	
Surrogate: n-Nonane	99.0 %	50-200		09/26/24	10/02/24	
<b>Anions by EPA 300.0/9056A</b>	mg/kg	mg/kg	Analyst: DT		Batch: 2439087	
Chloride	4650	40.0	2	09/26/24	09/27/24	



Sample Data

Devon Energy - Carlsbad 6488 7 Rivers Hwy Artesia NM, 88210	Project Name: Yukon Pipeline Release Project Number: 01058-0007 Project Manager: Ashley Giovengo	Reported: 10/2/2024 2:38:17PM
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BH04-8'

E409239-14

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
<b>Volatile Organics by EPA 8021B</b>	mg/kg	mg/kg	Analyst: CG		Batch: 2439090	
Benzene	ND	0.0250	1	09/26/24	09/30/24	
Ethylbenzene	ND	0.0250	1	09/26/24	09/30/24	
Toluene	ND	0.0250	1	09/26/24	09/30/24	
o-Xylene	ND	0.0250	1	09/26/24	09/30/24	
p,m-Xylene	ND	0.0500	1	09/26/24	09/30/24	
Total Xylenes	ND	0.0250	1	09/26/24	09/30/24	
Surrogate: 4-Bromochlorobenzene-PID	91.6 %	70-130		09/26/24	09/30/24	
<b>Nonhalogenated Organics by EPA 8015D - GRO</b>	mg/kg	mg/kg	Analyst: CG		Batch: 2439090	
Gasoline Range Organics (C6-C10)	ND	20.0	1	09/26/24	09/30/24	
Surrogate: 1-Chloro-4-fluorobenzene-FID	96.3 %	70-130		09/26/24	09/30/24	
<b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b>	mg/kg	mg/kg	Analyst: NV		Batch: 2439094	
Diesel Range Organics (C10-C28)	ND	25.0	1	09/26/24	10/02/24	
Oil Range Organics (C28-C36)	ND	50.0	1	09/26/24	10/02/24	
Surrogate: n-Nonane	115 %	50-200		09/26/24	10/02/24	
<b>Anions by EPA 300.0/9056A</b>	mg/kg	mg/kg	Analyst: DT		Batch: 2439087	
Chloride	4430	40.0	2	09/26/24	09/27/24	



Sample Data

Devon Energy - Carlsbad 6488 7 Rivers Hwy Artesia NM, 88210	Project Name: Yukon Pipeline Release Project Number: 01058-0007 Project Manager: Ashley Giovengo	Reported: 10/2/2024 2:38:17PM
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BH04-10'

E409239-15

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
<b>Volatile Organics by EPA 8021B</b>	mg/kg	mg/kg	Analyst: CG		Batch: 2439090	
Benzene	ND	0.0250	1	09/26/24	09/30/24	
Ethylbenzene	ND	0.0250	1	09/26/24	09/30/24	
Toluene	ND	0.0250	1	09/26/24	09/30/24	
o-Xylene	ND	0.0250	1	09/26/24	09/30/24	
p,m-Xylene	ND	0.0500	1	09/26/24	09/30/24	
Total Xylenes	ND	0.0250	1	09/26/24	09/30/24	
Surrogate: 4-Bromochlorobenzene-PID	91.6 %	70-130		09/26/24	09/30/24	
<b>Nonhalogenated Organics by EPA 8015D - GRO</b>	mg/kg	mg/kg	Analyst: CG		Batch: 2439090	
Gasoline Range Organics (C6-C10)	ND	20.0	1	09/26/24	09/30/24	
Surrogate: 1-Chloro-4-fluorobenzene-FID	95.6 %	70-130		09/26/24	09/30/24	
<b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b>	mg/kg	mg/kg	Analyst: NV		Batch: 2439094	
Diesel Range Organics (C10-C28)	ND	25.0	1	09/26/24	10/02/24	
Oil Range Organics (C28-C36)	ND	50.0	1	09/26/24	10/02/24	
Surrogate: n-Nonane	116 %	50-200		09/26/24	10/02/24	
<b>Anions by EPA 300.0/9056A</b>	mg/kg	mg/kg	Analyst: DT		Batch: 2439087	
Chloride	1690	40.0	2	09/26/24	09/27/24	



Sample Data

Devon Energy - Carlsbad 6488 7 Rivers Hwy Artesia NM, 88210	Project Name: Yukon Pipeline Release Project Number: 01058-0007 Project Manager: Ashley Giovengo	Reported: 10/2/2024 2:38:17PM
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BH04-12'

E409239-16

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
<b>Volatile Organics by EPA 8021B</b>	mg/kg	mg/kg	Analyst: CG		Batch: 2439090	
Benzene	ND	0.0250	1	09/26/24	09/30/24	
Ethylbenzene	ND	0.0250	1	09/26/24	09/30/24	
Toluene	ND	0.0250	1	09/26/24	09/30/24	
o-Xylene	ND	0.0250	1	09/26/24	09/30/24	
p,m-Xylene	ND	0.0500	1	09/26/24	09/30/24	
Total Xylenes	ND	0.0250	1	09/26/24	09/30/24	
Surrogate: 4-Bromochlorobenzene-PID	92.2 %	70-130		09/26/24	09/30/24	
<b>Nonhalogenated Organics by EPA 8015D - GRO</b>	mg/kg	mg/kg	Analyst: CG		Batch: 2439090	
Gasoline Range Organics (C6-C10)	ND	20.0	1	09/26/24	09/30/24	
Surrogate: 1-Chloro-4-fluorobenzene-FID	95.0 %	70-130		09/26/24	09/30/24	
<b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b>	mg/kg	mg/kg	Analyst: NV		Batch: 2439094	
Diesel Range Organics (C10-C28)	ND	25.0	1	09/26/24	10/02/24	
Oil Range Organics (C28-C36)	ND	50.0	1	09/26/24	10/02/24	
Surrogate: n-Nonane	123 %	50-200		09/26/24	10/02/24	
<b>Anions by EPA 300.0/9056A</b>	mg/kg	mg/kg	Analyst: DT		Batch: 2439087	
Chloride	1770	40.0	2	09/26/24	09/27/24	



Sample Data

Devon Energy - Carlsbad 6488 7 Rivers Hwy Artesia NM, 88210	Project Name: Yukon Pipeline Release Project Number: 01058-0007 Project Manager: Ashley Giovengo	Reported: 10/2/2024 2:38:17PM
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BH04-14'

E409239-17

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
<b>Volatile Organics by EPA 8021B</b>						
	mg/kg	mg/kg	Analyst: CG		Batch: 2439090	
Benzene	ND	0.0250	1	09/26/24	09/30/24	
Ethylbenzene	ND	0.0250	1	09/26/24	09/30/24	
Toluene	ND	0.0250	1	09/26/24	09/30/24	
o-Xylene	ND	0.0250	1	09/26/24	09/30/24	
p,m-Xylene	ND	0.0500	1	09/26/24	09/30/24	
Total Xylenes	ND	0.0250	1	09/26/24	09/30/24	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>						
	92.5 %	70-130		09/26/24	09/30/24	
<b>Nonhalogenated Organics by EPA 8015D - GRO</b>						
	mg/kg	mg/kg	Analyst: CG		Batch: 2439090	
Gasoline Range Organics (C6-C10)	ND	20.0	1	09/26/24	09/30/24	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>						
	96.2 %	70-130		09/26/24	09/30/24	
<b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b>						
	mg/kg	mg/kg	Analyst: NV		Batch: 2439094	
Diesel Range Organics (C10-C28)	ND	25.0	1	09/26/24	10/02/24	
Oil Range Organics (C28-C36)	ND	50.0	1	09/26/24	10/02/24	
<i>Surrogate: n-Nonane</i>						
	120 %	50-200		09/26/24	10/02/24	
<b>Anions by EPA 300.0/9056A</b>						
	mg/kg	mg/kg	Analyst: DT		Batch: 2439087	
Chloride	1180	20.0	1	09/26/24	09/27/24	



Sample Data

Devon Energy - Carlsbad 6488 7 Rivers Hwy Artesia NM, 88210	Project Name: Yukon Pipeline Release Project Number: 01058-0007 Project Manager: Ashley Giovengo	Reported: 10/2/2024 2:38:17PM
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BH04-16'

E409239-18

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
<b>Volatile Organics by EPA 8021B</b>	mg/kg	mg/kg	Analyst: CG		Batch: 2439090	
Benzene	ND	0.0250	1	09/26/24	09/30/24	
Ethylbenzene	ND	0.0250	1	09/26/24	09/30/24	
Toluene	ND	0.0250	1	09/26/24	09/30/24	
o-Xylene	ND	0.0250	1	09/26/24	09/30/24	
p,m-Xylene	ND	0.0500	1	09/26/24	09/30/24	
Total Xylenes	ND	0.0250	1	09/26/24	09/30/24	
Surrogate: 4-Bromochlorobenzene-PID	91.9 %	70-130		09/26/24	09/30/24	
<b>Nonhalogenated Organics by EPA 8015D - GRO</b>	mg/kg	mg/kg	Analyst: CG		Batch: 2439090	
Gasoline Range Organics (C6-C10)	ND	20.0	1	09/26/24	09/30/24	
Surrogate: 1-Chloro-4-fluorobenzene-FID	94.9 %	70-130		09/26/24	09/30/24	
<b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b>	mg/kg	mg/kg	Analyst: NV		Batch: 2439094	
Diesel Range Organics (C10-C28)	ND	25.0	1	09/26/24	10/02/24	
Oil Range Organics (C28-C36)	ND	50.0	1	09/26/24	10/02/24	
Surrogate: n-Nonane	115 %	50-200		09/26/24	10/02/24	
<b>Anions by EPA 300.0/9056A</b>	mg/kg	mg/kg	Analyst: DT		Batch: 2439087	
Chloride	3770	40.0	2	09/26/24	09/27/24	



QC Summary Data

Devon Energy - Carlsbad	Project Name:	Yukon Pipeline Release	Reported:
6488 7 Rivers Hwy	Project Number:	01058-0007	
Artesia NM, 88210	Project Manager:	Ashley Giovengo	10/2/2024 2:38:17PM

Volatile Organics by EPA 8021B

Analyst: CG

Analyte	Result mg/kg	Reporting Limit mg/kg	Spike Level mg/kg	Source Result mg/kg	Rec %	Rec Limits %	RPD %	RPD Limit %	Notes
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Blank (2439090-BLK1) Prepared: 09/26/24 Analyzed: 09/29/24

Benzene	ND	0.0250							
Ethylbenzene	ND	0.0250							
Toluene	ND	0.0250							
o-Xylene	ND	0.0250							
p,m-Xylene	ND	0.0500							
Total Xylenes	ND	0.0250							

Surrogate: 4-Bromochlorobenzene-PID 7.27 8.00 90.9 70-130

LCS (2439090-BS1) Prepared: 09/26/24 Analyzed: 09/29/24

Benzene	5.01	0.0250	5.00		100	70-130			
Ethylbenzene	4.80	0.0250	5.00		96.0	70-130			
Toluene	4.91	0.0250	5.00		98.2	70-130			
o-Xylene	4.79	0.0250	5.00		95.7	70-130			
p,m-Xylene	9.74	0.0500	10.0		97.4	70-130			
Total Xylenes	14.5	0.0250	15.0		96.8	70-130			

Surrogate: 4-Bromochlorobenzene-PID 7.20 8.00 90.0 70-130

LCS Dup (2439090-BSD1) Prepared: 09/26/24 Analyzed: 09/29/24

Benzene	5.01	0.0250	5.00		100	70-130	0.0519	20	
Ethylbenzene	4.82	0.0250	5.00		96.4	70-130	0.394	20	
Toluene	4.93	0.0250	5.00		98.6	70-130	0.374	20	
o-Xylene	4.80	0.0250	5.00		96.0	70-130	0.245	20	
p,m-Xylene	9.79	0.0500	10.0		97.9	70-130	0.522	20	
Total Xylenes	14.6	0.0250	15.0		97.3	70-130	0.431	20	

Surrogate: 4-Bromochlorobenzene-PID 7.15 8.00 89.4 70-130



QC Summary Data

Devon Energy - Carlsbad	Project Name:	Yukon Pipeline Release	Reported:
6488 7 Rivers Hwy	Project Number:	01058-0007	
Artesia NM, 88210	Project Manager:	Ashley Giovengo	10/2/2024 2:38:17PM

Nonhalogenated Organics by EPA 8015D - GRO

Analyst: CG

Analyte	Result mg/kg	Reporting Limit mg/kg	Spike Level mg/kg	Source Result mg/kg	Rec %	Rec Limits %	RPD %	RPD Limit %	Notes
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Blank (2439090-BLK1) Prepared: 09/26/24 Analyzed: 09/29/24

Gasoline Range Organics (C6-C10)	ND	20.0							
Surrogate: 1-Chloro-4-fluorobenzene-FID	7.72		8.00		96.5	70-130			

LCS (2439090-BS2) Prepared: 09/26/24 Analyzed: 09/29/24

Gasoline Range Organics (C6-C10)	44.6	20.0	50.0		89.2	70-130			
Surrogate: 1-Chloro-4-fluorobenzene-FID	7.75		8.00		96.8	70-130			

LCS Dup (2439090-BSD2) Prepared: 09/26/24 Analyzed: 09/29/24

Gasoline Range Organics (C6-C10)	46.4	20.0	50.0		92.9	70-130	4.06	20	
Surrogate: 1-Chloro-4-fluorobenzene-FID	7.91		8.00		98.9	70-130			



QC Summary Data

Devon Energy - Carlsbad	Project Name:	Yukon Pipeline Release	Reported:
6488 7 Rivers Hwy	Project Number:	01058-0007	
Artesia NM, 88210	Project Manager:	Ashley Giovengo	10/2/2024 2:38:17PM

Nonhalogenated Organics by EPA 8015D - DRO/ORO

Analyst: NV

Analyte	Result mg/kg	Reporting Limit mg/kg	Spike Level mg/kg	Source Result mg/kg	Rec %	Rec Limits %	RPD %	RPD Limit %	Notes
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Blank (2439094-BLK1)					Prepared: 09/26/24 Analyzed: 10/02/24				
Diesel Range Organics (C10-C28)	ND	25.0							
Oil Range Organics (C28-C36)	ND	50.0							
Surrogate: n-Nonane	57.8		50.0		116	50-200			

LCS (2439094-BS1)					Prepared: 09/26/24 Analyzed: 10/02/24				
Diesel Range Organics (C10-C28)	300	25.0	250		120	38-132			
Surrogate: n-Nonane	63.9		50.0		128	50-200			

Matrix Spike (2439094-MS1)					Source: E409239-02		Prepared: 09/26/24 Analyzed: 10/02/24		
Diesel Range Organics (C10-C28)	338	25.0	250	ND	135	38-132			M2
Surrogate: n-Nonane	64.2		50.0		128	50-200			

Matrix Spike Dup (2439094-MSD1)					Source: E409239-02		Prepared: 09/26/24 Analyzed: 10/02/24		
Diesel Range Organics (C10-C28)	301	25.0	250	ND	120	38-132	11.6	20	
Surrogate: n-Nonane	63.9		50.0		128	50-200			



QC Summary Data

Devon Energy - Carlsbad	Project Name:	Yukon Pipeline Release	Reported:
6488 7 Rivers Hwy	Project Number:	01058-0007	
Artesia NM, 88210	Project Manager:	Ashley Giovengo	10/2/2024 2:38:17PM

Anions by EPA 300.0/9056A

Analyst: DT

Analyte	Result	Reporting Limit	Spike Level	Source Result	Rec	Rec Limits	RPD	RPD Limit	Notes
	mg/kg	mg/kg	mg/kg	mg/kg	%	%	%	%	

Blank (2439087-BLK1)					Prepared: 09/26/24 Analyzed: 09/26/24				
Chloride	ND	20.0							
LCS (2439087-BS1)					Prepared: 09/26/24 Analyzed: 09/26/24				
Chloride	250	20.0	250		100	90-110			
Matrix Spike (2439087-MS1)					Source: E409239-04		Prepared: 09/26/24 Analyzed: 09/26/24		
Chloride	632	20.0	250	370	105	80-120			
Matrix Spike Dup (2439087-MSD1)					Source: E409239-04		Prepared: 09/26/24 Analyzed: 09/26/24		
Chloride	654	20.0	250	370	114	80-120	3.42	20	

QC Summary Report Comment:  
Calculations are based off of the raw (non-rounded) data. However, for reporting purposes all QC data is rounded to three significant figures.  
Therefore, hand calculated values may differ slightly.



Definitions and Notes

Devon Energy - Carlsbad	Project Name:	Yukon Pipeline Release	
6488 7 Rivers Hwy	Project Number:	01058-0007	Reported:
Artesia NM, 88210	Project Manager:	Ashley Giovengo	10/02/24 14:38

- M2Matrix spike recovery was outside quality control limits. The associated LCS spike recovery was acceptable.
- NDAnalyte NOT DETECTED at or above the reporting limit
- NRNot Reported
- RPDRelative Percent Difference
- DNIDid Not Ignite
- DNRDid not react with the addition of acid or base.

Note (1): Methods marked with \*\* are non-accredited methods.

Note (2): Soil data is reported on an "as received" weight basis, unless reported otherwise.

## Chain of Custody

Client Information				Invoice Information		Lab Use Only		TAT		State							
Client: Devon				Company: Devon		Lab WO#	Job Number	1D	2D	3D	Std	NM	CO	UT	TX		
Project: Yukon Pipeline Release				Address: 205 E Bender Road #150		E409239	01058-0007				x	x					
Project Manager: Ashley Giovengo				City, State, Zip: Hobbs NM, 88240													
Address: 3122 National Parks Hwy				Phone: (575)748-1838													
City, State, Zip: Carlsbad NM, 88220				Email: dale.woodall@dv.com													
Phone: 575-988-0055				Miscellaneous: Dale Woodall													
Email: agiovengo@ensolum.com																	
Sample Information						Analysis and Method						EPA Program					
Time Sampled	Date Sampled	Matrix	No. of Containers	Sample ID	Field Filter	Lab Number	DRO/ORO by 8015	GRO/DRO by 8015	BTEX by 8021	VOC by 8260	Chloride 300.0	BGDOC - NM	TCEQ 1005 - TX	RCRA 8 Metals	SDWA	CWA	RCRA
0949	9/24/24	Soil	1	BH01-0'		1						X					
0954	9/24/24	Soil	1	BH01-1'		2						X					
0957	9/24/24	Soil	1	BH01-2'		3						X					
1011	9/24/24	Soil	1	BH02-0'		4						X					
1014	9/24/24	Soil	1	BH02-1'		5						X					
1017	9/24/24	Soil	1	BH02-2'		6						X					
1037	9/24/24	Soil	1	BH03-0'		7						X					
1041	9/24/24	Soil	1	BH03-1'		8						X					
1044	9/24/24	Soil	1	BH03-2'		9						X					
1115	9/24/24	Soil	1	BH04-0'		10						X					
Additional Instructions: Please CC: cburton@ensolum.com, agiovengo@ensolum.com, dale.woodall@dv.com, iestrella@ensolum.com, bdeal@ensolum.com, chamilton@ensolum.com, bsimmons@ensolum.com																	
I, (field sampler), attest to the validity and authenticity of this sample. I am aware that tampering with or intentionally mislabeling the sample location, date or time of collection is considered fraud and may be grounds for legal action.																	
Sampled by: Brandon Deal																	
Relinquished by: (Signature)		Date	Time	Received by: (Signature)		Date	Time	Samples requiring thermal preservation must be received on ice the day they are sampled or received packed in ice at an avg temp above 0 but less than 6 °C on subsequent days. Lab Use Only Received on ice: (Y) N T1 _____ T2 _____ T3 _____ AVG Temp °C 4									
Relinquished by: (Signature)		Date	Time	Received by: (Signature)		Date	Time										
Relinquished by: (Signature)		Date	Time	Received by: (Signature)		Date	Time										
Relinquished by: (Signature)		Date	Time	Received by: (Signature)		Date	Time										
Sample Matrix: S - Soil, Sd - Solid, Sg - Sludge, A - Aqueous, O - Other												Container Type: g - glass, p - poly/plastic, ag - amber glass, v - VOA					
Note: Samples are discarded 14 days after results are reported unless other arrangements are made. Hazardous samples will be returned to client or disposed of at the client expense. The report for the analysis of the above samples is applicable only to those samples received by the laboratory with this COC. The liability of the laboratory is limited to the amount paid for on the report.																	



envirotech

## Chain of Custody

Client Information				Invoice Information		Lab Use Only		TAT				State						
Client: Devon				Company: Devon		Lab WO#		1D 2D 3D Std				NM CO UT TX						
Project: Yukon Pipeline Release				Address: 205 E Bender Road #150		E409239		Job Number				01058-0007						
Project Manager: Ashley Giovengo				City, State, Zip: Hobbs NM, 88240														
Address: 3122 National Parks Hwy				Phone: (575)748-1838														
City, State, Zip: Carlsbad NM, 88220				Email: dale.woodall@dv.com														
Phone: 575-988-0055				Miscellaneous: Dale Woodall														
Email: agiovengo@ensolum.com																		
Sample Information						Analysis and Method								EPA Program				
Time Sampled	Date Sampled	Matrix	No. of Containers	Sample ID	Field Filter	Lab Number	DRO/ORO by 8015	GRO/DRO by 8015	BTEX by 8021	VOC by 8260	Chloride 300.0	BGDOC - NM	TCFQ 1005 - TX	RCRA 8 Metals	SDWA	CWA	RCRA	
															Compliance	Y	or	N
															PWSID #			
																		Remarks
1123	9/24/24	Soil	1	BH04-2'		11						X						
1139	9/24/24	Soil	1	BH04-4'		12						X						
1154	9/24/24	Soil	1	BH04-6'		13						X						
1200	9/24/24	Soil	1	BH04-8'		14						X						
1225	9/24/24	Soil	1	BH04-10'		15						X						
1231	9/24/24	Soil	1	BH04-12'		16						X						
1349	9/24/24	Soil	1	BH04-14'		17						X						
1358	9/24/24	Soil	1	BH04-16'		18						X						
Additional Instructions: Please CC: cburton@ensolum.com, agiovengo@ensolum.com, dale.woodall@dv.com, iestrella@ensolum.com, bdeal@ensolum.com, chamilton@ensolum.com, bsimmons@ensolum.com																		
I, (field sampler), attest to the validity and authenticity of this sample. I am aware that tampering with or intentionally mislabeling the sample location, date or time of collection is considered fraud and may be grounds for legal action.																		
Sampled by: _Brandon Deal_																		
Relinquished by: (Signature)		Date	Time	Received by: (Signature)		Date	Time	Samples requiring thermal preservation must be received on ice the day they are sampled or received packed in ice at an avg temp above 0 but less than 6 °C on subsequent days. Lab Use Only Received on ice: <input checked="" type="checkbox"/> Y / <input type="checkbox"/> N T1 _____ T2 _____ T3 _____ AVG Temp °C <u>4</u>										
Relinquished by: (Signature)		Date	Time	Received by: (Signature)		Date	Time											
Relinquished by: (Signature)		Date	Time	Received by: (Signature)		Date	Time											
Relinquished by: (Signature)		Date	Time	Received by: (Signature)		Date	Time											
Sample Matrix: S - Soil, Sd - Solid, Sg - Sludge, A - Aqueous, O - Other _____																		
Container Type: g - glass, p - poly/plastic, ag - amber glass, v - VOA _____																		
Note: Samples are discarded 14 days after results are reported unless other arrangements are made. Hazardous samples will be returned to client or disposed of at the client expense. The report for the analysis of the above samples is applicable only to those samples received by the laboratory with this COC. The liability of the laboratory is limited to the amount paid for on the report.																		



## Envirotech Analytical Laboratory

Printed: 9/26/2024 11:48:41AM

## Sample Receipt Checklist (SRC)

Instructions: Please take note of any NO checkmarks.

If we receive no response concerning these items within 24 hours of the date of this notice, all the samples will be analyzed as requested.

Client:	Devon Energy - Carlsbad	Date Received:	09/26/24 08:10	Work Order ID:	E409239
Phone:	(505) 382-1211	Date Logged In:	09/26/24 08:34	Logged In By:	Caitlin Mars
Email:	ashley.giovengo@wescominc.com	Due Date:	10/02/24 17:00 (4 day TAT)		

Chain of Custody (COC)

1. Does the sample ID match the COC? Yes
2. Does the number of samples per sampling site location match the COC? Yes
3. Were samples dropped off by client or carrier? Yes
4. Was the COC complete, i.e., signatures, dates/times, requested analyses? Yes
5. Were all samples received within holding time? Yes

Note: Analysis, such as pH which should be conducted in the field, i.e., 15 minute hold time, are not included in this discussion.

Carrier: CourierComments/ResolutionSample Turn Around Time (TAT)

6. Did the COC indicate standard TAT, or Expedited TAT? Yes

Sample Cooler

7. Was a sample cooler received? Yes
8. If yes, was cooler received in good condition? Yes
9. Was the sample(s) received intact, i.e., not broken? Yes
10. Were custody/security seals present? No
11. If yes, were custody/security seals intact? NA
12. Was the sample received on ice? If yes, the recorded temp is 4°C, i.e., 6°±2°C? Yes

Note: Thermal preservation is not required, if samples are received w/i 15 minutes of sampling

13. If no visible ice, record the temperature. Actual sample temperature: 4°C

Sample Container

14. Are aqueous VOC samples present? No
15. Are VOC samples collected in VOA Vials? NA
16. Is the head space less than 6-8 mm (pea sized or less)? NA
17. Was a trip blank (TB) included for VOC analyses? NA
18. Are non-VOC samples collected in the correct containers? Yes
19. Is the appropriate volume/weight or number of sample containers collected? Yes

Field Label

20. Were field sample labels filled out with the minimum information:  
Sample ID? Yes  
Date/Time Collected? Yes  
Collectors name? Yes

Sample Preservation

21. Does the COC or field labels indicate the samples were preserved? No
22. Are sample(s) correctly preserved? NA
24. Is lab filtration required and/or requested for dissolved metals? No

Multiphase Sample Matrix

26. Does the sample have more than one phase, i.e., multiphase? No
27. If yes, does the COC specify which phase(s) is to be analyzed? NA

Subcontract Laboratory

28. Are samples required to get sent to a subcontract laboratory? No
29. Was a subcontract laboratory specified by the client and if so who? NA Subcontract Lab: NA

Client Instruction

Signature of client authorizing changes to the COC or sample disposition.

Date



envirotech Inc.

Report to:  
Ashley Giovengo



# envirotech

*Practical Solutions for a Better Tomorrow*

## Analytical Report

Devon Energy - Carlsbad

Project Name: Yukon Pipeline Release

Work Order: E410381

Job Number: 01058-0007

Received: 10/31/2024

Revision: 1

Report Reviewed By:

Walter Hinchman  
Laboratory Director  
11/6/24

5796 U.S. Hwy 64  
Farmington, NM 87401

Phone: (505) 632-1881  
Envirotech-inc.com



Envirotech Inc. certifies the test results meet all requirements of TNI unless noted otherwise.  
Statement of Data Authenticity: Envirotech Inc. attests the data reported has not been altered in any way.  
Partial or incomplete reproduction of this report is prohibited, unless approved by Envirotech Inc.  
Envirotech Inc. holds the Utah TNI certification NM00979 for data reported.  
Envirotech Inc. holds the Texas TNI certification T104704557 for data reported.

Date Reported: 11/6/24

Ashley Giovengo  
6488 7 Rivers Hwy  
Artesia, NM 88210



Project Name: Yukon Pipeline Release  
Workorder: E410381  
Date Received: 10/31/2024 6:30:00AM

Ashley Giovengo,

Thank you for choosing Envirotech, Inc. as your analytical testing laboratory for the sample(s) received on, 10/31/2024 6:30:00AM, under the Project Name: Yukon Pipeline Release.

The analytical test results summarized in this report with the Project Name: Yukon Pipeline Release apply to the individual samples collected, identified and submitted bearing the project name on the enclosed chain-of-custody. Subcontracted sample analyses not conducted by Envirotech, Inc., are attached in full as issued by the subcontract laboratory.

Please review the Chain-of-Custody (COC) and Sample Receipt Checklist (SRC) for any issues regarding sample receipt temperature, containers, preservation etc. To best understand your test results, review the entire report summarizing your sample data and the associated quality control batch data.

All reported data in this analytical report were analyzed according to the referenced method(s) and are in compliance with the latest NELAC/TNI standards, unless otherwise noted. Samples or analytical quality control parameters not meeting specific QC criteria are qualified with a data flag. Data flag definitions are located in the Notes and Definitions section of this analytical report.

If you have any questions concerning this report, please feel free to contact Envirotech, Inc.

Respectfully,

**Walter Hinchman**  
Laboratory Director  
Office: 505-632-1881  
Cell: 775-287-1762  
[whinchman@envirotech-inc.com](mailto:whinchman@envirotech-inc.com)

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Sample Summary

Devon Energy - Carlsbad	Project Name:	Yukon Pipeline Release	Reported:
6488 7 Rivers Hwy	Project Number:	01058-0007	
Artesia NM, 88210	Project Manager:	Ashley Giovengo	11/06/24 11:50

Client Sample ID	Lab Sample ID	Matrix	Sampled	Received	Container
SS05-0'	E410381-01A	Soil	10/29/24	10/31/24	Glass Jar, 2 oz.
SS06-0'	E410381-02A	Soil	10/29/24	10/31/24	Glass Jar, 2 oz.



Sample Data

Devon Energy - Carlsbad 6488 7 Rivers Hwy Artesia NM, 88210	Project Name: Yukon Pipeline Release Project Number: 01058-0007 Project Manager: Ashley Giovengo	Reported: 11/6/2024 11:50:09AM
---	--	-----------------------------------

SS05-0'

E410381-01

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
<b>Volatile Organics by EPA 8021B</b>	mg/kg	mg/kg	Analyst: SL		Batch: 2444129	
Benzene	ND	0.0250	1	10/31/24	11/05/24	
Ethylbenzene	ND	0.0250	1	10/31/24	11/05/24	
Toluene	ND	0.0250	1	10/31/24	11/05/24	
o-Xylene	ND	0.0250	1	10/31/24	11/05/24	
p,m-Xylene	ND	0.0500	1	10/31/24	11/05/24	
Total Xylenes	ND	0.0250	1	10/31/24	11/05/24	
Surrogate: 4-Bromochlorobenzene-PID	91.0 %	70-130		10/31/24	11/05/24	
<b>Nonhalogenated Organics by EPA 8015D - GRO</b>	mg/kg	mg/kg	Analyst: SL		Batch: 2444129	
Gasoline Range Organics (C6-C10)	ND	20.0	1	10/31/24	11/05/24	
Surrogate: 1-Chloro-4-fluorobenzene-FID	92.8 %	70-130		10/31/24	11/05/24	
<b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b>	mg/kg	mg/kg	Analyst: AF		Batch: 2444145	
Diesel Range Organics (C10-C28)	ND	25.0	1	11/01/24	11/01/24	
Oil Range Organics (C28-C36)	ND	50.0	1	11/01/24	11/01/24	
Surrogate: n-Nonane	89.1 %	50-200		11/01/24	11/01/24	
<b>Anions by EPA 300.0/9056A</b>	mg/kg	mg/kg	Analyst: DT		Batch: 2445020	
Chloride	25.5	20.0	1	11/04/24	11/04/24	



Sample Data

Devon Energy - Carlsbad	Project Name:	Yukon Pipeline Release	<b>Reported:</b> 11/6/2024 11:50:09AM
6488 7 Rivers Hwy	Project Number:	01058-0007	
Artesia NM, 88210	Project Manager:	Ashley Giovengo	

SS06-0'

E410381-02

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
<b>Volatile Organics by EPA 8021B</b>	mg/kg	mg/kg	Analyst: SL		Batch: 2444129	
Benzene	ND	0.0250	1	10/31/24	11/05/24	
Ethylbenzene	ND	0.0250	1	10/31/24	11/05/24	
Toluene	ND	0.0250	1	10/31/24	11/05/24	
o-Xylene	ND	0.0250	1	10/31/24	11/05/24	
p,m-Xylene	ND	0.0500	1	10/31/24	11/05/24	
Total Xylenes	ND	0.0250	1	10/31/24	11/05/24	
Surrogate: 4-Bromochlorobenzene-PID	91.4 %	70-130		10/31/24	11/05/24	
<b>Nonhalogenated Organics by EPA 8015D - GRO</b>	mg/kg	mg/kg	Analyst: SL		Batch: 2444129	
Gasoline Range Organics (C6-C10)	ND	20.0	1	10/31/24	11/05/24	
Surrogate: 1-Chloro-4-fluorobenzene-FID	93.8 %	70-130		10/31/24	11/05/24	
<b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b>	mg/kg	mg/kg	Analyst: AF		Batch: 2444145	
Diesel Range Organics (C10-C28)	ND	25.0	1	11/01/24	11/01/24	
Oil Range Organics (C28-C36)	ND	50.0	1	11/01/24	11/01/24	
Surrogate: n-Nonane	92.1 %	50-200		11/01/24	11/01/24	
<b>Anions by EPA 300.0/9056A</b>	mg/kg	mg/kg	Analyst: DT		Batch: 2445020	
Chloride	44.6	20.0	1	11/04/24	11/04/24	



QC Summary Data

Devon Energy - Carlsbad	Project Name:	Yukon Pipeline Release	Reported:
6488 7 Rivers Hwy	Project Number:	01058-0007	
Artesia NM, 88210	Project Manager:	Ashley Giovengo	11/6/2024 11:50:09AM

Volatile Organics by EPA 8021B

Analyst: SL

Analyte	Result	Reporting Limit	Spike Level	Source Result	Rec	Rec Limits	RPD	RPD Limit	Notes
	mg/kg	mg/kg	mg/kg	mg/kg	%	%	%	%	

Blank (2444129-BLK1) Prepared: 10/31/24 Analyzed: 11/04/24

Benzene	ND	0.0250							
Ethylbenzene	ND	0.0250							
Toluene	ND	0.0250							
o-Xylene	ND	0.0250							
p,m-Xylene	ND	0.0500							
Total Xylenes	ND	0.0250							
Surrogate: 4-Bromochlorobenzene-PID	7.06		8.00		88.2	70-130			

LCS (2444129-BS1) Prepared: 10/31/24 Analyzed: 11/04/24

Benzene	5.08	0.0250	5.00		102	70-130			
Ethylbenzene	5.04	0.0250	5.00		101	70-130			
Toluene	5.11	0.0250	5.00		102	70-130			
o-Xylene	5.03	0.0250	5.00		101	70-130			
p,m-Xylene	10.2	0.0500	10.0		102	70-130			
Total Xylenes	15.3	0.0250	15.0		102	70-130			
Surrogate: 4-Bromochlorobenzene-PID	7.12		8.00		89.0	70-130			

LCS Dup (2444129-BSD1) Prepared: 10/31/24 Analyzed: 11/04/24

Benzene	4.93	0.0250	5.00		98.5	70-130	3.01	20	
Ethylbenzene	4.91	0.0250	5.00		98.2	70-130	2.63	20	
Toluene	4.96	0.0250	5.00		99.2	70-130	2.98	20	
o-Xylene	4.91	0.0250	5.00		98.2	70-130	2.48	20	
p,m-Xylene	9.98	0.0500	10.0		99.8	70-130	2.62	20	
Total Xylenes	14.9	0.0250	15.0		99.2	70-130	2.57	20	
Surrogate: 4-Bromochlorobenzene-PID	7.24		8.00		90.5	70-130			



QC Summary Data

Devon Energy - Carlsbad	Project Name:	Yukon Pipeline Release	Reported:
6488 7 Rivers Hwy	Project Number:	01058-0007	
Artesia NM, 88210	Project Manager:	Ashley Giovengo	11/6/2024 11:50:09AM

Nonhalogenated Organics by EPA 8015D - GRO

Analyst: SL

Analyte	Result	Reporting Limit	Spike Level	Source Result	Rec	Rec Limits	RPD	RPD Limit	Notes
	mg/kg	mg/kg	mg/kg	mg/kg	%	%	%	%	

Blank (2444129-BLK1) Prepared: 10/31/24 Analyzed: 11/04/24

Gasoline Range Organics (C6-C10)	ND	20.0							
Surrogate: 1-Chloro-4-fluorobenzene-FID	7.42		8.00		92.7	70-130			

LCS (2444129-BS2) Prepared: 10/31/24 Analyzed: 11/04/24

Gasoline Range Organics (C6-C10)	45.5	20.0	50.0		91.1	70-130			
Surrogate: 1-Chloro-4-fluorobenzene-FID	7.54		8.00		94.3	70-130			

LCS Dup (2444129-BSD2) Prepared: 10/31/24 Analyzed: 11/04/24

Gasoline Range Organics (C6-C10)	43.7	20.0	50.0		87.3	70-130	4.23	20	
Surrogate: 1-Chloro-4-fluorobenzene-FID	7.49		8.00		93.6	70-130			



QC Summary Data

Devon Energy - Carlsbad	Project Name:	Yukon Pipeline Release	Reported:
6488 7 Rivers Hwy	Project Number:	01058-0007	
Artesia NM, 88210	Project Manager:	Ashley Giovengo	11/6/2024 11:50:09AM

Nonhalogenated Organics by EPA 8015D - DRO/ORO

Analyst: AF

Analyte	Result	Reporting Limit	Spike Level	Source Result	Rec	Rec Limits	RPD	RPD Limit	Notes
	mg/kg	mg/kg	mg/kg	mg/kg	%	%	%	%	

Blank (2444145-BLK1)					Prepared: 11/01/24 Analyzed: 11/01/24				
Diesel Range Organics (C10-C28)	ND	25.0							
Oil Range Organics (C28-C36)	ND	50.0							
Surrogate: n-Nonane	45.5		50.0		91.0	50-200			

LCS (2444145-BS1)					Prepared: 11/01/24 Analyzed: 11/01/24				
Diesel Range Organics (C10-C28)	231	25.0	250		92.3	38-132			
Surrogate: n-Nonane	45.2		50.0		90.4	50-200			

LCS Dup (2444145-BSD1)					Prepared: 11/01/24 Analyzed: 11/01/24				
Diesel Range Organics (C10-C28)	251	25.0	250		100	38-132	8.23	20	
Surrogate: n-Nonane	47.3		50.0		94.6	50-200			



QC Summary Data

Devon Energy - Carlsbad	Project Name:	Yukon Pipeline Release	Reported:
6488 7 Rivers Hwy	Project Number:	01058-0007	
Artesia NM, 88210	Project Manager:	Ashley Giovengo	11/6/2024 11:50:09AM

Anions by EPA 300.0/9056A

Analyst: DT

Analyte	Result	Reporting Limit	Spike Level	Source Result	Rec	Rec Limits	RPD	RPD Limit	Notes
	mg/kg	mg/kg	mg/kg	mg/kg	%	%	%	%	

Blank (2445020-BLK1)					Prepared: 11/04/24 Analyzed: 11/04/24				
Chloride	ND	20.0							
LCS (2445020-BS1)					Prepared: 11/04/24 Analyzed: 11/05/24				
Chloride	255	20.0	250		102	90-110			
LCS Dup (2445020-BSD1)					Prepared: 11/04/24 Analyzed: 11/04/24				
Chloride	254	20.0	250		101	90-110	0.497	20	

QC Summary Report Comment:  
Calculations are based off of the raw (non-rounded) data. However, for reporting purposes all QC data is rounded to three significant figures.  
Therefore, hand calculated values may differ slightly.



Definitions and Notes

Devon Energy - Carlsbad	Project Name:	Yukon Pipeline Release	
6488 7 Rivers Hwy	Project Number:	01058-0007	Reported:
Artesia NM, 88210	Project Manager:	Ashley Giovengo	11/06/24 11:50

- ND Analyte NOT DETECTED at or above the reporting limit
- NR Not Reported
- RPD Relative Percent Difference
- DNI Did Not Ignite
- DNR Did not react with the addition of acid or base.

Note (1): Methods marked with \*\* are non-accredited methods.

Note (2): Soil data is reported on an "as received" weight basis, unless reported otherwise.



## Page 1 of 1



## Envirotech Analytical Laboratory

Printed: 10/31/2024 7:42:39AM

## Sample Receipt Checklist (SRC)

Instructions: Please take note of any NO checkmarks.

If we receive no response concerning these items within 24 hours of the date of this notice, all the samples will be analyzed as requested.

Client:	Devon Energy - Carlsbad	Date Received:	10/31/24 06:30	Work Order ID:	E410381
Phone:	(505) 382-1211	Date Logged In:	10/30/24 14:46	Logged In By:	Noe Soto
Email:	agiovento@ensolum.com	Due Date:	11/06/24 17:00 (4 day TAT)		

Chain of Custody (COC)

1. Does the sample ID match the COC? Yes
2. Does the number of samples per sampling site location match the COC? Yes
3. Were samples dropped off by client or carrier? Yes
4. Was the COC complete, i.e., signatures, dates/times, requested analyses? Yes
5. Were all samples received within holding time? Yes

Note: Analysis, such as pH which should be conducted in the field, i.e., 15 minute hold time, are not included in this discussion.

Carrier: CourierComments/ResolutionSample Turn Around Time (TAT)

6. Did the COC indicate standard TAT, or Expedited TAT? Yes

Sample Cooler

7. Was a sample cooler received? Yes
8. If yes, was cooler received in good condition? Yes
9. Was the sample(s) received intact, i.e., not broken? Yes
10. Were custody/security seals present? No
11. If yes, were custody/security seals intact? NA
12. Was the sample received on ice? If yes, the recorded temp is 4°C, i.e., 6°±2°C? Yes

Note: Thermal preservation is not required, if samples are received w/i 15 minutes of sampling

13. If no visible ice, record the temperature. Actual sample temperature: 4°C

Sample Container

14. Are aqueous VOC samples present? No
15. Are VOC samples collected in VOA Vials? NA
16. Is the head space less than 6-8 mm (pea sized or less)? NA
17. Was a trip blank (TB) included for VOC analyses? NA
18. Are non-VOC samples collected in the correct containers? Yes
19. Is the appropriate volume/weight or number of sample containers collected? Yes

Field Label

20. Were field sample labels filled out with the minimum information:  
Sample ID? Yes  
Date/Time Collected? Yes  
Collectors name? Yes

Sample Preservation

21. Does the COC or field labels indicate the samples were preserved? No
22. Are sample(s) correctly preserved? NA
24. Is lab filtration required and/or requested for dissolved metals? No

Multiphase Sample Matrix

26. Does the sample have more than one phase, i.e., multiphase? No
27. If yes, does the COC specify which phase(s) is to be analyzed? NA

Subcontract Laboratory

28. Are samples required to get sent to a subcontract laboratory? No
29. Was a subcontract laboratory specified by the client and if so who? NA Subcontract Lab: NA

Client Instruction

Signature of client authorizing changes to the COC or sample disposition.

Date



envirotech Inc.

Report to:  
Ashley Giovengo



# envirotech

*Practical Solutions for a Better Tomorrow*

## Analytical Report

Devon Energy - Carlsbad

Project Name: Yukon Pipeline Release

Work Order: E410382

Job Number: 01058-0007

Received: 10/31/2024

Revision: 1

Report Reviewed By:

Walter Hinchman  
Laboratory Director  
11/6/24

5796 U.S. Hwy 64  
Farmington, NM 87401

Phone: (505) 632-1881  
Envirotech-inc.com



Envirotech Inc. certifies the test results meet all requirements of TNI unless noted otherwise.  
Statement of Data Authenticity: Envirotech Inc. attests the data reported has not been altered in any way.  
Partial or incomplete reproduction of this report is prohibited, unless approved by Envirotech Inc.  
Envirotech Inc. holds the Utah TNI certification NM00979 for data reported.  
Envirotech Inc. holds the Texas TNI certification T104704557 for data reported.

Date Reported: 11/6/24

Ashley Giovengo  
6488 7 Rivers Hwy  
Artesia, NM 88210



Project Name: Yukon Pipeline Release  
Workorder: E410382  
Date Received: 10/31/2024 6:30:00AM

Ashley Giovengo,

Thank you for choosing Envirotech, Inc. as your analytical testing laboratory for the sample(s) received on, 10/31/2024 6:30:00AM, under the Project Name: Yukon Pipeline Release.

The analytical test results summarized in this report with the Project Name: Yukon Pipeline Release apply to the individual samples collected, identified and submitted bearing the project name on the enclosed chain-of-custody. Subcontracted sample analyses not conducted by Envirotech, Inc., are attached in full as issued by the subcontract laboratory.

Please review the Chain-of-Custody (COC) and Sample Receipt Checklist (SRC) for any issues regarding sample receipt temperature, containers, preservation etc. To best understand your test results, review the entire report summarizing your sample data and the associated quality control batch data.

All reported data in this analytical report were analyzed according to the referenced method(s) and are in compliance with the latest NELAC/TNI standards, unless otherwise noted. Samples or analytical quality control parameters not meeting specific QC criteria are qualified with a data flag. Data flag definitions are located in the Notes and Definitions section of this analytical report.

If you have any questions concerning this report, please feel free to contact Envirotech, Inc.

Respectfully,

**Walter Hinchman**  
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Cell: 775-287-1762  
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Envirotech Web Address: [www.envirotech-inc.com](http://www.envirotech-inc.com)

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Definitions and Notes	10
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Sample Summary

Devon Energy - Carlsbad	Project Name:	Yukon Pipeline Release	Reported:
6488 7 Rivers Hwy	Project Number:	01058-0007	
Artesia NM, 88210	Project Manager:	Ashley Giovengo	11/06/24 11:52

Client Sample ID	Lab Sample ID	Matrix	Sampled	Received	Container
BH04-21'	E410382-01A	Soil	10/29/24	10/31/24	Glass Jar, 2 oz.



Sample Data

Devon Energy - Carlsbad 6488 7 Rivers Hwy Artesia NM, 88210	Project Name: Yukon Pipeline Release Project Number: 01058-0007 Project Manager: Ashley Giovengo	Reported: 11/6/2024 11:52:36AM
---	--	-----------------------------------

BH04-21'

E410382-01

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
<b>Volatile Organics by EPA 8021B</b>	mg/kg	mg/kg	Analyst: SL		Batch: 2444129	
Benzene	ND	0.0250	1	10/31/24	11/05/24	
Ethylbenzene	ND	0.0250	1	10/31/24	11/05/24	
Toluene	ND	0.0250	1	10/31/24	11/05/24	
o-Xylene	ND	0.0250	1	10/31/24	11/05/24	
p,m-Xylene	ND	0.0500	1	10/31/24	11/05/24	
Total Xylenes	ND	0.0250	1	10/31/24	11/05/24	
Surrogate: 4-Bromochlorobenzene-PID	90.0 %	70-130		10/31/24	11/05/24	
<b>Nonhalogenated Organics by EPA 8015D - GRO</b>	mg/kg	mg/kg	Analyst: SL		Batch: 2444129	
Gasoline Range Organics (C6-C10)	ND	20.0	1	10/31/24	11/05/24	
Surrogate: 1-Chloro-4-fluorobenzene-FID	92.2 %	70-130		10/31/24	11/05/24	
<b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b>	mg/kg	mg/kg	Analyst: NV		Batch: 2444146	
Diesel Range Organics (C10-C28)	ND	25.0	1	11/01/24	11/04/24	
Oil Range Organics (C28-C36)	ND	50.0	1	11/01/24	11/04/24	
Surrogate: n-Nonane	107 %	50-200		11/01/24	11/04/24	
<b>Anions by EPA 300.0/9056A</b>	mg/kg	mg/kg	Analyst: DT		Batch: 2445020	
Chloride	3470	40.0	2	11/04/24	11/04/24	



QC Summary Data

Devon Energy - Carlsbad	Project Name:	Yukon Pipeline Release	Reported:
6488 7 Rivers Hwy	Project Number:	01058-0007	
Artesia NM, 88210	Project Manager:	Ashley Giovengo	11/6/2024 11:52:36AM

Volatile Organics by EPA 8021B

Analyst: SL

Analyte	Result	Reporting Limit	Spike Level	Source Result	Rec	Rec Limits	RPD	RPD Limit	Notes
	mg/kg	mg/kg	mg/kg	mg/kg	%	%	%	%	

Blank (2444129-BLK1) Prepared: 10/31/24 Analyzed: 11/04/24

Benzene	ND	0.0250							
Ethylbenzene	ND	0.0250							
Toluene	ND	0.0250							
o-Xylene	ND	0.0250							
p,m-Xylene	ND	0.0500							
Total Xylenes	ND	0.0250							
Surrogate: 4-Bromochlorobenzene-PID	7.06		8.00		88.2	70-130			

LCS (2444129-BS1) Prepared: 10/31/24 Analyzed: 11/04/24

Benzene	5.08	0.0250	5.00		102	70-130			
Ethylbenzene	5.04	0.0250	5.00		101	70-130			
Toluene	5.11	0.0250	5.00		102	70-130			
o-Xylene	5.03	0.0250	5.00		101	70-130			
p,m-Xylene	10.2	0.0500	10.0		102	70-130			
Total Xylenes	15.3	0.0250	15.0		102	70-130			
Surrogate: 4-Bromochlorobenzene-PID	7.12		8.00		89.0	70-130			

LCS Dup (2444129-BSD1) Prepared: 10/31/24 Analyzed: 11/04/24

Benzene	4.93	0.0250	5.00		98.5	70-130	3.01	20	
Ethylbenzene	4.91	0.0250	5.00		98.2	70-130	2.63	20	
Toluene	4.96	0.0250	5.00		99.2	70-130	2.98	20	
o-Xylene	4.91	0.0250	5.00		98.2	70-130	2.48	20	
p,m-Xylene	9.98	0.0500	10.0		99.8	70-130	2.62	20	
Total Xylenes	14.9	0.0250	15.0		99.2	70-130	2.57	20	
Surrogate: 4-Bromochlorobenzene-PID	7.24		8.00		90.5	70-130			



QC Summary Data

Devon Energy - Carlsbad	Project Name:	Yukon Pipeline Release	Reported:
6488 7 Rivers Hwy	Project Number:	01058-0007	
Artesia NM, 88210	Project Manager:	Ashley Giovengo	11/6/2024 11:52:36AM

Nonhalogenated Organics by EPA 8015D - GRO

Analyst: SL

Analyte	Result mg/kg	Reporting Limit mg/kg	Spike Level mg/kg	Source Result mg/kg	Rec %	Rec Limits %	RPD %	RPD Limit %	Notes
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Blank (2444129-BLK1) Prepared: 10/31/24 Analyzed: 11/04/24

Gasoline Range Organics (C6-C10)	ND	20.0							
Surrogate: 1-Chloro-4-fluorobenzene-FID	7.42		8.00		92.7	70-130			

LCS (2444129-BS2) Prepared: 10/31/24 Analyzed: 11/04/24

Gasoline Range Organics (C6-C10)	45.5	20.0	50.0		91.1	70-130			
Surrogate: 1-Chloro-4-fluorobenzene-FID	7.54		8.00		94.3	70-130			

LCS Dup (2444129-BSD2) Prepared: 10/31/24 Analyzed: 11/04/24

Gasoline Range Organics (C6-C10)	43.7	20.0	50.0		87.3	70-130	4.23	20	
Surrogate: 1-Chloro-4-fluorobenzene-FID	7.49		8.00		93.6	70-130			



QC Summary Data

Devon Energy - Carlsbad	Project Name:	Yukon Pipeline Release	Reported:
6488 7 Rivers Hwy	Project Number:	01058-0007	
Artesia NM, 88210	Project Manager:	Ashley Giovengo	11/6/2024 11:52:36AM

Nonhalogenated Organics by EPA 8015D - DRO/ORO

Analyst: NV

Analyte	Result mg/kg	Reporting Limit mg/kg	Spike Level mg/kg	Source Result mg/kg	Rec %	Rec Limits %	RPD %	RPD Limit %	Notes
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Blank (2444146-BLK1)					Prepared: 11/01/24 Analyzed: 11/04/24				
Diesel Range Organics (C10-C28)	ND	25.0							
Oil Range Organics (C28-C36)	ND	50.0							
Surrogate: n-Nonane	58.8		50.0		118	50-200			

LCS (2444146-BS1)					Prepared: 11/01/24 Analyzed: 11/04/24				
Diesel Range Organics (C10-C28)	279	25.0	250		112	38-132			
Surrogate: n-Nonane	57.1		50.0		114	50-200			

LCS Dup (2444146-BSD1)					Prepared: 11/01/24 Analyzed: 11/04/24				
Diesel Range Organics (C10-C28)	272	25.0	250		109	38-132	2.53	20	
Surrogate: n-Nonane	55.7		50.0		111	50-200			



QC Summary Data

Devon Energy - Carlsbad	Project Name:	Yukon Pipeline Release	Reported:
6488 7 Rivers Hwy	Project Number:	01058-0007	
Artesia NM, 88210	Project Manager:	Ashley Giovengo	11/6/2024 11:52:36AM

Anions by EPA 300.0/9056A

Analyst: DT

Analyte	Result	Reporting Limit	Spike Level	Source Result	Rec	Rec Limits	RPD	RPD Limit	Notes
	mg/kg	mg/kg	mg/kg	mg/kg	%	%	%	%	

Blank (2445020-BLK1)					Prepared: 11/04/24 Analyzed: 11/04/24				
Chloride	ND	20.0							
LCS (2445020-BS1)					Prepared: 11/04/24 Analyzed: 11/05/24				
Chloride	255	20.0	250		102	90-110			
LCS Dup (2445020-BSD1)					Prepared: 11/04/24 Analyzed: 11/04/24				
Chloride	254	20.0	250		101	90-110	0.497	20	

QC Summary Report Comment:  
Calculations are based off of the raw (non-rounded) data. However, for reporting purposes all QC data is rounded to three significant figures.  
Therefore, hand calculated values may differ slightly.



Definitions and Notes

Devon Energy - Carlsbad	Project Name:	Yukon Pipeline Release	
6488 7 Rivers Hwy	Project Number:	01058-0007	Reported:
Artesia NM, 88210	Project Manager:	Ashley Giovengo	11/06/24 11:52

- ND Analyte NOT DETECTED at or above the reporting limit
  - NR Not Reported
  - RPD Relative Percent Difference
  - DNI Did Not Ignite
  - DNR Did not react with the addition of acid or base.
- Note (1): Methods marked with \*\* are non-accredited methods.
- Note (2): Soil data is reported on an "as received" weight basis, unless reported otherwise.



## Page 1 of 1



## Envirotech Analytical Laboratory

Printed: 10/31/2024 7:44:32AM

## Sample Receipt Checklist (SRC)

Instructions: Please take note of any NO checkmarks.

If we receive no response concerning these items within 24 hours of the date of this notice, all the samples will be analyzed as requested.

Client:	Devon Energy - Carlsbad	Date Received:	10/31/24 06:30	Work Order ID:	E410382
Phone:	(505) 382-1211	Date Logged In:	10/30/24 14:53	Logged In By:	Noe Soto
Email:	agiovento@ensolum.com	Due Date:	11/06/24 17:00 (4 day TAT)		

Chain of Custody (COC)

1. Does the sample ID match the COC? Yes
2. Does the number of samples per sampling site location match the COC? Yes
3. Were samples dropped off by client or carrier? Yes
4. Was the COC complete, i.e., signatures, dates/times, requested analyses? Yes
5. Were all samples received within holding time? Yes

Note: Analysis, such as pH which should be conducted in the field, i.e., 15 minute hold time, are not included in this discussion.

Carrier: CourierComments/ResolutionSample Turn Around Time (TAT)

6. Did the COC indicate standard TAT, or Expedited TAT? Yes

Sample Cooler

7. Was a sample cooler received? Yes
8. If yes, was cooler received in good condition? Yes
9. Was the sample(s) received intact, i.e., not broken? No
10. Were custody/security seals present? No
11. If yes, were custody/security seals intact? NA
12. Was the sample received on ice? If yes, the recorded temp is 4°C, i.e., 6°±2°C? Yes

Note: Thermal preservation is not required, if samples are received w/i 15 minutes of sampling

13. If no visible ice, record the temperature. Actual sample temperature: 4°C

Sample Container

14. Are aqueous VOC samples present? No
15. Are VOC samples collected in VOA Vials? NA
16. Is the head space less than 6-8 mm (pea sized or less)? NA
17. Was a trip blank (TB) included for VOC analyses? NA
18. Are non-VOC samples collected in the correct containers? Yes
19. Is the appropriate volume/weight or number of sample containers collected? Yes

Field Label

20. Were field sample labels filled out with the minimum information:  
Sample ID? Yes  
Date/Time Collected? Yes  
Collectors name? Yes

Sample Preservation

21. Does the COC or field labels indicate the samples were preserved? No
22. Are sample(s) correctly preserved? NA
24. Is lab filtration required and/or requested for dissolved metals? No

Multiphase Sample Matrix

26. Does the sample have more than one phase, i.e., multiphase? No
27. If yes, does the COC specify which phase(s) is to be analyzed? NA

Subcontract Laboratory

28. Are samples required to get sent to a subcontract laboratory? No
29. Was a subcontract laboratory specified by the client and if so who? NA Subcontract Lab: NA

Client Instruction

Signature of client authorizing changes to the COC or sample disposition.

Date



envirotech Inc.

Report to:

Ashley Giovengo



# envirotech

*Practical Solutions for a Better Tomorrow*

## Analytical Report

Devon Energy - Carlsbad

Project Name: Yukon Gold 31 CTB 2

Work Order: E501221

Job Number: 01058-0007

Received: 1/30/2025

Revision: 1

Report Reviewed By:

Walter Hinchman  
Laboratory Director  
2/4/25

5796 U.S. Hwy 64  
Farmington, NM 87401

Phone: (505) 632-1881  
Envirotech-inc.com



Envirotech Inc. certifies the test results meet all requirements of TNI unless noted otherwise.  
Statement of Data Authenticity: Envirotech Inc. attests the data reported has not been altered in any way.  
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Envirotech Inc. holds the Utah TNI certification NM00979 for data reported.  
Envirotech Inc. holds the Texas TNI certification T104704557 for data reported.

Date Reported: 2/4/25



Ashley Giovengo  
6488 7 Rivers Hwy  
Artesia, NM 88210

Project Name: Yukon Gold 31 CTB 2  
Workorder: E501221  
Date Received: 1/30/2025 7:15:00AM

Ashley Giovengo,

Thank you for choosing Envirotech, Inc. as your analytical testing laboratory for the sample(s) received on, 1/30/2025 7:15:00AM, under the Project Name: Yukon Gold 31 CTB 2.

The analytical test results summarized in this report with the Project Name: Yukon Gold 31 CTB 2 apply to the individual samples collected, identified and submitted bearing the project name on the enclosed chain-of-custody. Subcontracted sample analyses not conducted by Envirotech, Inc., are attached in full as issued by the subcontract laboratory.

Please review the Chain-of-Custody (COC) and Sample Receipt Checklist (SRC) for any issues regarding sample receipt temperature, containers, preservation etc. To best understand your test results, review the entire report summarizing your sample data and the associated quality control batch data.

All reported data in this analytical report were analyzed according to the referenced method(s) and are in compliance with the latest NELAC/TNI standards, unless otherwise noted. Samples or analytical quality control parameters not meeting specific QC criteria are qualified with a data flag. Data flag definitions are located in the Notes and Definitions section of this analytical report.

If you have any questions concerning this report, please feel free to contact Envirotech, Inc.

Respectfully,

**Walter Hinchman**  
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Envirotech Web Address: [www.envirotech-inc.com](http://www.envirotech-inc.com)

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## Sample Summary

Devon Energy - Carlsbad 6488 7 Rivers Hwy Artesia NM, 88210	Project Name: Yukon Gold 31 CTB 2 Project Number: 01058-0007 Project Manager: Ashley Giovengo	Reported: 02/04/25 07:20
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Client Sample ID	Lab Sample ID	Matrix	Sampled	Received	Container
BH04-25'	E501221-01A	Soil	01/28/25	01/30/25	Glass Jar, 2 oz.
BH04-27.5'	E501221-02A	Soil	01/28/25	01/30/25	Glass Jar, 2 oz.
BH04-30'	E501221-03A	Soil	01/28/25	01/30/25	Glass Jar, 2 oz.
BH04-34'	E501221-04A	Soil	01/28/25	01/30/25	Glass Jar, 2 oz.
BH04-39'	E501221-05A	Soil	01/28/25	01/30/25	Glass Jar, 2 oz.
BH04-41'	E501221-06A	Soil	01/28/25	01/30/25	Glass Jar, 2 oz.
BH04-43'	E501221-07A	Soil	01/28/25	01/30/25	Glass Jar, 2 oz.
BH04-45'	E501221-08A	Soil	01/28/25	01/30/25	Glass Jar, 2 oz.



## Sample Data

Devon Energy - Carlsbad 6488 7 Rivers Hwy Artesia NM, 88210	Project Name: Yukon Gold 31 CTB 2 Project Number: 01058-0007 Project Manager: Ashley Giovengo	<b>Reported:</b> 2/4/2025 7:20:01AM
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**BH04-25'**

**E501221-01**

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
<b>Volatile Organics by EPA 8021B</b>	mg/kg	mg/kg	Analyst: BA		Batch: 2505100	
Benzene	ND	0.0250	1	01/30/25	01/31/25	
Ethylbenzene	ND	0.0250	1	01/30/25	01/31/25	
Toluene	ND	0.0250	1	01/30/25	01/31/25	
o-Xylene	ND	0.0250	1	01/30/25	01/31/25	
p,m-Xylene	ND	0.0500	1	01/30/25	01/31/25	
Total Xylenes	ND	0.0250	1	01/30/25	01/31/25	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>		79.7 %	70-130	01/30/25	01/31/25	
<b>Nonhalogenated Organics by EPA 8015D - GRO</b>	mg/kg	mg/kg	Analyst: BA		Batch: 2505100	
Gasoline Range Organics (C6-C10)	ND	20.0	1	01/30/25	01/31/25	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>		92.1 %	70-130	01/30/25	01/31/25	
<b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b>	mg/kg	mg/kg	Analyst: NV		Batch: 2505109	
Diesel Range Organics (C10-C28)	ND	25.0	1	01/30/25	01/31/25	
Oil Range Organics (C28-C36)	ND	50.0	1	01/30/25	01/31/25	
<i>Surrogate: n-Nonane</i>		112 %	61-141	01/30/25	01/31/25	
<b>Anions by EPA 300.0/9056A</b>	mg/kg	mg/kg	Analyst: AK		Batch: 2505101	
Chloride	1020	20.0	1	01/30/25	01/30/25	



Sample Data

Devon Energy - Carlsbad 6488 7 Rivers Hwy Artesia NM, 88210	Project Name: Yukon Gold 31 CTB 2 Project Number: 01058-0007 Project Manager: Ashley Giovengo	Reported: 2/4/2025 7:20:01AM
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BH04-27.5'  
E501221-02

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
<b>Volatile Organics by EPA 8021B</b>	mg/kg	mg/kg	Analyst: BA		Batch: 2505100	
Benzene	ND	0.0250	1	01/30/25	01/31/25	
Ethylbenzene	ND	0.0250	1	01/30/25	01/31/25	
Toluene	ND	0.0250	1	01/30/25	01/31/25	
o-Xylene	ND	0.0250	1	01/30/25	01/31/25	
p,m-Xylene	ND	0.0500	1	01/30/25	01/31/25	
Total Xylenes	ND	0.0250	1	01/30/25	01/31/25	
Surrogate: 4-Bromochlorobenzene-PID	79.3 %	70-130		01/30/25	01/31/25	
<b>Nonhalogenated Organics by EPA 8015D - GRO</b>	mg/kg	mg/kg	Analyst: BA		Batch: 2505100	
Gasoline Range Organics (C6-C10)	ND	20.0	1	01/30/25	01/31/25	
Surrogate: 1-Chloro-4-fluorobenzene-FID	92.2 %	70-130		01/30/25	01/31/25	
<b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b>	mg/kg	mg/kg	Analyst: NV		Batch: 2505109	
Diesel Range Organics (C10-C28)	ND	25.0	1	01/30/25	01/31/25	
Oil Range Organics (C28-C36)	ND	50.0	1	01/30/25	01/31/25	
Surrogate: n-Nonane	106 %	61-141		01/30/25	01/31/25	
<b>Anions by EPA 300.0/9056A</b>	mg/kg	mg/kg	Analyst: AK		Batch: 2505101	
Chloride	1300	20.0	1	01/30/25	01/30/25	



Sample Data

Devon Energy - Carlsbad 6488 7 Rivers Hwy Artesia NM, 88210	Project Name: Yukon Gold 31 CTB 2 Project Number: 01058-0007 Project Manager: Ashley Giovengo	Reported: 2/4/2025 7:20:01AM
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BH04-30'

E501221-03

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
<b>Volatile Organics by EPA 8021B</b>						
	mg/kg	mg/kg	Analyst: BA		Batch: 2505100	
Benzene	ND	0.0250	1	01/30/25	01/31/25	
Ethylbenzene	ND	0.0250	1	01/30/25	01/31/25	
Toluene	ND	0.0250	1	01/30/25	01/31/25	
o-Xylene	ND	0.0250	1	01/30/25	01/31/25	
p,m-Xylene	ND	0.0500	1	01/30/25	01/31/25	
Total Xylenes	ND	0.0250	1	01/30/25	01/31/25	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>						
	80.4 %	70-130		01/30/25	01/31/25	
<b>Nonhalogenated Organics by EPA 8015D - GRO</b>						
	mg/kg	mg/kg	Analyst: BA		Batch: 2505100	
Gasoline Range Organics (C6-C10)	ND	20.0	1	01/30/25	01/31/25	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>						
	92.6 %	70-130		01/30/25	01/31/25	
<b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b>						
	mg/kg	mg/kg	Analyst: NV		Batch: 2505109	
Diesel Range Organics (C10-C28)	ND	25.0	1	01/30/25	01/31/25	
Oil Range Organics (C28-C36)	ND	50.0	1	01/30/25	01/31/25	
<i>Surrogate: n-Nonane</i>						
	108 %	61-141		01/30/25	01/31/25	
<b>Anions by EPA 300.0/9056A</b>						
	mg/kg	mg/kg	Analyst: AK		Batch: 2505101	
Chloride	1710	20.0	1	01/30/25	01/30/25	



Sample Data

Devon Energy - Carlsbad 6488 7 Rivers Hwy Artesia NM, 88210	Project Name: Yukon Gold 31 CTB 2 Project Number: 01058-0007 Project Manager: Ashley Giovengo	Reported: 2/4/2025 7:20:01AM
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BH04-34'

E501221-04

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
<b>Volatile Organics by EPA 8021B</b>						
	mg/kg	mg/kg	Analyst: BA		Batch: 2505100	
Benzene	ND	0.0250	1	01/30/25	01/31/25	
Ethylbenzene	ND	0.0250	1	01/30/25	01/31/25	
Toluene	ND	0.0250	1	01/30/25	01/31/25	
o-Xylene	ND	0.0250	1	01/30/25	01/31/25	
p,m-Xylene	ND	0.0500	1	01/30/25	01/31/25	
Total Xylenes	ND	0.0250	1	01/30/25	01/31/25	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>						
	79.1 %	70-130		01/30/25	01/31/25	
<b>Nonhalogenated Organics by EPA 8015D - GRO</b>						
	mg/kg	mg/kg	Analyst: BA		Batch: 2505100	
Gasoline Range Organics (C6-C10)	ND	20.0	1	01/30/25	01/31/25	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>						
	93.2 %	70-130		01/30/25	01/31/25	
<b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b>						
	mg/kg	mg/kg	Analyst: NV		Batch: 2505109	
Diesel Range Organics (C10-C28)	ND	25.0	1	01/30/25	01/31/25	
Oil Range Organics (C28-C36)	ND	50.0	1	01/30/25	01/31/25	
<i>Surrogate: n-Nonane</i>						
	99.9 %	61-141		01/30/25	01/31/25	
<b>Anions by EPA 300.0/9056A</b>						
	mg/kg	mg/kg	Analyst: AK		Batch: 2505101	
Chloride	4540	40.0	2	01/30/25	01/30/25	



## Sample Data

Devon Energy - Carlsbad  
6488 7 Rivers Hwy  
Artesia NM, 88210

Project Name: Yukon Gold 31 CTB 2  
Project Number: 01058-0007  
Project Manager: Ashley Giovengo

**Reported:**  
2/4/2025 7:20:01AM

BH04-39'

E501221-05

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
<b>Volatile Organics by EPA 8021B</b>	mg/kg	mg/kg	Analyst: BA		Batch: 2505100	
Benzene	ND	0.0250	1	01/30/25	01/31/25	
Ethylbenzene	ND	0.0250	1	01/30/25	01/31/25	
Toluene	ND	0.0250	1	01/30/25	01/31/25	
o-Xylene	ND	0.0250	1	01/30/25	01/31/25	
p,m-Xylene	ND	0.0500	1	01/30/25	01/31/25	
Total Xylenes	ND	0.0250	1	01/30/25	01/31/25	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>	79.5 %	70-130		01/30/25	01/31/25	
<b>Nonhalogenated Organics by EPA 8015D - GRO</b>	mg/kg	mg/kg	Analyst: BA		Batch: 2505100	
Gasoline Range Organics (C6-C10)	ND	20.0	1	01/30/25	01/31/25	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>	92.6 %	70-130		01/30/25	01/31/25	
<b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b>	mg/kg	mg/kg	Analyst: NV		Batch: 2505109	
Diesel Range Organics (C10-C28)	ND	25.0	1	01/30/25	01/31/25	
Oil Range Organics (C28-C36)	ND	50.0	1	01/30/25	01/31/25	
<i>Surrogate: n-Nonane</i>	104 %	61-141		01/30/25	01/31/25	
<b>Anions by EPA 300.0/9056A</b>	mg/kg	mg/kg	Analyst: AK		Batch: 2505101	
Chloride	8420	100	5	01/30/25	01/30/25	



## Sample Data

Devon Energy - Carlsbad  
6488 7 Rivers Hwy  
Artesia NM, 88210

Project Name: Yukon Gold 31 CTB 2  
Project Number: 01058-0007  
Project Manager: Ashley Giovengo

**Reported:**  
2/4/2025 7:20:01AM

BH04-41'

E501221-06

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
<b>Volatile Organics by EPA 8021B</b>						
	mg/kg	mg/kg	Analyst: BA		Batch: 2505100	
Benzene	ND	0.0250	1	01/30/25	01/31/25	
Ethylbenzene	ND	0.0250	1	01/30/25	01/31/25	
Toluene	ND	0.0250	1	01/30/25	01/31/25	
o-Xylene	ND	0.0250	1	01/30/25	01/31/25	
p,m-Xylene	ND	0.0500	1	01/30/25	01/31/25	
Total Xylenes	ND	0.0250	1	01/30/25	01/31/25	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>						
	86.0 %	70-130		01/30/25	01/31/25	
<b>Nonhalogenated Organics by EPA 8015D - GRO</b>						
	mg/kg	mg/kg	Analyst: BA		Batch: 2505100	
Gasoline Range Organics (C6-C10)	ND	20.0	1	01/30/25	01/31/25	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>						
	94.0 %	70-130		01/30/25	01/31/25	
<b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b>						
	mg/kg	mg/kg	Analyst: NV		Batch: 2505109	
Diesel Range Organics (C10-C28)	ND	25.0	1	01/30/25	01/31/25	
Oil Range Organics (C28-C36)	ND	50.0	1	01/30/25	01/31/25	
<i>Surrogate: n-Nonane</i>						
	111 %	61-141		01/30/25	01/31/25	
<b>Anions by EPA 300.0/9056A</b>						
	mg/kg	mg/kg	Analyst: AK		Batch: 2505101	
Chloride	3980	40.0	2	01/30/25	01/30/25	



Sample Data

Devon Energy - Carlsbad 6488 7 Rivers Hwy Artesia NM, 88210	Project Name: Yukon Gold 31 CTB 2 Project Number: 01058-0007 Project Manager: Ashley Giovengo	Reported: 2/4/2025 7:20:01AM
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BH04-43'

E501221-07

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
<b>Volatile Organics by EPA 8021B</b>						
	mg/kg	mg/kg	Analyst: BA		Batch: 2505100	
Benzene	ND	0.0250	1	01/30/25	01/31/25	
Ethylbenzene	ND	0.0250	1	01/30/25	01/31/25	
Toluene	ND	0.0250	1	01/30/25	01/31/25	
o-Xylene	ND	0.0250	1	01/30/25	01/31/25	
p,m-Xylene	ND	0.0500	1	01/30/25	01/31/25	
Total Xylenes	ND	0.0250	1	01/30/25	01/31/25	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>						
	83.8 %	70-130		01/30/25	01/31/25	
<b>Nonhalogenated Organics by EPA 8015D - GRO</b>						
	mg/kg	mg/kg	Analyst: BA		Batch: 2505100	
Gasoline Range Organics (C6-C10)	ND	20.0	1	01/30/25	01/31/25	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>						
	93.2 %	70-130		01/30/25	01/31/25	
<b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b>						
	mg/kg	mg/kg	Analyst: NV		Batch: 2505109	
Diesel Range Organics (C10-C28)	ND	25.0	1	01/30/25	01/31/25	
Oil Range Organics (C28-C36)	ND	50.0	1	01/30/25	01/31/25	
<i>Surrogate: n-Nonane</i>						
	126 %	61-141		01/30/25	01/31/25	
<b>Anions by EPA 300.0/9056A</b>						
	mg/kg	mg/kg	Analyst: AK		Batch: 2505101	
Chloride	579	20.0	1	01/30/25	01/30/25	



Sample Data

Devon Energy - Carlsbad 6488 7 Rivers Hwy Artesia NM, 88210	Project Name: Yukon Gold 31 CTB 2 Project Number: 01058-0007 Project Manager: Ashley Giovengo	Reported: 2/4/2025 7:20:01AM
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BH04-45'

E501221-08

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
<b>Volatile Organics by EPA 8021B</b>						
	mg/kg	mg/kg	Analyst: BA		Batch: 2505100	
Benzene	ND	0.0250	1	01/30/25	01/31/25	
Ethylbenzene	ND	0.0250	1	01/30/25	01/31/25	
Toluene	ND	0.0250	1	01/30/25	01/31/25	
o-Xylene	ND	0.0250	1	01/30/25	01/31/25	
p,m-Xylene	ND	0.0500	1	01/30/25	01/31/25	
Total Xylenes	ND	0.0250	1	01/30/25	01/31/25	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>						
	81.7 %	70-130		01/30/25	01/31/25	
<b>Nonhalogenated Organics by EPA 8015D - GRO</b>						
	mg/kg	mg/kg	Analyst: BA		Batch: 2505100	
Gasoline Range Organics (C6-C10)	ND	20.0	1	01/30/25	01/31/25	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>						
	93.1 %	70-130		01/30/25	01/31/25	
<b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b>						
	mg/kg	mg/kg	Analyst: NV		Batch: 2505109	
Diesel Range Organics (C10-C28)	ND	25.0	1	01/30/25	01/31/25	
Oil Range Organics (C28-C36)	ND	50.0	1	01/30/25	01/31/25	
<i>Surrogate: n-Nonane</i>						
	109 %	61-141		01/30/25	01/31/25	
<b>Anions by EPA 300.0/9056A</b>						
	mg/kg	mg/kg	Analyst: AK		Batch: 2505101	
Chloride	161	20.0	1	01/30/25	01/30/25	



QC Summary Data

Devon Energy - Carlsbad	Project Name:	Yukon Gold 31 CTB 2	Reported:
6488 7 Rivers Hwy	Project Number:	01058-0007	
Artesia NM, 88210	Project Manager:	Ashley Giovengo	2/4/2025 7:20:01AM

Volatile Organics by EPA 8021B

Analyst: BA

Analyte	Result	Reporting Limit	Spike Level	Source Result	Rec	Rec Limits	RPD	RPD Limit	Notes
	mg/kg	mg/kg	mg/kg	mg/kg	%	%	%	%	

Blank (2505100-BLK1) Prepared: 01/30/25 Analyzed: 01/30/25

Benzene	ND	0.0250							
Ethylbenzene	ND	0.0250							
Toluene	ND	0.0250							
o-Xylene	ND	0.0250							
p,m-Xylene	ND	0.0500							
Total Xylenes	ND	0.0250							
Surrogate: 4-Bromochlorobenzene-PID	7.18		8.00		89.7	70-130			

LCS (2505100-BS1) Prepared: 01/30/25 Analyzed: 01/31/25

Benzene	5.60	0.0250	5.00		112	70-130			
Ethylbenzene	5.33	0.0250	5.00		107	70-130			
Toluene	5.49	0.0250	5.00		110	70-130			
o-Xylene	5.31	0.0250	5.00		106	70-130			
p,m-Xylene	10.8	0.0500	10.0		108	70-130			
Total Xylenes	16.1	0.0250	15.0		107	70-130			
Surrogate: 4-Bromochlorobenzene-PID	7.11		8.00		88.9	70-130			

LCS Dup (2505100-BSD1) Prepared: 01/30/25 Analyzed: 01/31/25

Benzene	5.12	0.0250	5.00		102	70-130	8.98	20	
Ethylbenzene	4.88	0.0250	5.00		97.5	70-130	8.91	20	
Toluene	5.02	0.0250	5.00		100	70-130	8.99	20	
o-Xylene	4.85	0.0250	5.00		97.0	70-130	9.01	20	
p,m-Xylene	9.91	0.0500	10.0		99.1	70-130	8.74	20	
Total Xylenes	14.8	0.0250	15.0		98.4	70-130	8.83	20	
Surrogate: 4-Bromochlorobenzene-PID	6.99		8.00		87.4	70-130			



QC Summary Data

Devon Energy - Carlsbad	Project Name:	Yukon Gold 31 CTB 2	Reported:
6488 7 Rivers Hwy	Project Number:	01058-0007	
Artesia NM, 88210	Project Manager:	Ashley Giovengo	2/4/2025 7:20:01AM

Nonhalogenated Organics by EPA 8015D - GRO

Analyst: BA

Analyte	Result mg/kg	Reporting Limit mg/kg	Spike Level mg/kg	Source Result mg/kg	Rec %	Rec Limits %	RPD %	RPD Limit %	Notes
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Blank (2505100-BLK1)					Prepared: 01/30/25 Analyzed: 01/30/25				
Gasoline Range Organics (C6-C10)	ND	20.0							
Surrogate: 1-Chloro-4-fluorobenzene-FID	7.31		8.00		91.4	70-130			

LCS (2505100-BS2)					Prepared: 01/30/25 Analyzed: 01/31/25				
Gasoline Range Organics (C6-C10)	45.7	20.0	50.0		91.5	70-130			
Surrogate: 1-Chloro-4-fluorobenzene-FID	7.56		8.00		94.5	70-130			

LCS Dup (2505100-BSD2)					Prepared: 01/30/25 Analyzed: 01/31/25				
Gasoline Range Organics (C6-C10)	38.7	20.0	50.0		77.4	70-130	16.7	20	
Surrogate: 1-Chloro-4-fluorobenzene-FID	7.52		8.00		94.0	70-130			



QC Summary Data

Devon Energy - Carlsbad	Project Name:	Yukon Gold 31 CTB 2	Reported:
6488 7 Rivers Hwy	Project Number:	01058-0007	
Artesia NM, 88210	Project Manager:	Ashley Giovengo	2/4/2025 7:20:01AM

Nonhalogenated Organics by EPA 8015D - DRO/ORO

Analyst: NV

Analyte	Result mg/kg	Reporting Limit mg/kg	Spike Level mg/kg	Source Result mg/kg	Rec %	Rec Limits %	RPD %	RPD Limit %	Notes
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Blank (2505109-BLK1)					Prepared: 01/30/25 Analyzed: 01/30/25				
Diesel Range Organics (C10-C28)	ND	25.0							
Oil Range Organics (C28-C36)	ND	50.0							
Surrogate: n-Nonane	52.1		50.0		104	61-141			

LCS (2505109-BS1)					Prepared: 01/30/25 Analyzed: 01/30/25				
Diesel Range Organics (C10-C28)	267	25.0	250		107	66-144			
Surrogate: n-Nonane	51.5		50.0		103	61-141			

Matrix Spike (2505109-MS1)					Source: E501220-06		Prepared: 01/30/25 Analyzed: 01/30/25		
Diesel Range Organics (C10-C28)	268	25.0	250	ND	107	56-156			
Surrogate: n-Nonane	50.7		50.0		101	61-141			

Matrix Spike Dup (2505109-MSD1)					Source: E501220-06		Prepared: 01/30/25 Analyzed: 01/30/25		
Diesel Range Organics (C10-C28)	265	25.0	250	ND	106	56-156	1.18	20	
Surrogate: n-Nonane	46.2		50.0		92.4	61-141			



QC Summary Data

Devon Energy - Carlsbad	Project Name:	Yukon Gold 31 CTB 2	Reported:
6488 7 Rivers Hwy	Project Number:	01058-0007	
Artesia NM, 88210	Project Manager:	Ashley Giovengo	2/4/2025 7:20:01AM

Anions by EPA 300.0/9056A

Analyst: AK

Analyte	Result mg/kg	Reporting Limit mg/kg	Spike Level mg/kg	Source Result mg/kg	Rec %	Rec Limits %	RPD %	RPD Limit %	Notes
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Blank (2505101-BLK1)					Prepared: 01/30/25 Analyzed: 01/30/25				
Chloride	ND	20.0							
LCS (2505101-BS1)					Prepared: 01/30/25 Analyzed: 01/30/25				
Chloride	254	20.0	250		102	90-110			
Matrix Spike (2505101-MS1)					Source: E501220-05		Prepared: 01/30/25 Analyzed: 01/30/25		
Chloride	1110	20.0	250	669	175	80-120			M4
Matrix Spike Dup (2505101-MSD1)					Source: E501220-05		Prepared: 01/30/25 Analyzed: 01/30/25		
Chloride	1010	20.0	250	669	138	80-120	8.85	20	M4

QC Summary Report Comment:  
Calculations are based off of the raw (non-rounded) data. However, for reporting purposes all QC data is rounded to three significant figures.  
Therefore, hand calculated values may differ slightly.



Definitions and Notes

Devon Energy - Carlsbad	Project Name:	Yukon Gold 31 CTB 2	
6488 7 Rivers Hwy	Project Number:	01058-0007	Reported:
Artesia NM, 88210	Project Manager:	Ashley Giovengo	02/04/25 07:20

- M4 Matrix spike recovery value is suspect since the analyte concentration in the sample is disproportionate to the spike level. The associated LCS spike recovery was acceptable.
- ND Analyte NOT DETECTED at or above the reporting limit
- NR Not Reported
- RPD Relative Percent Difference
- DNI Did Not Ignite
- DNR Did not react with the addition of acid or base.

Note (1): Methods marked with \*\* are non-accredited methods.

Note (2): Soil data is reported on an "as received" weight basis, unless reported otherwise.



W0# 21384456

## Chain of Custody

Page 1 of 1

Client Information				Invoice Information				Lab Use Only				TAT				State																							
Client: Devon				Company: Devon				Lab WO# E50221				Job Number 00580007				<table border="1"> <tr> <td>1D</td> <td>2D</td> <td>3D</td> <td>Std</td> </tr> <tr> <td></td> <td></td> <td></td> <td>X</td> </tr> </table>				1D	2D	3D	Std				X	<table border="1"> <tr> <td>NM</td> <td>CO</td> <td>UT</td> <td>TX</td> </tr> <tr> <td>X</td> <td></td> <td></td> <td></td> </tr> </table>				NM	CO	UT	TX	X			
1D	2D	3D	Std																																				
			X																																				
NM	CO	UT	TX																																				
X																																							
Project: Yukon Gold 31 CTB 2				Address: 5315 Buena Vista Dr																																			
Project Manager: Ashley Giovengo				City, State, Zip: Carlsbad NM, 88220																																			
Address: 3122 National Parks Hwy				Phone: (575)689-7597																																			
City, State, Zip: Carlsbad NM, 88220				Email: jim.raley@devn.com																																			
Phone: 575-988-0055				Miscellaneous: Jim Raley																																			
Email: agiovengo@ensolum.com																																							
Sample Information												Analysis and Method								EPA Program																			
Time Sampled	Date Sampled	Matrix	No. of Containers	Sample ID	Field Filter	Lab Number	DRO/GRO by 8015	GRO/DRO by 8015	BTEX by 8021	VOC by 8260	Chloride 300.0	BGDOC - NM	TCEQ 1005 - TX	RCRA 8 Metals	SDWA	CWA	RCRA																						
14:24	1/28/2025	S	1	BH04 - 25'		1						X																											
14:35	1/28/2025	S	1	BH04 - 27.5'		2						X																											
15:09	1/28/2025	S	1	BH04 - 30'		3						X																											
15:24	1/28/2025	S	1	BH04 - 34'		4						X																											
15:48	1/28/2025	S	1	BH04 - 39'		5						X																											
16:12	1/28/2025	S	1	BH04 - 41'		6						X																											
16:12	1/28/2025	S	1	BH04 - 43'		7						X																											
16:12	1/28/2025	S	1	BH04 - 45'		8						X																											
<b>Additional Instructions:</b> Please CC: cburton@ensolum.com, agiovengo@ensolum.com, jim.raley@devn.com, iestrella@ensolum.com, bdeal@ensolum, chamilton@ensolum.com, bsimmons@ensolum.com I, (field sampler), attest to the validity and authenticity of this sample. I am aware that tampering with or intentionally mislabeling the sample location, date or time of collection is considered fraud and may be grounds for legal action. Sampled by: Bowan Simmons																																							
Relinquished by: (Signature)		Date	Time	Received by: (Signature)		Date	Time	Samples requiring thermal preservation must be received on ice the day they are sampled or received packed in ice at an avg temp above 0 but less than 6 °C on subsequent days. Received on ice: <input checked="" type="radio"/> Y <input type="radio"/> N T1 _____ T2 _____ T3 _____ AVG Temp °C 4																															
Relinquished by: (Signature)		Date	Time	Received by: (Signature)		Date	Time																																
Relinquished by: (Signature)		Date	Time	Received by: (Signature)		Date	Time																																
Relinquished by: (Signature)		Date	Time	Received by: (Signature)		Date	Time																																
Sample Matrix: S - Soil, Sd - Solid, Sg - Sludge, A - Aqueous, O - Other _____ Container Type: g - glass, p - poly/plastic, ag - amber glass, v - VOA _____																																							
Note: Samples are discarded 14 days after results are reported unless other arrangements are made. Hazardous samples will be returned to client or disposed of at the client expense. The report for the analysis of the above samples is applicable only to those samples received by the laboratory with this COC. The liability of the laboratory is limited to the amount paid for on the report.																																							



envirotech

## Envirotech Analytical Laboratory

Printed: 1/30/2025 8:04:09AM

## Sample Receipt Checklist (SRC)

Instructions: Please take note of any NO checkmarks.

If we receive no response concerning these items within 24 hours of the date of this notice, all the samples will be analyzed as requested.

Client:	Devon Energy - Carlsbad	Date Received:	01/30/25 07:15	Work Order ID:	E501221
Phone:	(505) 382-1211	Date Logged In:	01/29/25 14:15	Logged In By:	Caitlin Mars
Email:	agiovento@ensolum.com	Due Date:	02/05/25 17:00 (4 day TAT)		

Chain of Custody (COC)

1. Does the sample ID match the COC? Yes
2. Does the number of samples per sampling site location match the COC? Yes
3. Were samples dropped off by client or carrier? Yes
4. Was the COC complete, i.e., signatures, dates/times, requested analyses? Yes
5. Were all samples received within holding time? Yes

Note: Analysis, such as pH which should be conducted in the field, i.e., 15 minute hold time, are not included in this discussion.

Carrier: CourierComments/ResolutionSample Turn Around Time (TAT)

6. Did the COC indicate standard TAT, or Expedited TAT? Yes

Sample Cooler

7. Was a sample cooler received? Yes
8. If yes, was cooler received in good condition? Yes
9. Was the sample(s) received intact, i.e., not broken? Yes
10. Were custody/security seals present? No
11. If yes, were custody/security seals intact? NA
12. Was the sample received on ice? If yes, the recorded temp is 4°C, i.e., 6°±2°C? Yes

Note: Thermal preservation is not required, if samples are received w/i 15 minutes of sampling

13. If no visible ice, record the temperature. Actual sample temperature: 4°C

Sample Container

14. Are aqueous VOC samples present? No
15. Are VOC samples collected in VOA Vials? NA
16. Is the head space less than 6-8 mm (pea sized or less)? NA
17. Was a trip blank (TB) included for VOC analyses? NA
18. Are non-VOC samples collected in the correct containers? Yes
19. Is the appropriate volume/weight or number of sample containers collected? Yes

Field Label

20. Were field sample labels filled out with the minimum information:  
Sample ID? Yes  
Date/Time Collected? Yes  
Collectors name? Yes

Sample Preservation

21. Does the COC or field labels indicate the samples were preserved? No
22. Are sample(s) correctly preserved? NA
24. Is lab filtration required and/or requested for dissolved metals? No

Multiphase Sample Matrix

26. Does the sample have more than one phase, i.e., multiphase? No
27. If yes, does the COC specify which phase(s) is to be analyzed? NA

Subcontract Laboratory

28. Are samples required to get sent to a subcontract laboratory? No
29. Was a subcontract laboratory specified by the client and if so who? NA Subcontract Lab: NA

Client Instruction

Signature of client authorizing changes to the COC or sample disposition.

Date



envirotech Inc.



## APPENDIX F

### NMOCD Correspondence

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

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

QUESTIONS

Action 371941

QUESTIONS

Operator: DEVON ENERGY PRODUCTION COMPANY, LP 333 West Sheridan Ave. Oklahoma City, OK 73102	OGRID: 6137
	Action Number: 371941
	Action Type: [NOTIFY] Notification Of Release (NOR)

QUESTIONS

Location of Release Source	
Please answer all the questions in this group.	
Site Name	Pipeline 800 feet NW of Yukon Gold 31 CTB 2
Date Release Discovered	08/08/2024
Surface Owner	Federal

Incident Details	
Please answer all the questions in this group.	
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	
Material(s) released, please answer all that apply below. Any calculations or specific justifications for the volumes provided should be attached to the follow-up C-141 submission.	
Crude Oil Released (bbls) Details	Not answered.
Produced Water Released (bbls) Details	Cause: Equipment Failure   Gasket   Produced Water   Released: 4 BBL   Recovered: 0 BBL   Lost: 4 BBL.
Is the concentration of chloride in the produced water >10,000 mg/l	Yes
Condensate Released (bbls) Details	Not answered.
Natural Gas Vented (Mcf) Details	Not answered.
Natural Gas Flared (Mcf) Details	Not answered.
Other Released Details	Not answered.
Are there additional details for the questions above (i.e. any answer containing Other, Specify, Unknown, and/or Fire, or any negative lost amounts)	blown paper gasket on blind flange. estimated 4.1 bbls released. 0 bbls recovered

**District I**

1625 N. French Dr., Hobbs, NM 88240  
Phone:(575) 393-6161 Fax:(575) 393-0720

**District II**

811 S. First St., Artesia, NM 88210  
Phone:(575) 748-1283 Fax:(575) 748-9720

**District III**

1000 Rio Brazos Rd., Aztec, NM 87410  
Phone:(505) 334-6178 Fax:(505) 334-6170

**District IV**

1220 S. St Francis Dr., Santa Fe, NM 87505  
Phone:(505) 476-3470 Fax:(505) 476-3462

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

**QUESTIONS (continued)**

Operator: DEVON ENERGY PRODUCTION COMPANY, LP 333 West Sheridan Ave. Oklahoma City, OK 73102	OGRID: 6137
	Action Number: 371941
	Action Type: [NOTIFY] Notification Of Release (NOR)

**QUESTIONS**

<b>Nature and Volume of Release (continued)</b>	
Is this a gas only submission (i.e. only significant Mcf values reported)	<b>More volume information must be supplied to determine if this will be treated as a "gas only" report.</b>
Was this a major release as defined by Subsection A of 19.15.29.7 NMAC	Unavailable.
Reasons why this would be considered a submission for a notification of a major release	Unavailable.
<i>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.</i>	

**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 19.15.29.11(A)(5)(a) NMAC), please prepare and attach all information needed for closure evaluation in the follow-up C-141 submission.*

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**District II**  
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**District III**  
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**District IV**  
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**State of New Mexico**  
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**Oil Conservation Division**  
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ACKNOWLEDGMENTS  
  
Action 371941

ACKNOWLEDGMENTS

Operator: DEVON ENERGY PRODUCTION COMPANY, LP 333 West Sheridan Ave. Oklahoma City, OK 73102	OGRID: 6137
	Action Number: 371941
	Action Type: [NOTIFY] Notification Of Release (NOR)

ACKNOWLEDGMENTS

<input checked="" type="checkbox"/>	I acknowledge that I am authorized to submit notification of a release on behalf of my operator.
<input checked="" type="checkbox"/>	I acknowledge that upon submitting this application, I will be creating a new incident file (assigned to my operator) to track the notification(s) and corrective action(s) for a release, pursuant to NMAC 19.15.29.
<input checked="" type="checkbox"/>	I acknowledge that creating a new incident file will require my operator to file subsequent submission(s) of form "C-141, Application for administrative approval of a release notification and corrective action", pursuant to NMAC 19.15.29.
<input checked="" type="checkbox"/>	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.
<input checked="" type="checkbox"/>	I acknowledge the fact that 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.
<input checked="" type="checkbox"/>	I acknowledge the fact that, 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.

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CONDITIONS  
  
Action 371941

CONDITIONS

Operator: DEVON ENERGY PRODUCTION COMPANY, LP 333 West Sheridan Ave. Oklahoma City, OK 73102	OGRID: 6137
	Action Number: 371941
	Action Type: [NOTIFY] Notification Of Release (NOR)

CONDITIONS

Created By	Condition	Condition Date
wdale	When submitting future reports regarding this release, please submit the calculations used or specific justification for the volumes reported on the initial C-141.	8/9/2024

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QUESTIONS

Action 492188

QUESTIONS

Operator: DEVON ENERGY PRODUCTION COMPANY, LP 333 West Sheridan Ave. Oklahoma City, OK 73102	OGRID: 6137
	Action Number: 492188
	Action Type: [C-141] Site Char./Remediation Plan C-141 (C-141-v-Plan)

QUESTIONS

Prerequisites	
Incident ID (n#)	nAPP2422256945
Incident Name	NAPP2422256945 PIPELINE 800 FEET NW OF YUKON GOLD 31 CTB 2 @ 0
Incident Type	Produced Water Release
Incident Status	Remediation Plan Received

Location of Release Source	
Please answer all the questions in this group.	
Site Name	PIPELINE 800 FEET NW OF YUKON GOLD 31 CTB 2
Date Release Discovered	08/08/2024
Surface Owner	Federal

Incident Details	
Please answer all the questions in this group.	
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	
Material(s) released, please answer all that apply below. Any calculations or specific justifications for the volumes provided should be attached to the follow-up C-141 submission.	
Crude Oil Released (bbls) Details	Not answered.
Produced Water Released (bbls) Details	Cause: Equipment Failure   Gasket   Produced Water   Released: 71 BBL   Recovered: 71 BBL   Lost: 0 BBL.
Is the concentration of chloride in the produced water >10,000 mg/l	Yes
Condensate Released (bbls) Details	Not answered.
Natural Gas Vented (Mcf) Details	Not answered.
Natural Gas Flared (Mcf) Details	Not answered.
Other Released Details	Not answered.
Are there additional details for the questions above (i.e. any answer containing Other, Specify, Unknown, and/or Fire, or any negative lost amounts)	blown paper gasket on blind flange. estimated 71 bbls released. 0 bbls recovered

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QUESTIONS, Page 2

Action 492188

**QUESTIONS (continued)**

Operator: DEVON ENERGY PRODUCTION COMPANY, LP 333 West Sheridan Ave. Oklahoma City, OK 73102	OGRID: 6137
	Action Number: 492188
	Action Type: [C-141] Site Char./Remediation Plan C-141 (C-141-v-Plan)

**QUESTIONS**

<b>Nature and Volume of Release (continued)</b>	
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	Yes
Reasons why this would be considered a submission for a notification of a major release	From paragraph A. "Major release" determine using: (1) an unauthorized release of a volume, excluding gases, of 25 barrels or more.
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@dvni.com Date: 08/05/2025
--	---

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QUESTIONS, Page 3

Action 492188

**QUESTIONS (continued)**

Operator: DEVON ENERGY PRODUCTION COMPANY, LP 333 West Sheridan Ave. Oklahoma City, OK 73102	OGRID: 6137
	Action Number: 492188
	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 100 and 500 (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
<b>What is the minimum distance, between the closest lateral extents of the release and the following surface areas:</b>	
A continuously flowing watercourse or any other significant watercourse	Between 100 and 200 (ft.)
Any lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark)	Between 1000 (ft.) and ½ (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	Between 100 and 200 (ft.)
A subsurface mine	Greater than 5 (mi.)
An (non-karst) unstable area	Between 1 and 5 (mi.)
Categorize the risk of this well / site being in a karst geology	High
A 100-year floodplain	Between 1 and 5 (mi.)
Did the release impact areas not on an exploration, development, production, or storage site	Yes

**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)	26000
TPH (GRO+DRO+MRO) (EPA SW-846 Method 8015M)	2910
GRO+DRO (EPA SW-846 Method 8015M)	1560
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	01/01/2026
On what date will (or did) the final sampling or liner inspection occur	01/15/2025
On what date will (or was) the remediation complete(d)	01/15/2025
What is the estimated surface area (in square feet) that will be reclaimed	2983
What is the estimated volume (in cubic yards) that will be reclaimed	815
What is the estimated surface area (in square feet) that will be remediated	2983
What is the estimated volume (in cubic yards) that will be remediated	815

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 492188

**QUESTIONS (continued)**

Operator: DEVON ENERGY PRODUCTION COMPANY, LP 333 West Sheridan Ave. Oklahoma City, OK 73102	OGRID: 6137
	Action Number: 492188
	Action Type: [C-141] Site Char./Remediation Plan C-141 (C-141-v-Plan)

**QUESTIONS**

<b>Remediation Plan (continued)</b>	
<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>	
<b>This remediation will (or is expected to) utilize the following processes to remediate / reduce contaminants:</b>	
<i>(Select all answers below that apply.)</i>	
(Ex Situ) Excavation and <b>off-site</b> disposal (i.e. dig and haul, hydrovac, etc.)	Yes
Which OCD approved facility will be used for <b>off-site</b> disposal	HALFWAY DISPOSAL AND LANDFILL [FEEM0112334510]
<b>OR</b> which OCD approved well (API) will be used for <b>off-site</b> disposal	Not answered.
<b>OR</b> is the <b>off-site</b> disposal site, to be used, out-of-state	Not answered.
<b>OR</b> is the <b>off-site</b> disposal site, to be used, an NMED facility	Not answered.
(Ex Situ) Excavation and <b>on-site</b> 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: 08/05/2025
<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 492188

QUESTIONS (continued)

Operator:  DEVON ENERGY PRODUCTION COMPANY, LP 333 West Sheridan Ave. Oklahoma City, OK 73102	OGRID:  6137
	Action Number:  492188
	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 492188

QUESTIONS (continued)

Operator:  DEVON ENERGY PRODUCTION COMPANY, LP 333 West Sheridan Ave. Oklahoma City, OK 73102	OGRID:  6137
	Action Number:  492188
	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 492188

**CONDITIONS**

Operator: DEVON ENERGY PRODUCTION COMPANY, LP 333 West Sheridan Ave. Oklahoma City, OK 73102	OGRID: 6137
	Action Number: 492188
	Action Type: [C-141] Site Char./Remediation Plan C-141 (C-141-v-Plan)

**CONDITIONS**

Created By	Condition	Condition Date
scwells	The remediation plan is approved with the following conditions:	9/3/2025
scwells	1) The requested variance to apply depth to groundwater Closure Criteria below 10' is denied. Excavation must be to the maximum extent practicable. Once that depth has been achieved, then OCD must be consulted and reasons for why the excavation can't be furthered must be provided. At that point, site conditions will be taken into consideration and a variance may be requested to leave the chloride contamination in place and the use of the Bentomat ST clay liner will be considered.	9/3/2025
scwells	2) Due to the proximity of a significant watercourse and a wetland riverine, all sidewall and bottom confirmation samples must be five-point composite samples representative of no more than 200 square feet.	9/3/2025
scwells	3) The karst survey has been accepted and as such, high karst is no longer considered a site receptor for this release.	9/3/2025
scwells	Submit the remediation closure report to the OCD by 12/2/25.	9/3/2025