ENSOLUM

December 11, 2024

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

Re: Remediation Work Plan
Corral Canyon 16-9 State FED Com 121H
Incident Number nAPP2425666588 & nAPP2427451370
Eddy County, New Mexico

To Whom It May Concern:

Ensolum, LLC (Ensolum), on behalf of XTO Energy, Inc. (XTO), has prepared the following *Remediation Work Plan (Work Plan)* to document assessment and delineation activities completed to date and proposes remedial actions to address impacted soil identified at the Corral Canyon 16-9 State FED Com 121H (Site). The purpose of the Site assessment and delineation activities was to determine the presence or absence of impacted soil resulting from two produced water releases at the Site. The following *Work Plan* proposes to excavate impacted soil and conduct confirmation soil sampling.

SITE DESCRIPTION AND RELEASE SUMMARY

The Site is located in Unit N, Section 16, Township 25 South, Range 29 East, in Eddy County, New Mexico (32.123183°, -103.9971386°) and is associated with oil and gas exploration and production operations on State Trust Land managed by the New Mexico State Land Office (SLO) under lease number V049020001 and Federal Land managed by the Bureau of Land Management (BLM).

On September 12, 2024, produced water piping valves were inadvertently left open resulting in the release of 680 barrels (bbls) of produced water into a temporary lined containment and onto the surface of the well pad. A vacuum truck was dispatched to the Site to recover free standing fluids, and approximately 660 bbls of released fluids were recovered. XTO immediately reported the release to the New Mexico Oil Conservation Division (NMOCD) and submitted an Initial C-141 Application (C-141) on September 13, 2024. The release was assigned Incident Number NAPP2425666588.

On September 30, 2024, a produced water flex line had a blowout which resulted in the release of 265 barrels (bbls) of produced water into a temporary lined containment and onto the surface of the well pad. Some of the released fluids sprayed beyond the containment walls. A vacuum truck was dispatched to the Site to recover free standing fluids, and approximately 260 bbls of released fluids were recovered. XTO immediately reported the release to the NMOCD and submitted a C-141 on October 1, 2024. The release was assigned Incident Number nAPP2427451370**.**

When the release location information was submitted onto the NMOCD portal immediately after the release occurred for Incident Number nAPP2427451370, it was mistakenly submitted approximately 1.7 miles northwest of the Site. The release location information provided above is correct and was verified with photos collected from the Site immediately after the release occurred.

SITE CHARACTERIZATION AND CLOSURE CRITERIA

The Site was characterized to determine the applicability of Table I Closure Criteria for Soils Impacted by a Release, of Title 19, Chapter 15, Part 29 (19.15.29) of the New Mexico Administrative Code (NMAC). Results from the characterization desktop review are presented below.

Depth to groundwater at the Site is estimated to be greater than 100 feet below ground surface (bgs) based on the nearest groundwater well data. The closest permitted groundwater well with depth to groundwater data is USGS well 320739103584201, located approximately 1.0 miles east of the Site. The groundwater well has a reported depth to groundwater of 140 feet bgs and a total depth of 192 feet bgs. The most recent depth to groundwater measurment was collected in January 1998. All wells used for depth to groundwater determination are presented on Figure 1. The referenced well records are included in Appendix A.

The closest continuously flowing or significant watercourse to the Site is a dry wash, located approximately 861 feet west of the Site. The Site is greater than 200 feet from any lakebed, sinkhole, or playa lake and greater than 300 feet from an occupied residence, school, hospital, institution, church, or wetland. 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 underlain by unstable geology (medium potential karst designation area). Potential Site receptors are identified on Figure 1.

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

NMSLO CULTURAL RESOURCES AND BIOLOGICAL REVIEW

Cultural Properties Protection

Since the release occurred on the well pad, the site is exempt from the Cultural Properties Protection Rule (CPP). As such, no additional cultural resource surveys were completed in connection with this release.

Biological Review

Ensolum personnel conducted a desktop review to establish if the Site is within an area of possible threatened, endangered, and sensitive wildlife and plant species, environmentally sensitive areas, surface waters, and sensitive soils.

- A review of the U.S. Fish and Wildlife Services Information for Planning and Consultation (IPaC) resources indicated there are no critical wildlife habitats at the Site. Threatened and endangered cactus species are potentially present in the area surrounding the Site; however, no native vegetation outside of the well pad extent was disturbed during remediation activities.

- The site is underlain by unstable geology (medium karst) as described above. No other environmentally sensitive receptors were located near the Site, as determined by the Site Characterization.

- The Natural Resources Conservation Service (NRCS) Web Soil Survey classifies the soil type at the Site as gravelly loam. The release occurred on the caliche surface of the well pad limiting contact with potentially sensitive native soil.

SITE ASSESSMENT AND DELINEATION ACTIVITIES

On October 11, 2024, Ensolum personnel conducted a Site assessment to evaluate the release extent based on information provided on the C-141, information provided by XTO, and visual observations. The release extent areas and lined containment were mapped utilizing a handheld Global Positioning System (GPS) unit and are depicted on Figure 2. A 48-hour advance notice of the liner inspection was submitted, and the lined containment was inspected by Ensolum personnel. Results indicated the liner was not operating as designed. While the floor of the liner appeared to be intact and no holes were found, a small tear in the side of the liner was observed. Six delineation soil samples (SS01 through SS06) were collected at a depth of 0.5 feet bgs within of the release extent. The delineation soil samples were field screened for volatile organic compounds (VOCs) utilizing a calibrated photoionization detector (PID) and chloride utilizing Hach® chloride QuanTab® test strips. A photographic log of the Site assessment and liner inspection activities are included in Appendix B.

The 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 Cardinal Laboratories (Cardinal) in Hobbs, New Mexico, for analysis of the following contaminants 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 SM4500.

On November 14 and 15, 2024, Ensolum returned to the Site to oversee delineation activities. Eight potholes (PH01 through PH08) were advanced via heavy equipment to investigate the vertical extent of the releases. The potholes were advanced to depths ranging from 1 feet to 3 feet bgs. Discrete soil samples were collected from each pothole at depths ranging from 0.5 feet to 3 feet bgs. One borehole (BH01) was advanced adjacent to the tear in the sidewall of the liner utilizing a hand auger. Borehole BH01 was advanced to 1-foot bgs, where auger refusal was encountered. All delineation soil samples were field screened by the same methods as stated above. In order to fully define the lateral extent of the releases, ten additional delineation soil samples (SS07 through SS17) were collected just outside the release extents and the lined containment area at a depth of 0.5 feet bgs. Following the delineation activities, the tear in the sidewall and the tear caused by advancing BH01 were patched. Field screening results and observations for all potholes and BH01 were logged on lithologic/soil sampling logs, which are included as Appendix C. The soil sample locations were mapped utilizing a handheld GPS unit and the delineation soil sample locations are depicted on Figure 2. Photographic documentation was collected during all site visits and is presented in Appendix B.

LABORATORY ANALYTICAL RESULTS

Laboratory analytical results for delineation soil samples SS04 and PH08/PH08A indicated TPH concentrations exceeded Closure Criteria. Laboratory analytical results for SS03 through SS05, and BH01 indicated chloride concentrations exceeded Closure Criteria.

Laboratory analytical results for all other delineation soil samples collected indicated all COC concentrations were below Closure Criteria. This includes the terminal depth of BH01 and all delineation potholes advanced except for PH08, near where the release occurred and refusal with backhoe was encountered. This also includes all lateral soil samples collected and thus, defines the release areas laterally. Laboratory analytical results are summarized in Table 1 and the complete laboratory analytical report is included in Appendix D.

PROPOSED REMEDIATION WORK PLAN

Site assessment and delineation activities were conducted at the Site to assess for the presence or absence of impacted soil resulting from the two produced water releases. Based on laboratory analytical results from delineation soil samples impacted soil exists across an approximate 2,020 square-foot area within the release extent at depths ranging from 0.5 feet bgs to an exceedance of 3 feet bgs. Due to backhoe refusal at 3 feet bgs in PH08, vertical definition was not achieved in that area but was achieved in all other potholes. The lateral extent of the release is defined through laboratory analytical results of soil samples SS07 through SS17.

XTO proposes to complete the following remediation activities:

- Excavation of impacted soil in the areas of SS03 through SS05, PH08/PH08A, and BH01. Excavation will proceed laterally and vertically until confirmation soil samples confirm all COC concentrations are compliant with the Closure Criteria. Since utilization of a backhoe resulted in refusal, a trackhoe will be utilized. Based on delineation soil sample laboratory analytical, excavation depths is expected to range from 0.5 feet to an exceedance of 3 feet bgs. The proposed excavation extent is depicted on Figure 3. XTO is aware that BH01 collected within the temporary lined containment exceeds chloride concentrations for 0.5 feet bgs. Once the temporary lined containment is removed, the excavation will extend westward until the area of BH01 is included.

- In the release extent areas where delineation soil sample data is in compliance with the Closure Criteria, 5-point composite confirmation soil samples will be collected at least every 200 square feet on the surface of the facility pad, within the release extent. The 5-point composite samples will be collected by placing five equivalent aliquots of soil into a 1-gallon, resealable plastic bag and homogenizing the samples by thoroughly mixing. If laboratory analytical results indicate any of the confirmation soil samples exceed the closure criteria, further excavation of impacted soil will be conducted in the affected area.

- An estimated 230 cubic yards of impacted soil will be excavated in a 2,020 square foot area. The impacted soil will be transferred to a New Mexico approved landfill facility for disposal.

- The excavation will be backfilled and recontoured to match pre-existing Site conditions with caliche material purchased locally.

XTO believes this *Work Plan* is protective of human health, the environment, and groundwater. As such, XTO requests approval of this *Work Plan* by NMOCD. XTO will complete the excavation and soil sampling activities within 90 days of the date of approval of this *Work Plan* by the NMOCD.

If you have any questions or comments, please contact Ms. Tacoma Morrissey at (337) 257-8307 or tmorrissey@ensolum.com.

Sincerely,
Ensolum, LLC

Benjamin J. Belill
Senior Geologist

Tacoma Morrissey, MS
Associate Principal

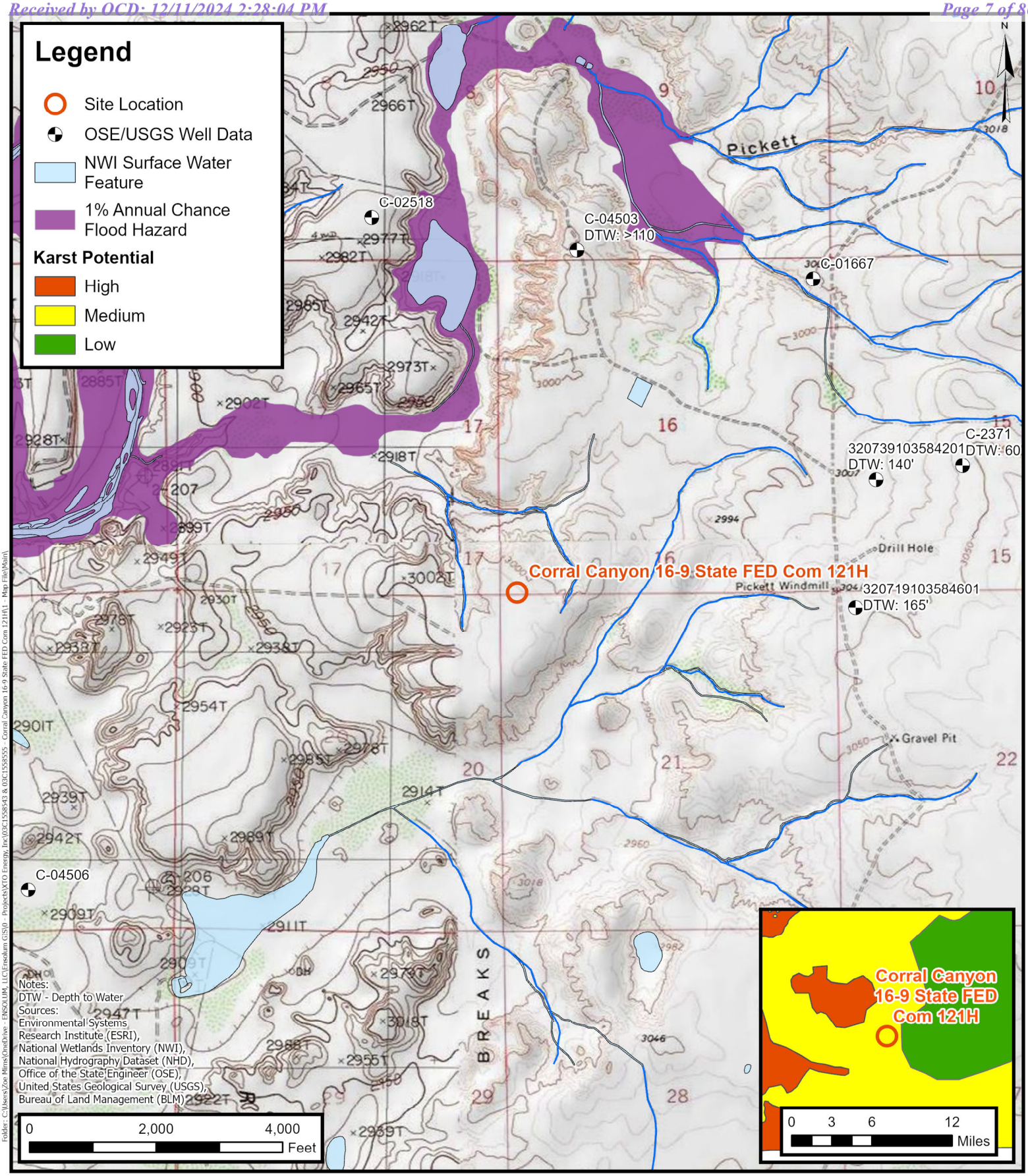
cc: Dale Woodall, XTO
Kaylan Dirkx, XTO
BLM

Appendices:

Figure 1	Site Receptor Map
Figure 2	Delineation Soil Sample Locations
Figure 3	Proposed Excavation Extent
Table 1	Soil Sample Analytical Results
Appendix A	Referenced Well Records
Appendix B	Photographic Log
Appendix C	Lithologic / Soil Sampling Logs
Appendix D	Laboratory Analytical Reports & Chain-of-Custody Documentation

ENSOLUM

FIGURES

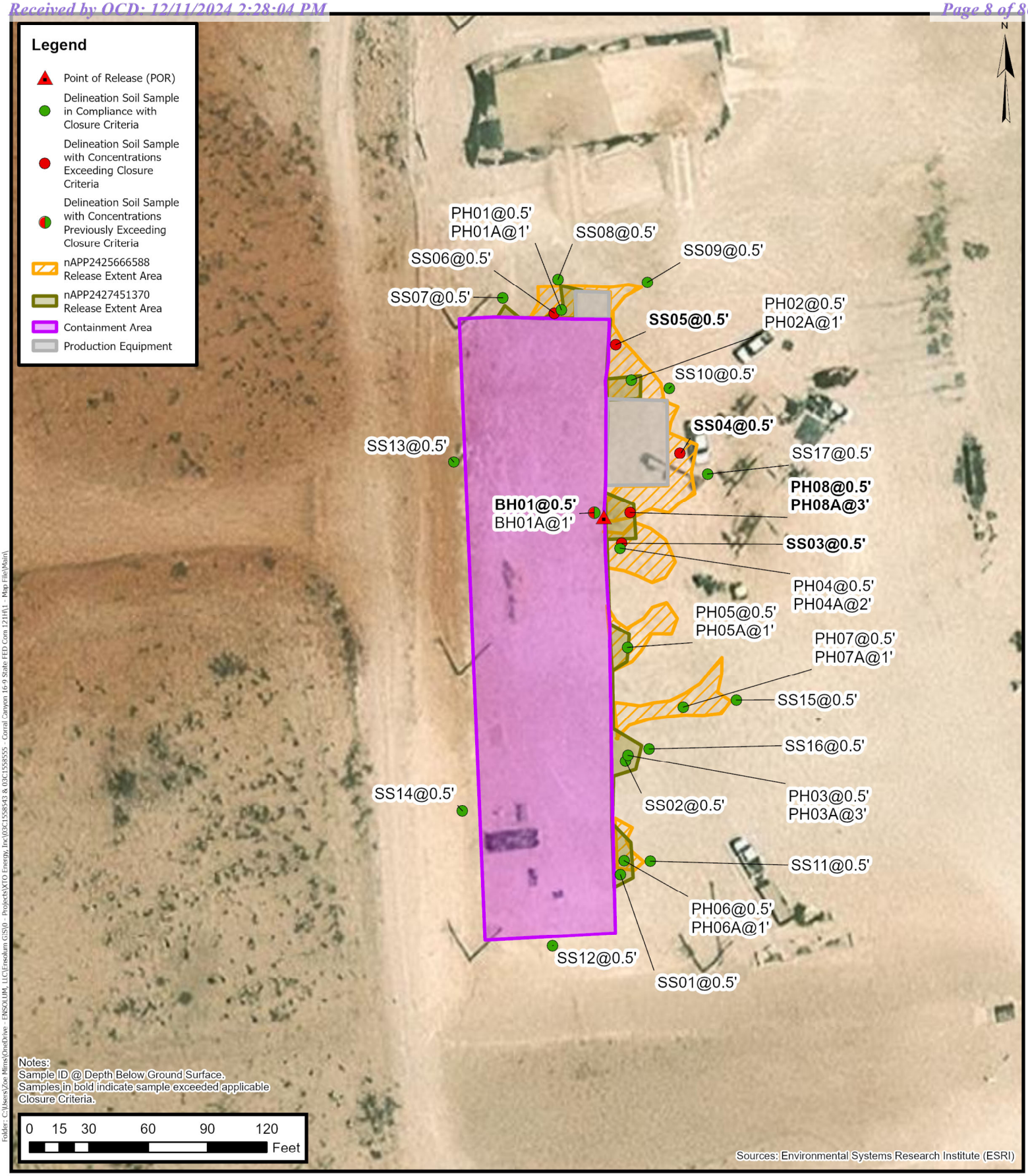


ENSOLUM
Environmental, Engineering and Hydrogeologic Consultants

Site Receptor Map

XTO Energy, Inc
Corral Canyon 16-9 State FED Com 121H
Incident Number: nAPP2425666588 & nAPP2427451370
Unit M, Sec 16, T25S, R29E
Eddy County, New Mexico

FIGURE 1



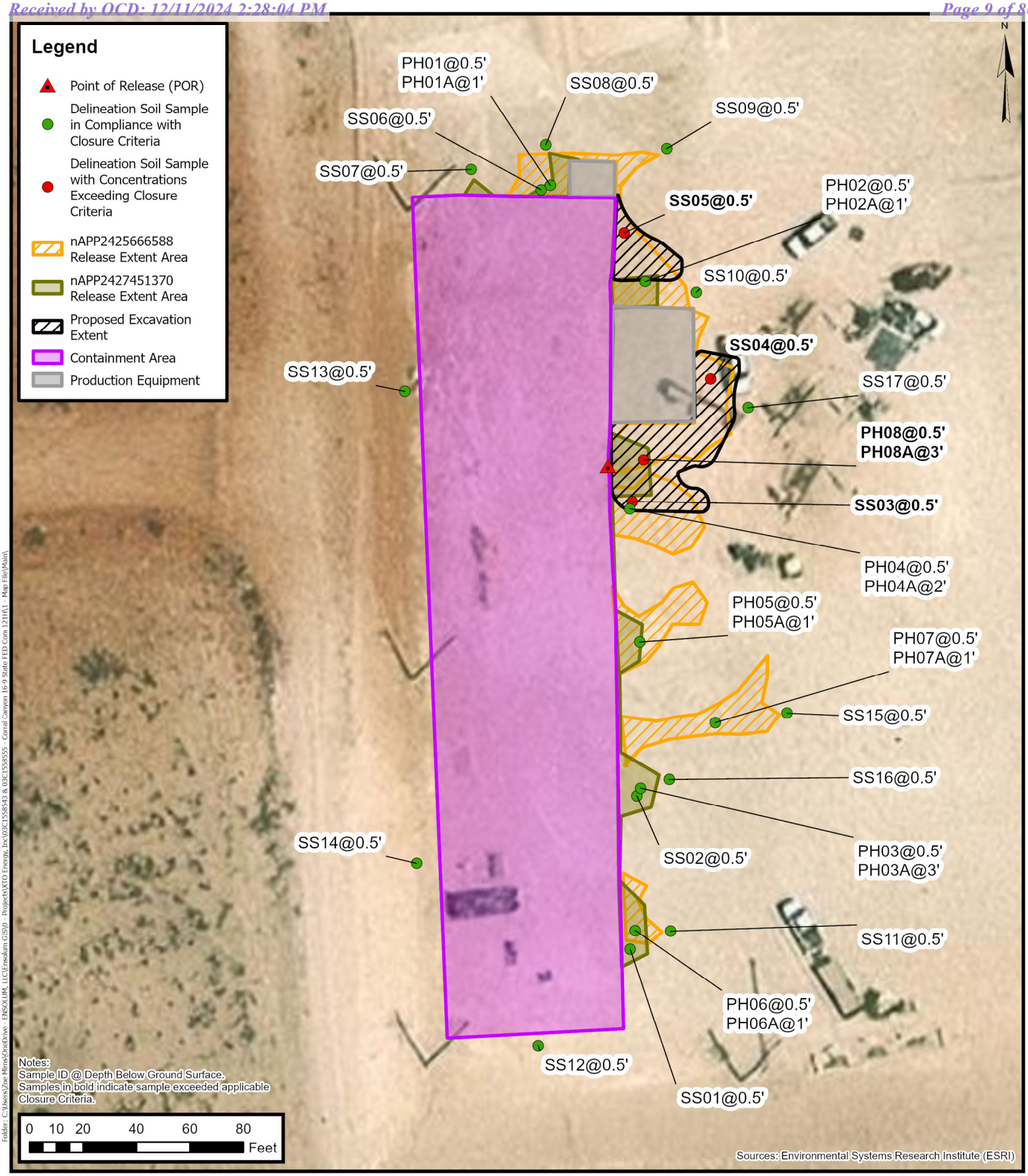
Folder: C:\Users\Zoe Mims\OneDrive - ENSOLUM, LLC\Ensolum GIS\Q - Projects\XTO Energy, Inc\03C1558543 & 03C1558555 - Corral Canyon 16-9 State FED Com 121H\1 - Map Files\Main\

ENSOLUM
Environmental, Engineering and Hydrogeologic Consultants

Delineation Soil Sample Locations

XTO Energy, Inc
Corral Canyon 16-9 State FED Com 121H
Incident Number: nAPP2425666588 & nAPP2427451370
Unit M, Sec 16, T25S, R29E
Eddy County, New Mexico

FIGURE 2



ENSOLUM
Environmental, Engineering and Hydrogeologic Consultants

Proposed Excavation Area

XTO Energy, Inc
Corral Canyon 16-9 State FED Com 121H
Incident Number: nAPP2425666588 & nAPP2427451370
Unit M, Sec 16, T25S, R29E
Eddy County, New Mexico

FIGURE 3

ENSOLUM

TABLES

ENSOLUM

TABLE 1
SOIL SAMPLE ANALYTICAL RESULTS
Corral Canyon 16-9 State FED COM 121H / Incident Numbers nAPP2425666588 / nAPP2427451370
XTO Energy, Inc
Eddy County, New Mexico

Sample I.D.	Sample Date	Sample 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)
NMOCD Table I Closure Criteria (NMAC 19.15.29)			10	50	NE	NE	NE	NE	100	600
Delineation Soil Samples										
SS01	10/11/2024	0.5	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	64
SS02	10/11/2024	0.5	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	240
SS03	10/11/2024	0.5	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	**1,550**
SS04	10/11/2024	0.5	<0.050	<0.300	64.1	13,200	110	13,300	**13,400**	**1,420**
SS05	10/11/2024	0.5	<0.050	<0.300	<10.0	19.5	<10.0	19.5	19.5	**608**
SS06	10/11/2024	0.5	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	304
SS07	11/14/2024	0.5	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	144
SS08	11/14/2024	0.5	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	128
SS09	11/14/2024	0.5	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	240
SS10	11/14/2024	0.5	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	128
SS11	11/14/2024	0.5	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	128
SS12	11/15/2024	0.5	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	272
SS13	11/15/2024	0.5	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	304
SS14	11/15/2024	0.5	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	80
SS15	11/15/2024	0.5	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	96
SS16	11/15/2024	0.5	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	160
SS17	11/15/2024	0.5	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	224
BH01	11/15/2024	0.5	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	**640**
BH01A	11/15/2024	1	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	320
PH01	11/14/2024	0.5	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	112
PH01A	11/14/2024	1	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	128
PH02	11/14/2024	0.5	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	336
PH02A	11/14/2024	1	<0.050	<0.300	<10.0	14.3	<10.0	14.3	14.3	272
PH03	11/15/2024	0.5	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	464
PH03A	11/15/2024	3	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	352
PH04	11/14/2024	0.5	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	240
PH04A	11/14/2024	2	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	368
PH05	11/14/2024	0.5	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	256
PH05A	11/14/2024	1	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	256
PH06	11/14/2024	0.5	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	400
PH06A	11/14/2024	1	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	112

ENSOLUM

TABLE 1
SOIL SAMPLE ANALYTICAL RESULTS
Corral Canyon 16-9 State FED COM 121H / Incident Numbers nAPP2425666588 / nAPP2427451370
XTO Energy, Inc
Eddy County, New Mexico

Sample I.D.	Sample Date	Sample 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)
NMOCD Table I Closure Criteria (NMAC 19.15.29)			10	50	NE	NE	NE	NE	100	600
PH07	11/15/2024	0.5	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	144
PH07A	11/15/2024	1	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	112
PH08	11/14/2024	0.5	<0.050	<0.300	<10.0	1,430	<10.0	1,430	**1,430**	576
PH08A	11/14/2024	3	<0.050	<0.300	10.6	976	<10.0	987	**987**	544

Notes:

bgs: below ground surface
mg/kg: milligrams per kilogram
NMOCD: New Mexico Oil Conservation Division
BTEX: Benzene, Toluene, Ethylbenzene, and Xylenes
Concentrations in **bold** exceed the NMOCD Table I Closure Criteria or reclamation requirement where applicable.

GRO: Gasoline Range Organics
DRO: Diesel Range Organics
ORO: Oil Range Organics
TPH: Total Petroleum Hydrocarbon
NMAC: New Mexico Administrative Code

ENSOLUM

APPENDIX A

Referenced Well Records

Click to hideNews Bulletins

- Explore the *NEW* USGS National Water Dashboard interactive map to access real-time water data from over 13,500 stations nationwide.
- How are we doing? We want to hear from you. Take our quick survey to tell us what you think.

Groundwater levels for the Nation

Important: Next Generation Monitoring Location Page

Search Results -- 1 sites found

Agency code = usgs
site_no list =
- 320739103584201

Minimum number of levels = 1
Save file of selected sites to local disk for future upload

USGS 320739103584201 25S.29E.15.31134

Eddy County, New Mexico
Latitude 32°07'39", Longitude 103°58'42" NAD27
Land-surface elevation 3,017 feet above NAVD88
The depth of the well is 192 feet below land surface.
This well is completed in the Other aquifers (N9999OTHER) national aquifer.
This well is completed in the Rustler Formation (312RSLR) local aquifer.

Output formats

Table of data
Tab-separated data
Graph of data
Reselect period

Date	Time	? Water-level date-time accuracy	? Parameter code	Water level, feet below land surface	Water level, feet above specific vertical datum	Referenced vertical datum	? Status	? Method of measurement	? Measuring agency	? Source measur
1983-02-01		D	62610		2875.02	NGVD29	1	Z		
1983-02-01		D	62611		2876.60	NAVD88	1	Z		
1983-02-01		D	72019	140.40			1	Z		
1987-10-20		D	62610		2875.09	NGVD29	1	Z		
1987-10-20		D	62611		2876.67	NAVD88	1	Z		
1987-10-20		D	72019	140.33			1	Z		
1992-11-06		D	62610		2874.61	NGVD29	1	S		
1992-11-06		D	62611		2876.19	NAVD88	1	S		
1992-11-06		D	72019	140.81			1	S		
1998-01-29		D	62610		2874.52	NGVD29	1	S		
1998-01-29		D	62611		2876.10	NAVD88	1	S		
1998-01-29		D	72019	140.90			1	S		

Explanation

Section	Code	Description

Section	Code	Description
Water-level date-time accuracy	D	Date is accurate to the Day
Parameter code	62610	Groundwater level above NGVD 1929, feet
Parameter code	62611	Groundwater level above NAVD 1988, feet
Parameter code	72019	Depth to water level, feet below land surface
Referenced vertical datum	NAVD88	North American Vertical Datum of 1988
Referenced vertical datum	NGVD29	National Geodetic Vertical Datum of 1929
Status	1	Static
Method of measurement	S	Steel-tape measurement.
Method of measurement	Z	Other.
Measuring agency		Not determined
Source of measurement		Not determined
Water-level approval status	A	Approved for publication -- Processing and review completed.

ENSOLUM

APPENDIX B

Photographic Log

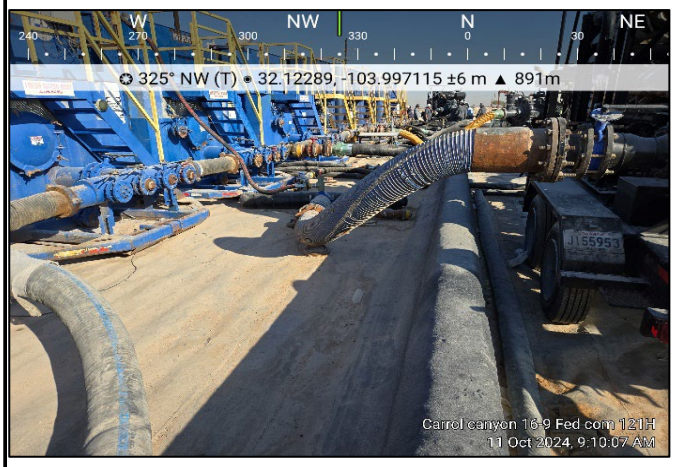
ENSOLUM

Photographic Log
XTO Energy, Inc.
Corral Canyon 16-9 State FED COM 121H
Incident Numbers nAPP2425666588 & nAPP2427451370

Photograph: 1 Date: 9/13/2024
Description: Site assessment, release extent area.
View: South

Photograph: 2 Date: 10/1/2024
Description: Site assessment, release extent area.
View: Northwest

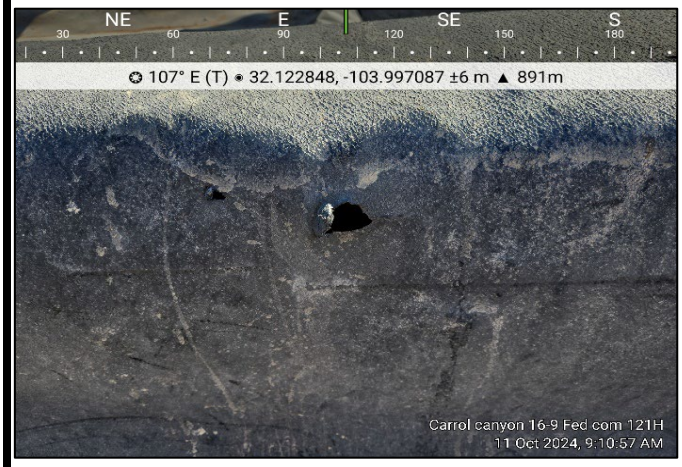
Photograph: 3 Date: 10/11/2024
Description: Liner inspection activities, facility sign.
View: Northeast



Photograph: 4 Date: 10/11/2024
Description: Liner inspection activities.
View: Northwest

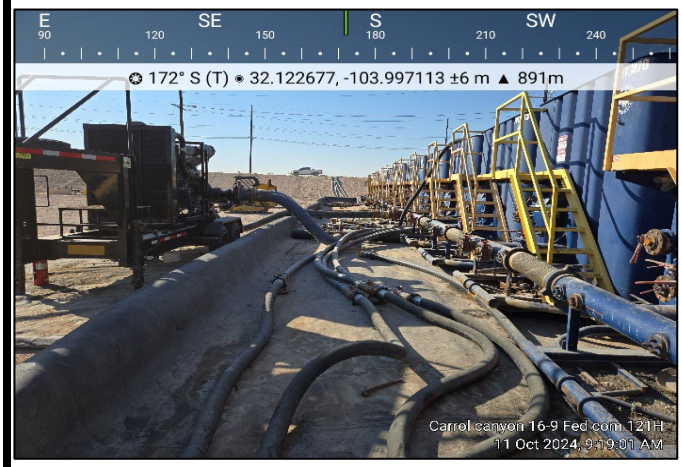
ENSOLUM

Photographic Log
XTO Energy, Inc.
Corral Canyon 16-9 State FED COM 121H
Incident Numbers nAPP2425666588 & nAPP2427451370

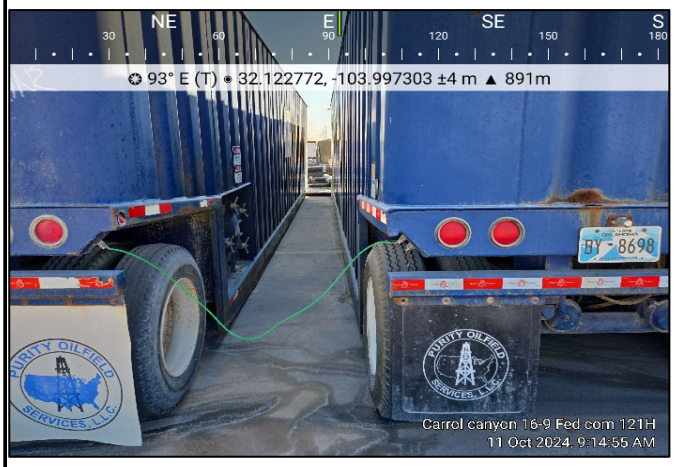


Photograph: 5 Date: 10/11/2024
Description: Liner tear on sidewall of containment
View: West

Photograph: 6 Date: 10/11/2024
Description: Liner inspection activities.
View: Southeast



Photograph: 7 Date: 10/11/2024
Description: Liner inspection activities.
View: South



Photograph: 8 Date: 10/11/2024
Description: Liner inspection activities.
View: East

ENSOLUM

Photographic Log
XTO Energy, Inc.
Corral Canyon 16-9 State FED COM 121H
Incident Numbers nAPP2425666588 & nAPP2427451370

Photograph: 9 Date: 11/14/2024
Description: Delineation activities, near release point.
View: Northwest

Photograph: 10 Date: 11/14/2024
Description: Delineation activities, PH08.
View: South

Photograph: 11 Date: 11/15/2024
Description: Liner delineation activities, BH01.
View: South

Photograph: 12 Date: 11/20/2024
Description: BH01 patched.
View: N/A

ENSOLUM

APPENDIX C

Lithologic Soil Sampling Logs

ENSOLUM

Sample Name: PH01	Date: 11/14/2024	
Site Name: Corral Canyon 16-9 State FED COM 121H		
Incident Number: nAPP2425666588 / Napp2427451370		
Job Number: 03C1558543 / 03C1558555		
LITHOLOGIC / SOIL SAMPLING LOG	Logged By: JB	Method: Backhoe
Coordinates: 32.123129, -103.997177	Hole Diameter: 16"	Total Depth: 1'

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	168	0.6	Y	PH01	0.5	0	CCHE	0-1', CALICHE, tan, moist, very sandy, moderately consolidated, some light brown staining, no odor, fill.
M	201	1.4	N	PH01A	1	1		@ 0.5', no stain.
							TD	Total depth @ 1' bgs, refusal.
						2		
						3		
						4		
						5		
						6		
						7		
						8		
						9		
						10		
						11		
						12		

ENSOLUM

Sample Name: PH02	Date: 11/14/2024	
Site Name: Corral Canyon 16-9 State FED COM 121H		
Incident Number: nAPP2425666588 / Napp2427451370		
Job Number: 03C1558543 / 03C1558555		
LITHOLOGIC / SOIL SAMPLING LOG	Logged By: JB	Method: Backhoe
Coordinates: 32.123027, -103.997068	Hole Diameter: 16"	Total Depth: 1'

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	369	0.7	Y	PH02	0.5	0	CCHE	0-1', CALICHE, tan, moist, very sandy, moderately consolidated, some light brown staining, no odor, fill.
M	470	0.6	N	PH02A	1	1		@ 0.5', no stain.
							TD	Total depth @ 1' bgs, refusal.
						2		
						3		
						4		
						5		
						6		
						7		
						8		
						9		
						10		
						11		
						12		

ENSOLUM

Sample Name: PH03	Date: 11/15/2024
Site Name: Corral Canyon 16-9 State FED COM 121H	
Incident Number: nAPP2425666588 / Napp2427451370	
Job Number: 03C1558543 / 03C1558555	
LITHOLOGIC / SOIL SAMPLING LOG	Logged By: JB / Method: Backhoe
Coordinates: 32.122508, -103.997074	Hole Diameter: 16" / Total Depth: 3'

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	733	1.1	Y	PH03	0.5	0	CCHE	0-1', CALICHE, tan, moist, very sandy, moderately consolidated, some light brown staining, no odor, fill.
M	667	1.9	N		1	1		@ 0.5', no stain.
							CCHE	1'-3', CALICHE, pale light red, moist, very silty, well consolidated, no stain, no odor.
M	667	2.5	N		2	2		
M	201	0.7	N	PH03A	3	3		
							TD	Total depth @ 3' bgs.
						4		
						5		
						6		
						7		
						8		
						9		
						10		
						11		
						12		

ENSOLUM

	Sample Name: PH04	Date: 11/14/2024
	Site Name: Corral Canyon 16-9 State FED COM 121H	
	Incident Number: nAPP2425666588 / Napp2427451370	
	Job Number: 03C1558543 / 03C1558555	
LITHOLOGIC / SOIL SAMPLING LOG	Logged By: JB	Method: Backhoe
Coordinates: 32.122795, -103.997083	Hole Diameter: 16"	Total Depth: 2'

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	252	2.0	Y	PH04	0.5	0	CCHE	0-1', CALICHE, tan, moist, very sandy, moderately consolidated, some light brown staining, no odor, fill.
M	252	2.8	N		1	1		@ 0.5', no stain.
							CCHE	1'-2', CALICHE, pale light red, moist, very silty, well consolidated, no stain, no odor.
M	420	1.4	N	PH04A	2	2		
							TD	Total depth @ 2' bgs.
						3		
						4		
						5		
						6		
						7		
						8		
						9		
						10		
						11		
						12		

ENSOLUM

Sample Name: PH05	Date: 11/14/2024	
Site Name: Corral Canyon 16-9 State FED COM 121H		
Incident Number: nAPP2425666588 / Napp2427451370		
Job Number: 03C1558543 / 03C1558555		
LITHOLOGIC / SOIL SAMPLING LOG	Logged By: JB	Method: Backhoe
Coordinates: 32.122657, -103.997078	Hole Diameter: 16"	Total Depth: 1'

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	330	1.0	Y	PH05	0.5	0	CCHE	0-1', CALICHE, tan, moist, very sandy, moderately consolidated, some light brown staining, no odor, fill.
M	330	1.1	N	PH05A	1	1		@ 0.5', no stain.
							TD	Total depth @ 1' bgs.
						2		
						3		
						4		
						5		
						6		
						7		
						8		
						9		
						10		
						11		
						12		

ENSOLUM

Sample Name: PH06	Date: 11/14/2024	
Site Name: Corral Canyon 16-9 State FED COM 121H		
Incident Number: nAPP2425666588 / Napp2427451370		
Job Number: 03C1558543 / 03C1558555		
LITHOLOGIC / SOIL SAMPLING LOG	Logged By: JB	Method: Backhoe
Coordinates: 32.122362, -103.997085	Hole Diameter: 16"	Total Depth: 1'

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	526	1.5	Y	PH06	0.5	0	CCHE	0-1', CALICHE, tan, moist, very sandy, moderately consolidated, some light brown staining, no odor, fill.
M	252	1.2	N	PH06A	1	1		@ 0.5', no stain.
							TD	Total depth @ 1' bgs.
						2		
						3		
						4		
						5		
						6		
						7		
						8		
						9		
						10		
						11		
						12		

ENSOLUM

Sample Name: PH07	Date: 11/15/2024	
Site Name: Corral Canyon 16-9 State FED COM 121H		
Incident Number: nAPP2425666588 / Napp2427451370		
Job Number: 03C1558543 / 03C1558555		
LITHOLOGIC / SOIL SAMPLING LOG	Logged By: JB	Method: Backhoe
Coordinates: 32.122572, -103.996984	Hole Diameter: 16"	Total Depth: 1'

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	179	0.7	Y	PH07	0.5	0	CCHE	0-1', CALICHE, tan, moist, very sandy, moderately consolidated, some light brown staining, no odor, fill.
M	179	0.9	N	PH07A	1	1		@ 0.5', no stain.
							TD	Total depth @ 1' bgs.
						2		
						3		
						4		
						5		
						6		
						7		
						8		
						9		
						10		
						11		
						12		

ENSOLUM

Sample Name: PH08	Date: 11/14/2024
Site Name: Corral Canyon 16-9 State FED COM 121H	
Incident Number: nAPP2425666588 / Napp2427451370	
Job Number: 03C1558543 / 03C1558555	
LITHOLOGIC / SOIL SAMPLING LOG	Logged By: JB / Method: Backhoe
Coordinates: 32.122844, -103.997068	Hole Diameter: 16" / Total Depth: 3'

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	955	49.2	Y	PH08	0.5	0	CCHE	0-1', CALICHE, tan, moist, very sandy, moderately consolidated, some light brown staining, no odor, fill.
M	778	57.0	N		1	1		@ 0.5', no stain.
							CCHE	1'-3', CALICHE, pale light red, moist, very silty, well consolidated, no stain, no odor.
M	528	39.8	N		2	2		
M	935	55.0	N	PH08A	3	3		
							TD	Total depth @ 3' bgs, refusal.
						4		
						5		
						6		
						7		
						8		
						9		
						10		
						11		
						12		

ENSOLUM

Sample Name: BH01	Date: 11/15/2024	
Site Name: Corral Canyon 16-9 State FED COM 121H		
Incident Number: nAPP2425666588 / Napp2427451370		
Job Number: 03C1558543 / 03C1558555		
LITHOLOGIC / SOIL SAMPLING LOG	Logged By: JB	Method: Hand auger
Coordinates: 32.122843, -103.997129	Hole Diameter: 16"	Total Depth: 1'

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	711	0.8	N	BH01	0.5	0	CCHE	0-1', CALICHE, tan, moist, very sandy, moderately consolidated, no stain, no odor.
M	330	0.7	N	BH01A	1	1	TD	Total depth @ 1' bgs.
						2		
						3		
						4		
						5		
						6		
						7		
						8		
						9		
						10		
						11		
						12		

ENSOLUM

APPENDIX D

Laboratory Analytical Reports & Chain of Custody Documentation

CARDINAL Laboratories

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

October 16, 2024

BEN BELILL

ENSOLUM

3122 NATIONAL PARKS HWY

CARLSBAD, NM 88220

RE: CORRAL CANYON 16-9 STATE FED COM 121H

Enclosed are the results of analyses for samples received by the laboratory on 10/14/24 11:38.

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

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

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

Accreditation applies to public drinking water matrices.

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

Sincerely,

Celey D. Keene

Lab Director/Quality Manager

CARDINAL Laboratories

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

Analytical Results For:

ENSOLUM
BEN BELILL
3122 NATIONAL PARKS HWY
CARLSBAD NM, 88220
Fax To:

Received:	10/14/2024	Sampling Date:	10/11/2024
Reported:	10/16/2024	Sampling Type:	Soil
Project Name:	CORRAL CANYON 16-9 STATE FED COM	Sampling Condition:	Cool & Intact
Project Number:	03C1558543	Sample Received By:	Alyssa Parras
Project Location:	XTO 32.123183-103.9971386		

Sample ID: SS 01 .5' (H246234-01)

BTEX 8021B mg/kg Analyzed By: JH

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	10/15/2024	ND	2.03	102	2.00	2.65	
Toluene*	<0.050	0.050	10/15/2024	ND	2.04	102	2.00	1.89	
Ethylbenzene*	<0.050	0.050	10/15/2024	ND	2.12	106	2.00	1.94	
Total Xylenes*	<0.150	0.150	10/15/2024	ND	6.35	106	6.00	1.59	
Total BTEX	<0.300	0.300	10/15/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID *104 %* *71.5-134*

Chloride, SM4500Cl-B mg/kg Analyzed By: HM

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**64.0**	16.0	10/15/2024	ND	416	104	400	7.41	

TPH 8015M mg/kg Analyzed By: ms

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	10/15/2024	ND	232	116	200	5.95	
DRO >C10-C28*	<10.0	10.0	10/15/2024	ND	221	110	200	12.3	
EXT DRO >C28-C36	<10.0	10.0	10/15/2024	ND					

Surrogate: 1-Chlorooctane *92.4 %* *48.2-134*

Surrogate: 1-Chlorooctadecane *89.4 %* *49.1-148*

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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

Analytical Results For:

ENSOLUM
BEN BELILL
3122 NATIONAL PARKS HWY
CARLSBAD NM, 88220
Fax To:

Received:	10/14/2024	Sampling Date:	10/11/2024
Reported:	10/16/2024	Sampling Type:	Soil
Project Name:	CORRAL CANYON 16-9 STATE FED COM	Sampling Condition:	Cool & Intact
Project Number:	03C1558543	Sample Received By:	Alyssa Parras
Project Location:	XTO 32.123183-103.9971386		

Sample ID: SS 02 .5' (H246234-02)

BTEX 8021B mg/kg Analyzed By: JH

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	10/15/2024	ND	2.03	102	2.00	2.65	
Toluene*	<0.050	0.050	10/15/2024	ND	2.04	102	2.00	1.89	
Ethylbenzene*	<0.050	0.050	10/15/2024	ND	2.12	106	2.00	1.94	
Total Xylenes*	<0.150	0.150	10/15/2024	ND	6.35	106	6.00	1.59	
Total BTEX	<0.300	0.300	10/15/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID *105 %* *71.5-134*

Chloride, SM4500Cl-B mg/kg Analyzed By: HM

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**240**	16.0	10/15/2024	ND	416	104	400	7.41	

TPH 8015M mg/kg Analyzed By: ms

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	10/15/2024	ND	232	116	200	5.95	
DRO >C10-C28*	<10.0	10.0	10/15/2024	ND	221	110	200	12.3	
EXT DRO >C28-C36	<10.0	10.0	10/15/2024	ND					

Surrogate: 1-Chlorooctane *96.1 %* *48.2-134*

Surrogate: 1-Chlorooctadecane *99.0 %* *49.1-148*

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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

Analytical Results For:

ENSOLUM
BEN BELILL
3122 NATIONAL PARKS HWY
CARLSBAD NM, 88220
Fax To:

Received:	10/14/2024	Sampling Date:	10/11/2024
Reported:	10/16/2024	Sampling Type:	Soil
Project Name:	CORRAL CANYON 16-9 STATE FED COM	Sampling Condition:	Cool & Intact
Project Number:	03C1558543	Sample Received By:	Alyssa Parras
Project Location:	XTO 32.123183-103.9971386		

Sample ID: SS 03 .5' (H246234-03)

BTEX 8021B mg/kg Analyzed By: JH

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	10/15/2024	ND	2.03	102	2.00	2.65	
Toluene*	<0.050	0.050	10/15/2024	ND	2.04	102	2.00	1.89	
Ethylbenzene*	<0.050	0.050	10/15/2024	ND	2.12	106	2.00	1.94	
Total Xylenes*	<0.150	0.150	10/15/2024	ND	6.35	106	6.00	1.59	
Total BTEX	<0.300	0.300	10/15/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID *98.7 %* *71.5-134*

Chloride, SM4500Cl-B mg/kg Analyzed By: HM

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**1550**	16.0	10/15/2024	ND	416	104	400	7.41	

TPH 8015M mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	10/14/2024	ND	205	102	200	7.50	
DRO >C10-C28*	<10.0	10.0	10/14/2024	ND	200	100	200	8.72	
EXT DRO >C28-C36	<10.0	10.0	10/14/2024	ND					

Surrogate: 1-Chlorooctane *101 %* *48.2-134*

Surrogate: 1-Chlorooctadecane *88.5 %* *49.1-148*

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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

Analytical Results For:

ENSOLUM
BEN BELILL
3122 NATIONAL PARKS HWY
CARLSBAD NM, 88220
Fax To:

Received:	10/14/2024	Sampling Date:	10/11/2024
Reported:	10/16/2024	Sampling Type:	Soil
Project Name:	CORRAL CANYON 16-9 STATE FED COM	Sampling Condition:	Cool & Intact
Project Number:	03C1558543	Sample Received By:	Alyssa Parras
Project Location:	XTO 32.123183-103.9971386		

Sample ID: SS 04 .5' (H246234-04)

BTEX 8021B mg/kg Analyzed By: JH

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	10/15/2024	ND	2.03	102	2.00	2.65	
Toluene*	<0.050	0.050	10/15/2024	ND	2.04	102	2.00	1.89	
Ethylbenzene*	<0.050	0.050	10/15/2024	ND	2.12	106	2.00	1.94	
Total Xylenes*	**0.284**	0.150	10/15/2024	ND	6.35	106	6.00	1.59	
Total BTEX	<0.300	0.300	10/15/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID *128 %* *71.5-134*

Chloride, SM4500Cl-B mg/kg Analyzed By: HM

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**1420**	16.0	10/15/2024	ND	416	104	400	7.41	

TPH 8015M mg/kg Analyzed By: MS S-06

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	**64.1**	50.0	10/15/2024	ND	205	102	200	7.50	
DRO >C10-C28*	**13200**	50.0	10/15/2024	ND	200	100	200	8.72	
EXT DRO >C28-C36	**110**	50.0	10/15/2024	ND					

Surrogate: 1-Chlorooctane *136 %* *48.2-134*

Surrogate: 1-Chlorooctadecane *393 %* *49.1-148*

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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

Analytical Results For:

ENSOLUM
BEN BELILL
3122 NATIONAL PARKS HWY
CARLSBAD NM, 88220
Fax To:

Received:	10/14/2024	Sampling Date:	10/11/2024
Reported:	10/16/2024	Sampling Type:	Soil
Project Name:	CORRAL CANYON 16-9 STATE FED COM	Sampling Condition:	Cool & Intact
Project Number:	03C1558543	Sample Received By:	Alyssa Parras
Project Location:	XTO 32.123183-103.9971386		

Sample ID: SS 05 .5' (H246234-05)

BTEX 8021B mg/kg Analyzed By: JH

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	10/15/2024	ND	2.03	102	2.00	2.65	
Toluene*	<0.050	0.050	10/15/2024	ND	2.04	102	2.00	1.89	
Ethylbenzene*	<0.050	0.050	10/15/2024	ND	2.12	106	2.00	1.94	
Total Xylenes*	<0.150	0.150	10/15/2024	ND	6.35	106	6.00	1.59	
Total BTEX	<0.300	0.300	10/15/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID *104 %* *71.5-134*

Chloride, SM4500Cl-B mg/kg Analyzed By: HM

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**608**	16.0	10/15/2024	ND	416	104	400	7.41	

TPH 8015M mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	10/14/2024	ND	205	102	200	7.50	
DRO >C10-C28*	**19.5**	10.0	10/14/2024	ND	200	100	200	8.72	
EXT DRO >C28-C36	<10.0	10.0	10/14/2024	ND					

Surrogate: 1-Chlorooctane *98.6 %* *48.2-134*

Surrogate: 1-Chlorooctadecane *85.4 %* *49.1-148*

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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

Analytical Results For:

ENSOLUM
BEN BELILL
3122 NATIONAL PARKS HWY
CARLSBAD NM, 88220
Fax To:

Received:	10/14/2024	Sampling Date:	10/11/2024
Reported:	10/16/2024	Sampling Type:	Soil
Project Name:	CORRAL CANYON 16-9 STATE FED COM	Sampling Condition:	Cool & Intact
Project Number:	03C1558543	Sample Received By:	Alyssa Parras
Project Location:	XTO 32.123183-103.9971386		

Sample ID: SS 06 .5' (H246234-06)

BTEX 8021B mg/kg Analyzed By: JH

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	10/15/2024	ND	2.03	102	2.00	2.65	
Toluene*	<0.050	0.050	10/15/2024	ND	2.04	102	2.00	1.89	
Ethylbenzene*	<0.050	0.050	10/15/2024	ND	2.12	106	2.00	1.94	
Total Xylenes*	<0.150	0.150	10/15/2024	ND	6.35	106	6.00	1.59	
Total BTEX	<0.300	0.300	10/15/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID *96.6 %* *71.5-134*

Chloride, SM4500Cl-B mg/kg Analyzed By: HM

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**304**	16.0	10/15/2024	ND	416	104	400	7.41	

TPH 8015M mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	10/14/2024	ND	205	102	200	7.50	
DRO >C10-C28*	<10.0	10.0	10/14/2024	ND	200	100	200	8.72	
EXT DRO >C28-C36	<10.0	10.0	10/14/2024	ND					

Surrogate: 1-Chlorooctane *95.1 %* *48.2-134*

Surrogate: 1-Chlorooctadecane *81.2 %* *49.1-148*

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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

Notes and Definitions

S-06	The recovery of this surrogate is outside control limits due to sample dilution required from high analyte concentration and/or matrix interference's.
QM-07	The spike recovery was outside acceptance limits for the MS and/or MSD. The batch was accepted based on acceptable LCS recovery.
ND	Analyte NOT DETECTED at or above the reporting limit
RPD	Relative Percent Difference
**	Samples not received at proper temperature of 6°C or below.
***	Insufficient time to reach temperature.
-	Chloride by SM4500Cl-B does not require samples be received at or below 6°C
	Samples reported on an as received basis (wet) unless otherwise noted on report

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

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

Company Name:	Ensolum, LLC
Project Manager:	Ben Belill
Address:	3122 National Parks Hwy
City:	Carlsbad **State:** NM **Zip:** 88220
Phone #:	989-854-0852 **Fax #:**
Project #:	03C1558543 **Project Owner:** XTO
Project Name:	Corral Canyon 16-9 State FED Com 121H
Project Location:	32.123183, -103.9971386
Sampler Name:	Jesse Dorman

BILL TO

P.O. #:	
Company:	XTO Energy Inc.
Attn:	Colton Brown
Address:	3104 E. Green St.
City:	Carlsbad
State:	NM **Zip:** 88220
Phone #:	
Fax #:	

ANALYSIS REQUEST

FOR LAB USE ONLY Lab I.D.	Sample I.D.	Sample Depth (feet)	(G)RAB OR (C)OMP.	# CONTAINERS	MATRIX: GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER :	PRESERV.: ACID/BASE:	ICE / COOL	OTHER :	SAMPLING: DATE	TIME	BTEX	TPH	CHLORIDE
H24e231																		
1	SS01	0.5'	G	1			X					X		10/11/24	930	✓	✓	✓
2	SS02														935			
3	SS03														940			
4	SS04														945			
5	SS05														1000			
6	SS06														1025			

JD

Relinquished By:	**Date:** 10.14.24	**Received By:**	
	Time: 1138	ADAMS	
Relinquished By:	**Date:**	**Received By:**	
	Time:		

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

All Results are emailed. Please provide Email address:

BBelilll@ensolum.com TMorrissey@ensolum.com, kthomason@ensolum.com

REMARKS:

Cost Center: 1870051001 Incident ID: nAPP2425666588

Delivered By: (Circle One)	Observed Temp. °C 2.1	**Sample Condition** Cool Intact	**CHECKED BY: (Initials)**
Sampler - UPS - Bus - Other:	Corrected Temp. °C 1.5	☑ Yes ☐ Yes ☐ No ☐ No	AD

Turnaround Time: Standard ☐ Rush ☑ 48hr

Thermometer ID #113 AD Correction Factor -0.5°C -0.6

Bacteria (only) Sample Condition Cool Intact ☐ Yes ☐ Yes ☐ No ☐ No **Observed Temp. °C** **Corrected Temp. °C**

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

FORM-006 R 3.2 10/07/21

CARDINAL Laboratories

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

November 20, 2024

BEN BELILL

ENSOLUM

3122 NATIONAL PARKS HWY

CARLSBAD, NM 88220

RE: CORRAL CANYON 16-9 STATE FED COM 121H

Enclosed are the results of analyses for samples received by the laboratory on 11/18/24 12:25.

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

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

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

Accreditation applies to public drinking water matrices.

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

Sincerely,

Celey D. Keene

Lab Director/Quality Manager

CARDINAL Laboratories

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

Analytical Results For:

ENSOLUM
BEN BELILL
3122 NATIONAL PARKS HWY
CARLSBAD NM, 88220
Fax To:

Received:	11/18/2024	Sampling Date:	11/14/2024
Reported:	11/20/2024	Sampling Type:	Soil
Project Name:	CORRAL CANYON 16-9 STATE FED COM	Sampling Condition:	Cool & Intact
Project Number:	03C1558543	Sample Received By:	Alyssa Parras
Project Location:	XTO 32.122774-103.997254		

Sample ID: PH 01 0.5 (H247012-01)

BTEX 8021B mg/kg Analyzed By: JH

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	11/18/2024	ND	2.24	112	2.00	0.647	
Toluene*	<0.050	0.050	11/18/2024	ND	2.13	107	2.00	1.10	
Ethylbenzene*	<0.050	0.050	11/18/2024	ND	2.11	106	2.00	2.14	
Total Xylenes*	<0.150	0.150	11/18/2024	ND	6.29	105	6.00	1.98	
Total BTEX	<0.300	0.300	11/18/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID *98.8 %* *71.5-134*

Chloride, SM4500Cl-B mg/kg Analyzed By: KV

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**112**	16.0	11/19/2024	ND	400	100	400	7.69	

TPH 8015M mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	11/18/2024	ND	209	104	200	2.28	
DRO >C10-C28*	<10.0	10.0	11/18/2024	ND	211	105	200	1.67	
EXT DRO >C28-C36	<10.0	10.0	11/18/2024	ND					

Surrogate: 1-Chlorooctane *83.3 %* *48.2-134*

Surrogate: 1-Chlorooctadecane *87.5 %* *49.1-148*

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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

Analytical Results For:

ENSOLUM
BEN BELILL
3122 NATIONAL PARKS HWY
CARLSBAD NM, 88220
Fax To:

Received:	11/18/2024	Sampling Date:	11/14/2024
Reported:	11/20/2024	Sampling Type:	Soil
Project Name:	CORRAL CANYON 16-9 STATE FED COM	Sampling Condition:	Cool & Intact
Project Number:	03C1558543	Sample Received By:	Alyssa Parras
Project Location:	XTO 32.122774-103.997254		

Sample ID: PH 02 0.5 (H247012-02)

BTEX 8021B mg/kg Analyzed By: JH

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	11/18/2024	ND	2.24	112	2.00	0.647	
Toluene*	<0.050	0.050	11/18/2024	ND	2.13	107	2.00	1.10	
Ethylbenzene*	<0.050	0.050	11/18/2024	ND	2.11	106	2.00	2.14	
Total Xylenes*	<0.150	0.150	11/18/2024	ND	6.29	105	6.00	1.98	
Total BTEX	<0.300	0.300	11/18/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID *97.6 %* *71.5-134*

Chloride, SM4500Cl-B mg/kg Analyzed By: KV

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**336**	16.0	11/19/2024	ND	400	100	400	7.69	

TPH 8015M mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	11/18/2024	ND	209	104	200	2.28	
DRO >C10-C28*	<10.0	10.0	11/18/2024	ND	211	105	200	1.67	
EXT DRO >C28-C36	<10.0	10.0	11/18/2024	ND					

Surrogate: 1-Chlorooctane *88.2 %* *48.2-134*

Surrogate: 1-Chlorooctadecane *91.5 %* *49.1-148*

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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

Analytical Results For:

ENSOLUM
BEN BELILL
3122 NATIONAL PARKS HWY
CARLSBAD NM, 88220
Fax To:

Received:	11/18/2024	Sampling Date:	11/14/2024
Reported:	11/20/2024	Sampling Type:	Soil
Project Name:	CORRAL CANYON 16-9 STATE FED COM	Sampling Condition:	Cool & Intact
Project Number:	03C1558543	Sample Received By:	Alyssa Parras
Project Location:	XTO 32.122774-103.997254		

Sample ID: PH 04 0.5 (H247012-03)

BTEX 8021B mg/kg Analyzed By: JH

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	11/18/2024	ND	2.24	112	2.00	0.647	
Toluene*	<0.050	0.050	11/18/2024	ND	2.13	107	2.00	1.10	
Ethylbenzene*	<0.050	0.050	11/18/2024	ND	2.11	106	2.00	2.14	
Total Xylenes*	<0.150	0.150	11/18/2024	ND	6.29	105	6.00	1.98	
Total BTEX	<0.300	0.300	11/18/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID *98.1 %* *71.5-134*

Chloride, SM4500Cl-B mg/kg Analyzed By: KV

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**240**	16.0	11/19/2024	ND	400	100	400	7.69	

TPH 8015M mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	11/18/2024	ND	209	104	200	2.28	
DRO >C10-C28*	<10.0	10.0	11/18/2024	ND	211	105	200	1.67	
EXT DRO >C28-C36	<10.0	10.0	11/18/2024	ND					

Surrogate: 1-Chlorooctane *100 %* *48.2-134*

Surrogate: 1-Chlorooctadecane *105 %* *49.1-148*

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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

Analytical Results For:

ENSOLUM
BEN BELILL
3122 NATIONAL PARKS HWY
CARLSBAD NM, 88220
Fax To:

Received:	11/18/2024	Sampling Date:	11/15/2024
Reported:	11/20/2024	Sampling Type:	Soil
Project Name:	CORRAL CANYON 16-9 STATE FED COM	Sampling Condition:	Cool & Intact
Project Number:	03C1558543	Sample Received By:	Alyssa Parras
Project Location:	XTO 32.122774-103.997254		

Sample ID: PH 07 0.5 (H247012-04)

BTEX 8021B mg/kg Analyzed By: JH

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	11/18/2024	ND	2.24	112	2.00	0.647	
Toluene*	<0.050	0.050	11/18/2024	ND	2.13	107	2.00	1.10	
Ethylbenzene*	<0.050	0.050	11/18/2024	ND	2.11	106	2.00	2.14	
Total Xylenes*	<0.150	0.150	11/18/2024	ND	6.29	105	6.00	1.98	
Total BTEX	<0.300	0.300	11/18/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID *96.0 %* *71.5-134*

Chloride, SM4500Cl-B mg/kg Analyzed By: KV

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**144**	16.0	11/19/2024	ND	400	100	400	7.69	

TPH 8015M mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	11/18/2024	ND	209	104	200	2.28	
DRO >C10-C28*	<10.0	10.0	11/18/2024	ND	211	105	200	1.67	
EXT DRO >C28-C36	<10.0	10.0	11/18/2024	ND					

Surrogate: 1-Chlorooctane *90.5 %* *48.2-134*

Surrogate: 1-Chlorooctadecane *95.8 %* *49.1-148*

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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

Analytical Results For:

ENSOLUM
BEN BELILL
3122 NATIONAL PARKS HWY
CARLSBAD NM, 88220
Fax To:

Received:	11/18/2024	Sampling Date:	11/15/2024
Reported:	11/20/2024	Sampling Type:	Soil
Project Name:	CORRAL CANYON 16-9 STATE FED COM	Sampling Condition:	Cool & Intact
Project Number:	03C1558543	Sample Received By:	Alyssa Parras
Project Location:	XTO 32.122774-103.997254		

Sample ID: BH 01 0.5 (H247012-05)

BTEX 8021B mg/kg **Analyzed By: JH**

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	11/18/2024	ND	2.24	112	2.00	0.647	
Toluene*	<0.050	0.050	11/18/2024	ND	2.13	107	2.00	1.10	
Ethylbenzene*	<0.050	0.050	11/18/2024	ND	2.11	106	2.00	2.14	
Total Xylenes*	<0.150	0.150	11/18/2024	ND	6.29	105	6.00	1.98	
Total BTEX	<0.300	0.300	11/18/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID *99.1 %* *71.5-134*

Chloride, SM4500Cl-B mg/kg **Analyzed By: KV**

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**640**	16.0	11/19/2024	ND	400	100	400	7.69	

TPH 8015M mg/kg **Analyzed By: MS**

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	11/18/2024	ND	209	104	200	2.28	
DRO >C10-C28*	<10.0	10.0	11/18/2024	ND	211	105	200	1.67	
EXT DRO >C28-C36	<10.0	10.0	11/18/2024	ND					

Surrogate: 1-Chlorooctane *98.3 %* *48.2-134*

Surrogate: 1-Chlorooctadecane *104 %* *49.1-148*

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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

Analytical Results For:

ENSOLUM
BEN BELILL
3122 NATIONAL PARKS HWY
CARLSBAD NM, 88220
Fax To:

Received:	11/18/2024	Sampling Date:	11/14/2024
Reported:	11/20/2024	Sampling Type:	Soil
Project Name:	CORRAL CANYON 16-9 STATE FED COM	Sampling Condition:	Cool & Intact
Project Number:	03C1558543	Sample Received By:	Alyssa Parras
Project Location:	XTO 32.122774-103.997254		

Sample ID: PH 01A 1 (H247012-06)

BTEX 8021B mg/kg Analyzed By: JH

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	11/18/2024	ND	2.24	112	2.00	0.647	
Toluene*	<0.050	0.050	11/18/2024	ND	2.13	107	2.00	1.10	
Ethylbenzene*	<0.050	0.050	11/18/2024	ND	2.11	106	2.00	2.14	
Total Xylenes*	<0.150	0.150	11/18/2024	ND	6.29	105	6.00	1.98	
Total BTEX	<0.300	0.300	11/18/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID *97.8 %* *71.5-134*

Chloride, SM4500Cl-B mg/kg Analyzed By: KV

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**128**	16.0	11/19/2024	ND	400	100	400	7.69	

TPH 8015M mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	11/18/2024	ND	209	104	200	2.28	
DRO >C10-C28*	<10.0	10.0	11/18/2024	ND	211	105	200	1.67	
EXT DRO >C28-C36	<10.0	10.0	11/18/2024	ND					

Surrogate: 1-Chlorooctane *84.8 %* *48.2-134*

Surrogate: 1-Chlorooctadecane *89.7 %* *49.1-148*

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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

Analytical Results For:

ENSOLUM
BEN BELILL
3122 NATIONAL PARKS HWY
CARLSBAD NM, 88220
Fax To:

Received:	11/18/2024	Sampling Date:	11/14/2024
Reported:	11/20/2024	Sampling Type:	Soil
Project Name:	CORRAL CANYON 16-9 STATE FED COM	Sampling Condition:	Cool & Intact
Project Number:	03C1558543	Sample Received By:	Alyssa Parras
Project Location:	XTO 32.122774-103.997254		

Sample ID: PH 02A 1 (H247012-07)

BTEX 8021B mg/kg Analyzed By: JH

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	11/18/2024	ND	2.24	112	2.00	0.647	
Toluene*	<0.050	0.050	11/18/2024	ND	2.13	107	2.00	1.10	
Ethylbenzene*	<0.050	0.050	11/18/2024	ND	2.11	106	2.00	2.14	
Total Xylenes*	<0.150	0.150	11/18/2024	ND	6.29	105	6.00	1.98	
Total BTEX	<0.300	0.300	11/18/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID *97.2 %* *71.5-134*

Chloride, SM4500Cl-B mg/kg Analyzed By: KV

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**272**	16.0	11/19/2024	ND	400	100	400	7.69	

TPH 8015M mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	11/18/2024	ND	209	104	200	2.28	
DRO >C10-C28*	**14.3**	10.0	11/18/2024	ND	211	105	200	1.67	
EXT DRO >C28-C36	<10.0	10.0	11/18/2024	ND					

Surrogate: 1-Chlorooctane *80.9 %* *48.2-134*

Surrogate: 1-Chlorooctadecane *84.6 %* *49.1-148*

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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

Analytical Results For:

ENSOLUM
BEN BELILL
3122 NATIONAL PARKS HWY
CARLSBAD NM, 88220
Fax To:

Received:	11/18/2024	Sampling Date:	11/14/2024
Reported:	11/20/2024	Sampling Type:	Soil
Project Name:	CORRAL CANYON 16-9 STATE FED COM	Sampling Condition:	Cool & Intact
Project Number:	03C1558543	Sample Received By:	Alyssa Parras
Project Location:	XTO 32.122774-103.997254		

Sample ID: PH 04A 2 (H247012-08)

BTEX 8021B mg/kg **Analyzed By: JH**

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	11/18/2024	ND	2.24	112	2.00	0.647	
Toluene*	<0.050	0.050	11/18/2024	ND	2.13	107	2.00	1.10	
Ethylbenzene*	<0.050	0.050	11/18/2024	ND	2.11	106	2.00	2.14	
Total Xylenes*	<0.150	0.150	11/18/2024	ND	6.29	105	6.00	1.98	
Total BTEX	<0.300	0.300	11/18/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID *98.3 %* *71.5-134*

Chloride, SM4500Cl-B mg/kg **Analyzed By: KV**

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**368**	16.0	11/19/2024	ND	400	100	400	7.69	

TPH 8015M mg/kg **Analyzed By: MS**

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	11/19/2024	ND	209	104	200	2.28	
DRO >C10-C28*	<10.0	10.0	11/19/2024	ND	211	105	200	1.67	
EXT DRO >C28-C36	<10.0	10.0	11/19/2024	ND					

Surrogate: 1-Chlorooctane *93.0 %* *48.2-134*

Surrogate: 1-Chlorooctadecane *97.8 %* *49.1-148*

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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

Analytical Results For:

ENSOLUM
BEN BELILL
3122 NATIONAL PARKS HWY
CARLSBAD NM, 88220
Fax To:

Received:	11/18/2024	Sampling Date:	11/15/2024
Reported:	11/20/2024	Sampling Type:	Soil
Project Name:	CORRAL CANYON 16-9 STATE FED COM	Sampling Condition:	Cool & Intact
Project Number:	03C1558543	Sample Received By:	Alyssa Parras
Project Location:	XTO 32.122774-103.997254		

Sample ID: PH 07A 1 (H247012-09)

BTEX 8021B mg/kg Analyzed By: JH

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	11/18/2024	ND	2.24	112	2.00	0.647	
Toluene*	<0.050	0.050	11/18/2024	ND	2.13	107	2.00	1.10	
Ethylbenzene*	<0.050	0.050	11/18/2024	ND	2.11	106	2.00	2.14	
Total Xylenes*	<0.150	0.150	11/18/2024	ND	6.29	105	6.00	1.98	
Total BTEX	<0.300	0.300	11/18/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID *96.2 %* *71.5-134*

Chloride, SM4500Cl-B mg/kg Analyzed By: AC

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**112**	16.0	11/19/2024	ND	432	108	400	0.00	

TPH 8015M mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	11/19/2024	ND	209	104	200	2.28	
DRO >C10-C28*	<10.0	10.0	11/19/2024	ND	211	105	200	1.67	
EXT DRO >C28-C36	<10.0	10.0	11/19/2024	ND					

Surrogate: 1-Chlorooctane *87.9 %* *48.2-134*

Surrogate: 1-Chlorooctadecane *92.8 %* *49.1-148*

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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

Analytical Results For:

ENSOLUM
BEN BELILL
3122 NATIONAL PARKS HWY
CARLSBAD NM, 88220
Fax To:

Received:	11/18/2024	Sampling Date:	11/15/2024
Reported:	11/20/2024	Sampling Type:	Soil
Project Name:	CORRAL CANYON 16-9 STATE FED COM	Sampling Condition:	Cool & Intact
Project Number:	03C1558543	Sample Received By:	Alyssa Parras
Project Location:	XTO 32.122774-103.997254		

Sample ID: BH 01A 1 (H247012-10)

BTEX 8021B mg/kg **Analyzed By: JH**

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	11/18/2024	ND	2.24	112	2.00	0.647	
Toluene*	<0.050	0.050	11/18/2024	ND	2.13	107	2.00	1.10	
Ethylbenzene*	<0.050	0.050	11/18/2024	ND	2.11	106	2.00	2.14	
Total Xylenes*	<0.150	0.150	11/18/2024	ND	6.29	105	6.00	1.98	
Total BTEX	<0.300	0.300	11/18/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID *98.0 %* *71.5-134*

Chloride, SM4500Cl-B mg/kg **Analyzed By: AC**

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**320**	16.0	11/19/2024	ND	432	108	400	0.00	

TPH 8015M mg/kg **Analyzed By: MS**

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	11/19/2024	ND	209	104	200	2.28	
DRO >C10-C28*	<10.0	10.0	11/19/2024	ND	211	105	200	1.67	
EXT DRO >C28-C36	<10.0	10.0	11/19/2024	ND					

Surrogate: 1-Chlorooctane *83.6 %* *48.2-134*

Surrogate: 1-Chlorooctadecane *88.8 %* *49.1-148*

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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

Analytical Results For:

ENSOLUM
BEN BELILL
3122 NATIONAL PARKS HWY
CARLSBAD NM, 88220
Fax To:

Received:	11/18/2024	Sampling Date:	11/14/2024
Reported:	11/20/2024	Sampling Type:	Soil
Project Name:	CORRAL CANYON 16-9 STATE FED COM	Sampling Condition:	Cool & Intact
Project Number:	03C1558543	Sample Received By:	Alyssa Parras
Project Location:	XTO 32.122774-103.997254		

Sample ID: SS08 0.5 (H247012-11)

BTEX 8021B mg/kg Analyzed By: JH

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	11/18/2024	ND	2.24	112	2.00	0.647	
Toluene*	<0.050	0.050	11/18/2024	ND	2.13	107	2.00	1.10	
Ethylbenzene*	<0.050	0.050	11/18/2024	ND	2.11	106	2.00	2.14	
Total Xylenes*	<0.150	0.150	11/18/2024	ND	6.29	105	6.00	1.98	
Total BTEX	<0.300	0.300	11/18/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID *96.6 %* *71.5-134*

Chloride, SM4500Cl-B mg/kg Analyzed By: AC

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**128**	16.0	11/19/2024	ND	432	108	400	0.00	

TPH 8015M mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	11/19/2024	ND	209	104	200	2.28	
DRO >C10-C28*	<10.0	10.0	11/19/2024	ND	211	105	200	1.67	
EXT DRO >C28-C36	<10.0	10.0	11/19/2024	ND					

Surrogate: 1-Chlorooctane *86.9 %* *48.2-134*

Surrogate: 1-Chlorooctadecane *91.0 %* *49.1-148*

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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

Analytical Results For:

ENSOLUM
BEN BELILL
3122 NATIONAL PARKS HWY
CARLSBAD NM, 88220
Fax To:

Received:	11/18/2024	Sampling Date:	11/14/2024
Reported:	11/20/2024	Sampling Type:	Soil
Project Name:	CORRAL CANYON 16-9 STATE FED COM	Sampling Condition:	Cool & Intact
Project Number:	03C1558543	Sample Received By:	Alyssa Parras
Project Location:	XTO 32.122774-103.997254		

Sample ID: SS 09 0.5 (H247012-12)

BTEX 8021B mg/kg Analyzed By: JH

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	11/18/2024	ND	2.24	112	2.00	0.647	
Toluene*	<0.050	0.050	11/18/2024	ND	2.13	107	2.00	1.10	
Ethylbenzene*	<0.050	0.050	11/18/2024	ND	2.11	106	2.00	2.14	
Total Xylenes*	<0.150	0.150	11/18/2024	ND	6.29	105	6.00	1.98	
Total BTEX	<0.300	0.300	11/18/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID *97.5 %* *71.5-134*

Chloride, SM4500Cl-B mg/kg Analyzed By: AC

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**240**	16.0	11/19/2024	ND	432	108	400	0.00	

TPH 8015M mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	11/19/2024	ND	209	104	200	2.28	
DRO >C10-C28*	<10.0	10.0	11/19/2024	ND	211	105	200	1.67	
EXT DRO >C28-C36	<10.0	10.0	11/19/2024	ND					

Surrogate: 1-Chlorooctane *78.2 %* *48.2-134*

Surrogate: 1-Chlorooctadecane *82.3 %* *49.1-148*

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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

Analytical Results For:

ENSOLUM
BEN BELILL
3122 NATIONAL PARKS HWY
CARLSBAD NM, 88220
Fax To:

Received:	11/18/2024	Sampling Date:	11/14/2024
Reported:	11/20/2024	Sampling Type:	Soil
Project Name:	CORRAL CANYON 16-9 STATE FED COM	Sampling Condition:	Cool & Intact
Project Number:	03C1558543	Sample Received By:	Alyssa Parras
Project Location:	XTO 32.122774-103.997254		

Sample ID: SS 10 0.5 (H247012-13)

BTEX 8021B mg/kg Analyzed By: JH

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	11/18/2024	ND	2.24	112	2.00	0.647	
Toluene*	<0.050	0.050	11/18/2024	ND	2.13	107	2.00	1.10	
Ethylbenzene*	<0.050	0.050	11/18/2024	ND	2.11	106	2.00	2.14	
Total Xylenes*	<0.150	0.150	11/18/2024	ND	6.29	105	6.00	1.98	
Total BTEX	<0.300	0.300	11/18/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID *98.3 %* *71.5-134*

Chloride, SM4500Cl-B mg/kg Analyzed By: AC

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**128**	16.0	11/19/2024	ND	432	108	400	0.00	

TPH 8015M mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	11/18/2024	ND	196	98.1	200	3.91	
DRO >C10-C28*	<10.0	10.0	11/18/2024	ND	191	95.5	200	4.10	
EXT DRO >C28-C36	<10.0	10.0	11/18/2024	ND					

Surrogate: 1-Chlorooctane *99.2 %* *48.2-134*

Surrogate: 1-Chlorooctadecane *87.8 %* *49.1-148*

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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

Analytical Results For:

ENSOLUM
BEN BELILL
3122 NATIONAL PARKS HWY
CARLSBAD NM, 88220
Fax To:

Received:	11/18/2024	Sampling Date:	11/15/2024
Reported:	11/20/2024	Sampling Type:	Soil
Project Name:	CORRAL CANYON 16-9 STATE FED COM	Sampling Condition:	Cool & Intact
Project Number:	03C1558543	Sample Received By:	Alyssa Parras
Project Location:	XTO 32.122774-103.997254		

Sample ID: SS 15 0.5 (H247012-14)

BTEX 8021B mg/kg Analyzed By: JH

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	11/18/2024	ND	2.24	112	2.00	0.647	
Toluene*	<0.050	0.050	11/18/2024	ND	2.13	107	2.00	1.10	
Ethylbenzene*	<0.050	0.050	11/18/2024	ND	2.11	106	2.00	2.14	
Total Xylenes*	<0.150	0.150	11/18/2024	ND	6.29	105	6.00	1.98	
Total BTEX	<0.300	0.300	11/18/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID *97.6 %* *71.5-134*

Chloride, SM4500Cl-B mg/kg Analyzed By: AC

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**96.0**	16.0	11/19/2024	ND	432	108	400	0.00	

TPH 8015M mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	11/18/2024	ND	196	98.1	200	3.91	
DRO >C10-C28*	<10.0	10.0	11/18/2024	ND	191	95.5	200	4.10	
EXT DRO >C28-C36	<10.0	10.0	11/18/2024	ND					

Surrogate: 1-Chlorooctane *99.6 %* *48.2-134*

Surrogate: 1-Chlorooctadecane *90.0 %* *49.1-148*

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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

Analytical Results For:

ENSOLUM
BEN BELILL
3122 NATIONAL PARKS HWY
CARLSBAD NM, 88220
Fax To:

Received:	11/18/2024	Sampling Date:	11/15/2024
Reported:	11/20/2024	Sampling Type:	Soil
Project Name:	CORRAL CANYON 16-9 STATE FED COM	Sampling Condition:	Cool & Intact
Project Number:	03C1558543	Sample Received By:	Alyssa Parras
Project Location:	XTO 32.122774-103.997254		

Sample ID: SS 17 0.5 (H247012-15)

BTEX 8021B mg/kg Analyzed By: JH

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	11/18/2024	ND	2.24	112	2.00	0.647	
Toluene*	<0.050	0.050	11/18/2024	ND	2.13	107	2.00	1.10	
Ethylbenzene*	<0.050	0.050	11/18/2024	ND	2.11	106	2.00	2.14	
Total Xylenes*	<0.150	0.150	11/18/2024	ND	6.29	105	6.00	1.98	
Total BTEX	<0.300	0.300	11/18/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID *98.9 %* *71.5-134*

Chloride, SM4500Cl-B mg/kg Analyzed By: AC

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**224**	16.0	11/19/2024	ND	432	108	400	0.00	

TPH 8015M mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	11/18/2024	ND	196	98.1	200	3.91	
DRO >C10-C28*	<10.0	10.0	11/18/2024	ND	191	95.5	200	4.10	
EXT DRO >C28-C36	<10.0	10.0	11/18/2024	ND					

Surrogate: 1-Chlorooctane *107 %* *48.2-134*

Surrogate: 1-Chlorooctadecane *96.2 %* *49.1-148*

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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

Notes and Definitions

S-05	The surrogate recovery is outside of lab established statistical control limits but still within method limits. Data is not adversely affected.
ND	Analyte NOT DETECTED at or above the reporting limit
RPD	Relative Percent Difference
**	Samples not received at proper temperature of 6°C or below.
***	Insufficient time to reach temperature.
-	Chloride by SM4500Cl-B does not require samples be received at or below 6°C
	Samples reported on an as received basis (wet) unless otherwise noted on report

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

1 of 2

Company Name: Ensolum, LLC		**BILL TO**	
Project Manager: Ben Belill		P.O. #:	
Address: 3122 National Parks Hwy		Company: XTO Energy Inc	
City: Carlsbad	State: NM Zip: 88220	Attn: Colton Brown	
Phone #: 989 854 0852	Fax #:	Address: 3104 E Green St	
Project #: 03C1558543	Project Owner: XTO	City: Carlsbad	
Project Name: Corral Canyon 16-9 State Fed Com 121H		State: NM Zip: 88220	
Project Location: 32.122774, -103.997254		Phone #:	
Sampler Name: Joshua Boxley		Fax #:	

FOR LAB USE ONLY					MATRIX						PRESERV.			SAMPLING		ANALYSIS REQUEST												
Lab I.D.	Sample I.D.	Depth (feet)	(G)RAB OR (C)OMP.	# CONTAINERS	GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER :	ACID/BASE:	ICE / COOL	OTHER :	DATE	TIME	Chlorides	TPH	BTEX											
H247012																												
1	PH01	0.5	G	1			X					X		11.14.24	1110	X	X	X										
2	PH02	1												11.14.24	1220													
3	PH04	1												11.14.24	1355													
4	PH07	1												11.15.24	1215													
5	BH01	0.5												11.15.24	1410													
6	PH01A	1												11.14.24	1117													
7	PH02A	1												11.14.24	1225													
8	PH04A	2'												11.14.24	1410													
9	PH07A	1												11.15.24	1217													
10	BH01A	1	G	1			X					X		11.15.24	1415	X	X	X										

Relinquished By:	Date: 11.18.24 Time: 1225	Received By:	Verbal Result: ☐ Yes ☐ No Add'l Phone #:
			All Results are emailed. Please provide Email address: BBelill @ensolum.com, TMorrissey@ensolum.com, KThomason@ensolum.com
Relinquished By:	Date: Time:	Received By:	REMARKS: Incident: nAPP2425666488
			Cost Center: 187005 1001

Delivered By: (Circle One) Sampler - UPS - Bus - Other:	Observed Temp. °C 2.0 Corrected Temp. °C 2.0	Sample Condition Cool Yes No Intact Yes No	CHECKED BY: (Initials)	Turnaround Time: 48hr Standard ☐ Rush ☒ Thermometer ID #113 #140 Correction Factor -0.5°C -0.6
				Bacteria (only) Sample Condition Cool Yes No Intact Yes No Observed Temp. °C Corrected Temp. °C

FORM-006 R 3.2 10/07/21

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

CARDINAL Laboratories

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

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

2 of 2

Company Name: Ensolum, LLC	**BILL TO**
Project Manager: Ben Belill	P.O. #:
Address: 3122 National Parks Hwy	Company: XTO Energy Inc
City: Carlsbad State: NM Zip: 88220	Attn: Colton Brown
Phone #: 989 854 0852 Fax #:	Address: 3104 E Green St
Project #: 03C1558543 Project Owner: XTO	City: Carlsbad
Project Name: Corral Canyon 16-9 State Fed Com 121H	State: NM Zip: 88220
Project Location: 32.122774, -103.997254	Phone #:
Sampler Name: Joshua Boxley	Fax #:

FOR LAB USE ONLY Lab I.D.	Sample I.D.	Depth (feet)	(G)RAB OR (C)OMP.	# CONTAINERS	MATRIX: GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER :	PRESERV.: ACID/BASE:	ICE / COOL	OTHER :	SAMPLING: DATE	TIME	Chlorides	TPH	BTEX
H247012																		
11	SS06	0.5	G	1			X					X		11.14.24	1100	X	X	X
12	SS09	1												11.14.24	1245			
13	SS10	1												11.14.24	1300			
14	SS15	1												11.15.24	1225			
15	SS17	0.5	G	1			X					X		11-15-24	1330	X	X	X
														*SR 11-18-24				

JMS

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising whether based in contract or tort, shall be limited to the amount paid by the client for the analyses. All claims including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within 30 days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequental damages, including without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise.

Relinquished By:	Date: 11-18-24	Received By:	Verbal Result: ☐ Yes ☐ No Add'l Phone #:
	Time: 1225		All Results are emailed. Please provide Email address:
Relinquished By:	Date:	Received By:	BBelill @ensolum.com, TMorrissey@ensolum.com, KThomason@ensolum.com
	Time:		REMARKS: Incident: nAPP2425666586 *date added per customer. SR 11-18-24
			Cost Center: 167005 1001

Delivered By: (Circle One) Sampler - UPS - Bus - Other:	Observed Temp. °C 24 Corrected Temp. °C 2.0	Sample Condition Cool Intact: Yes Yes / No No	CHECKED BY: (Initials) AD	Turnaround Time: 48hr Standard ☐ Rush ☑ Thermometer ID #113 #140 Correction Factor -0.5°C -0.6

Bacteria (only) Sample Condition: Cool Intact ☐Yes ☐Yes ☐No ☐No; Observed Temp. °C; Corrected Temp. °C

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

FORM-006 R 3.2 10/07/21

CARDINAL Laboratories

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

November 20, 2024

BEN BELILL

ENSOLUM

3122 NATIONAL PARKS HWY

CARLSBAD, NM 88220

RE: CORRAL CANYON 16-9 FED COM 121H

Enclosed are the results of analyses for samples received by the laboratory on 11/18/24 12:25.

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

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

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

Accreditation applies to public drinking water matrices.

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

Sincerely,

Celey D. Keene

Celey D. Keene

Lab Director/Quality Manager

CARDINAL Laboratories

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

Analytical Results For:

ENSOLUM
BEN BELILL
3122 NATIONAL PARKS HWY
CARLSBAD NM, 88220
Fax To:

Received:	11/18/2024	Sampling Date:	11/14/2024
Reported:	11/20/2024	Sampling Type:	Soil
Project Name:	CORRAL CANYON 16-9 FED COM 121H	Sampling Condition:	Cool & Intact
Project Number:	03C1558555	Sample Received By:	Alyssa Parras
Project Location:	XTO 32.122850, -103.997193		

Sample ID: PH 08 0.5 (H247013-01)

BTEX 8021B mg/kg Analyzed By: JH

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	11/18/2024	ND	2.24	112	2.00	0.647	
Toluene*	<0.050	0.050	11/18/2024	ND	2.13	107	2.00	1.10	
Ethylbenzene*	<0.050	0.050	11/18/2024	ND	2.11	106	2.00	2.14	
Total Xylenes*	<0.150	0.150	11/18/2024	ND	6.29	105	6.00	1.98	
Total BTEX	<0.300	0.300	11/18/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID *96.9 %* *71.5-134*

Chloride, SM4500Cl-B mg/kg Analyzed By: AC

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**576**	16.0	11/19/2024	ND	432	108	400	0.00	

TPH 8015M mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	11/18/2024	ND	196	98.1	200	3.91	
DRO >C10-C28*	**1430**	10.0	11/18/2024	ND	191	95.5	200	4.10	
EXT DRO >C28-C36	<10.0	10.0	11/18/2024	ND					

Surrogate: 1-Chlorooctane *75.8 %* *48.2-134*

Surrogate: 1-Chlorooctadecane *84.0 %* *49.1-148*

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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

Analytical Results For:

ENSOLUM
BEN BELILL
3122 NATIONAL PARKS HWY
CARLSBAD NM, 88220
Fax To:

Received:	11/18/2024	Sampling Date:	11/14/2024
Reported:	11/20/2024	Sampling Type:	Soil
Project Name:	CORRAL CANYON 16-9 FED COM 121H	Sampling Condition:	Cool & Intact
Project Number:	03C1558555	Sample Received By:	Alyssa Parras
Project Location:	XTO 32.122850, -103.997193		

Sample ID: PH 08A 3 (H247013-02)

BTEX 8021B mg/kg Analyzed By: JH

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	11/18/2024	ND	2.24	112	2.00	0.647	
Toluene*	<0.050	0.050	11/18/2024	ND	2.13	107	2.00	1.10	
Ethylbenzene*	<0.050	0.050	11/18/2024	ND	2.11	106	2.00	2.14	
Total Xylenes*	<0.150	0.150	11/18/2024	ND	6.29	105	6.00	1.98	
Total BTEX	<0.300	0.300	11/18/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID *100 %* *71.5-134*

Chloride, SM4500Cl-B mg/kg Analyzed By: AC

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**544**	16.0	11/19/2024	ND	432	108	400	0.00	

TPH 8015M mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	**10.6**	10.0	11/18/2024	ND	196	98.1	200	3.91	
DRO >C10-C28*	**976**	10.0	11/18/2024	ND	191	95.5	200	4.10	
EXT DRO >C28-C36	<10.0	10.0	11/18/2024	ND					

Surrogate: 1-Chlorooctane *105 %* *48.2-134*

Surrogate: 1-Chlorooctadecane *110 %* *49.1-148*

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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

Notes and Definitions

S-05	The surrogate recovery is outside of lab established statistical control limits but still within method limits. Data is not adversely affected.
ND	Analyte NOT DETECTED at or above the reporting limit
RPD	Relative Percent Difference
**	Samples not received at proper temperature of 6°C or below.
***	Insufficient time to reach temperature.
-	Chloride by SM4500Cl-B does not require samples be received at or below 6°C
	Samples reported on an as received basis (wet) unless otherwise noted on report

Cardinal Laboratories

*=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

1 of 1

Company Name: Ensolum, LLC	**BILL TO**
Project Manager: Ben Belill	P.O. #:
Address: 3122 National Parks Hwy	Company: XTO Energy Inc
City: Carlsbad State: NM Zip: 88220	Attn: Colton Brown
Phone #: 989 854 0852 Fax #:	Address: 3104 E Green St
Project #: 03C1558555 Project Owner: XTO	City: Carlsbad
Project Name: Corral Canyon 16-9 Fed Com 121H	State: NM Zip: 88220
Project Location: 32.122850, -103.997193	Phone #:
Sampler Name: Joshua Boxley	Fax #:

FOR LAB USE ONLY Lab I.D.	Sample I.D.	Depth (feet)	(G)RAB OR (C)OMP.	# CONTAINERS	MATRIX: GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER :	PRESERV.: ACID/BASE:	ICE / COOL	OTHER :	SAMPLING: DATE	TIME	Chlorides	TPH	BTEX
H247013																		
1	PH08	0.5	G	1			X					X		11.14.24	1305	X	X	X
2	PH08A	3	G	1			X					X		11.14.24	1315	X	X	X

JDB

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising whether based in contract or tort, shall be limited to the amount paid by the client for the analyses. All claims including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within 30 days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequental damages, including without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise.

Relinquished By:	Date: 11.18.24	Received By:	Verbal Result: ☐ Yes ☐ No Add'l Phone #:
	Time: 1225		All Results are emailed. Please provide Email address:
Relinquished By:	Date:	Received By:	BBelill @ensolum.com, TMorrissey@ensolum.com, KThomason@ensolum.com
	Time:		REMARKS: Incident: nAPP2427451370
			Cost Center: ~~[illegible]~~ 1588164100

JDB

Delivered By: (Circle One)	Observed Temp. °C 2.6	Sample Condition Cool Intact	CHECKED BY: (Initials)	Turnaround Time: Standard ☐ Rush ☒
Sampler - UPS - Bus - Other:	Corrected Temp. °C 2.0	☐ Yes ☒ Yes ☐ No ☐ No	AT	Thermometer ID #113 Correction Factor -0.5°C

Bacteria (only) Sample Condition: Cool ☐ Yes ☐ No; Intact ☐ Yes ☐ No; Observed Temp. °C; Corrected Temp. °C

FORM-006 R 3.2 10/07/21

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

CARDINAL Laboratories

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

November 20, 2024

BEN BELILL

ENSOLUM

3122 NATIONAL PARKS HWY

CARLSBAD, NM 88220

RE: CORRAL CANYON 16-9 FED COM 121H

Enclosed are the results of analyses for samples received by the laboratory on 11/18/24 12:25.

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

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

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

Accreditation applies to public drinking water matrices.

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

Sincerely,

Celey D. Keene

Celey D. Keene

Lab Director/Quality Manager

CARDINAL Laboratories

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

Analytical Results For:

ENSOLUM
BEN BELILL
3122 NATIONAL PARKS HWY
CARLSBAD NM, 88220
Fax To:

Received:	11/18/2024	Sampling Date:	11/14/2024
Reported:	11/20/2024	Sampling Type:	Soil
Project Name:	CORRAL CANYON 16-9 FED COM 121H	Sampling Condition:	Cool & Intact
Project Number:	03C1558555	Sample Received By:	Alyssa Parras
Project Location:	XTO 32.122850, -103.997193		

Sample ID: PH 05 0.5 (H247014-01)

BTEX 8021B mg/kg Analyzed By: JH

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	11/18/2024	ND	2.24	112	2.00	0.647	
Toluene*	<0.050	0.050	11/18/2024	ND	2.13	107	2.00	1.10	
Ethylbenzene*	<0.050	0.050	11/18/2024	ND	2.11	106	2.00	2.14	
Total Xylenes*	<0.150	0.150	11/18/2024	ND	6.29	105	6.00	1.98	
Total BTEX	<0.300	0.300	11/18/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID *97.8 %* *71.5-134*

Chloride, SM4500Cl-B mg/kg Analyzed By: AC

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**256**	16.0	11/19/2024	ND	432	108	400	0.00	

TPH 8015M mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	11/18/2024	ND	196	98.1	200	3.91	
DRO >C10-C28*	<10.0	10.0	11/18/2024	ND	191	95.5	200	4.10	
EXT DRO >C28-C36	<10.0	10.0	11/18/2024	ND					

Surrogate: 1-Chlorooctane *94.8 %* *48.2-134*

Surrogate: 1-Chlorooctadecane *86.0 %* *49.1-148*

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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

Analytical Results For:

ENSOLUM
BEN BELILL
3122 NATIONAL PARKS HWY
CARLSBAD NM, 88220
Fax To:

Received:	11/18/2024	Sampling Date:	11/14/2024
Reported:	11/20/2024	Sampling Type:	Soil
Project Name:	CORRAL CANYON 16-9 FED COM 121H	Sampling Condition:	Cool & Intact
Project Number:	03C1558555	Sample Received By:	Alyssa Parras
Project Location:	XTO 32.122850, -103.997193		

Sample ID: PH 05A 1 (H247014-02)

BTEX 8021B mg/kg Analyzed By: JH

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	11/18/2024	ND	2.24	112	2.00	0.647	
Toluene*	<0.050	0.050	11/18/2024	ND	2.13	107	2.00	1.10	
Ethylbenzene*	<0.050	0.050	11/18/2024	ND	2.11	106	2.00	2.14	
Total Xylenes*	<0.150	0.150	11/18/2024	ND	6.29	105	6.00	1.98	
Total BTEX	<0.300	0.300	11/18/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID *97.3 %* *71.5-134*

Chloride, SM4500Cl-B mg/kg Analyzed By: AC

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**256**	16.0	11/19/2024	ND	432	108	400	0.00	

TPH 8015M mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	11/18/2024	ND	196	98.1	200	3.91	
DRO >C10-C28*	<10.0	10.0	11/18/2024	ND	191	95.5	200	4.10	
EXT DRO >C28-C36	<10.0	10.0	11/18/2024	ND					

Surrogate: 1-Chlorooctane *89.4 %* *48.2-134*

Surrogate: 1-Chlorooctadecane *80.1 %* *49.1-148*

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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

Analytical Results For:

ENSOLUM
BEN BELILL
3122 NATIONAL PARKS HWY
CARLSBAD NM, 88220
Fax To:

Received:	11/18/2024	Sampling Date:	11/14/2024
Reported:	11/20/2024	Sampling Type:	Soil
Project Name:	CORRAL CANYON 16-9 FED COM 121H	Sampling Condition:	Cool & Intact
Project Number:	03C1558555	Sample Received By:	Alyssa Parras
Project Location:	XTO 32.122850, -103.997193		

Sample ID: PH 06 0.5 (H247014-03)

BTEX 8021B mg/kg Analyzed By: JH

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	11/18/2024	ND	2.24	112	2.00	0.647	
Toluene*	<0.050	0.050	11/18/2024	ND	2.13	107	2.00	1.10	
Ethylbenzene*	<0.050	0.050	11/18/2024	ND	2.11	106	2.00	2.14	
Total Xylenes*	<0.150	0.150	11/18/2024	ND	6.29	105	6.00	1.98	
Total BTEX	<0.300	0.300	11/18/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID *97.6 %* *71.5-134*

Chloride, SM4500Cl-B mg/kg Analyzed By: AC

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**400**	16.0	11/19/2024	ND	432	108	400	0.00	

TPH 8015M mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	11/18/2024	ND	196	98.1	200	3.91	
DRO >C10-C28*	<10.0	10.0	11/18/2024	ND	191	95.5	200	4.10	
EXT DRO >C28-C36	<10.0	10.0	11/18/2024	ND					

Surrogate: 1-Chlorooctane *88.0 %* *48.2-134*

Surrogate: 1-Chlorooctadecane *78.8 %* *49.1-148*

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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

Analytical Results For:

ENSOLUM
BEN BELILL
3122 NATIONAL PARKS HWY
CARLSBAD NM, 88220
Fax To:

Received:	11/18/2024	Sampling Date:	11/14/2024
Reported:	11/20/2024	Sampling Type:	Soil
Project Name:	CORRAL CANYON 16-9 FED COM 121H	Sampling Condition:	Cool & Intact
Project Number:	03C1558555	Sample Received By:	Alyssa Parras
Project Location:	XTO 32.122850, -103.997193		

Sample ID: PH 06A 1 (H247014-04)

BTEX 8021B mg/kg Analyzed By: JH

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	11/19/2024	ND	2.11	106	2.00	8.93	
Toluene*	<0.050	0.050	11/19/2024	ND	2.20	110	2.00	8.05	
Ethylbenzene*	<0.050	0.050	11/19/2024	ND	2.15	107	2.00	7.31	
Total Xylenes*	<0.150	0.150	11/19/2024	ND	6.89	115	6.00	6.22	
Total BTEX	<0.300	0.300	11/19/2024	ND					

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

Chloride, SM4500Cl-B mg/kg Analyzed By: AC

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**112**	16.0	11/19/2024	ND	432	108	400	0.00	

TPH 8015M mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	11/18/2024	ND	196	98.1	200	3.91	
DRO >C10-C28*	<10.0	10.0	11/18/2024	ND	191	95.5	200	4.10	
EXT DRO >C28-C36	<10.0	10.0	11/18/2024	ND					

Surrogate: 1-Chlorooctane *87.5 %* *48.2-134*

Surrogate: 1-Chlorooctadecane *76.1 %* *49.1-148*

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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

Analytical Results For:

ENSOLUM
BEN BELILL
3122 NATIONAL PARKS HWY
CARLSBAD NM, 88220
Fax To:

Received:	11/18/2024	Sampling Date:	11/14/2024
Reported:	11/20/2024	Sampling Type:	Soil
Project Name:	CORRAL CANYON 16-9 FED COM 121H	Sampling Condition:	Cool & Intact
Project Number:	03C1558555	Sample Received By:	Alyssa Parras
Project Location:	XTO 32.122850, -103.997193		

Sample ID: SS 07 0.5 (H247014-05)

BTEX 8021B mg/kg Analyzed By: JH

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	11/19/2024	ND	2.11	106	2.00	8.93	
Toluene*	<0.050	0.050	11/19/2024	ND	2.20	110	2.00	8.05	
Ethylbenzene*	<0.050	0.050	11/19/2024	ND	2.15	107	2.00	7.31	
Total Xylenes*	<0.150	0.150	11/19/2024	ND	6.89	115	6.00	6.22	
Total BTEX	<0.300	0.300	11/19/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID *107 %* *71.5-134*

Chloride, SM4500Cl-B mg/kg Analyzed By: AC

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**144**	16.0	11/19/2024	ND	432	108	400	0.00	

TPH 8015M mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	11/18/2024	ND	196	98.1	200	3.91	
DRO >C10-C28*	<10.0	10.0	11/18/2024	ND	191	95.5	200	4.10	
EXT DRO >C28-C36	<10.0	10.0	11/18/2024	ND					

Surrogate: 1-Chlorooctane *97.0 %* *48.2-134*

Surrogate: 1-Chlorooctadecane *85.8 %* *49.1-148*

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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

Analytical Results For:

ENSOLUM
BEN BELILL
3122 NATIONAL PARKS HWY
CARLSBAD NM, 88220
Fax To:

Received:	11/18/2024	Sampling Date:	11/14/2024
Reported:	11/20/2024	Sampling Type:	Soil
Project Name:	CORRAL CANYON 16-9 FED COM 121H	Sampling Condition:	Cool & Intact
Project Number:	03C1558555	Sample Received By:	Alyssa Parras
Project Location:	XTO 32.122850, -103.997193		

Sample ID: SS 11 0.5 (H247014-06)

BTEX 8021B mg/kg Analyzed By: JH

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	11/19/2024	ND	2.11	106	2.00	8.93	
Toluene*	<0.050	0.050	11/19/2024	ND	2.20	110	2.00	8.05	
Ethylbenzene*	<0.050	0.050	11/19/2024	ND	2.15	107	2.00	7.31	
Total Xylenes*	<0.150	0.150	11/19/2024	ND	6.89	115	6.00	6.22	
Total BTEX	<0.300	0.300	11/19/2024	ND					

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

Chloride, SM4500Cl-B mg/kg Analyzed By: AC

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**128**	16.0	11/19/2024	ND	432	108	400	0.00	

TPH 8015M mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	11/18/2024	ND	196	98.1	200	3.91	
DRO >C10-C28*	<10.0	10.0	11/18/2024	ND	191	95.5	200	4.10	
EXT DRO >C28-C36	<10.0	10.0	11/18/2024	ND					

Surrogate: 1-Chlorooctane *89.5 %* *48.2-134*

Surrogate: 1-Chlorooctadecane *78.8 %* *49.1-148*

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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

Analytical Results For:

ENSOLUM
BEN BELILL
3122 NATIONAL PARKS HWY
CARLSBAD NM, 88220
Fax To:

Received:	11/18/2024	Sampling Date:	11/15/2024
Reported:	11/20/2024	Sampling Type:	Soil
Project Name:	CORRAL CANYON 16-9 FED COM 121H	Sampling Condition:	Cool & Intact
Project Number:	03C1558555	Sample Received By:	Alyssa Parras
Project Location:	XTO 32.122850, -103.997193		

Sample ID: SS 12 0.5 (H247014-07)

BTEX 8021B mg/kg Analyzed By: JH

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	11/19/2024	ND	2.11	106	2.00	8.93	
Toluene*	<0.050	0.050	11/19/2024	ND	2.20	110	2.00	8.05	
Ethylbenzene*	<0.050	0.050	11/19/2024	ND	2.15	107	2.00	7.31	
Total Xylenes*	<0.150	0.150	11/19/2024	ND	6.89	115	6.00	6.22	
Total BTEX	<0.300	0.300	11/19/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID *107 %* *71.5-134*

Chloride, SM4500Cl-B mg/kg Analyzed By: AC

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**272**	16.0	11/19/2024	ND	432	108	400	0.00	

TPH 8015M mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	11/18/2024	ND	196	98.1	200	3.91	
DRO >C10-C28*	<10.0	10.0	11/18/2024	ND	191	95.5	200	4.10	
EXT DRO >C28-C36	<10.0	10.0	11/18/2024	ND					

Surrogate: 1-Chlorooctane *94.1 %* *48.2-134*

Surrogate: 1-Chlorooctadecane *83.4 %* *49.1-148*

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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

Analytical Results For:

ENSOLUM
BEN BELILL
3122 NATIONAL PARKS HWY
CARLSBAD NM, 88220
Fax To:

Received:	11/18/2024	Sampling Date:	11/15/2024
Reported:	11/20/2024	Sampling Type:	Soil
Project Name:	CORRAL CANYON 16-9 FED COM 121H	Sampling Condition:	Cool & Intact
Project Number:	03C1558555	Sample Received By:	Alyssa Parras
Project Location:	XTO 32.122850, -103.997193		

Sample ID: SS 13 0.5 (H247014-08)

BTEX 8021B mg/kg Analyzed By: JH

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	11/19/2024	ND	2.11	106	2.00	8.93	
Toluene*	<0.050	0.050	11/19/2024	ND	2.20	110	2.00	8.05	
Ethylbenzene*	<0.050	0.050	11/19/2024	ND	2.15	107	2.00	7.31	
Total Xylenes*	<0.150	0.150	11/19/2024	ND	6.89	115	6.00	6.22	
Total BTEX	<0.300	0.300	11/19/2024	ND					

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

Chloride, SM4500Cl-B mg/kg Analyzed By: AC

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**304**	16.0	11/19/2024	ND	432	108	400	0.00	

TPH 8015M mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	11/18/2024	ND	196	98.1	200	3.91	
DRO >C10-C28*	<10.0	10.0	11/18/2024	ND	191	95.5	200	4.10	
EXT DRO >C28-C36	<10.0	10.0	11/18/2024	ND					

Surrogate: 1-Chlorooctane *94.8 %* *48.2-134*

Surrogate: 1-Chlorooctadecane *85.0 %* *49.1-148*

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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

Analytical Results For:

ENSOLUM
BEN BELILL
3122 NATIONAL PARKS HWY
CARLSBAD NM, 88220
Fax To:

Received:	11/18/2024	Sampling Date:	11/15/2024
Reported:	11/20/2024	Sampling Type:	Soil
Project Name:	CORRAL CANYON 16-9 FED COM 121H	Sampling Condition:	Cool & Intact
Project Number:	03C1558555	Sample Received By:	Alyssa Parras
Project Location:	XTO 32.122850, -103.997193		

Sample ID: SS 14 0.5 (H247014-09)

BTEX 8021B mg/kg Analyzed By: JH

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	11/19/2024	ND	2.11	106	2.00	8.93	
Toluene*	<0.050	0.050	11/19/2024	ND	2.20	110	2.00	8.05	
Ethylbenzene*	<0.050	0.050	11/19/2024	ND	2.15	107	2.00	7.31	
Total Xylenes*	<0.150	0.150	11/19/2024	ND	6.89	115	6.00	6.22	
Total BTEX	<0.300	0.300	11/19/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID *107 %* *71.5-134*

Chloride, SM4500Cl-B mg/kg Analyzed By: AC

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**80.0**	16.0	11/19/2024	ND	432	108	400	0.00	

TPH 8015M mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	11/18/2024	ND	196	98.1	200	3.91	
DRO >C10-C28*	<10.0	10.0	11/18/2024	ND	191	95.5	200	4.10	
EXT DRO >C28-C36	<10.0	10.0	11/18/2024	ND					

Surrogate: 1-Chlorooctane *112 %* *48.2-134*

Surrogate: 1-Chlorooctadecane *99.4 %* *49.1-148*

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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

Analytical Results For:

ENSOLUM
BEN BELILL
3122 NATIONAL PARKS HWY
CARLSBAD NM, 88220
Fax To:

Received:	11/18/2024	Sampling Date:	11/15/2024
Reported:	11/20/2024	Sampling Type:	Soil
Project Name:	CORRAL CANYON 16-9 FED COM 121H	Sampling Condition:	Cool & Intact
Project Number:	03C1558555	Sample Received By:	Alyssa Parras
Project Location:	XTO 32.122850, -103.997193		

Sample ID: SS 16 0.5 (H247014-10)

BTEX 8021B mg/kg Analyzed By: JH

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	11/19/2024	ND	2.11	106	2.00	8.93	
Toluene*	<0.050	0.050	11/19/2024	ND	2.20	110	2.00	8.05	
Ethylbenzene*	<0.050	0.050	11/19/2024	ND	2.15	107	2.00	7.31	
Total Xylenes*	<0.150	0.150	11/19/2024	ND	6.89	115	6.00	6.22	
Total BTEX	<0.300	0.300	11/19/2024	ND					

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

Chloride, SM4500Cl-B mg/kg Analyzed By: AC

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**160**	16.0	11/19/2024	ND	432	108	400	0.00	

TPH 8015M mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	11/18/2024	ND	196	98.1	200	3.91	
DRO >C10-C28*	<10.0	10.0	11/18/2024	ND	191	95.5	200	4.10	
EXT DRO >C28-C36	<10.0	10.0	11/18/2024	ND					

Surrogate: 1-Chlorooctane *85.2 %* *48.2-134*

Surrogate: 1-Chlorooctadecane *75.2 %* *49.1-148*

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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

Analytical Results For:

ENSOLUM
BEN BELILL
3122 NATIONAL PARKS HWY
CARLSBAD NM, 88220
Fax To:

Received:	11/18/2024	Sampling Date:	11/15/2024
Reported:	11/20/2024	Sampling Type:	Soil
Project Name:	CORRAL CANYON 16-9 FED COM 121H	Sampling Condition:	Cool & Intact
Project Number:	03C1558555	Sample Received By:	Alyssa Parras
Project Location:	XTO 32.122850, -103.997193		

Sample ID: PH 03 0.5 (H247014-11)

BTEX 8021B mg/kg Analyzed By: JH

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	11/19/2024	ND	2.11	106	2.00	8.93	
Toluene*	<0.050	0.050	11/19/2024	ND	2.20	110	2.00	8.05	
Ethylbenzene*	<0.050	0.050	11/19/2024	ND	2.15	107	2.00	7.31	
Total Xylenes*	<0.150	0.150	11/19/2024	ND	6.89	115	6.00	6.22	
Total BTEX	<0.300	0.300	11/19/2024	ND					

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

Chloride, SM4500Cl-B mg/kg Analyzed By: AC

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**464**	16.0	11/19/2024	ND	432	108	400	0.00	

TPH 8015M mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	11/18/2024	ND	196	98.1	200	3.91	
DRO >C10-C28*	<10.0	10.0	11/18/2024	ND	191	95.5	200	4.10	
EXT DRO >C28-C36	<10.0	10.0	11/18/2024	ND					

Surrogate: 1-Chlorooctane *88.6 %* *48.2-134*

Surrogate: 1-Chlorooctadecane *78.9 %* *49.1-148*

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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

Analytical Results For:

ENSOLUM
BEN BELILL
3122 NATIONAL PARKS HWY
CARLSBAD NM, 88220
Fax To:

Received:	11/18/2024	Sampling Date:	11/15/2024
Reported:	11/20/2024	Sampling Type:	Soil
Project Name:	CORRAL CANYON 16-9 FED COM 121H	Sampling Condition:	Cool & Intact
Project Number:	03C1558555	Sample Received By:	Alyssa Parras
Project Location:	XTO 32.122850, -103.997193		

Sample ID: PH 03A 3 (H247014-12)

BTEX 8021B mg/kg Analyzed By: JH

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	11/19/2024	ND	2.11	106	2.00	8.93	
Toluene*	<0.050	0.050	11/19/2024	ND	2.20	110	2.00	8.05	
Ethylbenzene*	<0.050	0.050	11/19/2024	ND	2.15	107	2.00	7.31	
Total Xylenes*	<0.150	0.150	11/19/2024	ND	6.89	115	6.00	6.22	
Total BTEX	<0.300	0.300	11/19/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID *107 %* *71.5-134*

Chloride, SM4500Cl-B mg/kg Analyzed By: KV

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**352**	16.0	11/19/2024	ND	416	104	400	3.77	

TPH 8015M mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	11/18/2024	ND	196	98.1	200	3.91	
DRO >C10-C28*	<10.0	10.0	11/18/2024	ND	191	95.5	200	4.10	
EXT DRO >C28-C36	<10.0	10.0	11/18/2024	ND					

Surrogate: 1-Chlorooctane *92.7 %* *48.2-134*

Surrogate: 1-Chlorooctadecane *81.9 %* *49.1-148*

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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

Notes and Definitions

S-05	The surrogate recovery is outside of lab established statistical control limits but still within method limits. Data is not adversely affected.
ND	Analyte NOT DETECTED at or above the reporting limit
RPD	Relative Percent Difference
**	Samples not received at proper temperature of 6°C or below.
***	Insufficient time to reach temperature.
-	Chloride by SM4500Cl-B does not require samples be received at or below 6°C
	Samples reported on an as received basis (wet) unless otherwise noted on report

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

1 of 2

Company Name: Ensolum, LLC		**BILL TO**	
Project Manager: Ben Belill		P.O. #:	
Address: 3122 National Parks Hwy		Company: XTO Energy Inc	
City: Carlsbad	State: NM Zip: 88220	Attn: Colton Brown	
Phone #: 989 854 0852	Fax #:	Address: 3104 E Green St	
Project #: 03C1558555	Project Owner: XTO	City: Carlsbad	
Project Name: Corral Canyon 16-9 Fed Com 121H		State: NM Zip: 88220	
Project Location: 32.122850, -103.997193		Phone #:	
Sampler Name: Joshua Boxley		Fax #:	

FOR LAB USE ONLY					MATRIX						PRESERV.			SAMPLING		ANALYSIS REQUEST											
Lab I.D.	Sample I.D.	Depth (feet)	(G)RAB OR (C)OMP.	# CONTAINERS	GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER :	ACID/BASE:	ICE / COOL	OTHER :	DATE	TIME	Chlorides	TPH	BTEX										
H247014																												
1	PH05	0.5	G	1			X					X		11.14.24	1420	X	X	X										
2	PH05A	1													1425													
3	PH06	0.5													1440													
4	PH06A	1'													1445													
5	SS07	0.5													1050													
6	SS11													11.14.24	1455													
7	SS12													11.15.24	1000													
8	SS13														1045													
9	SS14														1105													
10	SS16	0.5	G	1			X					X		11.15.24	1253	X	X	X										

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising whether based in contract or tort, shall be limited to the amount paid by the client for the analyses. All claims including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within 30 days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise.

Relinquished By:	Date: 11-18-24	Received By:	Verbal Result: ☐ Yes ☐ No Add'l Phone #:
	Time: 1225		All Results are emailed. Please provide Email address:
Relinquished By:	Date:	Received By:	BBelill @ensolum.com, TMorrissey@ensolum.com, KThomason@ensolum.com
	Time:		REMARKS: Incident: nAPP2427451370
			Cost Center: 1598964/1001

Delivered By: (Circle One)	Observed Temp. °C 26	Sample Condition	CHECKED BY:	Turnaround Time: Standard ☐ Rush ☑	Bacteria (only) Sample Condition
Sampler - UPS - Bus - Other:	Corrected Temp. °C 20.1	Cool: ☐ Yes ☐ No	(Initials)	Thermometer ID #113/#140	Cool: ☐ Yes ☐ No
		Intact: ☐ Yes ☐ No		Correction Factor -0.5°C -0.6	Intact: ☐ Yes ☐ No
					Observed Temp. °C
					Corrected Temp. °C

FORM-006 R 3.2 10/07/21

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

CARDINAL Laboratories

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

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

2 of 2

Company Name: Ensolum, LLC		**BILL TO**	
Project Manager: Ben Belill		**P.O. #:**	
Address: 3122 National Parks Hwy		**Company:** XTO Energy Inc	
City: Carlsbad	**State:** NM **Zip:** 88220	**Attn:** Colton Brown	
Phone #: 989 854 0852	**Fax #:**	**Address:** 3104 E Green St	
Project #: 03C1558555	**Project Owner:** XTO	**City:** Carlsbad	
Project Name: Corral Canyon 16-9 Fed Com 121H		**State:** NM **Zip:** 88220	
Project Location: 32.122850, -103.997193		**Phone #:**	
Sampler Name: Joshua Boxley		**Fax #:**	

FOR LAB USE ONLY					MATRIX						PRESERV.			SAMPLING		ANALYSIS REQUEST												
Lab I.D.	**Sample I.D.**	**Depth (feet)**	**(G)RAB OR (C)OMP.**	**# CONTAINERS**	GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER :	ACID/BASE:	ICE / COOL	OTHER :	**DATE**	**TIME**	Chlorides	TPH	BTEX											
H247014																												
11	PH03	0.5	G	1			X					X		11.15.24	1225	X	X	X										
12	PH03A	3	G	1			X					X		11.15.24	1240	X	X	X										

TPH

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising whether based in contract or tort, shall be limited to the amount paid by the client for the analyses. All claims including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within 30 days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequental damages, including without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise.

Relinquished By:	**Date:** 11-15-24	**Received By:**	Verbal Result: ☐ Yes ☐ No Add'l Phone #:
	Time: 1225		All Results are emailed. Please provide Email address:
Relinquished By:	**Date:**	**Received By:**	BBelill @ensolum.com, TMorrissey@ensolum.com, KThomason@ensolum.com
	Time:		REMARKS: Incident: nAPP2427451370
			Cost Center: 158964 1001

Delivered By: (Circle One)	Observed Temp. °C 2.6	**Sample Condition**	**CHECKED BY: (Initials)**	Turnaround Time: Standard ☐ Rush ☒	Bacteria (only) Sample Condition
Sampler - UPS - Bus - Other:	Corrected Temp. °C 2.0	Cool ☐ Yes ☐ No Intact ☐ Yes ☐ No		Thermometer ID #113 140 Correction Factor -0.5°C -0.6	Cool ☐ Yes ☐ No Intact ☐ Yes ☐ No Observed Temp. °C Corrected Temp. °C

48hr

FORM-006 R 3.2 10/07/21

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

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

General Information
Phone: (505) 629-6116

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

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

QUESTIONS

Action 410825

QUESTIONS

Operator: XTO ENERGY, INC 6401 Holiday Hill Road Midland, TX 79707	OGRID: 5380
	Action Number: 410825
	Action Type: [C-141] Site Char./Remediation Plan C-141 (C-141-v-Plan)

QUESTIONS

Prerequisites	
Incident ID (n#)	**nAPP2425666588**
Incident Name	**NAPP2425666588 CORRAL CANYON 16-9 STATE FED COM 121H @ 30-015-53198**
Incident Type	**Produced Water Release**
Incident Status	**Remediation Plan Received**
Incident Well	**[30-015-53198] CORRAL 16 9 STATE FEDERAL COM #102H**

Location of Release Source	
Please answer all the questions in this group.	
Site Name	CORRAL CANYON 16-9 STATE FED COM 121H
Date Release Discovered	09/12/2024
Surface Owner	State

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: Human Error | Tank (Any) | Produced Water | Released: 683 BBL | Recovered: 663 BBL | Lost: 20 BBL.
Is the concentration of chloride in the produced water >10,000 mg/l	No
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)	*Not answered.*

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

General Information
Phone: (505) 629-6116

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

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

QUESTIONS (continued)

Operator: XTO ENERGY, INC 6401 Holiday Hill Road Midland, TX 79707	OGRID: 5380
	Action Number: 410825
	Action Type: [C-141] Site Char./Remediation Plan C-141 (C-141-v-Plan)

QUESTIONS

Nature and Volume of Release (continued)	
Is this a gas only submission (i.e. only significant Mcf values reported)	**No, according to supplied volumes this does not appear to be a "gas only" report.**
Was this a major release as defined by Subsection A of 19.15.29.7 NMAC	**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: Robert Woodall Title: Environmental Analyst Email: robert.d.woodall@exxonmobil.com Date: 12/11/2024

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

General Information
Phone: (505) 629-6116

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

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

QUESTIONS (continued)

Operator: XTO ENERGY, INC 6401 Holiday Hill Road Midland, TX 79707	OGRID: 5380
	Action Number: 410825
	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	U.S. Geological Survey
Did this release impact groundwater or surface water	No
What is the minimum distance, between the closest lateral extents of the release and the following surface areas:	
A continuously flowing watercourse or any other significant watercourse	Between 500 and 1000 (ft.)
Any lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark)	Between 1 and 5 (mi.)
An occupied permanent residence, school, hospital, institution, or church	Between 1 and 5 (mi.)
A spring or a private domestic fresh water well used by less than five households for domestic or stock watering purposes	Between 1 and 5 (mi.)
Any other fresh water well or spring	Between 1 and 5 (mi.)
Incorporated municipal boundaries or a defined municipal fresh water well field	Greater than 5 (mi.)
A wetland	Between ½ and 1 (mi.)
A subsurface mine	Greater than 5 (mi.)
An (non-karst) unstable area	Between 1 and 5 (mi.)
Categorize the risk of this well / site being in a karst geology	Medium
A 100-year floodplain	Between 1 and 5 (mi.)
Did the release impact areas not on an exploration, development, production, or storage site	No

Remediation Plan	
Please answer all the questions that apply or are indicated. This information must be provided to the appropriate district office no later than 90 days after the release discovery date.	
Requesting a remediation plan approval with this submission	Yes
Attach a comprehensive report demonstrating the lateral and vertical extents of soil contamination associated with the release have been determined, pursuant to 19.15.29.11 NMAC and 19.15.29.13 NMAC.	
Have the lateral and vertical extents of contamination been fully delineated	Yes
Was this release entirely contained within a lined containment area	No
Soil Contamination Sampling: (Provide the highest observable value for each, in milligrams per kilograms.)	
Chloride (EPA 300.0 or SM4500 Cl B)	1550
TPH (GRO+DRO+MRO) (EPA SW-846 Method 8015M)	13400
GRO+DRO (EPA SW-846 Method 8015M)	13300
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	09/30/2024
On what date will (or did) the final sampling or liner inspection occur	03/11/2025
On what date will (or was) the remediation complete(d)	03/11/2025
What is the estimated surface area (in square feet) that will be reclaimed	2020
What is the estimated volume (in cubic yards) that will be reclaimed	230
What is the estimated surface area (in square feet) that will be remediated	2020
What is the estimated volume (in cubic yards) that will be remediated	230
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.	

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

General Information
Phone: (505) 629-6116

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

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

QUESTIONS (continued)

Operator: XTO ENERGY, INC 6401 Holiday Hill Road Midland, TX 79707	OGRID: 5380
	Action Number: 410825
	Action Type: [C-141] Site Char./Remediation Plan C-141 (C-141-v-Plan)

QUESTIONS

Remediation Plan (continued)	
Please answer all the questions that apply or are indicated. This information must be provided to the appropriate district office no later than 90 days after the release discovery date.	
This remediation will (or is expected to) utilize the following processes to remediate / reduce contaminants:	
(Select all answers below that apply.)	
(Ex Situ) Excavation and **off-site** disposal (i.e. dig and haul, hydrovac, etc.)	Yes
Which OCD approved facility will be used for **off-site** disposal	HALFWAY DISPOSAL AND LANDFILL [fEEM0112334510]
OR which OCD approved well (API) will be used for **off-site** disposal	*Not answered.*
OR is the **off-site** disposal site, to be used, out-of-state	*Not answered.*
OR is the **off-site** disposal site, to be used, an NMED facility	*Not answered.*
(Ex Situ) Excavation and **on-site** remediation (i.e. On-Site Land Farms)	*Not answered.*
(In Situ) Soil Vapor Extraction	*Not answered.*
(In Situ) Chemical processing (i.e. Soil Shredding, Potassium Permanganate, etc.)	*Not answered.*
(In Situ) Biological processing (i.e. Microbes / Fertilizer, etc.)	*Not answered.*
(In Situ) Physical processing (i.e. Soil Washing, Gypsum, Disking, etc.)	*Not answered.*
Ground Water Abatement pursuant to 19.15.30 NMAC	*Not answered.*
OTHER (Non-listed remedial process)	*Not answered.*
Per Subsection B of 19.15.29.11 NMAC unless the site characterization report includes completed efforts at remediation, the report must include a proposed remediation plan in accordance with 19.15.29.12 NMAC, which includes the anticipated timelines for beginning and completing the remediation.	
I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to OCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the OCD does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In addition, OCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.	
I hereby agree and sign off to the above statement	Name: Robert Woodall Title: Environmental Analyst Email: robert.d.woodall@exxonmobil.com Date: 12/11/2024
The OCD recognizes that proposed remediation measures may have to be minimally adjusted in accordance with the physical realities encountered during remediation. If the responsible party has any need to significantly deviate from the remediation plan proposed, then it should consult with the division to determine if another remediation plan submission is required.	

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

General Information
Phone: (505) 629-6116

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

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

QUESTIONS (continued)

Operator: XTO ENERGY, INC 6401 Holiday Hill Road Midland, TX 79707	OGRID: 5380
	Action Number: 410825
	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

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

General Information
Phone: (505) 629-6116

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

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

QUESTIONS (continued)

Operator:	OGRID:
XTO ENERGY, INC 6401 Holiday Hill Road Midland, TX 79707	5380
	Action Number: 410825
	Action Type: [C-141] Site Char./Remediation Plan C-141 (C-141-v-Plan)

QUESTIONS

Sampling Event Information	
Last sampling notification (C-141N) recorded	**411803**
Sampling date pursuant to Subparagraph (a) of Paragraph (1) of Subsection D of 19.15.29.12 NMAC	**12/20/2024**
What was the (estimated) number of samples that were to be gathered	**50**
What was the sampling surface area in square feet	**10000**

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

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

General Information
Phone: (505) 629-6116

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

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

CONDITIONS

Operator: XTO ENERGY, INC 6401 Holiday Hill Road Midland, TX 79707	OGRID: 5380
	Action Number: 410825
	Action Type: [C-141] Site Char./Remediation Plan C-141 (C-141-v-Plan)

CONDITIONS

Created By	Condition	Condition Date
bhall	Remediation plan conditionally approved.	1/31/2025
bhall	Excavation(s) must be advanced until the most stringent closure criteria are met.	1/31/2025
bhall	Confirmation/final 5-point composite samples representative of no more than 200 square feet must be collected from all side walls and bases of the excavation(s).	1/31/2025
bhall	Be advised that remediation closure cannot be requested until all contamination is remediated and confirmation/final samples are collected. If the temporary lined containment prevents full remediation of the site, a deferral may be warranted. Prior to a deferral request, the contamination must be fully delineated and as much contamination as possible must be remediated.	1/31/2025
bhall	Submit a complete and accurate report through the OCD Permitting website by 5/2/2025.	1/31/2025