ENSOLUM

April 14, 2025

New Mexico Oil Conservation Division
New Mexico Energy, Minerals, and Natural Resources Department
1220 South St. Francis Drive
Santa Fe, New Mexico 87505

Re: Remediation Work Plan
Corral Canyon 8 Satellite
Incident Number nAPP2501553916
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 site assessment, delineation, and excavation activities completed to date and propose engineering and karst investigations to be conducted at the Corral Canyon 8 Satellite (Site). The purpose of the remedial activities completed was to address impacted soil resulting from a release of produced water at the Site. The following *Work Plan* proposes an engineering and karst investigation to confirm the Closure Criteria at the Site.

SITE DESCRIPTION AND RELEASE SUMMARY

The Site is located in Unit J and Unit K, Section 8, Township 25 South, Range 29 East, in Eddy County, New Mexico (32.142751°, -104.006738°) and is associated with oil and gas exploration and production operations on Federal land managed by the Bureau of Land Management (BLM).

On January 14, 2025, corrosion on a produced water dump valve resulted in the release of 33 barrels (bbls) of produced water onto the pad surface and around active production equipment and surface pipelines. A vacuum truck was dispatched to the Site to recover free-standing fluids; 5 bbls of produced water were recovered. XTO reported the release to the New Mexico Oil Conservation Division (NMOCD) via Notification of Release (NOR) and Initial C-141 Application (C-141) on January 15, 2025, and the release was assigned Incident Number nAPP2501553916.

SITE CHARACTERIZATION AND CLOSURE CRITERIA

The Site was characterized to assess the applicability of Table I, Closure Criteria for Soils Impacted by a Release, of Title 19, Chapter 15, Part 29 (19.15.29) of the New Mexico Administrative Code (NMAC). Results from the characterization desktop review are presented below and potential Site receptors are identified on Figure 1.

Depth to groundwater at the Site is greater than 100 feet below ground surface (bgs) based on the nearest groundwater well data. On June 2, 1997, New Mexico Office of State Engineer (OSE) permitted well (C-2518) was advanced to a depth of 462 feet below ground surface (bgs) approximately 0.26 miles southeast of the Site. No moisture or groundwater was encountered during drilling activities. On April 19, 2021, an additional soil boring (C-4503) was drilled to a depth of 110 feet bgs approximately 0.80

miles southeast of the Site. The soil boring was dry, which provides additional support that groundwater beneath the Site is greater than 100 feet bgs. 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 780 feet south of the Site. The Site is greater than 200 feet from a lakebed, sinkhole, or playa lake and greater than 300 feet from an occupied residence, school, hospital, institution, 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).

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

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

SITE ASSESSMENT AND DELINEATION ACTIVITIES

On January 17, 2025, Ensolum personnel visited the Site to evaluate the release extent based on information provided on the C-141, information provided by XTO, and visual observations. The release extent area was mapped utilizing a handheld Global Positioning System (GPS) unit and is depicted on Figure 2. Photographic documentation was collected during the site assessment and a photographic log is included in Appendix B.

On January 29, 2025, Ensolum personnel conducted delineation activities to evaluate impacts to soil. Eight discrete delineation soil samples (SS01 through SS08) were collected at a depth 0.5 feet bgs. Delineation soil samples SS01 through SS05 were collected outside of the release extent to define the lateral extent of the release. Soil samples SS06 through SS08 were collected within the release extent to confirm the presence or absence of impacted soil. 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. The delineation soil sample locations were mapped utilizing a GPS unit and are depicted on Figure 2.

The delineation 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 constituents 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 Standard Method 4500.

Ensolum personnel returned to the Site on March 25, 2025, to conduct additional delineation activities. One borehole was advanced via core drill in the vicinity of soil sample SS07 to a total depth of 2 feet bgs. One delineation soil sample (SS07B) was collected at the terminal depth of the borehole. Delineation soil samples SS09 and SS10 were collected to further assess the release extent. Field

screening results and observations from the boreholes was logged on a lithologic/soil sampling log included in Appendix C. All delineation soil sample locations are depicted on Figure 2.

Laboratory analytical results from delineation soil samples SS01 through SS05, and SS10 indicated all COC concentrations were in compliance with Closure Criteria, successfully defining the lateral extent of the release. Laboratory analytical results for delineation soil samples SS06 through SS09 indicated chloride concentrations exceeded Closure Criteria.

Delineation soil sample SS07B indicated all COC concentrations were compliant with Closure Criteria, successfully defining the vertical extent of the release. Based on visible staining in the release area and delineation soil sample laboratory analytical results, excavation of impacted soil was warranted.

SURFACE SCRAPING ACTIVITIES

Following delineation activities, surface scraping of visibly stained soil was conducted in the release area to the maximum extent practicable (MEP). Surface scraping activities were performed utilizing hand tools, as no mechanical equipment could safely access nearly all of the release extent area due to the presence of active production equipment and surface pipelines. Because of the competency of the caliche well pad material, soil removal by hand tools was limited to a surface scrape. Surface scraping was conducted to the MEP in the vicinity of delineation soil samples SS07, SS08, and SS09. The surface scraping areas are presented in Figure 3.

EXCAVATION ACTIVITIES

On February 26, 2025, Ensolum personnel returned to the Site to excavate impacted soil based on delineation soil sample laboratory analytical results. Excavation activities were performed utilizing heavy equipment to the MEP due to the proximity to active production equipment and surface pipelines. To direct excavation activities, soil was field screened for VOCs and chloride utilizing the same methods as described above. Once field screening indicated impacted soil was adequately removed, 5-point composite soil samples were collected every 200 square feet from the floor and sidewall of the excavation extent. The 5-point composite samples were collected by placing five equivalent aliquots of soil into a 1-gallon, resealable plastic bag and homogenizing the samples by thoroughly mixing. Confirmation soil samples FS01 and FS02 were collected from the floor of the excavation from a depth of 1.5 feet bgs. Confirmation soil sample SW01 was collected from the sidewall of the excavation at depths ranging from the ground surface to 1.5 feet bgs. One 5-point composite confirmation soil sample (CS01) was collected from a depth of 0.5 feet bgs in the area where surface scraping activities were completed. All confirmation soil sample locations are depicted on Figure 3.

The final excavation extent measured approximately 337 square feet. A total of approximately 20 cubic yards of impacted soil was removed during excavation activities and was properly disposed of at the Owl Landfill Facility in Jal, New Mexico. A copy of the disposal manifest is presented in Appendix D.

LABORATORY ANALYTICAL RESULTS

Laboratory analytical results for confirmation soil samples FS01, FS02, and SW01 indicated all COC concentrations were in compliance with Closure Criteria. Laboratory analytical results for CS01 indicated TPH and chloride concentrations exceeded Closure Criteria. Laboratory analytical results are summarized on Table 1, and the complete laboratory analytical reports are included in Appendix E.

PROPOSED REMEDIATION WORK PLAN

Based on soil sample laboratory analytical results, chloride and TPH impacted soil exists across an approximate 1,730 square-foot area and extends to an estimated maximum depth of 2 feet bgs. Approximately 130 cubic yards of impacted soil remain in place immediately adjacent to production equipment, concrete poured pads, surface pipelines, and multiple electrical lines.

Due to the recent re-evaluation of remediation standards regarding karst potential zones by the NMOCD, and approval of deferrals in these areas not being granted, as medium karst is being classified as unstable, XTO proposes to complete the following:

- A desktop survey, arial/pedestrian survey, and a geophysical survey will be performed on the Site to determine if karst features are present.
- A certified civil engineer will evaluate the soil type and provide the minimum distance the excavation needs to be from the equipment and how deep the excavation can be.

XTO will proceed with any excavation and soil sampling activities, warranted by the inspection activities, and will submit a Closure Report or a Deferral Request 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

Jeremy Reich
Project Geologist

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

cc: Robert Woodall, XTO
Kaylan Dirkx, XTO
BLM

Appendices:

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

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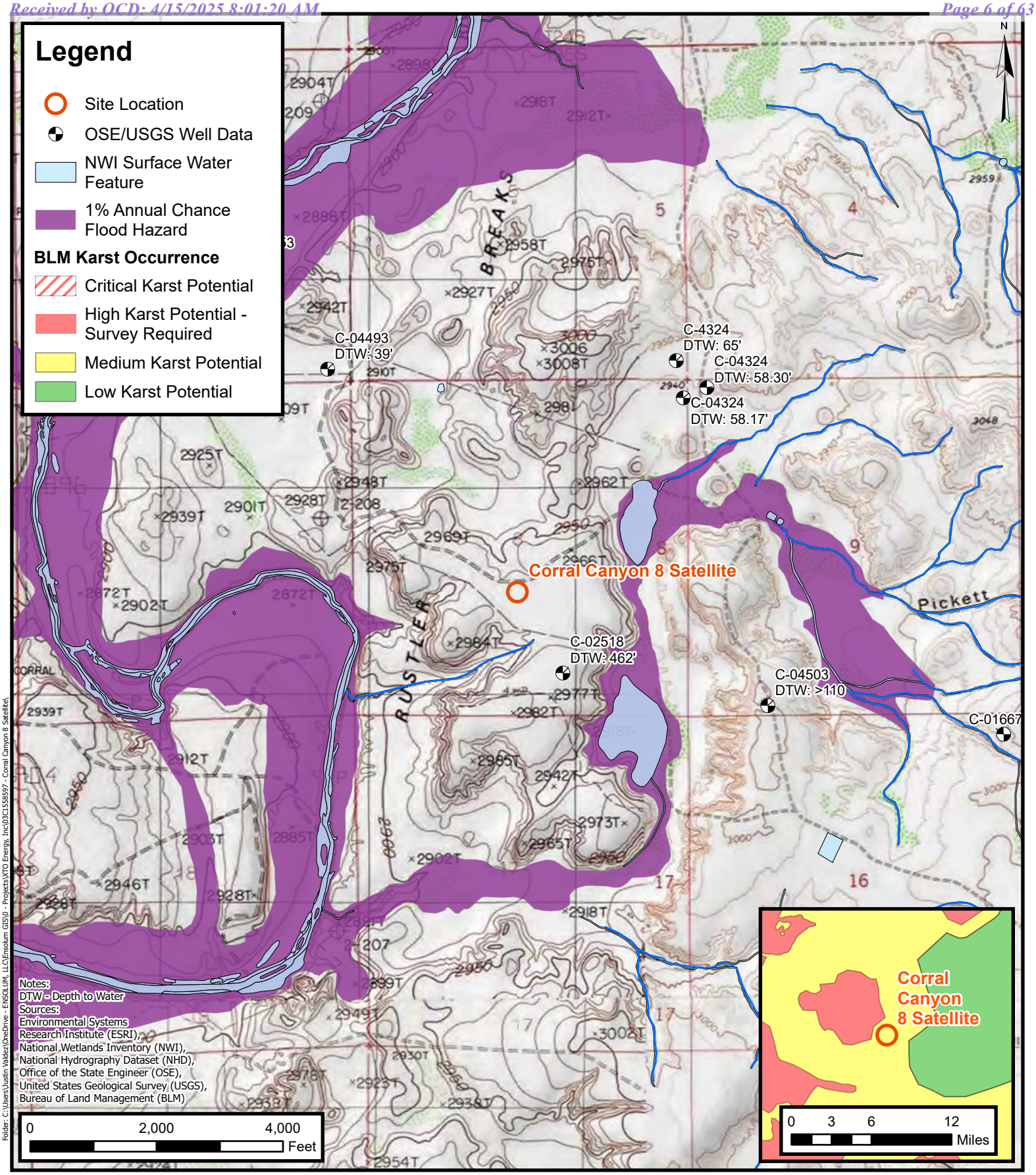
FIGURES



Folder: C:\Users\Justin Valdez\OneDrive - ENSOLUM, LLC\Ensolum GIS\0 - Projects\XTO Energy, Inc\03C1558597 - Corral Canyon 8 Satellite\

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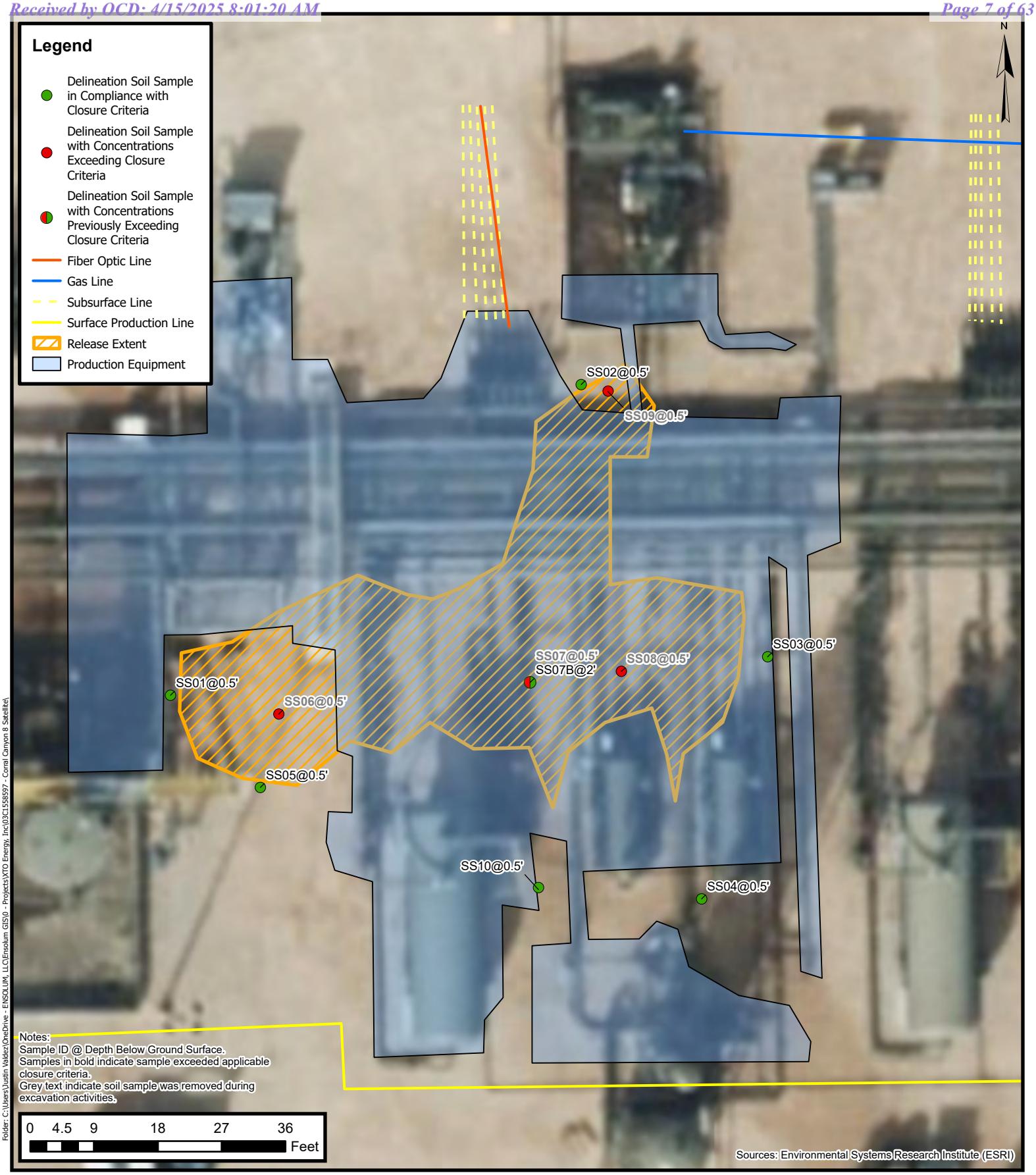
Site Receptor Map

XTO Energy, Inc
Corral Canyon 8 Satellite
Incident Number: nAPP2501553916
Unit J & K-08-25S-29E
Eddy County, New Mexico

FIGURE 1



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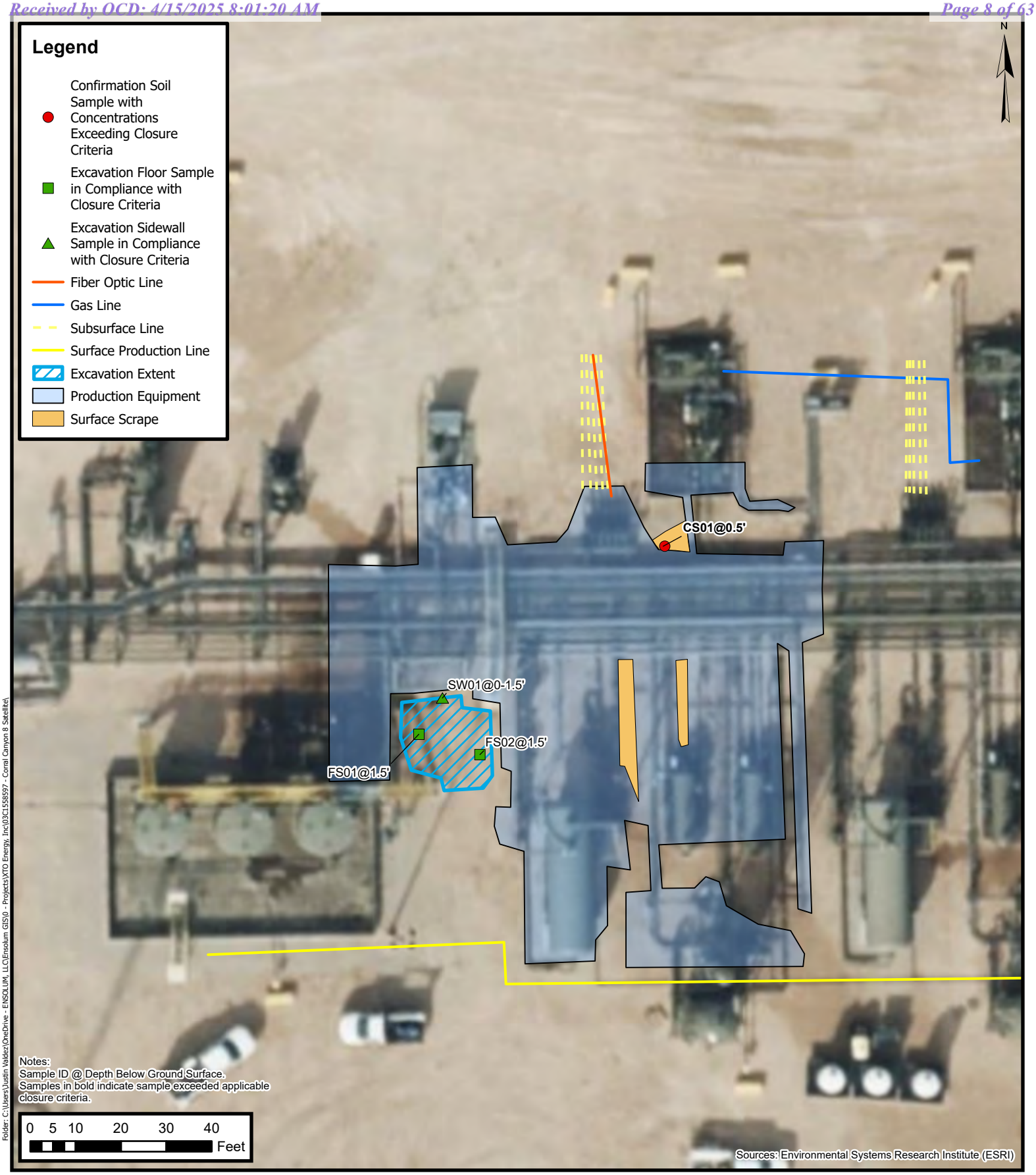
Delineation Soil Sample Locations

XTO Energy, Inc
Corral Canyon 8 Satellite
Incident Number: nAPP2501553916
Unit J & K-08-25S-29E
Eddy County, New Mexico

FIGURE 2



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Confirmation Soil Sample Location

XTO Energy, Inc
Corral Canyon 8 Satellite
Incident Number: nAPP2501553916
Unit J & K-08-25S-29E
Eddy County, New Mexico

FIGURE 3

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TABLES

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TABLE 1
SOIL SAMPLE ANALYTICAL RESULTS
Corral Canyon 8 Satellite
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	01/29/2025	0.5	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	80.0
SS02	01/29/2025	0.5	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	32.0
SS03	01/29/2025	0.5	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	112
SS04	01/29/2025	0.5	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	224
SS05	01/29/2025	0.5	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	48.0
~~SS06~~	~~01/29/2025~~	~~0.5~~	~~<0.050~~	~~<0.300~~	~~<10.0~~	~~<10.0~~	~~<10.0~~	~~<10.0~~	~~<10.0~~	~~**2,840**~~
~~SS07~~	~~01/29/2025~~	~~0.5~~	~~<0.050~~	~~<0.300~~	~~<10.0~~	~~<10.0~~	~~<10.0~~	~~<10.0~~	~~<10.0~~	~~**7,440**~~
SS07B	03/25/2025	2	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	320
~~SS08~~	~~01/29/2025~~	~~0.5~~	~~<0.050~~	~~<0.300~~	~~<10.0~~	~~<10.0~~	~~<10.0~~	~~<10.0~~	~~<10.0~~	~~**7,120**~~
~~SS09~~	~~03/25/2025~~	~~0.5~~	~~<0.050~~	~~<0.300~~	~~<10.0~~	~~<10.0~~	~~<10.0~~	~~<10.0~~	~~<10.0~~	~~**6,400**~~
SS10	03/25/2025	0.5	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	96.0
Confirmation Soil Samples										
FS01	02/26/2025	1.5	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	304
FS02	02/26/2025	1.5	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	448
SW01	02/26/2025	0-1.5	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	416
CS01	03/25/2025	0.5	<0.050	<0.300	<10.0	1,110	951	1,110	**2,061**	**7,600**

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
~~Grey~~ text indicates soil sample removed during excavation activities

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APPENDIX A

Referenced Well Records

5K

STATE ENGINEER OFFICE

WELL RECORD

465788

Revised June 1972

OFFICE OF STATE ENGINEER SANTA FE, NEW MEXICO '99 FEB 1 PM 1 29

Section 1. GENERAL INFORMATION

(A) Owner of well Penwell Energy Owner's Well No. 0

Street or Post Office Address c/o Glenn's Water Well Service

City and State P.O.Box 692 Tatum, NM 88267

Well was drilled under Permit No. C-2518 and is located in the:

a. ¼ ¼ SW ¼ SE ¼ of Section 8 Township 25 Range 29 N.M.P.M.

b. Tract No. _____ of Map No. _____ of the _____

c. Lot No. _____ of Block No. _____ of the _____
Subdivision, recorded in _____ County.

d. X= _____ feet, Y= _____ feet, N.M. Coordinate System _____ Zone in the _____ Grant.

(B) Drilling Contractor Glenn's Water Well SErvice License No. WD -421

Address P.O. Box 692 Tatum, NM 88267

Drilling Began 6-2-97 Completed 6-2-97 Type tools rotary Size of hole 7 7/8 in.

Elevation of land surface or _____ at well is _____ ft. Total depth of well 462 ft.

Completed well is ☒ shallow ☐ artesian. Depth to water upon completion of well - ft.

Section 2. PRINCIPAL WATER-BEARING STRATA

Depth in Feet From	Depth in Feet To	Thickness in Feet	Description of Water-Bearing Formation	Estimated Yield (gallons per minute)
			dry hole	

Section 3. RECORD OF CASING

Diameter (inches)	Pounds per foot	Threads per in.	Depth in Feet Top	Depth in Feet Bottom	Length (feet)	Type of Shoe	Perforations From	Perforations To
			none					

Section 4. RECORD OF MUDDING AND CEMENTING

Depth in Feet From	Depth in Feet To	Hole Diameter	Sacks of Mud	Cubic Feet of Cement	Method of Placement

Section 5. PLUGGING RECORD

Plugging Contractor well was back filled with cutting

Address and drilling mud

Plugging Method _____

Date Well Plugged _____

Plugging approved by:

_____
State Engineer Representative

No.	Depth in Feet Top	Depth in Feet Bottom	Cubic Feet of Cement
1	0	460	cutting &mud
2			
3			
4			

FOR USE OF STATE ENGINEER ONLY

Date Received 06-10-97

Quad _____ FWL _____ FSL _____

File No. C-2518 Use OWD "Dry Hole" Location No. 25S.29E.8.43412

Section 6. LOG OF HOLE

Depth in Feet From	Depth in Feet To	Thickness in Feet	Color and Type of Material Encountered
0	2	2	soil
2	15	13	caleche & sand
15	25	10	sand & gravel
25	105	80	red clay
105	305	200	brown clay
305	345	40	red clay
345	405	60	anhydrite
405	415	10	redish lime & anhydrite
415	450	35	anhydrite
450	460	10	red clay

'97 JUN 10 PM 1 17

Section 7. REMARKS AND ADDITIONAL INFORMATION

The undersigned hereby certifies that, to the best of his knowledge and belief, the foregoing is a true and correct record of the above described hole.

Corky Howe
Driller

INSTRUCTIONS: This form should be executed in triplicate, preferably typewritten, and submitted to the appropriate district office of the State Engineer. All sections, except [redacted]on 5, shall be answered as completely and [redacted]rately as possible when any well is drilled, repaired or deepened. When this form is [redacted]ed as a plugging record, only Section 1(a) and Section 5 need be completed.

WELL RECORD & LOG

OFFICE OF THE STATE ENGINEER

www.ose.state.nm.us

1. GENERAL AND WELL LOCATION

OSE POD NO. (WELL NO.)	WELL TAG ID NO.	OSE FILE NO(S).
POD1 (BH-01)	n/a	C-4503

WELL OWNER NAME(S)	PHONE (OPTIONAL)
XTO Energy (Kyle Littrell)	

WELL OWNER MAILING ADDRESS	CITY	STATE	ZIP
6401 Holiday Hill Dr.	Midland	TX	79707

WELL LOCATION (FROM GPS)		DEGREES	MINUTES	SECONDS	
	LATITUDE	32	8	15.74	N
	LONGITUDE	103	59	38.34	W

* ACCURACY REQUIRED: ONE TENTH OF A SECOND
* DATUM REQUIRED: WGS 84

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

SWSW S9 T25S R29E

2. DRILLING & CASING INFORMATION

LICENSE NO.	NAME OF LICENSED DRILLER	NAME OF WELL DRILLING COMPANY
1249	Jackie D. Atkins	Atkins Engineering Associates, Inc.

DRILLING STARTED	DRILLING ENDED	DEPTH OF COMPLETED WELL (FT)	BORE HOLE DEPTH (FT)	DEPTH WATER FIRST ENCOUNTERED (FT)
04/19/2021	04/19/2021	temporary well material	110	n/a

COMPLETED WELL IS: ☐ ARTESIAN ☑ DRY HOLE ☐ SHALLOW (UNCONFINED) — STATIC WATER LEVEL IN COMPLETED WELL (FT): n/a

DRILLING FLUID: ☐ AIR ☐ MUD ADDITIVES – SPECIFY:

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

DEPTH (feet bgl) FROM	DEPTH (feet bgl) TO	BORE HOLE DIAM (inches)	CASING MATERIAL AND/OR GRADE (include each casing string, and note sections of screen)	CASING CONNECTION TYPE (add coupling diameter)	CASING INSIDE DIAM. (inches)	CASING WALL THICKNESS (inches)	SLOT SIZE (inches)
0	110	±6.5	Boring- HSA	–	–	–	–

OSE DII MAY 5 2021 PM 1:16

3. ANNULAR MATERIAL

DEPTH (feet bgl) FROM	DEPTH (feet bgl) TO	BORE HOLE DIAM. (inches)	LIST ANNULAR SEAL MATERIAL AND GRAVEL PACK SIZE-RANGE BY INTERVAL	AMOUNT (cubic feet)	METHOD OF PLACEMENT

FOR OSE INTERNAL USE — WR-20 WELL RECORD & LOG (Version 06/30/17)

FILE NO. C-4503	POD NO. 1	TRN NO. 682792
LOCATION Expl 25S.29E.9.334	WELL TAG ID NO.	PAGE 1 OF 2

4. HYDROGEOLOGIC LOG OF WELL

DEPTH (feet bgl) FROM	DEPTH (feet bgl) TO	THICKNESS (feet)	COLOR AND TYPE OF MATERIAL ENCOUNTERED - INCLUDE WATER-BEARING CAVITIES OR FRACTURE ZONES (attach supplemental sheets to fully describe all units)	WATER BEARING? (YES / NO)	ESTIMATED YIELD FOR WATER-BEARING ZONES (gpm)
0	4	4	Caliche, tan, off-white,dry, tan sand m-f grained, well sorted, trace silt	Y ✓ N	
4	41	37	Sand, tan, m-f, well sorted, little caliche gravel, tan, trace silt, low consolidation	Y ✓ N	
41	--	--	Sandy clay, brown, non plastic, non cohesive, no odor, no stain, m-f grained, wel	Y ✓ N	
43	46	5	increase in clay content, low plasticity Claystone,brown, light brown mottling,	Y ✓ N	
46	110	64	Claystone,brown, light brown mottling, cohesive, medium plasticity	Y ✓ N	
				Y N	
				Y N	
				Y N	
				Y N	
				Y N	
				Y N	
				Y N	
				Y N	
				Y N	
				Y N	
				Y N	
				Y N	
				Y N	
				Y N	
				Y N	

METHOD USED TO ESTIMATE YIELD OF WATER-BEARING STRATA:

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

TOTAL ESTIMATED WELL YIELD (gpm): 0.00

5. TEST; RIG SUPERVISION

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

MISCELLANEOUS INFORMATION: Corral Canyon 212H. Temporary well materials removed and the soil boring backfilled using drill cuttings from total depth to ten feet below ground surface, then hydrated bentonite chips from ten feet below ground surface to surface.
Logs adapted from WSP on-site geologist.

OSE DII MAY 5 2021 PM4:04

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

Shane Eldridge

6. SIGNATURE

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

Jack Atkins — Jackie D. Atkins — 05/05/2021

SIGNATURE OF DRILLER / PRINT SIGNEE NAME — DATE

FOR OSE INTERNAL USE — WR-20 WELL RECORD & LOG (Version 06/30/2017)

FILE NO. C-4503	POD NO. 1	TRN NO. 682792
LOCATION	WELL TAG ID NO.	PAGE 2 OF 2

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APPENDIX B

Photographic Log

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Photographic Log
XTO Energy, Inc
Corral Canyon 8 Satellite
nAPP2501553916

Photograph: 1 Date: 1/29/2025
Description: Hand excavation activities
View: Direct

Photograph: 2 Date: 1/29/2025
Description: Hand excavation activities
View: Direct

Photograph: 3 Date: 2/25/2025
Description: Hand excavation
View: activities West

Photograph: 4 Date: 2/25/2025
Description: Excavation activities
View: South

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APPENDIX C

Lithologic Soil Sampling Logs

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Sample Name: SS07	Date: 3/25/25	
Site Name: Corral Canyon 8 Satellite		
Incident Number: nAPP2501553916		
Job Number: 03C1558597		
LITHOLOGIC / SOIL SAMPLING LOG	Logged By: JD	Method: Core Drill
Coordinates: 32.142751, -104.006738	Hole Diameter: 2"	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. 40% correction factor included.

Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample ID	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithologic Descriptions
						0	CCHE	(0-2') CALICHE, Tan, sand - gravel, sub-angular, poorly sorted, slight odor
D	1982	4.1	Y	SS07	0.5			
D	533.6	1.5	Y	SS0A	1	1		
D	N/A	2	N	SS07B	2	2		No Odor - Sample comprised of rock, unable to field test for chloride

Total Depth @ 2'

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APPENDIX D

Waste Manifest

OWL Landfill Services, LLC
DBA: Northern Delaware Basin Landfill
3889 Maple Ave. Suite 300
Dallas, TX 75219
505.231.1212
ar@ndblandfill.com

COMPANY MAN: Kent Reitz
(Authorized Agent's Printed Name and Title)
SIGNATURE:
COMPANY MAN EMAIL:
COMPANY MAN PHONE:

MANIFEST # 0385681

Part 1 - Generator

COMPANY NAME: XTO
DATE: 2-26-25
LEASE: Coiral Canyon 8 Sat Battery
PHONE:
AFE #: NAPP2501553916
API:
RIG NAME: NAPP2207552359
WELL #:
STATE & COUNTY ORIGIN: CC: 21253210O1 Proj#0X1558597

QUANTITY: Bell 20 ☐ BBLS ☑ YARDS

Waste Description (check only one box) ☐ RCRA Exempt ☐ RCRA Non-Exempt

- ☐ Water Based Cuttings (DRY)
- ☐ Water Based Cuttings (WET)
- ☑ Contaminated Soil
- ☐ Produced Sands
- ☐ Oil Based Cuttings (DRY)
- ☐ Oil Based Cuttings (WET)
- ☐ Injectable Fluids
- ☐ Non-Injectable Fluids
- ☐ Oil Base Mud
- ☐ Water Base Mud
- ☐ Muds w/Cement
- ☐ Tank Bottoms
- ☐ Rig Trash
- ☐ Pit Liners
- ☐ Other:

Authorize Washout? ☐ Yes ☑ No

I hereby certify that according to the Resource Conservation and Recovery Act (RCRA) and the US Environmental Protection Agency's July 1988 regulatory determination, the above described waste load is (Check the appropriate classification)

☑ RCRA EXEMPT: Oilfield wastes generated from oil and gas exploration and production operations and are not mixed with non-exempt waste (NDBL Accepts certifications on a per load basis only)

☐ RCRA NON-EXEMPT: Oilfield waste which is non-hazardous that does not exceed the minimum standards for waste hazardous by characteristics established in RCRA regulations, 40 CFR 261.21-261.24, or listed hazardous waste as defined by 40 CFR, part 261, subpart D, as amended. The following documentation demonstrating the waste as non-hazardous is attached. (Check the appropriate items as provided)

☐ SDS Information ☐ RCRA Hazardous Waste Analysis ☐ Process Knowledge ☐ Other (Provide Description Below)

☐ EMERGENCY NON-OILFIELD: Emergency non-hazardous, non-oilfield waste that has been ordered by the Department of Public Safety (the order, documentation of non-hazardous waste determination and a description of that waste must accompany this form)

(Print) Authorized Agent's Name _____ Date _____ Signature _____

Part 2 - Transporter

TO BE COMPLETED BY THE TRANSPORTER WHILE THE GENERATOR IS PRESENT

COMPANY NAME: SemTex Mex
YARD #:
WHP #:
TRUCK #: 03
ADDRESS:
TICKET #:
ROLL OFF BIN#:
TRAILER #: 527

DATE RECEIVED:
TIME RECEIVED:
☐ AM ☐ PM
DISPATCHER NAME:
DISPATCHER PHONE #:

The following statement must be signed by the truck driver prior to unloading at disposal facility:

"I CERTIFY THAT NO OTHER MATERIAL HAS BEEN PLACED IN THIS VESSEL SINCE LOADING OF MATERIAL DESCRIBED IN PART 1 ABOVE."

DRIVER: Cornelio Rempel (Driver's Name Printed)
DRIVER'S SIGNATURE:

I, (TRANSPORTER), CERTIFY THAT THE INFORMATION GIVEN ON THIS MANIFEST IS TRUE AND ACCURATE TO THE BEST OF MY KNOWLEDGE

Part 3 - Disposal Facility

TO BE COMPLETED BY OWL LANDFILL EMPLOYEES

FACILITY RECEIVED AT (Check One):
DATE: 2-26-25 TIME IN: 4:44 AM / PM
TIME OUT: AM / PM

☐ Northern Delaware Basin Landfill
2029 W. NM Highway 128 | Jal, New Mexico 88252

WASHOUT BY:
WASHOUT: TIME IN: TIME OUT:

ACCEPTANCE TESTING:
PAINT FILTER: PASS FAIL N/A
TCLP: PASS FAIL N/A
TOX: PASS FAIL N/A

NORM TESTING: P (Less than 50 MCR)

Shake Out:	1	2	3
H_2O	N	N/A	
S			

307682

Gallon Test:

SERVICE NOTES:
This is to certify that: _____ (Employee (Printed Name)) *has received the above indicated waste, waste has passed all acceptances testing of this facility and the waste has been disposed of in an authorized manner at a permitted site.*

EMPLOYEE SIGNATURE:

White Copy: Disposal Facility Yellow: Transporter Pink: Generator

ENSOLUM

APPENDIX E

Laboratory Analytical Reports & Chain of Custody Documentation

CARDINAL Laboratories

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

February 06, 2025

JEREMY REICH

ENSOLUM

3122 NATIONAL PARKS HWY

CARLSBAD, NM 88220

RE: CORRAL CANYON 8 SATELLITE BATTERY

Enclosed are the results of analyses for samples received by the laboratory on 02/03/25 12:00.

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
JEREMY REICH
3122 NATIONAL PARKS HWY
CARLSBAD NM, 88220
Fax To:

Received:	02/03/2025	Sampling Date:	01/29/2025
Reported:	02/06/2025	Sampling Type:	Soil
Project Name:	CORRAL CANYON 8 SATELLITE BATTERY	Sampling Condition:	Cool & Intact
Project Number:	03C1558483	Sample Received By:	Tamara Oldaker
Project Location:	XTO 32.14267,-104.00638		

Sample ID: SS 01 0.5' (H250606-01)

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	02/03/2025	ND	2.39	120	2.00	4.72	
Toluene*	<0.050	0.050	02/03/2025	ND	2.42	121	2.00	5.57	
Ethylbenzene*	<0.050	0.050	02/03/2025	ND	2.59	130	2.00	5.41	QM-07
Total Xylenes*	<0.150	0.150	02/03/2025	ND	7.90	132	6.00	6.41	QM-07
Total BTEX	<0.300	0.300	02/03/2025	ND					

Surrogate: 4-Bromofluorobenzene (PID *109 %* *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	**80.0**	16.0	02/03/2025	ND	448	112	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	02/03/2025	ND	190	94.8	200	0.891	
DRO >C10-C28*	<10.0	10.0	02/03/2025	ND	191	95.3	200	0.817	
EXT DRO >C28-C36	<10.0	10.0	02/03/2025	ND					

Surrogate: 1-Chlorooctane *74.7 %* *48.2-134*

Surrogate: 1-Chlorooctadecane *72.9 %* *49.1-148*

Cardinal Laboratories *=Accredited Analyte

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
JEREMY REICH
3122 NATIONAL PARKS HWY
CARLSBAD NM, 88220
Fax To:

Received:	02/03/2025	Sampling Date:	01/29/2025
Reported:	02/06/2025	Sampling Type:	Soil
Project Name:	CORRAL CANYON 8 SATELLITE BATTERY	Sampling Condition:	Cool & Intact
Project Number:	03C1558483	Sample Received By:	Tamara Oldaker
Project Location:	XTO 32.14267,-104.00638		

Sample ID: SS 02 0.5' (H250606-02)

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	02/03/2025	ND	2.39	120	2.00	4.72	
Toluene*	<0.050	0.050	02/03/2025	ND	2.42	121	2.00	5.57	
Ethylbenzene*	<0.050	0.050	02/03/2025	ND	2.59	130	2.00	5.41	
Total Xylenes*	<0.150	0.150	02/03/2025	ND	7.90	132	6.00	6.41	
Total BTEX	<0.300	0.300	02/03/2025	ND					

Surrogate: 4-Bromofluorobenzene (PID *114 %* *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	**32.0**	16.0	02/03/2025	ND	448	112	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	02/03/2025	ND	190	94.8	200	0.891	
DRO >C10-C28*	<10.0	10.0	02/03/2025	ND	191	95.3	200	0.817	
EXT DRO >C28-C36	<10.0	10.0	02/03/2025	ND					

Surrogate: 1-Chlorooctane *76.8 %* *48.2-134*

Surrogate: 1-Chlorooctadecane *76.7 %* *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
JEREMY REICH
3122 NATIONAL PARKS HWY
CARLSBAD NM, 88220
Fax To:

Received:	02/03/2025	Sampling Date:	01/29/2025
Reported:	02/06/2025	Sampling Type:	Soil
Project Name:	CORRAL CANYON 8 SATELLITE BATTERY	Sampling Condition:	Cool & Intact
Project Number:	03C1558483	Sample Received By:	Tamara Oldaker
Project Location:	XTO 32.14267,-104.00638		

Sample ID: SS 03 0.5' (H250606-03)

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	02/03/2025	ND	2.39	120	2.00	4.72	
Toluene*	<0.050	0.050	02/03/2025	ND	2.42	121	2.00	5.57	
Ethylbenzene*	<0.050	0.050	02/03/2025	ND	2.59	130	2.00	5.41	
Total Xylenes*	<0.150	0.150	02/03/2025	ND	7.90	132	6.00	6.41	
Total BTEX	<0.300	0.300	02/03/2025	ND					

Surrogate: 4-Bromofluorobenzene (PID *119 %* *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	**112**	16.0	02/03/2025	ND	448	112	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	02/03/2025	ND	190	94.8	200	0.891	
DRO >C10-C28*	<10.0	10.0	02/03/2025	ND	191	95.3	200	0.817	
EXT DRO >C28-C36	<10.0	10.0	02/03/2025	ND					

Surrogate: 1-Chlorooctane *87.1 %* *48.2-134*

Surrogate: 1-Chlorooctadecane *86.9 %* *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
JEREMY REICH
3122 NATIONAL PARKS HWY
CARLSBAD NM, 88220
Fax To:

Received:	02/03/2025	Sampling Date:	01/29/2025
Reported:	02/06/2025	Sampling Type:	Soil
Project Name:	CORRAL CANYON 8 SATELLITE BATTERY	Sampling Condition:	Cool & Intact
Project Number:	03C1558483	Sample Received By:	Tamara Oldaker
Project Location:	XTO 32.14267,-104.00638		

Sample ID: SS 04 0.5' (H250606-04)

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	02/03/2025	ND	2.39	120	2.00	4.72	
Toluene*	<0.050	0.050	02/03/2025	ND	2.42	121	2.00	5.57	
Ethylbenzene*	<0.050	0.050	02/03/2025	ND	2.59	130	2.00	5.41	
Total Xylenes*	<0.150	0.150	02/03/2025	ND	7.90	132	6.00	6.41	
Total BTEX	<0.300	0.300	02/03/2025	ND					

Surrogate: 4-Bromofluorobenzene (PID *120 %* *71.5-134*

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

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**224**	16.0	02/03/2025	ND	448	112	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	02/03/2025	ND	190	94.8	200	0.891	
DRO >C10-C28*	<10.0	10.0	02/03/2025	ND	191	95.3	200	0.817	
EXT DRO >C28-C36	<10.0	10.0	02/03/2025	ND					

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

Surrogate: 1-Chlorooctadecane *85.3 %* *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
JEREMY REICH
3122 NATIONAL PARKS HWY
CARLSBAD NM, 88220
Fax To:

Received:	02/03/2025	Sampling Date:	01/29/2025
Reported:	02/06/2025	Sampling Type:	Soil
Project Name:	CORRAL CANYON 8 SATELLITE BATTERY	Sampling Condition:	Cool & Intact
Project Number:	03C1558483	Sample Received By:	Tamara Oldaker
Project Location:	XTO 32.14267,-104.00638		

Sample ID: SS 05 0.5' (H250606-05)

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	02/03/2025	ND	2.39	120	2.00	4.72	
Toluene*	<0.050	0.050	02/03/2025	ND	2.42	121	2.00	5.57	
Ethylbenzene*	<0.050	0.050	02/03/2025	ND	2.59	130	2.00	5.41	
Total Xylenes*	<0.150	0.150	02/03/2025	ND	7.90	132	6.00	6.41	
Total BTEX	<0.300	0.300	02/03/2025	ND					

Surrogate: 4-Bromofluorobenzene (PID *117 %* *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	**48.0**	16.0	02/03/2025	ND	448	112	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	02/03/2025	ND	190	94.8	200	0.891	
DRO >C10-C28*	<10.0	10.0	02/03/2025	ND	191	95.3	200	0.817	
EXT DRO >C28-C36	<10.0	10.0	02/03/2025	ND					

Surrogate: 1-Chlorooctane *88.8 %* *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
JEREMY REICH
3122 NATIONAL PARKS HWY
CARLSBAD NM, 88220
Fax To:

Received:	02/03/2025	Sampling Date:	01/29/2025
Reported:	02/06/2025	Sampling Type:	Soil
Project Name:	CORRAL CANYON 8 SATELLITE BATTERY	Sampling Condition:	Cool & Intact
Project Number:	03C1558483	Sample Received By:	Tamara Oldaker
Project Location:	XTO 32.14267,-104.00638		

Sample ID: SS 06 0.5' (H250606-06)

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	02/03/2025	ND	2.39	120	2.00	4.72	
Toluene*	<0.050	0.050	02/03/2025	ND	2.42	121	2.00	5.57	
Ethylbenzene*	<0.050	0.050	02/03/2025	ND	2.59	130	2.00	5.41	
Total Xylenes*	<0.150	0.150	02/03/2025	ND	7.90	132	6.00	6.41	
Total BTEX	<0.300	0.300	02/03/2025	ND					

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

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

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**2840**	16.0	02/03/2025	ND	448	112	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	02/03/2025	ND	190	94.8	200	0.891	
DRO >C10-C28*	<10.0	10.0	02/03/2025	ND	191	95.3	200	0.817	
EXT DRO >C28-C36	<10.0	10.0	02/03/2025	ND					

Surrogate: 1-Chlorooctane *93.9 %* *48.2-134*

Surrogate: 1-Chlorooctadecane *95.1 %* *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
JEREMY REICH
3122 NATIONAL PARKS HWY
CARLSBAD NM, 88220
Fax To:

Received:	02/03/2025	Sampling Date:	01/29/2025
Reported:	02/06/2025	Sampling Type:	Soil
Project Name:	CORRAL CANYON 8 SATELLITE BATTERY	Sampling Condition:	Cool & Intact
Project Number:	03C1558483	Sample Received By:	Tamara Oldaker
Project Location:	XTO 32.14267,-104.00638		

Sample ID: SS 07 0.5' (H250606-07)

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	02/03/2025	ND	2.39	120	2.00	4.72	
Toluene*	<0.050	0.050	02/03/2025	ND	2.42	121	2.00	5.57	
Ethylbenzene*	<0.050	0.050	02/03/2025	ND	2.59	130	2.00	5.41	
Total Xylenes*	<0.150	0.150	02/03/2025	ND	7.90	132	6.00	6.41	
Total BTEX	<0.300	0.300	02/03/2025	ND					

Surrogate: 4-Bromofluorobenzene (PID *123 %* *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	**7440**	16.0	02/03/2025	ND	448	112	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	02/03/2025	ND	190	94.8	200	0.891	
DRO >C10-C28*	<10.0	10.0	02/03/2025	ND	191	95.3	200	0.817	
EXT DRO >C28-C36	<10.0	10.0	02/03/2025	ND					

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

Surrogate: 1-Chlorooctadecane *97.6 %* *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
JEREMY REICH
3122 NATIONAL PARKS HWY
CARLSBAD NM, 88220
Fax To:

Received:	02/03/2025	Sampling Date:	01/29/2025
Reported:	02/06/2025	Sampling Type:	Soil
Project Name:	CORRAL CANYON 8 SATELLITE BATTERY	Sampling Condition:	Cool & Intact
Project Number:	03C1558483	Sample Received By:	Tamara Oldaker
Project Location:	XTO 32.14267,-104.00638		

Sample ID: SS 08 0.5' (H250606-08)

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	02/03/2025	ND	2.39	120	2.00	4.72	
Toluene*	<0.050	0.050	02/03/2025	ND	2.42	121	2.00	5.57	
Ethylbenzene*	<0.050	0.050	02/03/2025	ND	2.59	130	2.00	5.41	
Total Xylenes*	<0.150	0.150	02/03/2025	ND	7.90	132	6.00	6.41	
Total BTEX	<0.300	0.300	02/03/2025	ND					

Surrogate: 4-Bromofluorobenzene (PID *109 %* *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	**7120**	16.0	02/03/2025	ND	448	112	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	02/03/2025	ND	190	94.8	200	0.891	
DRO >C10-C28*	<10.0	10.0	02/03/2025	ND	191	95.3	200	0.817	
EXT DRO >C28-C36	<10.0	10.0	02/03/2025	ND					

Surrogate: 1-Chlorooctane *89.3 %* *48.2-134*

Surrogate: 1-Chlorooctadecane *88.3 %* *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

Notes and Definitions

QM-07	The spike recovery was outside acceptance limits for the MS and/or MSD. The batch was accepted based on acceptable LCS recovery.
BS-3	Blank spike recovery outside of lab established statistical limits, but still within method limits. Data is not adversely affected.
BS1	Blank spike recovery above laboratory acceptance criteria. Results for analyte potentially biased high.
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

Company Name: Ensolum, LLC
Project Manager: Jeremy Reich
Address: 3122 National Parks Hwy
City: Carlsbad State: NM Zip: 88220
Phone #: (432) 296-0627 Fax #:
Project #: 03C1558483 Project Owner:
Project Name: Corral Canyon 8 Satellite
Project Location: 32.14267, -104.00638
Sampler Name: Mario Sarkis

BILL TO

P.O. #:
Company: XTO Energy
Attn: Colton Brown
Address: 3104 E. Green St.
City: Carlsbad
State: NM Zip: 88220
Phone #: 575-988-2390
Fax #:

ANALYSIS REQUEST

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	BTEX	TPH	Chlorides
H250606																		
1	SS01	0.5	G	1			✓					✓		7/29/25	1103	✓	✓	✓
2	SS02	0.5	G	1			✓					✓			1055	✓	✓	✓
3	SS03	0.5	G	1			✓					✓			1130	✓	✓	✓
4	SS04	0.5	G	1			✓					✓			1124	✓	✓	✓
5	SS05	0.5	G	1			✓					✓			1107	✓	✓	✓
6	SS06	0.5	G	1			✓					✓			1451	✓	✓	✓
7	SS07	0.5	G	1			✓					✓			1458	✓	✓	✓
8	SS08	0.5	G	1			✓					✓			1526	✓	✓	✓

Relinquished By: Date: 7-30-25 Time: 1300 Received By:
Relinquished By: Date: Time: Received By:

Delivered By: (Circle One) Sampler - UPS - Bus - Other:
Observed Temp. °C 1.3 Corrected Temp. °C 1.6
Sample Condition: Cool ☑ Yes ☐ No Intact ☑ Yes ☐ No
CHECKED BY: (Initials) TC

Verbal Result: ☐ Yes ☐ No Add'l Phone #:
All Results are emailed. Please provide Email address:
jreich@ensolum.com / msarkis@ensolum.com / kthompson@ensolum.com
REMARKS: Incident #: nAPP2501553916
Cost Center: 2125321001
Turnaround Time: Standard ☑ Rush ☐
Bacteria (only) Sample Condition: Cool ☐ Yes ☐ No Intact ☐ Yes ☐ No
Observed Temp. °C
Thermometer ID #113 #140
Correction Factor 0.5°C +0.3°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

March 05, 2025

TRACY HILLARD

ENSOLUM

3122 NATIONAL PARKS HWY

CARLSBAD, NM 88220

RE: CORRAL CANYON 8 SATELLITE BATTERY

Enclosed are the results of analyses for samples received by the laboratory on 02/27/25 14:00.

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
TRACY HILLARD
3122 NATIONAL PARKS HWY
CARLSBAD NM, 88220
Fax To:

Received:	02/27/2025	Sampling Date:	02/26/2025
Reported:	03/05/2025	Sampling Type:	Soil
Project Name:	CORRAL CANYON 8 SATELLITE BATTERY	Sampling Condition:	Cool & Intact
Project Number:	03C1558597	Sample Received By:	Tamara Oldaker
Project Location:	XTO 32.14267,-104.00638		

Sample ID: FS 01 1.5' (H251176-01)

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	03/03/2025	ND	2.12	106	2.00	5.54	
Toluene*	<0.050	0.050	03/03/2025	ND	2.18	109	2.00	6.90	
Ethylbenzene*	<0.050	0.050	03/03/2025	ND	2.27	113	2.00	8.70	
Total Xylenes*	<0.150	0.150	03/03/2025	ND	7.04	117	6.00	9.29	
Total BTEX	<0.300	0.300	03/03/2025	ND					

Surrogate: 4-Bromofluorobenzene (PID *117 %* *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	03/03/2025	ND	416	104	400	0.00	

TPH 8015M mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	03/03/2025	ND	187	93.5	200	2.69	
DRO >C10-C28*	<10.0	10.0	03/03/2025	ND	177	88.6	200	4.01	
EXT DRO >C28-C36	<10.0	10.0	03/03/2025	ND					

Surrogate: 1-Chlorooctane *104 %* *71.8-148*

Surrogate: 1-Chlorooctadecane *101 %* *63.9-155*

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
TRACY HILLARD
3122 NATIONAL PARKS HWY
CARLSBAD NM, 88220
Fax To:

Received:	02/27/2025	Sampling Date:	02/26/2025
Reported:	03/05/2025	Sampling Type:	Soil
Project Name:	CORRAL CANYON 8 SATELLITE BATTERY	Sampling Condition:	Cool & Intact
Project Number:	03C1558597	Sample Received By:	Tamara Oldaker
Project Location:	XTO 32.14267,-104.00638		

Sample ID: FS 02 1.5' (H251176-02)

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	03/03/2025	ND	2.12	106	2.00	5.54	
Toluene*	<0.050	0.050	03/03/2025	ND	2.18	109	2.00	6.90	
Ethylbenzene*	<0.050	0.050	03/03/2025	ND	2.27	113	2.00	8.70	
Total Xylenes*	<0.150	0.150	03/03/2025	ND	7.04	117	6.00	9.29	
Total BTEX	<0.300	0.300	03/03/2025	ND					

Surrogate: 4-Bromofluorobenzene (PID *114 %* *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	**448**	16.0	03/03/2025	ND	416	104	400	0.00	

TPH 8015M mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	03/03/2025	ND	187	93.5	200	2.69	
DRO >C10-C28*	<10.0	10.0	03/03/2025	ND	177	88.6	200	4.01	
EXT DRO >C28-C36	<10.0	10.0	03/03/2025	ND					

Surrogate: 1-Chlorooctane *100 %* *71.8-148*

Surrogate: 1-Chlorooctadecane *97.4 %* *63.9-155*

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
TRACY HILLARD
3122 NATIONAL PARKS HWY
CARLSBAD NM, 88220
Fax To:

Received:	02/27/2025	Sampling Date:	02/26/2025
Reported:	03/05/2025	Sampling Type:	Soil
Project Name:	CORRAL CANYON 8 SATELLITE BATTERY	Sampling Condition:	Cool & Intact
Project Number:	03C1558597	Sample Received By:	Tamara Oldaker
Project Location:	XTO 32.14267,-104.00638		

Sample ID: SW 01 0-1.5' (H251176-03)

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	03/03/2025	ND	2.12	106	2.00	5.54	
Toluene*	<0.050	0.050	03/03/2025	ND	2.18	109	2.00	6.90	
Ethylbenzene*	<0.050	0.050	03/03/2025	ND	2.27	113	2.00	8.70	
Total Xylenes*	<0.150	0.150	03/03/2025	ND	7.04	117	6.00	9.29	
Total BTEX	<0.300	0.300	03/03/2025	ND					

Surrogate: 4-Bromofluorobenzene (PID *111 %* *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	**416**	16.0	03/03/2025	ND	416	104	400	0.00	

TPH 8015M mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	03/03/2025	ND	187	93.5	200	2.69	
DRO >C10-C28*	<10.0	10.0	03/03/2025	ND	177	88.6	200	4.01	
EXT DRO >C28-C36	<10.0	10.0	03/03/2025	ND					

Surrogate: 1-Chlorooctane *100 %* *71.8-148*

Surrogate: 1-Chlorooctadecane *97.7 %* *63.9-155*

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

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
Project Manager:	Jeremy Reich
Address:	3122 National Parks Hwy
City:	Carlsbad State: NM Zip: 88220
Phone #:	337 257-8307 Fax #:
Project #:	03C1558597 Project Owner: XTO
Project Name:	Corral Canyon 8 Satellite Battery
Project Location:	
Sampler Name:	Connor Whitman

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
H251176																		
1	FS01	1.5	C	1			✓					✓		2-26-25	1150	✓	✓	✓
2	FS02	1.5	C												1156			
3	SW01	0-1.5	C	↓			↓					↓		↓	1205			✓

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: 2-27-25	Received By:	
	Time: 1400		
Relinquished By:	Date:	Received By:	
	Time:		

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

All Results are emailed. Please provide Email address:
JReich@ensolum.com, TMorrissey@ensolum.com, kthomason@ensolum.com

REMARKS: Cost Center: 2125321001 Incident ID: nAPP2501553916

Turnaround Time: Standard ☑ Rush ☐

Bacteria (only) Sample Condition: Cool ☐ Yes ☐ No; Intact ☐ Yes ☐ No

Observed Temp. °C

Corrected Temp. °C

Delivered By: (Circle One)	Observed Temp. °C 3.1	Sample Condition: Cool ☑ Yes ☐ No	Intact ☑ Yes ☐ No	CHECKED BY: (Initials)
Sampler - UPS - Bus - Other:	Corrected Temp. °C 3.4			

Thermometer ID #113 #140 Correction Factor -0.3°C +0.3°C

2/27/25

† 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

March 28, 2025

JEREMY REICH

ENSOLUM

3122 NATIONAL PARKS HWY

CARLSBAD, NM 88220

RE: CORRAL CANYON 8 SATELLITE - SPILLS

Enclosed are the results of analyses for samples received by the laboratory on 03/27/25 13:20.

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
JEREMY REICH
3122 NATIONAL PARKS HWY
CARLSBAD NM, 88220
Fax To:

Received:	03/27/2025	Sampling Date:	03/25/2025
Reported:	03/28/2025	Sampling Type:	Soil
Project Name:	CORRAL CANYON 8 SATELLITE - SPILLS	Sampling Condition:	Cool & Intact
Project Number:	03C1558597	Sample Received By:	Tamara Oldaker
Project Location:	XTO 32.142751-104.006738		

Sample ID: SS 07B 2' (H251805-01)

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	03/27/2025	ND	1.97	98.6	2.00	4.61	
Toluene*	<0.050	0.050	03/27/2025	ND	2.02	101	2.00	3.38	
Ethylbenzene*	<0.050	0.050	03/27/2025	ND	1.97	98.6	2.00	3.21	
Total Xylenes*	<0.150	0.150	03/27/2025	ND	5.86	97.7	6.00	2.78	
Total BTEX	<0.300	0.300	03/27/2025	ND					

Surrogate: 4-Bromofluorobenzene (PID *103 %* *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	03/28/2025	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	03/27/2025	ND	203	102	200	1.01	
DRO >C10-C28*	<10.0	10.0	03/27/2025	ND	208	104	200	9.80	
EXT DRO >C28-C36	<10.0	10.0	03/27/2025	ND					

Surrogate: 1-Chlorooctane *105 %* *44.4-145*

Surrogate: 1-Chlorooctadecane *107 %* *40.6-153*

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
JEREMY REICH
3122 NATIONAL PARKS HWY
CARLSBAD NM, 88220
Fax To:

Received:	03/27/2025	Sampling Date:	03/25/2025
Reported:	03/28/2025	Sampling Type:	Soil
Project Name:	CORRAL CANYON 8 SATELLITE - SPILLS	Sampling Condition:	Cool & Intact
Project Number:	03C1558597	Sample Received By:	Tamara Oldaker
Project Location:	XTO 32.142751-104.006738		

Sample ID: SS 10 0.5' (H251805-02)

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	03/27/2025	ND	1.97	98.6	2.00	4.61	
Toluene*	<0.050	0.050	03/27/2025	ND	2.02	101	2.00	3.38	
Ethylbenzene*	<0.050	0.050	03/27/2025	ND	1.97	98.6	2.00	3.21	
Total Xylenes*	<0.150	0.150	03/27/2025	ND	5.86	97.7	6.00	2.78	
Total BTEX	<0.300	0.300	03/27/2025	ND					

Surrogate: 4-Bromofluorobenzene (PID *101 %* *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	03/28/2025	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	03/27/2025	ND	203	102	200	1.01	
DRO >C10-C28*	<10.0	10.0	03/27/2025	ND	208	104	200	9.80	
EXT DRO >C28-C36	<10.0	10.0	03/27/2025	ND					

Surrogate: 1-Chlorooctane *96.9 %* *44.4-145*

Surrogate: 1-Chlorooctadecane *95.6 %* *40.6-153*

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
JEREMY REICH
3122 NATIONAL PARKS HWY
CARLSBAD NM, 88220
Fax To:

Received:	03/27/2025	Sampling Date:	03/25/2025
Reported:	03/28/2025	Sampling Type:	Soil
Project Name:	CORRAL CANYON 8 SATELLITE - SPILLS	Sampling Condition:	Cool & Intact
Project Number:	03C1558597	Sample Received By:	Tamara Oldaker
Project Location:	XTO 32.142751-104.006738		

Sample ID: SS 09 0.5' (H251805-03)

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	03/27/2025	ND	1.97	98.6	2.00	4.61	
Toluene*	<0.050	0.050	03/27/2025	ND	2.02	101	2.00	3.38	
Ethylbenzene*	<0.050	0.050	03/27/2025	ND	1.97	98.6	2.00	3.21	
Total Xylenes*	<0.150	0.150	03/27/2025	ND	5.86	97.7	6.00	2.78	
Total BTEX	<0.300	0.300	03/27/2025	ND					

Surrogate: 4-Bromofluorobenzene (PID *102 %* *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	**6400**	16.0	03/28/2025	ND	416	104	400	3.77	QM-07

TPH 8015M mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	03/27/2025	ND	203	102	200	1.01	
DRO >C10-C28*	<10.0	10.0	03/27/2025	ND	208	104	200	9.80	
EXT DRO >C28-C36	<10.0	10.0	03/27/2025	ND					

Surrogate: 1-Chlorooctane *99.6 %* *44.4-145*

Surrogate: 1-Chlorooctadecane *98.9 %* *40.6-153*

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
JEREMY REICH
3122 NATIONAL PARKS HWY
CARLSBAD NM, 88220
Fax To:

Received:	03/27/2025	Sampling Date:	03/25/2025
Reported:	03/28/2025	Sampling Type:	Soil
Project Name:	CORRAL CANYON 8 SATELLITE - SPILLS	Sampling Condition:	Cool & Intact
Project Number:	03C1558597	Sample Received By:	Tamara Oldaker
Project Location:	XTO 32.142751-104.006738		

Sample ID: SS 09A 0.5' (H251805-04)

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	03/27/2025	ND	1.97	98.6	2.00	4.61	
Toluene*	<0.050	0.050	03/27/2025	ND	2.02	101	2.00	3.38	
Ethylbenzene*	<0.050	0.050	03/27/2025	ND	1.97	98.6	2.00	3.21	
Total Xylenes*	<0.150	0.150	03/27/2025	ND	5.86	97.7	6.00	2.78	
Total BTEX	<0.300	0.300	03/27/2025	ND					

Surrogate: 4-Bromofluorobenzene (PID *101 %* *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	**7600**	16.0	03/28/2025	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	03/27/2025	ND	203	102	200	1.01	
DRO >C10-C28*	**1110**	10.0	03/27/2025	ND	208	104	200	9.80	
EXT DRO >C28-C36	**951**	10.0	03/27/2025	ND					

Surrogate: 1-Chlorooctane *103 %* *44.4-145*

Surrogate: 1-Chlorooctadecane *116 %* *40.6-153*

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

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

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

April 10, 2025

JEREMY REICH

ENSOLUM

3122 NATIONAL PARKS HWY

CARLSBAD, NM 88220

RE: CORRAL CANYON 8 SATELLITE - SPILLS

Enclosed are the results of analyses for samples received by the laboratory on 03/27/25 13:20.

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

Cardinal Laboratories is accredited through the State of New Mexico Environment Department for:

Method SM 9223-B	Total Coliform and E. coli (Colilert MMO-MUG)
Method EPA 524.2	Regulated VOCs and Total Trihalomethanes (TTHM)
Method EPA 552.2	Total Haloacetic Acids (HAA-5)

Accreditation applies to public drinking water matrices for State of Colorado and New Mexico.

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 3122 NATIONAL PARKS HWY CARLSBAD NM, 88220	Project: CORRAL CANYON 8 SATELLITE - S Project Number: 03C1558597 Project Manager: JEREMY REICH Fax To:	Reported: 10-Apr-25 17:41

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
SS 07B 2'	H251805-01	Soil	25-Mar-25 10:30	27-Mar-25 13:20
SS 10 0.5'	H251805-02	Soil	25-Mar-25 10:50	27-Mar-25 13:20
SS 09 0.5'	H251805-03	Soil	25-Mar-25 10:55	27-Mar-25 13:20
CS 01 0.5'	H251805-04	Soil	25-Mar-25 11:00	27-Mar-25 13:20

04/10/25 - Client changed the sample ID on -04 (see COC). This is the revised report and will replace the one sent on 03/28/25.

Cardinal Laboratories

*=Accredited Analyte

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CARDINAL Laboratories

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Analytical Results For:

ENSOLUM 3122 NATIONAL PARKS HWY CARLSBAD NM, 88220	Project: CORRAL CANYON 8 SATELLITE - S Project Number: 03C1558597 Project Manager: JEREMY REICH Fax To:	Reported: 10-Apr-25 17:41

SS 07B 2'

H251805-01 (Soil)

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
Cardinal Laboratories										
Inorganic Compounds										
Chloride	**320**		16.0	mg/kg	4	5032827	AC	28-Mar-25	4500-Cl-B	
Volatile Organic Compounds by EPA Method 8021										
Benzene*	<0.050		0.050	mg/kg	50	5032720	JH	27-Mar-25	8021B	
Toluene*	<0.050		0.050	mg/kg	50	5032720	JH	27-Mar-25	8021B	
Ethylbenzene*	<0.050		0.050	mg/kg	50	5032720	JH	27-Mar-25	8021B	
Total Xylenes*	<0.150		0.150	mg/kg	50	5032720	JH	27-Mar-25	8021B	
Total BTEX	<0.300		0.300	mg/kg	50	5032720	JH	27-Mar-25	8021B	
Surrogate: 4-Bromofluorobenzene (PID)			*103 %*	*71.5-134*		*5032720*	JH	*27-Mar-25*	*8021B*	
Petroleum Hydrocarbons by GC FID										
GRO C6-C10*	<10.0		10.0	mg/kg	1	5032719	MS	27-Mar-25	8015B	
DRO >C10-C28*	<10.0		10.0	mg/kg	1	5032719	MS	27-Mar-25	8015B	
EXT DRO >C28-C36	<10.0		10.0	mg/kg	1	5032719	MS	27-Mar-25	8015B	
Surrogate: 1-Chlorooctane			*105 %*	*44.4-145*		*5032719*	MS	*27-Mar-25*	*8015B*	
Surrogate: 1-Chlorooctadecane			*107 %*	*40.6-153*		*5032719*	MS	*27-Mar-25*	*8015B*	

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 3122 NATIONAL PARKS HWY CARLSBAD NM, 88220	Project: CORRAL CANYON 8 SATELLITE - S Project Number: 03C1558597 Project Manager: JEREMY REICH Fax To:	Reported: 10-Apr-25 17:41

SS 10 0.5'

H251805-02 (Soil)

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
Cardinal Laboratories										
Inorganic Compounds										
Chloride	**96.0**		16.0	mg/kg	4	5032827	AC	28-Mar-25	4500-Cl-B	
Volatile Organic Compounds by EPA Method 8021										
Benzene*	<0.050		0.050	mg/kg	50	5032720	JH	27-Mar-25	8021B	
Toluene*	<0.050		0.050	mg/kg	50	5032720	JH	27-Mar-25	8021B	
Ethylbenzene*	<0.050		0.050	mg/kg	50	5032720	JH	27-Mar-25	8021B	
Total Xylenes*	<0.150		0.150	mg/kg	50	5032720	JH	27-Mar-25	8021B	
Total BTEX	<0.300		0.300	mg/kg	50	5032720	JH	27-Mar-25	8021B	
Surrogate: 4-Bromofluorobenzene (PID)			*101 %*	*71.5-134*		*5032720*	JH	*27-Mar-25*	*8021B*	
Petroleum Hydrocarbons by GC FID										
GRO C6-C10*	<10.0		10.0	mg/kg	1	5032719	MS	27-Mar-25	8015B	
DRO >C10-C28*	<10.0		10.0	mg/kg	1	5032719	MS	27-Mar-25	8015B	
EXT DRO >C28-C36	<10.0		10.0	mg/kg	1	5032719	MS	27-Mar-25	8015B	
Surrogate: 1-Chlorooctane			*96.9 %*	*44.4-145*		*5032719*	MS	*27-Mar-25*	*8015B*	
Surrogate: 1-Chlorooctadecane			*95.6 %*	*40.6-153*		*5032719*	MS	*27-Mar-25*	*8015B*	

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CARDINAL Laboratories

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

Analytical Results For:

ENSOLUM 3122 NATIONAL PARKS HWY CARLSBAD NM, 88220	Project: CORRAL CANYON 8 SATELLITE - S Project Number: 03C1558597 Project Manager: JEREMY REICH Fax To:	Reported: 10-Apr-25 17:41

SS 09 0.5'

H251805-03 (Soil)

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
Cardinal Laboratories										
Inorganic Compounds										
Chloride	**6400**		16.0	mg/kg	4	5032825	HM	28-Mar-25	4500-Cl-B	QM-07
Volatile Organic Compounds by EPA Method 8021										
Benzene*	<0.050		0.050	mg/kg	50	5032720	JH	27-Mar-25	8021B	
Toluene*	<0.050		0.050	mg/kg	50	5032720	JH	27-Mar-25	8021B	
Ethylbenzene*	<0.050		0.050	mg/kg	50	5032720	JH	27-Mar-25	8021B	
Total Xylenes*	<0.150		0.150	mg/kg	50	5032720	JH	27-Mar-25	8021B	
Total BTEX	<0.300		0.300	mg/kg	50	5032720	JH	27-Mar-25	8021B	
Surrogate: 4-Bromofluorobenzene (PID)			*102 %*	*71.5-134*		*5032720*	JH	*27-Mar-25*	*8021B*	
Petroleum Hydrocarbons by GC FID										
GRO C6-C10*	<10.0		10.0	mg/kg	1	5032719	MS	27-Mar-25	8015B	
DRO >C10-C28*	<10.0		10.0	mg/kg	1	5032719	MS	27-Mar-25	8015B	
EXT DRO >C28-C36	<10.0		10.0	mg/kg	1	5032719	MS	27-Mar-25	8015B	
Surrogate: 1-Chlorooctane			*99.6 %*	*44.4-145*		*5032719*	MS	*27-Mar-25*	*8015B*	
Surrogate: 1-Chlorooctadecane			*98.9 %*	*40.6-153*		*5032719*	MS	*27-Mar-25*	*8015B*	

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CARDINAL Laboratories

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

Analytical Results For:

ENSOLUM 3122 NATIONAL PARKS HWY CARLSBAD NM, 88220	Project: CORRAL CANYON 8 SATELLITE - S Project Number: 03C1558597 Project Manager: JEREMY REICH Fax To:	Reported: 10-Apr-25 17:41

CS 01 0.5'

H251805-04 (Soil)

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
Cardinal Laboratories										
Inorganic Compounds										
Chloride	**7600**		16.0	mg/kg	4	5032825	HM	28-Mar-25	4500-Cl-B	
Volatile Organic Compounds by EPA Method 8021										
Benzene*	<0.050		0.050	mg/kg	50	5032720	JH	27-Mar-25	8021B	
Toluene*	<0.050		0.050	mg/kg	50	5032720	JH	27-Mar-25	8021B	
Ethylbenzene*	<0.050		0.050	mg/kg	50	5032720	JH	27-Mar-25	8021B	
Total Xylenes*	<0.150		0.150	mg/kg	50	5032720	JH	27-Mar-25	8021B	
Total BTEX	<0.300		0.300	mg/kg	50	5032720	JH	27-Mar-25	8021B	
Surrogate: 4-Bromofluorobenzene (PID)			*101 %*	*71.5-134*		*5032720*	JH	*27-Mar-25*	*8021B*	
Petroleum Hydrocarbons by GC FID										
GRO C6-C10*	<10.0		10.0	mg/kg	1	5032719	MS	27-Mar-25	8015B	
DRO >C10-C28*	**1110**		10.0	mg/kg	1	5032719	MS	27-Mar-25	8015B	
EXT DRO >C28-C36	**951**		10.0	mg/kg	1	5032719	MS	27-Mar-25	8015B	
Surrogate: 1-Chlorooctane			*103 %*	*44.4-145*		*5032719*	MS	*27-Mar-25*	*8015B*	
Surrogate: 1-Chlorooctadecane			*116 %*	*40.6-153*		*5032719*	MS	*27-Mar-25*	*8015B*	

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CARDINAL Laboratories

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Analytical Results For:

ENSOLUM 3122 NATIONAL PARKS HWY CARLSBAD NM, 88220	Project: CORRAL CANYON 8 SATELLITE - S Project Number: 03C1558597 Project Manager: JEREMY REICH Fax To:	Reported: 10-Apr-25 17:41

Inorganic Compounds - Quality Control

Cardinal Laboratories

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 5032825 - 1:4 DI Water										
Blank (5032825-BLK1)				Prepared & Analyzed: 28-Mar-25						
Chloride	ND	16.0	mg/kg							
LCS (5032825-BS1)				Prepared & Analyzed: 28-Mar-25						
Chloride	416	16.0	mg/kg	400		104	80-120			
LCS Dup (5032825-BSD1)				Prepared & Analyzed: 28-Mar-25						
Chloride	432	16.0	mg/kg	400		108	80-120	3.77	20	
Batch 5032827 - 1:4 DI Water										
Blank (5032827-BLK1)				Prepared & Analyzed: 28-Mar-25						
Chloride	ND	16.0	mg/kg							
LCS (5032827-BS1)				Prepared & Analyzed: 28-Mar-25						
Chloride	432	16.0	mg/kg	400		108	80-120			
LCS Dup (5032827-BSD1)				Prepared & Analyzed: 28-Mar-25						
Chloride	432	16.0	mg/kg	400		108	80-120	0.00	20	

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CARDINAL Laboratories

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Analytical Results For:

ENSOLUM 3122 NATIONAL PARKS HWY CARLSBAD NM, 88220	Project: CORRAL CANYON 8 SATELLITE - S Project Number: 03C1558597 Project Manager: JEREMY REICH Fax To:	Reported: 10-Apr-25 17:41

Volatile Organic Compounds by EPA Method 8021 - Quality Control

Cardinal Laboratories

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 5032720 - Volatiles										
Blank (5032720-BLK1)				Prepared & Analyzed: 27-Mar-25						
Benzene	ND	0.050	mg/kg							
Toluene	ND	0.050	mg/kg							
Ethylbenzene	ND	0.050	mg/kg							
Total Xylenes	ND	0.150	mg/kg							
Total BTEX	ND	0.300	mg/kg							
Surrogate: 4-Bromofluorobenzene (PID)	*0.0506*		mg/kg	*0.0500*		*101*	*71.5-134*			
LCS (5032720-BS1)				Prepared & Analyzed: 27-Mar-25						
Benzene	1.97	0.050	mg/kg	2.00		98.6	82.8-130			
Toluene	2.02	0.050	mg/kg	2.00		101	86-128			
Ethylbenzene	1.97	0.050	mg/kg	2.00		98.6	85.9-128			
m,p-Xylene	3.91	0.100	mg/kg	4.00		97.7	89-129			
o-Xylene	1.96	0.050	mg/kg	2.00		97.8	86.1-125			
Total Xylenes	5.86	0.150	mg/kg	6.00		97.7	88.2-128			
Surrogate: 4-Bromofluorobenzene (PID)	*0.0452*		mg/kg	*0.0500*		*90.5*	*71.5-134*			
LCS Dup (5032720-BSD1)				Prepared & Analyzed: 27-Mar-25						
Benzene	2.07	0.050	mg/kg	2.00		103	82.8-130	4.61	15.8	
Toluene	2.09	0.050	mg/kg	2.00		104	86-128	3.38	15.9	
Ethylbenzene	2.04	0.050	mg/kg	2.00		102	85.9-128	3.21	16	
m,p-Xylene	4.02	0.100	mg/kg	4.00		100	89-129	2.74	16.2	
o-Xylene	2.01	0.050	mg/kg	2.00		101	86.1-125	2.87	16.7	
Total Xylenes	6.03	0.150	mg/kg	6.00		100	88.2-128	2.78	16.3	
Surrogate: 4-Bromofluorobenzene (PID)	*0.0442*		mg/kg	*0.0500*		*88.3*	*71.5-134*			

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Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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Analytical Results For:

ENSOLUM 3122 NATIONAL PARKS HWY CARLSBAD NM, 88220	Project: CORRAL CANYON 8 SATELLITE - S Project Number: 03C1558597 Project Manager: JEREMY REICH Fax To:	Reported: 10-Apr-25 17:41

Petroleum Hydrocarbons by GC FID - Quality Control

Cardinal Laboratories

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 5032719 - General Prep - Organics										
Blank (5032719-BLK1)				Prepared & Analyzed: 27-Mar-25						
GRO C6-C10	ND	10.0	mg/kg							
DRO >C10-C28	ND	10.0	mg/kg							
EXT DRO >C28-C36	ND	10.0	mg/kg							
Surrogate: 1-Chlorooctane	*50.8*		mg/kg	*50.0*		*102*	*44.4-145*			
Surrogate: 1-Chlorooctadecane	*51.5*		mg/kg	*50.0*		*103*	*40.6-153*			
LCS (5032719-BS1)				Prepared & Analyzed: 27-Mar-25						
GRO C6-C10	203	10.0	mg/kg	200		102	81.5-123			
DRO >C10-C28	208	10.0	mg/kg	200		104	77.7-122			
Total TPH C6-C28	412	10.0	mg/kg	400		103	80.9-121			
Surrogate: 1-Chlorooctane	*51.5*		mg/kg	*50.0*		*103*	*44.4-145*			
Surrogate: 1-Chlorooctadecane	*52.0*		mg/kg	*50.0*		*104*	*40.6-153*			
LCS Dup (5032719-BSD1)				Prepared & Analyzed: 27-Mar-25						
GRO C6-C10	201	10.0	mg/kg	200		101	81.5-123	1.01	13	
DRO >C10-C28	189	10.0	mg/kg	200		94.5	77.7-122	9.80	15.6	
Total TPH C6-C28	390	10.0	mg/kg	400		97.6	80.9-121	5.37	18.5	
Surrogate: 1-Chlorooctane	*54.9*		mg/kg	*50.0*		*110*	*44.4-145*			
Surrogate: 1-Chlorooctadecane	*53.1*		mg/kg	*50.0*		*106*	*40.6-153*			

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

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

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

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

Company Name: Ensolum, LLC	**BILL TO**
Project Manager: Jeremy Reich	**P.O. #:**
Address: 601 N Marienfeld Street, Suite 400	**Company:** XTO Energy, Inc
City: Midland **State:** TX **Zip:** 79701	**Attn:** Colton Brown
Phone #: 432-296-0627 **Fax #:**	**Address:** 3104 E Greene St
Project #: 03C1558597 **Project Owner:** XTO Energy	**City:** Carlsbad
Project Name: Corral Canyon 8 Satellite - SPILLS	**State:** NM **Zip:** 88220
Project Location: 32.142751, -104.006738	**Phone #:**
Sampler Name: Jesse Dorman	**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	TPH 8015	BTEX 8021	Chloride 4500	
H257805																			
1	CS07B	2'	C	1			X					X		3/25/25	1030	X	X	X	
2	CS10	.5'													1050				
3	CS09														1055				
4	~~CS09A~~ CS01 *														11:00				
		5D																	

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:** 3/27/25	**Received By:**	**Verbal Result:** ☐ Yes ☐ No **Add'l Phone #:**
	Time: 1300		**All Results are emailed. Please provide Email address:** JReich@ensolum.com
Relinquished By:	**Date:**	**Received By:**	BBelill@ensolum.com, TMorrissey@ensolum.com, THillard@ensolum.com, KThomason@ensolum.com
	Time:		**REMARKS:** *Customer requested ID changes. 4/10/25
			Incident Number: 2125321001
			Cost Center: 2125321001
			GFCM: 48605000

Delivered By: (Circle One)	Observed Temp. °C 18	**Sample Condition** Cool Intact	**CHECKED BY: (Initials)**	**Turnaround Time:** ☐ Standard ☑ Rush #140 24hr
Sampler - UPS - Bus - Other:	Corrected Temp. °C 2.1	☑ Yes ☑ Yes ☐ No ☐ No		Thermometer ID #113 Correction Factor -0.5°C +0.3
				Bacteria (only) Sample Condition Cool Intact Observed Temp. °C ☐ Yes ☐ Yes ☐ No ☐ No Corrected Temp. °C

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

FORM-006 R 3.2 10/07/21

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 451953

QUESTIONS

Operator: XTO ENERGY, INC 6401 Holiday Hill Road Midland, TX 79707	OGRID: 5380
	Action Number: 451953
	Action Type: [C-141] Site Char./Remediation Plan C-141 (C-141-v-Plan)

QUESTIONS

Prerequisites	
Incident ID (n#)	**nAPP2501553916**
Incident Name	**NAPP2501553916 CORRAL CANYON 8 SATELLITE @ 0**
Incident Type	**Produced Water Release**
Incident Status	**Remediation Plan Received**
Incident Facility	**[fAPP2207552359] CORRAL CANYON 8 SAT**

Location of Release Source	
Please answer all the questions in this group.	
Site Name	Corral Canyon 8 Satellite
Date Release Discovered	01/14/2025
Surface Owner	Federal

Incident Details	
Please answer all the questions in this group.	
Incident Type	Produced Water Release
Did this release result in a fire or is the result of a fire	No
Did this release result in any injuries	No
Has this release reached or does it have a reasonable probability of reaching a watercourse	No
Has this release endangered or does it have a reasonable probability of endangering public health	No
Has this release substantially damaged or will it substantially damage property or the environment	No
Is this release of a volume that is or may with reasonable probability be detrimental to fresh water	No

Nature and Volume of Release	
Material(s) released, please answer all that apply below. Any calculations or specific justifications for the volumes provided should be attached to the follow-up C-141 submission.	
Crude Oil Released (bbls) Details	*Not answered.*
Produced Water Released (bbls) Details	Cause: Corrosion | Flow Line - Production | Produced Water | Released: 33 BBL | Recovered: 5 BBL | Lost: 28 BBL.
Is the concentration of chloride in the produced water >10,000 mg/l	Yes
Condensate Released (bbls) Details	*Not answered.*
Natural Gas Vented (Mcf) Details	*Not answered.*
Natural Gas Flared (Mcf) Details	*Not answered.*
Other Released Details	*Not answered.*
Are there additional details for the questions above (i.e. any answer containing Other, Specify, Unknown, and/or Fire, or any negative lost amounts)	*Not answered.*

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QUESTIONS (continued)

Operator: XTO ENERGY, INC 6401 Holiday Hill Road Midland, TX 79707	OGRID: 5380
	Action Number: 451953
	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: 01/15/2025

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QUESTIONS (continued)

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QUESTIONS

Site Characterization	
Please answer all the questions in this group (only required when seeking remediation plan approval and beyond). This information must be provided to the appropriate district office no later than 90 days after the release discovery date.	
What is the shallowest depth to groundwater beneath the area affected by the release in feet below ground surface (ft bgs)	Between 100 and 500 (ft.)
What method was used to determine the depth to ground water	NM OSE iWaters Database Search
Did this release impact groundwater or surface water	No
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 1000 (ft.) and ½ (mi.)
Any other fresh water well or spring	Between 1000 (ft.) and ½ (mi.)
Incorporated municipal boundaries or a defined municipal fresh water well field	Greater than 5 (mi.)
A wetland	Between 1000 (ft.) and ½ (mi.)
A subsurface mine	Greater than 5 (mi.)
An (non-karst) unstable area	Zero feet, overlying, or within area
Categorize the risk of this well / site being in a karst geology	Medium
A 100-year floodplain	Between 1000 (ft.) and ½ (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)	7600
TPH (GRO+DRO+MRO)	(EPA SW-846 Method 8015M)	2061
GRO+DRO	(EPA SW-846 Method 8015M)	1110
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		04/14/2025
On what date will (or did) the final sampling or liner inspection occur		03/25/2025
On what date will (or was) the remediation complete(d)		03/25/2025
What is the estimated surface area (in square feet) that will be reclaimed		2104
What is the estimated volume (in cubic yards) that will be reclaimed		150
What is the estimated surface area (in square feet) that will be remediated		2104
What is the estimated volume (in cubic yards) that will be remediated		150
These estimated dates and measurements are recognized to be the best guess or calculation at the time of submission and may (be) change(d) over time as more remediation efforts are completed.		
The OCD recognizes that proposed remediation measures may have to be minimally adjusted in accordance with the physical realities encountered during remediation. If the responsible party has any need to significantly deviate from the remediation plan proposed, then it should consult with the division to determine if another remediation plan submission is required.		

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QUESTIONS (continued)

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QUESTIONS

Remediation Plan (continued)	
Please answer all the questions that apply or are indicated. This information must be provided to the appropriate district office no later than 90 days after the release discovery date.	
This remediation will (or is expected to) utilize the following processes to remediate / reduce contaminants:	
(Select all answers below that apply.)	
(Ex Situ) Excavation and **off-site** disposal (i.e. dig and haul, hydrovac, etc.)	Yes
Which OCD approved facility will be used for **off-site** disposal	OWL LANDFILL JAL [fJEG1635837366]
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: 04/15/2025
The OCD recognizes that proposed remediation measures may have to be minimally adjusted in accordance with the physical realities encountered during remediation. If the responsible party has any need to significantly deviate from the remediation plan proposed, then it should consult with the division to determine if another remediation plan submission is required.	

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QUESTIONS (continued)

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QUESTIONS

Deferral Requests Only	
Only answer the questions in this group if seeking a deferral upon approval this submission. Each of the following items must be confirmed as part of any request for deferral of remediation.	
Requesting a deferral of the remediation closure due date with the approval of this submission	No

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QUESTIONS (continued)

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QUESTIONS

Sampling Event Information	
Last sampling notification (C-141N) recorded	**443920**
Sampling date pursuant to Subparagraph (a) of Paragraph (1) of Subsection D of 19.15.29.12 NMAC	**03/25/2025**
What was the (estimated) number of samples that were to be gathered	**2**
What was the sampling surface area in square feet	**400**

Remediation Closure Request	
Only answer the questions in this group if seeking remediation closure for this release because all remediation steps have been completed.	
Requesting a remediation closure approval with this submission	No

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CONDITIONS

Action 451953

CONDITIONS

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CONDITIONS

Created By	Condition	Condition Date
nvelez	The remediation plan is approved as written. XTO has 90-days (August 7, 2025) to submit to OCD its appropriate or final remediation closure report.	5/9/2025