



July 24, 2024

New Mexico Energy Minerals and Natural Resources Department

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

**Re: Deferral Request
BEU DI 4
Incident Number nAPP2404359783
Eddy County, New Mexico**

To Whom It May Concern:

Ensolum, LLC (Ensolum) on behalf of XTO Energy, Inc. (XTO), has prepared this *Deferral Request* to document site assessment, excavation, and soil sampling activities at the BEU DI 4 (Site). The purpose of the site assessment and soil sampling activities was to assess for the presence or absence of impacts to soil following a release of produced water. Based on field observations and soil sample laboratory analytical results, XTO is submitting this *Deferral Request*, describing site assessment, delineation, and excavation activities that have occurred and requesting deferral of final remediation for Incident Number nAPP2404359783 until the Site is reconstructed, and/or the well pad is abandoned.

SITE DESCRIPTION AND RELEASE SUMMARY

The Site is located in Lot 2, Section 5, Township 20 South, Range 31 East, in Eddy County, New Mexico (32.60863°, -103.89053°) and is associated with oil and gas exploration and production operations on federal land managed by the Bureau of Land Management (BLM).

On January 29, 2024, a produced water pump failed resulting in the release of approximately 33 barrels (bbls) of produced water into a lined containment and onto the surface of the pad. A vacuum truck was immediately dispatched to the Site to recover free-standing fluids; approximately 30 bbls of released fluids were recovered. XTO immediately reported the release to the New Mexico Oil Conservation Division (NMOCD) via email on January 30, 2024, and submitted a Release Notification Form C-141 (Form C-141) on February 12, 2024. The release was assigned Incident Number nAPP2400933895.

SITE CHARACTERIZATION AND CLOSURE CRITERIA

The Site was characterized according to 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. Potential Site receptors are identified on Figure 1.

Depth to groundwater at the Site is estimated to be greater than 100 feet below ground surface (bgs) based on nearby groundwater well data. The closest permitted groundwater well with depth to groundwater data is Office of the State Engineer (OSE) well CP-722 located approximately 1.16 miles northeast of the Site. The groundwater well was completed on August 28, 2020, and was drilled to a total depth of 220 feet bgs. The groundwater well has a reported depth to groundwater of 103 feet bgs.

All wells used to determine depth to groundwater are depicted on Figure 1. The Well Record and Log for CP-722 is included in Appendix A.

The closest continuously flowing or significant watercourse to the Site is a freshwater emergent wetland located approximately 4,263 feet southwest of the Site. The Site is greater than 200 feet from any lakebed, sinkhole, or playa lake and greater than 300 feet from an occupied residence, school, hospital, institution, church, or wetland. The Site is greater than 1,000 feet to a freshwater well or spring and is not within a 100-year floodplain or overlying a subsurface mine. The Site is not underlain by unstable geology (low potential karst designation area).

Based on the nearest groundwater well data exceeding a distance of 0.5 miles from the Site, a guideline preferred by NMOCD, 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 LINER INSPECTION ACTIVITIES

On March 5, 2024, Ensolum personnel visited the Site to evaluate the release extent based on information provided on the Form C-141 and visual observations. Four delineation soil samples (SS01 through SS04) were collected outside the release extent at a depth of approximately 0.5 feet bgs, to define the edge of the release area. 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 release extent and delineation soil sample locations were mapped utilizing a handheld Global Positioning System (GPS) unit and are depicted on Figure 2. Photographic documentation was collected during the site assessment and a Photographic Log is included in Appendix B.

The soil samples were placed directly into pre-cleaned glass jars, labeled with the location, date, time, sampler name, method of analysis, and immediately placed on ice. The soil samples were transported under strict chain-of-custody procedures to Cardinal Laboratories (Cardinal) in Hobbs, New Mexico, for analysis of the following 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 EPA Method SM4500.

On March 26, 2024, a liner integrity inspection was conducted by Ensolum personnel following the fluid recovery and upon inspection, it was determined that the liner was operating as designed. However, due to the presence of sediment and debris found on the surface of the liner, the liner was power washed and cleaned and inspected again on July 22, 2024. The results of the July 2024 inspection indicated that the liner was operating as designed. Photographic documentation of the liner inspection is included in the Photographic Log provided in Appendix B.

DELINEATION AND EXCAVATION SOIL SAMPLING ACTIVITIES

On May 1, 2024, Ensolum personnel were at the Site to conduct delineation activities based on visible staining. Three boreholes (BH01 through BH03) were advanced utilizing a hand auger and shovel within the release extent area to assess the vertical extent of the release. Delineation soil samples were collected in each borehole at 0.5 feet bgs and the terminal depths, which ranged from 1-foot to 2.5 feet bgs, of each borehole. All boreholes advanced reached refusal due to a competent caliche formation in the subsurface. In order to further define the edge of the release, three additional delineation soil samples (SS05 through SS07) were collected outside the release extent at a depth of approximately 0.5 feet bgs. The delineation soil samples were field screened for VOCs and chloride as described above. The delineation soil samples were collected and handled as described above and were transported under strict chain-of-custody procedures to Cardinal for analysis of the same COCs listed above. Field screening results and observations for the boreholes were logged on lithologic/soil sampling logs, which are included in Appendix C. The delineation soil sample locations are depicted on Figure 2.

Between May 23 and June 5, 2024, impacted soil was excavated from the release area as indicated by delineation soil sample laboratory analytical results. Excavation activities were performed utilizing a backhoe, hydrovacuum truck, and transport vehicles. The excavation occurred on the well pad near active production equipment and pipelines. To direct excavation activities, Ensolum personnel screened soil for VOCs and chlorides. Following removal of impacted soil, Ensolum personnel collected 5-point composite soil samples representing no more than 200 square feet from the unexcavated release extent area, and sidewalls and floor of the excavation. The 5-point composite soil 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 through FS07 were collected from the floor of the excavation from depths ranging from 1-foot to 2 feet bgs. Confirmation soil samples SW01 and SW02 were collected from the sidewalls of the excavation at depths ranging from ground surface to 2 feet bgs. Composite soil samples CS01 through CS06 were collected on the surface of the pad at approximately 0.5 feet bgs and were within the release extent area where the excavation activities did not occur. Since confirmation soil samples CS01 through CS06 were collected on the surface of the pad and not within an excavated area, sidewall soil samples could not be retrieved. The soil samples were collected, handled, and analyzed following the same procedures as described above and taken to Cardinal. The excavation extent and confirmation soil sample locations are presented on Figure 3.

Based on laboratory analytical results for delineation soil sample BH01A collected at 2.5 feet bgs, chloride concentrations exceeded the Closure Criteria and Ensolum personnel returned to the Site to oversee additional excavation activities on June 28, 2024. The area of BH01A was excavated to a total depth of 2.5 feet bgs and composite floor soil sample FS01A was collected in the newly excavated area. Since FS01A is located near the excavation sidewall, composite sidewall soil sample SW02A was collected at depths ranging from ground surface to 2.5 feet bgs.

The final excavation extent measured approximately 1,260 square feet. A total of approximately 95 cubic yards of impacted soil was removed during the excavation activities. The impacted soil was transported and properly disposed of at the R360 Landfill Facility in Hobbs, New Mexico.

LABORATORY ANALYTICAL RESULTS

Laboratory analytical results for delineation soil samples SS01 through SS07, and BH03/BH03A, and confirmation soil samples CS01 through CS06, FS01 through FS07, and SW01 indicated all COC concentrations were in compliance with the Closure Criteria.

XTO Energy, Inc
Deferral Request
BEU DI 4



Laboratory analytical results indicated that chloride concentrations exceeded Closure Criteria in soil samples BH01/BH01A, and BH02/BH02A; however, the excavation in these areas were advanced beyond the terminal depth of both boreholes and confirmation soil samples FS01A and FS07 were subsequently collected, thus providing vertical definition in these areas. Chloride concentrations also exceeded Closure Criteria in sidewall soil sample SW02A, but the sidewall of the excavation could not be extended further due to active production equipment and pipelines that are immediately adjacent to the location of the sidewall. All other COC concentrations for BH01/BH01A, BH02/BH02A, and SW02A were below Closure Criteria. Laboratory analytical results are summarized in Table 1 and laboratory analytical reports are included in Appendix D.

DEFERRAL REQUEST

XTO is requesting deferral of final remediation due to the presence of active production equipment and pipelines preventing full excavation of impacted soil (Photographs 5 and 8 in Appendix B). XTO safety policy restricts soil disturbing activities within a 2-foot radius of any on-site, active production equipment. The estimated area of remaining impacted soil measures an area of approximately 1,120 square feet, and 105 cubic yards of chloride impacted soil remains in place, assuming a depth of 2.5 feet bgs based on confirmation soil sample laboratory analytical results near the deferral area. The impacted soil is limited to the area beneath active production equipment and pipelines where remediation would require major facility deconstruction. The deferral area is vertically defined by confirmation soil sample FS01A. The deferral area is laterally defined by delineation soil samples SS04 and SS07, and confirmation soil samples CS03 through CS05, FS01A, FS04, and FS07. The proposed deferral area and all delineation and excavation soil samples used to define the deferral area are depicted on Figure 4. The excavation is scheduled to be backfilled with caliche material purchased locally and the area will be re-contoured to match pre-existing conditions.

XTO does not believe deferment will result in imminent risk to human health, the environment, or groundwater. Based on the presence of active production equipment and pipelines located within the release area, and the complete lateral and vertical definition of impacted soil remaining in place, XTO requests deferral of final remediation for Incident Number nAPP2404359783 until final reclamation of the well pad or major construction, whichever comes first.

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

Sincerely,
Ensolum, LLC

A handwritten signature in black ink, appearing to read "Ben J. Belill".

Benjamin J. Belill
Senior Geologist

A handwritten signature in black ink, appearing to read "Ashley L. Ager".

Ashley L. Ager, MS, PG
Principal

cc: Amy Ruth, XTO
Amanda Garcia, XTO
BLM

XTO Energy, Inc
Deferral Request
BEU DI 4

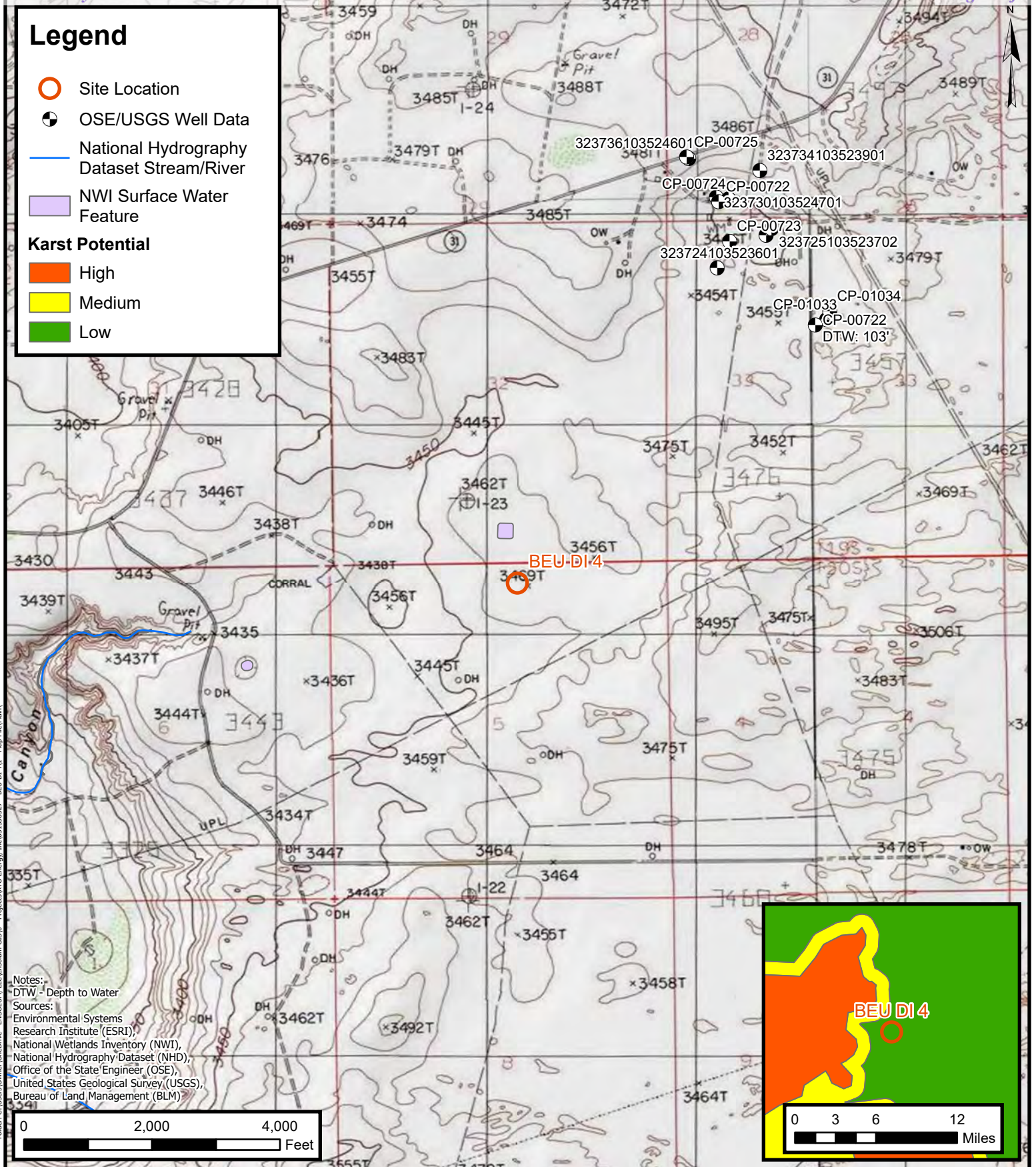


Appendices:

Figure 1	Site Receptor Map
Figure 2	Delineation Soil Sample Locations
Figure 3	Excavation Soil Sample Locations
Figure 4	Deferral Area Map
Table 1	Soil Sample Analytical Results
Appendix A	Referenced Well Records
Appendix B	Photographic Log
Appendix C	Lithologic / Soil Sampling Logs
Appendix D	Laboratory Analytical Reports & Chain-of-Custody Documentation



FIGURES



Site Receptor Map

XTO Energy, Inc
BEU DI 4

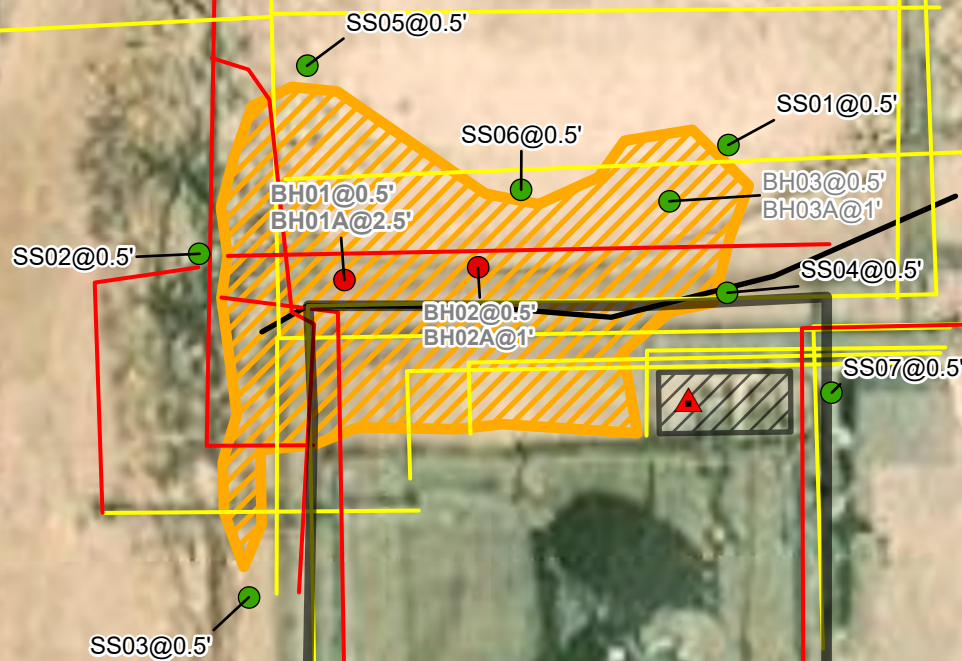
Incident Number: nAPP2404359783
Lot 2, Sec 5, T 20S, R 31E
Eddy County, New Mexico

FIGURE

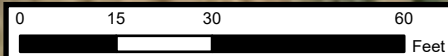
1

Legend

- Delineation Soil Samples Compliant with Closure Criteria
- Delineation Soil Samples with Concentrations Exceeding Closure Criteria
- ▲ Point of Release
- Electric Utility Line
- Crude Oil and Gas Utility Line
- Poly Flow Line
- Release Extent
- Lined Containment Area
- Inaccesssible Area



Notes:
 Sample ID @ Depth Below Ground Surface.
 Samples in bold indicate sample exceeded applicable Closure Criteria.
 Samples in gray removed during excavation.



Sources: Environmental Systems Research Institute (ESRI)

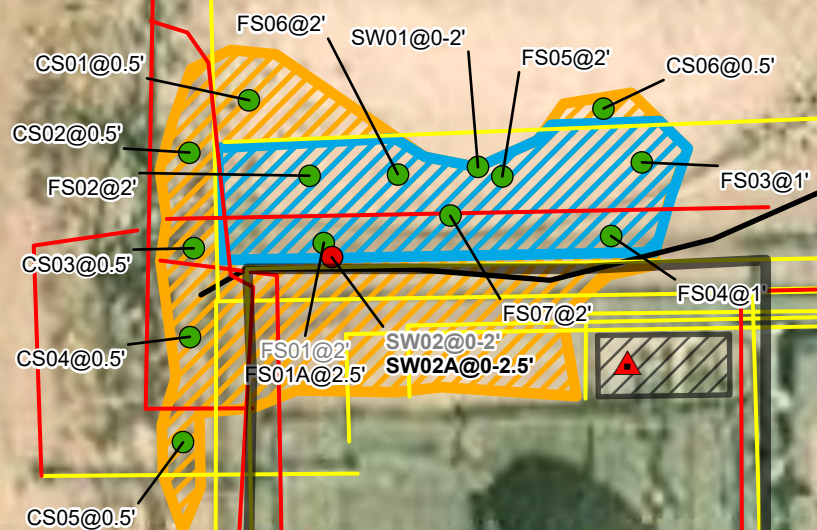
Delineation Soil Sample Locations

XTO Energy, Inc
 BEU DI 4
 Incident Number: NAPP2404359783
 Lot 2, Sec 5, T20S, R31E
 Eddy County, New Mexico

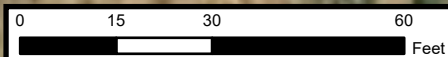
FIGURE
2

Legend

- Confirmation Soil Samples Compliant with Closure Criteria
- Confirmation Soil Samples with Concentrations Exceeding Closure Criteria
- ▲ Point of Release
- Electric Utility Line
- Crude Oil and Gas Utility Line
- Poly Flow Line
- Excavation Extent
- Release Extent
- Lined Containment Area
- Inaccesssible Area



Notes:
 Sample ID @ Depth Below Ground Surface.
 Samples in bold indicate sample exceeded applicable Closure Criteria.
 Samples in gray removed during excavation.



Sources: Environmental Systems Research Institute (ESRI)

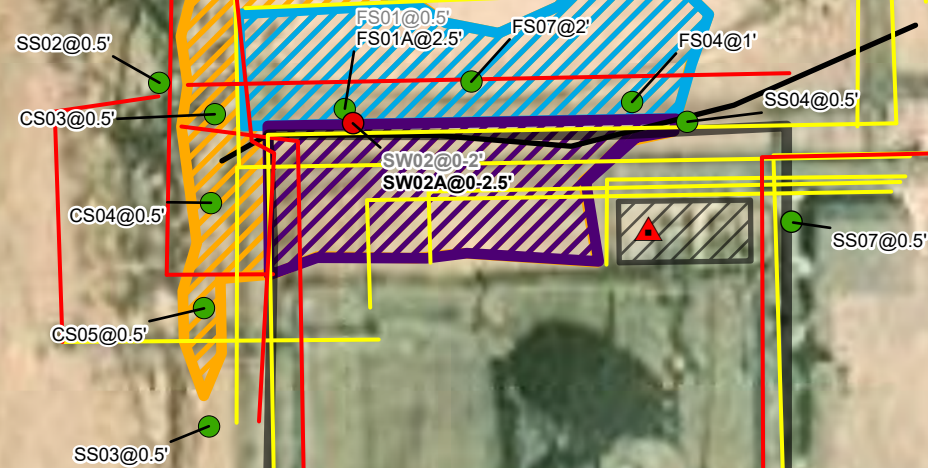
Excavation Soil Sample Locations

XTO Energy, Inc
 BEU DI 4
 Incident Number: NAPP2404359783
 Lot 2, Sec 5, T20S, R31E
 Eddy County, New Mexico

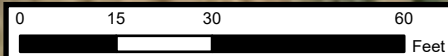
FIGURE
3

Legend

- Confirmation Soil Samples Compliant with Closure Criteria
- Confirmation Soil Samples with Concentrations Exceeding Closure Criteria
- ▲ Point of Release
- Electric Utility Line
- Crude Oil and Gas Utility Line
- Poly Flow Line
- ▨ Lined Containment Area
- ▩ Inaccesssible Area
- Deferral Area
- Excavation Extent
- Release Extent



Notes:
 Sample ID @ Depth Below Ground Surface.
 Samples in bold indicate sample exceeded applicable Closure Criteria.
 Samples in gray removed during excavation.



Sources: Environmental Systems Research Institute (ESRI)

Deferral Area Map

XTO Energy, Inc
 BEU DI 4
 Incident Number: NAPP2404359783
 Lot 2, Sec 5, T20S, R31E
 Eddy County, New Mexico

FIGURE

4



TABLES

TABLE 1
SOIL SAMPLE ANALYTICAL RESULTS
BEU DI 4
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	03/05/2024	0.5	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	96.0
SS02	03/05/2024	0.5	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	32.0
SS03	03/05/2024	0.5	<0.050	<0.300	<10.0	64.8	14.4	64.8	79.2	32.0
SS04	03/05/2024	0.5	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	32.0
SS05	05/01/2024	0.5	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	112
SS06	05/01/2024	0.5	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	96.0
SS07	05/01/2024	0.5	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	32.0
BH01	05/01/2024	0.5	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	16,800
BH01A	05/01/2024	2.5	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	2,400
BH02	05/01/2024	0.5	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	29,200
BH02A	05/01/2024	1	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	18,000
BH03	05/01/2024	0.5	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	112
BH03A	05/01/2024	1	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	128
Confirmation Soil Samples										
CS01	05/28/2024	0.5	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	32.0
CS02	05/28/2024	0.5	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	48.0
CS03	05/28/2024	0.5	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	48.0
CS04	05/28/2024	0.5	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	32.0
CS05	05/28/2024	0.5	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	32.0
CS06	05/28/2024	0.5	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	16.0
FS01	05/24/2024	2	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	64.0
FS01A	06/28/2024	2.5	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	320
FS02	05/24/2024	2	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	208
FS03	05/28/2024	1	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	240
FS04	05/28/2024	1	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	208
FS05	05/28/2024	2	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	256
FS06	05/28/2024	2	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	80.0
FS07	06/05/2024	2	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	176



TABLE 1
SOIL SAMPLE ANALYTICAL RESULTS
BEU DI 4
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
SW01	05/28/2024	0-2	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	144
SW02	05/28/2024	0-2	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	1,220
SW02A	06/28/2024	0-2.5	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	992

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 or area was resampled



APPENDIX A

Referenced Well Records



WELL RECORD & LOG

OFFICE OF THE STATE ENGINEER

www.ose.state.nm.us

1. GENERAL AND WELL LOCATION	OSE POD NO. (WELL NO.) POD1		WELL TAG ID NO. 20C1A		OSE FILE NO(S). CP-722	
	WELL OWNER NAME(S) G & L CATTLE, LLC				PHONE (OPTIONAL)	
	WELL OWNER MAILING ADDRESS 2904 W 2ND ST				CITY ROSWELL	STATE NM
					ZIP 88201	
	WELL LOCATION (FROM GPS)	DEGREES 32	MINUTES 37	SECONDS 30	* ACCURACY REQUIRED: ONE TENTH OF A SECOND	
	LATITUDE			N	* DATUM REQUIRED: WGS 84	
	LONGITUDE	-103	52	49	W	
DESCRIPTION RELATING WELL LOCATION TO STREET ADDRESS AND COMMON LANDMARKS - PLSS (SECTION, TOWNSHIP, RANGE) WHERE AVAILABLE SECTION TOWNSHIP RANGE						

2. DRILLING & CASING INFORMATION	LICENSE NO. WD-1753		NAME OF LICENSED DRILLER JACOB FRIESSEN		NAME OF WELL DRILLING COMPANY VANGUARD		
	DRILLING STARTED 8-28-20	DRILLING ENDED 8-28-20	DEPTH OF COMPLETED WELL (FT) 220	BORE HOLE DEPTH (FT) 220	DEPTH WATER FIRST ENCOUNTERED (FT) 100		
	COMPLETED WELL IS: <input type="checkbox"/> ARTESIAN <input type="checkbox"/> DRY HOLE <input checked="" type="checkbox"/> SHALLOW (UNCONFINED)				STATIC WATER LEVEL IN COMPLETED WELL (FT) 150		
	DRILLING FLUID: <input type="checkbox"/> AIR <input checked="" type="checkbox"/> MUD ADDITIVES - SPECIFY:						
	DRILLING METHOD: <input checked="" type="checkbox"/> ROTARY <input type="checkbox"/> HAMMER <input type="checkbox"/> CABLE TOOL <input type="checkbox"/> OTHER - SPECIFY:						
	DEPTH (feet bgl)		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)
	FROM	TO					
	-1	160	12.25	BLANK PVC SCH40	GLUE 6.56	6	.25
	160	220	12.25	SCREEN PVC SHC40	GLUE 6.56	6	.25

3. ANNULAR MATERIAL	DEPTH (feet bgl)		BORE HOLE DIAM. (inches)	LIST ANNULAR SEAL MATERIAL AND GRAVEL PACK SIZE-RANGE BY INTERVAL	AMOUNT (cubic feet)	METHOD OF PLACEMENT
	FROM	TO				
	0	20	12.25	CONCRETE	11	POURED
	20	220	12.25	3/8 GRAVEL	116	POURED

FOR OSE INTERNAL USE

WR-20 WELL RECORD & LOG (Version 04/30/19)

FILE NO. CP-722	POD NO. 4	TRN NO. 683034
LOCATION 433 T19S R31E Sec 28	WELL TAG ID NO. 20C1A	PAGE 1 OF 2

4. HYDROGEOLOGIC LOG OF WELL

FOR OSE INTERNAL USE



APPENDIX B

Photographic Log



Photographic Log

XTO Energy, Inc

BEU DI 4

Incident Number nAPP2404359783

Date & Time: Tue, Mar 05, 2024 at 15:07:40 MST
 Position: +032.408924° / -103.890759° (±11.8ft)
 Altitude: 3477ft (±13.1ft)
 Datum: WGS-84
 Azimuth/Bearing: 168° S12E 2982mils True (±20°)
 Elevation Angle: +01.8°
 Horizon Angle: +88.0°
 Zoom: 0.5X
 Initial Assessment



Photograph: 1 Date: 3/5/2024
 Description: Site assesment activities, release area.
 View: South

Date & Time: Wed, May 01, 2024 at 11:21:23 MDT
 Position: +032.408883° / -103.890667° (±15.4ft)
 Altitude: 3479ft (±11.0ft)
 Datum: WGS-84
 Azimuth/Bearing: 190° S09W 3360mils True (±13°)
 Elevation Angle: +02.3°
 Horizon Angle: +88.0°
 Zoom: 0.5X
 BH01 - 3/25
 Mariana O'Dell



Photograph: 2 Date: 5/1/2024
 Description: Delineation activities, BH01.
 View: Southeast

Date & Time: Wed, May 01, 2024 at 12:36:25 MDT
 Position: +032.408924° / -103.890822° (±15.7ft)
 Altitude: 3472ft (±10.9ft)
 Datum: WGS-84
 Azimuth/Bearing: 189° S09W 3360mils True (±12°)
 Elevation Angle: +06.0°
 Horizon Angle: +00.0°
 Zoom: 0.9X
 electrical lines in western section
 Mariana O'Dell



Photograph: 3 Date: 5/1/2024
 Description: Delineation activities, release area.
 View: South

Date & Time: Tue, May 28, 2024 at 15:11:55 MDT
 Position: +032.416963° / -103.890869° (±15.5ft)
 Altitude: 3479ft (±11.0ft)
 Datum: WGS-84
 Azimuth/Bearing: 225° S45W 4050mils True (±13°)
 Elevation Angle: +11.6°
 Horizon Angle: +02.2°
 Zoom: 0.5X
 south view of excavation
 Mariana O'Dell



Photograph: 4 Date: 5/28/2024
 Description: Excavation activities.
 View: Southwest



Photographic Log

XTO Energy, Inc

BEU DI 4

Incident Number nAPP2404359783



Photograph: 5 Date: 5/1/2024
Description: Pipelines/deferment area.
View: Southeast



Photograph: 6 Date: 6/4/2024
Description: Hydrovac excavation near buried lines.
View: Southwest



Photograph: 7 Date: 6/28/2024
Description: Final excavation extent.
View: Northeast



Photograph: 8 Date: 6/28/2024
Description: Final excavation extent.
View: Southeast

**Photographic Log**

XTO Energy, Inc

BEU DI 4

Incident Number nAPP2404359783



Photograph: 9 Date: 7/22/2024
Description: Liner inspection activities.
View: Southeast



Photograph: 10 Date: 7/22/2024
Description: Liner inspection activities.
View: East



Photograph: 11 Date: 7/22/2024
Description: Liner inspection activities.
View: West





Photograph: 12 Date: 7/22/2024
Description: Liner inspection activities.
View: West




APPENDIX C

Lithologic Soil Sampling Logs

		Sample Name: BH01		Date: 5/1/2024				
		Site Name: BEU DI 4						
		Incident Number: nAPP2404359783						
		Job Number: 03C1558327						
LITHOLOGIC / SOIL SAMPLING LOG								
Coordinates: 32.608840, -103.890858			Logged By: MO		Method: Hand Auger			
			Hole Diameter: 4"		Total Depth: 2.5'			
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. All chloride measurements made with a +40% correction factor.								
Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample ID	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithologic Descriptions
D	20,692	0.0	N	BH01	0.5	0	CCHE	Caliche w/brown sand, light tan - off white, very fine - fine grained, well graded, dry, no odor, no stain
D	3,399	0.0	N		1	1		
D	4,452	0.0	N		2	2		
D	2,201	0.0	N	BH01A	2.5	2.5		
						3	TD	light tan, indurated Total depth at 2.5' bgs. (refusal)
						4		
						5		
						6		
						7		
						8		
						9		
						10		
						11		
						12		

 ENSOLUM		Sample Name: BH02		Date: 5/1/2024				
		Site Name: BEU DI 4						
		Incident Number: nAPP2404359783						
		Job Number: 03C1558327						
LITHOLOGIC / SOIL SAMPLING LOG								
Coordinates: 32.608849, -103.890790			Logged By: MO		Method: Shovel			
			Hole Diameter: 6"		Total Depth: 1'			
Comments: Field screening conducted with HACH Chloride Test Strips and PID for chloride and vapor, respectively. Chloride test performed with 1:4 dilution factor of soil to distilled water. All chloride measurements made with a +40% correction factor.								
Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample ID	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithologic Descriptions
D	18,698	0.0	N	BH02	0.5	0	CCHE	Caliche w/brown sand, light tan - off white, very fine - fine grained, well graded, dry, no odor, no stain
D	15,439	0.0	N	BH02A	1	1	TD	Total Depth at 1-foot bgs. (refusal)
						2		
						3		
						4		
						5		
						6		
						7		
						8		
						9		
						10		
						11		
						12		

							Sample Name: BH03		Date: 5/1/2024	
							Site Name: BEU DI 4			
							Incident Number: nAPP2404359783			
							Job Number: 03C1558327			
LITHOLOGIC / SOIL SAMPLING LOG							Logged By: MO		Method: Shovel	
Coordinates: 32.608877,-103.890693							Hole Diameter: 6"		Total Depth: 1'	
Comments: Field screening conducted with HACH Chloride Test Strips and PID for chloride and vapor, respectively. Chloride test performed with 1:4 dilution factor of soil to distilled water. All chloride measurements made with a +40% correction factor.										
Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample ID	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithologic Descriptions		
D	<162	0.0	N	BH03	0.5	0	CCHE	Caliche w/brown sand, light tan - off white, very fine - fine grained, well graded, dry, no odor, no stain		
D	<162	0.0	N	BH03A	1	1	TD			
						2				
						3				
						4				
						5				
						6				
						7				
						8				
						9				
						10				
						11				
						12				



APPENDIX D

Laboratory Analytical Reports & Chain of Custody Documentation



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

March 12, 2024

TACOMA MORRISSEY

ENSOLUM, LLC

705 W WADLEY AVE.

MIDLAND, TX 79705

RE: BEU DI-4

Enclosed are the results of analyses for samples received by the laboratory on 03/07/24 14:20.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-23-16. Accreditation applies to drinking water, non-potable water and solid and chemical materials. All accredited analytes are denoted by an asterisk (*). For a complete list of accredited analytes and matrices visit the TCEQ website at www.tceq.texas.gov/field/qa/lab_accred_certif.html.

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

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

Accreditation applies to public drinking water matrices.

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

Sincerely,

A handwritten signature in black ink that reads "Celey D. Keene".

Celey D. Keene

Lab Director/Quality Manager



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

Analytical Results For:

ENSOLUM, LLC
TACOMA MORRISSEY
705 W WADLEY AVE.
MIDLAND TX, 79705
Fax To:

Received: 03/07/2024
Reported: 03/12/2024
Project Name: BEU DI-4
Project Number: 03C1558327
Project Location: XTO

Sampling Date: 03/05/2024
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Shalyn Rodriguez

Sample ID: SS 01 0.5' (H241161-01)

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	03/09/2024	ND	2.21	110	2.00	0.741	
Toluene*	<0.050	0.050	03/09/2024	ND	2.20	110	2.00	0.696	
Ethylbenzene*	<0.050	0.050	03/09/2024	ND	2.15	107	2.00	0.941	
Total Xylenes*	<0.150	0.150	03/09/2024	ND	6.46	108	6.00	0.459	
Total BTEX	<0.300	0.300	03/09/2024	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	96.0	16.0	03/11/2024	ND	432	108	400	3.64		

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	03/08/2024	ND	213	106	200	3.16	
DRO >C10-C28*	<10.0	10.0	03/08/2024	ND	226	113	200	0.570	
EXT DRO >C28-C36	<10.0	10.0	03/08/2024	ND					

Surrogate: 1-Chlorooctane 86.8 % 48.2-134

Surrogate: 1-Chlorooctadecane 77.8 % 49.1-148

Cardinal Laboratories

*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager



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

Analytical Results For:

ENSOLUM, LLC
TACOMA MORRISSEY
705 W WADLEY AVE.
MIDLAND TX, 79705
Fax To:

Received: 03/07/2024
Reported: 03/12/2024
Project Name: BEU DI-4
Project Number: 03C1558327
Project Location: XTO

Sampling Date: 03/05/2024
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Shalyn Rodriguez

Sample ID: SS 02 0.5' (H241161-02)

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	03/09/2024	ND	2.21	110	2.00	0.741	
Toluene*	<0.050	0.050	03/09/2024	ND	2.20	110	2.00	0.696	
Ethylbenzene*	<0.050	0.050	03/09/2024	ND	2.15	107	2.00	0.941	
Total Xylenes*	<0.150	0.150	03/09/2024	ND	6.46	108	6.00	0.459	
Total BTEX	<0.300	0.300	03/09/2024	ND					

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

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	32.0	16.0	03/11/2024	ND	432	108	400	3.64		

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	03/08/2024	ND	213	106	200	3.16	
DRO >C10-C28*	<10.0	10.0	03/08/2024	ND	226	113	200	0.570	
EXT DRO >C28-C36	<10.0	10.0	03/08/2024	ND					

Surrogate: 1-Chlorooctane 99.6 % 48.2-134

Surrogate: 1-Chlorooctadecane 94.1 % 49.1-148

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*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager



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

Analytical Results For:

ENSOLUM, LLC
TACOMA MORRISSEY
705 W WADLEY AVE.
MIDLAND TX, 79705
Fax To:

Received: 03/07/2024
Reported: 03/12/2024
Project Name: BEU DI-4
Project Number: 03C1558327
Project Location: XTO

Sampling Date: 03/05/2024
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Shalyn Rodriguez

Sample ID: SS 03 0.5' (H241161-03)

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	03/09/2024	ND	2.21	110	2.00	0.741	
Toluene*	<0.050	0.050	03/09/2024	ND	2.20	110	2.00	0.696	
Ethylbenzene*	<0.050	0.050	03/09/2024	ND	2.15	107	2.00	0.941	
Total Xylenes*	<0.150	0.150	03/09/2024	ND	6.46	108	6.00	0.459	
Total BTEX	<0.300	0.300	03/09/2024	ND					

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

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	32.0	16.0	03/11/2024	ND	432	108	400	3.64		

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	03/08/2024	ND	213	106	200	3.16	
DRO >C10-C28*	64.8	10.0	03/08/2024	ND	226	113	200	0.570	
EXT DRO >C28-C36	14.4	10.0	03/08/2024	ND					

Surrogate: 1-Chlorooctane 91.4 % 48.2-134

Surrogate: 1-Chlorooctadecane 87.1 % 49.1-148

Cardinal Laboratories

*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager



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

Analytical Results For:

ENSOLUM, LLC
TACOMA MORRISSEY
705 W WADLEY AVE.
MIDLAND TX, 79705
Fax To:

Received: 03/07/2024
Reported: 03/12/2024
Project Name: BEU DI-4
Project Number: 03C1558327
Project Location: XTO

Sampling Date: 03/05/2024
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Shalyn Rodriguez

Sample ID: SS 04 0.5' (H241161-04)

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	03/09/2024	ND	2.21	110	2.00	0.741	
Toluene*	<0.050	0.050	03/09/2024	ND	2.20	110	2.00	0.696	
Ethylbenzene*	<0.050	0.050	03/09/2024	ND	2.15	107	2.00	0.941	
Total Xylenes*	<0.150	0.150	03/09/2024	ND	6.46	108	6.00	0.459	
Total BTEX	<0.300	0.300	03/09/2024	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	32.0	16.0	03/11/2024	ND	432	108	400	3.64	

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	03/08/2024	ND	213	106	200	3.16	
DRO >C10-C28*	<10.0	10.0	03/08/2024	ND	226	113	200	0.570	
EXT DRO >C28-C36	<10.0	10.0	03/08/2024	ND					

Surrogate: 1-Chlorooctane 93.5 % 48.2-134

Surrogate: 1-Chlorooctadecane 89.7 % 49.1-148

Cardinal Laboratories

*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager

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

Notes and Definitions

S-04	The surrogate recovery for this sample is outside of established control limits due to a sample matrix effect.
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

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

Celey D. Keene, Lab Director/Quality Manager

Company Name: Ensolum, LLC

ANALYSIS REQUEST

This image shows a single sheet of white paper with horizontal blue or grey ruling lines. The lines are evenly spaced and run across the width of the page. There is no handwriting or other markings on the paper.[illegible]

PLEASE NOTE: Liability and Damages. Cardinal's liability and clients 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 analyses. In no event shall Cardinal be liable for incidental or consequential damages, including without limitation, business interruption, loss of use, or loss of profits incurred by client, its subsidiaries, service, or its customers. The performance of analyses performed by Cardinal, regardless of whether such claim is based upon any of the above listed reasons or otherwise.

Requisitioned By: <u>Juan Melillo</u>		Date: <u>3.1.24</u>		Received By: <u>Shoddiqnuel</u>	
Relinquished By:		Time: <u>1400</u>		Received By:	
Date:		Time:		Received By:	
Time:		Time:		Received By:	
REMARKS: <u>1MR01554@emsolun.com</u> <u>1MR02404359783</u>					
Standard		Bacteria (only)		Sample Condition	

Delivered By: (Circle One)	Observed Temp. °C	Corrected Temp. °C
Sample - UPS - Bus - Other:	Sample Condition CHECKED BY: (Initials) <i>[Signature]</i>	Cool Intact <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
	Thermometer ID # <i>1140</i>	Observed Temp. °C
	Correction Factor <i>-0.5°C</i>	Cool Intact <input type="checkbox"/> Yes <input type="checkbox"/> No
		Corrected Temp. °C

FORM-000 R.3.2 10/07/21

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



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

May 07, 2024

BEN BELILL

ENSOLUM

3122 NATIONAL PARKS HWY

CARLSBAD, NM 88220

RE: BEU DI 4

Enclosed are the results of analyses for samples received by the laboratory on 05/01/24 14:55.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-23-16. Accreditation applies to drinking water, non-potable water and solid and chemical materials. All accredited analytes are denoted by an asterisk (*). For a complete list of accredited analytes and matrices visit the TCEQ website at www.tceq.texas.gov/field/qa/lab_accred_certif.html.

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

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

Accreditation applies to public drinking water matrices.

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

Sincerely,

A handwritten signature in black ink that reads "Celey D. Keene". The signature is written in a cursive, flowing style.

Celey D. Keene

Lab Director/Quality Manager



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

Analytical Results For:

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

Received: 05/01/2024
Reported: 05/07/2024
Project Name: BEU DI 4
Project Number: 03C1558327
Project Location: XTO 32.60863, -103.89053

Sampling Date: 05/01/2024
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Shalyn Rodriguez

Sample ID: BH 01 0.5' (H242341-01)

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	05/04/2024	ND	2.01	100	2.00	2.56	
Toluene*	<0.050	0.050	05/04/2024	ND	2.06	103	2.00	0.756	
Ethylbenzene*	<0.050	0.050	05/04/2024	ND	2.17	108	2.00	1.41	
Total Xylenes*	<0.150	0.150	05/04/2024	ND	6.47	108	6.00	1.66	
Total BTEX	<0.300	0.300	05/04/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID) 126 % 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	16800	16.0	05/07/2024	ND	432	108	400	3.64	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	05/03/2024	ND	197	98.7	200	1.41	
DRO >C10-C28*	<10.0	10.0	05/03/2024	ND	181	90.6	200	6.81	
EXT DRO >C28-C36	<10.0	10.0	05/03/2024	ND					

Surrogate: 1-Chlorooctane 100 % 48.2-134

Surrogate: 1-Chlorooctadecane 123 % 49.1-148

Cardinal Laboratories

*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager



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

Analytical Results For:

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

Received: 05/01/2024
Reported: 05/07/2024
Project Name: BEU DI 4
Project Number: 03C1558327
Project Location: XTO 32.60863, -103.89053

Sampling Date: 05/01/2024
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Shalyn Rodriguez

Sample ID: BH 01A 2.5' (H242341-02)

BTX 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	05/04/2024	ND	2.01	100	2.00	2.56	
Toluene*	<0.050	0.050	05/04/2024	ND	2.06	103	2.00	0.756	
Ethylbenzene*	<0.050	0.050	05/04/2024	ND	2.17	108	2.00	1.41	
Total Xylenes*	<0.150	0.150	05/04/2024	ND	6.47	108	6.00	1.66	
Total BTX	<0.300	0.300	05/04/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID) 121 % 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	2400	16.0	05/07/2024	ND	432	108	400	3.64	

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	05/03/2024	ND	197	98.7	200	1.41	
DRO >C10-C28*	<10.0	10.0	05/03/2024	ND	181	90.6	200	6.81	
EXT DRO >C28-C36	<10.0	10.0	05/03/2024	ND					

Surrogate: 1-Chlorooctane 94.5 % 48.2-134

Surrogate: 1-Chlorooctadecane 106 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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

Analytical Results For:

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

Received: 05/01/2024
Reported: 05/07/2024
Project Name: BEU DI 4
Project Number: 03C1558327
Project Location: XTO 32.60863, -103.89053

Sampling Date: 05/01/2024
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Shalyn Rodriguez

Sample ID: BH 02 0.5' (H242341-03)

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	05/04/2024	ND	1.85	92.5	2.00	5.32	
Toluene*	<0.050	0.050	05/04/2024	ND	1.86	93.2	2.00	5.78	
Ethylbenzene*	<0.050	0.050	05/04/2024	ND	1.87	93.5	2.00	5.59	
Total Xylenes*	<0.150	0.150	05/04/2024	ND	5.43	90.5	6.00	5.57	
Total BTEX	<0.300	0.300	05/04/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID) 99.6 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	29200	16.0	05/07/2024	ND	432	108	400	3.64	

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	05/03/2024	ND	197	98.7	200	1.41	
DRO >C10-C28*	<10.0	10.0	05/03/2024	ND	181	90.6	200	6.81	
EXT DRO >C28-C36	<10.0	10.0	05/03/2024	ND					

Surrogate: 1-Chlorooctane 94.2 % 48.2-134

Surrogate: 1-Chlorooctadecane 104 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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Analytical Results For:

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

Received: 05/01/2024
Reported: 05/07/2024
Project Name: BEU DI 4
Project Number: 03C1558327
Project Location: XTO 32.60863, -103.89053

Sampling Date: 05/01/2024
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Shalyn Rodriguez

Sample ID: BH 02A 1' (H242341-04)

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	05/04/2024	ND	1.85	92.5	2.00	5.32		
Toluene*	<0.050	0.050	05/04/2024	ND	1.86	93.2	2.00	5.78		
Ethylbenzene*	<0.050	0.050	05/04/2024	ND	1.87	93.5	2.00	5.59		
Total Xylenes*	<0.150	0.150	05/04/2024	ND	5.43	90.5	6.00	5.57		
Total BTEX	<0.300	0.300	05/04/2024	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	18000	16.0	05/07/2024	ND	432	108	400	3.64		

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	05/03/2024	ND	197	98.7	200	1.41	
DRO >C10-C28*	<10.0	10.0	05/03/2024	ND	181	90.6	200	6.81	
EXT DRO >C28-C36	<10.0	10.0	05/03/2024	ND					

Surrogate: 1-Chlorooctane 94.6 % 48.2-134

Surrogate: 1-Chlorooctadecane 103 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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Analytical Results For:

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

Received: 05/01/2024
Reported: 05/07/2024
Project Name: BEU DI 4
Project Number: 03C1558327
Project Location: XTO 32.60863, -103.89053

Sampling Date: 05/01/2024
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Shalyn Rodriguez

Sample ID: BH 03 0.5' (H242341-05)

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	05/04/2024	ND	1.85	92.5	2.00	5.32		
Toluene*	<0.050	0.050	05/04/2024	ND	1.86	93.2	2.00	5.78		
Ethylbenzene*	<0.050	0.050	05/04/2024	ND	1.87	93.5	2.00	5.59		
Total Xylenes*	<0.150	0.150	05/04/2024	ND	5.43	90.5	6.00	5.57		
Total BTEx	<0.300	0.300	05/04/2024	ND						

Surrogate: 4-Bromofluorobenzene (PID) 101 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	112	16.0	05/07/2024	ND	432	108	400	3.64		

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	05/03/2024	ND	197	98.7	200	1.41	
DRO >C10-C28*	<10.0	10.0	05/03/2024	ND	181	90.6	200	6.81	
EXT DRO >C28-C36	<10.0	10.0	05/03/2024	ND					

Surrogate: 1-Chlorooctane 87.7 % 48.2-134

Surrogate: 1-Chlorooctadecane 94.8 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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Analytical Results For:

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

Received: 05/01/2024
Reported: 05/07/2024
Project Name: BEU DI 4
Project Number: 03C1558327
Project Location: XTO 32.60863, -103.89053

Sampling Date: 05/01/2024
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Shalyn Rodriguez

Sample ID: BH 03A 1' (H242341-06)

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	05/04/2024	ND	1.85	92.5	2.00	5.32		
Toluene*	<0.050	0.050	05/04/2024	ND	1.86	93.2	2.00	5.78		
Ethylbenzene*	<0.050	0.050	05/04/2024	ND	1.87	93.5	2.00	5.59		
Total Xylenes*	<0.150	0.150	05/04/2024	ND	5.43	90.5	6.00	5.57		
Total BTEX	<0.300	0.300	05/04/2024	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	128	16.0	05/07/2024	ND	432	108	400	3.64		

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	05/03/2024	ND	197	98.7	200	1.41	
DRO >C10-C28*	<10.0	10.0	05/03/2024	ND	181	90.6	200	6.81	
EXT DRO >C28-C36	<10.0	10.0	05/03/2024	ND					

Surrogate: 1-Chlorooctane 94.2 % 48.2-134

Surrogate: 1-Chlorooctadecane 101 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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Analytical Results For:

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

Received: 05/01/2024
Reported: 05/07/2024
Project Name: BEU DI 4
Project Number: 03C1558327
Project Location: XTO 32.60863, -103.89053

Sampling Date: 05/01/2024
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Shalyn Rodriguez

Sample ID: SS 05 0.5' (H242341-07)

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	05/04/2024	ND	1.85	92.5	2.00	5.32		
Toluene*	0.143	0.050	05/04/2024	ND	1.86	93.2	2.00	5.78		
Ethylbenzene*	<0.050	0.050	05/04/2024	ND	1.87	93.5	2.00	5.59		
Total Xylenes*	<0.150	0.150	05/04/2024	ND	5.43	90.5	6.00	5.57		
Total BTEX	<0.300	0.300	05/04/2024	ND						

Surrogate: 4-Bromofluorobenzene (PID) 99.8 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	112	16.0	05/07/2024	ND	432	108	400	3.64		

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	05/03/2024	ND	197	98.7	200	1.41	
DRO >C10-C28*	<10.0	10.0	05/03/2024	ND	181	90.6	200	6.81	
EXT DRO >C28-C36	<10.0	10.0	05/03/2024	ND					

Surrogate: 1-Chlorooctane 88.3 % 48.2-134

Surrogate: 1-Chlorooctadecane 96.8 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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Analytical Results For:

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

Received: 05/01/2024
Reported: 05/07/2024
Project Name: BEU DI 4
Project Number: 03C1558327
Project Location: XTO 32.60863, -103.89053

Sampling Date: 05/01/2024
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Shalyn Rodriguez

Sample ID: SS 06 0.5' (H242341-08)

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	05/04/2024	ND	1.85	92.5	2.00	5.32	
Toluene*	<0.050	0.050	05/04/2024	ND	1.86	93.2	2.00	5.78	
Ethylbenzene*	<0.050	0.050	05/04/2024	ND	1.87	93.5	2.00	5.59	
Total Xylenes*	<0.150	0.150	05/04/2024	ND	5.43	90.5	6.00	5.57	
Total BTEX	<0.300	0.300	05/04/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID) 99.0 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	96.0	16.0	05/07/2024	ND	432	108	400	3.64	

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	05/03/2024	ND	197	98.7	200	1.41	
DRO >C10-C28*	<10.0	10.0	05/03/2024	ND	181	90.6	200	6.81	
EXT DRO >C28-C36	<10.0	10.0	05/03/2024	ND					

Surrogate: 1-Chlorooctane 90.0 % 48.2-134

Surrogate: 1-Chlorooctadecane 98.8 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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Analytical Results For:

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

Received: 05/01/2024
Reported: 05/07/2024
Project Name: BEU DI 4
Project Number: 03C1558327
Project Location: XTO 32.60863, -103.89053

Sampling Date: 05/01/2024
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Shalyn Rodriguez

Sample ID: SS 07 0.5' (H242341-09)

BTEx 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	05/04/2024	ND	1.85	92.5	2.00	5.32	
Toluene*	<0.050	0.050	05/04/2024	ND	1.86	93.2	2.00	5.78	
Ethylbenzene*	<0.050	0.050	05/04/2024	ND	1.87	93.5	2.00	5.59	
Total Xylenes*	<0.150	0.150	05/04/2024	ND	5.43	90.5	6.00	5.57	
Total BTEX	<0.300	0.300	05/04/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID) 99.8 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	32.0	16.0	05/07/2024	ND	432	108	400	3.64	

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	05/03/2024	ND	197	98.7	200	1.41	
DRO >C10-C28*	<10.0	10.0	05/03/2024	ND	181	90.6	200	6.81	
EXT DRO >C28-C36	<10.0	10.0	05/03/2024	ND					

Surrogate: 1-Chlorooctane 94.9 % 48.2-134

Surrogate: 1-Chlorooctadecane 104 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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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

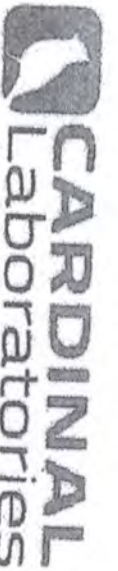
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A handwritten signature in black ink, appearing to read "Celey D. Keene".

Celey D. Keene, Lab Director/Quality Manager



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

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

Company Name: Ensolum, LLC

Project Manager: Ben Bell

Address: 3122 National Parks Hwy

City: Carlsbad State: NM Zip: 88220

Phone #: 989-854-0852 Fax #:

Project #: 03C1558327 Project Owner:

Project Name: BEU DI 4

Project Location: 32.00863, -103.89053

Sampler Name: Manah'a O'Dell

FOR LAB USE ONLY

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 :

P.O. #:

Company: X TO Energy

Attn: Amy Ruth

Address: 3104 E. Greene St

City: Carlsbad

State: NM Zip: 88220

Phone #:

Fax #:

DATE

TIME

Chloride

TPH

BTEX

ANALYSIS REQUEST

PLEASE NOTE: Liability and Damages, Cardinal liability and client's exclusive remedy for any claim arising within liquid is contained or not shall be limited to the amount paid by the client for the analysis. 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 interruption, loss of data, or loss of profits, incurred by client, its subsidiaries, affiliates or successors within the state or related to the performance of services hereunder by Cardinal. Reproduction of matter shall be deemed a breach of the above stated terms, or otherwise.

Relinquished By: [Signature] Date: 5/1/24 Time: 14:55 Received By: [Signature] Date: 5/1/24 Time: 14:55

Delivered By: (Circle One) Sampler - UPS - Bus - Other: Corrected Temp. °C

Sample Condition Cool Intact Yes No Checked By: (Initials) Turnaround Time: 5 days Standard Rush Add'l Phone #:

Remarks: Incident #: APP 2404359783 Cost Center: 1080851001



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

May 31, 2024

TACOMA MORRISSEY

ENSOLUM, LLC

705 W WADLEY AVE.

MIDLAND, TX 79705

RE: BEU DI-4

Enclosed are the results of analyses for samples received by the laboratory on 05/24/24 15:52.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-23-16. Accreditation applies to drinking water, non-potable water and solid and chemical materials. All accredited analytes are denoted by an asterisk (*). For a complete list of accredited analytes and matrices visit the TCEQ website at www.tceq.texas.gov/field/qa/lab_accred_certif.html.

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

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

Accreditation applies to public drinking water matrices.

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

Sincerely,

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

Mike Snyder For Celey D. Keene

Lab Director/Quality Manager



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

Analytical Results For:

ENSOLUM, LLC
TACOMA MORRISSEY
705 W WADLEY AVE.
MIDLAND TX, 79705
Fax To:

Received: 05/24/2024
Reported: 05/31/2024
Project Name: BEU DI-4
Project Number: 03C1558327
Project Location: XTO

Sampling Date: 05/24/2024
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Tamara Oldaker

Sample ID: FS 01 2' (H242936-01)

BTEx 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	05/30/2024	ND	1.94	96.8	2.00	2.44	
Toluene*	<0.050	0.050	05/30/2024	ND	1.88	94.2	2.00	2.47	
Ethylbenzene*	<0.050	0.050	05/30/2024	ND	1.90	95.0	2.00	2.98	
Total Xylenes*	<0.150	0.150	05/30/2024	ND	5.49	91.6	6.00	2.92	
Total BTEx	<0.300	0.300	05/30/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID) 91.2 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: CT						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	64.0	16.0	05/31/2024	ND	448	112	400	3.51		

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	05/29/2024	ND	213	106	200	0.477	
DRO >C10-C28*	<10.0	10.0	05/29/2024	ND	194	97.2	200	0.910	
EXT DRO >C28-C36	<10.0	10.0	05/29/2024	ND					

Surrogate: 1-Chlorooctane 70.8 % 48.2-134

Surrogate: 1-Chlorooctadecane 78.4 % 49.1-148

Cardinal Laboratories

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Mike Snyder For Celey D. Keene, Lab Director/Quality Manager



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

Analytical Results For:

ENSOLUM, LLC
TACOMA MORRISSEY
705 W WADLEY AVE.
MIDLAND TX, 79705
Fax To:

Received: 05/24/2024
Reported: 05/31/2024
Project Name: BEU DI-4
Project Number: 03C1558327
Project Location: XTO

Sampling Date: 05/24/2024
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Tamara Oldaker

Sample ID: FS 02 2' (H242936-02)

BTEx 8021B		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	05/30/2024	ND	1.94	96.8	2.00	2.44		
Toluene*	<0.050	0.050	05/30/2024	ND	1.88	94.2	2.00	2.47		
Ethylbenzene*	<0.050	0.050	05/30/2024	ND	1.90	95.0	2.00	2.98		
Total Xylenes*	<0.150	0.150	05/30/2024	ND	5.49	91.6	6.00	2.92		
Total BTEX	<0.300	0.300	05/30/2024	ND						

Surrogate: 4-Bromofluorobenzene (PID) 90.9 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: CT						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	208	16.0	05/31/2024	ND	448	112	400	3.51		

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	05/29/2024	ND	213	106	200	0.477	
DRO >C10-C28*	<10.0	10.0	05/29/2024	ND	194	97.2	200	0.910	
EXT DRO >C28-C36	<10.0	10.0	05/29/2024	ND					

Surrogate: 1-Chlorooctane 73.0 % 48.2-134

Surrogate: 1-Chlorooctadecane 81.0 % 49.1-148

Cardinal Laboratories

*=Accredited Analyte

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Mike Snyder For Celey D. Keene, Lab Director/Quality Manager



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

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A handwritten signature in black ink, appearing to read "Mike Snyder".

Mike Snyder For Celey D. Keene, Lab Director/Quality Manager



CO# (entry: 1080851001
 IMIDOL ID: APP2404359783

Page 5 of 5



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

June 03, 2024

BEN BELILL

ENSOLUM

3122 NATIONAL PARKS HWY

CARLSBAD, NM 88220

RE: BEU DI 4

Enclosed are the results of analyses for samples received by the laboratory on 05/29/24 8:27.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-23-16. Accreditation applies to drinking water, non-potable water and solid and chemical materials. All accredited analytes are denoted by an asterisk (*). For a complete list of accredited analytes and matrices visit the TCEQ website at www.tceq.texas.gov/field/qa/lab_accred_certif.html.

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

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

Accreditation applies to public drinking water matrices.

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

Sincerely,

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

Mike Snyder For Celey D. Keene

Lab Director/Quality Manager



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

Analytical Results For:

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

Received: 05/29/2024
Reported: 06/03/2024
Project Name: BEU DI 4
Project Number: 03C1558327
Project Location: XTO 32.60863, -103.89053

Sampling Date: 05/28/2024
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Alyssa Parras

Sample ID: CS 01 0.5' (H242961-01)

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	05/30/2024	ND	1.60	80.2	2.00	0.620	
Toluene*	<0.050	0.050	05/30/2024	ND	1.82	91.1	2.00	4.08	
Ethylbenzene*	<0.050	0.050	05/30/2024	ND	1.96	98.0	2.00	6.24	
Total Xylenes*	<0.150	0.150	05/30/2024	ND	6.00	100	6.00	6.12	
Total BTEx	<0.300	0.300	05/30/2024	ND					

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

Chloride, SM4500Cl-B		mg/kg		Analyzed By: CT						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	32.0	16.0	05/31/2024	ND	416	104	400	3.92		

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	05/30/2024	ND	194	97.1	200	0.539	
DRO >C10-C28*	<10.0	10.0	05/30/2024	ND	195	97.7	200	1.53	
EXT DRO >C28-C36	<10.0	10.0	05/30/2024	ND					

Surrogate: 1-Chlorooctane 77.6 % 48.2-134

Surrogate: 1-Chlorooctadecane 75.5 % 49.1-148

Cardinal Laboratories

*=Accredited Analyte

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Mike Snyder For Celey D. Keene, Lab Director/Quality Manager



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

Analytical Results For:

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

Received: 05/29/2024
Reported: 06/03/2024
Project Name: BEU DI 4
Project Number: 03C1558327
Project Location: XTO 32.60863, -103.89053

Sampling Date: 05/28/2024
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Alyssa Parras

Sample ID: FS 03 1' (H242961-02)

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	05/30/2024	ND	1.60	80.2	2.00	0.620	
Toluene*	<0.050	0.050	05/30/2024	ND	1.82	91.1	2.00	4.08	
Ethylbenzene*	<0.050	0.050	05/30/2024	ND	1.96	98.0	2.00	6.24	
Total Xylenes*	<0.150	0.150	05/30/2024	ND	6.00	100	6.00	6.12	
Total BTEX	<0.300	0.300	05/30/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID) 111 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: CT						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	240	16.0	05/31/2024	ND	416	104	400	3.92		

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	05/30/2024	ND	194	97.1	200	0.539	
DRO >C10-C28*	<10.0	10.0	05/30/2024	ND	195	97.7	200	1.53	
EXT DRO >C28-C36	<10.0	10.0	05/30/2024	ND					

Surrogate: 1-Chlorooctane 68.8 % 48.2-134

Surrogate: 1-Chlorooctadecane 66.3 % 49.1-148

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*=Accredited Analyte

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Mike Snyder For Celey D. Keene, Lab Director/Quality Manager



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

Analytical Results For:

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

Received: 05/29/2024
 Reported: 06/03/2024
 Project Name: BEU DI 4
 Project Number: 03C1558327
 Project Location: XTO 32.60863, -103.89053

Sampling Date: 05/28/2024
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Alyssa Parras

Sample ID: SW 02 0-2 (H242961-03)

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	05/30/2024	ND	1.60	80.2	2.00	0.620	
Toluene*	<0.050	0.050	05/30/2024	ND	1.82	91.1	2.00	4.08	
Ethylbenzene*	<0.050	0.050	05/30/2024	ND	1.96	98.0	2.00	6.24	
Total Xylenes*	<0.150	0.150	05/30/2024	ND	6.00	100	6.00	6.12	
Total BTEX	<0.300	0.300	05/30/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID) 122 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: CT					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	1220	16.0	05/31/2024	ND	416	104	400	3.92	

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	05/30/2024	ND	194	97.1	200	0.539	
DRO >C10-C28*	<10.0	10.0	05/30/2024	ND	195	97.7	200	1.53	
EXT DRO >C28-C36	<10.0	10.0	05/30/2024	ND					

Surrogate: 1-Chlorooctane 75.9 % 48.2-134

Surrogate: 1-Chlorooctadecane 74.1 % 49.1-148

Cardinal Laboratories

*=Accredited Analyte

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Mike Snyder For Celey D. Keene, Lab Director/Quality Manager



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

Analytical Results For:

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

Received: 05/29/2024
Reported: 06/03/2024
Project Name: BEU DI 4
Project Number: 03C1558327
Project Location: XTO 32.60863, -103.89053

Sampling Date: 05/28/2024
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Alyssa Parras

Sample ID: SW 01 0-2 (H242961-04)

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	05/30/2024	ND	1.60	80.2	2.00	0.620	
Toluene*	<0.050	0.050	05/30/2024	ND	1.82	91.1	2.00	4.08	
Ethylbenzene*	<0.050	0.050	05/30/2024	ND	1.96	98.0	2.00	6.24	
Total Xylenes*	<0.150	0.150	05/30/2024	ND	6.00	100	6.00	6.12	
Total BTEX	<0.300	0.300	05/30/2024	ND					

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

Chloride, SM4500Cl-B		mg/kg		Analyzed By: CT					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	144	16.0	05/31/2024	ND	416	104	400	3.92	

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	05/30/2024	ND	194	97.1	200	0.539	
DRO >C10-C28*	<10.0	10.0	05/30/2024	ND	195	97.7	200	1.53	
EXT DRO >C28-C36	<10.0	10.0	05/30/2024	ND					

Surrogate: 1-Chlorooctane 71.0 % 48.2-134

Surrogate: 1-Chlorooctadecane 67.0 % 49.1-148

Cardinal Laboratories

*=Accredited Analyte

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Mike Snyder For Celey D. Keene, Lab Director/Quality Manager



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

Analytical Results For:

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

Received: 05/29/2024
Reported: 06/03/2024
Project Name: BEU DI 4
Project Number: 03C1558327
Project Location: XTO 32.60863, -103.89053

Sampling Date: 05/28/2024
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Alyssa Parras

Sample ID: FS 04 1' (H242961-05)

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	05/30/2024	ND	1.60	80.2	2.00	0.620	
Toluene*	<0.050	0.050	05/30/2024	ND	1.82	91.1	2.00	4.08	
Ethylbenzene*	<0.050	0.050	05/30/2024	ND	1.96	98.0	2.00	6.24	
Total Xylenes*	<0.150	0.150	05/30/2024	ND	6.00	100	6.00	6.12	
Total BTEX	<0.300	0.300	05/30/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID) 117 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: CT					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	208	16.0	05/31/2024	ND	416	104	400	3.92	

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	05/30/2024	ND	194	97.1	200	0.539	
DRO >C10-C28*	<10.0	10.0	05/30/2024	ND	195	97.7	200	1.53	
EXT DRO >C28-C36	<10.0	10.0	05/30/2024	ND					

Surrogate: 1-Chlorooctane 78.1 % 48.2-134

Surrogate: 1-Chlorooctadecane 75.8 % 49.1-148

Cardinal Laboratories

*=Accredited Analyte

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 client for 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 thirty (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 the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Mike Snyder For Celey D. Keene, Lab Director/Quality Manager



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

Analytical Results For:

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

Received: 05/29/2024
Reported: 06/03/2024
Project Name: BEU DI 4
Project Number: 03C1558327
Project Location: XTO 32.60863, -103.89053

Sampling Date: 05/28/2024
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Alyssa Parras

Sample ID: CS 02 0.5' (H242961-06)

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	05/30/2024	ND	1.60	80.2	2.00	0.620	
Toluene*	<0.050	0.050	05/30/2024	ND	1.82	91.1	2.00	4.08	
Ethylbenzene*	<0.050	0.050	05/30/2024	ND	1.96	98.0	2.00	6.24	
Total Xylenes*	<0.150	0.150	05/30/2024	ND	6.00	100	6.00	6.12	
Total BTEX	<0.300	0.300	05/30/2024	ND					

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

Chloride, SM4500Cl-B		mg/kg		Analyzed By: CT					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	48.0	16.0	05/31/2024	ND	416	104	400	3.92	

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	05/30/2024	ND	194	97.1	200	0.539	
DRO >C10-C28*	<10.0	10.0	05/30/2024	ND	195	97.7	200	1.53	
EXT DRO >C28-C36	<10.0	10.0	05/30/2024	ND					

Surrogate: 1-Chlorooctane 80.0 % 48.2-134

Surrogate: 1-Chlorooctadecane 75.3 % 49.1-148

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Mike Snyder For Celey D. Keene, Lab Director/Quality Manager



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Analytical Results For:

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

Received: 05/29/2024
Reported: 06/03/2024
Project Name: BEU DI 4
Project Number: 03C1558327
Project Location: XTO 32.60863, -103.89053

Sampling Date: 05/28/2024
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Alyssa Parras

Sample ID: CS 03 0.5' (H242961-07)

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	05/30/2024	ND	1.60	80.2	2.00	0.620	
Toluene*	<0.050	0.050	05/30/2024	ND	1.82	91.1	2.00	4.08	
Ethylbenzene*	<0.050	0.050	05/30/2024	ND	1.96	98.0	2.00	6.24	
Total Xylenes*	<0.150	0.150	05/30/2024	ND	6.00	100	6.00	6.12	
Total BTEX	<0.300	0.300	05/30/2024	ND					

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

Chloride, SM4500Cl-B		mg/kg		Analyzed By: CT					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	48.0	16.0	05/31/2024	ND	416	104	400	3.92	

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	05/30/2024	ND	194	97.1	200	0.539	
DRO >C10-C28*	<10.0	10.0	05/30/2024	ND	195	97.7	200	1.53	
EXT DRO >C28-C36	<10.0	10.0	05/30/2024	ND					

Surrogate: 1-Chlorooctane 80.7 % 48.2-134

Surrogate: 1-Chlorooctadecane 74.6 % 49.1-148

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Mike Snyder For Celey D. Keene, Lab Director/Quality Manager



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

Analytical Results For:

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

Received: 05/29/2024
Reported: 06/03/2024
Project Name: BEU DI 4
Project Number: 03C1558327
Project Location: XTO 32.60863, -103.89053

Sampling Date: 05/28/2024
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Alyssa Parras

Sample ID: CS 04 0.5' (H242961-08)

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	05/30/2024	ND	1.60	80.2	2.00	0.620	
Toluene*	<0.050	0.050	05/30/2024	ND	1.82	91.1	2.00	4.08	
Ethylbenzene*	<0.050	0.050	05/30/2024	ND	1.96	98.0	2.00	6.24	
Total Xylenes*	<0.150	0.150	05/30/2024	ND	6.00	100	6.00	6.12	
Total BTEX	<0.300	0.300	05/30/2024	ND					

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

Chloride, SM4500Cl-B		mg/kg		Analyzed By: CT					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	32.0	16.0	05/31/2024	ND	416	104	400	3.92	

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	05/30/2024	ND	194	97.1	200	0.539	
DRO >C10-C28*	<10.0	10.0	05/30/2024	ND	195	97.7	200	1.53	
EXT DRO >C28-C36	<10.0	10.0	05/30/2024	ND					

Surrogate: 1-Chlorooctane 83.0 % 48.2-134

Surrogate: 1-Chlorooctadecane 77.4 % 49.1-148

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Mike Snyder For Celey D. Keene, Lab Director/Quality Manager



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

Analytical Results For:

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

Received: 05/29/2024
Reported: 06/03/2024
Project Name: BEU DI 4
Project Number: 03C1558327
Project Location: XTO 32.60863, -103.89053

Sampling Date: 05/28/2024
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Alyssa Parras

Sample ID: CS 05 0.5' (H242961-09)

BTX 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	05/30/2024	ND	1.60	80.2	2.00	0.620		
Toluene*	<0.050	0.050	05/30/2024	ND	1.82	91.1	2.00	4.08		
Ethylbenzene*	<0.050	0.050	05/30/2024	ND	1.96	98.0	2.00	6.24		
Total Xylenes*	<0.150	0.150	05/30/2024	ND	6.00	100	6.00	6.12		
Total BTEX	<0.300	0.300	05/30/2024	ND						

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

Chloride, SM4500CI-B		mg/kg		Analyzed By: CT						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	32.0	16.0	05/31/2024	ND	416	104	400	3.92		

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	05/30/2024	ND	194	97.1	200	0.539	
DRO >C10-C28*	<10.0	10.0	05/30/2024	ND	195	97.7	200	1.53	
EXT DRO >C28-C36	<10.0	10.0	05/30/2024	ND					

Surrogate: 1-Chlorooctane 82.1 % 48.2-134

Surrogate: 1-Chlorooctadecane 76.3 % 49.1-148

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Mike Snyder For Celey D. Keene, Lab Director/Quality Manager



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Analytical Results For:

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

Received: 05/29/2024
Reported: 06/03/2024
Project Name: BEU DI 4
Project Number: 03C1558327
Project Location: XTO 32.60863, -103.89053

Sampling Date: 05/28/2024
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Alyssa Parras

Sample ID: CS 06 0.5' (H242961-10)

BTEx 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	05/30/2024	ND	1.60	80.2	2.00	0.620	
Toluene*	<0.050	0.050	05/30/2024	ND	1.82	91.1	2.00	4.08	
Ethylbenzene*	<0.050	0.050	05/30/2024	ND	1.96	98.0	2.00	6.24	
Total Xylenes*	<0.150	0.150	05/30/2024	ND	6.00	100	6.00	6.12	
Total BTEX	<0.300	0.300	05/30/2024	ND					

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

Chloride, SM4500Cl-B		mg/kg		Analyzed By: CT					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	16.0	16.0	05/31/2024	ND	416	104	400	3.92	

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	05/30/2024	ND	194	97.1	200	0.539	
DRO >C10-C28*	<10.0	10.0	05/30/2024	ND	195	97.7	200	1.53	
EXT DRO >C28-C36	<10.0	10.0	05/30/2024	ND					

Surrogate: 1-Chlorooctane 81.7 % 48.2-134

Surrogate: 1-Chlorooctadecane 78.2 % 49.1-148

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Mike Snyder For Celey D. Keene, Lab Director/Quality Manager



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

Analytical Results For:

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

Received: 05/29/2024
Reported: 06/03/2024
Project Name: BEU DI 4
Project Number: 03C1558327
Project Location: XTO 32.60863, -103.89053

Sampling Date: 05/28/2024
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Alyssa Parras

Sample ID: FS 05 2' (H242961-11)

BTEX 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	05/30/2024	ND	1.60	80.2	2.00	0.620		
Toluene*	<0.050	0.050	05/30/2024	ND	1.82	91.1	2.00	4.08		
Ethylbenzene*	<0.050	0.050	05/30/2024	ND	1.96	98.0	2.00	6.24		
Total Xylenes*	<0.150	0.150	05/30/2024	ND	6.00	100	6.00	6.12		
Total BTEX	<0.300	0.300	05/30/2024	ND						

Surrogate: 4-Bromofluorobenzene (PID) 111 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: CT						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	256	16.0	05/31/2024	ND	416	104	400	3.92		

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	05/30/2024	ND	194	97.1	200	0.539	
DRO >C10-C28*	<10.0	10.0	05/30/2024	ND	195	97.7	200	1.53	
EXT DRO >C28-C36	<10.0	10.0	05/30/2024	ND					

Surrogate: 1-Chlorooctane 88.9 % 48.2-134

Surrogate: 1-Chlorooctadecane 83.6 % 49.1-148

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Mike Snyder For Celey D. Keene, Lab Director/Quality Manager



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Analytical Results For:

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

Received: 05/29/2024
Reported: 06/03/2024
Project Name: BEU DI 4
Project Number: 03C1558327
Project Location: XTO 32.60863, -103.89053

Sampling Date: 05/28/2024
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Alyssa Parras

Sample ID: FS 06 2' (H242961-12)

BTX 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	05/30/2024	ND	1.60	80.2	2.00	0.620	
Toluene*	<0.050	0.050	05/30/2024	ND	1.82	91.1	2.00	4.08	
Ethylbenzene*	<0.050	0.050	05/30/2024	ND	1.96	98.0	2.00	6.24	
Total Xylenes*	<0.150	0.150	05/30/2024	ND	6.00	100	6.00	6.12	
Total BTEX	<0.300	0.300	05/30/2024	ND					

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

Chloride, SM4500Cl-B		mg/kg		Analyzed By: CT					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	80.0	16.0	05/31/2024	ND	416	104	400	3.92	

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	05/30/2024	ND	194	97.1	200	0.539	
DRO >C10-C28*	<10.0	10.0	05/30/2024	ND	195	97.7	200	1.53	
EXT DRO >C28-C36	<10.0	10.0	05/30/2024	ND					

Surrogate: 1-Chlorooctane 86.5 % 48.2-134

Surrogate: 1-Chlorooctadecane 80.4 % 49.1-148

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Mike Snyder For Celey D. Keene, Lab Director/Quality Manager



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Notes and Definitions

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

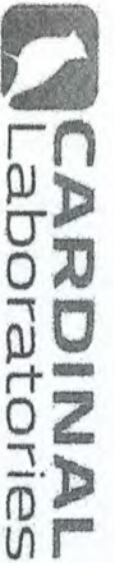
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A handwritten signature in black ink, appearing to read "Mike Snyder", written over a horizontal line.

Mike Snyder For Celey D. Keene, Lab Director/Quality Manager



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

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

Company Name: Ensolum, LLC

Project Manager: Ben Bell

Address: 3122 National Parks Hwy

City: Carlsbad

State: NM Zip: 88220

Phone #: 989-854-0852 Fax #:

Project #: 0361558327 Project Owner:

Project Name: BEYDI4

Project Location: 32.00803-103.89053

Sampler Name: Mariana O'Dell

BILL TO

P.O. #:

Company: XTO Energy

Attn: Amy Ruth

Address: 3104 E. Greenst

City: Carlsbad

State: NM Zip: 88220

Phone #:

Fax #:

ANALYSIS REQUEST

Lab I.D.	Sample I.D.	Depth (feet)	(G)RAB OR (C)OMP.	# CONTAINERS	MATRIX					DATE	TIME	ANALYSIS REQUEST				
					GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE			Chlorides	TPH	BTEX		
1242901	CS01	0.5'	C	1	X					5/28/24	10:30					
2	FS03	1'								10:35						
3	SM02	0-2'								10:45						
4	SM01	0-2'								10:55						
5	FS04	1'								11:10						
6	CS02	0.5'								12:40						
7	CS03	0.5'								12:45						
8	CS04	0.5'								13:45						
9	CS05	0.5'								14:05						
10	CS06	0.5'								15:55						

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Relinquished By:

Received By:

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

All Results are emailed. Please provide Email address:

bbell@ensolum.com, mdel@ensolum.com

REMARKS: Incident #: NAPP2404359703

Cost Center: 1000051001

Turnaround Time: 5 days Standard Rush ☒ Bacteria (only) Sample Condition

Thermometer ID #770 and 5/24/24 Cool Intact ☐ Observed Temp. °C

Correction Factor: 5/24/24 ☐ No ☐ Yes Corrected Temp. °C

Delivered By: (Circle One)

Sampler - UPS - Bus - Other:

Observed Temp. °C 58°C Corrected Temp. °C 110°C

Sample Condition Cool Intact ☒ Pres. ☐ Yes ☐ No

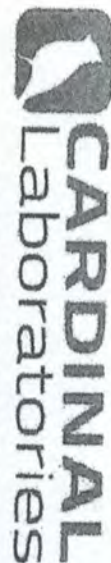
CHECKED BY: (Initials) AD

Turnaround Time: 5 days Standard Rush ☒ Bacteria (only) Sample Condition

Thermometer ID #770 and 5/24/24 Cool Intact ☐ Observed Temp. °C

Correction Factor: 5/24/24 ☐ No ☐ Yes Corrected Temp. °C

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



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

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

[illegible]



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

June 14, 2024

BEN BELILL

ENSOLUM

3122 NATIONAL PARKS HWY

CARLSBAD, NM 88220

RE: BEU DI 4

Enclosed are the results of analyses for samples received by the laboratory on 06/10/24 14:20.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-23-16. Accreditation applies to drinking water, non-potable water and solid and chemical materials. All accredited analytes are denoted by an asterisk (*). For a complete list of accredited analytes and matrices visit the TCEQ website at www.tceq.texas.gov/field/qa/lab_accred_certif.html.

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

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

Accreditation applies to public drinking water matrices.

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

Sincerely,

A handwritten signature in black ink that reads "Coley D. Keene". The signature is written in a cursive style with a large, stylized 'C' and 'K'.

Celey D. Keene

Lab Director/Quality Manager



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

Analytical Results For:

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

Received: 06/10/2024
 Reported: 06/14/2024
 Project Name: BEU DI 4
 Project Number: 03C1558327
 Project Location: XTO 32.60863, -103.89053

Sampling Date: 06/05/2024
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Alyssa Parras

Sample ID: FS07 2 (H243301-01)

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	06/12/2024	ND	2.15	108	2.00	4.31	
Toluene*	<0.050	0.050	06/12/2024	ND	2.27	113	2.00	3.27	
Ethylbenzene*	<0.050	0.050	06/12/2024	ND	2.25	113	2.00	2.52	
Total Xylenes*	<0.150	0.150	06/12/2024	ND	6.88	115	6.00	2.15	
Total BTEX	<0.300	0.300	06/12/2024	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	176	16.0	06/13/2024	ND	416	104	400	0.00	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	06/12/2024	ND	195	97.4	200	0.697	
DRO >C10-C28*	<10.0	10.0	06/12/2024	ND	188	93.9	200	0.285	
EXT DRO >C28-C36	<10.0	10.0	06/12/2024	ND					

Surrogate: 1-Chlorooctane 83.5 % 48.2-134

Surrogate: 1-Chlorooctadecane 102 % 49.1-148

Cardinal Laboratories

*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager



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Notes and Definitions

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

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

Celey D. Keene, Lab Director/Quality Manager



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CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

[illegible]



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

July 05, 2024

BEN BELILL

ENSOLUM

3122 NATIONAL PARKS HWY

CARLSBAD, NM 88220

RE: BEU DI 4

Enclosed are the results of analyses for samples received by the laboratory on 06/28/24 14:55.

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

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

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

Accreditation applies to public drinking water matrices.

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

Sincerely,

A handwritten signature in black ink that reads "Celey D. Keene". The signature is written in a cursive, flowing style.

Celey D. Keene

Lab Director/Quality Manager



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Analytical Results For:

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

Received: 06/28/2024
 Reported: 07/05/2024
 Project Name: BEU DI 4
 Project Number: 03C1558327
 Project Location: XTO 32.60863, -103.89053

Sampling Date: 06/28/2024
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Shalyn Rodriguez

Sample ID: FS 01A 2.5' (H243905-01)

BTX 8021B			mg/kg		Analyzed By: JH				
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	07/04/2024	ND	2.10	105	2.00	2.27	
Toluene*	<0.050	0.050	07/04/2024	ND	2.14	107	2.00	1.41	
Ethylbenzene*	<0.050	0.050	07/04/2024	ND	2.23	111	2.00	1.58	
Total Xylenes*	<0.150	0.150	07/04/2024	ND	6.86	114	6.00	1.88	
Total BTX	<0.300	0.300	07/04/2024	ND					

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

Chloride, SM4500Cl-B		mg/kg		Analyzed By: CT					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	320	16.0	07/05/2024	ND	432	108	400	0.00	

TPH 8015M		mg/kg		Analyzed By: ms					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	07/04/2024	ND	204	102	200	2.14	
DRO >C10-C28*	<10.0	10.0	07/04/2024	ND	210	105	200	4.99	
EXT DRO >C28-C36	<10.0	10.0	07/04/2024	ND					

Surrogate: 1-Chlorooctane 91.8 % 48.2-134

Surrogate: 1-Chlorooctadecane 95.8 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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Analytical Results For:

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

Received: 06/28/2024
 Reported: 07/05/2024
 Project Name: BEU DI 4
 Project Number: 03C1558327
 Project Location: XTO 32.60863, -103.89053

Sampling Date: 06/28/2024
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Shalyn Rodriguez

Sample ID: SW 02A 0-2.5' (H243905-02)

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	07/04/2024	ND	2.10	105	2.00	2.27	
Toluene*	<0.050	0.050	07/04/2024	ND	2.14	107	2.00	1.41	
Ethylbenzene*	<0.050	0.050	07/04/2024	ND	2.23	111	2.00	1.58	
Total Xylenes*	<0.150	0.150	07/04/2024	ND	6.86	114	6.00	1.88	
Total BTEX	<0.300	0.300	07/04/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID) 123 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: CT					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	992	16.0	07/05/2024	ND	432	108	400	0.00	

TPH 8015M		mg/kg		Analyzed By: ms					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	07/04/2024	ND	204	102	200	2.14	
DRO >C10-C28*	<10.0	10.0	07/04/2024	ND	210	105	200	4.99	
EXT DRO >C28-C36	<10.0	10.0	07/04/2024	ND					

Surrogate: 1-Chlorooctane 94.0 % 48.2-134

Surrogate: 1-Chlorooctadecane 96.7 % 49.1-148

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Notes and Definitions

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- RPD Relative Percent Difference
- ** Samples not received at proper temperature of 6°C or below.
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- Chloride by SM4500Cl-B does not require samples be received at or below 6°C
Samples reported on an as received basis (wet) unless otherwise noted on report

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

Celey D. Keene, Lab Director/Quality Manager

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Ensolum, LLC

1541

Page 5 of 5

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District IV
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Phone:(505) 476-3470 Fax:(505) 476-3462

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

QUESTIONS

Action 367445

QUESTIONS

Operator: XTO ENERGY, INC 6401 Holiday Hill Road Midland, TX 79707	OGRID:
	5380
	Action Number:
	367445
Action Type:	
[C-141] Deferral Request C-141 (C-141-v-Deferral)	

QUESTIONS

Prerequisites	
Incident ID (n#)	nAPP2404359783
Incident Name	NAPP2404359783 BEU DI 4 @ 0
Incident Type	Produced Water Release
Incident Status	Deferral Request Received

Location of Release Source

Please answer all the questions in this group.

Site Name	BEU DI 4
Date Release Discovered	01/29/2024
Surface Owner	Federal

Incident Details

Please answer all the questions in this group.

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

Nature and Volume of Release

Material(s) released, please answer all that apply below. Any calculations or specific justifications for the volumes provided should be attached to the follow-up C-141 submission.

Crude Oil Released (bbls) Details	Not answered.
Produced Water Released (bbls) Details	Cause: Equipment Failure Pump Produced Water Released: 33 BBL Recovered: 30 BBL Lost: 3 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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State of New Mexico
Energy, Minerals and Natural Resources
Oil Conservation Division
1220 S. St Francis Dr.
Santa Fe, NM 87505

QUESTIONS, Page 2

Action 367445

QUESTIONS (continued)

Operator: XTO ENERGY, INC 6401 Holiday Hill Road Midland, TX 79707	OGRID:	5380
	Action Number:	367445
	Action Type:	[C-141] Deferral Request C-141 (C-141-v-Deferral)

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: Garrett Green Title: SHE Coordinator Email: garrett.green@exxonmobil.com Date: 02/12/2024
--	--

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

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

QUESTIONS, Page 3

Action 367445

QUESTIONS (continued)

Operator: XTO ENERGY, INC 6401 Holiday Hill Road Midland, TX 79707	OGRID:
	5380
	Action Number:
	367445
Action Type:	
[C-141] Deferral Request C-141 (C-141-v-Deferral)	

QUESTIONS

Site Characterization	
<i>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.</i>	
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	OCD Imaging Records Lookup
Did this release impact groundwater or surface water	No
What is the minimum distance, between the closest lateral extents of the release and the following surface areas:	
A continuously flowing watercourse or any other significant watercourse	Between ½ and 1 (mi.)
Any lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark)	Between 1 and 5 (mi.)
An occupied permanent residence, school, hospital, institution, or church	Between 1 and 5 (mi.)
A spring or a private domestic fresh water well used by less than five households for domestic or stock watering purposes	Between 1 and 5 (mi.)
Any other fresh water well or spring	Between 1 and 5 (mi.)
Incorporated municipal boundaries or a defined municipal fresh water well field	Greater than 5 (mi.)
A wetland	Between ½ and 1 (mi.)
A subsurface mine	Between 1 and 5 (mi.)
An (non-karst) unstable area	Between 1 and 5 (mi.)
Categorize the risk of this well / site being in a karst geology	Low
A 100-year floodplain	Between 1 and 5 (mi.)
Did the release impact areas not on an exploration, development, production, or storage site	No

Remediation Plan	
<i>Please answer all the questions that apply or are indicated. This information must be provided to the appropriate district office no later than 90 days after the release discovery date.</i>	
Requesting a remediation plan approval with this submission	Yes
<i>Attach a comprehensive report demonstrating the lateral and vertical extents of soil contamination associated with the release have been determined, pursuant to 19.15.29.11 NMAC and 19.15.29.13 NMAC.</i>	
Have the lateral and vertical extents of contamination been fully delineated	Yes
Was this release entirely contained within a lined containment area	No
Soil Contamination Sampling: (Provide the highest observable value for each, in milligrams per kilograms.)	
Chloride (EPA 300.0 or SM4500 Cl B)	992
TPH (GRO+DRO+MRO) (EPA SW-846 Method 8015M)	79.2
GRO+DRO (EPA SW-846 Method 8015M)	68.4
BTEX (EPA SW-846 Method 8021B or 8260B)	0
Benzene (EPA SW-846 Method 8021B or 8260B)	0
<i>Per Subsection B of 19.15.29.11 NMAC unless the site characterization report includes completed efforts at remediation, the report must include a proposed remediation plan in accordance with 19.15.29.12 NMAC, which includes the anticipated timelines for beginning and completing the remediation.</i>	
On what estimated date will the remediation commence	03/05/2024
On what date will (or did) the final sampling or liner inspection occur	06/28/2024
On what date will (or was) the remediation complete(d)	06/28/2024
What is the estimated surface area (in square feet) that will be reclaimed	2380
What is the estimated volume (in cubic yards) that will be reclaimed	200
What is the estimated surface area (in square feet) that will be remediated	2380
What is the estimated volume (in cubic yards) that will be remediated	200
<i>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.</i>	
<i>The OCD recognizes that proposed remediation measures may have to be minimally adjusted in accordance with the physical realities encountered during remediation. If the responsible party has any need to significantly deviate from the remediation plan proposed, then it should consult with the division to determine if another remediation plan submission is required.</i>	

District I

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District IV

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

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

QUESTIONS, Page 4

Action 367445

QUESTIONS (continued)

Operator: XTO ENERGY, INC 6401 Holiday Hill Road Midland, TX 79707	OGRID:	5380
	Action Number:	367445
	Action Type:	[C-141] Deferral Request C-141 (C-141-v-Deferral)

QUESTIONS

Remediation Plan (continued)	
<i>Please answer all the questions that apply or are indicated. This information must be provided to the appropriate district office no later than 90 days after the release discovery date.</i>	
This remediation will (or is expected to) utilize the following processes to remediate / reduce contaminants:	
<i>(Select all answers below that apply.)</i>	
(Ex Situ) Excavation and off-site disposal (i.e. dig and haul, hydrovac, etc.)	Yes
Which OCD approved facility will be used for off-site disposal	HALFWAY DISPOSAL AND LANDFILL [fEEM0112334510]
OR which OCD approved well (API) will be used for off-site disposal	Not answered.
OR is the off-site disposal site, to be used, out-of-state	Not answered.
OR is the off-site disposal site, to be used, an NMED facility	Not answered.
(Ex Situ) Excavation and on-site remediation (i.e. On-Site Land Farms)	Not answered.
(In Situ) Soil Vapor Extraction	Not answered.
(In Situ) Chemical processing (i.e. Soil Shredding, Potassium Permanganate, etc.)	Not answered.
(In Situ) Biological processing (i.e. Microbes / Fertilizer, etc.)	Not answered.
(In Situ) Physical processing (i.e. Soil Washing, Gypsum, Disking, etc.)	Not answered.
Ground Water Abatement pursuant to 19.15.30 NMAC	Not answered.
OTHER (Non-listed remedial process)	Not answered.
<i>Per Subsection B of 19.15.29.11 NMAC unless the site characterization report includes completed efforts at remediation, the report must include a proposed remediation plan in accordance with 19.15.29.12 NMAC, which includes the anticipated timelines for beginning and completing the remediation.</i>	
I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to OCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the OCD does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In addition, OCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.	
I hereby agree and sign off to the above statement	Name: Amy Ruth Title: Coordinator SSHE Environmental Email: amy.ruth@exxonmobil.com Date: 07/25/2024
<i>The OCD recognizes that proposed remediation measures may have to be minimally adjusted in accordance with the physical realities encountered during remediation. If the responsible party has any need to significantly deviate from the remediation plan proposed, then it should consult with the division to determine if another remediation plan submission is required.</i>	

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Action 367445

QUESTIONS (continued)

Operator: XTO ENERGY, INC 6401 Holiday Hill Road Midland, TX 79707	OGRID:	5380
	Action Number:	367445
	Action Type:	[C-141] Deferral Request C-141 (C-141-v-Deferral)

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	Yes
Have the lateral and vertical extents of contamination been fully delineated	Yes
Is the remaining contamination in areas immediately under or around production equipment where remediation could cause a major facility deconstruction	Yes
Please list or describe the production equipment and how (re)moving the equipment would cause major facility deconstruction	surface pipelines pipeline support beams pipeline risers buried electrical lines surface electrical lines
What is the remaining surface area (in square feet) that will still need to be remediated if a deferral is granted	1120
What is the remaining volume (in cubic yards) that will still need to be remediated if a deferral is granted	105
Per Paragraph (2) of Subsection C of 19.15.29.12 NMAC if contamination is located in areas immediately under or around production equipment such as production tanks, wellheads and pipelines where remediation could cause a major facility deconstruction, the remediation, restoration and reclamation may be deferred with division written approval until the equipment is removed during other operations, or when the well or facility is plugged or abandoned, whichever comes first.	
Enter the facility ID (f#) on which this deferral should be granted	BIG EDDY UNIT DI 4 [fAPP2123044252]
Enter the well API (30-) on which this deferral should be granted	Not answered.
Contamination does not cause an imminent risk to human health, the environment, or groundwater	True
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: Amy Ruth Title: Coordinator SSHE Environmental Email: amy.ruth@exxonmobil.com Date: 07/25/2024

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QUESTIONS, Page 6

Action 367445

QUESTIONS (continued)

Operator: XTO ENERGY, INC 6401 Holiday Hill Road Midland, TX 79707	OGRID:	5380
	Action Number:	367445
	Action Type:	[C-141] Deferral Request C-141 (C-141-v-Deferral)

QUESTIONS

Sampling Event Information	
Last sampling notification (C-141N) recorded	356311
Sampling date pursuant to Subparagraph (a) of Paragraph (1) of Subsection D of 19.15.29.12 NMAC	06/28/2024
What was the (estimated) number of samples that were to be gathered	5
What was the sampling surface area in square feet	1000

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 367445

CONDITIONS

Operator: XTO ENERGY, INC 6401 Holiday Hill Road Midland, TX 79707	OGRID: 5380
	Action Number: 367445
	Action Type: [C-141] Deferral Request C-141 (C-141-v-Deferral)

CONDITIONS

Created By	Condition	Condition Date
rhamlet	XTO's deferral requests final remediation for (Incident Number NAPP2404359783) until final reclamation of the well pad or major construction, whichever comes first. Ensolum and XTO do not believe deferment will result in imminent risk to human health, the environment, or groundwater. The impacted soil is the area in purple on figure 4 that is limited to the area beneath active production equipment and pipelines where remediation would require a major facility deconstruction. At this time, OCD approves this request. The Deferral Request and C-141 will be accepted for record and marked accordingly. The release will remain open in OCD database files and reflect an open environmental issue.	8/15/2024