



October 2, 2024

New Mexico Oil Conservation Division

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

**Re: Closure Request
Outrider 27 Fed 701H
Incident Number nAPP2410735798
Lea County, New Mexico**

To Whom It May Concern:

Ensolum, LLC (Ensolum), on behalf of XTO Energy, Inc. (XTO), has prepared this *Closure Request* to document excavation and soil sampling activities performed at the Outrider 27 Fed 701H (Site). The purpose of excavation and soil sampling activities, conducted in accordance with an approved *Remediation Work Plan (RWP)*, was to address impacts to soil resulting from a release of produced water at the Site. XTO is submitting this *Closure Request*, describing excavation activities that have occurred and requesting no further remediation for Incident Number nAPP2410735798.

SITE DESCRIPTION AND RELEASE SUMMARY

The Site is located in Unit N, Section 27, Township 24 South, Range 32 East, in Lea County, New Mexico (32.18236°, -103.66679°) and is associated with oil and gas exploration and production operations on Federal Land managed by the Bureau of Land Management (BLM).

On April 2, 2024, a connection washed out and parted during completion operations, resulting in the release of 14 barrels (bbls) of produced water onto the pad surface. XTO immediately dispatched a vacuum truck and 5 bbls of fluid were recovered. XTO submitted an Initial C-141 Application (C-141) on April 16, 2024. The release was assigned Incident Number NAPP2410735798.

Ensolum conducted Site assessment and delineation activities and presented the results in a *RWP*. The *RWP* was submitted on July 9, 2024, and approved by the New Mexico Oil Conservation Division (NMOCD) on July 17, 2024. The *RWP* proposed excavation of impacted soil identified during delineation activities. Delineation sample locations are shown on Figure 2 and laboratory analytical results can be found on Table 1. The approved *RWP* is attached in Appendix C.

SITE CHARACTERIZATION AND CLOSURE CRITERIA

As documented in the approved *RWP*, 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

Ensolum, LLC | Environmental, Engineering & Hydrogeologic Consultants
3122 National Parks Highway | Carlsbad, NM 88220 | ensolum.com

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- Total petroleum hydrocarbons (TPH)-gasoline range organics (GRO) and TPH-diesel range organics (DRO): 1,000 mg/kg
- TPH: 2,500 mg/kg
- Chloride: 20,000 mg/kg

A map of the Site location and potential Site receptors is included in Figure 1.

EXCAVATION SOIL SAMPLING ACTIVITIES

Ensolum personnel were onsite between July 25 and August 9, 2024, to excavate impacted soil according to the approved *RWP*. Excavation activities were performed by use of heavy equipment. To direct excavation activities, soil was field screened for volatile organic compounds (VOCs) utilizing a calibrated photoionization detector (PID) and chloride using Hach® chloride QuanTab® test strips. Once field screening indicated impacted soil was adequately removed, 5-point composite soil samples were collected every 400 square feet from the floor and 200 square feet from the sidewall of the excavation extent, according to the approved *RWP*. The 5-point composite samples were collected by placing five equivalent aliquots of soil into a 1-gallon, resealable plastic bag and homogenizing the samples by thoroughly mixing. Confirmation soil samples FS01 through FS63 were collected from the floor of the excavation at depths ranging from 2 feet to 3 feet bgs. Confirmation soil samples SW01 through SW13 were collected from the sidewalls of the excavation at depths ranging from the ground surface to up to 3 feet bgs. Confirmation soil sample BF01 was taken of the backfill material. The confirmation soil sample locations were mapped utilizing a Global Positioning System (GPS) unit and are depicted on Figure 3. Photographic documentation of the excavation activities is provided in Appendix A.

The soil samples were placed directly into pre-cleaned glass jars, labeled with the location, date, time, sampler name, method of analysis, and immediately placed on ice. The soil samples were transported under strict chain-of-custody procedures to Cardinal Laboratories (Cardinal) in Hobbs, New Mexico, for analysis of the following contaminants of concern (COCs): BTEX following United States Environmental Protection Agency (EPA) Method 8021B; TPH-gasoline range organics (GRO), TPH-diesel range organics (DRO), and TPH-oil range organics (ORO) following EPA Method 8015M/D; and chloride following Standards Method SM4500.

The final excavation extent measured approximately 25,063 square feet. A total of approximately 1,900 cubic yards of impacted soil was removed during the excavation activities. The impacted soil was transported and disposed of at the OWL Disposal Facility in Jal, New Mexico. The final excavation was immediately backfilled.

LABORATORY ANALYTICAL RESULTS

Laboratory analytical results for all excavation floor and sidewall samples indicated COC concentrations were compliant with the Closure Criteria. All excavation confirmation soil samples met the strictest Table I Closure Criteria except SW06 and SW07, which are against the well head area. The laboratory analytical results are summarized in Table 1 and the complete laboratory analytical reports are included in Appendix B.

CLOSURE REQUEST

Excavation activities were conducted at the Site in conformance with the *RWP* to address an April 2024 release of produced water. Laboratory analytical results for all excavation soil samples collected indicate COC concentrations were compliant with the Closure Criteria. Based on the soil sample laboratory

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analytical results, no further remediation is required. The excavation has been backfilled with material purchased locally and the Site has been recontoured to match pre-existing Site conditions.

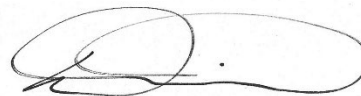
Excavation of soil has mitigated impacts exceeding the Closure Criteria at the Site. XTO believes these remedial actions are protective of human health, the environment, and groundwater. As such, XTO respectfully requests closure for Incident Number nAPP2410735798.

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

Sincerely,
Ensolum, LLC



Tracy Hillard
Project Engineer



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

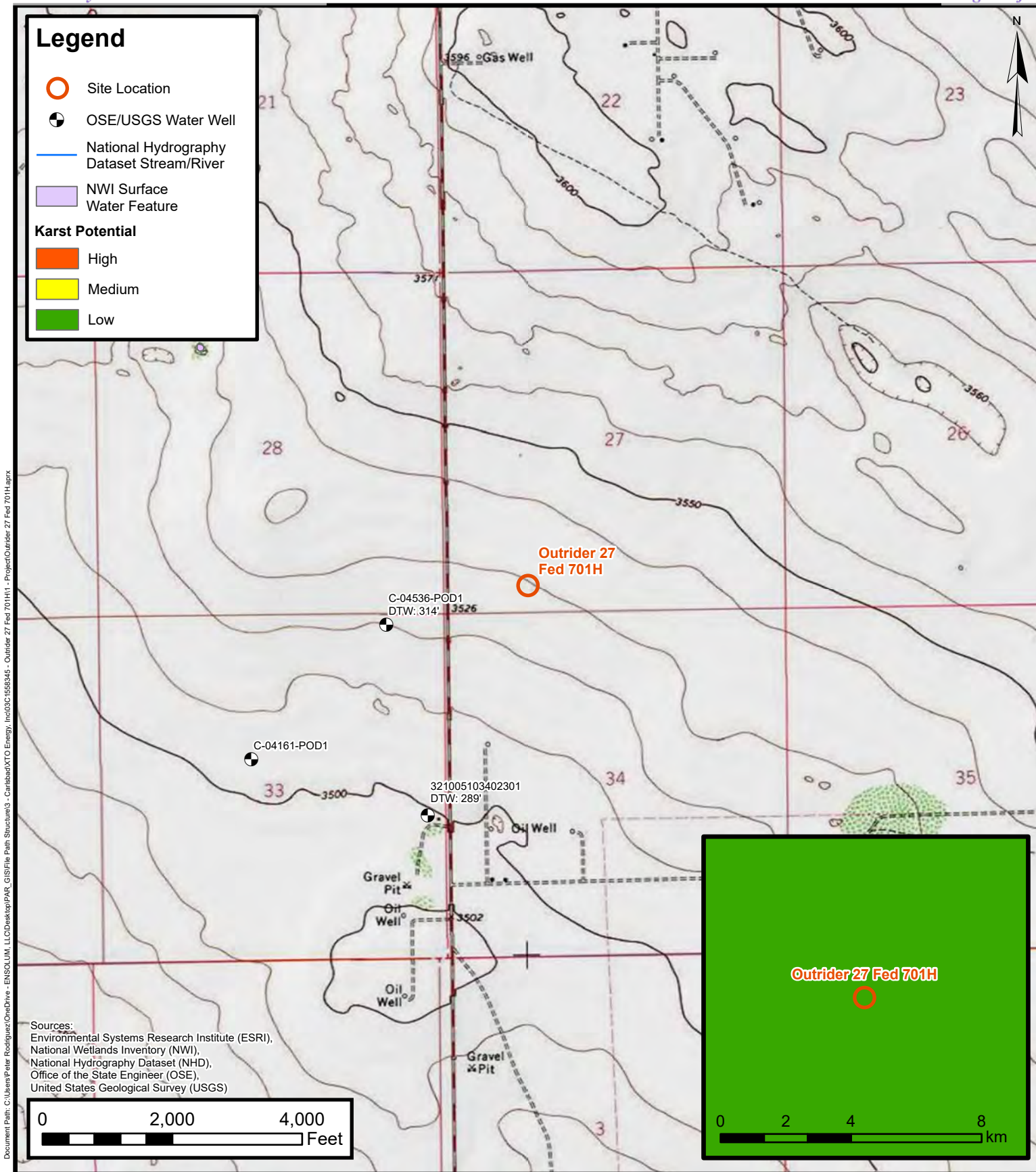
cc: Colton Brown, XTO
Kaylan Dirkx, XTO
BLM

Appendices:

Figure 1	Site Receptor Map
Figure 2	Delineation Soil Sample Locations
Figure 3	Excavation Soil Sample Locations
Table 1	Soil Sample Analytical Results
Appendix A	Photographic Log
Appendix B	Laboratory Analytical Reports & Chain-of-Custody Documentation
Appendix C	Approved Remediation Work Plan



FIGURES



Site Receptor Map

XTO Energy, Inc

Outrider 27 Fed 701H

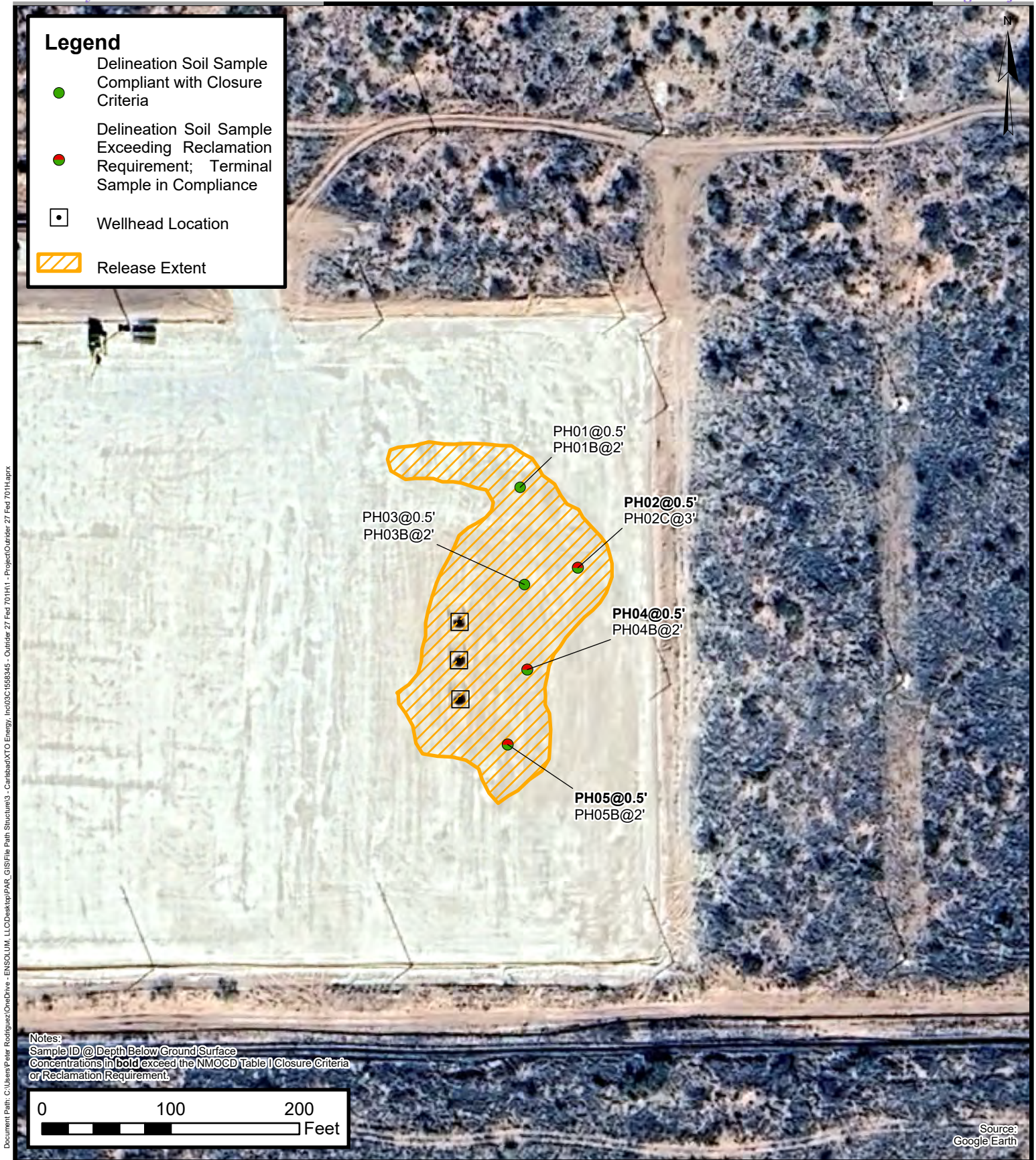
Incident Number: nAPP2410735798

Unit N, Section 27, Township 24 South, Range 32 East
 Lea County, New Mexico

FIGURE

1





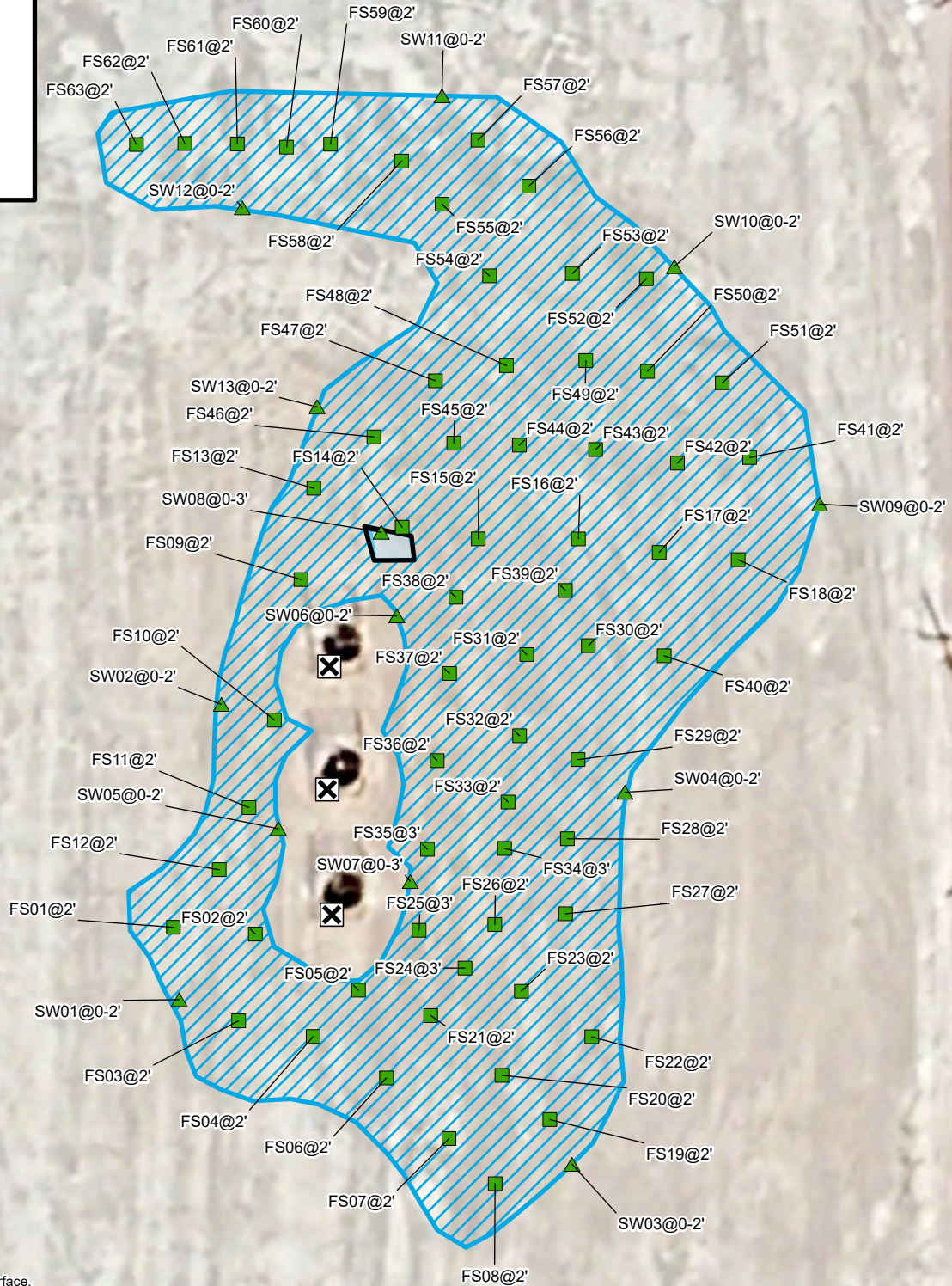
Delineation Soil Sample Locations

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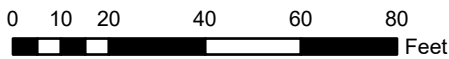
FIGURE
 2

Legend

- Excavation Floor Sample in Compliance with Closure Criteria
- ▲ Excavation Sidewall Sample in Compliance with Closure Criteria
- X Wellhead Location
- Production Equipment
- Excavation Extent



Notes:
Sample ID @ Depth Below Ground Surface.



Sources: Environmental Systems Research Institute (ESRI)

Excavation Soil Sample Locations

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FIGURE**3**



TABLES



TABLE 1
SOIL SAMPLE ANALYTICAL RESULTS
 Outrider 28 Fed 701H
 XTO Energy, Inc
 Lea 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	1,000	2,500	20,000
Delineation Soil Samples										
PH01	05/29/2024	0.5	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	160
PH01B	05/29/2024	2	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	48.0
PH02	05/29/2024	0.5	<0.050	<0.300	<10.0	831	<10.0	831	831	320
PH02C	05/29/2024	3	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	32.0
PH03	05/29/2024	0.5	<0.050	<0.300	<10.0	28.8	<10.0	28.8	28.8	256
PH03B	05/29/2024	2	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	80.0
PH04	05/29/2024	0.5	<0.050	<0.300	<10.0	247	<10.0	247	247	816
PH04B	05/29/2024	2	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	48.0
PH05	05/29/2024	0.5	<0.050	<0.300	<10.0	200	<10.0	200	200	560
PH05B	05/29/2024	2	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	64.0
Confirmation Soil Samples										
FS01	07/26/2024	2	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	80.0
FS02	07/26/2024	2	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	80.0
FS03	07/26/2024	2	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	64.8
FS04	07/26/2024	2	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	48.0
FS05	07/26/2024	2	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	48.0
FS06	07/26/2024	2	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	16.0
FS07	07/26/2024	2	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	48.0
FS08	07/26/2024	2	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	64.0
FS09	07/29/2024	2	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	80.0
FS10	07/29/2024	2	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	80.0
FS11	07/29/2024	2	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	80.0
FS12	07/29/2024	2	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	64.0
FS13	07/29/2024	2	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	96.0
FS14	07/29/2024	2	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	80.0
FS15	07/29/2024	2	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	80.0
FS16	07/29/2024	2	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	80.0
FS17	07/29/2024	2	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	240
FS18	07/29/2024	2	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	112
FS19	07/30/2024	2	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	48.0
FS20	07/30/2024	2	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	64.0
FS21	07/30/2024	2	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	48.0
FS22	07/30/2024	2	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	48.0



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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	1,000	2,500	20,000
FS23	07/30/2024	2	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	80.0
FS24	07/30/2024	2	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	32.0
FS25	07/31/2024	3	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	160
FS26	07/30/2024	2	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	144
FS27	07/30/2024	2	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	48.0
FS28	08/09/2024	2	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	480
FS29	07/31/2024	2	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	64.0
FS30	07/31/2024	2	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	16.0
FS31	07/31/2024	2	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	32.0
FS32	07/31/2024	2	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	48.0
FS33	07/31/2024	2	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	80.0
FS34	07/31/2024	2	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	112
FS35	07/31/2024	3	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	80.0
FS36	07/31/2024	3	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	96.0
FS37	07/31/2024	2	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	176
FS38	07/31/2024	2	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	80.0
FS39	07/31/2024	2	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	80.0
FS40	07/31/2024	2	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	64.0
FS41	07/31/2024	2	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	80.0
FS42	07/31/2024	2	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	128
FS43	07/31/2024	2	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	128
FS44	08/01/2024	2	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	160
FS45	08/01/2024	2	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	144
FS46	08/01/2024	2	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	160
FS47	08/01/2024	2	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	96.0
FS48	08/01/2024	2	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	144
FS49	08/01/2024	2	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	128
FS50	08/01/2024	2	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	48.0
FS51	08/01/2024	2	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	48.0
FS52	08/01/2024	2	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	48.0



TABLE 1
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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	1,000	2,500	20,000
FS53	08/01/2024	2	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	48.0
FS54	08/01/2024	2	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	48.0
FS55	08/01/2024	2	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	96.0
FS56	08/01/2024	2	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	96.0
FS57	08/01/2024	2	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	112
FS58	08/01/2024	2	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	64.0
FS59	08/01/2024	2	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	48.0
FS60	08/01/2024	2	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	48.0
FS61	08/01/2024	2	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	16.0
FS62	08/01/2024	2	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	32.0
FS63	08/01/2024	2	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	16.0
SW01	07/29/2024	0 - 2	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	64.0
SW02	07/29/2024	0 - 2	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	160
SW03	07/31/2024	0 - 2	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	160
SW04	07/31/2024	0 - 2	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	128
SW05	07/31/2024	0 - 2	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	80.0
SW06	07/31/2024	0 - 2	<0.050	<0.300	<10.0	816	77.1	816	893	192
SW07	08/01/2024	0 - 3	<0.050	<0.300	<10.0	660	26.8	660	687	224
SW08	08/01/2024	0 - 3	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	32.0
SW09	08/01/2024	0 - 2	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	128
SW10	08/01/2024	0 - 2	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	112
SW11	08/01/2024	0 - 2	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	96.0
SW12	08/01/2024	0 - 2	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	64.0
SW13	08/01/2024	0 - 2	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	112
Backfill Soil Sample										
BF01	07/29/2024	0.5	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	96.0

Notes:

bgs: below ground surface
 mg/kg: milligrams per kilogram

GRO: Gasoline Range Organics
 DRO: Diesel Range Organics

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.

ORO: Oil Range Organics

TPH: Total Petroleum Hydrocarbon

NMAC: New Mexico Administrative Code

Grey text indicates soil sample removed during excavation activities



APPENDIX A

Photographic Log

**Photographic Log**

XTO Energy, Inc
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Date & Time: Thu, May 09, 2024 at 11:33:30 MDT
 Position: +032.182225° / -103.666491° (±15.9ft)
 Altitude: 3528ft (±10.5ft)
 Datum: WGS-84
 Azimuth/Bearing: 209° S25W 3644mils True (±12°)
 Elevation Angle: -00.9°
 Horizon Angle: -00.2°
 Zoom: 1.0X
 Outrider 27



Photograph: 1 Date: 5/9/2024
 Description: Soil staining in release footprint
 View: Southwest

Date & Time: Thu, May 09, 2024 at 11:45:37 MDT
 Position: +032.182289° / -103.667161° (±15.9ft)
 Altitude: 3526ft (±10.6ft)
 Datum: WGS-84
 Azimuth/Bearing: 114° S66E 2027mils True (±14°)
 Elevation Angle: -03.2°
 Horizon Angle: -01.3°
 Zoom: 1.0X
 Outrider 27



Photograph: 2 Date: 5/9/2024
 Description: Soil staining in release footprint
 View: Southeast



Photograph: 3 Date: 5/29/2024
 Description: Delineation activities
 View: North



Photograph: 4 Date: 5/29/2024
 Description: Delineation Activities
 View: Southwest



Photographic Log
 XTO Energy, Inc
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Photograph: 5 Date: 7/29/2024
 Description: Excavation Activities
 View: North



Photograph: 6 Date: 7/30/2024
 Description: Excavation Activities
 View: Southwest



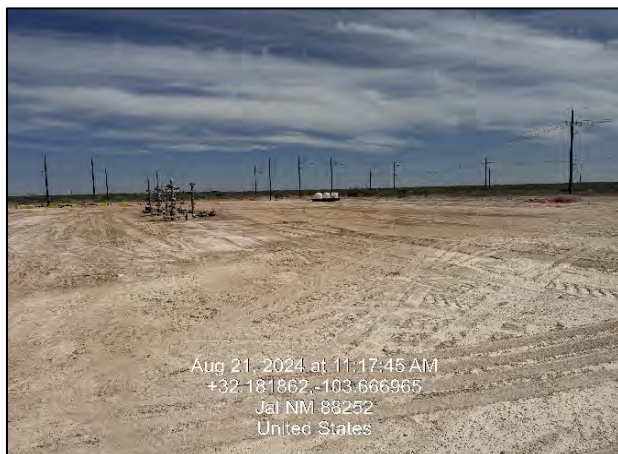
Photograph: 7 Date: 7/31/2024
 Description: Excavation Activities
 View: South



Photograph: 8 Date: 8/09/2024
 Description: Excavation Activities
 View: South



Photographic Log
XTO Energy, Inc
Outrider 27 Fed 701H
NAPP2410735798



Photograph: 9 Date: 8/21/2024
Description: Backfilled excavation
View: Northeast



Photograph: 10 Date: 8/21/2024
Description: Backfilled excavation
View: South



APPENDIX D

Laboratory Analytical Reports & Chain of Custody Documentation



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

August 02, 2024

TRACY HILLARD

ENSOLUM

3122 NATIONAL PARKS HWY

CARLSBAD, NM 88220

RE: OUTRIDER 27 FED 701 H

Enclosed are the results of analyses for samples received by the laboratory on 07/30/24 14:25.

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

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

Received: 07/30/2024
Reported: 08/02/2024
Project Name: OUTRIDER 27 FED 701 H
Project Number: 03C1558345
Project Location: XTO 32.18236 -103.66679

Sampling Date: 07/29/2024
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Alyssa Parras

Sample ID: BF 01 0.5' (H244539-01)

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	07/31/2024	ND	2.00	100	2.00	8.77	
Toluene*	<0.050	0.050	07/31/2024	ND	1.97	98.4	2.00	9.42	
Ethylbenzene*	<0.050	0.050	07/31/2024	ND	2.08	104	2.00	9.88	
Total Xylenes*	<0.150	0.150	07/31/2024	ND	6.11	102	6.00	9.73	
Total BTEX	<0.300	0.300	07/31/2024	ND					

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

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	96.0	16.0	08/01/2024	ND	448	112	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	07/31/2024	ND	187	93.7	200	4.47	
DRO >C10-C28*	<10.0	10.0	07/31/2024	ND	184	91.9	200	4.69	
EXT DRO >C28-C36	<10.0	10.0	07/31/2024	ND					

Surrogate: 1-Chlorooctane 108 % 48.2-134

Surrogate: 1-Chlorooctadecane 110 % 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

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



Page 4 of 4

Released to Imaging: 1/3/2025 3:23:14 PM

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



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

August 02, 2024

TRACY HILLARD

ENSOLUM

3122 NATIONAL PARKS HWY

CARLSBAD, NM 88220

RE: OUTRIDER 27 FED 701 H

Enclosed are the results of analyses for samples received by the laboratory on 07/30/24 14:25.

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

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

Received: 07/30/2024
Reported: 08/02/2024
Project Name: OUTRIDER 27 FED 701 H
Project Number: 03C1558345
Project Location: XTO 32.18236 -103.66679

Sampling Date: 07/26/2024
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Alyssa Parras

Sample ID: FS 01 2' (H244540-01)

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	07/31/2024	ND	2.00	100	2.00	8.77	
Toluene*	<0.050	0.050	07/31/2024	ND	1.97	98.4	2.00	9.42	
Ethylbenzene*	<0.050	0.050	07/31/2024	ND	2.08	104	2.00	9.88	
Total Xylenes*	<0.150	0.150	07/31/2024	ND	6.11	102	6.00	9.73	
Total BTEX	<0.300	0.300	07/31/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID) 97.4 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	80.0	16.0	08/01/2024	ND	448	112	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	07/31/2024	ND	187	93.7	200	4.47	
DRO >C10-C28*	<10.0	10.0	07/31/2024	ND	184	91.9	200	4.69	
EXT DRO >C28-C36	<10.0	10.0	07/31/2024	ND					

Surrogate: 1-Chlorooctane 115 % 48.2-134

Surrogate: 1-Chlorooctadecane 125 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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Analytical Results For:

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

Received: 07/30/2024
Reported: 08/02/2024
Project Name: OUTRIDER 27 FED 701 H
Project Number: 03C1558345
Project Location: XTO 32.18236 -103.66679

Sampling Date: 07/26/2024
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Alyssa Parras

Sample ID: FS 02 2' (H244540-02)

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	07/31/2024	ND	2.00	100	2.00	8.77		
Toluene*	<0.050	0.050	07/31/2024	ND	1.97	98.4	2.00	9.42		
Ethylbenzene*	<0.050	0.050	07/31/2024	ND	2.08	104	2.00	9.88		
Total Xylenes*	<0.150	0.150	07/31/2024	ND	6.11	102	6.00	9.73		
Total BTEX	<0.300	0.300	07/31/2024	ND						

Surrogate: 4-Bromofluorobenzene (PID) 97.1 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	80.0	16.0	08/01/2024	ND	448	112	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	07/31/2024	ND	187	93.7	200	4.47	
DRO >C10-C28*	<10.0	10.0	07/31/2024	ND	184	91.9	200	4.69	
EXT DRO >C28-C36	<10.0	10.0	07/31/2024	ND					

Surrogate: 1-Chlorooctane 113 % 48.2-134

Surrogate: 1-Chlorooctadecane 116 % 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
TRACY HILLARD
3122 NATIONAL PARKS HWY
CARLSBAD NM, 88220
Fax To:

Received: 07/30/2024
Reported: 08/02/2024
Project Name: OUTRIDER 27 FED 701 H
Project Number: 03C1558345
Project Location: XTO 32.18236 -103.66679

Sampling Date: 07/26/2024
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Alyssa Parras

Sample ID: FS 03 2' (H244540-03)

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	07/31/2024	ND	2.00	100	2.00	8.77		
Toluene*	<0.050	0.050	07/31/2024	ND	1.97	98.4	2.00	9.42		
Ethylbenzene*	<0.050	0.050	07/31/2024	ND	2.08	104	2.00	9.88		
Total Xylenes*	<0.150	0.150	07/31/2024	ND	6.11	102	6.00	9.73		
Total BTEX	<0.300	0.300	07/31/2024	ND						

Surrogate: 4-Bromofluorobenzene (PID) 96.4 % 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	64.0	16.0	08/01/2024	ND	448	112	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	07/31/2024	ND	187	93.7	200	4.47	
DRO >C10-C28*	<10.0	10.0	07/31/2024	ND	184	91.9	200	4.69	
EXT DRO >C28-C36	<10.0	10.0	07/31/2024	ND					

Surrogate: 1-Chlorooctane 109 % 48.2-134

Surrogate: 1-Chlorooctadecane 112 % 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
TRACY HILLARD
3122 NATIONAL PARKS HWY
CARLSBAD NM, 88220
Fax To:

Received: 07/30/2024
Reported: 08/02/2024
Project Name: OUTRIDER 27 FED 701 H
Project Number: 03C1558345
Project Location: XTO 32.18236 -103.66679

Sampling Date: 07/26/2024
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Alyssa Parras

Sample ID: FS 04 2' (H244540-04)

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	07/31/2024	ND	2.00	100	2.00	8.77		
Toluene*	<0.050	0.050	07/31/2024	ND	1.97	98.4	2.00	9.42		
Ethylbenzene*	<0.050	0.050	07/31/2024	ND	2.08	104	2.00	9.88		
Total Xylenes*	<0.150	0.150	07/31/2024	ND	6.11	102	6.00	9.73		
Total BTEX	<0.300	0.300	07/31/2024	ND						

Surrogate: 4-Bromofluorobenzene (PID) 96.9 % 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	48.0	16.0	08/01/2024	ND	448	112	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	07/31/2024	ND	190	94.9	200	3.44	
DRO >C10-C28*	<10.0	10.0	07/31/2024	ND	183	91.5	200	2.32	
EXT DRO >C28-C36	<10.0	10.0	07/31/2024	ND					

Surrogate: 1-Chlorooctane 96.1 % 48.2-134

Surrogate: 1-Chlorooctadecane 94.6 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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Analytical Results For:

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

Received: 07/30/2024
Reported: 08/02/2024
Project Name: OUTRIDER 27 FED 701 H
Project Number: 03C1558345
Project Location: XTO 32.18236 -103.66679

Sampling Date: 07/26/2024
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Alyssa Parras

Sample ID: FS 05 2' (H244540-05)

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	07/31/2024	ND	2.00	100	2.00	8.77		
Toluene*	<0.050	0.050	07/31/2024	ND	1.97	98.4	2.00	9.42		
Ethylbenzene*	<0.050	0.050	07/31/2024	ND	2.08	104	2.00	9.88		
Total Xylenes*	<0.150	0.150	07/31/2024	ND	6.11	102	6.00	9.73		
Total BTEX	<0.300	0.300	07/31/2024	ND						

Surrogate: 4-Bromofluorobenzene (PID) 98.4 % 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	48.0	16.0	08/01/2024	ND	448	112	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	07/31/2024	ND	190	94.9	200	3.44	
DRO >C10-C28*	<10.0	10.0	07/31/2024	ND	183	91.5	200	2.32	
EXT DRO >C28-C36	<10.0	10.0	07/31/2024	ND					

Surrogate: 1-Chlorooctane 96.4 % 48.2-134

Surrogate: 1-Chlorooctadecane 93.8 % 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
TRACY HILLARD
3122 NATIONAL PARKS HWY
CARLSBAD NM, 88220
Fax To:

Received: 07/30/2024
Reported: 08/02/2024
Project Name: OUTRIDER 27 FED 701 H
Project Number: 03C1558345
Project Location: XTO 32.18236 -103.66679

Sampling Date: 07/26/2024
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Alyssa Parras

Sample ID: FS 06 2' (H244540-06)

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	07/31/2024	ND	2.00	100	2.00	8.77		
Toluene*	<0.050	0.050	07/31/2024	ND	1.97	98.4	2.00	9.42		
Ethylbenzene*	<0.050	0.050	07/31/2024	ND	2.08	104	2.00	9.88		
Total Xylenes*	<0.150	0.150	07/31/2024	ND	6.11	102	6.00	9.73		
Total BTEX	<0.300	0.300	07/31/2024	ND						

Surrogate: 4-Bromofluorobenzene (PID) 97.4 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	16.0	16.0	08/01/2024	ND	448	112	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	07/31/2024	ND	190	94.9	200	3.44	
DRO >C10-C28*	<10.0	10.0	07/31/2024	ND	183	91.5	200	2.32	
EXT DRO >C28-C36	<10.0	10.0	07/31/2024	ND					

Surrogate: 1-Chlorooctane 93.9 % 48.2-134

Surrogate: 1-Chlorooctadecane 91.9 % 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
TRACY HILLARD
3122 NATIONAL PARKS HWY
CARLSBAD NM, 88220
Fax To:

Received: 07/30/2024
Reported: 08/02/2024
Project Name: OUTRIDER 27 FED 701 H
Project Number: 03C1558345
Project Location: XTO 32.18236 -103.66679

Sampling Date: 07/26/2024
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Alyssa Parras

Sample ID: FS 07 2' (H244540-07)

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	07/31/2024	ND	2.00	100	2.00	8.77		
Toluene*	<0.050	0.050	07/31/2024	ND	1.97	98.4	2.00	9.42		
Ethylbenzene*	<0.050	0.050	07/31/2024	ND	2.08	104	2.00	9.88		
Total Xylenes*	<0.150	0.150	07/31/2024	ND	6.11	102	6.00	9.73		
Total BTEX	<0.300	0.300	07/31/2024	ND						

Surrogate: 4-Bromofluorobenzene (PID) 98.1 % 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	48.0	16.0	08/01/2024	ND	448	112	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	07/31/2024	ND	190	94.9	200	3.44	
DRO >C10-C28*	<10.0	10.0	07/31/2024	ND	183	91.5	200	2.32	
EXT DRO >C28-C36	<10.0	10.0	07/31/2024	ND					

Surrogate: 1-Chlorooctane 98.2 % 48.2-134

Surrogate: 1-Chlorooctadecane 95.2 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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Analytical Results For:

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

Received: 07/30/2024
Reported: 08/02/2024
Project Name: OUTRIDER 27 FED 701 H
Project Number: 03C1558345
Project Location: XTO 32.18236 -103.66679

Sampling Date: 07/26/2024
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Alyssa Parras

Sample ID: FS 08 2' (H244540-08)

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	07/31/2024	ND	2.00	100	2.00	8.77		
Toluene*	<0.050	0.050	07/31/2024	ND	1.97	98.4	2.00	9.42		
Ethylbenzene*	<0.050	0.050	07/31/2024	ND	2.08	104	2.00	9.88		
Total Xylenes*	<0.150	0.150	07/31/2024	ND	6.11	102	6.00	9.73		
Total BTEX	<0.300	0.300	07/31/2024	ND						

Surrogate: 4-Bromofluorobenzene (PID) 98.2 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	64.0	16.0	08/01/2024	ND	448	112	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	07/31/2024	ND	190	94.9	200	3.44	
DRO >C10-C28*	<10.0	10.0	07/31/2024	ND	183	91.5	200	2.32	
EXT DRO >C28-C36	<10.0	10.0	07/31/2024	ND					

Surrogate: 1-Chlorooctane 95.1 % 48.2-134

Surrogate: 1-Chlorooctadecane 91.7 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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Analytical Results For:

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

Received: 07/30/2024
Reported: 08/02/2024
Project Name: OUTRIDER 27 FED 701 H
Project Number: 03C1558345
Project Location: XTO 32.18236 -103.66679

Sampling Date: 07/26/2024
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Alyssa Parras

Sample ID: SW 01 0-2' (H244540-09)

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	07/31/2024	ND	2.00	100	2.00	8.77		
Toluene*	<0.050	0.050	07/31/2024	ND	1.97	98.4	2.00	9.42		
Ethylbenzene*	<0.050	0.050	07/31/2024	ND	2.08	104	2.00	9.88		
Total Xylenes*	<0.150	0.150	07/31/2024	ND	6.11	102	6.00	9.73		
Total BTEX	<0.300	0.300	07/31/2024	ND						

Surrogate: 4-Bromofluorobenzene (PID) 98.8 % 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	64.0	16.0	08/01/2024	ND	448	112	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	07/31/2024	ND	190	94.9	200	3.44	
DRO >C10-C28*	<10.0	10.0	07/31/2024	ND	183	91.5	200	2.32	
EXT DRO >C28-C36	<10.0	10.0	07/31/2024	ND					

Surrogate: 1-Chlorooctane 91.4 % 48.2-134

Surrogate: 1-Chlorooctadecane 88.0 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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Analytical Results For:

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

Received: 07/30/2024
Reported: 08/02/2024
Project Name: OUTRIDER 27 FED 701 H
Project Number: 03C1558345
Project Location: XTO 32.18236 -103.66679

Sampling Date: 07/29/2024
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Alyssa Parras

Sample ID: FS 09 2' (H244540-10)

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	07/31/2024	ND	2.25	112	2.00	10.9		
Toluene*	<0.050	0.050	07/31/2024	ND	2.40	120	2.00	12.3		
Ethylbenzene*	<0.050	0.050	07/31/2024	ND	2.54	127	2.00	12.6		
Total Xylenes*	<0.150	0.150	07/31/2024	ND	7.53	125	6.00	12.3		
Total BTEX	<0.300	0.300	07/31/2024	ND						

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

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	80.0	16.0	08/01/2024	ND	448	112	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	07/31/2024	ND	190	94.9	200	3.44	
DRO >C10-C28*	<10.0	10.0	07/31/2024	ND	183	91.5	200	2.32	
EXT DRO >C28-C36	<10.0	10.0	07/31/2024	ND					

Surrogate: 1-Chlorooctane 88.6 % 48.2-134

Surrogate: 1-Chlorooctadecane 86.0 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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Analytical Results For:

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

Received: 07/30/2024
Reported: 08/02/2024
Project Name: OUTRIDER 27 FED 701 H
Project Number: 03C1558345
Project Location: XTO 32.18236 -103.66679

Sampling Date: 07/29/2024
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Alyssa Parras

Sample ID: FS 10 2' (H244540-11)

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	07/31/2024	ND	2.25	112	2.00	10.9		
Toluene*	<0.050	0.050	07/31/2024	ND	2.40	120	2.00	12.3		
Ethylbenzene*	<0.050	0.050	07/31/2024	ND	2.54	127	2.00	12.6		
Total Xylenes*	<0.150	0.150	07/31/2024	ND	7.53	125	6.00	12.3		
Total BTEX	<0.300	0.300	07/31/2024	ND						

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

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	80.0	16.0	08/01/2024	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	07/31/2024	ND	190	94.9	200	3.44	
DRO >C10-C28*	<10.0	10.0	07/31/2024	ND	183	91.5	200	2.32	
EXT DRO >C28-C36	<10.0	10.0	07/31/2024	ND					

Surrogate: 1-Chlorooctane 85.7 % 48.2-134

Surrogate: 1-Chlorooctadecane 84.4 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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Analytical Results For:

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

Received: 07/30/2024
Reported: 08/02/2024
Project Name: OUTRIDER 27 FED 701 H
Project Number: 03C1558345
Project Location: XTO 32.18236 -103.66679

Sampling Date: 07/29/2024
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Alyssa Parras

Sample ID: FS 11 2' (H244540-12)

BTEX 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	07/31/2024	ND	2.25	112	2.00	10.9		
Toluene*	<0.050	0.050	07/31/2024	ND	2.40	120	2.00	12.3		
Ethylbenzene*	<0.050	0.050	07/31/2024	ND	2.54	127	2.00	12.6		
Total Xylenes*	<0.150	0.150	07/31/2024	ND	7.53	125	6.00	12.3		
Total BTEX	<0.300	0.300	07/31/2024	ND						

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

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	80.0	16.0	08/01/2024	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	07/31/2024	ND	190	94.9	200	3.44	
DRO >C10-C28*	<10.0	10.0	07/31/2024	ND	183	91.5	200	2.32	
EXT DRO >C28-C36	<10.0	10.0	07/31/2024	ND					

Surrogate: 1-Chlorooctane 91.3 % 48.2-134

Surrogate: 1-Chlorooctadecane 89.5 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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Analytical Results For:

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

Received: 07/30/2024
Reported: 08/02/2024
Project Name: OUTRIDER 27 FED 701 H
Project Number: 03C1558345
Project Location: XTO 32.18236 -103.66679

Sampling Date: 07/29/2024
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Alyssa Parras

Sample ID: FS 12 2' (H244540-13)

BTEX 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	07/31/2024	ND	2.25	112	2.00	10.9		
Toluene*	<0.050	0.050	07/31/2024	ND	2.40	120	2.00	12.3		
Ethylbenzene*	<0.050	0.050	07/31/2024	ND	2.54	127	2.00	12.6		
Total Xylenes*	<0.150	0.150	07/31/2024	ND	7.53	125	6.00	12.3		
Total BTEX	<0.300	0.300	07/31/2024	ND						

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

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	64.0	16.0	08/01/2024	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	07/31/2024	ND	190	94.9	200	3.44	
DRO >C10-C28*	<10.0	10.0	07/31/2024	ND	183	91.5	200	2.32	
EXT DRO >C28-C36	<10.0	10.0	07/31/2024	ND					

Surrogate: 1-Chlorooctane 90.4 % 48.2-134

Surrogate: 1-Chlorooctadecane 88.4 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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Analytical Results For:

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

Received: 07/30/2024
Reported: 08/02/2024
Project Name: OUTRIDER 27 FED 701 H
Project Number: 03C1558345
Project Location: XTO 32.18236 -103.66679

Sampling Date: 07/29/2024
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Alyssa Parras

Sample ID: FS 13 2' (H244540-14)

BTEX 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	07/31/2024	ND	2.25	112	2.00	10.9		
Toluene*	<0.050	0.050	07/31/2024	ND	2.40	120	2.00	12.3		
Ethylbenzene*	<0.050	0.050	07/31/2024	ND	2.54	127	2.00	12.6		
Total Xylenes*	<0.150	0.150	07/31/2024	ND	7.53	125	6.00	12.3		
Total BTEX	<0.300	0.300	07/31/2024	ND						

Surrogate: 4-Bromofluorobenzene (PID) 110 % 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	08/01/2024	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	07/31/2024	ND	190	94.9	200	3.44	
DRO >C10-C28*	<10.0	10.0	07/31/2024	ND	183	91.5	200	2.32	
EXT DRO >C28-C36	<10.0	10.0	07/31/2024	ND					

Surrogate: 1-Chlorooctane 94.0 % 48.2-134

Surrogate: 1-Chlorooctadecane 91.6 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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Analytical Results For:

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

Received: 07/30/2024
Reported: 08/02/2024
Project Name: OUTRIDER 27 FED 701 H
Project Number: 03C1558345
Project Location: XTO 32.18236 -103.66679

Sampling Date: 07/29/2024
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Alyssa Parras

Sample ID: FS 14 2' (H244540-15)

BTEX 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	07/31/2024	ND	2.25	112	2.00	10.9		
Toluene*	<0.050	0.050	07/31/2024	ND	2.40	120	2.00	12.3		
Ethylbenzene*	<0.050	0.050	07/31/2024	ND	2.54	127	2.00	12.6		
Total Xylenes*	<0.150	0.150	07/31/2024	ND	7.53	125	6.00	12.3		
Total BTEX	<0.300	0.300	07/31/2024	ND						

Surrogate: 4-Bromofluorobenzene (PID) 110 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	80.0	16.0	08/01/2024	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	07/31/2024	ND	190	94.9	200	3.44	
DRO >C10-C28*	<10.0	10.0	07/31/2024	ND	183	91.5	200	2.32	
EXT DRO >C28-C36	<10.0	10.0	07/31/2024	ND					

Surrogate: 1-Chlorooctane 93.9 % 48.2-134

Surrogate: 1-Chlorooctadecane 91.6 % 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
TRACY HILLARD
3122 NATIONAL PARKS HWY
CARLSBAD NM, 88220
Fax To:

Received: 07/30/2024
Reported: 08/02/2024
Project Name: OUTRIDER 27 FED 701 H
Project Number: 03C1558345
Project Location: XTO 32.18236 -103.66679

Sampling Date: 07/29/2024
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Alyssa Parras

Sample ID: FS 15 2' (H244540-16)

BTEX 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	07/31/2024	ND	2.25	112	2.00	10.9		
Toluene*	<0.050	0.050	07/31/2024	ND	2.40	120	2.00	12.3		
Ethylbenzene*	<0.050	0.050	07/31/2024	ND	2.54	127	2.00	12.6		
Total Xylenes*	<0.150	0.150	07/31/2024	ND	7.53	125	6.00	12.3		
Total BTEX	<0.300	0.300	07/31/2024	ND						

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

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	80.0	16.0	08/01/2024	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	07/31/2024	ND	190	94.9	200	3.44	
DRO >C10-C28*	<10.0	10.0	07/31/2024	ND	183	91.5	200	2.32	
EXT DRO >C28-C36	<10.0	10.0	07/31/2024	ND					

Surrogate: 1-Chlorooctane 89.4 % 48.2-134

Surrogate: 1-Chlorooctadecane 87.0 % 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
TRACY HILLARD
3122 NATIONAL PARKS HWY
CARLSBAD NM, 88220
Fax To:

Received: 07/30/2024
Reported: 08/02/2024
Project Name: OUTRIDER 27 FED 701 H
Project Number: 03C1558345
Project Location: XTO 32.18236 -103.66679

Sampling Date: 07/29/2024
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Alyssa Parras

Sample ID: FS 16 2' (H244540-17)

BTEX 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	07/31/2024	ND	2.25	112	2.00	10.9		
Toluene*	<0.050	0.050	07/31/2024	ND	2.40	120	2.00	12.3		
Ethylbenzene*	<0.050	0.050	07/31/2024	ND	2.54	127	2.00	12.6		
Total Xylenes*	<0.150	0.150	07/31/2024	ND	7.53	125	6.00	12.3		
Total BTEX	<0.300	0.300	07/31/2024	ND						

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

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	80.0	16.0	08/01/2024	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	07/31/2024	ND	190	94.9	200	3.44	
DRO >C10-C28*	<10.0	10.0	07/31/2024	ND	183	91.5	200	2.32	
EXT DRO >C28-C36	<10.0	10.0	07/31/2024	ND					

Surrogate: 1-Chlorooctane 94.1 % 48.2-134

Surrogate: 1-Chlorooctadecane 91.2 % 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
TRACY HILLARD
3122 NATIONAL PARKS HWY
CARLSBAD NM, 88220
Fax To:

Received: 07/30/2024
Reported: 08/02/2024
Project Name: OUTRIDER 27 FED 701 H
Project Number: 03C1558345
Project Location: XTO 32.18236 -103.66679

Sampling Date: 07/29/2024
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Alyssa Parras

Sample ID: FS 17 2' (H244540-18)

BTEX 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	07/31/2024	ND	2.25	112	2.00	10.9		
Toluene*	<0.050	0.050	07/31/2024	ND	2.40	120	2.00	12.3		
Ethylbenzene*	<0.050	0.050	07/31/2024	ND	2.54	127	2.00	12.6		
Total Xylenes*	<0.150	0.150	07/31/2024	ND	7.53	125	6.00	12.3		
Total BTEX	<0.300	0.300	07/31/2024	ND						

Surrogate: 4-Bromofluorobenzene (PID) 110 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	240	16.0	08/01/2024	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	07/31/2024	ND	190	94.9	200	3.44	
DRO >C10-C28*	<10.0	10.0	07/31/2024	ND	183	91.5	200	2.32	
EXT DRO >C28-C36	<10.0	10.0	07/31/2024	ND					

Surrogate: 1-Chlorooctane 94.1 % 48.2-134

Surrogate: 1-Chlorooctadecane 90.9 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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

Analytical Results For:

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

Received: 07/30/2024
Reported: 08/02/2024
Project Name: OUTRIDER 27 FED 701 H
Project Number: 03C1558345
Project Location: XTO 32.18236 -103.66679

Sampling Date: 07/29/2024
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Alyssa Parras

Sample ID: FS 18 2' (H244540-19)

BTEX 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	07/31/2024	ND	2.25	112	2.00	10.9		
Toluene*	<0.050	0.050	07/31/2024	ND	2.40	120	2.00	12.3		
Ethylbenzene*	<0.050	0.050	07/31/2024	ND	2.54	127	2.00	12.6		
Total Xylenes*	<0.150	0.150	07/31/2024	ND	7.53	125	6.00	12.3		
Total BTEX	<0.300	0.300	07/31/2024	ND						

Surrogate: 4-Bromofluorobenzene (PID) 110 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	112	16.0	08/01/2024	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	07/31/2024	ND	190	94.9	200	3.44	
DRO >C10-C28*	<10.0	10.0	07/31/2024	ND	183	91.5	200	2.32	
EXT DRO >C28-C36	<10.0	10.0	07/31/2024	ND					

Surrogate: 1-Chlorooctane 93.1 % 48.2-134

Surrogate: 1-Chlorooctadecane 89.9 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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Analytical Results For:

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

Received: 07/30/2024
Reported: 08/02/2024
Project Name: OUTRIDER 27 FED 701 H
Project Number: 03C1558345
Project Location: XTO 32.18236 -103.66679

Sampling Date: 07/29/2024
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Alyssa Parras

Sample ID: SW 02 0-2' (H244540-20)

BTEX 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	07/31/2024	ND	2.25	112	2.00	10.9		
Toluene*	<0.050	0.050	07/31/2024	ND	2.40	120	2.00	12.3		
Ethylbenzene*	<0.050	0.050	07/31/2024	ND	2.54	127	2.00	12.6		
Total Xylenes*	<0.150	0.150	07/31/2024	ND	7.53	125	6.00	12.3		
Total BTEX	<0.300	0.300	07/31/2024	ND						

Surrogate: 4-Bromofluorobenzene (PID) 110 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	160	16.0	08/01/2024	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	07/31/2024	ND	190	94.9	200	3.44	
DRO >C10-C28*	<10.0	10.0	07/31/2024	ND	183	91.5	200	2.32	
EXT DRO >C28-C36	<10.0	10.0	07/31/2024	ND					

Surrogate: 1-Chlorooctane 91.0 % 48.2-134

Surrogate: 1-Chlorooctadecane 88.1 % 49.1-148

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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



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

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

Company Name: Ensolum, LLC				BILL TO				ANALYSIS REQUEST											
Project Manager: <u>Tracy Hillard</u>				P.O. #:				<div style="display: flex; justify-content: space-between;"> <div> Chloride TPH BTEX </div> <div> </div> </div>											
Address: 3122 National Parks Hwy				Company: XTO Energy Inc.															
City: Carlsbad		State: NM		Zip: 88220		Attn: Amy Ruth													
Phone #: 575 437 3906		Fax #:		Address: 3104 E Green St		City: Carlsbad													
Project #: 03C1558345		Project Owner: XTO		State: NM		Zip: 88220													
Project Name: <u>Outrider 27 Rd 701H</u>				Phone #:															
Project Location: <u>32.18236, -103.66679</u>				Fax #:															
Sampler Name: <u>Joshua Boxley</u>																			
FOR LAB USE ONLY																			
Lab I.D.	Sample I.D.	Depth (feet)	(G)RAB OR (C)OMP.	# CONTAINERS	MATRIX					PRESERV.	SAMPLING								
					GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER:	ACID/BASE:	ICE / COOL	OTHER:	DATE	TIME				
H244540																			
1	FS01	2'	C	1			X				X			7/26/24	1218				
2	FS02														1227				
3	FS03														1232				
4	FS04														1237				
5	FS05														1525				
6	FS06														1532				
7	FS07														1536				
8	FS08	2'													1542				
9	SW01	0-2'	C	1			X				X			7/26/24	1240				

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Relinquished By: <u>[Signature]</u>	Date: <u>7-30-24</u>	Received By: <u>[Signature]</u>	Verbal Result: <input type="checkbox"/> Yes <input type="checkbox"/> No Add'l Phone #:
Time: <u>1425</u>	Date:	Received By:	All Results are emailed. Please provide Email address:
Relinquished By:	Date:	Received By:	<u>BB@ensolum.com, TMorrissey@ensolum.com</u>
Time:	Date:	Received By:	REMARKS:
			Incident: <u>WAPP 24107357946</u>
			Cost Center: <u>2190721001</u>
Delivered By: (Circle One)	Observed Temp. °C	Sample Condition	CHECKED BY: (Initials)
Sampler - UPS - Bus - Other:	Corrected Temp. °C	Cool Intact	Turnaround Time: <u>5 day</u>
		<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Standard <u>Rush</u>
		<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Thermometer ID # <u>443</u>
			Correction Factor <u>0.5°C</u>
			Bacteria (only) Sample Condition
			Cool Intact Observed Temp. °C
			<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
			Corrected Temp. °C

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



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

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

Company Name: Ensolum, LLC				BILL TO		ANALYSIS REQUEST																				
Project Manager: Tracy Hillard				P.O. #:																						
Address: 3122 National Parks Hwy				Company: XTO Energy Inc.																						
City: Carlsbad State: NM Zip: 88220				Attn: Amy Ruth																						
Phone #: 575 937 3906 Fax #:				Address: 3104 E Green St																						
Project #: 03C1558 345 Project Owner: XTO				City: Carlsbad																						
Project Name: Outsider 27 Feb 2014				State: NM Zip: 88220																						
Project Location: 328256, -103.66679				Phone #:																						
Sampler Name: Joshua Boxley				Fax #:																						
FOR LAB USE ONLY																										
Lab I.D.	Sample I.D.	Depth (feet)	(G)RAB OR (C)OMP.	# CONTAINERS	MATRIX					PRESERV.	SAMPLING															
					GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER:	ACID/BASE:	ICE / COOL	OTHER:	DATE	TIME	Chloride	TPH	BTEX								
H2414540																										
10	FS09	2'	C	1			X					X		7/29/24	1035	X	X	X								
11	FS10														1045											
12	FS11														1050											
13	FS12														1055											
14	FS13														1058											
15	FS14														1215											
16	FS15														1255											
17	FS16														1220											
18	FS17														1230											
19	FS18	2	C	1			X					X		7/29/24	1234	X	X	X								
<p>PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising whether based in contract or tort, shall be limited to the amount paid by the client for the analyses. All claims including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within 30 days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise.</p>																										
Relinquished By:			Date: 7-30-24 Time: 1425		Received By:			Verbal Result: <input type="checkbox"/> Yes <input type="checkbox"/> No Add'l Phone #: All Results are emailed. Please provide Email address: THillard@ensolum.com, TMorrissey@ensolum.com																		
Relinquished By:			Date:		Received By:			REMARKS: Incident: WAPP 2410735798 Cost Center: 2140 721 001																		
Delivered By: (Circle One) Sampler - UPS - Bus - Other:			Observed Temp. °C Corrected Temp. °C		Sample Condition Cool Intact <input type="checkbox"/> Yes <input type="checkbox"/> No			CHECKED BY: (Initials)			Turnaround Time: Standard Rush			Bacteria (only) Sample Condition Cool Intact <input type="checkbox"/> Yes <input type="checkbox"/> No			Observed Temp. °C Corrected Temp. °C									

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



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

August 07, 2024

TRACY HILLARD

ENSOLUM

3122 NATIONAL PARKS HWY

CARLSBAD, NM 88220

RE: OUTRIDER 27 FED 701 H

Enclosed are the results of analyses for samples received by the laboratory on 08/01/24 14:10.

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

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

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

Accreditation applies to public drinking water matrices.

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

Sincerely,

A handwritten signature in black ink that reads "Celey D. Keene". The signature is 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
TRACY HILLARD
3122 NATIONAL PARKS HWY
CARLSBAD NM, 88220
Fax To:

Received: 08/01/2024
Reported: 08/07/2024
Project Name: OUTRIDER 27 FED 701 H
Project Number: 03C1558345
Project Location: XTO 32.18236 -103.66679

Sampling Date: 07/30/2024
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Alyssa Parras

Sample ID: FS 19 2' (H244606-01)

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	08/02/2024	ND	2.14	107	2.00	2.68	
Toluene*	<0.050	0.050	08/02/2024	ND	2.25	112	2.00	2.08	
Ethylbenzene*	<0.050	0.050	08/02/2024	ND	2.42	121	2.00	0.0344	
Total Xylenes*	<0.150	0.150	08/02/2024	ND	7.26	121	6.00	0.663	
Total BTEX	<0.300	0.300	08/02/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID) 115 % 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	48.0	16.0	08/06/2024	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	08/02/2024	ND	195	97.5	200	0.426	
DRO >C10-C28*	<10.0	10.0	08/02/2024	ND	201	100	200	4.34	
EXT DRO >C28-C36	<10.0	10.0	08/02/2024	ND					

Surrogate: 1-Chlorooctane 77.1 % 48.2-134

Surrogate: 1-Chlorooctadecane 88.5 % 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
TRACY HILLARD
3122 NATIONAL PARKS HWY
CARLSBAD NM, 88220
Fax To:

Received: 08/01/2024
Reported: 08/07/2024
Project Name: OUTRIDER 27 FED 701 H
Project Number: 03C1558345
Project Location: XTO 32.18236 -103.66679

Sampling Date: 07/30/2024
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Alyssa Parras

Sample ID: FS 20 2' (H244606-02)

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	08/02/2024	ND	2.14	107	2.00	2.68		
Toluene*	<0.050	0.050	08/02/2024	ND	2.25	112	2.00	2.08		
Ethylbenzene*	<0.050	0.050	08/02/2024	ND	2.42	121	2.00	0.0344		
Total Xylenes*	<0.150	0.150	08/02/2024	ND	7.26	121	6.00	0.663		
Total BTEx	<0.300	0.300	08/02/2024	ND						

Surrogate: 4-Bromofluorobenzene (PID) 116 % 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	64.0	16.0	08/06/2024	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	08/02/2024	ND	195	97.5	200	0.426	
DRO >C10-C28*	<10.0	10.0	08/02/2024	ND	201	100	200	4.34	
EXT DRO >C28-C36	<10.0	10.0	08/02/2024	ND					

Surrogate: 1-Chlorooctane 82.6 % 48.2-134

Surrogate: 1-Chlorooctadecane 93.8 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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Analytical Results For:

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

Received: 08/01/2024
Reported: 08/07/2024
Project Name: OUTRIDER 27 FED 701 H
Project Number: 03C1558345
Project Location: XTO 32.18236 -103.66679

Sampling Date: 07/30/2024
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Alyssa Parras

Sample ID: FS 21 2' (H244606-03)

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	08/02/2024	ND	2.14	107	2.00	2.68		
Toluene*	<0.050	0.050	08/02/2024	ND	2.25	112	2.00	2.08		
Ethylbenzene*	<0.050	0.050	08/02/2024	ND	2.42	121	2.00	0.0344		
Total Xylenes*	<0.150	0.150	08/02/2024	ND	7.26	121	6.00	0.663		
Total BTEX	<0.300	0.300	08/02/2024	ND						

Surrogate: 4-Bromofluorobenzene (PID) 113 % 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	48.0	16.0	08/06/2024	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	08/02/2024	ND	195	97.5	200	0.426	
DRO >C10-C28*	<10.0	10.0	08/02/2024	ND	201	100	200	4.34	
EXT DRO >C28-C36	<10.0	10.0	08/02/2024	ND					

Surrogate: 1-Chlorooctane 81.7 % 48.2-134

Surrogate: 1-Chlorooctadecane 92.5 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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Analytical Results For:

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

Received: 08/01/2024
Reported: 08/07/2024
Project Name: OUTRIDER 27 FED 701 H
Project Number: 03C1558345
Project Location: XTO 32.18236 -103.66679

Sampling Date: 07/30/2024
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Alyssa Parras

Sample ID: FS 22 2' (H244606-04)

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	08/02/2024	ND	2.14	107	2.00	2.68		
Toluene*	<0.050	0.050	08/02/2024	ND	2.25	112	2.00	2.08		
Ethylbenzene*	<0.050	0.050	08/02/2024	ND	2.42	121	2.00	0.0344		
Total Xylenes*	<0.150	0.150	08/02/2024	ND	7.26	121	6.00	0.663		
Total BTEX	<0.300	0.300	08/02/2024	ND						

Surrogate: 4-Bromofluorobenzene (PID) 116 % 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	48.0	16.0	08/06/2024	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	08/02/2024	ND	195	97.5	200	0.426	
DRO >C10-C28*	<10.0	10.0	08/02/2024	ND	201	100	200	4.34	
EXT DRO >C28-C36	<10.0	10.0	08/02/2024	ND					

Surrogate: 1-Chlorooctane 80.3 % 48.2-134

Surrogate: 1-Chlorooctadecane 90.0 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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Analytical Results For:

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

Received: 08/01/2024
Reported: 08/07/2024
Project Name: OUTRIDER 27 FED 701 H
Project Number: 03C1558345
Project Location: XTO 32.18236 -103.66679

Sampling Date: 07/30/2024
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Alyssa Parras

Sample ID: FS 23 2' (H244606-05)

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	08/02/2024	ND	2.14	107	2.00	2.68		
Toluene*	<0.050	0.050	08/02/2024	ND	2.25	112	2.00	2.08		
Ethylbenzene*	<0.050	0.050	08/02/2024	ND	2.42	121	2.00	0.0344		
Total Xylenes*	<0.150	0.150	08/02/2024	ND	7.26	121	6.00	0.663		
Total BTEX	<0.300	0.300	08/02/2024	ND						

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

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	80.0	16.0	08/06/2024	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	08/02/2024	ND	195	97.5	200	0.426	
DRO >C10-C28*	<10.0	10.0	08/02/2024	ND	201	100	200	4.34	
EXT DRO >C28-C36	<10.0	10.0	08/02/2024	ND					

Surrogate: 1-Chlorooctane 80.2 % 48.2-134

Surrogate: 1-Chlorooctadecane 90.8 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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Analytical Results For:

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

Received: 08/01/2024
Reported: 08/07/2024
Project Name: OUTRIDER 27 FED 701 H
Project Number: 03C1558345
Project Location: XTO 32.18236 -103.66679

Sampling Date: 07/30/2024
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Alyssa Parras

Sample ID: FS 24 2' (H244606-06)

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	08/02/2024	ND	2.14	107	2.00	2.68		
Toluene*	<0.050	0.050	08/02/2024	ND	2.25	112	2.00	2.08		
Ethylbenzene*	<0.050	0.050	08/02/2024	ND	2.42	121	2.00	0.0344		
Total Xylenes*	<0.150	0.150	08/02/2024	ND	7.26	121	6.00	0.663		
Total BTEx	<0.300	0.300	08/02/2024	ND						

Surrogate: 4-Bromofluorobenzene (PID) 111 % 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	08/06/2024	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	08/02/2024	ND	195	97.5	200	0.426	
DRO >C10-C28*	<10.0	10.0	08/02/2024	ND	201	100	200	4.34	
EXT DRO >C28-C36	<10.0	10.0	08/02/2024	ND					

Surrogate: 1-Chlorooctane 84.4 % 48.2-134

Surrogate: 1-Chlorooctadecane 95.3 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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Analytical Results For:

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

Received: 08/01/2024
Reported: 08/07/2024
Project Name: OUTRIDER 27 FED 701 H
Project Number: 03C1558345
Project Location: XTO 32.18236 -103.66679

Sampling Date: 07/30/2024
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Alyssa Parras

Sample ID: FS 26 2' (H244606-07)

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	08/02/2024	ND	2.14	107	2.00	2.68		
Toluene*	<0.050	0.050	08/02/2024	ND	2.25	112	2.00	2.08		
Ethylbenzene*	<0.050	0.050	08/02/2024	ND	2.42	121	2.00	0.0344		
Total Xylenes*	<0.150	0.150	08/02/2024	ND	7.26	121	6.00	0.663		
Total BTEX	<0.300	0.300	08/02/2024	ND						

Surrogate: 4-Bromofluorobenzene (PID) 110 % 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	144	16.0	08/06/2024	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	08/02/2024	ND	195	97.5	200	0.426	
DRO >C10-C28*	<10.0	10.0	08/02/2024	ND	201	100	200	4.34	
EXT DRO >C28-C36	<10.0	10.0	08/02/2024	ND					

Surrogate: 1-Chlorooctane 86.7 % 48.2-134

Surrogate: 1-Chlorooctadecane 96.6 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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Analytical Results For:

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

Received: 08/01/2024
Reported: 08/07/2024
Project Name: OUTRIDER 27 FED 701 H
Project Number: 03C1558345
Project Location: XTO 32.18236 -103.66679

Sampling Date: 07/30/2024
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Alyssa Parras

Sample ID: FS 27 2' (H244606-08)

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	08/02/2024	ND	2.14	107	2.00	2.68		
Toluene*	<0.050	0.050	08/02/2024	ND	2.25	112	2.00	2.08		
Ethylbenzene*	<0.050	0.050	08/02/2024	ND	2.42	121	2.00	0.0344		
Total Xylenes*	<0.150	0.150	08/02/2024	ND	7.26	121	6.00	0.663		
Total BTEx	<0.300	0.300	08/02/2024	ND						

Surrogate: 4-Bromofluorobenzene (PID) 113 % 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	48.0	16.0	08/06/2024	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	08/02/2024	ND	195	97.5	200	0.426	
DRO >C10-C28*	<10.0	10.0	08/02/2024	ND	201	100	200	4.34	
EXT DRO >C28-C36	<10.0	10.0	08/02/2024	ND					

Surrogate: 1-Chlorooctane 87.9 % 48.2-134

Surrogate: 1-Chlorooctadecane 98.3 % 49.1-148

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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



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

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

Page 11 of 11

Company Name: Ensolum, LLC				BILL TO		ANALYSIS REQUEST																			
Project Manager: Tracy Hillard				P.O. #:																					
Address: 3122 National Parks Hwy				Company: XTO Energy Inc.																					
City: Carlsbad		State: NM		Zip: 88220																					
Phone #: 575 937 3906		Fax #:		Attn: Amy Ruth																					
Project #: 03C1558 345		Project Owner: XTO		Address: 3104 E Green St																					
Project Name: Outsider 27 Feb 2014				City: Carlsbad																					
Project Location: 328236, -103.66679				State: NM Zip: 88220																					
Sampler Name: Joshua Boxley				Phone #:																					
Fax #:																									
FOR LAB USE ONLY				MATRIX		PRESERV.		SAMPLING																	
Lab I.D.	Sample I.D.	Depth (feet)	(G)RAB OR (C)OMP.	# CONTAINERS	GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER :	ACID/BASE:	ICE / COOL	OTHER :	DATE	TIME	Chloride	TPH	BTEX							
H2441600	FS19	2'	C	1			X					X		7/31/24	0900	X	X	X							
1	FS20														0915										
2	FS21														0918										
3	FS22														1125										
4	FS23														1128										
5	FS24														1132										
6	FS26														1200										
7	FS27	2'	C	1			X					X		7/30/24	1202	X	X	X							
8																									

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Relinquished By:	Date: 8-1-24	Received By:	Verbal Result: <input type="checkbox"/> Yes <input type="checkbox"/> No Add'l Phone #:
	Time: 1210		All Results are emailed. Please provide Email address:
			THillard@ensolum.com, TMorrissey@ensolum.com
Relinquished By:	Date:	Received By:	REMARKS:
	Time:		Incident: WAPP 2410735798
			Cost Center: 2100 721 001
Delivered By: (Circle One)	Observed Temp. °C	Sample Condition	CHECKED BY: (Initials)
Sampler - UPS - Bus - Other:	Corrected Temp. °C	Cool Intact <input type="checkbox"/> Yes <input type="checkbox"/> No	Turnaround Time: 5 day
			Standard Rush <input checked="" type="checkbox"/>
			Bacteria (only) Sample Condition
			Cool Intact <input type="checkbox"/> Yes <input type="checkbox"/> No
			Observed Temp. °C
			Corrected Temp. °C

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



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

August 07, 2024

TRACY HILLARD

ENSOLUM

3122 NATIONAL PARKS HWY

CARLSBAD, NM 88220

RE: OUTRIDER 27 FED 701 H

Enclosed are the results of analyses for samples received by the laboratory on 08/01/24 14:10.

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

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

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

Accreditation applies to public drinking water matrices.

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

Sincerely,

A handwritten signature in black ink that reads "Celey D. Keene". The signature is 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
TRACY HILLARD
3122 NATIONAL PARKS HWY
CARLSBAD NM, 88220
Fax To:

Received: 08/01/2024
Reported: 08/07/2024
Project Name: OUTRIDER 27 FED 701 H
Project Number: 03C1558345
Project Location: XTO 32.18236 -103.66679

Sampling Date: 07/31/2024
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Alyssa Parras

Sample ID: FS 40 2 (H244607-01)

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	08/02/2024	ND	2.14	107	2.00	2.68	
Toluene*	<0.050	0.050	08/02/2024	ND	2.25	112	2.00	2.08	
Ethylbenzene*	<0.050	0.050	08/02/2024	ND	2.42	121	2.00	0.0344	
Total Xylenes*	<0.150	0.150	08/02/2024	ND	7.26	121	6.00	0.663	
Total BTX	<0.300	0.300	08/02/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID) 119 % 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	64.0	16.0	08/06/2024	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	08/02/2024	ND	195	97.5	200	0.426	
DRO >C10-C28*	<10.0	10.0	08/02/2024	ND	201	100	200	4.34	
EXT DRO >C28-C36	<10.0	10.0	08/02/2024	ND					

Surrogate: 1-Chlorooctane 83.2 % 48.2-134

Surrogate: 1-Chlorooctadecane 93.1 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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Analytical Results For:

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

Received: 08/01/2024
Reported: 08/07/2024
Project Name: OUTRIDER 27 FED 701 H
Project Number: 03C1558345
Project Location: XTO 32.18236 -103.66679

Sampling Date: 07/31/2024
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Alyssa Parras

Sample ID: FS 41 2 (H244607-02)

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	08/02/2024	ND	2.14	107	2.00	2.68		
Toluene*	<0.050	0.050	08/02/2024	ND	2.25	112	2.00	2.08		
Ethylbenzene*	<0.050	0.050	08/02/2024	ND	2.42	121	2.00	0.0344		
Total Xylenes*	<0.150	0.150	08/02/2024	ND	7.26	121	6.00	0.663		
Total BTEx	<0.300	0.300	08/02/2024	ND						

Surrogate: 4-Bromofluorobenzene (PID) 112 % 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	80.0	16.0	08/06/2024	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	08/02/2024	ND	195	97.5	200	0.426	
DRO >C10-C28*	<10.0	10.0	08/02/2024	ND	201	100	200	4.34	
EXT DRO >C28-C36	<10.0	10.0	08/02/2024	ND					

Surrogate: 1-Chlorooctane 81.4 % 48.2-134

Surrogate: 1-Chlorooctadecane 91.1 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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Analytical Results For:

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

Received: 08/01/2024
Reported: 08/07/2024
Project Name: OUTRIDER 27 FED 701 H
Project Number: 03C1558345
Project Location: XTO 32.18236 -103.66679

Sampling Date: 07/31/2024
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Alyssa Parras

Sample ID: FS 42 2 (H244607-03)

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	08/02/2024	ND	2.14	107	2.00	2.68		
Toluene*	<0.050	0.050	08/02/2024	ND	2.25	112	2.00	2.08		
Ethylbenzene*	<0.050	0.050	08/02/2024	ND	2.42	121	2.00	0.0344		
Total Xylenes*	<0.150	0.150	08/02/2024	ND	7.26	121	6.00	0.663		
Total BTEX	<0.300	0.300	08/02/2024	ND						

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

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	128	16.0	08/06/2024	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	08/02/2024	ND	195	97.5	200	0.426	
DRO >C10-C28*	<10.0	10.0	08/02/2024	ND	201	100	200	4.34	
EXT DRO >C28-C36	<10.0	10.0	08/02/2024	ND					

Surrogate: 1-Chlorooctane 76.8 % 48.2-134

Surrogate: 1-Chlorooctadecane 86.6 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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Analytical Results For:

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

Received: 08/01/2024
Reported: 08/07/2024
Project Name: OUTRIDER 27 FED 701 H
Project Number: 03C1558345
Project Location: XTO 32.18236 -103.66679

Sampling Date: 07/31/2024
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Alyssa Parras

Sample ID: FS 43 2 (H244607-04)

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	08/02/2024	ND	2.14	107	2.00	2.68		
Toluene*	<0.050	0.050	08/02/2024	ND	2.25	112	2.00	2.08		
Ethylbenzene*	<0.050	0.050	08/02/2024	ND	2.42	121	2.00	0.0344		
Total Xylenes*	<0.150	0.150	08/02/2024	ND	7.26	121	6.00	0.663		
Total BTEX	<0.300	0.300	08/02/2024	ND						

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

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	128	16.0	08/06/2024	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	08/02/2024	ND	195	97.5	200	0.426	
DRO >C10-C28*	<10.0	10.0	08/02/2024	ND	201	100	200	4.34	
EXT DRO >C28-C36	<10.0	10.0	08/02/2024	ND					

Surrogate: 1-Chlorooctane 80.7 % 48.2-134

Surrogate: 1-Chlorooctadecane 91.1 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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Analytical Results For:

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

Received: 08/01/2024
Reported: 08/07/2024
Project Name: OUTRIDER 27 FED 701 H
Project Number: 03C1558345
Project Location: XTO 32.18236 -103.66679

Sampling Date: 07/31/2024
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Alyssa Parras

Sample ID: FS 37 2 (H244607-05)

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	08/02/2024	ND	2.14	107	2.00	2.68		
Toluene*	<0.050	0.050	08/02/2024	ND	2.25	112	2.00	2.08		
Ethylbenzene*	<0.050	0.050	08/02/2024	ND	2.42	121	2.00	0.0344		
Total Xylenes*	<0.150	0.150	08/02/2024	ND	7.26	121	6.00	0.663		
Total BTEX	<0.300	0.300	08/02/2024	ND						

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

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	176	16.0	08/06/2024	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	08/02/2024	ND	195	97.5	200	0.426	
DRO >C10-C28*	<10.0	10.0	08/02/2024	ND	201	100	200	4.34	
EXT DRO >C28-C36	<10.0	10.0	08/02/2024	ND					

Surrogate: 1-Chlorooctane 77.6 % 48.2-134

Surrogate: 1-Chlorooctadecane 87.5 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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Analytical Results For:

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

Received: 08/01/2024
Reported: 08/07/2024
Project Name: OUTRIDER 27 FED 701 H
Project Number: 03C1558345
Project Location: XTO 32.18236 -103.66679

Sampling Date: 07/31/2024
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Alyssa Parras

Sample ID: FS 38 2 (H244607-06)

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	08/02/2024	ND	2.14	107	2.00	2.68		
Toluene*	<0.050	0.050	08/02/2024	ND	2.25	112	2.00	2.08		
Ethylbenzene*	<0.050	0.050	08/02/2024	ND	2.42	121	2.00	0.0344		
Total Xylenes*	<0.150	0.150	08/02/2024	ND	7.26	121	6.00	0.663		
Total BTEX	<0.300	0.300	08/02/2024	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	80.0	16.0	08/06/2024	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	08/03/2024	ND	195	97.5	200	0.426	
DRO >C10-C28*	<10.0	10.0	08/03/2024	ND	201	100	200	4.34	
EXT DRO >C28-C36	<10.0	10.0	08/03/2024	ND					

Surrogate: 1-Chlorooctane 79.5 % 48.2-134

Surrogate: 1-Chlorooctadecane 88.7 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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Analytical Results For:

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

Received: 08/01/2024
Reported: 08/07/2024
Project Name: OUTRIDER 27 FED 701 H
Project Number: 03C1558345
Project Location: XTO 32.18236 -103.66679

Sampling Date: 07/31/2024
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Alyssa Parras

Sample ID: FS 39 2 (H244607-07)

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	08/02/2024	ND	1.82	91.2	2.00	8.24		
Toluene*	<0.050	0.050	08/02/2024	ND	1.78	89.0	2.00	8.35		
Ethylbenzene*	<0.050	0.050	08/02/2024	ND	1.89	94.3	2.00	8.35		
Total Xylenes*	<0.150	0.150	08/02/2024	ND	5.54	92.4	6.00	8.35		
Total BTEX	<0.300	0.300	08/02/2024	ND						

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

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	80.0	16.0	08/06/2024	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	08/03/2024	ND	195	97.5	200	0.426	
DRO >C10-C28*	<10.0	10.0	08/03/2024	ND	201	100	200	4.34	
EXT DRO >C28-C36	<10.0	10.0	08/03/2024	ND					

Surrogate: 1-Chlorooctane 73.9 % 48.2-134

Surrogate: 1-Chlorooctadecane 82.0 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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Analytical Results For:

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

Received: 08/01/2024
Reported: 08/07/2024
Project Name: OUTRIDER 27 FED 701 H
Project Number: 03C1558345
Project Location: XTO 32.18236 -103.66679

Sampling Date: 07/31/2024
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Alyssa Parras

Sample ID: SW 3 0-2 (H244607-08)

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	08/02/2024	ND	1.82	91.2	2.00	8.24	
Toluene*	<0.050	0.050	08/02/2024	ND	1.78	89.0	2.00	8.35	
Ethylbenzene*	<0.050	0.050	08/02/2024	ND	1.89	94.3	2.00	8.35	
Total Xylenes*	<0.150	0.150	08/02/2024	ND	5.54	92.4	6.00	8.35	
Total BTEX	<0.300	0.300	08/02/2024	ND					

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

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	160	16.0	08/06/2024	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	08/03/2024	ND	195	97.5	200	0.426	
DRO >C10-C28*	<10.0	10.0	08/03/2024	ND	201	100	200	4.34	
EXT DRO >C28-C36	<10.0	10.0	08/03/2024	ND					

Surrogate: 1-Chlorooctane 77.6 % 48.2-134

Surrogate: 1-Chlorooctadecane 86.4 % 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
TRACY HILLARD
3122 NATIONAL PARKS HWY
CARLSBAD NM, 88220
Fax To:

Received: 08/01/2024
Reported: 08/07/2024
Project Name: OUTRIDER 27 FED 701 H
Project Number: 03C1558345
Project Location: XTO 32.18236 -103.66679

Sampling Date: 07/31/2024
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Alyssa Parras

Sample ID: SW 4 0-2 (H244607-09)

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	08/02/2024	ND	1.82	91.2	2.00	8.24	
Toluene*	<0.050	0.050	08/02/2024	ND	1.78	89.0	2.00	8.35	
Ethylbenzene*	<0.050	0.050	08/02/2024	ND	1.89	94.3	2.00	8.35	
Total Xylenes*	<0.150	0.150	08/02/2024	ND	5.54	92.4	6.00	8.35	
Total BTEX	<0.300	0.300	08/02/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID) 98.1 % 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	08/06/2024	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	08/03/2024	ND	195	97.5	200	0.426	
DRO >C10-C28*	<10.0	10.0	08/03/2024	ND	201	100	200	4.34	
EXT DRO >C28-C36	<10.0	10.0	08/03/2024	ND					

Surrogate: 1-Chlorooctane 76.8 % 48.2-134

Surrogate: 1-Chlorooctadecane 86.1 % 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
TRACY HILLARD
3122 NATIONAL PARKS HWY
CARLSBAD NM, 88220
Fax To:

Received: 08/01/2024
Reported: 08/07/2024
Project Name: OUTRIDER 27 FED 701 H
Project Number: 03C1558345
Project Location: XTO 32.18236 -103.66679

Sampling Date: 07/31/2024
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Alyssa Parras

Sample ID: SW 5 0-2 (H244607-10)

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	08/02/2024	ND	1.82	91.2	2.00	8.24		
Toluene*	<0.050	0.050	08/02/2024	ND	1.78	89.0	2.00	8.35		
Ethylbenzene*	<0.050	0.050	08/02/2024	ND	1.89	94.3	2.00	8.35		
Total Xylenes*	<0.150	0.150	08/02/2024	ND	5.54	92.4	6.00	8.35		
Total BTEx	<0.300	0.300	08/02/2024	ND						

Surrogate: 4-Bromofluorobenzene (PID) 97.5 % 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	80.0	16.0	08/06/2024	ND	416	104	400	3.77		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	08/03/2024	ND	195	97.5	200	0.426	
DRO >C10-C28*	<10.0	10.0	08/03/2024	ND	201	100	200	4.34	
EXT DRO >C28-C36	<10.0	10.0	08/03/2024	ND					

Surrogate: 1-Chlorooctane 81.9 % 48.2-134

Surrogate: 1-Chlorooctadecane 91.7 % 49.1-148

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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



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

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

Company Name: Ensolum, LLC				BILL TO		ANALYSIS REQUEST																			
Project Manager: Tracy Hillard				P.O. #:																					
Address: 3122 National Parks Hwy				Company: XTO Energy Inc.																					
City: Carlsbad		State: NM	Zip: 88220	Attn: Amy Ruth																					
Phone #: 575 937 3906		Fax #:		Address: 3104 E Green St																					
Project #: 03C1558 345		Project Owner: XTO		City: Carlsbad																					
Project Name: Outsider 27 Feb 2014				State: NM Zip: 88220																					
Project Location: 328256, -103.66679				Phone #:																					
Sampler Name: Joshua Boxley				Fax #:																					
FOR LAB USE ONLY				MATRIX		PRESERV.		SAMPLING																	
Lab I.D.	Sample I.D.	Depth (feet)	(G)RAB OR (C)OMP.	# CONTAINERS	GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER :	ACID/BASE:	ICE / COOL	OTHER :	DATE	TIME	Chloride	TPH	BTEX							
1	FS40	2	C	1			X					X		7/31/24	09:56	X	X	X							
2	FS41														1110										
3	FS42														1107										
4	FS43														1100										
5	FS37														0910										
6	FS38														0946										
7	FS39	2													0950										
8	SW3	0-2													1023										
9	SW4	0-2													1019										
10	SW5	0-2	C	1			X					X		7/31/24	1028	X	X	X							

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Relinquished By:		Date: 8-1-24	Received By:		Verbal Result: <input type="checkbox"/> Yes <input type="checkbox"/> No Add'l Phone #:	
Relinquished By:		Date: 8-1-24	Received By:		All Results are emailed. Please provide Email address: THillard@ensolum.com, TMorrissey@ensolum.com	
Relinquished By:		Date: 8-1-24	Received By:		REMARKS: Incident: WAPP 2410735798 Cost Center: 2140 721 001	
Delivered By: (Circle One) Sampler - UPS - Bus - Other:		Observed Temp. °C 14.4	Sample Condition Cool Intact <input type="checkbox"/> Yes <input type="checkbox"/> No	CHECKED BY: (Initials) AD	Turnaround Time: 5 day	Standard Rush <input checked="" type="checkbox"/>
		Corrected Temp. °C	<input type="checkbox"/> Yes <input type="checkbox"/> No		Thermometer ID #113	Bacteria (only) Sample Condition Cool Intact Observed Temp. °C <input type="checkbox"/> Yes <input type="checkbox"/> No
			<input type="checkbox"/> Yes <input type="checkbox"/> No		Correction Factor -0.5°C	Corrected Temp. °C

FORM-006 R 3.2 10/07/21

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



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

August 08, 2024

TRACY HILLARD

ENSOLUM

3122 NATIONAL PARKS HWY

CARLSBAD, NM 88220

RE: OUTRIDER 27 FED 701 H

Enclosed are the results of analyses for samples received by the laboratory on 08/02/24 14:26.

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

Received: 08/02/2024
Reported: 08/08/2024
Project Name: OUTRIDER 27 FED 701 H
Project Number: 03C1558345
Project Location: XTO 32.18236 -103.66679

Sampling Date: 08/01/2024
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Alyssa Parras

Sample ID: FS 57 2' (H244659-01)

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	08/05/2024	ND	2.05	103	2.00	7.49		
Toluene*	<0.050	0.050	08/05/2024	ND	2.11	106	2.00	6.15		
Ethylbenzene*	<0.050	0.050	08/05/2024	ND	2.25	113	2.00	6.41		
Total Xylenes*	<0.150	0.150	08/05/2024	ND	6.69	111	6.00	6.78		
Total BTEX	<0.300	0.300	08/05/2024	ND						

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

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	112	16.0	08/07/2024	ND	416	104	400	3.77		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	08/05/2024	ND	205	103	200	2.13	
DRO >C10-C28*	<10.0	10.0	08/05/2024	ND	220	110	200	9.44	
EXT DRO >C28-C36	<10.0	10.0	08/05/2024	ND					

Surrogate: 1-Chlorooctane 74.1 % 48.2-134

Surrogate: 1-Chlorooctadecane 83.2 % 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
TRACY HILLARD
3122 NATIONAL PARKS HWY
CARLSBAD NM, 88220
Fax To:

Received: 08/02/2024
Reported: 08/08/2024
Project Name: OUTRIDER 27 FED 701 H
Project Number: 03C1558345
Project Location: XTO 32.18236 -103.66679

Sampling Date: 08/01/2024
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Alyssa Parras

Sample ID: FS 58 2' (H244659-02)

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	08/05/2024	ND	2.05	103	2.00	7.49		
Toluene*	<0.050	0.050	08/05/2024	ND	2.11	106	2.00	6.15		
Ethylbenzene*	<0.050	0.050	08/05/2024	ND	2.25	113	2.00	6.41		
Total Xylenes*	<0.150	0.150	08/05/2024	ND	6.69	111	6.00	6.78		
Total BTEx	<0.300	0.300	08/05/2024	ND						

Surrogate: 4-Bromofluorobenzene (PID) 117 % 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	64.0	16.0	08/07/2024	ND	416	104	400	3.77		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	08/05/2024	ND	205	103	200	2.13	
DRO >C10-C28*	<10.0	10.0	08/05/2024	ND	220	110	200	9.44	
EXT DRO >C28-C36	<10.0	10.0	08/05/2024	ND					

Surrogate: 1-Chlorooctane 89.8 % 48.2-134

Surrogate: 1-Chlorooctadecane 100 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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Analytical Results For:

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

Received: 08/02/2024
Reported: 08/08/2024
Project Name: OUTRIDER 27 FED 701 H
Project Number: 03C1558345
Project Location: XTO 32.18236 -103.66679

Sampling Date: 08/01/2024
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Alyssa Parras

Sample ID: FS 59 2' (H244659-03)

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	08/05/2024	ND	2.05	103	2.00	7.49	
Toluene*	<0.050	0.050	08/05/2024	ND	2.11	106	2.00	6.15	
Ethylbenzene*	<0.050	0.050	08/05/2024	ND	2.25	113	2.00	6.41	
Total Xylenes*	<0.150	0.150	08/05/2024	ND	6.69	111	6.00	6.78	
Total BTEX	<0.300	0.300	08/05/2024	ND					

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

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	48.0	16.0	08/07/2024	ND	416	104	400	3.77	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	08/05/2024	ND	205	103	200	2.13	
DRO >C10-C28*	<10.0	10.0	08/05/2024	ND	220	110	200	9.44	
EXT DRO >C28-C36	<10.0	10.0	08/05/2024	ND					

Surrogate: 1-Chlorooctane 81.6 % 48.2-134

Surrogate: 1-Chlorooctadecane 92.4 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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Analytical Results For:

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

Received: 08/02/2024
Reported: 08/08/2024
Project Name: OUTRIDER 27 FED 701 H
Project Number: 03C1558345
Project Location: XTO 32.18236 -103.66679

Sampling Date: 08/01/2024
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Alyssa Parras

Sample ID: FS 60 2' (H244659-04)

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	08/05/2024	ND	2.05	103	2.00	7.49		
Toluene*	<0.050	0.050	08/05/2024	ND	2.11	106	2.00	6.15		
Ethylbenzene*	<0.050	0.050	08/05/2024	ND	2.25	113	2.00	6.41		
Total Xylenes*	<0.150	0.150	08/05/2024	ND	6.69	111	6.00	6.78		
Total BTEX	<0.300	0.300	08/05/2024	ND						

Surrogate: 4-Bromofluorobenzene (PID) 115 % 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	48.0	16.0	08/07/2024	ND	416	104	400	3.77		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	08/05/2024	ND	205	103	200	2.13	
DRO >C10-C28*	<10.0	10.0	08/05/2024	ND	220	110	200	9.44	
EXT DRO >C28-C36	<10.0	10.0	08/05/2024	ND					

Surrogate: 1-Chlorooctane 78.8 % 48.2-134

Surrogate: 1-Chlorooctadecane 87.9 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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

Analytical Results For:

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

Received: 08/02/2024
Reported: 08/08/2024
Project Name: OUTRIDER 27 FED 701 H
Project Number: 03C1558345
Project Location: XTO 32.18236 -103.66679

Sampling Date: 08/01/2024
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Alyssa Parras

Sample ID: FS 61 2' (H244659-05)

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	08/06/2024	ND	2.05	103	2.00	7.49		
Toluene*	<0.050	0.050	08/06/2024	ND	2.11	106	2.00	6.15		
Ethylbenzene*	<0.050	0.050	08/06/2024	ND	2.25	113	2.00	6.41		
Total Xylenes*	<0.150	0.150	08/06/2024	ND	6.69	111	6.00	6.78		
Total BTEx	<0.300	0.300	08/06/2024	ND						

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

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	16.0	16.0	08/07/2024	ND	416	104	400	3.77		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	08/05/2024	ND	205	103	200	2.13	
DRO >C10-C28*	<10.0	10.0	08/05/2024	ND	220	110	200	9.44	
EXT DRO >C28-C36	<10.0	10.0	08/05/2024	ND					

Surrogate: 1-Chlorooctane 83.3 % 48.2-134

Surrogate: 1-Chlorooctadecane 92.4 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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Analytical Results For:

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

Received: 08/02/2024
Reported: 08/08/2024
Project Name: OUTRIDER 27 FED 701 H
Project Number: 03C1558345
Project Location: XTO 32.18236 -103.66679

Sampling Date: 08/01/2024
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Alyssa Parras

Sample ID: FS 62 2' (H244659-06)

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	08/06/2024	ND	2.05	103	2.00	7.49		
Toluene*	<0.050	0.050	08/06/2024	ND	2.11	106	2.00	6.15		
Ethylbenzene*	<0.050	0.050	08/06/2024	ND	2.25	113	2.00	6.41		
Total Xylenes*	<0.150	0.150	08/06/2024	ND	6.69	111	6.00	6.78		
Total BTEx	<0.300	0.300	08/06/2024	ND						

Surrogate: 4-Bromofluorobenzene (PID) 115 % 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	08/07/2024	ND	416	104	400	3.77		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	08/05/2024	ND	205	103	200	2.13	
DRO >C10-C28*	<10.0	10.0	08/05/2024	ND	220	110	200	9.44	
EXT DRO >C28-C36	<10.0	10.0	08/05/2024	ND					

Surrogate: 1-Chlorooctane 84.4 % 48.2-134

Surrogate: 1-Chlorooctadecane 93.8 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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Analytical Results For:

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

Received: 08/02/2024
Reported: 08/08/2024
Project Name: OUTRIDER 27 FED 701 H
Project Number: 03C1558345
Project Location: XTO 32.18236 -103.66679

Sampling Date: 08/01/2024
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Alyssa Parras

Sample ID: FS 63 2' (H244659-07)

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	08/06/2024	ND	2.05	103	2.00	7.49		
Toluene*	<0.050	0.050	08/06/2024	ND	2.11	106	2.00	6.15		
Ethylbenzene*	<0.050	0.050	08/06/2024	ND	2.25	113	2.00	6.41		
Total Xylenes*	<0.150	0.150	08/06/2024	ND	6.69	111	6.00	6.78		
Total BTEX	<0.300	0.300	08/06/2024	ND						

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

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	16.0	16.0	08/07/2024	ND	416	104	400	3.77		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	08/05/2024	ND	205	103	200	2.13	
DRO >C10-C28*	<10.0	10.0	08/05/2024	ND	220	110	200	9.44	
EXT DRO >C28-C36	<10.0	10.0	08/05/2024	ND					

Surrogate: 1-Chlorooctane 80.8 % 48.2-134

Surrogate: 1-Chlorooctadecane 89.5 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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Analytical Results For:

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

Received: 08/02/2024
Reported: 08/08/2024
Project Name: OUTRIDER 27 FED 701 H
Project Number: 03C1558345
Project Location: XTO 32.18236 -103.66679

Sampling Date: 07/31/2024
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Alyssa Parras

Sample ID: SW 06 0-2' (H244659-08)

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	08/06/2024	ND	2.05	103	2.00	7.49	
Toluene*	<0.050	0.050	08/06/2024	ND	2.11	106	2.00	6.15	
Ethylbenzene*	<0.050	0.050	08/06/2024	ND	2.25	113	2.00	6.41	
Total Xylenes*	<0.150	0.150	08/06/2024	ND	6.69	111	6.00	6.78	
Total BTEx	<0.300	0.300	08/06/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID) 107 % 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	192	16.0	08/07/2024	ND	416	104	400	3.77		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	08/05/2024	ND	205	103	200	2.13	
DRO >C10-C28*	816	10.0	08/05/2024	ND	220	110	200	9.44	
EXT DRO >C28-C36	77.1	10.0	08/05/2024	ND					

Surrogate: 1-Chlorooctane 59.4 % 48.2-134

Surrogate: 1-Chlorooctadecane 70.6 % 49.1-148

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Analytical Results For:

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

Received: 08/02/2024
Reported: 08/08/2024
Project Name: OUTRIDER 27 FED 701 H
Project Number: 03C1558345
Project Location: XTO 32.18236 -103.66679

Sampling Date: 07/31/2024
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Alyssa Parras

Sample ID: FS 34 2' (H244659-09)

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	08/06/2024	ND	2.05	103	2.00	7.49		
Toluene*	<0.050	0.050	08/06/2024	ND	2.11	106	2.00	6.15		
Ethylbenzene*	<0.050	0.050	08/06/2024	ND	2.25	113	2.00	6.41		
Total Xylenes*	<0.150	0.150	08/06/2024	ND	6.69	111	6.00	6.78		
Total BTEx	<0.300	0.300	08/06/2024	ND						

Surrogate: 4-Bromofluorobenzene (PID) 120 % 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	08/07/2024	ND	416	104	400	3.77		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	08/06/2024	ND	205	103	200	2.13	
DRO >C10-C28*	<10.0	10.0	08/06/2024	ND	220	110	200	9.44	
EXT DRO >C28-C36	<10.0	10.0	08/06/2024	ND					

Surrogate: 1-Chlorooctane 84.0 % 48.2-134

Surrogate: 1-Chlorooctadecane 94.3 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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Analytical Results For:

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

Received: 08/02/2024
Reported: 08/08/2024
Project Name: OUTRIDER 27 FED 701 H
Project Number: 03C1558345
Project Location: XTO 32.18236 -103.66679

Sampling Date: 07/31/2024
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Alyssa Parras

Sample ID: FS 33 2' (H244659-10)

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	08/06/2024	ND	2.05	103	2.00	7.49		
Toluene*	<0.050	0.050	08/06/2024	ND	2.11	106	2.00	6.15		
Ethylbenzene*	<0.050	0.050	08/06/2024	ND	2.25	113	2.00	6.41		
Total Xylenes*	<0.150	0.150	08/06/2024	ND	6.69	111	6.00	6.78		
Total BTEx	<0.300	0.300	08/06/2024	ND						

Surrogate: 4-Bromofluorobenzene (PID) 117 % 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	80.0	16.0	08/07/2024	ND	416	104	400	3.77		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	08/06/2024	ND	205	103	200	2.13	
DRO >C10-C28*	<10.0	10.0	08/06/2024	ND	220	110	200	9.44	
EXT DRO >C28-C36	<10.0	10.0	08/06/2024	ND					

Surrogate: 1-Chlorooctane 83.8 % 48.2-134

Surrogate: 1-Chlorooctadecane 93.8 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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Analytical Results For:

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

Received: 08/02/2024
Reported: 08/08/2024
Project Name: OUTRIDER 27 FED 701 H
Project Number: 03C1558345
Project Location: XTO 32.18236 -103.66679

Sampling Date: 07/31/2024
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Alyssa Parras

Sample ID: FS 32 2' (H244659-11)

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	08/05/2024	ND	2.06	103	2.00	12.3		
Toluene*	<0.050	0.050	08/05/2024	ND	2.17	109	2.00	12.8		
Ethylbenzene*	<0.050	0.050	08/05/2024	ND	2.29	115	2.00	12.7		
Total Xylenes*	<0.150	0.150	08/05/2024	ND	7.02	117	6.00	12.9		
Total BTX	<0.300	0.300	08/05/2024	ND						

Surrogate: 4-Bromofluorobenzene (PID) 114 % 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	48.0	16.0	08/07/2024	ND	416	104	400	3.77		

TPH 8015M		mg/kg		Analyzed By: ms					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	08/05/2024	ND	206	103	200	2.95	
DRO >C10-C28*	<10.0	10.0	08/05/2024	ND	207	104	200	10.7	
EXT DRO >C28-C36	<10.0	10.0	08/05/2024	ND					

Surrogate: 1-Chlorooctane 67.2 % 48.2-134

Surrogate: 1-Chlorooctadecane 78.3 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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Analytical Results For:

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

Received: 08/02/2024
Reported: 08/08/2024
Project Name: OUTRIDER 27 FED 701 H
Project Number: 03C1558345
Project Location: XTO 32.18236 -103.66679

Sampling Date: 07/31/2024
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Alyssa Parras

Sample ID: FS 31 2' (H244659-12)

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	08/05/2024	ND	2.06	103	2.00	12.3		
Toluene*	<0.050	0.050	08/05/2024	ND	2.17	109	2.00	12.8		
Ethylbenzene*	<0.050	0.050	08/05/2024	ND	2.29	115	2.00	12.7		
Total Xylenes*	<0.150	0.150	08/05/2024	ND	7.02	117	6.00	12.9		
Total BTX	<0.300	0.300	08/05/2024	ND						

Surrogate: 4-Bromofluorobenzene (PID) 115 % 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	08/07/2024	ND	416	104	400	3.77		

TPH 8015M		mg/kg		Analyzed By: ms					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	08/05/2024	ND	206	103	200	2.95	
DRO >C10-C28*	<10.0	10.0	08/05/2024	ND	207	104	200	10.7	
EXT DRO >C28-C36	<10.0	10.0	08/05/2024	ND					

Surrogate: 1-Chlorooctane 81.6 % 48.2-134

Surrogate: 1-Chlorooctadecane 95.7 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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Analytical Results For:

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

Received: 08/02/2024
Reported: 08/08/2024
Project Name: OUTRIDER 27 FED 701 H
Project Number: 03C1558345
Project Location: XTO 32.18236 -103.66679

Sampling Date: 07/31/2024
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Alyssa Parras

Sample ID: FS 30 2' (H244659-13)

BTEX 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	08/05/2024	ND	2.06	103	2.00	12.3		
Toluene*	<0.050	0.050	08/05/2024	ND	2.17	109	2.00	12.8		
Ethylbenzene*	<0.050	0.050	08/05/2024	ND	2.29	115	2.00	12.7		
Total Xylenes*	<0.150	0.150	08/05/2024	ND	7.02	117	6.00	12.9		
Total BTEX	<0.300	0.300	08/05/2024	ND						

Surrogate: 4-Bromofluorobenzene (PID) 118 % 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	16.0	16.0	08/07/2024	ND	416	104	400	3.77		

TPH 8015M		mg/kg		Analyzed By: ms					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	08/05/2024	ND	206	103	200	2.95	
DRO >C10-C28*	<10.0	10.0	08/05/2024	ND	207	104	200	10.7	
EXT DRO >C28-C36	<10.0	10.0	08/05/2024	ND					

Surrogate: 1-Chlorooctane 69.6 % 48.2-134

Surrogate: 1-Chlorooctadecane 81.2 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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Analytical Results For:

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

Received: 08/02/2024
Reported: 08/08/2024
Project Name: OUTRIDER 27 FED 701 H
Project Number: 03C1558345
Project Location: XTO 32.18236 -103.66679

Sampling Date: 07/31/2024
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Alyssa Parras

Sample ID: FS 29 2' (H244659-14)

BTEx 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	08/05/2024	ND	2.06	103	2.00	12.3		
Toluene*	<0.050	0.050	08/05/2024	ND	2.17	109	2.00	12.8		
Ethylbenzene*	<0.050	0.050	08/05/2024	ND	2.29	115	2.00	12.7		
Total Xylenes*	<0.150	0.150	08/05/2024	ND	7.02	117	6.00	12.9		
Total BTEx	<0.300	0.300	08/05/2024	ND						

Surrogate: 4-Bromofluorobenzene (PID) 119 % 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	64.0	16.0	08/07/2024	ND	416	104	400	3.77		

TPH 8015M		mg/kg		Analyzed By: ms					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	08/05/2024	ND	206	103	200	2.95	
DRO >C10-C28*	<10.0	10.0	08/05/2024	ND	207	104	200	10.7	
EXT DRO >C28-C36	<10.0	10.0	08/05/2024	ND					

Surrogate: 1-Chlorooctane 72.6 % 48.2-134

Surrogate: 1-Chlorooctadecane 84.2 % 49.1-148

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Analytical Results For:

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

Received: 08/02/2024
Reported: 08/08/2024
Project Name: OUTRIDER 27 FED 701 H
Project Number: 03C1558345
Project Location: XTO 32.18236 -103.66679

Sampling Date: 07/31/2024
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Alyssa Parras

Sample ID: FS 25 3' (H244659-15)

BTEX 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	08/05/2024	ND	2.06	103	2.00	12.3		
Toluene*	<0.050	0.050	08/05/2024	ND	2.17	109	2.00	12.8		
Ethylbenzene*	<0.050	0.050	08/05/2024	ND	2.29	115	2.00	12.7		
Total Xylenes*	<0.150	0.150	08/05/2024	ND	7.02	117	6.00	12.9		
Total BTEX	<0.300	0.300	08/05/2024	ND						

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

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	160	16.0	08/07/2024	ND	416	104	400	3.77		

TPH 8015M		mg/kg		Analyzed By: ms					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	08/05/2024	ND	206	103	200	2.95	
DRO >C10-C28*	<10.0	10.0	08/05/2024	ND	207	104	200	10.7	
EXT DRO >C28-C36	<10.0	10.0	08/05/2024	ND					

Surrogate: 1-Chlorooctane 73.2 % 48.2-134

Surrogate: 1-Chlorooctadecane 85.0 % 49.1-148

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Analytical Results For:

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

Received: 08/02/2024
Reported: 08/08/2024
Project Name: OUTRIDER 27 FED 701 H
Project Number: 03C1558345
Project Location: XTO 32.18236 -103.66679

Sampling Date: 07/31/2024
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Alyssa Parras

Sample ID: FS 35 3' (H244659-16)

BTEX 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	08/05/2024	ND	2.06	103	2.00	12.3		
Toluene*	<0.050	0.050	08/05/2024	ND	2.17	109	2.00	12.8		
Ethylbenzene*	<0.050	0.050	08/05/2024	ND	2.29	115	2.00	12.7		
Total Xylenes*	<0.150	0.150	08/05/2024	ND	7.02	117	6.00	12.9		
Total BTEX	<0.300	0.300	08/05/2024	ND						

Surrogate: 4-Bromofluorobenzene (PID) 116 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	80.0	16.0	08/07/2024	ND	416	104	400	3.77		

TPH 8015M		mg/kg		Analyzed By: ms					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	08/05/2024	ND	206	103	200	2.95	
DRO >C10-C28*	<10.0	10.0	08/05/2024	ND	207	104	200	10.7	
EXT DRO >C28-C36	<10.0	10.0	08/05/2024	ND					

Surrogate: 1-Chlorooctane 69.5 % 48.2-134

Surrogate: 1-Chlorooctadecane 84.0 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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Analytical Results For:

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

Received: 08/02/2024
Reported: 08/08/2024
Project Name: OUTRIDER 27 FED 701 H
Project Number: 03C1558345
Project Location: XTO 32.18236 -103.66679

Sampling Date: 07/31/2024
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Alyssa Parras

Sample ID: FS 36 3' (H244659-17)

BTEx 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	08/05/2024	ND	2.06	103	2.00	12.3		
Toluene*	<0.050	0.050	08/05/2024	ND	2.17	109	2.00	12.8		
Ethylbenzene*	<0.050	0.050	08/05/2024	ND	2.29	115	2.00	12.7		
Total Xylenes*	<0.150	0.150	08/05/2024	ND	7.02	117	6.00	12.9		
Total BTEx	<0.300	0.300	08/05/2024	ND						

Surrogate: 4-Bromofluorobenzene (PID) 119 % 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	96.0	16.0	08/07/2024	ND	416	104	400	3.77		

TPH 8015M		mg/kg		Analyzed By: ms					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	08/05/2024	ND	206	103	200	2.95	
DRO >C10-C28*	<10.0	10.0	08/05/2024	ND	207	104	200	10.7	
EXT DRO >C28-C36	<10.0	10.0	08/05/2024	ND					

Surrogate: 1-Chlorooctane 69.3 % 48.2-134

Surrogate: 1-Chlorooctadecane 81.6 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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Analytical Results For:

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

Received: 08/02/2024
Reported: 08/08/2024
Project Name: OUTRIDER 27 FED 701 H
Project Number: 03C1558345
Project Location: XTO 32.18236 -103.66679

Sampling Date: 08/01/2024
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Alyssa Parras

Sample ID: SW 07 0-3' (H244659-18)

BTEx 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	08/05/2024	ND	2.06	103	2.00	12.3		
Toluene*	<0.050	0.050	08/05/2024	ND	2.17	109	2.00	12.8		
Ethylbenzene*	<0.050	0.050	08/05/2024	ND	2.29	115	2.00	12.7		
Total Xylenes*	<0.150	0.150	08/05/2024	ND	7.02	117	6.00	12.9		
Total BTEX	<0.300	0.300	08/05/2024	ND						

Surrogate: 4-Bromofluorobenzene (PID) 120 % 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	224	16.0	08/07/2024	ND	416	104	400	3.77	

TPH 8015M		mg/kg		Analyzed By: ms					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	08/05/2024	ND	206	103	200	2.95	
DRO >C10-C28*	660	10.0	08/05/2024	ND	207	104	200	10.7	
EXT DRO >C28-C36	26.8	10.0	08/05/2024	ND					

Surrogate: 1-Chlorooctane 57.2 % 48.2-134

Surrogate: 1-Chlorooctadecane 75.1 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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Analytical Results For:

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

Received: 08/02/2024
Reported: 08/08/2024
Project Name: OUTRIDER 27 FED 701 H
Project Number: 03C1558345
Project Location: XTO 32.18236 -103.66679

Sampling Date: 08/01/2024
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Alyssa Parras

Sample ID: SW 08 0-3' (H244659-19)

BTEx 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	08/05/2024	ND	2.06	103	2.00	12.3		
Toluene*	<0.050	0.050	08/05/2024	ND	2.17	109	2.00	12.8		
Ethylbenzene*	<0.050	0.050	08/05/2024	ND	2.29	115	2.00	12.7		
Total Xylenes*	<0.150	0.150	08/05/2024	ND	7.02	117	6.00	12.9		
Total BTEx	<0.300	0.300	08/05/2024	ND						

Surrogate: 4-Bromofluorobenzene (PID) 117 % 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	08/07/2024	ND	416	104	400	3.77		

TPH 8015M		mg/kg		Analyzed By: ms					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	08/05/2024	ND	206	103	200	2.95	
DRO >C10-C28*	<10.0	10.0	08/05/2024	ND	207	104	200	10.7	
EXT DRO >C28-C36	<10.0	10.0	08/05/2024	ND					

Surrogate: 1-Chlorooctane 60.5 % 48.2-134

Surrogate: 1-Chlorooctadecane 66.0 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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Analytical Results For:

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

Received: 08/02/2024
Reported: 08/08/2024
Project Name: OUTRIDER 27 FED 701 H
Project Number: 03C1558345
Project Location: XTO 32.18236 -103.66679

Sampling Date: 08/01/2024
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Alyssa Parras

Sample ID: SW 09 0-2' (H244659-20)

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	08/05/2024	ND	2.06	103	2.00	12.3	
Toluene*	<0.050	0.050	08/05/2024	ND	2.17	109	2.00	12.8	
Ethylbenzene*	<0.050	0.050	08/05/2024	ND	2.29	115	2.00	12.7	
Total Xylenes*	<0.150	0.150	08/05/2024	ND	7.02	117	6.00	12.9	
Total BTX	<0.300	0.300	08/05/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID) 115 % 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	08/07/2024	ND	416	104	400	3.77		

TPH 8015M		mg/kg		Analyzed By: ms					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	08/05/2024	ND	206	103	200	2.95	
DRO >C10-C28*	<10.0	10.0	08/05/2024	ND	207	104	200	10.7	
EXT DRO >C28-C36	<10.0	10.0	08/05/2024	ND					

Surrogate: 1-Chlorooctane 67.1 % 48.2-134

Surrogate: 1-Chlorooctadecane 76.3 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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Analytical Results For:

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

Received: 08/02/2024
Reported: 08/08/2024
Project Name: OUTRIDER 27 FED 701 H
Project Number: 03C1558345
Project Location: XTO 32.18236 -103.66679

Sampling Date: 08/01/2024
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Alyssa Parras

Sample ID: SW 10 0-2' (H244659-21)

BTEX 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	08/05/2024	ND	2.06	103	2.00	12.3		
Toluene*	<0.050	0.050	08/05/2024	ND	2.17	109	2.00	12.8		
Ethylbenzene*	<0.050	0.050	08/05/2024	ND	2.29	115	2.00	12.7		
Total Xylenes*	<0.150	0.150	08/05/2024	ND	7.02	117	6.00	12.9		
Total BTEX	<0.300	0.300	08/05/2024	ND						

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

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	112	16.0	08/06/2024	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	08/05/2024	ND	206	103	200	2.95	
DRO >C10-C28*	<10.0	10.0	08/05/2024	ND	207	104	200	10.7	
EXT DRO >C28-C36	<10.0	10.0	08/05/2024	ND					

Surrogate: 1-Chlorooctane 69.8 % 48.2-134

Surrogate: 1-Chlorooctadecane 78.8 % 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
TRACY HILLARD
3122 NATIONAL PARKS HWY
CARLSBAD NM, 88220
Fax To:

Received: 08/02/2024
Reported: 08/08/2024
Project Name: OUTRIDER 27 FED 701 H
Project Number: 03C1558345
Project Location: XTO 32.18236 -103.66679

Sampling Date: 08/01/2024
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Alyssa Parras

Sample ID: SW 11 0-2' (H244659-22)

BTEX 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	08/05/2024	ND	2.06	103	2.00	12.3	
Toluene*	<0.050	0.050	08/05/2024	ND	2.17	109	2.00	12.8	
Ethylbenzene*	<0.050	0.050	08/05/2024	ND	2.29	115	2.00	12.7	
Total Xylenes*	<0.150	0.150	08/05/2024	ND	7.02	117	6.00	12.9	
Total BTEX	<0.300	0.300	08/05/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID) 116 % 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	08/06/2024	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	08/05/2024	ND	206	103	200	2.95	
DRO >C10-C28*	<10.0	10.0	08/05/2024	ND	207	104	200	10.7	
EXT DRO >C28-C36	<10.0	10.0	08/05/2024	ND					

Surrogate: 1-Chlorooctane 75.3 % 48.2-134

Surrogate: 1-Chlorooctadecane 85.9 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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Analytical Results For:

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

Received: 08/02/2024
Reported: 08/08/2024
Project Name: OUTRIDER 27 FED 701 H
Project Number: 03C1558345
Project Location: XTO 32.18236 -103.66679

Sampling Date: 08/01/2024
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Alyssa Parras

Sample ID: SW 12 0-2' (H244659-23)

BTEx 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	08/06/2024	ND	2.06	103	2.00	12.3		
Toluene*	<0.050	0.050	08/06/2024	ND	2.17	109	2.00	12.8		
Ethylbenzene*	<0.050	0.050	08/06/2024	ND	2.29	115	2.00	12.7		
Total Xylenes*	<0.150	0.150	08/06/2024	ND	7.02	117	6.00	12.9		
Total BTEx	<0.300	0.300	08/06/2024	ND						

Surrogate: 4-Bromofluorobenzene (PID) 111 % 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	64.0	16.0	08/06/2024	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	08/05/2024	ND	206	103	200	2.95	
DRO >C10-C28*	<10.0	10.0	08/05/2024	ND	207	104	200	10.7	
EXT DRO >C28-C36	<10.0	10.0	08/05/2024	ND					

Surrogate: 1-Chlorooctane 72.7 % 48.2-134

Surrogate: 1-Chlorooctadecane 83.4 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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Analytical Results For:

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

Received: 08/02/2024
Reported: 08/08/2024
Project Name: OUTRIDER 27 FED 701 H
Project Number: 03C1558345
Project Location: XTO 32.18236 -103.66679

Sampling Date: 08/01/2024
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Alyssa Parras

Sample ID: SW 13 0-2' (H244659-24)

BTEx 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	08/06/2024	ND	2.06	103	2.00	12.3	
Toluene*	<0.050	0.050	08/06/2024	ND	2.17	109	2.00	12.8	
Ethylbenzene*	<0.050	0.050	08/06/2024	ND	2.29	115	2.00	12.7	
Total Xylenes*	<0.150	0.150	08/06/2024	ND	7.02	117	6.00	12.9	
Total BTEx	<0.300	0.300	08/06/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID) 116 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	112	16.0	08/06/2024	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	08/05/2024	ND	206	103	200	2.95	
DRO >C10-C28*	<10.0	10.0	08/05/2024	ND	207	104	200	10.7	
EXT DRO >C28-C36	<10.0	10.0	08/05/2024	ND					

Surrogate: 1-Chlorooctane 75.6 % 48.2-134

Surrogate: 1-Chlorooctadecane 86.3 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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Analytical Results For:

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

Received: 08/02/2024
Reported: 08/08/2024
Project Name: OUTRIDER 27 FED 701 H
Project Number: 03C1558345
Project Location: XTO 32.18236 -103.66679

Sampling Date: 08/01/2024
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Alyssa Parras

Sample ID: FS 44 2 ' (H244659-25)

BTEx 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	08/06/2024	ND	2.06	103	2.00	12.3	
Toluene*	<0.050	0.050	08/06/2024	ND	2.17	109	2.00	12.8	
Ethylbenzene*	<0.050	0.050	08/06/2024	ND	2.29	115	2.00	12.7	
Total Xylenes*	<0.150	0.150	08/06/2024	ND	7.02	117	6.00	12.9	
Total BTEx	<0.300	0.300	08/06/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID) 118 % 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	160	16.0	08/06/2024	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	08/05/2024	ND	206	103	200	2.95	
DRO >C10-C28*	<10.0	10.0	08/05/2024	ND	207	104	200	10.7	
EXT DRO >C28-C36	<10.0	10.0	08/05/2024	ND					

Surrogate: 1-Chlorooctane 67.8 % 48.2-134

Surrogate: 1-Chlorooctadecane 78.7 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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Analytical Results For:

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

Received: 08/02/2024
Reported: 08/08/2024
Project Name: OUTRIDER 27 FED 701 H
Project Number: 03C1558345
Project Location: XTO 32.18236 -103.66679

Sampling Date: 08/01/2024
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Alyssa Parras

Sample ID: FS 45 2' (H244659-26)

BTEx 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	08/06/2024	ND	2.06	103	2.00	12.3		
Toluene*	<0.050	0.050	08/06/2024	ND	2.17	109	2.00	12.8		
Ethylbenzene*	<0.050	0.050	08/06/2024	ND	2.29	115	2.00	12.7		
Total Xylenes*	<0.150	0.150	08/06/2024	ND	7.02	117	6.00	12.9		
Total BTEx	<0.300	0.300	08/06/2024	ND						

Surrogate: 4-Bromofluorobenzene (PID) 106 % 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	144	16.0	08/06/2024	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	08/05/2024	ND	206	103	200	2.95	
DRO >C10-C28*	<10.0	10.0	08/05/2024	ND	207	104	200	10.7	
EXT DRO >C28-C36	<10.0	10.0	08/05/2024	ND					

Surrogate: 1-Chlorooctane 74.4 % 48.2-134

Surrogate: 1-Chlorooctadecane 85.4 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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Analytical Results For:

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

Received: 08/02/2024
Reported: 08/08/2024
Project Name: OUTRIDER 27 FED 701 H
Project Number: 03C1558345
Project Location: XTO 32.18236 -103.66679

Sampling Date: 08/01/2024
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Alyssa Parras

Sample ID: FS 46 2' (H244659-27)

BTEx 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	08/06/2024	ND	2.06	103	2.00	12.3		
Toluene*	<0.050	0.050	08/06/2024	ND	2.17	109	2.00	12.8		
Ethylbenzene*	<0.050	0.050	08/06/2024	ND	2.29	115	2.00	12.7		
Total Xylenes*	<0.150	0.150	08/06/2024	ND	7.02	117	6.00	12.9		
Total BTEX	<0.300	0.300	08/06/2024	ND						

Surrogate: 4-Bromofluorobenzene (PID) 111 % 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	160	16.0	08/06/2024	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	08/05/2024	ND	206	103	200	2.95	
DRO >C10-C28*	<10.0	10.0	08/05/2024	ND	207	104	200	10.7	
EXT DRO >C28-C36	<10.0	10.0	08/05/2024	ND					

Surrogate: 1-Chlorooctane 73.3 % 48.2-134

Surrogate: 1-Chlorooctadecane 84.7 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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Analytical Results For:

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

Received: 08/02/2024
Reported: 08/08/2024
Project Name: OUTRIDER 27 FED 701 H
Project Number: 03C1558345
Project Location: XTO 32.18236 -103.66679

Sampling Date: 08/01/2024
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Alyssa Parras

Sample ID: FS 47 2' (H244659-28)

BTEx 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	08/06/2024	ND	2.06	103	2.00	12.3		
Toluene*	<0.050	0.050	08/06/2024	ND	2.17	109	2.00	12.8		
Ethylbenzene*	<0.050	0.050	08/06/2024	ND	2.29	115	2.00	12.7		
Total Xylenes*	<0.150	0.150	08/06/2024	ND	7.02	117	6.00	12.9		
Total BTEX	<0.300	0.300	08/06/2024	ND						

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

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	96.0	16.0	08/06/2024	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	08/06/2024	ND	206	103	200	2.95	
DRO >C10-C28*	<10.0	10.0	08/06/2024	ND	207	104	200	10.7	
EXT DRO >C28-C36	<10.0	10.0	08/06/2024	ND					

Surrogate: 1-Chlorooctane 75.1 % 48.2-134

Surrogate: 1-Chlorooctadecane 87.0 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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Analytical Results For:

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

Received: 08/02/2024
Reported: 08/08/2024
Project Name: OUTRIDER 27 FED 701 H
Project Number: 03C1558345
Project Location: XTO 32.18236 -103.66679

Sampling Date: 08/01/2024
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Alyssa Parras

Sample ID: FS 48 2' (H244659-29)

BTEx 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	08/06/2024	ND	2.10	105	2.00	0.768		
Toluene*	<0.050	0.050	08/06/2024	ND	2.29	114	2.00	1.97		
Ethylbenzene*	<0.050	0.050	08/06/2024	ND	2.39	120	2.00	1.08		
Total Xylenes*	<0.150	0.150	08/06/2024	ND	7.29	121	6.00	0.252		
Total BTEX	<0.300	0.300	08/06/2024	ND						

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

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	144	16.0	08/06/2024	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	08/06/2024	ND	206	103	200	2.95	
DRO >C10-C28*	<10.0	10.0	08/06/2024	ND	207	104	200	10.7	
EXT DRO >C28-C36	<10.0	10.0	08/06/2024	ND					

Surrogate: 1-Chlorooctane 69.2 % 48.2-134

Surrogate: 1-Chlorooctadecane 79.5 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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Analytical Results For:

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

Received: 08/02/2024
Reported: 08/08/2024
Project Name: OUTRIDER 27 FED 701 H
Project Number: 03C1558345
Project Location: XTO 32.18236 -103.66679

Sampling Date: 08/01/2024
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Alyssa Parras

Sample ID: FS 49 2' (H244659-30)

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	08/06/2024	ND	2.10	105	2.00	0.768	
Toluene*	<0.050	0.050	08/06/2024	ND	2.29	114	2.00	1.97	
Ethylbenzene*	<0.050	0.050	08/06/2024	ND	2.39	120	2.00	1.08	
Total Xylenes*	<0.150	0.150	08/06/2024	ND	7.29	121	6.00	0.252	
Total BTEX	<0.300	0.300	08/06/2024	ND					

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

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	128	16.0	08/06/2024	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	08/06/2024	ND	206	103	200	2.95	
DRO >C10-C28*	<10.0	10.0	08/06/2024	ND	207	104	200	10.7	
EXT DRO >C28-C36	<10.0	10.0	08/06/2024	ND					

Surrogate: 1-Chlorooctane 65.6 % 48.2-134

Surrogate: 1-Chlorooctadecane 75.2 % 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
TRACY HILLARD
3122 NATIONAL PARKS HWY
CARLSBAD NM, 88220
Fax To:

Received: 08/02/2024
Reported: 08/08/2024
Project Name: OUTRIDER 27 FED 701 H
Project Number: 03C1558345
Project Location: XTO 32.18236 -103.66679

Sampling Date: 08/01/2024
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Alyssa Parras

Sample ID: FS 50 2' (H244659-31)

BTEx 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	08/06/2024	ND	1.78	89.1	2.00	10.1	
Toluene*	<0.050	0.050	08/06/2024	ND	1.75	87.3	2.00	9.28	
Ethylbenzene*	<0.050	0.050	08/06/2024	ND	1.78	89.2	2.00	8.63	
Total Xylenes*	<0.150	0.150	08/06/2024	ND	5.27	87.8	6.00	8.54	
Total BTEX	<0.300	0.300	08/06/2024	ND					

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

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	48.0	16.0	08/06/2024	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	08/06/2024	ND	196	97.9	200	1.74	
DRO >C10-C28*	<10.0	10.0	08/06/2024	ND	212	106	200	8.10	
EXT DRO >C28-C36	<10.0	10.0	08/06/2024	ND					

Surrogate: 1-Chlorooctane 72.2 % 48.2-134

Surrogate: 1-Chlorooctadecane 93.3 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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Analytical Results For:

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

Received: 08/02/2024
Reported: 08/08/2024
Project Name: OUTRIDER 27 FED 701 H
Project Number: 03C1558345
Project Location: XTO 32.18236 -103.66679

Sampling Date: 08/01/2024
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Alyssa Parras

Sample ID: FS 51 2' (H244659-32)

BTX 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	08/06/2024	ND	1.78	89.1	2.00	10.1	
Toluene*	<0.050	0.050	08/06/2024	ND	1.75	87.3	2.00	9.28	
Ethylbenzene*	<0.050	0.050	08/06/2024	ND	1.78	89.2	2.00	8.63	
Total Xylenes*	<0.150	0.150	08/06/2024	ND	5.27	87.8	6.00	8.54	
Total BTX	<0.300	0.300	08/06/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID) 99.7 % 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	48.0	16.0	08/06/2024	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	08/06/2024	ND	196	97.9	200	1.74	
DRO >C10-C28*	<10.0	10.0	08/06/2024	ND	212	106	200	8.10	
EXT DRO >C28-C36	<10.0	10.0	08/06/2024	ND					

Surrogate: 1-Chlorooctane 82.1 % 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
TRACY HILLARD
3122 NATIONAL PARKS HWY
CARLSBAD NM, 88220
Fax To:

Received: 08/02/2024
Reported: 08/08/2024
Project Name: OUTRIDER 27 FED 701 H
Project Number: 03C1558345
Project Location: XTO 32.18236 -103.66679

Sampling Date: 08/01/2024
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Alyssa Parras

Sample ID: FS 52 2' (H244659-33)

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	08/06/2024	ND	1.78	89.1	2.00	10.1	
Toluene*	<0.050	0.050	08/06/2024	ND	1.75	87.3	2.00	9.28	
Ethylbenzene*	<0.050	0.050	08/06/2024	ND	1.78	89.2	2.00	8.63	
Total Xylenes*	<0.150	0.150	08/06/2024	ND	5.27	87.8	6.00	8.54	
Total BTX	<0.300	0.300	08/06/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID) 99.5 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	48.0	16.0	08/06/2024	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	08/06/2024	ND	196	97.9	200	1.74	
DRO >C10-C28*	<10.0	10.0	08/06/2024	ND	212	106	200	8.10	
EXT DRO >C28-C36	<10.0	10.0	08/06/2024	ND					

Surrogate: 1-Chlorooctane 83.7 % 48.2-134

Surrogate: 1-Chlorooctadecane 107 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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Analytical Results For:

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

Received: 08/02/2024
Reported: 08/08/2024
Project Name: OUTRIDER 27 FED 701 H
Project Number: 03C1558345
Project Location: XTO 32.18236 -103.66679

Sampling Date: 08/01/2024
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Alyssa Parras

Sample ID: FS 53 2' (H244659-34)

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	08/06/2024	ND	1.78	89.1	2.00	10.1		
Toluene*	<0.050	0.050	08/06/2024	ND	1.75	87.3	2.00	9.28		
Ethylbenzene*	<0.050	0.050	08/06/2024	ND	1.78	89.2	2.00	8.63		
Total Xylenes*	<0.150	0.150	08/06/2024	ND	5.27	87.8	6.00	8.54		
Total BTEx	<0.300	0.300	08/06/2024	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	48.0	16.0	08/06/2024	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	08/06/2024	ND	196	97.9	200	1.74	
DRO >C10-C28*	<10.0	10.0	08/06/2024	ND	212	106	200	8.10	
EXT DRO >C28-C36	<10.0	10.0	08/06/2024	ND					

Surrogate: 1-Chlorooctane 82.6 % 48.2-134

Surrogate: 1-Chlorooctadecane 105 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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Analytical Results For:

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

Received: 08/02/2024
Reported: 08/08/2024
Project Name: OUTRIDER 27 FED 701 H
Project Number: 03C1558345
Project Location: XTO 32.18236 -103.66679

Sampling Date: 08/01/2024
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Alyssa Parras

Sample ID: FS 54 2' (H244659-35)

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	08/06/2024	ND	1.78	89.1	2.00	10.1	
Toluene*	<0.050	0.050	08/06/2024	ND	1.75	87.3	2.00	9.28	
Ethylbenzene*	<0.050	0.050	08/06/2024	ND	1.78	89.2	2.00	8.63	
Total Xylenes*	<0.150	0.150	08/06/2024	ND	5.27	87.8	6.00	8.54	
Total BTX	<0.300	0.300	08/06/2024	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	48.0	16.0	08/06/2024	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	08/06/2024	ND	196	97.9	200	1.74	
DRO >C10-C28*	<10.0	10.0	08/06/2024	ND	212	106	200	8.10	
EXT DRO >C28-C36	<10.0	10.0	08/06/2024	ND					

Surrogate: 1-Chlorooctane 80.9 % 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
TRACY HILLARD
3122 NATIONAL PARKS HWY
CARLSBAD NM, 88220
Fax To:

Received: 08/02/2024
Reported: 08/08/2024
Project Name: OUTRIDER 27 FED 701 H
Project Number: 03C1558345
Project Location: XTO 32.18236 -103.66679

Sampling Date: 08/01/2024
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Alyssa Parras

Sample ID: FS 55 2' (H244659-36)

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	08/06/2024	ND	1.78	89.1	2.00	10.1	
Toluene*	<0.050	0.050	08/06/2024	ND	1.75	87.3	2.00	9.28	
Ethylbenzene*	<0.050	0.050	08/06/2024	ND	1.78	89.2	2.00	8.63	
Total Xylenes*	<0.150	0.150	08/06/2024	ND	5.27	87.8	6.00	8.54	
Total BTEX	<0.300	0.300	08/06/2024	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	96.0	16.0	08/06/2024	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	08/06/2024	ND	196	97.9	200	1.74	
DRO >C10-C28*	<10.0	10.0	08/06/2024	ND	212	106	200	8.10	
EXT DRO >C28-C36	<10.0	10.0	08/06/2024	ND					

Surrogate: 1-Chlorooctane 76.9 % 48.2-134

Surrogate: 1-Chlorooctadecane 98.1 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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Analytical Results For:

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

Received: 08/02/2024
Reported: 08/08/2024
Project Name: OUTRIDER 27 FED 701 H
Project Number: 03C1558345
Project Location: XTO 32.18236 -103.66679

Sampling Date: 08/01/2024
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Alyssa Parras

Sample ID: FS 56 2' (H244659-37)

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	08/06/2024	ND	1.78	89.1	2.00	10.1	
Toluene*	<0.050	0.050	08/06/2024	ND	1.75	87.3	2.00	9.28	
Ethylbenzene*	<0.050	0.050	08/06/2024	ND	1.78	89.2	2.00	8.63	
Total Xylenes*	<0.150	0.150	08/06/2024	ND	5.27	87.8	6.00	8.54	
Total BTEX	<0.300	0.300	08/06/2024	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	96.0	16.0	08/06/2024	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	08/06/2024	ND	196	97.9	200	1.74	
DRO >C10-C28*	<10.0	10.0	08/06/2024	ND	212	106	200	8.10	
EXT DRO >C28-C36	<10.0	10.0	08/06/2024	ND					

Surrogate: 1-Chlorooctane 80.2 % 48.2-134

Surrogate: 1-Chlorooctadecane 102 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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Notes and Definitions

- BS-3 Blank spike recovery outside of lab established statistical limits, but still within method limits. Data is not adversely affected.
- BS1 Blank spike recovery above laboratory acceptance criteria. Results for analyte potentially biased high.
- ND Analyte NOT DETECTED at or above the reporting limit
- RPD Relative Percent Difference
- ** Samples not received at proper temperature of 6°C or below.
- *** Insufficient time to reach temperature.
- Chloride by SM4500Cl-B does not require samples be received at or below 6°C
Samples reported on an as received basis (wet) unless otherwise noted on report

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

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

Company Name: Ensolum, LLC						BILL TO		ANALYSIS REQUEST													
Project Manager: Tracy Hillard						P.O. #:															
Address: 3122 National Parks Hwy						Company: XTO Energy Inc.															
City: Carlsbad		State: NM		Zip: 88220		Attn: Amy Ruth															
Phone #: 575 937 3906		Fax #:				Address: 3104 E Green St															
Project #: 03C1558 345		Project Owner: XTO				City: Carlsbad															
Project Name: Outsider 27 Feb 2014						State: NM Zip: 88220															
Project Location: 32.18236, -103.66679						Phone #:															
Sampler Name: Joshua Boxley						Fax #:															
FOR LAB USE ONLY						MATRIX		PRESERV.		SAMPLING											
Lab I.D. ADSRZ H2U#USA		Sample I.D.		Depth (feet)		(G)RAB OR (C)OMP. # CONTAINERS		GROUNDWATER WASTEWATER SOIL OIL SLUDGE OTHER :		ACID/BASE: ICE / COOL OTHER :		DATE		TIME							
1		FS57		2		C 1		X		X		8/1/24		1136		Chloride	TPH	BTEX			
2		FS58												1140							
3		FS59												1145							
4		FS60												1200							
5		FS61												1203							
6		FS62												1210							
7		SW06		0-2		C 1		X		X		8/1/24		1215		X	X	X			
8						C 1		X		X		7/31/24		1037		X	X	X			

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Relinquished By: <i>[Signature]</i>		Date: 8/2/24 Time: 14:21		Received By: <i>[Signature]</i>		Verbal Result: <input type="checkbox"/> Yes <input type="checkbox"/> No Add'l Phone #: All Results are emailed. Please provide Email address: THillard@ensulum.com, TMorrissey@ensulum.com	
Relinquished By:		Date: 8-2-24 Time: 1420		Received By:		REMARKS: Incident: WAPP 2410735798 Cost Center: 2140 721001	
Delivered By: (Circle One)		Observed Temp. °C 0.4°C		Sample Condition Cool Intact <input type="checkbox"/> Yes <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> No		CHECKED BY: (Initials) <i>[Signature]</i>	
Sampler - UPS - Bus - Other:		Corrected Temp. °C -0.2°C				Turnaround Time: Standard <input checked="" type="checkbox"/> Rush <input type="checkbox"/> Thermometer ID #413 Correction Factor -0.5°C	
						Bacteria (only) Sample Condition Cool Intact Observed Temp. °C <input type="checkbox"/> Yes <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> No Corrected Temp. °C	

FORM-006 R 3.2 10/07/21

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

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

3084 JTB

Company Name: Ensolum, LLC				BILL TO				ANALYSIS REQUEST											
Project Manager: Tracy Hillard				P.O. #:															
Address: 3122 National Parks Hwy				Company: XTO Energy Inc.															
City: Carlsbad State: NM Zip: 88220				Attn: Amy Ruth															
Phone #: 575 937 3906 Fax #:				Address: 3104 E Green St															
Project #: 03C1558 345 Project Owner: XTO				City: Carlsbad															
Project Name: Outsider 27 Feb 2014				State: NM Zip: 88220															
Project Location: 32.8236, -103.66679				Phone #:															
Sampler Name: Joshua Boxley				Fax #:															
FOR LAB USE ONLY																			
Lab I.D.	Sample I.D.	Depth (feet)	(G)RAB OR (C)OMP. # CONTAINERS	MATRIX					PRESERV.	SAMPLING									
				GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER:	ACID/BASE:	ICE/COOL	OTHER:	DATE	TIME					
H2111059																			
18	SW07	0-3	C 1			X				X			9/1/24	1223	X	X			
19	SW08	0-3	C 1											1225	X	X			
20	SW09	0-2												1230					
21	SW10	0-2												1245					
22	SW11	0-2												1250					
23	SW12	0-2												1253					
24	SW13	0-2												1258					
25	FS44	2												1035					
26	FS45	2												1040					
27	FS46	2	C 1			X				X			9/1/24	1045	X	X			

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Relinquished By:		Date: 8/2/24	Received By:		Verbal Result: <input type="checkbox"/> Yes <input type="checkbox"/> No Add'l Phone #:	
Time: 14:21					All Results are emailed. Please provide Email address: THillard@ensolum.com, TMorrissey@ensolum.com	
Relinquished By:		Date: 8-2-24	Received By:		REMARKS:	
Time: 14:24					Incident: WAPP 2410735798	
					Cost Center: 2140 721 001	
Delivered By: (Circle One)		Observed Temp. °C	Sample Condition		Turnaround Time: Standard <input checked="" type="checkbox"/> Rush <input type="checkbox"/>	
Sampler - UPS - Bus - Other:		Corrected Temp. °C	Cool Intact <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> No		Bacteria (only) Sample Condition	
					Cool Intact <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> No	
					Observed Temp. °C	
					Corrected Temp. °C	

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CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

Company Name: Ensolum, LLC				BILL TO				ANALYSIS REQUEST																						
Project Manager: Tracy Hillard				P.O. #:																										
Address: 3122 National Parks Hwy				Company: XTO Energy Inc.																										
City: Carlsbad State: NM Zip: 88220				Attn: Amy Ruth																										
Phone #: 575 937 3906 Fax #:				Address: 3104 E Green St																										
Project #: 03C1558 345 Project Owner: XTO				City: Carlsbad																										
Project Name: Outrider 27 Feb 2014				State: NM Zip: 88220																										
Project Location: 32.8236, -103.66679				Phone #:																										
Sampler Name: Joshua Boxley				Fax #:																										
Lab I.D.		Sample I.D.		Depth (feet)		(G)RAB OR (C)OMP. # CONTAINERS		MATRIX				PRESERV.		SAMPLING																
								GROUNDWATER WASTEWATER SOIL OIL SLUDGE OTHER				ACID/BASE: ICE / COOL OTHER		DATE TIME																
28	FS47	1050	2'	C	1											8/1/24	1050	Chloride	TPH	BTEX										
29	FS48	1055															1055													
30	FS49	1100															1100													
31	FS50	1110															1110													
32	FS51	1113															1113													
33	FS52	1117															1117													
34	FS53	1120															1120													
35	FS54	1124															1124													
36	FS55	1130															1130													
37	FS56	1133	2'	C	1											8/1/24	1133													

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Relinquished By:		Date: 8/2/24		Received By:		Verbal Result: <input type="checkbox"/> Yes <input type="checkbox"/> No Add'l Phone #:	
Relinquished By:		Time: 14:21		Received By:		All Results are emailed. Please provide Email address: THillard@ensolum.com, TMorrissey@ensolum.com	
Date: 8-2-24		Time: 14:20				REMARKS: Incident: WAPP 2410735798 Cost Center: 2140 721 001	
Delivered By: (Circle One) Sampler - UPS - Bus - Other:		Observed Temp. °C Corrected Temp. °C		Sample Condition Cool Intact <input type="checkbox"/> Yes <input type="checkbox"/> No Yes <input type="checkbox"/> No <input type="checkbox"/> No		CHECKED BY: (Initials) AD	
		0.4 °C -0.2 °C				Turnaround Time: Standard <input checked="" type="checkbox"/> Rush <input type="checkbox"/> Thermometer ID #113 #140 Correction Factor -0.5 °C -0.6 °C	
						Bacteria (only) Sample Condition Cool Intact <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> No Observed Temp. °C Corrected Temp. °C	

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

August 21, 2024

TRACY HILLARD

ENSOLUM

3122 NATIONAL PARKS HWY

CARLSBAD, NM 88220

RE: OUTRIDER 27 FED 701 H

Enclosed are the results of analyses for samples received by the laboratory on 08/15/24 13:05.

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



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

Analytical Results For:

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

Received: 08/15/2024
Reported: 08/21/2024
Project Name: OUTRIDER 27 FED 701 H
Project Number: 03C1558345
Project Location: XTO 32.18236 -103.66679

Sampling Date: 08/09/2024
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Alyssa Parras

Sample ID: FS 28 2' (H244954-01)

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	08/20/2024	ND	2.07	103	2.00	0.920	
Toluene*	<0.050	0.050	08/20/2024	ND	1.99	99.4	2.00	0.869	
Ethylbenzene*	<0.050	0.050	08/20/2024	ND	1.98	99.2	2.00	1.17	
Total Xylenes*	<0.150	0.150	08/20/2024	ND	5.90	98.3	6.00	1.15	
Total BTEX	<0.300	0.300	08/20/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID) 97.7 % 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	480	16.0	08/19/2024	ND	432	108	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	08/16/2024	ND	226	113	200	1.66	
DRO >C10-C28*	<10.0	10.0	08/16/2024	ND	227	114	200	2.80	
EXT DRO >C28-C36	<10.0	10.0	08/16/2024	ND					

Surrogate: 1-Chlorooctane 98.6 % 48.2-134

Surrogate: 1-Chlorooctadecane 120 % 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

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



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

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

Company Name: Ensolum, LLC				BILL TO				ANALYSIS REQUEST																						
Project Manager: Tracy Hillard				P.O. #:																										
Address: 3122 National Parks Hwy				Company: XTO Energy Inc.																										
City: Carlsbad State: NM Zip: 88220				Attn: Amy Ruth																										
Phone #: 575 831 3906 Fax #:				Address: 3104 E Green St																										
Project #: 0301954 345 Project Owner: XTO				City: Carlsbad																										
Project Name: Outdoor 27 Feb 2014				State: NM Zip: 88220																										
Project Location: 32.19236, -103.66679				Phone #:																										
Sampler Name: Joshua B. Taylor				Fax #:																										
FOR LAB USE ONLY																														
Lab I.D.	Sample I.D.	Depth (feet)	(GRAB OR C)OMP.	# CONTAINERS	GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER	ACID/BASE	ICE / COOL	OTHER	DATE	TIME															
H244954	1 FS28	2'	C	1			X				X			9/9/24	0800	Chloride	TPH	BTX												

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Relinquished By:		Date: 8/15/24	Received By:		Verbal Result: <input type="checkbox"/> Yes <input type="checkbox"/> No Add'l Phone #:	
Time: 1:00					All Results are emailed. Please provide Email address: THillard@ensolum.com, TMorrissey@ensolum.com	
Relinquished By:		Date:	Received By:		REMARKS: Incident: WARP 2410735728 Cost Center: 2190721001	
Time:					Turnaround Time: Standard <input checked="" type="checkbox"/> Rush <input type="checkbox"/>	
Delivered By: (Circle One)	Observed Temp. °C: 39.0	Sample Condition	CHECKED BY: (Initials)	Thermometer ID: #443		Bacteria (only) Sample Condition
Sampler - UPS - Bus - Other:	Corrected Temp. °C: 33.0	Cool Intact <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Yes <input type="checkbox"/> No		Correction Factor: 0.5°C - 0.0°C		Cool Intact <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Yes <input type="checkbox"/> No
						Observed Temp. °C
						Corrected Temp. °C

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



APPENDIX C

Approved Remediation Work Plan



July 1, 2024

New Mexico Oil Conservation Division

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

**Re: Remediation Work Plan
Outrider 27 Fed 701H
Incident Number NAPP2410735798
Lea County, New Mexico**

To Whom It May Concern:

Ensolum, LLC (Ensolum), on behalf of XTO Energy, Inc. (XTO), has prepared the following *Remediation Work Plan (Work Plan)* to document the site assessment activities completed to date and propose a work plan to address waste-containing soil identified at the Outrider 27 Fed 701H (Site). The purpose of the site assessment activities was to determine the presence or absence of impacted soil resulting from a produced water release at the Site. The following *Work Plan* proposes to remove waste-containing soil identified within the release extent.

SITE DESCRIPTION AND RELEASE SUMMARY

The Site is located in Unit N, Section 27, Township 24 South, Range 32 East, in Lea County, New Mexico (32.18236°, -103.66679°) and is associated with oil and gas exploration and production operations on Federal Land managed by the Bureau of Land Management (BLM).

On April 2, 2024, a connection washed out and parted during completion operations and resulted in the release of 14 barrels (bbls) of produced water onto the pad surface. XTO immediately dispatched a vacuum truck and 5 bbls of fluid were recovered. XTO submitted an Initial C-141 Application (C-141) on April 16, 2024. The release was assigned Incident Number NAPP2410735798.

SITE CHARACTERIZATION AND CLOSURE CRITERIA

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

Depth to groundwater at the Site is greater than 100 feet below ground surface (bgs) based on the nearest groundwater well data. On June 10, 2021, a livestock watering well (C-4536) was advanced to a depth of 500 feet bgs utilizing air rotary. The location of the well is approximately 0.4 miles west of the release and is depicted on Figure 1. The well log recorded the depth to water at 314 feet bgs. The Well Record and Log is included in Appendix A.

XTO Energy, Inc.
Remediation Work Plan
Outrider 27 Fed 701H

The closest continuously flowing or significant watercourse to the Site is an emergent wetland, located approximately 6,180 feet northwest of the Site. The Site is greater than 200 feet from a lakebed, sinkhole, or playa lake and greater than 300 feet from an occupied residence, school, hospital, institution, church, or wetland. The Site is greater than 1,000 feet to a freshwater well or spring and is not within a 100-year floodplain or overlying a subsurface mine. The Site is not underlain by unstable geology (low potential karst designation area).

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

- Benzene: 10 milligrams per kilogram (mg/kg)
- Benzene, toluene, ethylbenzene, and total xylenes (BTEX): 50 mg/kg
- Total petroleum hydrocarbons (TPH)-gasoline range organics (GRO) and TPH-diesel range organics (DRO): 1,000 mg/kg
- TPH: 2,500 mg/kg
- Chloride: 20,000 mg/kg

SITE ASSESSMENT AND DELINEATION ACTIVITIES

On May 9, 2024 Ensolum personnel conducted a Site visit to evaluate the release extent based on information provided on the C-141 and visual observations. The release extent was mapped utilizing a handheld Global Positioning System (GPS) unit and is depicted on Figure 2. Photographic documentation was completed during the Site visits and a photographic log is included in Appendix B.

On May 29, 2024, Ensolum returned to the Site to oversee delineation activities. Delineation potholes PH01 through PH05 were advanced via backhoe to assess the vertical extent of the release to a maximum depth of 3 feet bgs. Delineation soil samples were collected from each pothole at depths ranging from 0.5 feet to 3 feet bgs. The soil samples were field screened for volatile organic compounds (VOCs) utilizing a calibrated photoionization detector (PID) and chloride using Hach® chloride QuanTab® test strips. The delineation soil sample locations were mapped utilizing a GPS unit and are depicted on Figure 2. Field screening results and observations were logged on lithologic/soil sampling logs, which are included in Appendix C.

The soil samples were placed directly into pre-cleaned glass jars, labeled with the location, date, time, sampler name, method of analysis, and immediately placed on ice. The soil samples were transported under strict chain-of-custody procedures to Cardinal Laboratories (Cardinal) in Hobbs, New Mexico, for analysis of the following contaminants of concern (COCs): BTEX following United States Environmental Protection Agency (EPA) Method 8021B; TPH-GRO, TPH-DRO, and TPH-oil range organics (ORO) following EPA Method 8015M/D; and chloride following EPA Method SM4500.

LABORATORY ANALYTICAL RESULTS

Laboratory analytical results for all delineation soil samples indicated all COCs were compliant with the Closure Criteria. However, delineation soil sample laboratory analytical results for PH02, PH04, and PH05 indicated TPH and/or chloride concentrations exceeded the reclamation requirement applied in the top 4 feet. All terminal soil samples of the delineation potholes were in compliance with the Closure Criteria and reclamation requirement, successfully defining the vertical extent of the release. The laboratory analytical results are summarized in Table 1 and the complete laboratory analytical reports are included in Appendix D.

XTO Energy, Inc.
Remediation Work Plan
Outrider 27 Fed 701H

PROPOSED REMEDIATION WORK PLAN

The delineation soil sampling results indicate soil containing elevated TPH and chloride concentrations exist across an approximate 27,500 square foot area and extends to depths ranging from 0.5 feet to 3-foot bgs. XTO proposes to complete the following remediation activities:

- Excavation of waste-containing soil to a depth of 2 feet to 3 feet bgs. Excavation will proceed laterally until sidewall samples confirm all COC concentrations are compliant with the reclamation requirement in the top four feet.
- Due to the estimated size of the excavation, XTO requests a variance for the frequency of confirmation soil samples. XTO proposes five-point composite samples to be collected at a sampling frequency of 400 square feet along the excavation floor and sidewalls. The proposed sampling frequency would reduce the total amount of samples from approximately 150 samples (200 square feet) to approximately 76 samples. The soil samples will be handled as described above and analyzed for all COCs. The 200 square foot and 400 square foot sampling grids are depicted in Figure 3a and Figure 3b, based on the anticipated excavation extent.
- An estimated 2,500 cubic yards of waste-containing soil will be excavated and disposed of at the R360 facility in Hobbs, New Mexico
- The excavation will be backfilled with locally procured material and recontoured to match pre-existing conditions.

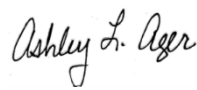
XTO will complete the excavation and soil sampling activities within 90 days of the date of approval of this *Work Plan* by the NMOCD.

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

Sincerely,
Ensolum, LLC



Tracy Hillard
Staff Engineer



Ashley Ager, PG, MS
Program Director

cc: Amy Ruth, XTO
Amanda Garcia, XTO
BLM

Appendices:

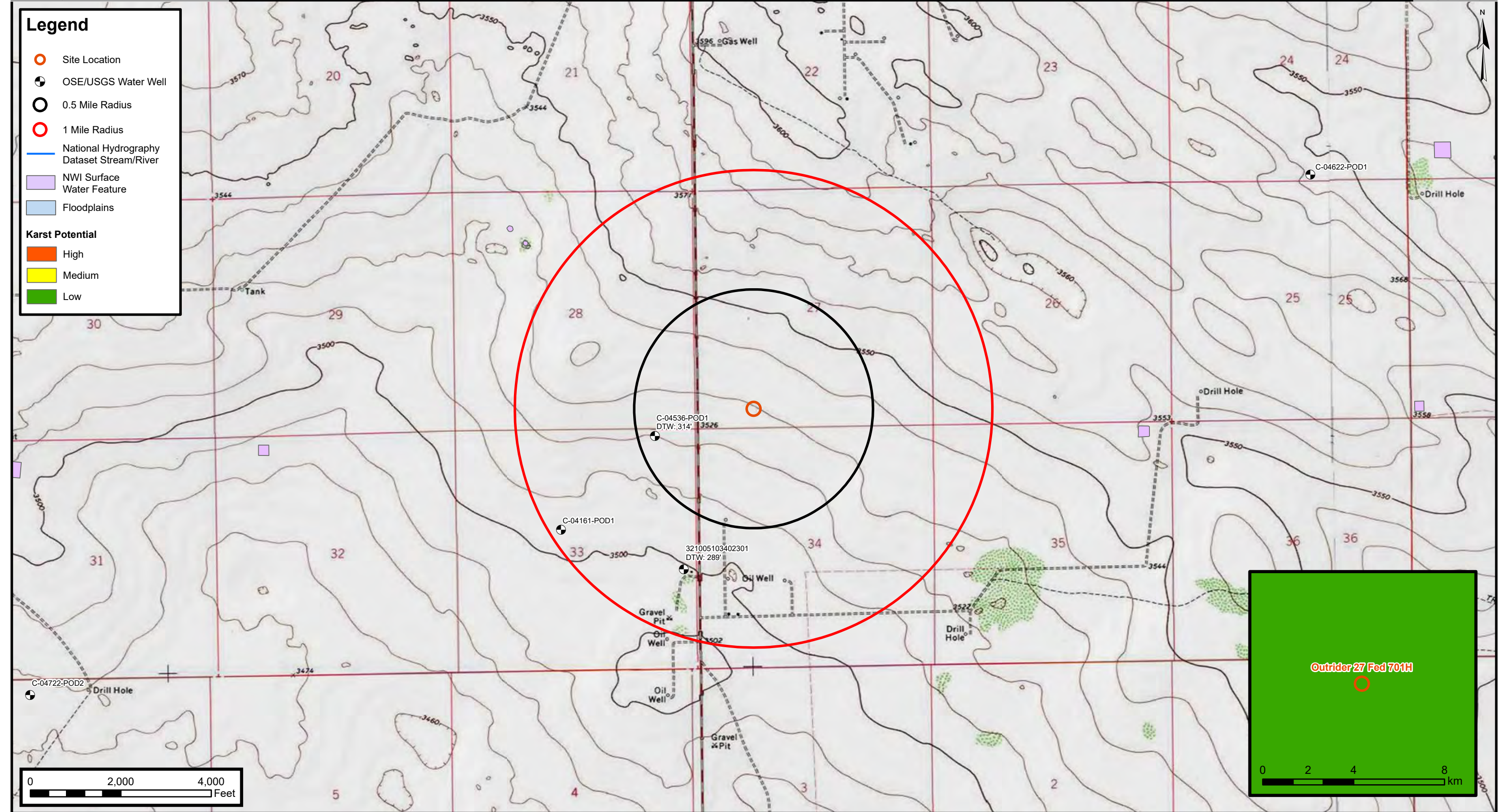
Figure 1	Site Location Map
Figure 2	Delineation Soil Sample Locations
Figure 3a	Proposed Excavation Extent with 200 Square Foot Sampling Grid
Figure 3b	Proposed Excavation Extent with 400 Square Foot Sampling Grid
Table 1	Soil Sample Analytical Results

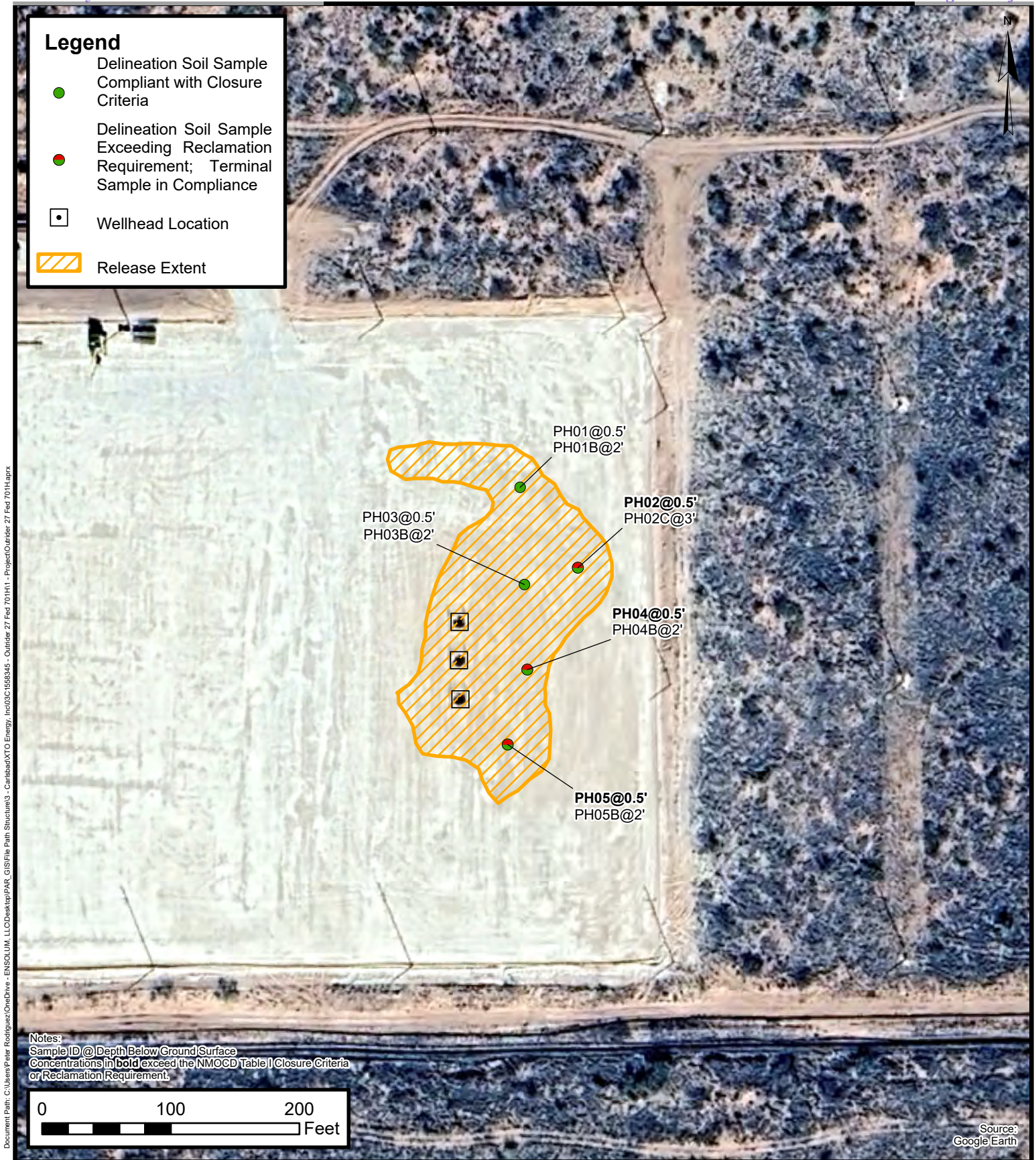
XTO Energy, Inc.
Remediation Work Plan
Outrider 27 Fed 701H

- 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





Delineation Soil Sample Locations

XTO Energy, Inc
Outrider 27 Fed 701H
Incident Number: nAPP2410735798
Unit N, Section 27, Township 24 South, Range 32 East
Lea County, New Mexico

FIGURE
2







TABLES



TABLE 1
SOIL SAMPLE ANALYTICAL RESULTS
 Outrider 28 Fed 701H
 XTO Energy, Inc
 Lea 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	1,000	2,500	20,000
Delineation Soil Samples										
PH01	05/29/2024	0.5	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	160
PH01B	05/29/2024	2	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	48.0
PH02	05/29/2024	0.5	<0.050	<0.300	<10.0	831	<10.0	831	831	320
PH02C	05/29/2024	3	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	32.0
PH03	05/29/2024	0.5	<0.050	<0.300	<10.0	28.8	<10.0	28.8	28.8	256
PH03B	05/29/2024	2	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	80.0
PH04	05/29/2024	0.5	<0.050	<0.300	<10.0	247	<10.0	247	247	816
PH04B	05/29/2024	2	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	48.0
PH05	05/29/2024	0.5	<0.050	<0.300	<10.0	200	<10.0	200	200	560
PH05B	05/29/2024	2	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	64.0

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.

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



APPENDIX A

Referenced Well Records

OSE DTI JUL 9 2021 PM 1:52



WELL RECORD & LOG

OFFICE OF THE STATE ENGINEER

www.ose.state.nm.us

OSE DTI JUN 21 2021 PM 10:14

1. GENERAL AND WELL LOCATION	OSE POD NO. (WELL NO.) C-4536 POD 1		WELL TAG ID NO. 20E37		OSE FILE NO(S) C-4536 ✓		
	WELL OWNER NAME(S) BASIN PROPERTIES RANCHES LLC				PHONE (OPTIONAL)		
	WELL OWNER MAILING ADDRESS 3300 N A STREET, BLDG 1, STE 220				CITY MIDLAND	STATE TX	
					ZIP 79705		
WELL LOCATION (FROM GPS)	DEGREES LATITUDE 32		MINUTES 10	SECONDS 50.8	N		
	LONGITUDE 103		40	25.9	W		
	* ACCURACY REQUIRED: ONE TENTH OF A SECOND * DATUM REQUIRED: WGS 84						
DESCRIPTION RELATING WELL LOCATION TO STREET ADDRESS AND COMMON LANDMARKS - PLSS (SECTION, TOWNSHIP, RANGE) WHERE AVAILABLE							
2. DRILLING & CASING INFORMATION	LICENSE NO. WD1706		NAME OF LICENSED DRILLER Bryce Wallace			NAME OF WELL DRILLING COMPANY Elite Drillers Corporation	
	DRILLING STARTED 06/09/21	DRILLING ENDED 06/10/21	DEPTH OF COMPLETED WELL (FT) 500	BORE HOLE DEPTH (FT) 500	DEPTH WATER FIRST ENCOUNTERED (FT) 314		
	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) 314		
	DRILLING FLUID: <input checked="" type="checkbox"/> AIR <input 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					
	0	20	12 3/4	STEEL	N/A	8.28	.337
	0	300	7 7/8	SDR17 PVC	SPLINE	4.3	SDR17
	300	500	7 7/8	SDR17 PVC	SPLINE	4.3	SDR17
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 3/4	CEMENT	10	TOP FILL	
	0	20	7 7/8	CEMENT	6	TOP FILL	
	300	500	7 7/8	8/16 SILICA SAND	46	TOP FILL	

FOR OSE INTERNAL USE

WR-20 WELL RECORD & LOG (Version 06/30/17)

FILE NO. C-4536-POD 1	POD NO. 1	TRN NO. 695378
LOCATION STK 24.32.33.122	WELL TAG ID NO. 20E37	PAGE 1 OF 2

DSE DTI JUN 21 2021 RM10:14

4. HYDROGEOLOGIC LOG OF WELL

WR-20 WELL RECORD & LOG (Version 06/30/2017)



APPENDIX B

Photographic Log



Photographic Log

XTO Energy, Inc
Outrider 27 Fed 701H
NAPP2410735798

Date & Time: Thu, May 09, 2024 at 11:33:30 MDT
Position: +032.182925° / -103.666491° (±15.9ft)
Altitude: 3528ft (±10.6ft)
Datum: WGS-84
Azimuth/Bearing: 209° S25W 3644mils True (±12°)
Elevation Angle: -00.9°
Horizon Angle: -00.2°
Zoom: 1.0X
Outrider 27



Date & Time: Thu, May 09, 2024 at 11:45:37 MDT
Position: +032.182289° / -103.667161° (±15.9ft)
Altitude: 3526ft (±10.6ft)
Datum: WGS-84
Azimuth/Bearing: 114° S66E 2027mils True (±14°)
Elevation Angle: -03.2°
Horizon Angle: -01.3°
Zoom: 1.0X
Outrider 27



Photograph: 1 Date: 5/9/2024
Description: Soil staining in release footprint
View: Southwest

Photograph: 2 Date: 5/9/2024
Description: Soil staining in release footprint
View: Southeast



Photograph: 3 Date: 5/29/2024
Description: Delineation activities
View: North





Photograph: 4 Date: 5/29/2024
Description: Delineation Activities
View: Southwest





APPENDIX C


Lithologic Soil Sampling Logs

								Sample Name: PH01		Date: 5/29/2024	
LITHOLOGIC / SOIL SAMPLING LOG								Site Name: Outrider 27 Fed 701H			
								Incident Number: NAPP2410735798			
								Job Number: 03C1558345			
Coordinates: 32.182617, -103.66768								Logged By: US		Method: Backhoe	
								Hole Diameter: 24"		Total Depth: 2'	
Comments: Field screening conducted with HACH Chloride Test Strips and PID for chloride and vapor, respectively. Chloride test performed with 1:4 dilution factor of soil to distilled water. A 40% correction factor is included.											
Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample ID	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithologic Descriptions			
						0	CCHE	(0-0.5') CALICHE, tan			
D	<164	0.0	N	PH01	0.5		SP	(0.5-1') SAND, with silt, brown, poorly sorted			
D	<164	0.0	N		1	1	SP	(1-2') SAND, brown, fine, little silt			
D	<164	0.0	N	PH01B	2	2					
Total Depth @ 2 feet bgs											

								Sample Name: PH02		Date: 5/29/2024	
LITHOLOGIC / SOIL SAMPLING LOG								Site Name: Outrider 27 Fed 701H			
								Incident Number: NAPP2410735798			
								Job Number: 03C1558345			
Coordinates: 32.182445, -103.666623								Logged By: US		Method: Backhoe	
								Hole Diameter: 24"		Total Depth: 3'	
Comments: Field screening conducted with HACH Chloride Test Strips and PID for chloride and vapor, respectively. Chloride test performed with 1:4 dilution factor of soil to distilled water. A 40% correction factor is included.											
Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample ID	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithologic Descriptions			
D	352.8	31.7	N	PH02	0.5	0	CCHE	(0-0.5') CALICHE, tan			
D	<164	2.7	N		1	1	SP	(0.5-1') SAND, little silt, brown, poorly sorted			
D	<164	2.0	N		2	2	SP	(1-3') SAND, brown, fine, with clay			
D	<164	0.0	N	PH02C		3					
Total Depth @ 3 feet bgs											

								Sample Name: PH03		Date: 5/29/2024	
LITHOLOGIC / SOIL SAMPLING LOG								Site Name: Outrider 27 Fed 701H			
								Incident Number: NAPP2410735798			
								Job Number: 03C1558345			
Coordinates: 32.182408, -103.666761								Logged By: US		Method: Backhoe	
Hole Diameter: 24"								Total Depth: 2'			
Comments: Field screening conducted with HACH Chloride Test Strips and PID for chloride and vapor, respectively. Chloride test performed with 1:4 dilution factor of soil to distilled water. A 40% correction factor is included.											
Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample ID	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithologic Descriptions			
D	235.2	0.0	N	PH03	0.5	0	CCHE	(0-1') CALICHE, tan, fine grained, with silt			
D	<164	0.0	N		1	1	SP-SC	(1-2') SAND, brown, fine, with clay			
D	<164	0.0	N	PH03B	2	2					
Total Depth @ 2 feet bgs											

								Sample Name: PH04		Date: 5/29/2024	
LITHOLOGIC / SOIL SAMPLING LOG								Site Name: Outrider 27 Fed 701H			
								Incident Number: NAPP2410735798			
								Job Number: 03C1558345			
Coordinates: 32.182229, -103.666756								Logged By: US		Method: Backhoe	
Hole Diameter: 24"								Total Depth: 2'			
Comments: Field screening conducted with HACH Chloride Test Strips and PID for chloride and vapor, respectively. Chloride test performed with 1:4 dilution factor of soil to distilled water. A 40% correction factor is included.											
Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample ID	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithologic Descriptions			
D	2352	0.0	N	PH04	0.5	0	CCHE	(0-1') CALICHE, tan, fine grained, with silt, odor			
D	<164	0.0	N		1	1	SP-SC	(1-2') SAND, brown, fine, some clay, no odor			
D	<164	0.0	N	PH04B	2	2					
Total Depth @ 2 feet bgs											

								Sample Name: PH05		Date: 5/29/2024	
LITHOLOGIC / SOIL SAMPLING LOG								Site Name: Outrider 27 Fed 701H			
								Incident Number: NAPP2410735798			
								Job Number: 03C1558345			
Coordinates: 32.182070, -103.666806								Logged By: US		Method: Backhoe	
Hole Diameter: 24"								Total Depth: 2'			
Comments: Field screening conducted with HACH Chloride Test Strips and PID for chloride and vapor, respectively. Chloride test performed with 1:4 dilution factor of soil to distilled water. A 40% correction factor is included.											
Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample ID	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithologic Descriptions			
D	571.2	43.8	N	PH05	0.5	0	CCHE	(0-1') CALICHE, tan, fine grained, with silt, odor			
D	<164	0.9	N		1	1	SP-SC	(1-2') SAND, brown, fine, some clay, no odor			
D	<164	0.0	N	PH05B	2	2					
Total Depth @ 2 feet bgs											



APPENDIX D

Laboratory Analytical Reports & Chain of Custody Documentation



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

June 05, 2024

TRACY HILLARD

ENSOLUM

3122 NATIONAL PARKS HWY

CARLSBAD, NM 88220

RE: OUTRIDER 27 FED 701 H

Enclosed are the results of analyses for samples received by the laboratory on 05/30/24 12:45.

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

Received: 05/30/2024
Reported: 06/05/2024
Project Name: OUTRIDER 27 FED 701 H
Project Number: 03C1558345
Project Location: 32.18236 -103.66679

Sampling Date: 05/29/2024
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Shalyn Rodriguez

Sample ID: PH 01 0.5' (H243014-01)

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	05/31/2024	ND	1.89	94.7	2.00	5.81	
Toluene*	<0.050	0.050	05/31/2024	ND	1.85	92.6	2.00	5.97	
Ethylbenzene*	<0.050	0.050	05/31/2024	ND	1.91	95.4	2.00	6.21	
Total Xylenes*	<0.150	0.150	05/31/2024	ND	5.72	95.3	6.00	5.86	
Total BTEX	<0.300	0.300	05/31/2024	ND					

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

Chloride, SM4500Cl-B		mg/kg		Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	160	16.0	06/04/2024	ND	448	112	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	05/31/2024	ND	199	99.6	200	0.0386	
DRO >C10-C28*	<10.0	10.0	05/31/2024	ND	199	99.6	200	0.420	
EXT DRO >C28-C36	<10.0	10.0	05/31/2024	ND					

Surrogate: 1-Chlorooctane 75.4 % 48.2-134

Surrogate: 1-Chlorooctadecane 78.5 % 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
TRACY HILLARD
3122 NATIONAL PARKS HWY
CARLSBAD NM, 88220
Fax To:

Received: 05/30/2024
Reported: 06/05/2024
Project Name: OUTRIDER 27 FED 701 H
Project Number: 03C1558345
Project Location: 32.18236 -103.66679

Sampling Date: 05/29/2024
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Shalyn Rodriguez

Sample ID: PH 01B 2' (H243014-02)

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	05/31/2024	ND	1.89	94.7	2.00	5.81		
Toluene*	<0.050	0.050	05/31/2024	ND	1.85	92.6	2.00	5.97		
Ethylbenzene*	<0.050	0.050	05/31/2024	ND	1.91	95.4	2.00	6.21		
Total Xylenes*	<0.150	0.150	05/31/2024	ND	5.72	95.3	6.00	5.86		
Total BTEX	<0.300	0.300	05/31/2024	ND						

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

Chloride, SM4500Cl-B		mg/kg		Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	48.0	16.0	06/04/2024	ND	448	112	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	05/31/2024	ND	199	99.6	200	0.0386	
DRO >C10-C28*	<10.0	10.0	05/31/2024	ND	199	99.6	200	0.420	
EXT DRO >C28-C36	<10.0	10.0	05/31/2024	ND					

Surrogate: 1-Chlorooctane 86.8 % 48.2-134

Surrogate: 1-Chlorooctadecane 92.9 % 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
TRACY HILLARD
3122 NATIONAL PARKS HWY
CARLSBAD NM, 88220
Fax To:

Received: 05/30/2024
Reported: 06/05/2024
Project Name: OUTRIDER 27 FED 701 H
Project Number: 03C1558345
Project Location: 32.18236 -103.66679

Sampling Date: 05/29/2024
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Shalyn Rodriguez

Sample ID: PH 02 0.5' (H243014-03)

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	06/03/2024	ND	1.89	94.7	2.00	5.81	
Toluene*	<0.050	0.050	06/03/2024	ND	1.85	92.6	2.00	5.97	
Ethylbenzene*	<0.050	0.050	06/03/2024	ND	1.91	95.4	2.00	6.21	
Total Xylenes*	<0.150	0.150	06/03/2024	ND	5.72	95.3	6.00	5.86	
Total BTEX	<0.300	0.300	06/03/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID) 93.5 % 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	320	16.0	06/04/2024	ND	448	112	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	05/31/2024	ND	199	99.6	200	0.0386	
DRO >C10-C28*	831	10.0	05/31/2024	ND	199	99.6	200	0.420	
EXT DRO >C28-C36	<10.0	10.0	05/31/2024	ND					

Surrogate: 1-Chlorooctane 71.6 % 48.2-134

Surrogate: 1-Chlorooctadecane 82.2 % 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
TRACY HILLARD
3122 NATIONAL PARKS HWY
CARLSBAD NM, 88220
Fax To:

Received: 05/30/2024
Reported: 06/05/2024
Project Name: OUTRIDER 27 FED 701 H
Project Number: 03C1558345
Project Location: 32.18236 -103.66679

Sampling Date: 05/29/2024
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Shalyn Rodriguez

Sample ID: PH 02C 3' (H243014-04)

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	05/31/2024	ND	1.89	94.7	2.00	5.81		
Toluene*	<0.050	0.050	05/31/2024	ND	1.85	92.6	2.00	5.97		
Ethylbenzene*	<0.050	0.050	05/31/2024	ND	1.91	95.4	2.00	6.21		
Total Xylenes*	<0.150	0.150	05/31/2024	ND	5.72	95.3	6.00	5.86		
Total BTEX	<0.300	0.300	05/31/2024	ND						

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

Chloride, SM4500Cl-B		mg/kg		Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	32.0	16.0	06/04/2024	ND	448	112	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	05/31/2024	ND	199	99.6	200	0.0386	
DRO >C10-C28*	<10.0	10.0	05/31/2024	ND	199	99.6	200	0.420	
EXT DRO >C28-C36	<10.0	10.0	05/31/2024	ND					

Surrogate: 1-Chlorooctane 90.2 % 48.2-134

Surrogate: 1-Chlorooctadecane 95.7 % 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
TRACY HILLARD
3122 NATIONAL PARKS HWY
CARLSBAD NM, 88220
Fax To:

Received: 05/30/2024
Reported: 06/05/2024
Project Name: OUTRIDER 27 FED 701 H
Project Number: 03C1558345
Project Location: 32.18236 -103.66679

Sampling Date: 05/29/2024
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Shalyn Rodriguez

Sample ID: PH 03 0.5' (H243014-05)

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	05/31/2024	ND	1.89	94.7	2.00	5.81		
Toluene*	<0.050	0.050	05/31/2024	ND	1.85	92.6	2.00	5.97		
Ethylbenzene*	<0.050	0.050	05/31/2024	ND	1.91	95.4	2.00	6.21		
Total Xylenes*	<0.150	0.150	05/31/2024	ND	5.72	95.3	6.00	5.86		
Total BTEx	<0.300	0.300	05/31/2024	ND						

Surrogate: 4-Bromofluorobenzene (PID) 116 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	256	16.0	06/04/2024	ND	448	112	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	05/31/2024	ND	199	99.6	200	0.0386	
DRO >C10-C28*	28.8	10.0	05/31/2024	ND	199	99.6	200	0.420	
EXT DRO >C28-C36	<10.0	10.0	05/31/2024	ND					

Surrogate: 1-Chlorooctane 82.6 % 48.2-134

Surrogate: 1-Chlorooctadecane 89.1 % 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
TRACY HILLARD
3122 NATIONAL PARKS HWY
CARLSBAD NM, 88220
Fax To:

Received: 05/30/2024
Reported: 06/05/2024
Project Name: OUTRIDER 27 FED 701 H
Project Number: 03C1558345
Project Location: 32.18236 -103.66679

Sampling Date: 05/29/2024
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Shalyn Rodriguez

Sample ID: PH 03 B 2' (H243014-06)

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	05/31/2024	ND	1.89	94.7	2.00	5.81		
Toluene*	<0.050	0.050	05/31/2024	ND	1.85	92.6	2.00	5.97		
Ethylbenzene*	<0.050	0.050	05/31/2024	ND	1.91	95.4	2.00	6.21		
Total Xylenes*	<0.150	0.150	05/31/2024	ND	5.72	95.3	6.00	5.86		
Total BTEX	<0.300	0.300	05/31/2024	ND						

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

Chloride, SM4500Cl-B		mg/kg		Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	80.0	16.0	06/04/2024	ND	448	112	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	05/31/2024	ND	199	99.6	200	0.0386	
DRO >C10-C28*	<10.0	10.0	05/31/2024	ND	199	99.6	200	0.420	
EXT DRO >C28-C36	<10.0	10.0	05/31/2024	ND					

Surrogate: 1-Chlorooctane 81.0 % 48.2-134

Surrogate: 1-Chlorooctadecane 85.5 % 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
TRACY HILLARD
3122 NATIONAL PARKS HWY
CARLSBAD NM, 88220
Fax To:

Received: 05/30/2024
Reported: 06/05/2024
Project Name: OUTRIDER 27 FED 701 H
Project Number: 03C1558345
Project Location: 32.18236 -103.66679

Sampling Date: 05/29/2024
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Shalyn Rodriguez

Sample ID: PH 04 0.5' (H243014-07)

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	05/31/2024	ND	1.89	94.7	2.00	5.81		
Toluene*	<0.050	0.050	05/31/2024	ND	1.85	92.6	2.00	5.97		
Ethylbenzene*	<0.050	0.050	05/31/2024	ND	1.91	95.4	2.00	6.21		
Total Xylenes*	<0.150	0.150	05/31/2024	ND	5.72	95.3	6.00	5.86		
Total BTEX	<0.300	0.300	05/31/2024	ND						

Surrogate: 4-Bromofluorobenzene (PID) 110 % 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	816	16.0	06/04/2024	ND	448	112	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	05/31/2024	ND	199	99.6	200	0.0386	
DRO >C10-C28*	247	10.0	05/31/2024	ND	199	99.6	200	0.420	
EXT DRO >C28-C36	<10.0	10.0	05/31/2024	ND					

Surrogate: 1-Chlorooctane 88.1 % 48.2-134

Surrogate: 1-Chlorooctadecane 98.4 % 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
TRACY HILLARD
3122 NATIONAL PARKS HWY
CARLSBAD NM, 88220
Fax To:

Received: 05/30/2024
Reported: 06/05/2024
Project Name: OUTRIDER 27 FED 701 H
Project Number: 03C1558345
Project Location: 32.18236 -103.66679

Sampling Date: 05/29/2024
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Shalyn Rodriguez

Sample ID: PH 04 B 2' (H243014-08)

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	05/31/2024	ND	1.89	94.7	2.00	5.81		
Toluene*	<0.050	0.050	05/31/2024	ND	1.85	92.6	2.00	5.97		
Ethylbenzene*	<0.050	0.050	05/31/2024	ND	1.91	95.4	2.00	6.21		
Total Xylenes*	<0.150	0.150	05/31/2024	ND	5.72	95.3	6.00	5.86		
Total BTEX	<0.300	0.300	05/31/2024	ND						

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

Chloride, SM4500Cl-B		mg/kg		Analyzed By: HM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	48.0	16.0	06/04/2024	ND	448	112	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	05/31/2024	ND	190	95.0	200	0.861	
DRO >C10-C28*	<10.0	10.0	05/31/2024	ND	208	104	200	7.53	
EXT DRO >C28-C36	<10.0	10.0	05/31/2024	ND					

Surrogate: 1-Chlorooctane 95.6 % 48.2-134

Surrogate: 1-Chlorooctadecane 102 % 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
TRACY HILLARD
3122 NATIONAL PARKS HWY
CARLSBAD NM, 88220
Fax To:

Received: 05/30/2024
Reported: 06/05/2024
Project Name: OUTRIDER 27 FED 701 H
Project Number: 03C1558345
Project Location: 32.18236 -103.66679

Sampling Date: 05/29/2024
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Shalyn Rodriguez

Sample ID: PH 05 0.5' (H243014-09)

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	05/31/2024	ND	1.89	94.7	2.00	5.81	
Toluene*	<0.050	0.050	05/31/2024	ND	1.85	92.6	2.00	5.97	
Ethylbenzene*	<0.050	0.050	05/31/2024	ND	1.91	95.4	2.00	6.21	
Total Xylenes*	<0.150	0.150	05/31/2024	ND	5.72	95.3	6.00	5.86	
Total BTEX	<0.300	0.300	05/31/2024	ND					

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

Chloride, SM4500Cl-B		mg/kg		Analyzed By: HM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	560	16.0	06/04/2024	ND	448	112	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	05/31/2024	ND	190	95.0	200	0.861	
DRO >C10-C28*	200	10.0	05/31/2024	ND	208	104	200	7.53	
EXT DRO >C28-C36	<10.0	10.0	05/31/2024	ND					

Surrogate: 1-Chlorooctane 93.3 % 48.2-134

Surrogate: 1-Chlorooctadecane 102 % 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
TRACY HILLARD
3122 NATIONAL PARKS HWY
CARLSBAD NM, 88220
Fax To:

Received: 05/30/2024
Reported: 06/05/2024
Project Name: OUTRIDER 27 FED 701 H
Project Number: 03C1558345
Project Location: 32.18236 -103.66679

Sampling Date: 05/29/2024
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Shalyn Rodriguez

Sample ID: PH 05 B 2' (H243014-10)

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	05/31/2024	ND	1.89	94.7	2.00	5.81		
Toluene*	<0.050	0.050	05/31/2024	ND	1.85	92.6	2.00	5.97		
Ethylbenzene*	<0.050	0.050	05/31/2024	ND	1.91	95.4	2.00	6.21		
Total Xylenes*	<0.150	0.150	05/31/2024	ND	5.72	95.3	6.00	5.86		
Total BTEX	<0.300	0.300	05/31/2024	ND						

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

Chloride, SM4500Cl-B		mg/kg		Analyzed By: HM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	64.0	16.0	06/04/2024	ND	448	112	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	05/31/2024	ND	190	95.0	200	0.861	
DRO >C10-C28*	<10.0	10.0	05/31/2024	ND	208	104	200	7.53	
EXT DRO >C28-C36	<10.0	10.0	05/31/2024	ND					

Surrogate: 1-Chlorooctane 92.6 % 48.2-134

Surrogate: 1-Chlorooctadecane 99.7 % 49.1-148

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Mike Snyder For 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 "Mike Snyder", is 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				BILL TO				ANALYSIS REQUEST																	
Project Manager: Tracy Hillard				P.O. #:				<div style="display: flex; justify-content: space-between;"> <div>chloride</div> <div>BTEX</div> <div>TPH</div> </div>																	
Address: 3122 National Parks Hwy				Company: XTO Energy																					
City: Carlsbad State: NM Zip: 88220				Attn: Amy Ruth																					
Phone #: 575 937 3406 Fax #:				Address: 3104 E. Greengate St.																					
Project #: 03C1558345 Project Owner:				City: Carlsbad																					
Project Name: Outrider 27 Fed 701H				State: NM Zip: 88220																					
Project Location: 32.18236, -103.66679				Phone #:																					
Sampler Name: Uriel Santillana				Fax #:																					
FOR LAB USE ONLY																									
Lab I.D.	Sample I.D.	Depth (feet)	(G/RAB OR (C)OMP. # CONTAINERS	MATRIX				PRESERV.	SAMPLING																
				GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER:	ACID/BASE:	ICE / COOL	OTHER:	DATE	TIME											
H243014	PH01	0.5'	G1			X					X		5/29/24	1025	X	X	X								
1	PH01B	2'												1030											
2	PH02	0.5'												1050											
3	PH02C	3'												1105											
4	PH03	0.5'												1120											
5	PH03B	2'												1127											
6	PH04	0.5'												1205											
7	PH04B	2'												1214											
8	PH05	0.5'												1224											
9	PH05B	2' * 80												1230											
10																									

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Relinquished By:	Date: 5/30/24	Received By:	Verbal Result: <input type="checkbox"/> Yes <input type="checkbox"/> No Add'l Phone #:
	Time: 1245		All Results are emailed. Please provide Email address:
Relinquished By:	Date:	Received By:	REMARKS: NAPP2410735798x depths added to sample ID per customer cost center: 2190721001
Delivered By: (Circle One)	Observed Temp. °C	Sample Condition	Turnaround Time: Standard <input checked="" type="checkbox"/> Rush <input type="checkbox"/>
Sampler - UPS - Bus - Other:	Corrected Temp. °C	Cool Intact <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> No	Bacteria (only) Sample Condition
		CHECKED BY: (Initials) AP	Cool Intact <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> No
			Thermometer ID: #113
			Correction Factor: -0.5°C

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

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

General Information
Phone: (505) 629-6116

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

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

QUESTIONS

Action 389607

QUESTIONS

Operator: XTO ENERGY, INC 6401 Holiday Hill Road Midland, TX 79707	OGRID: 5380
	Action Number: 389607
	Action Type: [C-141] Remediation Closure Request C-141 (C-141-v-Closure)

QUESTIONS

Prerequisites	
Incident ID (n#)	nAPP2410735798
Incident Name	NAPP2410735798 OUTFIDER 27 FED 701H @ 0
Incident Type	Produced Water Release
Incident Status	Remediation Closure Report Received

Location of Release Source	
Please answer all the questions in this group.	
Site Name	OUTRIDER 27 FED 701H
Date Release Discovered	04/02/2024
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 Other (Specify) Produced Water Released: 14 BBL Recovered: 5 BBL Lost: 9 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)	Connection threading washed out and parted during wireline being pumped downhole during fracking operations

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

General Information
Phone: (505) 629-6116

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

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

QUESTIONS, Page 2

Action 389607

QUESTIONS (continued)

Operator: XTO ENERGY, INC 6401 Holiday Hill Road Midland, TX 79707	OGRID: 5380
	Action Number: 389607
	Action Type: [C-141] Remediation Closure Request C-141 (C-141-v-Closure)

QUESTIONS

Nature and Volume of Release (continued)	
Is this a gas only submission (i.e. only significant Mcf values reported)	No, according to supplied volumes this does not appear to be a "gas only" report.
Was this a major release as defined by Subsection A of 19.15.29.7 NMAC	No
Reasons why this would be considered a submission for a notification of a major release	Unavailable.
With the implementation of the 19.15.27 NMAC (05/25/2021), venting and/or flaring of natural gas (i.e. gas only) are to be submitted on the C-129 form.	

Initial Response

The responsible party must undertake the following actions immediately unless they could create a safety hazard that would result in injury.

The source of the release has been stopped	True
The impacted area has been secured to protect human health and the environment	True
Released materials have been contained via the use of berms or dikes, absorbent pads, or other containment devices	True
All free liquids and recoverable materials have been removed and managed appropriately	True
If all the actions described above have not been undertaken, explain why	Not answered.

Per Paragraph (4) of Subsection B of 19.15.29.8 NMAC the responsible party may commence remediation immediately after discovery of a release. If remediation has begun, please prepare and attach a narrative of actions to date in the follow-up C-141 submission. If remedial efforts have been successfully completed or if the release occurred within a lined containment area (see Subparagraph (a) of Paragraph (5) of Subsection A of 19.15.29.11 NMAC), please prepare and attach all information needed for closure evaluation in the follow-up C-141 submission.

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to OCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the OCD does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In addition, OCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.

I hereby agree and sign off to the above statement	Name: Colton Brown Title: Environmental Advisor Email: colton.s.brown@exxonmobil.com Date: 10/03/2024
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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 389607

QUESTIONS (continued)

Operator: XTO ENERGY, INC 6401 Holiday Hill Road Midland, TX 79707	OGRID: 5380
	Action Number: 389607
	Action Type: [C-141] Remediation Closure Request C-141 (C-141-v-Closure)

QUESTIONS**Site Characterization**

Please answer all the questions in this group (only required when seeking remediation plan approval and beyond). This information must be provided to the appropriate district office no later than 90 days after the release discovery date.

What is the shallowest depth to groundwater beneath the area affected by the release in feet below ground surface (ft bgs)	Between 100 and 500 (ft.)
What method was used to determine the depth to ground water	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 1 and 5 (mi.)
Any lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark)	Greater than 5 (mi.)
An occupied permanent residence, school, hospital, institution, or church	Between ½ and 1 (mi.)
A spring or a private domestic fresh water well used by less than five households for domestic or stock watering purposes	Between 1000 (ft.) and ½ (mi.)
Any other fresh water well or spring	Between 1000 (ft.) and ½ (mi.)
Incorporated municipal boundaries or a defined municipal fresh water well field	Greater than 5 (mi.)
A wetland	Between 1 and 5 (mi.)
A subsurface mine	Greater than 5 (mi.)
An (non-karst) unstable area	Greater than 5 (mi.)
Categorize the risk of this well / site being in a karst geology	Low
A 100-year floodplain	Greater than 5 (mi.)
Did the release impact areas not on an exploration, development, production, or storage site	No

Remediation Plan

Please answer all the questions that apply or are indicated. This information must be provided to the appropriate district office no later than 90 days after the release discovery date.

Requesting a remediation plan approval with this submission	Yes
<i>Attach a comprehensive report demonstrating the lateral and vertical extents of soil contamination associated with the release have been determined, pursuant to 19.15.29.11 NMAC and 19.15.29.13 NMAC.</i>	
Have the lateral and vertical extents of contamination been fully delineated	Yes
Was this release entirely contained within a lined containment area	No

Soil Contamination Sampling: (Provide the highest observable value for each, in milligrams per kilograms.)

Chloride (EPA 300.0 or SM4500 Cl B)	816
TPH (GRO+DRO+MRO) (EPA SW-846 Method 8015M)	831
GRO+DRO (EPA SW-846 Method 8015M)	831
BTEX (EPA SW-846 Method 8021B or 8260B)	0
Benzene (EPA SW-846 Method 8021B or 8260B)	0

Per Subsection B of 19.15.29.11 NMAC unless the site characterization report includes completed efforts at remediation, the report must include a proposed remediation plan in accordance with 19.15.29.12 NMAC, which includes the anticipated timelines for beginning and completing the remediation.

On what estimated date will the remediation commence	08/30/2024
On what date will (or did) the final sampling or liner inspection occur	11/28/2024
On what date will (or was) the remediation complete(d)	11/28/2024
What is the estimated surface area (in square feet) that will be reclaimed	27500
What is the estimated volume (in cubic yards) that will be reclaimed	2500
What is the estimated surface area (in square feet) that will be remediated	27500
What is the estimated volume (in cubic yards) that will be remediated	2500

These estimated dates and measurements are recognized to be the best guess or calculation at the time of submission and may (be) change(d) over time as more remediation efforts are completed.

The OCD recognizes that proposed remediation measures may have to be minimally adjusted in accordance with the physical realities encountered during remediation. If the responsible party has any need to significantly deviate from the remediation plan proposed, then it should consult with the division to determine if another remediation plan submission is required.

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QUESTIONS, Page 4

Action 389607

QUESTIONS (continued)

Operator: XTO ENERGY, INC 6401 Holiday Hill Road Midland, TX 79707	OGRID: 5380
	Action Number: 389607
	Action Type: [C-141] Remediation Closure Request C-141 (C-141-v-Closure)

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:	
(Select all answers below that apply.)	
(Ex Situ) Excavation and off-site disposal (i.e. dig and haul, hydrovac, etc.)	Yes
Which OCD approved facility will be used for off-site disposal	HALFWAY DISPOSAL AND LANDFILL [FEEM0112334510]
OR which OCD approved well (API) will be used for off-site disposal	Not answered.
OR is the off-site disposal site, to be used, out-of-state	No
OR is the off-site disposal site, to be used, an NMED facility	No
(Ex Situ) Excavation and on-site remediation (i.e. On-Site Land Farms)	No
(In Situ) Soil Vapor Extraction	No
(In Situ) Chemical processing (i.e. Soil Shredding, Potassium Permanganate, etc.)	No
(In Situ) Biological processing (i.e. Microbes / Fertilizer, etc.)	No
(In Situ) Physical processing (i.e. Soil Washing, Gypsum, Disking, etc.)	No
Ground Water Abatement pursuant to 19.15.30 NMAC	No
OTHER (Non-listed remedial process)	No
<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: Colton Brown Title: Environmental Advisor Email: colton.s.brown@exxonmobil.com Date: 10/03/2024
<i>The OCD recognizes that proposed remediation measures may have to be minimally adjusted in accordance with the physical realities encountered during remediation. If the responsible party has any need to significantly deviate from the remediation plan proposed, then it should consult with the division to determine if another remediation plan submission is required.</i>	

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QUESTIONS, Page 5

Action 389607

QUESTIONS (continued)

Operator: XTO ENERGY, INC 6401 Holiday Hill Road Midland, TX 79707	OGRID: 5380
	Action Number: 389607
	Action Type: [C-141] Remediation Closure Request C-141 (C-141-v-Closure)

QUESTIONS

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

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QUESTIONS, Page 6

Action 389607

QUESTIONS (continued)

Operator: XTO ENERGY, INC 6401 Holiday Hill Road Midland, TX 79707	OGRID:
	5380
	Action Number:
	389607
Action Type:	
[C-141] Remediation Closure Request C-141 (C-141-v-Closure)	

QUESTIONS

Sampling Event Information	
Last sampling notification (C-141N) recorded	368793
Sampling date pursuant to Subparagraph (a) of Paragraph (1) of Subsection D of 19.15.29.12 NMAC	08/09/2024
What was the (estimated) number of samples that were to be gathered	150
What was the sampling surface area in square feet	27200

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	Yes
Have the lateral and vertical extents of contamination been fully delineated	Yes
Was this release entirely contained within a lined containment area	No
All areas reasonably needed for production or subsequent drilling operations have been stabilized, returned to the sites existing grade, and have a soil cover that prevents ponding of water, minimizing dust and erosion	Yes
What was the total surface area (in square feet) remediated	25063
What was the total volume (cubic yards) remediated	1900
All areas not reasonably needed for production or subsequent drilling operations have been reclaimed to contain a minimum of four feet of non-waste contain earthen material with concentrations less than 600 mg/kg chlorides, 100 mg/kg TPH, 50 mg/kg BTEX, and 10 mg/kg Benzene	Yes
What was the total surface area (in square feet) reclaimed	25063
What was the total volume (in cubic yards) reclaimed	1900
Summarize any additional remediation activities not included by answers (above)	Excavation activities were conducted at the Site as indicated in the RWP to address the April 2024 release of produced water. Laboratory analytical results for all excavation soil samples collected indicate COC concentrations were compliant with the Closure Criteria. Based on the soil sample laboratory analytical results, no further remediation is required. The excavation has been backfilled with material purchased locally and the Site has been recontoured to match pre-existing site conditions. Excavation of soil has mitigated impacts exceeding the Closure Criteria at the Site. XTO believes these remedial actions are protective of human health, the environment, and groundwater. As such, XTO respectfully requests closure for Incident Number nAPP2410735798.

The responsible party must attach information demonstrating they have complied with all applicable closure requirements and any conditions or directives of the OCD. This demonstration should be in the form of a comprehensive report (in .pdf format) including a scaled site map, sampling diagrams, relevant field notes, photographs of any excavation prior to backfilling, laboratory data including chain of custody documents of final sampling, and a narrative of the remedial activities. Refer to 19.15.29.12 NMAC.

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. The responsible party acknowledges they must substantially restore, reclaim, and re-vegetate the impacted surface area to the conditions that existed prior to the release or their final land use in accordance with 19.15.29.13 NMAC including notification to the OCD when reclamation and re-vegetation are complete.

I hereby agree and sign off to the above statement	Name: Colton Brown Title: Environmental Advisor Email: colton.s.brown@exxonmobil.com Date: 10/03/2024
--	--

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QUESTIONS, Page 7

Action 389607

QUESTIONS (continued)

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	Action Type: [C-141] Remediation Closure Request C-141 (C-141-v-Closure)

QUESTIONS

Reclamation Report	
Only answer the questions in this group if all reclamation steps have been completed.	
Requesting a reclamation approval with this submission	No

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CONDITIONS

Action 389607

CONDITIONS

Operator: XTO ENERGY, INC 6401 Holiday Hill Road Midland, TX 79707	OGRID: 5380
	Action Number: 389607
	Action Type: [C-141] Remediation Closure Request C-141 (C-141-v-Closure)

CONDITIONS

Created By	Condition	Condition Date
nvez	None	1/3/2025