

Incident ID	NAPP2205254615
District RP	
Facility ID	
Application ID	

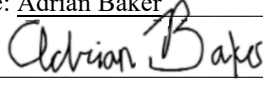
Closure

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 (electronic submittals in .pdf format are preferred) 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.

Closure Report Attachment Checklist: *Each of the following items must be included in the closure report.*

- ☒ A scaled site and sampling diagram as described in 19.15.29.11 NMAC
- ☒ Photographs of the remediated site prior to backfill or photos of the liner integrity if applicable (Note: appropriate OCD District office must be notified 2 days prior to liner inspection)
- ☒ Laboratory analyses of final sampling (Note: appropriate ODC District office must be notified 2 days prior to final sampling)
- ☒ Description of remediation activities

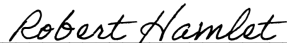
I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to OCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public 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.

Printed Name: Adrian Baker Title: Environmental Coordinator
Signature:  Date: 05/10/2022
email: Adrian.baker@exxonmobil.com Telephone: 432-236-3808

OCD Only

Received by: Robert Hamlet Date: 6/14/2022

Closure approval by the OCD does not relieve the responsible party of liability should their operations have failed to adequately investigate and remediate contamination that poses a threat to groundwater, surface water, human health, or the environment nor does not relieve the responsible party of compliance with any other federal, state, or local laws and/or regulations.

Closure Approved by:  Date: 6/14/2022
Printed Name: Robert Hamlet Title: Environmental Specialist - Advanced

District I
1625 N. French Dr., Hobbs, NM 88240
District II
811 S. First St., Artesia, NM 88210
District III
1000 Rio Brazos Road, Aztec, NM 87410
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy Minerals and Natural
Resources Department

Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, NM 87505

Form C-141
Revised August 24, 2018
Submit to appropriate OCD District office

Incident ID	NAPP2205254615
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Release Notification

Responsible Party

Responsible Party XTO Energy	OGRID 5380
Contact Name Adrian Baker	Contact Telephone 432-236-3808
Contact email adrian.baker@exxonmobil.com	Incident # (assigned by OCD)
Contact mailing address 6401 Holiday Hill Rd Bldg 5, Midland, Texas, 79707	

Location of Release Source

Latitude 32.16790 Longitude -103.89590
(NAD 83 in decimal degrees to 5 decimal places)

Site Name Pierce Canyon 32	Site Type Tank Battery
Date Release Discovered 02/09/2022	API# (if applicable)

Unit Letter	Section	Township	Range	County
P	32	24S	30E	Eddy

Surface Owner: ☒ State ☐ Federal ☐ Tribal ☐ Private (Name: _____)

Nature and Volume of Release

Material(s) Released (Select all that apply and attach calculations or specific justification for the volumes provided below)

<input checked="" type="checkbox"/> Crude Oil	Volume Released (bbls) 0.20	Volume Recovered (bbls) 0.00
<input type="checkbox"/> Produced Water	Volume Released (bbls)	Volume Recovered (bbls)
	Is the concentration of total dissolved solids (TDS) in the produced water >10,000 mg/l?	<input type="checkbox"/> Yes <input type="checkbox"/> No
<input type="checkbox"/> Condensate	Volume Released (bbls)	Volume Recovered (bbls)
<input type="checkbox"/> Natural Gas	Volume Released (Mcf)	Volume Recovered (Mcf)
<input type="checkbox"/> Other (describe)	Volume/Weight Released (provide units)	Volume/Weight Recovered (provide units)

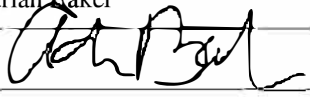
Cause of Release Freezing weather caused the flare scrubber to load and send fluids out the flare, which ignited and extinguished on the ground. A third-party contractor has been retained for remediation purposes.

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Was this a major release as defined by 19.15.29.7(A) NMAC? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	If YES, for what reason(s) does the responsible party consider this a major release? A release that results in a fire or is the result of a fire.
If YES, was immediate notice given to the OCD? By whom? To whom? When and by what means (phone, email, etc)? Yes, by Garrett Green to Mike Bratcher; Victoria Venegas; Rob Hamlet on Wednesday, February 9, 2022 3:28 PM via email.	

Initial Response

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

<input checked="" type="checkbox"/> The source of the release has been stopped.	
<input checked="" type="checkbox"/> The impacted area has been secured to protect human health and the environment.	
<input checked="" type="checkbox"/> Released materials have been contained via the use of berms or dikes, absorbent pads, or other containment devices.	
<input checked="" type="checkbox"/> All free liquids and recoverable materials have been removed and managed appropriately.	
If all the actions described above have <u>not</u> been undertaken, explain why: NA	
Per 19.15.29.8 B. (4) NMAC the responsible party may commence remediation immediately after discovery of a release. If remediation has begun, please attach a narrative of actions to date. If remedial efforts have been successfully completed or if the release occurred within a lined containment area (see 19.15.29.11(A)(5)(a) NMAC), please attach all information needed for closure evaluation.	
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.	
Printed Name: Adrian Baker	Title: SSHE Coordinator
Signature: 	Date: 2/22/2022
email: adrian.baker@exxonmobil.com	Telephone: 432-236-3808
<u>OCD Only</u>	
Received by: Ramona Marcus	Date: 2/23/2022

NAPP2205254615

Location:	Pierce Canyon 32 Tank Battery	
Spill Date:	2/9/2022	
Area 1		
Approximate Area =	3600.00	sq. ft.
Average Saturation (or depth) of spill =	0.13	inches
Average Porosity Factor =	0.03	
VOLUME OF LEAK		
Total Crude Oil =	0.20	bbls
Total Produced Water =	0.00	bbls
TOTAL VOLUME OF LEAK		
Total Crude Oil =	0.20	bbls
Total Produced Water =	0.00	bbls
TOTAL VOLUME RECOVERED		
Total Crude Oil =	0.00	bbls
Total Produced Water =	0.00	bbls

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

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

CONDITIONS

Action 83466

CONDITIONS

Operator: XTO ENERGY, INC 6401 Holiday Hill Road Midland, TX 79707	OGRID: 5380
	Action Number: 83466
	Action Type: [C-141] Release Corrective Action (C-141)

CONDITIONS

Created By	Condition	Condition Date
rmarcus	None	2/23/2022

Incident ID	NAPP2205254615
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Site Assessment/Characterization

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?	≥ 100 (ft bgs)
Did this release impact groundwater or surface water?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 300 feet of a continuously flowing watercourse or any other significant watercourse?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 200 feet of any lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark)?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 300 feet of an occupied permanent residence, school, hospital, institution, or church?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 500 horizontal feet of a spring or a private domestic fresh water well used by less than five households for domestic or stock watering purposes?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 1000 feet of any other fresh water well or spring?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within incorporated municipal boundaries or within a defined municipal fresh water well field?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 300 feet of a wetland?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release overlying a subsurface mine?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release overlying an unstable area such as karst geology?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within a 100-year floodplain?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Did the release impact areas not on an exploration, development, production, or storage site?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No

Attach a comprehensive report (electronic submittals in .pdf format are preferred) demonstrating the lateral and vertical extents of soil contamination associated with the release have been determined. Refer to 19.15.29.11 NMAC for specifics.

Characterization Report Checklist: *Each of the following items must be included in the report.*

- ☒ Scaled site map showing impacted area, surface features, subsurface features, delineation points, and monitoring wells.
- ☒ Field data
- ☒ Data table of soil contaminant concentration data
- ☒ Depth to water determination
- ☒ Determination of water sources and significant watercourses within ½-mile of the lateral extents of the release
- ☒ Boring or excavation logs
- ☒ Photographs including date and GIS information
- ☒ Topographic/Aerial maps
- ☒ Laboratory data including chain of custody

If the site characterization report does not include completed efforts at remediation of the release, the report must include a proposed remediation plan. That plan must include the estimated volume of material to be remediated, the proposed remediation technique, proposed sampling plan and methods, anticipated timelines for beginning and completing the remediation. The closure criteria for a release are contained in Table 1 of 19.15.29.12 NMAC, however, use of the table is modified by site- and release-specific parameters.

State of New Mexico
Oil Conservation Division

Page 4

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Printed Name: Adrian Baker Title: Environmental Coordinator

Signature:  Date: 05/10/2022

email: Adrian.baker@exxonmobil.com Telephone: 432-236-3808

OCD Only

Received by: _____ Date: _____

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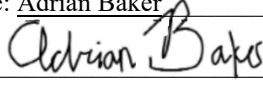
Closure

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 (electronic submittals in .pdf format are preferred) 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.

Closure Report Attachment Checklist: *Each of the following items must be included in the closure report.*

- ☒ A scaled site and sampling diagram as described in 19.15.29.11 NMAC
- ☒ Photographs of the remediated site prior to backfill or photos of the liner integrity if applicable (Note: appropriate OCD District office must be notified 2 days prior to liner inspection)
- ☒ Laboratory analyses of final sampling (Note: appropriate ODC District office must be notified 2 days prior to final sampling)
- ☒ Description of remediation activities

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.

Printed Name: Adrian Baker Title: Environmental Coordinator
Signature:  Date: 05/10/2022
email: Adrian.baker@exxonmobil.com Telephone: 432-236-3808

OCD Only

Received by: _____ Date: _____

Closure approval by the OCD does not relieve the responsible party of liability should their operations have failed to adequately investigate and remediate contamination that poses a threat to groundwater, surface water, human health, or the environment nor does not relieve the responsible party of compliance with any other federal, state, or local laws and/or regulations.

Closure Approved by: _____ Date: _____

Printed Name: _____ Title: _____



May 10, 2022

District II
New Mexico Oil Conservation Division
811 S. First Street
Artesia, New Mexico 88210

**Re: Closure Request
Pierce Canyon 32 Tank Battery
Incident Number NAPP2205254615
Eddy 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 site assessment and soil sampling activities performed at the Pierce Canyon 32 Tank Battery (Site). The purpose of the site assessment and soil sampling activities was to assess for the presence or absence of impacts to soil resulting from a small crude oil flare fire at the Site. Based on the site assessment activities and analytical results from the soil sampling event, XTO is submitting this Closure Request for Incident Number NAPP2205254615.

SITE DESCRIPTION AND RELEASE SUMMARY

The Site is located in in Unit P, Section 32, Township 24 South, Range 30 East, in Eddy County, New Mexico (32.16790° N, 103.89590°W) and is associated with oil and gas exploration and production operations on New Mexico State Land.

On February 9, 2022, freezing weather caused the flare scrubber to load and send approximately 0.20 barrels (bbls) of crude oil out of the flare, which ignited and extinguished on the ground. There were no fluids to recover. XTO reported the release via email to the New Mexico Oil Conservation Division (NMOCD) on February 9, 2022 and submitted a Release Notification Form C-141 (Form C-141) on February 22, 2022. The release was assigned Incident Number NAPP2205254615.

SITE CHARACTERIZATION AND CLOSURE CRITERIA

The Site was characterized according to Table 1, Closure Criteria for Soils Impacted by a Release, of Title 19, Chapter 15, Part 29, Section 12 (19.15.29.12) of the New Mexico Administrative Code (NMAC). Results from the characterization desktop review are presented on page 3 of the Form C-141, Site Assessment/Characterization. Potential site receptors are identified on Figure 1.

Depth to groundwater at the Site is estimated to be greater than 100 feet below ground surface (bgs) based on the nearest groundwater well data. The closest permitted groundwater well with depth to groundwater data is New Mexico Office of the State Engineer well C-4474, located approximately 1.3 miles northeast of the Site. The groundwater well has a reported depth to groundwater greater than 110 feet bgs and a total depth of 100 feet bgs. Ground surface elevation at the groundwater well location is

3,308 feet above mean sea level (amsl), which is approximately 45 feet higher in elevation than the Site. All wells used for depth to groundwater determination are presented on Figure 1. The referenced well records are included in Appendix A.

The closest continuously flowing or significant watercourse to the Site is a dry wash, located approximately 835 feet south of the Site. The Site is greater than 200 feet from a lakebed, sinkhole, or playa lake and greater than 300 feet from an occupied residence, school, hospital, institution, church, or wetland. The Site is greater than 1,000 feet to a freshwater well or spring and is not within a 100-year floodplain or overlying a subsurface mine. The Site is not underlain by unstable geology (low potential karst designation area). Site receptors are identified on Figure 1.

Based on the results of the Site Characterization, the following NMOCD Table 1 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 April 22, 2022 and May 2, 2022, site assessment activities were conducted to evaluate the release extent based on information provided on the Form C-141 and visual observations. Six preliminary assessment soil samples (SS01 through SS06) were collected within and around the release extent from a depth of 0.5 feet bgs, to assess for the presence or absence of impacted soil. The preliminary soil samples were field screened for volatile organic compounds (VOCs) utilizing a calibrated photoionization detector (PID) and chloride Hach® chloride QuanTab® test strips. The release extent and preliminary soil sample locations were mapped utilizing a handheld Global Positioning System (GPS) unit and are depicted on Figure 2. Photographic documentation was completed during the Site visit and a photographic log is included in Appendix B.

Field screening results indicated no impacts to soil; however, surficial staining from the fire was scraped and removed from the Site. Following the preliminary soil sampling and scraping, additional delineation activities were conducted to confirm the absence of impacted soil. Potholes were advanced via track mounted backhoe within the release extent at the locations of preliminary soil samples SS05 and SS06. The potholes were advanced to a depth of 1 foot bgs. Discrete delineation soil samples SS05A and SS06A were collected from the potholes at a depth 1 foot bgs. Soil from the potholes was field screened for VOCs and chloride utilizing a calibrated PID and Hach® chloride QuanTab® test strips, respectively. Field screening results and observations for the potholes were logged on lithologic/soil sampling logs, which are included in Appendix C. The delineation soil sample locations are depicted on Figure 2.

The preliminary and delineation soil samples were placed directly into pre-cleaned glass jars, labeled with the location, date, time, sampler name, method of analysis, and immediately placed on ice. The soil samples were transported at or below 4 degrees Celsius (°C) under strict chain-of-custody (COC) procedures to Eurofins Laboratories (Eurofins) in Carlsbad, New Mexico, for analysis of 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 300.0.

LABORATORY ANALYTICAL RESULTS

Laboratory analytical results for preliminary soil samples SS01 through SS06 and delineation soil samples SS05A and SS06A indicated that benzene, BTEX, TPH-GRO/TPH-DRO, TPH, and chloride concentrations were compliant with the Site Closure Criteria and provided lateral and vertical delineation to below the most stringent Table 1 Closure Criteria. Laboratory analytical results are summarized in Table 1 and the complete laboratory analytical reports are included as Appendix D.

CLOSURE REQUEST

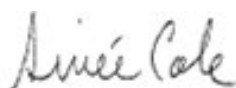
Site assessment activities were conducted at the Site to assess for the presence or absence of impacted soil resulting from the February 9, 2022 crude oil flare fire. Laboratory analytical results for the soil samples collected within and around the release extent, indicated that benzene, BTEX, TPH-GRO/TPH-DRO, TPH, and chloride concentrations were compliant with the Site Closure Criteria and provided lateral and vertical delineation to below the most stringent Table 1 Closure Criteria. XTO removed the surficial staining from the fire and based on the soil sample analytical results, no further remediation was required. XTO respectfully requests closure for Incident Number NAPP2205254615.

If you have any questions or comments, please contact Ms. Aimee Cole at (720) 384-7365 or acole@ensolum.com.

Sincerely,
Ensolum, LLC



Kelly Lowery, GIT
Staff Geologist



Aimee Cole
Senior Managing Scientist

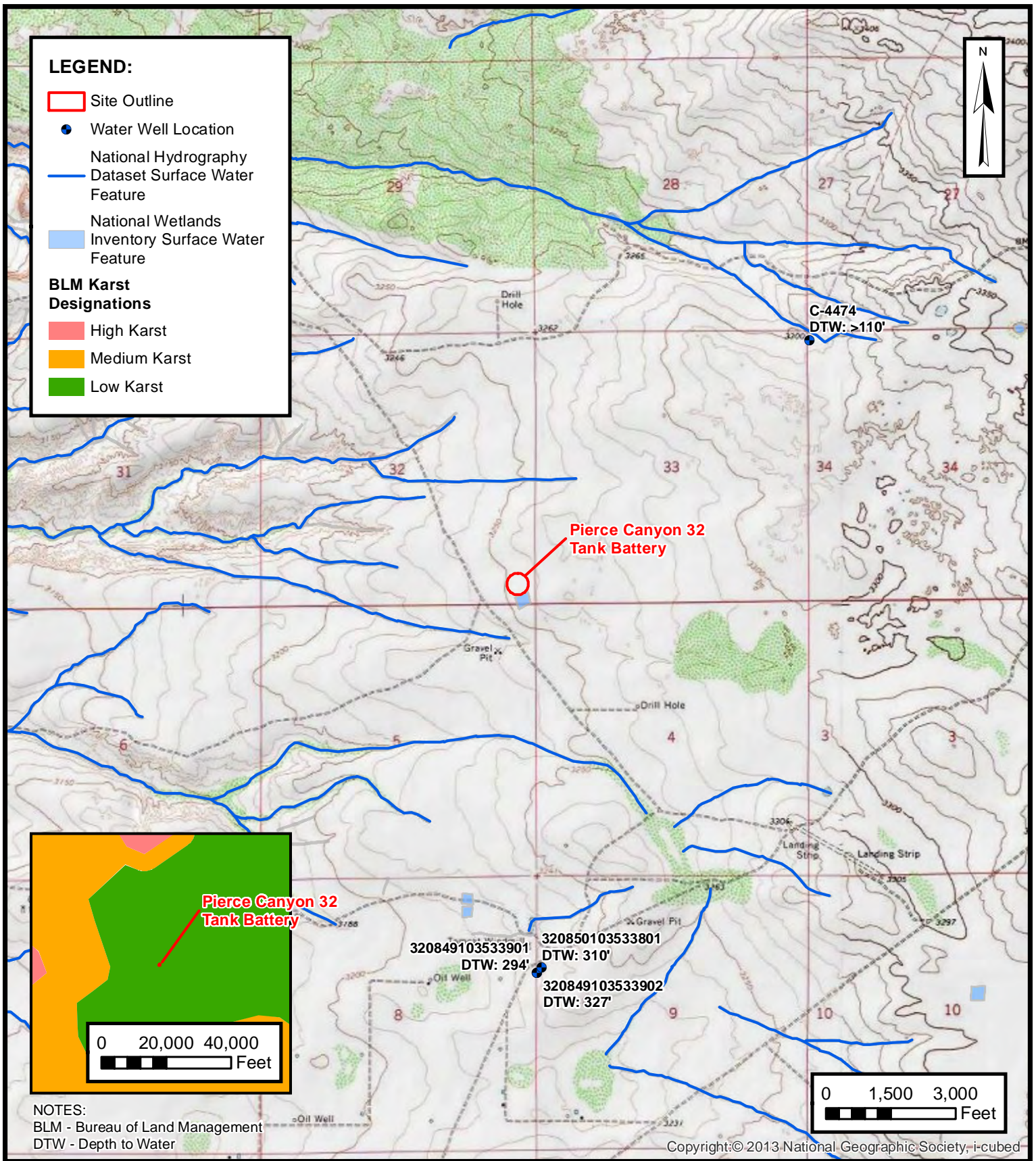
cc: Adrian Baker, XTO
Bureau of Land Management

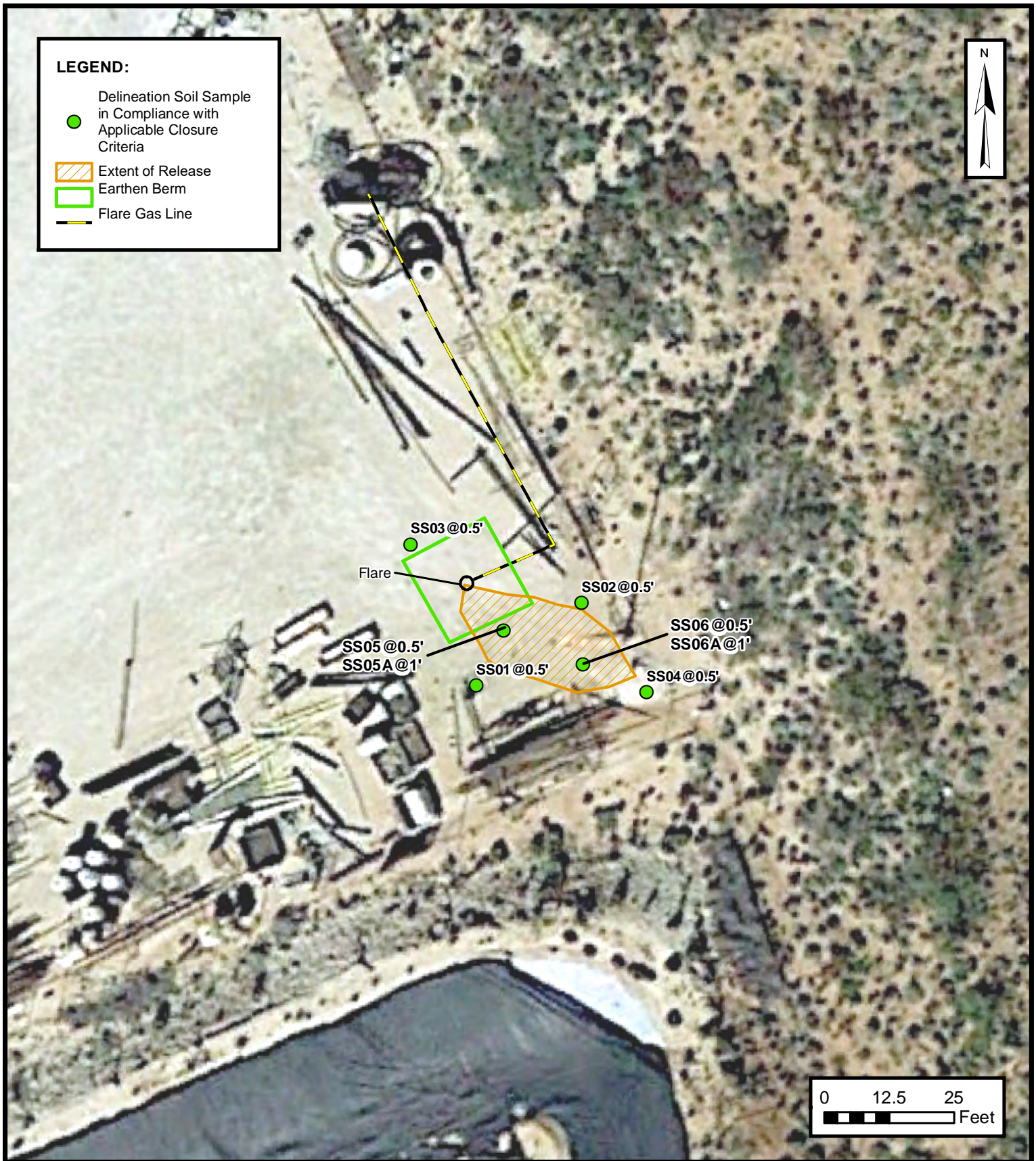
Appendices:

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



FIGURES





DELINEATION SOIL SAMPLE LOCATIONS

XTO ENERGY, INC
 PIERCE CANYON 32 TANK BATTERY
 NAPP2205254615
 Unit P, Sec 32, T24S, R30E
 Eddy County, New Mexico

FIGURE

2



TABLES



TABLE 1
SOIL SAMPLE ANALYTICAL RESULTS
 Pierce Canyon 32 Tank Battery
 XTO Energy, Inc.
 Eddy County, New Mexico

Sample I.D.	Sample Date	Sample Depth (feet bgs)	Benzene (mg/kg)	Total BTEX (mg/kg)	TPH GRO (mg/kg)	TPH DRO (mg/kg)	TPH ORO (mg/kg)	GRO+DRO (mg/kg)	Total TPH (mg/kg)	Chloride (mg/kg)
NMOCD Table 1 Closure Criteria (NMAC 19.15.29)			10	50	NE	NE	NE	1,000	2,500	20,000
Delineation Soil Samples										
SS01	04/22/2022	0.5	<0.00200	<0.00399	<50.0	67.1	<50.0	67.1	67.1	144
SS02	05/02/2022	0.5	<0.00202	<0.00404	<49.9	<49.9	<49.9	<49.9	<49.9	7.68
SS03	04/22/2022	0.5	<0.00199	<0.00398	<50.0	<50.0	<50.0	<50.0	<50.0	50.7
SS04	04/22/2022	0.5	<0.00200	<0.00399	<50.0	73.5	<50.0	73.5	73.5	6.01
SS05	04/22/2022	0.5	<0.00199	<0.00398	<49.9	<49.9	<49.9	<49.9	<49.9	87.6
SS05A	04/22/2022	1	<0.00199	<0.00398	<50.0	<50.0	<50.0	<50.0	<50.0	19.7
SS06	04/22/2022	0.5	<0.00200	<0.00401	<50.0	416	<50.0	416	416	148
SS06A	04/22/2022	1	<0.00202	<0.00404	<49.9	<49.9	<49.9	<49.9	<49.9	15.0

Notes:

bgs: below ground surface

mg/kg: milligrams per

NMOCD: New Mexico Oil Conservation Division

BTEX: Benzene, Toluene, Ethylbenzene, and Xylenes

Concentrations in bold exceed the NMOCD Table 1

Closure Criteria or reclamation standard where applicable.

GRO: Gasoline Range Organics

DRO: Diesel Range Organics

ORO: Oil Range Organics

TPH: Total Petroleum Hydrocarbon



APPENDIX A

Referenced Well Records



New Mexico Office of the State Engineer

Water Right Summary


[get image list](#)

WR File Number: C 04474

Subbasin: CUB

Cross Reference: -

Primary Purpose: MON MONITORING WELL

Primary Status: PMT PERMIT

Total Acres:

Subfile: -

Header: -

Total Diversion: 0

Cause/Case: -

Agent: LT ENVIRONMENTAL INC

Contact: JOSEPH HERNANDEZ


User: XTO ENERGY INC

Contact: KYLE LITTRELL

Documents on File

	Trn #	Doc	File/Act	Status		Transaction Desc.	From/ To	Acres	Diversion	Consumptive
				1	2					
 get images	677410	EXPL	2020-09-02	PMT	APR	C 04474 POD1	T	0	0	

Current Points of Diversion

(NAD83 UTM in meters)										
POD Number	Well Tag	Source	Q Q Q						Other Location Desc	
			64	16	4	Sec	Tws	Rng		X
C 04474 POD1	NA		1	1	1	34	24S	30E	605830 3561045 	BH-01

The data is furnished by the NMOSE/ISC and is accepted by the recipient with the expressed understanding that the OSE/ISC make no warranties, expressed or implied, concerning the accuracy, completeness, reliability, usability, or suitability for any particular purpose of the data.



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USGS Water Resources

Data Category:


Groundwater

Geographic Area:

United States

GO

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- Explore the *NEW* [USGS National Water Dashboard](#) interactive map to access real-time water data from over 13,500 stations nationwide.
- [Full News](#) 

Groundwater levels for the Nation

 Important: [Next Generation Monitoring Location Page](#)

Search Results -- 1 sites found

site_no list =

- 320850103533801

Minimum number of levels = 1

[Save file of selected sites](#) to local disk for future upload

USGS 320850103533801 25S.30E.08.224444

Available data for this site

Groundwater: Field measurements

GO

Eddy County, New Mexico

Hydrologic Unit Code 13060011

Latitude 32°08'50", Longitude 103°53'38" NAD27

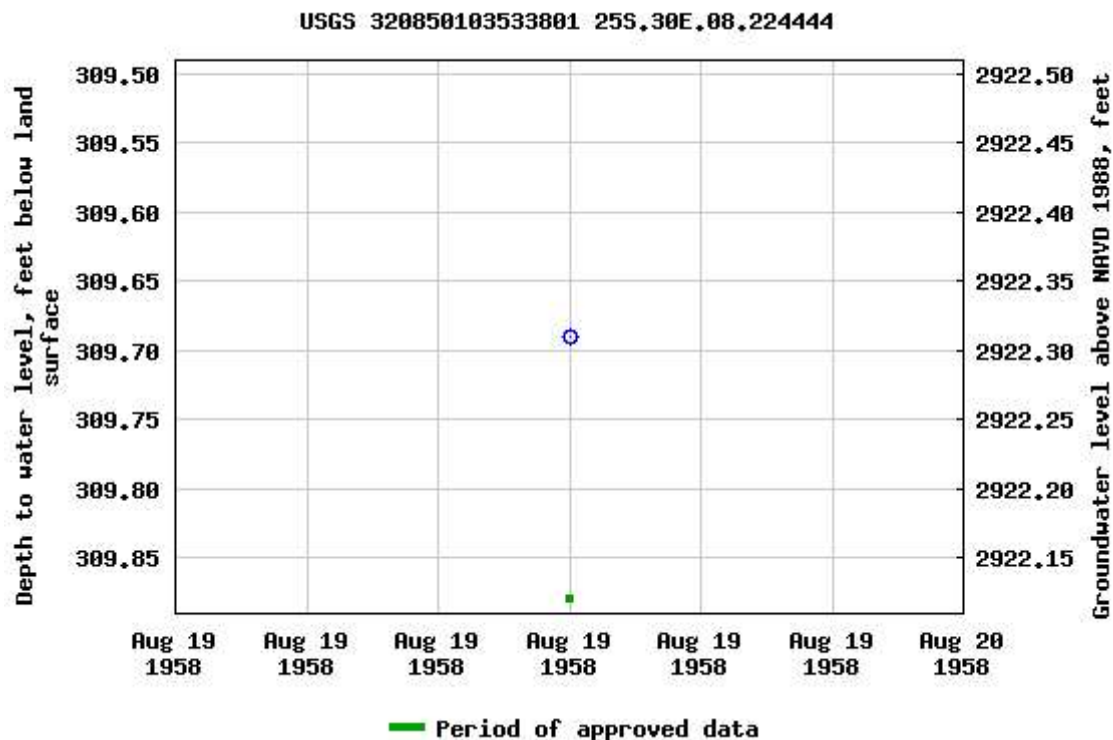
Land-surface elevation 3,232 feet above NAVD88

This well is completed in the Pecos River Basin alluvial aquifer (N100PCSRVR) national aquifer.

This well is completed in the Alluvium, Bolson Deposits and Other Surface Deposits (110AVMB) local aquifer.

Output formats

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



Breaks in the plot represent a gap of at least one year between field measurements.

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Title: Groundwater for USA: Water Levels

URL: <https://nwis.waterdata.usgs.gov/nwis/gwlevels?>



Page Contact Information: [USGS Water Data Support Team](#)

Page Last Modified: 2022-05-03 12:53:26 EDT

0.6 0.54 nadww01



APPENDIX B

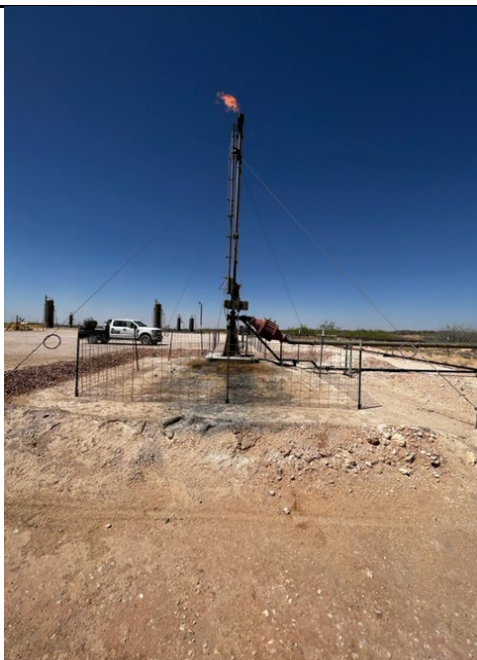
Photographic Log

**Photographic Log**

XTO Energy, Inc.

Pierce Canyon 32

Incident Number NAPP2205254615



Photograph 1 Date: 04/13/2022

Description: View of staining and release extent facing northwest during the one call.



Photograph 2 Date: 04/13/2022

Description: View of staining and release extent facing northeast during the one call.



Photograph 3 Date: 04/22/2022

Description: View of release area following a surface scrape of the staining facing east.




Photograph 3 Date: 04/22/2022


Description: View of release area following a surface scrape of the staining facing southeast.



APPENDIX C

Lithologic Soil Sampling Logs

								Sample Name: SS05/SS05A		Date: 04/22/2022					
								Site Name: Pierce Canyon 32							
								Incident Number: NAPP2205254615							
								Job Number: 03E1558011							
LITHOLOGIC / SOIL SAMPLING LOG								Logged By: CS		Method: Hand Auger					
Coordinates: 32.167617, -103.89533								Hole Diameter: 4"		Total Depth: 1'					
Comments: Field screening conducted with HACH Chloride Test Strips and PID for chloride and vapor, respectively. Chloride test performed with 1:4 dilution factor of soil to distilled water. No correction factors included.															
Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample ID	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithologic Descriptions							
						0									
D	<168	0.5	N	SS05	0.5	0.5	CCHE	CALICHE, white, to light tan well cemented, some angular clasts.							
D	<168	0.4	N	SS05A	1.0	1.0	CCHE	CALICHE, white, to light tan well cemented, some angular clasts.							
TD @ 1.0 Feet bgs															

								Sample Name: SS06/SS06A		Date: 04/22/2022					
								Site Name: Pierce Canyon 32							
								Incident Number: NAPP2205254615							
								Job Number: 03E1558011							
LITHOLOGIC / SOIL SAMPLING LOG								Logged By: CS		Method: Hand Auger					
Coordinates: 32.167595, -103.895283								Hole Diameter: 4"		Total Depth: 1'					
Comments: Field screening conducted with HACH Chloride Test Strips and PID for chloride and vapor, respectively. Chloride test performed with 1:4 dilution factor of soil to distilled water. No correction factors included.															
Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample ID	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithologic Descriptions							
						0									
D	168	0.8	N	SS06	0.5	0.5	CCHE	CALICHE, white, to light tan well cemented, some angular clasts.							
D	<168	0.5	N	SS06A	1.0	1.0	CCHE	CALICHE, white, to light tan well cemented, some angular clasts.							
TD @ 1.0 Feet bgs															



APPENDIX D

Laboratory Analytical Reports & Chain of Custody Documentation



Environment Testing America

ANALYTICAL REPORT

Eurofins Carlsbad
1089 N Canal St.
Carlsbad, NM 88220
Tel: (575)988-3199

Laboratory Job ID: 890-2233-1

Laboratory Sample Delivery Group: 03E1558011

Client Project/Site: Pierce Canyon 32

For:

Ensolum
705 W. Wadley
Suite 210
Midland, Texas 79701

Attn: Kalei Jennings

A handwritten signature in black ink that reads "Jessica Kramer".

Authorized for release by:
4/29/2022 2:38:06 PM

Jessica Kramer, Project Manager
(432)704-5440

Jessica.Kramer@et.eurofinsus.com

LINKS

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results through

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www.eurofinsus.com/Env

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

Client: Ensolum
Project/Site: Pierce Canyon 32

Laboratory Job ID: 890-2233-1
SDG: 03E1558011

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Definitions/Glossary

Client: Ensolum
Project/Site: Pierce Canyon 32

Job ID: 890-2233-1
SDG: 03E1558011

Qualifiers

GC VOA

Qualifier	Qualifier Description
F1	MS and/or MSD recovery exceeds control limits.
F2	MS/MSD RPD exceeds control limits
U	Indicates the analyte was analyzed for but not detected.

GC Semi VOA

Qualifier	Qualifier Description
S1+	Surrogate recovery exceeds control limits, high biased.
U	Indicates the analyte was analyzed for but not detected.

HPLC/IC

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Case Narrative

Client: Ensolum
Project/Site: Pierce Canyon 32

Job ID: 890-2233-1
SDG: 03E1558011

Job ID: 890-2233-1

Laboratory: Eurofins Carlsbad

Narrative

Job Narrative
890-2233-1

Receipt

The samples were received on 4/22/2022 3:05 PM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 3.4°C

GC VOA

Method 8021B: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 880-24268 and analytical batch 880-24380 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

GC Semi VOA

Method 8015MOD_NM: Surrogate recovery for the following samples were outside control limits: (LCSD 880-24262/3-A) and (MB 880-24262/1-A). Evidence of matrix interferences is not obvious.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

HPLC/IC

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Client Sample Results

Client: Ensolum
Project/Site: Pierce Canyon 32

Job ID: 890-2233-1
SDG: 03E1558011

Client Sample ID: SS01

Lab Sample ID: 890-2233-1

Date Collected: 04/22/22 11:20

Matrix: Solid

Date Received: 04/22/22 15:05

Sample Depth: 0.5

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		04/26/22 15:59	04/28/22 23:34	1
Toluene	<0.00200	U	0.00200	mg/Kg		04/26/22 15:59	04/28/22 23:34	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		04/26/22 15:59	04/28/22 23:34	1
m-Xylene & p-Xylene	<0.00399	U	0.00399	mg/Kg		04/26/22 15:59	04/28/22 23:34	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		04/26/22 15:59	04/28/22 23:34	1
Xylenes, Total	<0.00399	U	0.00399	mg/Kg		04/26/22 15:59	04/28/22 23:34	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	105		70 - 130	04/26/22 15:59	04/28/22 23:34	1
1,4-Difluorobenzene (Surr)	95		70 - 130	04/26/22 15:59	04/28/22 23:34	1

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00399	U	0.00399	mg/Kg			04/29/22 15:23	1

Method: 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	67.1		50.0	mg/Kg			04/28/22 09:20	1

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0	mg/Kg		04/26/22 14:42	04/27/22 13:58	1
Diesel Range Organics (Over C10-C28)	67.1		50.0	mg/Kg		04/26/22 14:42	04/27/22 13:58	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		04/26/22 14:42	04/27/22 13:58	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	81		70 - 130	04/26/22 14:42	04/27/22 13:58	1
o-Terphenyl	86		70 - 130	04/26/22 14:42	04/27/22 13:58	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	144		4.97	mg/Kg			04/27/22 17:42	1

Client Sample ID: SS02

Lab Sample ID: 890-2233-2

Date Collected: 04/22/22 11:25

Matrix: Solid

Date Received: 04/22/22 15:05

Sample Depth: 0.5

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199	mg/Kg		04/26/22 15:59	04/28/22 23:55	1
Toluene	<0.00199	U	0.00199	mg/Kg		04/26/22 15:59	04/28/22 23:55	1
Ethylbenzene	<0.00199	U	0.00199	mg/Kg		04/26/22 15:59	04/28/22 23:55	1
m-Xylene & p-Xylene	<0.00398	U	0.00398	mg/Kg		04/26/22 15:59	04/28/22 23:55	1
o-Xylene	<0.00199	U	0.00199	mg/Kg		04/26/22 15:59	04/28/22 23:55	1
Xylenes, Total	<0.00398	U	0.00398	mg/Kg		04/26/22 15:59	04/28/22 23:55	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	102		70 - 130	04/26/22 15:59	04/28/22 23:55	1

Eurofins Carlsbad

Client Sample Results

Client: Ensolum
Project/Site: Pierce Canyon 32

Job ID: 890-2233-1
SDG: 03E1558011

Client Sample ID: SS02

Lab Sample ID: 890-2233-2

Date Collected: 04/22/22 11:25

Matrix: Solid

Date Received: 04/22/22 15:05

Sample Depth: 0.5

Method: 8021B - Volatile Organic Compounds (GC) (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,4-Difluorobenzene (Surr)	93		70 - 130	04/26/22 15:59	04/28/22 23:55	1

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398	mg/Kg			04/29/22 15:23	1

Method: 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9	mg/Kg			04/28/22 09:20	1

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9	mg/Kg		04/26/22 14:42	04/27/22 14:18	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9	mg/Kg		04/26/22 14:42	04/27/22 14:18	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg		04/26/22 14:42	04/27/22 14:18	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	81		70 - 130			04/26/22 14:42	04/27/22 14:18	1
o-Terphenyl	87		70 - 130			04/26/22 14:42	04/27/22 14:18	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	769		4.95	mg/Kg			04/27/22 17:50	1

Client Sample ID: SS03

Lab Sample ID: 890-2233-3

Date Collected: 04/22/22 11:30

Matrix: Solid

Date Received: 04/22/22 15:05

Sample Depth: 0.5

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199	mg/Kg		04/26/22 15:59	04/29/22 00:15	1
Toluene	<0.00199	U	0.00199	mg/Kg		04/26/22 15:59	04/29/22 00:15	1
Ethylbenzene	<0.00199	U	0.00199	mg/Kg		04/26/22 15:59	04/29/22 00:15	1
m-Xylene & p-Xylene	<0.00398	U	0.00398	mg/Kg		04/26/22 15:59	04/29/22 00:15	1
o-Xylene	<0.00199	U	0.00199	mg/Kg		04/26/22 15:59	04/29/22 00:15	1
Xylenes, Total	<0.00398	U	0.00398	mg/Kg		04/26/22 15:59	04/29/22 00:15	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	105		70 - 130	04/26/22 15:59	04/29/22 00:15	1
1,4-Difluorobenzene (Surr)	93		70 - 130	04/26/22 15:59	04/29/22 00:15	1

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398	mg/Kg			04/29/22 15:23	1

Method: 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0	mg/Kg			04/28/22 09:20	1

Eurofins Carlsbad

Client Sample Results

Client: Ensolum
Project/Site: Pierce Canyon 32

Job ID: 890-2233-1
SDG: 03E1558011

Client Sample ID: SS03

Lab Sample ID: 890-2233-3

Date Collected: 04/22/22 11:30

Matrix: Solid

Date Received: 04/22/22 15:05

Sample Depth: 0.5

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0	mg/Kg		04/26/22 14:42	04/27/22 14:39	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		04/26/22 14:42	04/27/22 14:39	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		04/26/22 14:42	04/27/22 14:39	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	74		70 - 130			04/26/22 14:42	04/27/22 14:39	1
o-Terphenyl	77		70 - 130			04/26/22 14:42	04/27/22 14:39	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	50.7		4.99	mg/Kg			04/27/22 17:59	1

Client Sample ID: SS04

Lab Sample ID: 890-2233-4

Date Collected: 04/22/22 11:35

Matrix: Solid

Date Received: 04/22/22 15:05

Sample Depth: 0.5

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		04/26/22 15:59	04/29/22 00:36	1
Toluene	<0.00200	U	0.00200	mg/Kg		04/26/22 15:59	04/29/22 00:36	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		04/26/22 15:59	04/29/22 00:36	1
m-Xylene & p-Xylene	<0.00399	U	0.00399	mg/Kg		04/26/22 15:59	04/29/22 00:36	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		04/26/22 15:59	04/29/22 00:36	1
Xylenes, Total	<0.00399	U	0.00399	mg/Kg		04/26/22 15:59	04/29/22 00:36	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	108		70 - 130			04/26/22 15:59	04/29/22 00:36	1
1,4-Difluorobenzene (Surr)	94		70 - 130			04/26/22 15:59	04/29/22 00:36	1

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00399	U	0.00399	mg/Kg			04/29/22 15:23	1

Method: 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	73.5		50.0	mg/Kg			04/28/22 09:20	1

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0	mg/Kg		04/26/22 14:42	04/27/22 15:00	1
Diesel Range Organics (Over C10-C28)	73.5		50.0	mg/Kg		04/26/22 14:42	04/27/22 15:00	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		04/26/22 14:42	04/27/22 15:00	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	98		70 - 130			04/26/22 14:42	04/27/22 15:00	1
o-Terphenyl	101		70 - 130			04/26/22 14:42	04/27/22 15:00	1

Eurofins Carlsbad

Client Sample Results

Client: Ensolum
Project/Site: Pierce Canyon 32

Job ID: 890-2233-1
SDG: 03E1558011

Client Sample ID: SS04
Date Collected: 04/22/22 11:35
Date Received: 04/22/22 15:05
Sample Depth: 0.5

Lab Sample ID: 890-2233-4
Matrix: Solid

Method: 300.0 - Anions, Ion Chromatography - Soluble									
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
Chloride	6.01		5.01	mg/Kg			04/27/22 18:08	1	

Surrogate Summary

Client: Ensolum
Project/Site: Pierce Canyon 32

Job ID: 890-2233-1
SDG: 03E1558011

Method: 8021B - Volatile Organic Compounds (GC)

Matrix: Solid

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	BFB1 (70-130)	DFBZ1 (70-130)
890-2225-A-9-C MS	Matrix Spike	107	100
890-2225-A-9-D MSD	Matrix Spike Duplicate	106	101
890-2233-1	SS01	105	95
890-2233-2	SS02	102	93
890-2233-3	SS03	105	93
890-2233-4	SS04	108	94
LCS 880-24268/1-A	Lab Control Sample	107	90
LCSD 880-24268/2-A	Lab Control Sample Dup	102	98
MB 880-24268/5-A	Method Blank	90	91
Surrogate Legend			
BFB = 4-Bromofluorobenzene (Surr)			
DFBZ = 1,4-Difluorobenzene (Surr)			

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Matrix: Solid

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	1CO1 (70-130)	OTPH1 (70-130)
880-14003-A-21-B MS	Matrix Spike	78	82
880-14003-A-21-C MSD	Matrix Spike Duplicate	78	81
890-2233-1	SS01	81	86
890-2233-2	SS02	81	87
890-2233-3	SS03	74	77
890-2233-4	SS04	98	101
Surrogate Legend			
1CO = 1-Chlorooctane			
OTPH = o-Terphenyl			

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Matrix: Solid

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	1CO2 (70-130)	OTPH2 (70-130)
LCS 880-24262/2-A	Lab Control Sample	105	126
LCSD 880-24262/3-A	Lab Control Sample Dup	125	153 S1+
MB 880-24262/1-A	Method Blank	116	145 S1+
Surrogate Legend			
1CO = 1-Chlorooctane			
OTPH = o-Terphenyl			

Eurofins Carlsbad

QC Sample Results

Client: Ensolum
Project/Site: Pierce Canyon 32

Job ID: 890-2233-1
SDG: 03E1558011

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-24268/5-A

Matrix: Solid

Analysis Batch: 24380

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 24268

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		04/26/22 15:59	04/28/22 18:04	1
Toluene	<0.00200	U	0.00200	mg/Kg		04/26/22 15:59	04/28/22 18:04	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		04/26/22 15:59	04/28/22 18:04	1
m-Xylene & p-Xylene	<0.00400	U	0.00400	mg/Kg		04/26/22 15:59	04/28/22 18:04	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		04/26/22 15:59	04/28/22 18:04	1
Xylenes, Total	<0.00400	U	0.00400	mg/Kg		04/26/22 15:59	04/28/22 18:04	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	90		70 - 130	04/26/22 15:59	04/28/22 18:04	1
1,4-Difluorobenzene (Surr)	91		70 - 130	04/26/22 15:59	04/28/22 18:04	1

Lab Sample ID: LCS 880-24268/1-A

Matrix: Solid

Analysis Batch: 24380

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 24268

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	0.100	0.07683		mg/Kg		77	70 - 130
Toluene	0.100	0.09592		mg/Kg		96	70 - 130
Ethylbenzene	0.100	0.1023		mg/Kg		102	70 - 130
m-Xylene & p-Xylene	0.200	0.1971		mg/Kg		99	70 - 130
o-Xylene	0.100	0.09834		mg/Kg		98	70 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene (Surr)	107		70 - 130
1,4-Difluorobenzene (Surr)	90		70 - 130

Lab Sample ID: LCSD 880-24268/2-A

Matrix: Solid

Analysis Batch: 24380

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 24268

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	0.100	0.1019		mg/Kg		102	70 - 130	28	35
Toluene	0.100	0.1034		mg/Kg		103	70 - 130	8	35
Ethylbenzene	0.100	0.1053		mg/Kg		105	70 - 130	3	35
m-Xylene & p-Xylene	0.200	0.2154		mg/Kg		108	70 - 130	9	35
o-Xylene	0.100	0.1075		mg/Kg		108	70 - 130	9	35

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	102		70 - 130
1,4-Difluorobenzene (Surr)	98		70 - 130

Lab Sample ID: 890-2225-A-9-C MS

Matrix: Solid

Analysis Batch: 24380

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 24268

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	<0.00200	U F1	0.0996	0.06381	F1	mg/Kg		64	70 - 130
Toluene	<0.00200	U F1	0.0996	0.06108	F1	mg/Kg		60	70 - 130

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QC Sample Results

Client: Ensolum
Project/Site: Pierce Canyon 32

Job ID: 890-2233-1
SDG: 03E1558011

Method: 8021B - Volatile Organic Compounds (GC) (Continued)

Lab Sample ID: 890-2225-A-9-C MS

Matrix: Solid

Analysis Batch: 24380

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 24268

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Ethylbenzene	<0.00200	U F2 F1	0.0996	0.05273	F1	mg/Kg		53	70 - 130
m-Xylene & p-Xylene	<0.00401	U F2 F1	0.199	0.1057	F1	mg/Kg		53	70 - 130
o-Xylene	<0.00200	U F2 F1	0.0996	0.05637	F1	mg/Kg		57	70 - 130

Surrogate	MS %Recovery	MS Qualifier	Limits
4-Bromofluorobenzene (Surr)	107		70 - 130
1,4-Difluorobenzene (Surr)	100		70 - 130

Lab Sample ID: 890-2225-A-9-D MSD

Matrix: Solid

Analysis Batch: 24380

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 24268

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	<0.00200	U F1	0.0994	0.05960	F1	mg/Kg		60	70 - 130	7	35
Toluene	<0.00200	U F1	0.0994	0.04972	F1	mg/Kg		49	70 - 130	21	35
Ethylbenzene	<0.00200	U F2 F1	0.0994	0.02999	F2 F1	mg/Kg		30	70 - 130	55	35
m-Xylene & p-Xylene	<0.00401	U F2 F1	0.199	0.05793	F2 F1	mg/Kg		29	70 - 130	58	35
o-Xylene	<0.00200	U F2 F1	0.0994	0.03197	F2 F1	mg/Kg		32	70 - 130	55	35

Surrogate	MSD %Recovery	MSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	106		70 - 130
1,4-Difluorobenzene (Surr)	101		70 - 130

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Lab Sample ID: MB 880-24262/1-A

Matrix: Solid

Analysis Batch: 24278

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 24262

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0	mg/Kg		04/26/22 14:42	04/27/22 11:32	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		04/26/22 14:42	04/27/22 11:32	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		04/26/22 14:42	04/27/22 11:32	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	116		70 - 130	04/26/22 14:42	04/27/22 11:32	1
o-Terphenyl	145	S1+	70 - 130	04/26/22 14:42	04/27/22 11:32	1

Lab Sample ID: LCS 880-24262/2-A

Matrix: Solid

Analysis Batch: 24278

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 24262

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Gasoline Range Organics (GRO)-C6-C10	1000	1162		mg/Kg		116	70 - 130
Diesel Range Organics (Over C10-C28)	1000	966.8		mg/Kg		97	70 - 130

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QC Sample Results

Client: Ensolum
Project/Site: Pierce Canyon 32

Job ID: 890-2233-1
SDG: 03E1558011

Method: 8015B NM - Diesel Range Organics (DRO) (GC) (Continued)

Lab Sample ID: LCS 880-24262/2-A
Matrix: Solid
Analysis Batch: 24278

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 24262

	LCS	LCS	
Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane	105		70 - 130
o-Terphenyl	126		70 - 130

Lab Sample ID: LCSD 880-24262/3-A
Matrix: Solid
Analysis Batch: 24278

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 24262

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	1000	1044		mg/Kg		104	70 - 130	11	20
Diesel Range Organics (Over C10-C28)	1000	1076		mg/Kg		108	70 - 130	11	20

	LCSD	LCSD	
Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane	125		70 - 130
o-Terphenyl	153	S1+	70 - 130

Lab Sample ID: 880-14003-A-21-B MS
Matrix: Solid
Analysis Batch: 24278

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 24262

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	999	915.7		mg/Kg		90	70 - 130		
Diesel Range Organics (Over C10-C28)	<49.9	U	999	792.4		mg/Kg		77	70 - 130		

	MS	MS	
Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane	78		70 - 130
o-Terphenyl	82		70 - 130

Lab Sample ID: 880-14003-A-21-C MSD
Matrix: Solid
Analysis Batch: 24278

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 24262

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	999	876.0		mg/Kg		86	70 - 130	4	20
Diesel Range Organics (Over C10-C28)	<49.9	U	999	748.8		mg/Kg		72	70 - 130	6	20

	MSD	MSD	
Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane	78		70 - 130
o-Terphenyl	81		70 - 130

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QC Sample Results

Client: Ensolum
Project/Site: Pierce Canyon 32

Job ID: 890-2233-1
SDG: 03E1558011

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-24300/1-A

Matrix: Solid

Analysis Batch: 24303

Client Sample ID: Method Blank

Prep Type: Soluble

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.00	U	5.00	mg/Kg			04/27/22 15:11	1

Lab Sample ID: LCS 880-24300/2-A

Matrix: Solid

Analysis Batch: 24303

Client Sample ID: Lab Control Sample

Prep Type: Soluble

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	250	254.5		mg/Kg		102	90 - 110

Lab Sample ID: LCSD 880-24300/3-A

Matrix: Solid

Analysis Batch: 24303

Client Sample ID: Lab Control Sample Dup

Prep Type: Soluble

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	250	254.1		mg/Kg		102	90 - 110	0	20

Lab Sample ID: 890-2234-A-2-D MS

Matrix: Solid

Analysis Batch: 24303

Client Sample ID: Matrix Spike

Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	148		251	383.6		mg/Kg		94	90 - 110

Lab Sample ID: 890-2234-A-2-E MSD

Matrix: Solid

Analysis Batch: 24303

Client Sample ID: Matrix Spike Duplicate

Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	148		251	383.6		mg/Kg		94	90 - 110	0	20

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QC Association Summary

Client: Ensolum
Project/Site: Pierce Canyon 32

Job ID: 890-2233-1
SDG: 03E1558011

GC VOA

Prep Batch: 24268

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2233-1	SS01	Total/NA	Solid	5035	
890-2233-2	SS02	Total/NA	Solid	5035	
890-2233-3	SS03	Total/NA	Solid	5035	
890-2233-4	SS04	Total/NA	Solid	5035	
MB 880-24268/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-24268/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-24268/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
890-2225-A-9-C MS	Matrix Spike	Total/NA	Solid	5035	
890-2225-A-9-D MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	

Analysis Batch: 24380

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2233-1	SS01	Total/NA	Solid	8021B	24268
890-2233-2	SS02	Total/NA	Solid	8021B	24268
890-2233-3	SS03	Total/NA	Solid	8021B	24268
890-2233-4	SS04	Total/NA	Solid	8021B	24268
MB 880-24268/5-A	Method Blank	Total/NA	Solid	8021B	24268
LCS 880-24268/1-A	Lab Control Sample	Total/NA	Solid	8021B	24268
LCSD 880-24268/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	24268
890-2225-A-9-C MS	Matrix Spike	Total/NA	Solid	8021B	24268
890-2225-A-9-D MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	24268

Analysis Batch: 24530

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2233-1	SS01	Total/NA	Solid	Total BTEX	
890-2233-2	SS02	Total/NA	Solid	Total BTEX	
890-2233-3	SS03	Total/NA	Solid	Total BTEX	
890-2233-4	SS04	Total/NA	Solid	Total BTEX	

GC Semi VOA

Prep Batch: 24262

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2233-1	SS01	Total/NA	Solid	8015NM Prep	
890-2233-2	SS02	Total/NA	Solid	8015NM Prep	
890-2233-3	SS03	Total/NA	Solid	8015NM Prep	
890-2233-4	SS04	Total/NA	Solid	8015NM Prep	
MB 880-24262/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-24262/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-24262/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
880-14003-A-21-B MS	Matrix Spike	Total/NA	Solid	8015NM Prep	
880-14003-A-21-C MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	

Analysis Batch: 24278

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2233-1	SS01	Total/NA	Solid	8015B NM	24262
890-2233-2	SS02	Total/NA	Solid	8015B NM	24262
890-2233-3	SS03	Total/NA	Solid	8015B NM	24262
890-2233-4	SS04	Total/NA	Solid	8015B NM	24262
MB 880-24262/1-A	Method Blank	Total/NA	Solid	8015B NM	24262
LCS 880-24262/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	24262

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QC Association Summary

Client: Ensolum
Project/Site: Pierce Canyon 32

Job ID: 890-2233-1
SDG: 03E1558011

GC Semi VOA (Continued)

Analysis Batch: 24278 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCSD 880-24262/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	24262
880-14003-A-21-B MS	Matrix Spike	Total/NA	Solid	8015B NM	24262
880-14003-A-21-C MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	24262

Analysis Batch: 24374

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2233-1	SS01	Total/NA	Solid	8015 NM	
890-2233-2	SS02	Total/NA	Solid	8015 NM	
890-2233-3	SS03	Total/NA	Solid	8015 NM	
890-2233-4	SS04	Total/NA	Solid	8015 NM	

HPLC/IC

Leach Batch: 24300

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2233-1	SS01	Soluble	Solid	DI Leach	
890-2233-2	SS02	Soluble	Solid	DI Leach	
890-2233-3	SS03	Soluble	Solid	DI Leach	
890-2233-4	SS04	Soluble	Solid	DI Leach	
MB 880-24300/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-24300/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-24300/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
890-2234-A-2-D MS	Matrix Spike	Soluble	Solid	DI Leach	
890-2234-A-2-E MSD	Matrix Spike Duplicate	Soluble	Solid	DI Leach	

Analysis Batch: 24303

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2233-1	SS01	Soluble	Solid	300.0	24300
890-2233-2	SS02	Soluble	Solid	300.0	24300
890-2233-3	SS03	Soluble	Solid	300.0	24300
890-2233-4	SS04	Soluble	Solid	300.0	24300
MB 880-24300/1-A	Method Blank	Soluble	Solid	300.0	24300
LCS 880-24300/2-A	Lab Control Sample	Soluble	Solid	300.0	24300
LCSD 880-24300/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	24300
890-2234-A-2-D MS	Matrix Spike	Soluble	Solid	300.0	24300
890-2234-A-2-E MSD	Matrix Spike Duplicate	Soluble	Solid	300.0	24300

Lab Chronicle

Client: Ensolum
Project/Site: Pierce Canyon 32

Job ID: 890-2233-1
SDG: 03E1558011

Client Sample ID: SS01

Lab Sample ID: 890-2233-1

Date Collected: 04/22/22 11:20

Matrix: Solid

Date Received: 04/22/22 15:05

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.01 g	5 mL	24268	04/26/22 15:59	MR	XEN MID
Total/NA	Analysis	8021B		1			24380	04/28/22 23:34	MR	XEN MID
Total/NA	Analysis	Total BTEX		1			24530	04/29/22 15:23	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			24374	04/28/22 09:20	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.00 g	10 mL	24262	04/26/22 14:42	DM	XEN MID
Total/NA	Analysis	8015B NM		1			24278	04/27/22 13:58	AJ	XEN MID
Soluble	Leach	DI Leach			5.03 g	50 mL	24300	04/27/22 09:42	SC	XEN MID
Soluble	Analysis	300.0		1			24303	04/27/22 17:42	CH	XEN MID

Client Sample ID: SS02

Lab Sample ID: 890-2233-2

Date Collected: 04/22/22 11:25

Matrix: Solid

Date Received: 04/22/22 15:05

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.02 g	5 mL	24268	04/26/22 15:59	MR	XEN MID
Total/NA	Analysis	8021B		1			24380	04/28/22 23:55	MR	XEN MID
Total/NA	Analysis	Total BTEX		1			24530	04/29/22 15:23	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			24374	04/28/22 09:20	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	24262	04/26/22 14:42	DM	XEN MID
Total/NA	Analysis	8015B NM		1			24278	04/27/22 14:18	AJ	XEN MID
Soluble	Leach	DI Leach			5.05 g	50 mL	24300	04/27/22 09:42	SC	XEN MID
Soluble	Analysis	300.0		1			24303	04/27/22 17:50	CH	XEN MID

Client Sample ID: SS03

Lab Sample ID: 890-2233-3

Date Collected: 04/22/22 11:30

Matrix: Solid

Date Received: 04/22/22 15:05

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.03 g	5 mL	24268	04/26/22 15:59	MR	XEN MID
Total/NA	Analysis	8021B		1			24380	04/29/22 00:15	MR	XEN MID
Total/NA	Analysis	Total BTEX		1			24530	04/29/22 15:23	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			24374	04/28/22 09:20	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	24262	04/26/22 14:42	DM	XEN MID
Total/NA	Analysis	8015B NM		1			24278	04/27/22 14:39	AJ	XEN MID
Soluble	Leach	DI Leach			5.01 g	50 mL	24300	04/27/22 09:42	SC	XEN MID
Soluble	Analysis	300.0		1			24303	04/27/22 17:59	CH	XEN MID

Client Sample ID: SS04

Lab Sample ID: 890-2233-4

Date Collected: 04/22/22 11:35

Matrix: Solid

Date Received: 04/22/22 15:05

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.01 g	5 mL	24268	04/26/22 15:59	MR	XEN MID
Total/NA	Analysis	8021B		1			24380	04/29/22 00:36	MR	XEN MID
Total/NA	Analysis	Total BTEX		1			24530	04/29/22 15:23	AJ	XEN MID

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Lab Chronicle

Client: Ensolum
Project/Site: Pierce Canyon 32

Job ID: 890-2233-1
SDG: 03E1558011

Client Sample ID: SS04
Date Collected: 04/22/22 11:35
Date Received: 04/22/22 15:05

Lab Sample ID: 890-2233-4
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8015 NM		1			24374	04/28/22 09:20	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	24262	04/26/22 14:42	DM	XEN MID
Total/NA	Analysis	8015B NM		1			24278	04/27/22 15:00	AJ	XEN MID
Soluble	Leach	DI Leach			4.99 g	50 mL	24300	04/27/22 09:42	SC	XEN MID
Soluble	Analysis	300.0		1			24303	04/27/22 18:08	CH	XEN MID

Laboratory References:
XEN MID = Eurofins Midland, 1211 W. Florida Ave, Midland, TX 79701, TEL (432)704-5440

Accreditation/Certification Summary

Client: Ensolum
Project/Site: Pierce Canyon 32

Job ID: 890-2233-1
SDG: 03E1558011

Laboratory: Eurofins Midland

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	Identification Number	Expiration Date
Texas	NELAP	T104704400-21-22	06-30-22

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
8015 NM		Solid	Total TPH
Total BTEX		Solid	Total BTEX

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14

Method Summary

Client: Ensolum
Project/Site: Pierce Canyon 32

Job ID: 890-2233-1
SDG: 03E1558011

Method	Method Description	Protocol	Laboratory
8021B	Volatile Organic Compounds (GC)	SW846	XEN MID
Total BTEX	Total BTEX Calculation	TAL SOP	XEN MID
8015 NM	Diesel Range Organics (DRO) (GC)	SW846	XEN MID
8015B NM	Diesel Range Organics (DRO) (GC)	SW846	XEN MID
300.0	Anions, Ion Chromatography	MCAWW	XEN MID
5035	Closed System Purge and Trap	SW846	XEN MID
8015NM Prep	Microextraction	SW846	XEN MID
DI Leach	Deionized Water Leaching Procedure	ASTM	XEN MID

Protocol References:

ASTM = ASTM International

MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions.

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

TAL SOP = TestAmerica Laboratories, Standard Operating Procedure

Laboratory References:

XEN MID = Eurofins Midland, 1211 W. Florida Ave, Midland, TX 79701, TEL (432)704-5440

Sample Summary

Client: Ensolum
Project/Site: Pierce Canyon 32

Job ID: 890-2233-1
SDG: 03E1558011

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-2233-1	SS01	Solid	04/22/22 11:20	04/22/22 15:05	0.5
890-2233-2	SS02	Solid	04/22/22 11:25	04/22/22 15:05	0.5
890-2233-3	SS03	Solid	04/22/22 11:30	04/22/22 15:05	0.5
890-2233-4	SS04	Solid	04/22/22 11:35	04/22/22 15:05	0.5

Chain of Custody



Environment Testing
Xenco

Houston, TX (281) 240-4200, Dallas, TX (214) 902-0300
Midland, TX (432) 704-5440, San Antonio, TX (210) 509-3334
EL Paso, TX (915) 585-3443, Lubbock, TX (806) 794-1296
Hobbs, NM (575) 392-7550, Carlsbad, NM (575) 988-3199

Work Order No: _____

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Work Order Comments

Program: ☐ UST/PST ☐ PRP ☐ Brownfields ☐ RRC ☐ Superfund ☐

State of Project: ☐ Level I ☐ Level II ☐ Level III ☐ Level IV ☐

Reporting: ☐ Level I ☐ Level II ☐ Level III ☐ Level IV ☐

Deliverables: ☐ EDD ☐ ADAPT ☐ Other: _____

Project Manager: Tacoma Morrissey

Company Name: ENSOLUM LLC

Address: 3104 E GREENE ST.

City, State ZIP: Carlsbad NM, 88820

Phone: 337.257.8307

Bill to: (if different) ADRIAN BAILER

Company Name: XTO ENERGY

Address: 3104 E GREENE ST.

City, State ZIP: Carlsbad NM, 88820

Email: T.MORRISSEY@ensolum.com

ANALYSIS REQUEST										Preservative Codes					
Project Name:	Project Number:	Project Location:	Sampler's Name:	PO #:	Turn Around	Pres. Code	Parameters	# of Cont	Grab/Comp	Depth	Time Sampled	Date Sampled	Matrix	Sample Identification	Sample Comments
Pieix Canyon 32	03E1558011	CC-1081081001	Conner Shore		<input checked="" type="checkbox"/> Routine <input type="checkbox"/> Rush			1	6	0.5'	1120	04/22/22	S	SS01	
					Due Date: 5 DAY TAT			1	6	0.5'	1135	04/22/22	S	SS02	
					TAT starts the day received by the lab, if received by 4:30pm			1	6	0.5'	1130	04/22/22	S	SS03	
								1	6	0.5'	1135	04/22/22	S	SS04	
 890-2233 Chain of Custody															
None: NO DI Water: H ₂ O Cool: Cool MeOH: Me HCL: HC HNO ₃ : HN H ₂ SO ₄ : H ₂ NaOH: Na H ₃ PO ₄ : HP NaHSO ₄ : NABIS Na ₂ S ₂ O ₃ : NaSO ₃ Zn Acetate+NaOH: Zn NaOH+Ascorbic Acid: SACP															

Total 200.7 / 6010 200.8 / 6020: 8RCRA 13PPM Texas 11 Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag SiO₂ Na Sr Ti Sn U V Zn

Circle Method(s) and Metal(s) to be analyzed TCLP / SPLP 6010 : 8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Ti U Hg: 1631 / 245.1 / 7470 / 7471

Notice: Signature of this document and relinquishment of samples constitutes a valid purchase order from client company to Eurofins Xenco, its affiliates and subcontractors. It assigns standard terms and conditions of service. Eurofins Xenco will be liable only for the cost of samples and shall not assume any responsibility for any losses or expenses incurred by the client if such losses are due to circumstances beyond the control of Eurofins Xenco. A minimum charge of \$85.00 will be applied to each project and a charge of \$5 for each sample submitted to Eurofins Xenco, but not analyzed. These terms will be enforced unless previously negotiated.

Relinquished by: (Signature)	Received by: (Signature)	Date/Time
		4/22/22 3:05

Revised Date: 08/25/2020 Rev. 2020.2

Login Sample Receipt Checklist

Client: Ensolum

Job Number: 890-2233-1

SDG Number: 03E1558011

Login Number: 2233

List Number: 1

Creator: Clifton, Cloe

List Source: Eurofins Carlsbad

Question	Answer	Comment
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	

Login Sample Receipt Checklist

Client: Ensolum

Job Number: 890-2233-1

SDG Number: 03E1558011

Login Number: 2233

List Number: 2

Creator: Rodriguez, Leticia

List Source: Eurofins Midland

List Creation: 04/26/22 10:56 AM

Question	Answer	Comment
The cooler's custody seal, if present, is intact.	N/A	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	



APPENDIX E

NMOCD Notifications

Green, Garrett J

From: Baker, Adrian
Sent: Friday, April 15, 2022 8:27 AM
To: ocd.enviro@state.nm.us; Bratcher, Mike, EMNRD; Nobui, Jennifer, EMNRD; Hensley, Chad, EMNRD; Hamlet, Robert, EMNRD
Cc: DelawareSpills /SM; Green, Garrett J
Subject: XTO Site Activities for the week of April 18th

Follow Up Flag: Follow up
Flag Status: Flagged

All,

XTO plans to complete final sampling activities at the following sites the week of April 18, 2022.

Tuesday

- JRU Legg / nAPP2204943884

Wednesday

- PLU RR 33-25-30 / nAPP2204125212
- Los Medanos / nAPP2204835360

Thursday

- Los Medanos / nAPP2204835360

Friday

- Pierce Canyon 32 / nAPP2205254615

Thank you,

Adrian Baker

Environmental Coordinator
Permian Business Unit

XTO Energy Inc.
6401 N. Holiday Hill Dr.
Midland, Tx 79707
Mobile:(432)-236-3808
adrian.baker@exxonmobil.com

District I

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

District II

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

District III

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

District IV

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

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

CONDITIONS

Action 105567

CONDITIONS

Operator: XTO ENERGY, INC 6401 Holiday Hill Road Midland, TX 79707	OGRID: 5380
	Action Number: 105567
	Action Type: [C-141] Release Corrective Action (C-141)

CONDITIONS

Created By	Condition	Condition Date
rhamlet	We have received your closure report and final C-141 for Incident #NAPP2205254615 PIERCE CANYON 32 BATTERY, thank you. This closure is approved.	6/14/2022