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	NAPP2218642544
District RP	
Facility ID	
Application ID	

Release Notification

Responsible Party

Responsible Party XTO Energy	OGRID 5380
Contact Name Garrett Green	Contact Telephone 575-200-0729
Contact email garrett.green@exxonmobil.com	Incident # *(assigned by OCD)*
Contact mailing address 3104 E. Greene Street, Carlsbad, New Mexico, 88220	

Location of Release Source

Latitude 32.18219 Longitude -103.88002
(NAD 83 in decimal degrees to 5 decimal places)

Site Name Pierce Canyon 28 Battery	Site Type Tank Battery
Date Release Discovered 06/27/2022	API# *(if applicable)*

Unit Letter	Section	Township	Range	County
P	28	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)

☒ Crude Oil	Volume Released (bbls) 1.5	Volume Recovered (bbls) 1.5
☒ Produced Water	Volume Released (bbls) 28.5	Volume Recovered (bbls) 28.5
	Is the concentration of total dissolved solids (TDS) in the produced water >10,000 mg/l?	☐ Yes ☐ No
☐ Condensate	Volume Released (bbls)	Volume Recovered (bbls)
☐ Natural Gas	Volume Released (Mcf)	Volume Recovered (Mcf)
☐ Other (describe)	Volume/Weight Released (provide units)	Volume/Weight Recovered (provide units)

Cause of Release: The FWKO loaded up due to mechanical water dump malfunction, releasing fluids into non-permeable containment from the 2" PSV. All fluids were recovered. A 48-hour advance liner inspection notice was sent to NMOCD District 2. Liner was inspected and determined not to be operating as designed. A third-party contractor has been retained for remediation purposes.

Form C-141
Page 2

State of New Mexico
Oil Conservation Division

Incident ID	NAPP2218642544
District RP	
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Was this a major release as defined by 19.15.29.7(A) NMAC? ☒ Yes ☐ No	If YES, for what reason(s) does the responsible party consider this a major release? A release greater than 25 barrels.

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, Robert Hamlet, Jennifer Nobui, and ocd.enviro@state.nm.us on 06/28/2022 via email.

Initial Response

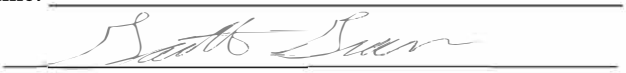
The responsible party must undertake the following actions immediately unless they could create a safety hazard that would result in injury

- ☒ The source of the release has been stopped.
- ☒ The impacted area has been secured to protect human health and the environment.
- ☒ Released materials have been contained via the use of berms or dikes, absorbent pads, or other containment devices.
- ☒ All free liquids and recoverable materials have been removed and managed appropriately.

If all the actions described above have not 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: Garrett Green
Title: SSHE Coordinator
Signature: 
Date: 07/05/2022
email: garrett.green@exxonmobil.com
Telephone: 575-200-0729

OCD Only

Received by: Jocelyn Harimon
Date: 07/05/2022

Location:	Pierce Canyon 28 Battery	
Spill Date:	6/27/2022	
Area 1		
Approximate Area =	168.44	cu.ft.
VOLUME OF LEAK		
Total Crude Oil =	1.50	bbls
Total Produced Water =	28.50	bbls
TOTAL VOLUME OF LEAK		
Total Crude Oil =	**1.50**	**bbls**
Total Produced Water =	**28.50**	**bbls**
TOTAL VOLUME RECOVERED		
Total Crude Oil =	**1.50**	**bbls**
Total Produced Water =	**28.50**	**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 122679

CONDITIONS

Operator: XTO ENERGY, INC 6401 Holiday Hill Road Midland, TX 79707	OGRID: 5380
	Action Number: 122679
	Action Type: [C-141] Release Corrective Action (C-141)

CONDITIONS

Created By	Condition	Condition Date
jharimon	None	7/5/2022

State of New Mexico
Oil Conservation Division

Incident ID	NAPP2218642544
District RP	
Facility ID	
Application ID	

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?	☐ Yes ☒ No
Are the lateral extents of the release within 300 feet of a continuously flowing watercourse or any other significant watercourse?	☐ Yes ☒ 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)?	☐ Yes ☒ No
Are the lateral extents of the release within 300 feet of an occupied permanent residence, school, hospital, institution, or church?	☐ Yes ☒ 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?	☐ Yes ☒ No
Are the lateral extents of the release within 1000 feet of any other fresh water well or spring?	☐ Yes ☒ No
Are the lateral extents of the release within incorporated municipal boundaries or within a defined municipal fresh water well field?	☐ Yes ☒ No
Are the lateral extents of the release within 300 feet of a wetland?	☐ Yes ☒ No
Are the lateral extents of the release overlying a subsurface mine?	☐ Yes ☒ No
Are the lateral extents of the release overlying an unstable area such as karst geology?	☐ Yes ☒ No
Are the lateral extents of the release within a 100-year floodplain?	☐ Yes ☒ No
Did the release impact areas **not** on an exploration, development, production, or storage site?	☐ Yes ☒ 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.

Form C-141
Page 4

State of New Mexico
Oil Conservation Division

Incident ID	NAPP2218642544
District RP	
Facility ID	
Application ID	

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: Garrett Green Title: SSHE Coordinator

Signature: Date: 9/23/2022

email: garrett.green@exxonmobil.com Telephone: 575-200-0729

OCD Only

Received by: Jocelyn Harimon Date: 09/23/2022

Incident ID	NAPP2218642544
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: Garrett Green Title: SSHE Coordinator

Signature: Garrett Green Date: 9/23/2022

email: garrett.green@exxonmobil.com Telephone: 575-200-0729

OCD Only

Received by: Jocelyn Harimon Date: 09/23/2022

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: Jocelyn Harimon Date: 12/14/2022

Printed Name: Jocelyn Harimon Title: Environmental Specialist

ENSOLUM

September 23, 2022

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

Re: Closure Request
Pierce Canyon 28 Battery
Incident Number NAPP2218642544
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 28 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 release of produced water within lined containment at the Site. Based on field observations, field screening activities, and laboratory analytical results, XTO is submitting this Closure Request and requesting closure for Incident Number NAPP2218642544.

SITE DESCRIPTION AND RELEASE SUMMARY

The Site is located in Unit P, Section 28, Township 24 South, Range 30 East, in Eddy County, New Mexico (32.18219˚ N, 103.88002˚ W) and is associated with oil and gas exploration and production operations on Federal Land managed by the Bureau of Land Management (BLM).

On June 27, 2022, a fresh water knock out (FWKO) tank over pressured due to mechanical water dump malfunction, releasing 1.5 barrels (bbls) of crude oil and 28.5 bbls of produced water from the Pressure Safety Valve (PSV) into the lined containment. A vacuum truck was immediately dispatched to the Site to recover free-standing fluids; all 30 bbls of released fluids were recovered from within the lined containment. A 48-hour advance notice of liner inspection was provided via email to the New Mexico Oil Conservation Division (NMOCD). A liner integrity inspection was conducted by XTO personnel following the fluid recovery and upon inspection, the liner was determined to be insufficient. XTO reported the release to the NMOCD via email on June 28, 2022 and submitted a Release Notification Form C-141 (Form C-141) on July 5, 2022. The release was assigned Incident Number NAPP2218642544.

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.

Depth to groundwater at the Site is greater than 100 feet below ground surface (bgs) based on a recent soil boring drilled for determination of regional groundwater depth. On September 10, 2020, soil boring BH-01, with New Mexico Office of the State Engineer (NMOSE) permit number file number C-4474, was drilled 0.17 miles southeast of the Site utilizing a track-mounted hollow-stem auger rig and rotary dill. Soil boring BH-01 was drilled to a depth of 110 feet bgs. A field geologist logged and described soils continuously. No moisture or groundwater was encountered during drilling activites. The borehole was left open for over 72 hours to allow for potential slow infill of groundwater. After the 72-hour waiting period without observing groundwater, it was confirmed that groundwater beneath the Site is greater than 110 feet bgs. The borehole was properly abandoned with drill cuttings and hydrated bentonite chips. All wells used to determine depth to groundwater are depicted on Figure 1. The Well Record and Log is included in Appendix A.

The closest continuously flowing or significant watercourse to the Site is a seasonal dry wash, located approximately 752 feet northeast of the Site. A potential seasonal dry wash located approximately 141 feet northeast of the Site has been determined to be non-significant due to a recent approved watercourse survey completed on July 27, 2020. The watercourse survey conducted can be found in the approved Closure Request for the Poker Lake Unit Pierce Canyon 28 site on pages 22 through 24 and includes Incident numbers NRM1931858285 (2RP-5697) and NCE2002742193. The Closure Request was recived by the NMOCD on December 23, 2020 and approved on March 10, 2021.

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). Potential 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 ACTIVITIES

On August 16, 2022, Site assessment activities were conducted to evaluate the potential release extent based on information provided on the Form C-141. Ensolum personnel advanced one borehole (BH01) via hand-auger at the location of the tear in the liner identified during the liner integrity inspection. Three discrete delineation soil samples (BH01/BH01A/BH01B) were collected from the borehole at depths of approximately 0.5 feet, 1-foot, and 2 feet bgs, respectively. Four additional lateral delineation boreholes (BH02/BH02A through BH05/BH05A) were collected around the lined containment via hand auger at depths of 0.5 feet and 1-foot bgs, respectively, to confirm the a release did not extend outside the lined containment. The release extent/containment and preliminary soil sample locations were mapped utilizing a handheld Global Positioning System (GPS) unit and are depicted on Figure 2. Soil from the delineation boreholes were field screened for volatile organic compounds (VOCs) utilizing a calibrated photoionization detector (PID) and chloride using Hach® chloride QuanTab® test strips. Field screening results and observations from all boreholes were documented on lithologic/soil sampling logs, which are

included as Appendix B. The boreholes were backfilled with soil removed and an XTO contractor repaired the tear in the liner. Photographic documentation was conducted during the Site visit. A photographic log is 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 at or below 4 degrees Celsius (°C) under strict chain-of-custody procedures to Eurofins Laboratories (Eurofins) in Carlsbad, New Mexico, for analysis of the following chemicals 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 300.0.

LABORATORY ANALYTICAL RESULTS

Laboratory analytical results for the delineation soil samples from all boreholes indicated all COC concentrations were compliant with the Site Closure Criteria. Additionally, laboratory analytical results for all COCs in delineation soil samples BH01A at 1-foot bgs, BH01B at 2 feet bgs, and lateral delineation boreholes BH02/BH02A through BH05/BH05A were compliant with the most stringent Table 1 Closure Criteria. Laboratory analytical results are summarized in Table 1 and the complete laboratory analytical report is included as Appendix D.

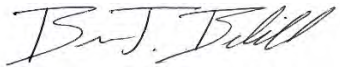
CLOSURE REQUEST

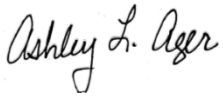
Following the failed liner integrity inspection at the Site, Ensolum personnel advanced one borehole (BH01) at the location of the tear in the liner to assess for the presence or absence of impacted soil resulting from the June 27, 2022, crude oil and produced water release within lined containment. Laboratory analytical results for all delineation soil samples indicated all COC concentrations were compliant with the Site Closure Criteria. Additionally, laboratory analytical results for delineation soil samples BH01A at 1-foot bgs, BH01B at 2 feet bgs, and lateral delineation boreholes BH02/BH02A through BH05/BH05A were compliant with the most stringent Table 1 Closure Criteria. The release was contained laterally by the lined containment and all released fluids were recovered during initial response activities. The tear in the liner was subsequently repaired. NMOCD notifications are included in Appendix E.

Based on initial response efforts, depth to groundwater greater than 100 feet bgs, and soil sample laboratory analytical results compliant with the Closure Criteria directly beneath the tear in the liner, XTO respectfully requests closure for Incident Number NAPP2218642544.

If you have any questions or comments, please contact Ms. Ashley Ager at (970) 946-1093 or aager@ensolum.com.

Sincerely,
Ensolum, LLC





Benjamin J. Belill
Project Geologist

Ashley L. Ager, M.S., PG
Program Director

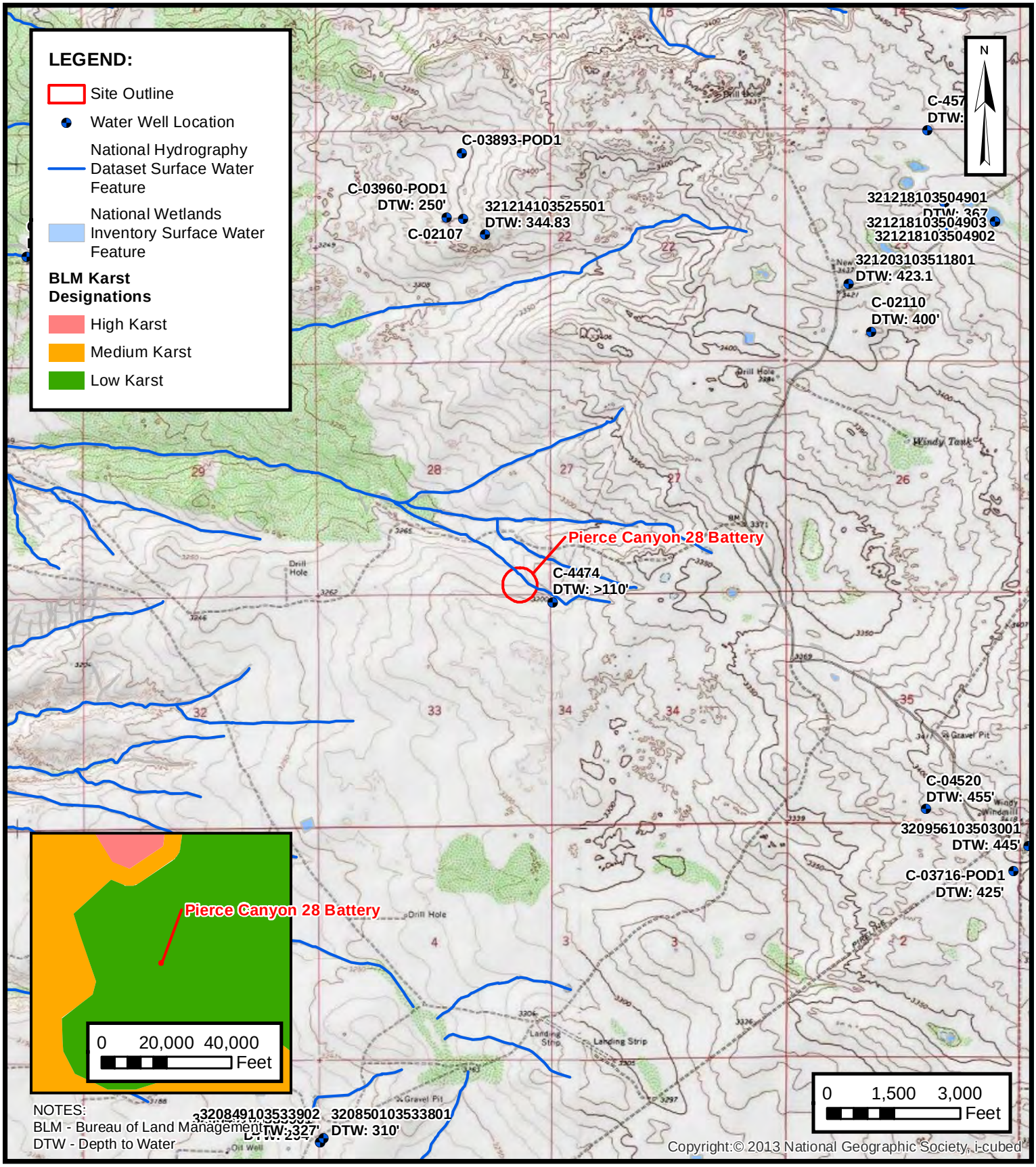
cc: Garrett Green, XTO
Shelby Pennington, XTO
Bureau of Land Management

Appendices:

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

ENSOLUM

FIGURES



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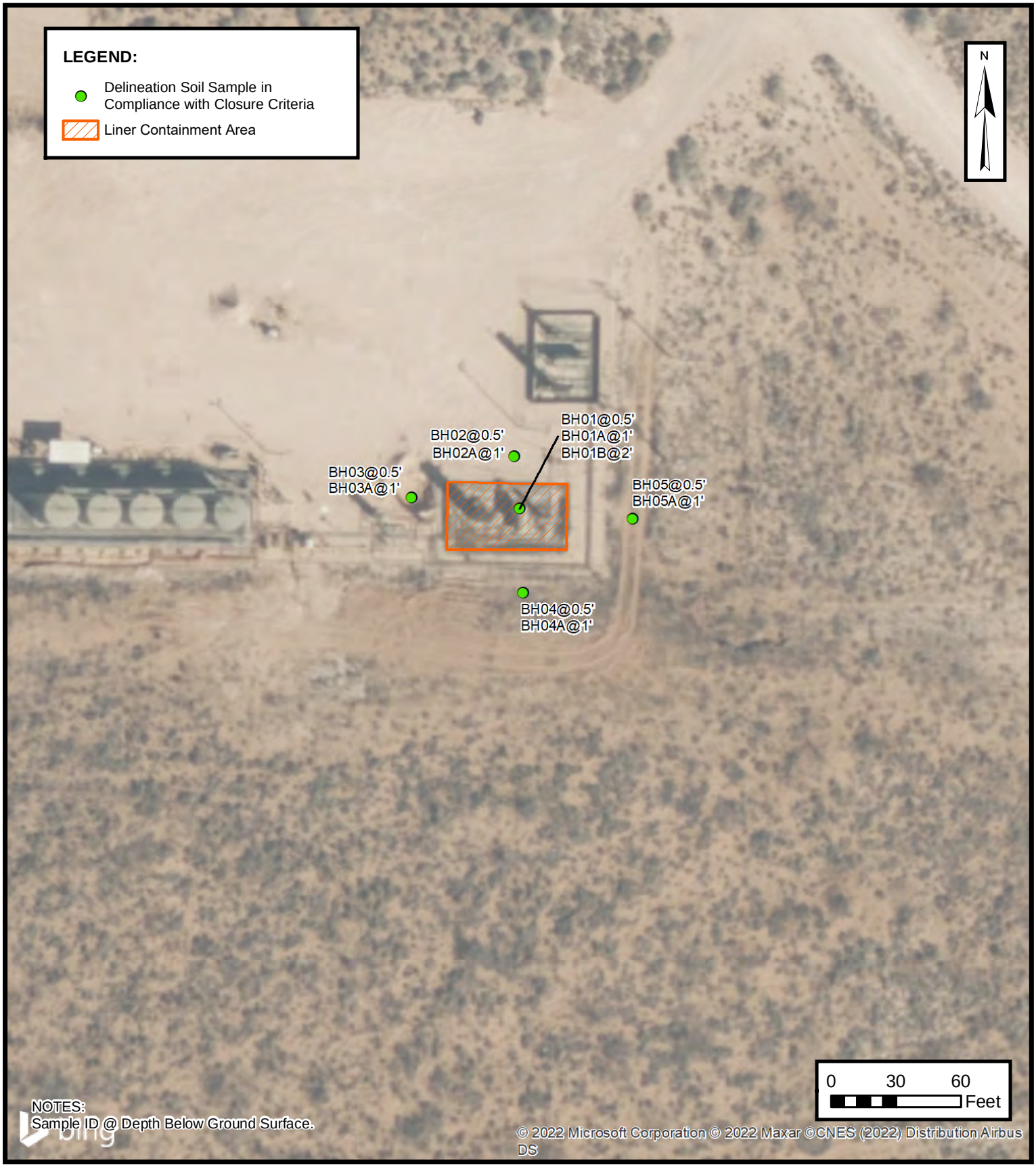
Environmental, Engineering and Hydrogeologic Consultants

SITE RECEPTOR MAP

XTO ENERGY, INC
PIERCE CANYON 28 BATTERY
NAPP2218642544
Unit P, Sec 28, T24S, R30E
Eddy County, New Mexico

FIGURE
1



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Environmental, Engineering and Hydrogeologic Consultants

DELINEATION SOIL SAMPLE LOCATIONS

XTO ENERGY, INC
PIERCE CANYON 28 BATTERY
NAPP2218642544
Unit P, Sec 28, T24S, R30E
Eddy County, New Mexico

FIGURE

2

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TABLES

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TABLE 1
SOIL SAMPLE ANALYTICAL RESULTS
Pierce Canyon 28 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										
BH01	08/16/2022	0.5	<0.00200	<0.00401	<49.9	180	<49.9	180	180	1,310
BH01A	08/16/2022	1	<0.00201	<0.00402	<49.9	<49.9	<49.9	<49.9	<49.9	91.5
BH01B	08/16/2022	2	<0.00200	<0.00399	<50.0	<50.0	<50.0	<50.0	<50.0	81.1
BH02	08/16/2022	0.5	<0.00198	0.00609	<50.0	61.4	<50.0	61.4	61.4	156
BH02A	08/16/2022	1	<0.00201	<0.00402	<50.0	55.0	<50.0	55.0	55.0	179
BH03	08/16/2022	0.5	<0.00199	<0.00398	<50.0	<50.0	<50.0	<50.0	<50.0	24.3
BH03A	08/16/2022	1	<0.00200	<0.00401	<50.0	<50.0	<50.0	<50.0	<50.0	80.9
BH04	08/16/2022	0.5	<0.00201	<0.00402	<49.9	<49.9	<49.9	<49.9	<49.9	11.0
BH04A	08/16/2022	1	<0.00202	<0.00404	<50.0	<50.0	<50.0	<50.0	<50.0	10.5
BH05	08/16/2022	0.5	<0.00200	<0.00401	<50.0	<50.0	<50.0	<50.0	<50.0	10.8
BH05A	08/16/2022	1	<0.00200	<0.00399	<50.0	<50.0	<50.0	<50.0	<50.0	12.0

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 1 Closure Criteria or reclamation standard where applicable.

GRO: Gasoline Range Organics
DRO: Diesel Range Organics
ORO: Oil Range Organics
TPH: Total Petroleum Hydrocarbon

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APPENDIX A

Well Record and Log

WELL RECORD & LOG

OFFICE OF THE STATE ENGINEER

www.ose.state.nm.us

1. GENERAL AND WELL LOCATION

OSE POD NO. (WELL NO.)	WELL TAG ID NO.	OSE FILE NO(S).
POD1 (BH-01)	n/a	C-4474

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

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

WELL LOCATION (FROM GPS)		DEGREES	MINUTES	SECONDS	
	LATITUDE	32°	10'	51.44"	N
	LONGITUDE	-103°	52'	38.65"	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.	NAME OF LICENSED DRILLER	NAME OF WELL DRILLING COMPANY
1249	Jackie D. Atkins	Atkins Engineering Associates, Inc.

DRILLING STARTED	DRILLING ENDED	DEPTH OF COMPLETED WELL (FT)	BORE HOLE DEPTH (FT)	DEPTH WATER FIRST ENCOUNTERED (FT)
09/10/20	09/10/20	temporary well material	110	n/a

COMPLETED WELL IS: ☐ ARTESIAN ☑ DRY HOLE ☐ SHALLOW (UNCONFINED)

STATIC WATER LEVEL IN COMPLETED WELL (FT): n/a

DRILLING FLUID: ☑ AIR ☐ MUD ADDITIVES – SPECIFY:

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

DEPTH (feet bgl) FROM	DEPTH (feet bgl) TO	BORE HOLE DIAM (inches)	CASING MATERIAL AND/OR GRADE (include each casing string, and note sections of screen)	CASING CONNECTION TYPE (add coupling diameter)	CASING INSIDE DIAM. (inches)	CASING WALL THICKNESS (inches)	SLOT SIZE (inches)
0	48	±8.5	Boring- HSA	--	--	--	--
48	110	±4.5	Boring- Air Rotary	--	--	--	--

3. ANNULAR MATERIAL

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

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

FILE NO.	C-4474	POD NO.	1	TRN NO.	677410
LOCATION	24S.30E.34.111			WELL TAG ID NO.	—

PAGE 1 OF 2

4. HYDROGEOLOGIC LOG OF WELL

DEPTH (feet bgl) FROM	DEPTH (feet bgl) TO	THICKNESS (feet)	COLOR AND TYPE OF MATERIAL ENCOUNTERED - INCLUDE WATER-BEARING CAVITIES OR FRACTURE ZONES (attach supplemental sheets to fully describe all units)	WATER BEARING? (YES / NO)	ESTIMATED YIELD FOR WATER-BEARING ZONES (gpm)
0	30	30	Sand, Medium , poorly-graded with silt, no plasticity, Red-Brown	Y ✓ N	
30	45	15	Clayey Sand, Medium, low plasticity, Dark Red-Brown	Y ✓ N	
45	50	5	Sand, Medium , poorly-graded, compacted, no plasticity, Brown	Y ✓ N	
50	58	8	Caliche, well cemented with medium sand matrix. Brown	Y ✓ N	
58	73	15	Clayey Sand, Medium, Moderate plasticity, increasing clay, Brown	Y ✓ N	
73	78	5	Caliche, with Sandy clay layering, mod plasticity, poorly-grated sand, White	Y ✓ N	
78	83	5	Sand, Medium , poorly-graded, no plasticity, Light Brown	Y ✓ N	
83	88	5	Clayey Sand, Medium, Moderate plasticity, decreasing clay, Red Brown	Y ✓ N	
88	110	22	Sand, Fine , poorly-graded, no plasticity , Brown	Y ✓ N	
				Y N	
				Y N	
				Y N	
				Y N	
				Y N	
				Y N	
				Y N	
				Y N	
				Y N	
				Y N	
				Y N	

METHOD USED TO ESTIMATE YIELD OF WATER-BEARING STRATA:

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

TOTAL ESTIMATED WELL YIELD (gpm): 0.00

5. TEST; RIG SUPERVISION

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

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

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

Shane Eldridge

6. SIGNATURE

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

Jack Atkins — Jackie D. Atkins — 10/07/2020

SIGNATURE OF DRILLER / PRINT SIGNEE NAME — DATE

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

FILE NO.	C-4474	POD NO.	1	TRN NO.	677410
LOCATION	24S.30E.34.111			WELL TAG ID NO.	—

PAGE 2 OF 2

ENSOLUM

APPENDIX B

Lithologic Soil Sampling Logs

ENSOLUM	Sample Name: BH01	Date:08/16/2022
	Site Name: Pierce Canyon 28 Battery	
	Incident Number: NAPP2218642544	
	Job Number: 03E1588094	
LITHOLOGIC / SOIL SAMPLING LOG	Logged By:CW	Method: Hand auger
Coordinates: 32.18219N, -103.88002W	Hole Diameter: 3.5	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. ND = Non Detectable Limits

Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample ID	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithologic Descriptions
M			Y			0	CCHE (fill)	0-1', CALICHE, moist, light brown/tan, very sandy, unconsolidated, light brown stain, mild H/C odor, fill.
M	1,472	11.5	N	BH01	0.5			@0.5'-1', no odor, no stain.
M	ND	0.2	N	BH01A	1	1	SM	1'-2', SILTY SAND, moist, reddish brown, very fine grain, poorly graded, silty, no stain, no odor.
M	ND	0	N	BH01B	2	2		
							TD	Total Depth at 2 feet bgs.

ENSOLUM	Sample Name: BH02	Date:08/16/2022
	Site Name: Pierce Canyon 28 Battery	
	Incident Number: NAPP2218642544	
	Job Number: 03E1588094	
LITHOLOGIC / SOIL SAMPLING LOG	Logged By:CW	Method: Hand auger
Coordinates: 32.18219N, -103.88002W	Hole Diameter: 3.5	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. ND = Non Detectable Limits

Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample ID	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithologic Descriptions
						0	CCHE (fill)	0-1', CALICHE, moist, light brown/tan, very sandy, unconsolidated, no stain, no odor.
M	ND	0.0	N	BH02	0.5			
M	ND	0.0	N	BH02A	1	1	TD	Total depth at 1-foot bgs.

ENSOLUM

	Sample Name: BH03	Date:08/16/2022
	Site Name: Pierce Canyon 28 Battery	
	Incident Number: NAPP2218642544	
	Job Number: 03E1588094	
LITHOLOGIC / SOIL SAMPLING LOG	Logged By:CW	Method: Hand auger
Coordinates: 32.18219N, -103.88002W	Hole Diameter: 3.5	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. ND = Non Detectable Limits

Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample ID	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithologic Descriptions
						0	CCHE (fill)	0-1', CALICHE, moist, light brown/tan, very sandy, unconsolidated, no stain, no odor.
M	ND	0.0	N	BH03	0.5			
M	ND	0.0	N	BH03A	1	1	TD	Total depth at 1-foot bgs.

ENSOLUM

	Sample Name: BH04	Date:08/16/2022
	Site Name: Pierce Canyon 28 Battery	
	Incident Number: NAPP2218642544	
	Job Number: 03E1588094	
LITHOLOGIC / SOIL SAMPLING LOG	Logged By:CW	Method: Hand auger
Coordinates: 32.18219N, -103.88002W	Hole Diameter: 3.5	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. ND = Non Detectable Limits

Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample ID	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithologic Descriptions
						0	SM	0-1', SILTY SAND, moist, reddish brown, very fine grain, poorly graded, silty, no stain, no odor.
M	ND	0.0	N	BH04	0.5			
M	ND	0.0	N	BH04A	1	1	TD	Total depth at 1-foot bgs.

ENSOLUM

	Sample Name: BH05	Date:08/16/2022
	Site Name: Pierce Canyon 28 Battery	
	Incident Number: NAPP2218642544	
	Job Number: 03E1588094	
LITHOLOGIC / SOIL SAMPLING LOG	Logged By:CW	Method: Hand auger
Coordinates: 32.18219N, -103.88002W	Hole Diameter: 3.5	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. ND = Non Detectable Limits

Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample ID	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithologic Descriptions
						0	SM	0-1', SILTY SAND, moist, reddish brown, very fine grain, poorly graded, silty, no stain, no odor.
M	ND	0.0	N	BH05	0.5			
M	ND	0.0	N	BH05A	1	1	TD	Total depth at 1-foot bgs.

ENSOLUM

APPENDIX C

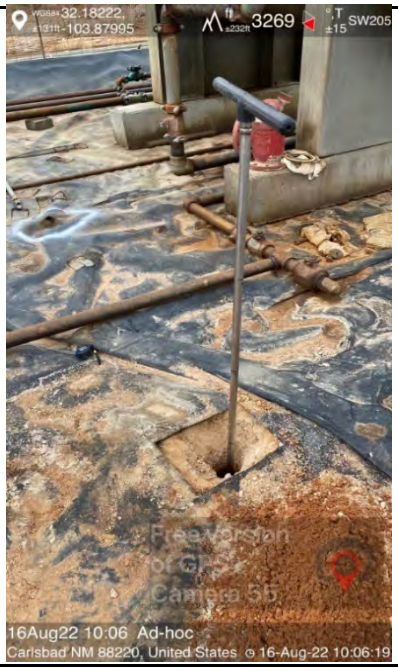
Photographic Log

ENSOLUM

Photographic Log
XTO Energy, Inc.
Site Name Pierce Canyon 28 Battery
Incident Number NAPP2218642544

Photograph 1 Date:August 16, 2022
Description: Site Assessment/Delineation Activities

Photograph 2 Date:August 16, 2022
Description: Site Assessment/Delineation Activities



Photograph 3 Date:August 16, 2022
Description: Site Assessment/Delineation Activities

Photograph 4 Date:August 16, 2022
Description: Patched Liner

ENSOLUM

APPENDIX D

Laboratory Analytical Reports & Chain of Custody Documentation

eurofins | Environment Testing America

ANALYTICAL REPORT

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

Laboratory Job ID: 890-2770-1
Laboratory Sample Delivery Group: 03E1558094
Client Project/Site: Pierce Canyon 28 Battery

For:
Ensolum
705 W. Wadley
Suite 210
Midland, Texas 79701

Attn: Ben Belill

JKramer

Authorized for release by:
8/31/2022 8:18:13 PM

Jessica Kramer, Project Manager
(432)704-5440
Jessica.Kramer@et.eurofinsus.com

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 28 Battery

Laboratory Job ID: 890-2770-1
SDG: 03E1558094

Table of Contents

Definitions/Glossary

Client: Ensolum Job ID: 890-2770-1
Project/Site: Pierce Canyon 28 Battery SDG: 03E1558094

Qualifiers

GC VOA

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

GC Semi VOA

Qualifier	Qualifier Description
*1	LCS/LCSD RPD exceeds control limits.
F1	MS and/or MSD recovery exceeds control limits.
F2	MS/MSD RPD exceeds control limits
S1-	Surrogate recovery exceeds control limits, low 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.
¤	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 28 Battery

Job ID: 890-2770-1
SDG: 03E1558094

Job ID: 890-2770-1

Laboratory: Eurofins Carlsbad

Narrative

Job Narrative
890-2770-1

Receipt
The samples were received on 8/17/2022 4:13 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 5.2°C

GC VOA
Method 8021B: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 880-32856 and analytical batch 880-33137 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: (890-2762-A-21-B), (890-2762-A-21-C MS) and (890-2762-A-21-D MSD). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

Method 8015MOD_NM: Surrogate recovery for the following samples were outside control limits: BH02 (890-2770-1) and BH02A (890-2770-2). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

Method 8015MOD_NM: The method blank for preparation batch 880-32517 and analytical batch 880-32464 contained Gasoline Range Organics (GRO)-C6-C10 above the method detection limit. This target analyte concentration was less than the reporting limit (RL); therefore, re-extraction and/or re-analysis of samples was not performed.

Method 8015MOD_NM: The RPD of the laboratory control sample (LCS) and laboratory control sample duplicate (LCSD) for preparation batch 880-32517 and analytical batch 880-32464 recovered outside control limits for the following analytes: Gasoline Range Organics (GRO)-C6-C10.

Method 8015MOD_NM: The matrix spike / matrix spike duplicate (MS/MSD) recoveries and precision for preparation batch 880-32517 and analytical batch 880-32464 was outside control limits. Sample matrix interference and/or non-homogeneity is suspected.

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 28 Battery

Job ID: 890-2770-1
SDG: 03E1558094

Client Sample ID: BH02

Date Collected: 08/16/22 10:05
Date Received: 08/17/22 16:13
Sample Depth: 0.5

Lab Sample ID: 890-2770-1

Matrix: Solid

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00198	U	0.00198		mg/Kg		08/24/22 15:02	08/29/22 01:22	1
Toluene	<0.00198	U	0.00198		mg/Kg		08/24/22 15:02	08/29/22 01:22	1
Ethylbenzene	<0.00198	U	0.00198		mg/Kg		08/24/22 15:02	08/29/22 01:22	1
m-Xylene & p-Xylene	<0.00396	U	0.00396		mg/Kg		08/24/22 15:02	08/29/22 01:22	1
o-Xylene	**0.00609**		0.00198		mg/Kg		08/24/22 15:02	08/29/22 01:22	1
Xylenes, Total	**0.00609**		0.00396		mg/Kg		08/24/22 15:02	08/29/22 01:22	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*125*		*70 - 130*	*08/24/22 15:02*	*08/29/22 01:22*	*1*
1,4-Difluorobenzene (Surr)	*102*		*70 - 130*	*08/24/22 15:02*	*08/29/22 01:22*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	**0.00609**		0.00396		mg/Kg			08/29/22 14:49	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	**61.4**		50.0		mg/Kg			08/22/22 13:19	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 *1	50.0		mg/Kg		08/19/22 13:54	08/19/22 23:04	1
Diesel Range Organics (Over C10-C28)	**61.4**		50.0		mg/Kg		08/19/22 13:54	08/19/22 23:04	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		08/19/22 13:54	08/19/22 23:04	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*50*	*S1-*	*70 - 130*	*08/19/22 13:54*	*08/19/22 23:04*	*1*
o-Terphenyl	*47*	*S1-*	*70 - 130*	*08/19/22 13:54*	*08/19/22 23:04*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**156**		4.97		mg/Kg			08/31/22 16:10	1

Client Sample ID: BH02A

Date Collected: 08/16/22 10:10
Date Received: 08/17/22 16:13
Sample Depth: 1

Lab Sample ID: 890-2770-2

Matrix: Solid

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00201	U	0.00201		mg/Kg		08/24/22 15:02	08/29/22 01:42	1
Toluene	<0.00201	U	0.00201		mg/Kg		08/24/22 15:02	08/29/22 01:42	1
Ethylbenzene	<0.00201	U	0.00201		mg/Kg		08/24/22 15:02	08/29/22 01:42	1
m-Xylene & p-Xylene	<0.00402	U	0.00402		mg/Kg		08/24/22 15:02	08/29/22 01:42	1
o-Xylene	<0.00201	U	0.00201		mg/Kg		08/24/22 15:02	08/29/22 01:42	1
Xylenes, Total	<0.00402	U	0.00402		mg/Kg		08/24/22 15:02	08/29/22 01:42	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*101*		*70 - 130*	*08/24/22 15:02*	*08/29/22 01:42*	*1*

Client Sample Results

Client: Ensolum
Project/Site: Pierce Canyon 28 Battery

Job ID: 890-2770-1
SDG: 03E1558094

Client Sample ID: BH02A

Date Collected: 08/16/22 10:10
Date Received: 08/17/22 16:13
Sample Depth: 1

Lab Sample ID: 890-2770-2

Matrix: Solid

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

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,4-Difluorobenzene (Surr)	*100*		*70 - 130*	*08/24/22 15:02*	*08/29/22 01:42*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00402	U	0.00402		mg/Kg			08/29/22 14:49	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	**55.0**		50.0		mg/Kg			08/22/22 13:19	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 *1	50.0		mg/Kg		08/19/22 13:54	08/19/22 23:26	1
Diesel Range Organics (Over C10-C28)	**55.0**		50.0		mg/Kg		08/19/22 13:54	08/19/22 23:26	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		08/19/22 13:54	08/19/22 23:26	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*60*	*S1-*	*70 - 130*	*08/19/22 13:54*	*08/19/22 23:26*	*1*
o-Terphenyl	*56*	*S1-*	*70 - 130*	*08/19/22 13:54*	*08/19/22 23:26*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**179**		4.98		mg/Kg			08/31/22 16:32	1

Surrogate Summary

Client: Ensolum
Project/Site: Pierce Canyon 28 Battery

Job ID: 890-2770-1
SDG: 03E1558094

Method: 8021B - Volatile Organic Compounds (GC)

Matrix: Solid **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)	
		BFB1	DFBZ1
Lab Sample ID	Client Sample ID	(70-130)	(70-130)
890-2761-A-1-E MS	Matrix Spike	103	104
890-2761-A-1-F MSD	Matrix Spike Duplicate	119	105
890-2770-1	BH02	125	102
890-2770-2	BH02A	101	100
LCS 880-32856/1-A	Lab Control Sample	126	100
LCSD 880-32856/2-A	Lab Control Sample Dup	125	99
MB 880-32856/5-A	Method Blank	95	95

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)	
		1CO1	OTPH1
Lab Sample ID	Client Sample ID	(70-130)	(70-130)
890-2762-A-21-C MS	Matrix Spike	64 S1-	56 S1-
890-2762-A-21-D MSD	Matrix Spike Duplicate	70	60 S1-
890-2770-1	BH02	50 S1-	47 S1-
890-2770-2	BH02A	60 S1-	56 S1-
LCS 880-32517/2-A	Lab Control Sample	111	107
LCSD 880-32517/3-A	Lab Control Sample Dup	108	101
MB 880-32517/1-A	Method Blank	78	79

Surrogate Legend

1CO = 1-Chlorooctane
OTPH = o-Terphenyl

QC Sample Results

Client: Ensolum
Project/Site: Pierce Canyon 28 Battery

Job ID: 890-2770-1
SDG: 03E1558094

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-32856/5-A
Matrix: Solid
Analysis Batch: 33137

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 32856

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		08/24/22 15:02	08/28/22 18:09	1
Toluene	<0.00200	U	0.00200		mg/Kg		08/24/22 15:02	08/28/22 18:09	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		08/24/22 15:02	08/28/22 18:09	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		08/24/22 15:02	08/28/22 18:09	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		08/24/22 15:02	08/28/22 18:09	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		08/24/22 15:02	08/28/22 18:09	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*95*		*70 - 130*	*08/24/22 15:02*	*08/28/22 18:09*	*1*
1,4-Difluorobenzene (Surr)	*95*		*70 - 130*	*08/24/22 15:02*	*08/28/22 18:09*	*1*

Lab Sample ID: LCS 880-32856/1-A
Matrix: Solid
Analysis Batch: 33137

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 32856

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Benzene			0.100	0.08736		mg/Kg		87	70 - 130		
Toluene			0.100	0.08468		mg/Kg		85	70 - 130		
Ethylbenzene			0.100	0.08827		mg/Kg		88	70 - 130		
m-Xylene & p-Xylene			0.200	0.1858		mg/Kg		93	70 - 130		
o-Xylene			0.100	0.1087		mg/Kg		109	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*126*		*70 - 130*
1,4-Difluorobenzene (Surr)	*100*		*70 - 130*

Lab Sample ID: LCSD 880-32856/2-A
Matrix: Solid
Analysis Batch: 33137

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 32856

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene			0.100	0.08754		mg/Kg		88	70 - 130	0	35
Toluene			0.100	0.08768		mg/Kg		88	70 - 130	3	35
Ethylbenzene			0.100	0.09233		mg/Kg		92	70 - 130	4	35
m-Xylene & p-Xylene			0.200	0.1992		mg/Kg		100	70 - 130	7	35
o-Xylene			0.100	0.1153		mg/Kg		115	70 - 130	6	35

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*125*		*70 - 130*
1,4-Difluorobenzene (Surr)	*99*		*70 - 130*

Lab Sample ID: 890-2761-A-1-E MS
Matrix: Solid
Analysis Batch: 33137

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 32856

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Benzene	<0.00200	U F1	0.0998	0.06445	F1	mg/Kg		64	70 - 130		
Toluene	<0.00200	U F1	0.0998	0.06237	F1	mg/Kg		61	70 - 130		

QC Sample Results

Client: Ensolum
Project/Site: Pierce Canyon 28 Battery

Job ID: 890-2770-1
SDG: 03E1558094

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

Lab Sample ID: 890-2761-A-1-E MS — **Client Sample ID: Matrix Spike**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 33137 — **Prep Batch: 32856**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Ethylbenzene	<0.00200	U F1	0.0998	0.05732	F1	mg/Kg		56	70 - 130
m-Xylene & p-Xylene	<0.00401	U F1	0.200	0.1104	F1	mg/Kg		54	70 - 130
o-Xylene	<0.00200	U F1	0.0998	0.06477	F1	mg/Kg		64	70 - 130

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*103*		*70 - 130*
1,4-Difluorobenzene (Surr)	*104*		*70 - 130*

Lab Sample ID: 890-2761-A-1-F MSD — **Client Sample ID: Matrix Spike Duplicate**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 33137 — **Prep Batch: 32856**

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	0.07479		mg/Kg		75	70 - 130	15	35
Toluene	<0.00200	U F1	0.0994	0.06419	F1	mg/Kg		63	70 - 130	3	35
Ethylbenzene	<0.00200	U F1	0.0994	0.06187	F1	mg/Kg		61	70 - 130	8	35
m-Xylene & p-Xylene	<0.00401	U F1	0.199	0.1217	F1	mg/Kg		60	70 - 130	10	35
o-Xylene	<0.00200	U F1	0.0994	0.06944	F1	mg/Kg		69	70 - 130	7	35

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*119*		*70 - 130*
1,4-Difluorobenzene (Surr)	*105*		*70 - 130*

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

Lab Sample ID: MB 880-32517/1-A — **Client Sample ID: Method Blank**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 32464 — **Prep Batch: 32517**

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		08/19/22 13:54	08/19/22 20:12	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		08/19/22 13:54	08/19/22 20:12	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		08/19/22 13:54	08/19/22 20:12	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*78*		*70 - 130*	*08/19/22 13:54*	*08/19/22 20:12*	*1*
o-Terphenyl	*79*		*70 - 130*	*08/19/22 13:54*	*08/19/22 20:12*	*1*

Lab Sample ID: LCS 880-32517/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 32464 — **Prep Batch: 32517**

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Gasoline Range Organics (GRO)-C6-C10			1000	1106		mg/Kg		111	70 - 130
Diesel Range Organics (Over C10-C28)			1000	984.6		mg/Kg		98	70 - 130

QC Sample Results

Client: Ensolum
Project/Site: Pierce Canyon 28 Battery

Job ID: 890-2770-1
SDG: 03E1558094

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

Lab Sample ID: LCS 880-32517/2-A
Matrix: Solid
Analysis Batch: 32464

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 32517

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1-Chlorooctane	111		70 - 130
o-Terphenyl	107		70 - 130

Lab Sample ID: LCSD 880-32517/3-A
Matrix: Solid
Analysis Batch: 32464

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 32517

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10			1000	891.6	*1	mg/Kg		89	70 - 130	21	20
Diesel Range Organics (Over C10-C28)			1000	963.8		mg/Kg		96	70 - 130	2	20

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
1-Chlorooctane	108		70 - 130
o-Terphenyl	101		70 - 130

Lab Sample ID: 890-2762-A-21-C MS
Matrix: Solid
Analysis Batch: 32464

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 32517

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Gasoline Range Organics (GRO)-C6-C10	<49.9	U *1 F1 F2	999	468.5	F1	mg/Kg		45	70 - 130		
Diesel Range Organics (Over C10-C28)	78.2	F1	999	515.8	F1	mg/Kg		44	70 - 130		

Surrogate	MS %Recovery	MS Qualifier	Limits
1-Chlorooctane	64	S1-	70 - 130
o-Terphenyl	56	S1-	70 - 130

Lab Sample ID: 890-2762-A-21-D MSD
Matrix: Solid
Analysis Batch: 32464

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 32517

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 *1 F1 F2	998	954.8	F2	mg/Kg		94	70 - 130	68	20
Diesel Range Organics (Over C10-C28)	78.2	F1	998	576.5	F1	mg/Kg		50	70 - 130	11	20

Surrogate	MSD %Recovery	MSD Qualifier	Limits
1-Chlorooctane	70		70 - 130
o-Terphenyl	60	S1-	70 - 130

QC Sample Results

Client: Ensolum
Project/Site: Pierce Canyon 28 Battery

Job ID: 890-2770-1
SDG: 03E1558094

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-32574/1-A
Matrix: Solid
Analysis Batch: 33396

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			08/31/22 13:40	1

Lab Sample ID: LCS 880-32574/2-A
Matrix: Solid
Analysis Batch: 33396

Client Sample ID: Lab Control Sample
Prep Type: Soluble

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride			250	250.7		mg/Kg		100	90 - 110		

Lab Sample ID: LCSD 880-32574/3-A
Matrix: Solid
Analysis Batch: 33396

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	251.0		mg/Kg		100	90 - 110	0	20

Lab Sample ID: 890-2765-A-11-B MS
Matrix: Solid
Analysis Batch: 33396

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	20.3		251	288.6		mg/Kg		107	90 - 110		

Lab Sample ID: 890-2765-A-11-C MSD
Matrix: Solid
Analysis Batch: 33396

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	20.3		251	290.8		mg/Kg		108	90 - 110	1	20

QC Association Summary

Client: Ensolum
Project/Site: Pierce Canyon 28 Battery

Job ID: 890-2770-1
SDG: 03E1558094

GC VOA

Prep Batch: 32856

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2770-1	BH02	Total/NA	Solid	5035	
890-2770-2	BH02A	Total/NA	Solid	5035	
MB 880-32856/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-32856/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-32856/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
890-2761-A-1-E MS	Matrix Spike	Total/NA	Solid	5035	
890-2761-A-1-F MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	

Analysis Batch: 33137

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2770-1	BH02	Total/NA	Solid	8021B	32856
890-2770-2	BH02A	Total/NA	Solid	8021B	32856
MB 880-32856/5-A	Method Blank	Total/NA	Solid	8021B	32856
LCS 880-32856/1-A	Lab Control Sample	Total/NA	Solid	8021B	32856
LCSD 880-32856/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	32856
890-2761-A-1-E MS	Matrix Spike	Total/NA	Solid	8021B	32856
890-2761-A-1-F MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	32856

Analysis Batch: 33242

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2770-1	BH02	Total/NA	Solid	Total BTEX	
890-2770-2	BH02A	Total/NA	Solid	Total BTEX	

GC Semi VOA

Analysis Batch: 32464

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2770-1	BH02	Total/NA	Solid	8015B NM	32517
890-2770-2	BH02A	Total/NA	Solid	8015B NM	32517
MB 880-32517/1-A	Method Blank	Total/NA	Solid	8015B NM	32517
LCS 880-32517/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	32517
LCSD 880-32517/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	32517
890-2762-A-21-C MS	Matrix Spike	Total/NA	Solid	8015B NM	32517
890-2762-A-21-D MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	32517

Prep Batch: 32517

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2770-1	BH02	Total/NA	Solid	8015NM Prep	
890-2770-2	BH02A	Total/NA	Solid	8015NM Prep	
MB 880-32517/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-32517/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-32517/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
890-2762-A-21-C MS	Matrix Spike	Total/NA	Solid	8015NM Prep	
890-2762-A-21-D MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	

Analysis Batch: 32658

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2770-1	BH02	Total/NA	Solid	8015 NM	
890-2770-2	BH02A	Total/NA	Solid	8015 NM	

QC Association Summary

Client: Ensolum
Project/Site: Pierce Canyon 28 Battery

Job ID: 890-2770-1
SDG: 03E1558094

HPLC/IC

Leach Batch: 32574

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2770-1	BH02	Soluble	Solid	DI Leach	
890-2770-2	BH02A	Soluble	Solid	DI Leach	
MB 880-32574/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-32574/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-32574/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
890-2765-A-11-B MS	Matrix Spike	Soluble	Solid	DI Leach	
890-2765-A-11-C MSD	Matrix Spike Duplicate	Soluble	Solid	DI Leach	

Analysis Batch: 33396

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2770-1	BH02	Soluble	Solid	300.0	32574
890-2770-2	BH02A	Soluble	Solid	300.0	32574
MB 880-32574/1-A	Method Blank	Soluble	Solid	300.0	32574
LCS 880-32574/2-A	Lab Control Sample	Soluble	Solid	300.0	32574
LCSD 880-32574/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	32574
890-2765-A-11-B MS	Matrix Spike	Soluble	Solid	300.0	32574
890-2765-A-11-C MSD	Matrix Spike Duplicate	Soluble	Solid	300.0	32574

Lab Chronicle

Client: Ensolum
Project/Site: Pierce Canyon 28 Battery

Job ID: 890-2770-1
SDG: 03E1558094

Client Sample ID: BH02

Date Collected: 08/16/22 10:05
Date Received: 08/17/22 16:13

Lab Sample ID: 890-2770-1

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.05 g	5 mL	32856	08/24/22 15:02	MR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	33137	08/29/22 01:22	MR	EET MID
Total/NA	Analysis	Total BTEX		1			33242	08/29/22 14:49	SM	EET MID
Total/NA	Analysis	8015 NM		1			32658	08/22/22 13:19	SM	EET MID
Total/NA	Prep	8015NM Prep			10.00 g	10 mL	32517	08/19/22 13:54	DM	EET MID
Total/NA	Analysis	8015B NM		1			32464	08/19/22 23:04	SM	EET MID
Soluble	Leach	DI Leach			5.03 g	50 mL	32574	08/21/22 17:07	SMC	EET MID
Soluble	Analysis	300.0		1	0 mL	0 mL	33396	08/31/22 16:10	CH	EET MID

Client Sample ID: BH02A

Date Collected: 08/16/22 10:10
Date Received: 08/17/22 16:13

Lab Sample ID: 890-2770-2

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.97 g	5 mL	32856	08/24/22 15:02	MR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	33137	08/29/22 01:42	MR	EET MID
Total/NA	Analysis	Total BTEX		1			33242	08/29/22 14:49	SM	EET MID
Total/NA	Analysis	8015 NM		1			32658	08/22/22 13:19	SM	EET MID
Total/NA	Prep	8015NM Prep			10.00 g	10 mL	32517	08/19/22 13:54	DM	EET MID
Total/NA	Analysis	8015B NM		1			32464	08/19/22 23:26	SM	EET MID
Soluble	Leach	DI Leach			5.02 g	50 mL	32574	08/21/22 17:07	SMC	EET MID
Soluble	Analysis	300.0		1	0 mL	0 mL	33396	08/31/22 16:32	CH	EET MID

Laboratory References:

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

Accreditation/Certification Summary

Client: Ensolum
Project/Site: Pierce Canyon 28 Battery

Job ID: 890-2770-1
SDG: 03E1558094

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	T104704400-22-24	06-30-23

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

Method Summary

Client: Ensolum
Project/Site: Pierce Canyon 28 Battery

Job ID: 890-2770-1
SDG: 03E1558094

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

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

Sample Summary

Client: Ensolum
Project/Site: Pierce Canyon 28 Battery

Job ID: 890-2770-1
SDG: 03E1558094

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-2770-1	BH02	Solid	08/16/22 10:05	08/17/22 16:13	0.5
890-2770-2	BH02A	Solid	08/16/22 10:10	08/17/22 16:13	1

eurofins Environment Testing Xenco

Chain of Custody

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: _____

www.xenco.com Page ___1__ of ___1___

Project Manager:	Ben Belill	Bill to: (if different)	Garrett Green
Company Name:	Ensolum, LLC	Company Name:	XTO Energy, Inc.
Address:	3122 National parks Hwy	Address:	3104 E. Green Street
City, State ZIP:	Carlsbad, NM 88220	City, State ZIP:	Carlsbad, NM 88220
Phone:	9898540852	Email:	bbelill@ensolum.com

Work Order Comments

Program: UST/PST ☐ PRP ☐ Brownfields ☐ RRC ☐ Superfund ☐
State of Project:
Reporting: Level II ☐ Level III ☐ PST/UST ☐ TRRP ☐ Level IV ☐
Deliverables: EDD ☐ ADaPT ☐ Other:

Project Name:	Pierce Canyon 28 Battery	Turn Around	
Project Number:	03E1558094	☑ Routine ☐ Rush	
Project Location:	EDDY COUNTY, NM	Due Date:	
Sampler's Name:	Kase Parker	TAT starts the day received by the lab, if received by 4:30pm	
PO #:			

SAMPLE RECEIPT	Temp Blank: (Yes) No	Wet Ice: (Yes) No	
Samples Received Intact:	(Yes) No	Thermometer ID:	IR-007
Cooler Custody Seals:	Yes No (N/A)	Correction Factor:	-0.2
Sample Custody Seals:	Yes No (N/A)	Temperature Reading:	5.4
Total Containers:		Corrected Temperature:	5.2

ANALYSIS REQUEST

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Grab/ Comp	# of Cont	CHLORIDES (EPA: 300.0)	TPH (8015)	BTEX (8021)
BH02	S	8/16/2022	1025	0.5'	Grab/	1	X	X	X
BH02A	S	8/16/2022	1040	1'	Grab/	1	X	X	X

890-2770 Chain of Custody

Preservative Codes

None: NO DI Water: H_2O
Cool: Cool MeOH: Me
HCL: HC HNO_3: HN
H_2S0_4: H_2 NaOH: Na
H_3PO_4: HP
$NaHSO_4$: NABIS
$Na_2S_2O_3$: $NaSO_3$
Zn Acetate+NaOH: Zn
NaOH+Ascorbic Acid: SAPC

Sample Comments

Cost Center: 1081071001

Incident ID:NAPP2218642544

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 SiO_2 Na Sr Tl 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 Tl 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	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
1	Amanda Stuff	8/17/22 1613	2		
3			4		
5			6		

Revised Date: 08/25/2020 Rev. 2020.2

Login Sample Receipt Checklist

Client: Ensolum

Job Number: 890-2770-1
SDG Number: 03E1558094

Login Number: 2770
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: 890-2770-1
SDG Number: 03E1558094

Login Number: 2770
List Number: 2
Creator: Rodriguez, Leticia

List Source: Eurofins Midland
List Creation: 08/19/22 10:36 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	

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ANALYTICAL REPORT

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

Laboratory Job ID: 890-2771-1
Laboratory Sample Delivery Group: 03E1558094
Client Project/Site: Pierce Canyon 28 Battery

For:
Ensolum
705 W. Wadley
Suite 210
Midland, Texas 79701

Attn: Ben Belill

JKramer

Authorized for release by:
8/31/2022 8:18:44 PM

Jessica Kramer, Project Manager
(432)704-5440
Jessica.Kramer@et.eurofinsus.com

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 28 Battery

Laboratory Job ID: 890-2771-1
SDG: 03E1558094

Table of Contents

Definitions/Glossary

Client: Ensolum Job ID: 890-2771-1
Project/Site: Pierce Canyon 28 Battery SDG: 03E1558094

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
*1	LCS/LCSD RPD exceeds control limits.
F1	MS and/or MSD recovery exceeds control limits.
F2	MS/MSD RPD exceeds control limits
S1-	Surrogate recovery exceeds control limits, low 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.
¤	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 28 Battery

Job ID: 890-2771-1
SDG: 03E1558094

Job ID: 890-2771-1

Laboratory: Eurofins Carlsbad

Narrative

Job Narrative
890-2771-1

Receipt
The samples were received on 8/17/2022 4:13 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 5.2°C

GC VOA
Method 8021B: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 880-32857 and analytical batch 880-33138 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: (890-2762-A-21-B), (890-2762-A-21-C MS) and (890-2762-A-21-D MSD). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

Method 8015MOD_NM: Surrogate recovery for the following samples were outside control limits: BH05 (890-2771-1) and BH05A (890-2771-2). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

Method 8015MOD_NM: The method blank for preparation batch 880-32517 and analytical batch 880-32464 contained Gasoline Range Organics (GRO)-C6-C10 above the method detection limit. This target analyte concentration was less than the reporting limit (RL); therefore, re-extraction and/or re-analysis of samples was not performed.

Method 8015MOD_NM: The RPD of the laboratory control sample (LCS) and laboratory control sample duplicate (LCSD) for preparation batch 880-32517 and analytical batch 880-32464 recovered outside control limits for the following analytes: Gasoline Range Organics (GRO)-C6-C10.

Method 8015MOD_NM: The matrix spike / matrix spike duplicate (MS/MSD) recoveries and precision for preparation batch 880-32517 and analytical batch 880-32464 was outside control limits. Sample matrix interference and/or non-homogeneity is suspected.

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 28 Battery

Job ID: 890-2771-1
SDG: 03E1558094

Client Sample ID: BH05

Date Collected: 08/16/22 10:45
Date Received: 08/17/22 16:13
Sample Depth: 0.5

Lab Sample ID: 890-2771-1

Matrix: Solid

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U F2 F1	0.00200		mg/Kg		08/24/22 15:15	08/29/22 04:28	1
Toluene	<0.00200	U F2 F1	0.00200		mg/Kg		08/24/22 15:15	08/29/22 04:28	1
Ethylbenzene	<0.00200	U F2 F1	0.00200		mg/Kg		08/24/22 15:15	08/29/22 04:28	1
m-Xylene & p-Xylene	<0.00401	U F2 F1	0.00401		mg/Kg		08/24/22 15:15	08/29/22 04:28	1
o-Xylene	<0.00200	U F2 F1	0.00200		mg/Kg		08/24/22 15:15	08/29/22 04:28	1
Xylenes, Total	<0.00401	U F2 F1	0.00401		mg/Kg		08/24/22 15:15	08/29/22 04:28	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*102*		*70 - 130*	*08/24/22 15:15*	*08/29/22 04:28*	*1*
1,4-Difluorobenzene (Surr)	*99*		*70 - 130*	*08/24/22 15:15*	*08/29/22 04:28*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00401	U	0.00401		mg/Kg			08/29/22 15:04	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			08/22/22 13:19	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 *1	50.0		mg/Kg		08/19/22 13:54	08/19/22 23:48	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		08/19/22 13:54	08/19/22 23:48	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		08/19/22 13:54	08/19/22 23:48	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*51*	*S1-*	*70 - 130*	*08/19/22 13:54*	*08/19/22 23:48*	*1*
o-Terphenyl	*47*	*S1-*	*70 - 130*	*08/19/22 13:54*	*08/19/22 23:48*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**10.8**		4.96		mg/Kg			08/31/22 16:39	1

Client Sample ID: BH05A

Date Collected: 08/16/22 10:50
Date Received: 08/17/22 16:13
Sample Depth: 1

Lab Sample ID: 890-2771-2

Matrix: Solid

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		08/24/22 15:15	08/29/22 04:49	1
Toluene	<0.00200	U	0.00200		mg/Kg		08/24/22 15:15	08/29/22 04:49	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		08/24/22 15:15	08/29/22 04:49	1
m-Xylene & p-Xylene	<0.00399	U	0.00399		mg/Kg		08/24/22 15:15	08/29/22 04:49	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		08/24/22 15:15	08/29/22 04:49	1
Xylenes, Total	<0.00399	U	0.00399		mg/Kg		08/24/22 15:15	08/29/22 04:49	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*96*		*70 - 130*	*08/24/22 15:15*	*08/29/22 04:49*	*1*

Eurofins Carlsbad

Client Sample Results

Client: Ensolum
Project/Site: Pierce Canyon 28 Battery

Job ID: 890-2771-1
SDG: 03E1558094

Client Sample ID: BH05A

Date Collected: 08/16/22 10:50
Date Received: 08/17/22 16:13
Sample Depth: 1

Lab Sample ID: 890-2771-2

Matrix: Solid

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

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,4-Difluorobenzene (Surr)	*108*		*70 - 130*	*08/24/22 15:15*	*08/29/22 04:49*	*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			08/29/22 15:04	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			08/22/22 13:19	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 *1	50.0		mg/Kg		08/19/22 13:54	08/20/22 00:10	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		08/19/22 13:54	08/20/22 00:10	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		08/19/22 13:54	08/20/22 00:10	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*38*	*S1-*	*70 - 130*	*08/19/22 13:54*	*08/20/22 00:10*	*1*
o-Terphenyl	*34*	*S1-*	*70 - 130*	*08/19/22 13:54*	*08/20/22 00:10*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**12.0**		4.99		mg/Kg			08/31/22 16:46	1

Surrogate Summary

Client: Ensolum
Project/Site: Pierce Canyon 28 Battery

Job ID: 890-2771-1
SDG: 03E1558094

Method: 8021B - Volatile Organic Compounds (GC)

Matrix: Solid **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)	
		BFB1	DFBZ1
Lab Sample ID	Client Sample ID	(70-130)	(70-130)
890-2771-1	BH05	102	99
890-2771-1 MS	BH05	86	108
890-2771-1 MSD	BH05	94	102
890-2771-2	BH05A	96	108
LCS 880-32857/1-A	Lab Control Sample	101	96
LCSD 880-32857/2-A	Lab Control Sample Dup	98	96
MB 880-32857/5-A	Method Blank	84	114
MB 880-33026/5-A	Method Blank	78	121

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)	
		1CO1	OTPH1
Lab Sample ID	Client Sample ID	(70-130)	(70-130)
890-2762-A-21-C MS	Matrix Spike	64 S1-	56 S1-
890-2762-A-21-D MSD	Matrix Spike Duplicate	70	60 S1-
890-2771-1	BH05	51 S1-	47 S1-
890-2771-2	BH05A	38 S1-	34 S1-
LCS 880-32517/2-A	Lab Control Sample	111	107
LCSD 880-32517/3-A	Lab Control Sample Dup	108	101
MB 880-32517/1-A	Method Blank	78	79

Surrogate Legend

1CO = 1-Chlorooctane
OTPH = o-Terphenyl

QC Sample Results

Client: Ensolum
Project/Site: Pierce Canyon 28 Battery

Job ID: 890-2771-1
SDG: 03E1558094

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-32857/5-A
Matrix: Solid
Analysis Batch: 33138

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 32857

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		08/24/22 15:15	08/29/22 04:00	1
Toluene	<0.00200	U	0.00200		mg/Kg		08/24/22 15:15	08/29/22 04:00	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		08/24/22 15:15	08/29/22 04:00	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		08/24/22 15:15	08/29/22 04:00	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		08/24/22 15:15	08/29/22 04:00	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		08/24/22 15:15	08/29/22 04:00	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*84*		*70 - 130*	*08/24/22 15:15*	*08/29/22 04:00*	*1*
1,4-Difluorobenzene (Surr)	*114*		*70 - 130*	*08/24/22 15:15*	*08/29/22 04:00*	*1*

Lab Sample ID: LCS 880-32857/1-A
Matrix: Solid
Analysis Batch: 33138

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 32857

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Benzene			0.100	0.09205		mg/Kg		92	70 - 130		
Toluene			0.100	0.1038		mg/Kg		104	70 - 130		
Ethylbenzene			0.100	0.1055		mg/Kg		105	70 - 130		
m-Xylene & p-Xylene			0.200	0.1968		mg/Kg		98	70 - 130		
o-Xylene			0.100	0.1045		mg/Kg		105	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*101*		*70 - 130*
1,4-Difluorobenzene (Surr)	*96*		*70 - 130*

Lab Sample ID: LCSD 880-32857/2-A
Matrix: Solid
Analysis Batch: 33138

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 32857

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene			0.100	0.09149		mg/Kg		91	70 - 130	1	35
Toluene			0.100	0.1010		mg/Kg		101	70 - 130	3	35
Ethylbenzene			0.100	0.1023		mg/Kg		102	70 - 130	3	35
m-Xylene & p-Xylene			0.200	0.1907		mg/Kg		95	70 - 130	3	35
o-Xylene			0.100	0.1015		mg/Kg		102	70 - 130	3	35

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*98*		*70 - 130*
1,4-Difluorobenzene (Surr)	*96*		*70 - 130*

Lab Sample ID: 890-2771-1 MS
Matrix: Solid
Analysis Batch: 33138

Client Sample ID: BH05
Prep Type: Total/NA
Prep Batch: 32857

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Benzene	<0.00200	U F2 F1	0.101	0.06187	F1	mg/Kg		62	70 - 130		
Toluene	<0.00200	U F2 F1	0.101	0.05727	F1	mg/Kg		57	70 - 130		

QC Sample Results

Client: Ensolum
Project/Site: Pierce Canyon 28 Battery

Job ID: 890-2771-1
SDG: 03E1558094

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

Lab Sample ID: 890-2771-1 MS
Matrix: Solid
Analysis Batch: 33138

Client Sample ID: BH05
Prep Type: Total/NA
Prep Batch: 32857

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Ethylbenzene	<0.00200	U F2 F1	0.101	0.05818	F1	mg/Kg		58	70 - 130
m-Xylene & p-Xylene	<0.00401	U F2 F1	0.201	0.09724	F1	mg/Kg		48	70 - 130
o-Xylene	<0.00200	U F2 F1	0.101	0.05296	F1	mg/Kg		53	70 - 130

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*86*		*70 - 130*
1,4-Difluorobenzene (Surr)	*108*		*70 - 130*

Lab Sample ID: 890-2771-1 MSD
Matrix: Solid
Analysis Batch: 33138

Client Sample ID: BH05
Prep Type: Total/NA
Prep Batch: 32857

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	<0.00200	U F2 F1	0.0998	0.09682	F2	mg/Kg		97	70 - 130	44	35
Toluene	<0.00200	U F2 F1	0.0998	0.09590	F2	mg/Kg		96	70 - 130	50	35
Ethylbenzene	<0.00200	U F2 F1	0.0998	0.09225	F2	mg/Kg		92	70 - 130	45	35
m-Xylene & p-Xylene	<0.00401	U F2 F1	0.200	0.1688	F2	mg/Kg		85	70 - 130	54	35
o-Xylene	<0.00200	U F2 F1	0.0998	0.08965	F2	mg/Kg		90	70 - 130	51	35

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*94*		*70 - 130*
1,4-Difluorobenzene (Surr)	*102*		*70 - 130*

Lab Sample ID: MB 880-33026/5-A
Matrix: Solid
Analysis Batch: 33138

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 33026

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		08/26/22 09:25	08/28/22 16:24	1
Toluene	<0.00200	U	0.00200	mg/Kg		08/26/22 09:25	08/28/22 16:24	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		08/26/22 09:25	08/28/22 16:24	1
m-Xylene & p-Xylene	<0.00400	U	0.00400	mg/Kg		08/26/22 09:25	08/28/22 16:24	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		08/26/22 09:25	08/28/22 16:24	1
Xylenes, Total	<0.00400	U	0.00400	mg/Kg		08/26/22 09:25	08/28/22 16:24	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*78*		*70 - 130*	*08/26/22 09:25*	*08/28/22 16:24*	*1*
1,4-Difluorobenzene (Surr)	*121*		*70 - 130*	*08/26/22 09:25*	*08/28/22 16:24*	*1*

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

Lab Sample ID: MB 880-32517/1-A
Matrix: Solid
Analysis Batch: 32464

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 32517

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		08/19/22 13:54	08/19/22 20:12	1

QC Sample Results

Client: Ensolum
Project/Site: Pierce Canyon 28 Battery

Job ID: 890-2771-1
SDG: 03E1558094

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

Lab Sample ID: MB 880-32517/1-A
Matrix: Solid
Analysis Batch: 32464

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 32517

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		08/19/22 13:54	08/19/22 20:12	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		08/19/22 13:54	08/19/22 20:12	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*78*		*70 - 130*	*08/19/22 13:54*	*08/19/22 20:12*	*1*
o-Terphenyl	*79*		*70 - 130*	*08/19/22 13:54*	*08/19/22 20:12*	*1*

Lab Sample ID: LCS 880-32517/2-A
Matrix: Solid
Analysis Batch: 32464

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 32517

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Gasoline Range Organics (GRO)-C6-C10			1000	1106		mg/Kg		111	70 - 130		
Diesel Range Organics (Over C10-C28)			1000	984.6		mg/Kg		98	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1-Chlorooctane	*111*		*70 - 130*
o-Terphenyl	*107*		*70 - 130*

Lab Sample ID: LCSD 880-32517/3-A
Matrix: Solid
Analysis Batch: 32464

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 32517

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10			1000	891.6	*1	mg/Kg		89	70 - 130	21	20
Diesel Range Organics (Over C10-C28)			1000	963.8		mg/Kg		96	70 - 130	2	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1-Chlorooctane	*108*		*70 - 130*
o-Terphenyl	*101*		*70 - 130*

Lab Sample ID: 890-2762-A-21-C MS
Matrix: Solid
Analysis Batch: 32464

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 32517

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Gasoline Range Organics (GRO)-C6-C10	<49.9	U *1 F1 F2	999	468.5	F1	mg/Kg		45	70 - 130		
Diesel Range Organics (Over C10-C28)	78.2	F1	999	515.8	F1	mg/Kg		44	70 - 130		

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
1-Chlorooctane	*64*	*S1-*	*70 - 130*
o-Terphenyl	*56*	*S1-*	*70 - 130*

QC Sample Results

Client: Ensolum
Project/Site: Pierce Canyon 28 Battery

Job ID: 890-2771-1
SDG: 03E1558094

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

Lab Sample ID: 890-2762-A-21-D MSD — **Client Sample ID: Matrix Spike Duplicate**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 32464 — **Prep Batch: 32517**

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 *1 F1 F2	998	954.8	F2	mg/Kg		94	70 - 130	68	20
Diesel Range Organics (Over C10-C28)	78.2	F1	998	576.5	F1	mg/Kg		50	70 - 130	11	20

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
1-Chlorooctane	*70*		*70 - 130*
o-Terphenyl	*60*	*S1-*	*70 - 130*

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-32574/1-A — **Client Sample ID: Method Blank**
Matrix: Solid — **Prep Type: Soluble**
Analysis Batch: 33396

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.00	U	5.00		mg/Kg			08/31/22 13:40	1

Lab Sample ID: LCS 880-32574/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Solid — **Prep Type: Soluble**
Analysis Batch: 33396

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride			250	250.7		mg/Kg		100	90 - 110		

Lab Sample ID: LCSD 880-32574/3-A — **Client Sample ID: Lab Control Sample Dup**
Matrix: Solid — **Prep Type: Soluble**
Analysis Batch: 33396

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride			250	251.0		mg/Kg		100	90 - 110	0	20

Lab Sample ID: 890-2765-A-11-B MS — **Client Sample ID: Matrix Spike**
Matrix: Solid — **Prep Type: Soluble**
Analysis Batch: 33396

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride	20.3		251	288.6		mg/Kg		107	90 - 110		

Lab Sample ID: 890-2765-A-11-C MSD — **Client Sample ID: Matrix Spike Duplicate**
Matrix: Solid — **Prep Type: Soluble**
Analysis Batch: 33396

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	20.3		251	290.8		mg/Kg		108	90 - 110	1	20

QC Association Summary

Client: Ensolum
Project/Site: Pierce Canyon 28 Battery

Job ID: 890-2771-1
SDG: 03E1558094

GC VOA

Prep Batch: 32857

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2771-1	BH05	Total/NA	Solid	5035	
890-2771-2	BH05A	Total/NA	Solid	5035	
MB 880-32857/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-32857/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-32857/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
890-2771-1 MS	BH05	Total/NA	Solid	5035	
890-2771-1 MSD	BH05	Total/NA	Solid	5035	

Prep Batch: 33026

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 880-33026/5-A	Method Blank	Total/NA	Solid	5035	

Analysis Batch: 33138

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2771-1	BH05	Total/NA	Solid	8021B	32857
890-2771-2	BH05A	Total/NA	Solid	8021B	32857
MB 880-32857/5-A	Method Blank	Total/NA	Solid	8021B	32857
MB 880-33026/5-A	Method Blank	Total/NA	Solid	8021B	33026
LCS 880-32857/1-A	Lab Control Sample	Total/NA	Solid	8021B	32857
LCSD 880-32857/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	32857
890-2771-1 MS	BH05	Total/NA	Solid	8021B	32857
890-2771-1 MSD	BH05	Total/NA	Solid	8021B	32857

Analysis Batch: 33247

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2771-1	BH05	Total/NA	Solid	Total BTEX	
890-2771-2	BH05A	Total/NA	Solid	Total BTEX	

GC Semi VOA

Analysis Batch: 32464

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2771-1	BH05	Total/NA	Solid	8015B NM	32517
890-2771-2	BH05A	Total/NA	Solid	8015B NM	32517
MB 880-32517/1-A	Method Blank	Total/NA	Solid	8015B NM	32517
LCS 880-32517/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	32517
LCSD 880-32517/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	32517
890-2762-A-21-C MS	Matrix Spike	Total/NA	Solid	8015B NM	32517
890-2762-A-21-D MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	32517

Prep Batch: 32517

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2771-1	BH05	Total/NA	Solid	8015NM Prep	
890-2771-2	BH05A	Total/NA	Solid	8015NM Prep	
MB 880-32517/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-32517/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-32517/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
890-2762-A-21-C MS	Matrix Spike	Total/NA	Solid	8015NM Prep	
890-2762-A-21-D MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	

QC Association Summary

Client: Ensolum
Project/Site: Pierce Canyon 28 Battery

Job ID: 890-2771-1
SDG: 03E1558094

GC Semi VOA

Analysis Batch: 32659

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2771-1	BH05	Total/NA	Solid	8015 NM	
890-2771-2	BH05A	Total/NA	Solid	8015 NM	

HPLC/IC

Leach Batch: 32574

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2771-1	BH05	Soluble	Solid	DI Leach	
890-2771-2	BH05A	Soluble	Solid	DI Leach	
MB 880-32574/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-32574/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-32574/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
890-2765-A-11-B MS	Matrix Spike	Soluble	Solid	DI Leach	
890-2765-A-11-C MSD	Matrix Spike Duplicate	Soluble	Solid	DI Leach	

Analysis Batch: 33396

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2771-1	BH05	Soluble	Solid	300.0	32574
890-2771-2	BH05A	Soluble	Solid	300.0	32574
MB 880-32574/1-A	Method Blank	Soluble	Solid	300.0	32574
LCS 880-32574/2-A	Lab Control Sample	Soluble	Solid	300.0	32574
LCSD 880-32574/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	32574
890-2765-A-11-B MS	Matrix Spike	Soluble	Solid	300.0	32574
890-2765-A-11-C MSD	Matrix Spike Duplicate	Soluble	Solid	300.0	32574

Lab Chronicle

Client: Ensolum
Project/Site: Pierce Canyon 28 Battery

Job ID: 890-2771-1
SDG: 03E1558094

Client Sample ID: BH05

Date Collected: 08/16/22 10:45
Date Received: 08/17/22 16:13

Lab Sample ID: 890-2771-1

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.99 g	5 mL	32857	08/24/22 15:15	MR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	33138	08/29/22 04:28	MR	EET MID
Total/NA	Analysis	Total BTEX		1			33247	08/29/22 15:04	SM	EET MID
Total/NA	Analysis	8015 NM		1			32659	08/22/22 13:19	SM	EET MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	32517	08/19/22 13:54	DM	EET MID
Total/NA	Analysis	8015B NM		1			32464	08/19/22 23:48	SM	EET MID
Soluble	Leach	DI Leach			5.04 g	50 mL	32574	08/21/22 17:07	SMC	EET MID
Soluble	Analysis	300.0		1	0 mL	0 mL	33396	08/31/22 16:39	CH	EET MID

Client Sample ID: BH05A

Date Collected: 08/16/22 10:50
Date Received: 08/17/22 16:13

Lab Sample ID: 890-2771-2

Matrix: Solid

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	32857	08/24/22 15:15	MR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	33138	08/29/22 04:49	MR	EET MID
Total/NA	Analysis	Total BTEX		1			33247	08/29/22 15:04	SM	EET MID
Total/NA	Analysis	8015 NM		1			32659	08/22/22 13:19	SM	EET MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	32517	08/19/22 13:54	DM	EET MID
Total/NA	Analysis	8015B NM		1			32464	08/20/22 00:10	SM	EET MID
Soluble	Leach	DI Leach			5.01 g	50 mL	32574	08/21/22 17:07	SMC	EET MID
Soluble	Analysis	300.0		1	0 mL	0 mL	33396	08/31/22 16:46	CH	EET MID

Laboratory References:

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

Accreditation/Certification Summary

Client: Ensolum
Project/Site: Pierce Canyon 28 Battery

Job ID: 890-2771-1
SDG: 03E1558094

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	T104704400-22-24	06-30-23

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

Method Summary

Client: Ensolum
Project/Site: Pierce Canyon 28 Battery

Job ID: 890-2771-1
SDG: 03E1558094

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

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

Sample Summary

Client: Ensolum
Project/Site: Pierce Canyon 28 Battery

Job ID: 890-2771-1
SDG: 03E1558094

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-2771-1	BH05	Solid	08/16/22 10:45	08/17/22 16:13	0.5
890-2771-2	BH05A	Solid	08/16/22 10:50	08/17/22 16:13	1

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Environment Testing
Xenco

Chain of Custody

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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Project Manager:	Ben Belill	Bill to: (if different)	Garrett Green
Company Name:	Ensolum, LLC	Company Name:	XTO Energy, Inc.
Address:	3122 National parks Hwy	Address:	3104 E. Green Street
City, State ZIP:	Carlsbad, NM 88220	City, State ZIP:	Carlsbad, NM 88220
Phone:	9898540852	Email:	bbelill@ensolum.com

Work Order Comments

Program: UST/PST ☐ PRP ☐ Brownfields ☐ RRC ☐ Superfund ☐
State of Project:
Reporting: Level II ☐ Level III ☐ PST/UST ☐ TRRP ☐ Level IV ☐
Deliverables: EDD ☐ ADaPT ☐ Other:

Project Name:	Pierce Canyon 28 Battery	Turn Around	
Project Number:	03E1558094	☑ Routine ☐ Rush	
Project Location:	EDDY COUNTY, NM	Due Date:	
Sampler's Name:	Kase Parker	TAT starts the day received by the lab, if received by 4:30pm	
PO #:			

SAMPLE RECEIPT				
Temp Blank:	Yes (No)	Wet Ice:	Yes (No)	
Samples Received Intact:	(Yes) No	Thermometer ID:	Tamu001	
Cooler Custody Seals:	Yes No (N/A)	Correction Factor:	-0.2	
Sample Custody Seals:	Yes No (N/A)	Temperature Reading:	5.4	
Total Containers:		Corrected Temperature:	5.2	

ANALYSIS REQUEST

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Grab/ Comp	# of Cont	Pres. Code	CHLORIDES (EPA: 300.0)	TPH (8015)	BTEX (8021
BH05	S	8/16/2022	1043	0.5'	Grab/	1		X	X	X
BH05A	S	8/16/2022	1050	1'	Grab/	1		X	X	X

890-2771 Chain of Custody

Preservative Codes

None: NO DI Water: H_2O
Cool: Cool MeOH: Me
HCL: HC HNO_3: HN
H_2SO_4: H_2 NaOH: Na
H_3PO_4: HP
$NaHSO_4$: NABIS
$Na_2S_2O_3$: $NaSO_3$
Zn Acetate+NaOH: Zn
NaOH+Ascorbic Acid: SAPC

Sample Comments

Cost Center: 1081071001

Incident ID:NAPP2218642544

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 SiO_2 Na Sr Tl 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 Tl U Hg: 1631 / 245.1 / 7470 / 7471

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
1		8.17.22 1613	2		
3			4		
5			6		

Revised Date: 08/25/2020 Rev. 2020.2

Login Sample Receipt Checklist

Client: Ensolum

Job Number: 890-2771-1
SDG Number: 03E1558094

Login Number: 2771
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: 890-2771-1
SDG Number: 03E1558094

Login Number: 2771
List Number: 2
Creator: Rodriguez, Leticia

List Source: Eurofins Midland
List Creation: 08/19/22 10:36 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	

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ANALYTICAL REPORT

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

Laboratory Job ID: 890-2772-1
Laboratory Sample Delivery Group: 03E1558094
Client Project/Site: Pierce Canyon 28 Battery

For:
Ensolum
705 W. Wadley
Suite 210
Midland, Texas 79701

Attn: Ben Belill

JKramer

Authorized for release by:
8/31/2022 8:19:07 PM

Jessica Kramer, Project Manager
(432)704-5440
Jessica.Kramer@et.eurofinsus.com

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 28 Battery

Laboratory Job ID: 890-2772-1
SDG: 03E1558094

Table of Contents

Definitions/Glossary

Client: Ensolum Job ID: 890-2772-1
Project/Site: Pierce Canyon 28 Battery SDG: 03E1558094

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
*1	LCS/LCSD RPD exceeds control limits.
F1	MS and/or MSD recovery exceeds control limits.
F2	MS/MSD RPD exceeds control limits
S1-	Surrogate recovery exceeds control limits, low 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.
¤	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 28 Battery

Job ID: 890-2772-1
SDG: 03E1558094

Job ID: 890-2772-1

Laboratory: Eurofins Carlsbad

Narrative

Job Narrative
890-2772-1

Receipt
The samples were received on 8/17/2022 4:13 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 5.2°C

GC VOA
Method 8021B: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 880-32857 and analytical batch 880-33138 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: (890-2762-A-21-B), (890-2762-A-21-C MS) and (890-2762-A-21-D MSD). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

Method 8015MOD_NM: Surrogate recovery for the following samples were outside control limits: BH03 (890-2772-1) and BH03A (890-2772-2). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

Method 8015MOD_NM: The method blank for preparation batch 880-32517 and analytical batch 880-32464 contained Gasoline Range Organics (GRO)-C6-C10 above the method detection limit. This target analyte concentration was less than the reporting limit (RL); therefore, re-extraction and/or re-analysis of samples was not performed.

Method 8015MOD_NM: The RPD of the laboratory control sample (LCS) and laboratory control sample duplicate (LCSD) for preparation batch 880-32517 and analytical batch 880-32464 recovered outside control limits for the following analytes: Gasoline Range Organics (GRO)-C6-C10.

Method 8015MOD_NM: The matrix spike / matrix spike duplicate (MS/MSD) recoveries and precision for preparation batch 880-32517 and analytical batch 880-32464 was outside control limits. Sample matrix interference and/or non-homogeneity is suspected.

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 28 Battery

Job ID: 890-2772-1
SDG: 03E1558094

Client Sample ID: BH03

Date Collected: 08/16/22 10:15
Date Received: 08/17/22 16:13
Sample Depth: 0.5

Lab Sample ID: 890-2772-1

Matrix: Solid

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199		mg/Kg		08/24/22 15:15	08/29/22 05:09	1
Toluene	<0.00199	U	0.00199		mg/Kg		08/24/22 15:15	08/29/22 05:09	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		08/24/22 15:15	08/29/22 05:09	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		08/24/22 15:15	08/29/22 05:09	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		08/24/22 15:15	08/29/22 05:09	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		08/24/22 15:15	08/29/22 05:09	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*98*		*70 - 130*	*08/24/22 15:15*	*08/29/22 05:09*	*1*
1,4-Difluorobenzene (Surr)	*103*		*70 - 130*	*08/24/22 15:15*	*08/29/22 05:09*	*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			08/29/22 15:04	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			08/22/22 13:19	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 *1	50.0		mg/Kg		08/19/22 13:54	08/20/22 00:31	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		08/19/22 13:54	08/20/22 00:31	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		08/19/22 13:54	08/20/22 00:31	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*61*	*S1-*	*70 - 130*	*08/19/22 13:54*	*08/20/22 00:31*	*1*
o-Terphenyl	*55*	*S1-*	*70 - 130*	*08/19/22 13:54*	*08/20/22 00:31*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**24.3**		4.95		mg/Kg			08/31/22 16:53	1

Client Sample ID: BH03A

Date Collected: 08/16/22 10:20
Date Received: 08/17/22 16:13
Sample Depth: 1

Lab Sample ID: 890-2772-2

Matrix: Solid

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		08/24/22 15:15	08/29/22 05:30	1
Toluene	<0.00200	U	0.00200		mg/Kg		08/24/22 15:15	08/29/22 05:30	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		08/24/22 15:15	08/29/22 05:30	1
m-Xylene & p-Xylene	<0.00401	U	0.00401		mg/Kg		08/24/22 15:15	08/29/22 05:30	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		08/24/22 15:15	08/29/22 05:30	1
Xylenes, Total	<0.00401	U	0.00401		mg/Kg		08/24/22 15:15	08/29/22 05:30	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*94*		*70 - 130*	*08/24/22 15:15*	*08/29/22 05:30*	*1*

Eurofins Carlsbad

Client Sample Results

Client: Ensolum
Project/Site: Pierce Canyon 28 Battery

Job ID: 890-2772-1
SDG: 03E1558094

Client Sample ID: BH03A

Date Collected: 08/16/22 10:20
Date Received: 08/17/22 16:13
Sample Depth: 1

Lab Sample ID: 890-2772-2

Matrix: Solid

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

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,4-Difluorobenzene (Surr)	*102*		*70 - 130*	*08/24/22 15:15*	*08/29/22 05:30*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00401	U	0.00401		mg/Kg			08/29/22 15:04	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			08/22/22 13:19	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 *1	50.0		mg/Kg		08/19/22 13:54	08/20/22 00:53	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		08/19/22 13:54	08/20/22 00:53	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		08/19/22 13:54	08/20/22 00:53	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*51*	*S1-*	*70 - 130*	*08/19/22 13:54*	*08/20/22 00:53*	*1*
o-Terphenyl	*47*	*S1-*	*70 - 130*	*08/19/22 13:54*	*08/20/22 00:53*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**80.9**		5.00		mg/Kg			08/31/22 17:00	1

Surrogate Summary

Client: Ensolum
Project/Site: Pierce Canyon 28 Battery

Job ID: 890-2772-1
SDG: 03E1558094

Method: 8021B - Volatile Organic Compounds (GC)

Matrix: Solid **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)	
		BFB1	DFBZ1
Lab Sample ID	Client Sample ID	(70-130)	(70-130)
890-2771-A-1-C MS	Matrix Spike	86	108
890-2771-A-1-D MSD	Matrix Spike Duplicate	94	102
890-2772-1	BH03	98	103
890-2772-2	BH03A	94	102
LCS 880-32857/1-A	Lab Control Sample	101	96
LCSD 880-32857/2-A	Lab Control Sample Dup	98	96
MB 880-32857/5-A	Method Blank	84	114
MB 880-33026/5-A	Method Blank	78	121

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)	
		1CO1	OTPH1
Lab Sample ID	Client Sample ID	(70-130)	(70-130)
890-2762-A-21-C MS	Matrix Spike	64 S1-	56 S1-
890-2762-A-21-D MSD	Matrix Spike Duplicate	70	60 S1-
890-2772-1	BH03	61 S1-	55 S1-
890-2772-2	BH03A	51 S1-	47 S1-
LCS 880-32517/2-A	Lab Control Sample	111	107
LCSD 880-32517/3-A	Lab Control Sample Dup	108	101
MB 880-32517/1-A	Method Blank	78	79

Surrogate Legend

1CO = 1-Chlorooctane
OTPH = o-Terphenyl

QC Sample Results

Client: Ensolum
Project/Site: Pierce Canyon 28 Battery

Job ID: 890-2772-1
SDG: 03E1558094

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-32857/5-A
Matrix: Solid
Analysis Batch: 33138

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 32857

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		08/24/22 15:15	08/29/22 04:00	1
Toluene	<0.00200	U	0.00200		mg/Kg		08/24/22 15:15	08/29/22 04:00	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		08/24/22 15:15	08/29/22 04:00	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		08/24/22 15:15	08/29/22 04:00	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		08/24/22 15:15	08/29/22 04:00	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		08/24/22 15:15	08/29/22 04:00	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*84*		*70 - 130*	*08/24/22 15:15*	*08/29/22 04:00*	*1*
1,4-Difluorobenzene (Surr)	*114*		*70 - 130*	*08/24/22 15:15*	*08/29/22 04:00*	*1*

Lab Sample ID: LCS 880-32857/1-A
Matrix: Solid
Analysis Batch: 33138

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 32857

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Benzene			0.100	0.09205		mg/Kg		92	70 - 130		
Toluene			0.100	0.1038		mg/Kg		104	70 - 130		
Ethylbenzene			0.100	0.1055		mg/Kg		105	70 - 130		
m-Xylene & p-Xylene			0.200	0.1968		mg/Kg		98	70 - 130		
o-Xylene			0.100	0.1045		mg/Kg		105	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*101*		*70 - 130*
1,4-Difluorobenzene (Surr)	*96*		*70 - 130*

Lab Sample ID: LCSD 880-32857/2-A
Matrix: Solid
Analysis Batch: 33138

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 32857

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene			0.100	0.09149		mg/Kg		91	70 - 130	1	35
Toluene			0.100	0.1010		mg/Kg		101	70 - 130	3	35
Ethylbenzene			0.100	0.1023		mg/Kg		102	70 - 130	3	35
m-Xylene & p-Xylene			0.200	0.1907		mg/Kg		95	70 - 130	3	35
o-Xylene			0.100	0.1015		mg/Kg		102	70 - 130	3	35

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*98*		*70 - 130*
1,4-Difluorobenzene (Surr)	*96*		*70 - 130*

Lab Sample ID: 890-2771-A-1-C MS
Matrix: Solid
Analysis Batch: 33138

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 32857

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Benzene	<0.00200	U F2 F1	0.101	0.06187	F1	mg/Kg		62	70 - 130		
Toluene	<0.00200	U F2 F1	0.101	0.05727	F1	mg/Kg		57	70 - 130		

QC Sample Results

Client: Ensolum
Project/Site: Pierce Canyon 28 Battery

Job ID: 890-2772-1
SDG: 03E1558094

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

Lab Sample ID: 890-2771-A-1-C MS — **Client Sample ID: Matrix Spike**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 33138 — **Prep Batch: 32857**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Ethylbenzene	<0.00200	U F2 F1	0.101	0.05818	F1	mg/Kg		58	70 - 130
m-Xylene & p-Xylene	<0.00401	U F2 F1	0.201	0.09724	F1	mg/Kg		48	70 - 130
o-Xylene	<0.00200	U F2 F1	0.101	0.05296	F1	mg/Kg		53	70 - 130

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*86*		*70 - 130*
1,4-Difluorobenzene (Surr)	*108*		*70 - 130*

Lab Sample ID: 890-2771-A-1-D MSD — **Client Sample ID: Matrix Spike Duplicate**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 33138 — **Prep Batch: 32857**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	<0.00200	U F2 F1	0.0998	0.09682	F2	mg/Kg		97	70 - 130	44	35
Toluene	<0.00200	U F2 F1	0.0998	0.09590	F2	mg/Kg		96	70 - 130	50	35
Ethylbenzene	<0.00200	U F2 F1	0.0998	0.09225	F2	mg/Kg		92	70 - 130	45	35
m-Xylene & p-Xylene	<0.00401	U F2 F1	0.200	0.1688	F2	mg/Kg		85	70 - 130	54	35
o-Xylene	<0.00200	U F2 F1	0.0998	0.08965	F2	mg/Kg		90	70 - 130	51	35

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*94*		*70 - 130*
1,4-Difluorobenzene (Surr)	*102*		*70 - 130*

Lab Sample ID: MB 880-33026/5-A — **Client Sample ID: Method Blank**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 33138 — **Prep Batch: 33026**

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		08/26/22 09:25	08/28/22 16:24	1
Toluene	<0.00200	U	0.00200	mg/Kg		08/26/22 09:25	08/28/22 16:24	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		08/26/22 09:25	08/28/22 16:24	1
m-Xylene & p-Xylene	<0.00400	U	0.00400	mg/Kg		08/26/22 09:25	08/28/22 16:24	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		08/26/22 09:25	08/28/22 16:24	1
Xylenes, Total	<0.00400	U	0.00400	mg/Kg		08/26/22 09:25	08/28/22 16:24	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*78*		*70 - 130*	*08/26/22 09:25*	*08/28/22 16:24*	*1*
1,4-Difluorobenzene (Surr)	*121*		*70 - 130*	*08/26/22 09:25*	*08/28/22 16:24*	*1*

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

Lab Sample ID: MB 880-32517/1-A — **Client Sample ID: Method Blank**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 32464 — **Prep Batch: 32517**

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		08/19/22 13:54	08/19/22 20:12	1

QC Sample Results

Client: Ensolum
Project/Site: Pierce Canyon 28 Battery

Job ID: 890-2772-1
SDG: 03E1558094

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

Lab Sample ID: MB 880-32517/1-A — **Client Sample ID: Method Blank**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 32464 — **Prep Batch: 32517**

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		08/19/22 13:54	08/19/22 20:12	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		08/19/22 13:54	08/19/22 20:12	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*78*		*70 - 130*	*08/19/22 13:54*	*08/19/22 20:12*	*1*
o-Terphenyl	*79*		*70 - 130*	*08/19/22 13:54*	*08/19/22 20:12*	*1*

Lab Sample ID: LCS 880-32517/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 32464 — **Prep Batch: 32517**

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Gasoline Range Organics (GRO)-C6-C10			1000	1106		mg/Kg		111	70 - 130		
Diesel Range Organics (Over C10-C28)			1000	984.6		mg/Kg		98	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1-Chlorooctane	*111*		*70 - 130*
o-Terphenyl	*107*		*70 - 130*

Lab Sample ID: LCSD 880-32517/3-A — **Client Sample ID: Lab Control Sample Dup**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 32464 — **Prep Batch: 32517**

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10			1000	891.6	*1	mg/Kg		89	70 - 130	21	20
Diesel Range Organics (Over C10-C28)			1000	963.8		mg/Kg		96	70 - 130	2	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1-Chlorooctane	*108*		*70 - 130*
o-Terphenyl	*101*		*70 - 130*

Lab Sample ID: 890-2762-A-21-C MS — **Client Sample ID: Matrix Spike**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 32464 — **Prep Batch: 32517**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Gasoline Range Organics (GRO)-C6-C10	<49.9	U *1 F1 F2	999	468.5	F1	mg/Kg		45	70 - 130		
Diesel Range Organics (Over C10-C28)	78.2	F1	999	515.8	F1	mg/Kg		44	70 - 130		

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
1-Chlorooctane	*64*	*S1-*	*70 - 130*
o-Terphenyl	*56*	*S1-*	*70 - 130*

QC Sample Results

Client: Ensolum
Project/Site: Pierce Canyon 28 Battery

Job ID: 890-2772-1
SDG: 03E1558094

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

Lab Sample ID: 890-2762-A-21-D MSD — **Client Sample ID: Matrix Spike Duplicate**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 32464 — **Prep Batch: 32517**

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 *1 F1 F2	998	954.8	F2	mg/Kg		94	70 - 130	68	20
Diesel Range Organics (Over C10-C28)	78.2	F1	998	576.5	F1	mg/Kg		50	70 - 130	11	20

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
1-Chlorooctane	*70*		*70 - 130*
o-Terphenyl	*60*	*S1-*	*70 - 130*

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-32574/1-A — **Client Sample ID: Method Blank**
Matrix: Solid — **Prep Type: Soluble**
Analysis Batch: 33396

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.00	U	5.00		mg/Kg			08/31/22 13:40	1

Lab Sample ID: LCS 880-32574/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Solid — **Prep Type: Soluble**
Analysis Batch: 33396

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride			250	250.7		mg/Kg		100	90 - 110		

Lab Sample ID: LCSD 880-32574/3-A — **Client Sample ID: Lab Control Sample Dup**
Matrix: Solid — **Prep Type: Soluble**
Analysis Batch: 33396

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride			250	251.0		mg/Kg		100	90 - 110	0	20

Lab Sample ID: 890-2765-A-11-B MS — **Client Sample ID: Matrix Spike**
Matrix: Solid — **Prep Type: Soluble**
Analysis Batch: 33396

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride	20.3		251	288.6		mg/Kg		107	90 - 110		

Lab Sample ID: 890-2765-A-11-C MSD — **Client Sample ID: Matrix Spike Duplicate**
Matrix: Solid — **Prep Type: Soluble**
Analysis Batch: 33396

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	20.3		251	290.8		mg/Kg		108	90 - 110	1	20

QC Association Summary

Client: Ensolum
Project/Site: Pierce Canyon 28 Battery

Job ID: 890-2772-1
SDG: 03E1558094

GC VOA

Prep Batch: 32857

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2772-1	BH03	Total/NA	Solid	5035	
890-2772-2	BH03A	Total/NA	Solid	5035	
MB 880-32857/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-32857/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-32857/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
890-2771-A-1-C MS	Matrix Spike	Total/NA	Solid	5035	
890-2771-A-1-D MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	

Prep Batch: 33026

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 880-33026/5-A	Method Blank	Total/NA	Solid	5035	

Analysis Batch: 33138

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2772-1	BH03	Total/NA	Solid	8021B	32857
890-2772-2	BH03A	Total/NA	Solid	8021B	32857
MB 880-32857/5-A	Method Blank	Total/NA	Solid	8021B	32857
MB 880-33026/5-A	Method Blank	Total/NA	Solid	8021B	33026
LCS 880-32857/1-A	Lab Control Sample	Total/NA	Solid	8021B	32857
LCSD 880-32857/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	32857
890-2771-A-1-C MS	Matrix Spike	Total/NA	Solid	8021B	32857
890-2771-A-1-D MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	32857

Analysis Batch: 33248

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2772-1	BH03	Total/NA	Solid	Total BTEX	
890-2772-2	BH03A	Total/NA	Solid	Total BTEX	

GC Semi VOA

Analysis Batch: 32464

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2772-1	BH03	Total/NA	Solid	8015B NM	32517
890-2772-2	BH03A	Total/NA	Solid	8015B NM	32517
MB 880-32517/1-A	Method Blank	Total/NA	Solid	8015B NM	32517
LCS 880-32517/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	32517
LCSD 880-32517/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	32517
890-2762-A-21-C MS	Matrix Spike	Total/NA	Solid	8015B NM	32517
890-2762-A-21-D MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	32517

Prep Batch: 32517

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2772-1	BH03	Total/NA	Solid	8015NM Prep	
890-2772-2	BH03A	Total/NA	Solid	8015NM Prep	
MB 880-32517/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-32517/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-32517/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
890-2762-A-21-C MS	Matrix Spike	Total/NA	Solid	8015NM Prep	
890-2762-A-21-D MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	

QC Association Summary

Client: Ensolum
Project/Site: Pierce Canyon 28 Battery

Job ID: 890-2772-1
SDG: 03E1558094

GC Semi VOA

Analysis Batch: 32660

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2772-1	BH03	Total/NA	Solid	8015 NM	
890-2772-2	BH03A	Total/NA	Solid	8015 NM	

HPLC/IC

Leach Batch: 32574

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2772-1	BH03	Soluble	Solid	DI Leach	
890-2772-2	BH03A	Soluble	Solid	DI Leach	
MB 880-32574/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-32574/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-32574/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
890-2765-A-11-B MS	Matrix Spike	Soluble	Solid	DI Leach	
890-2765-A-11-C MSD	Matrix Spike Duplicate	Soluble	Solid	DI Leach	

Analysis Batch: 33396

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2772-1	BH03	Soluble	Solid	300.0	32574
890-2772-2	BH03A	Soluble	Solid	300.0	32574
MB 880-32574/1-A	Method Blank	Soluble	Solid	300.0	32574
LCS 880-32574/2-A	Lab Control Sample	Soluble	Solid	300.0	32574
LCSD 880-32574/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	32574
890-2765-A-11-B MS	Matrix Spike	Soluble	Solid	300.0	32574
890-2765-A-11-C MSD	Matrix Spike Duplicate	Soluble	Solid	300.0	32574

Lab Chronicle

Client: Ensolum
Project/Site: Pierce Canyon 28 Battery

Job ID: 890-2772-1
SDG: 03E1558094

Client Sample ID: BH03

Date Collected: 08/16/22 10:15
Date Received: 08/17/22 16:13

Lab Sample ID: 890-2772-1

Matrix: Solid

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	32857	08/24/22 15:15	MR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	33138	08/29/22 05:09	MR	EET MID
Total/NA	Analysis	Total BTEX		1			33248	08/29/22 15:04	SM	EET MID
Total/NA	Analysis	8015 NM		1			32660	08/22/22 13:19	SM	EET MID
Total/NA	Prep	8015NM Prep			10.00 g	10 mL	32517	08/19/22 13:54	DM	EET MID
Total/NA	Analysis	8015B NM		1			32464	08/20/22 00:31	SM	EET MID
Soluble	Leach	DI Leach			5.05 g	50 mL	32574	08/21/22 17:07	SMC	EET MID
Soluble	Analysis	300.0		1	0 mL	0 mL	33396	08/31/22 16:53	CH	EET MID

Client Sample ID: BH03A

Date Collected: 08/16/22 10:20
Date Received: 08/17/22 16:13

Lab Sample ID: 890-2772-2

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.99 g	5 mL	32857	08/24/22 15:15	MR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	33138	08/29/22 05:30	MR	EET MID
Total/NA	Analysis	Total BTEX		1			33248	08/29/22 15:04	SM	EET MID
Total/NA	Analysis	8015 NM		1			32660	08/22/22 13:19	SM	EET MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	32517	08/19/22 13:54	DM	EET MID
Total/NA	Analysis	8015B NM		1			32464	08/20/22 00:53	SM	EET MID
Soluble	Leach	DI Leach			5 g	50 mL	32574	08/21/22 17:07	SMC	EET MID
Soluble	Analysis	300.0		1	0 mL	0 mL	33396	08/31/22 17:00	CH	EET MID

Laboratory References:

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

Accreditation/Certification Summary

Client: Ensolum
Project/Site: Pierce Canyon 28 Battery

Job ID: 890-2772-1
SDG: 03E1558094

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	T104704400-22-24	06-30-23

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

Method Summary

Client: Ensolum
Project/Site: Pierce Canyon 28 Battery

Job ID: 890-2772-1
SDG: 03E1558094

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

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

Sample Summary

Client: Ensolum
Project/Site: Pierce Canyon 28 Battery

Job ID: 890-2772-1
SDG: 03E1558094

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-2772-1	BH03	Solid	08/16/22 10:15	08/17/22 16:13	0.5
890-2772-2	BH03A	Solid	08/16/22 10:20	08/17/22 16:13	1

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Chain of Custody

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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Project Manager:	Ben Belill	Bill to: (if different)	Garrett Green
Company Name:	Ensolum, LLC	Company Name:	XTO Energy, Inc.
Address:	3122 National parks Hwy	Address:	3104 E. Green Street
City, State ZIP:	Carlsbad, NM 88220	City, State ZIP:	Carlsbad, NM 88220
Phone:	9898540852	Email:	bbelill@ensolum.com

Work Order Comments

Program: UST/PST ☐ PRP ☐ Brownfields ☐ RRC ☐ Superfund ☐
State of Project:
Reporting: Level II ☐ Level III ☐ PST/UST ☐ TRRP ☐ Level IV ☐
Deliverables: EDD ☐ ADaPT ☐ Other:

Project Name:	Pierce Canyon 28 Battery	Turn Around	
Project Number:	03E1558094	☑ Routine ☐ Rush	
Project Location:	EDDY COUNTY, NM	Due Date:	
Sampler's Name:	Kase Parker	TAT starts the day received by the lab, if received by 4:30pm	
PO #:			

SAMPLE RECEIPT				
Temp Blank:	Yes No	Wet Ice:	Yes No	
Samples Received Intact:	Yes No	Thermometer ID:	TAM-007	
Cooler Custody Seals:	Yes No N/A	Correction Factor:	-0.2	
Sample Custody Seals:	Yes No N/A	Temperature Reading:	5.4	
Total Containers:		Corrected Temperature:	5.2	

ANALYSIS REQUEST

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Grab/ Comp	# of Cont	Pres. Code	CHLORIDES (EPA: 300.0)	TPH (8015)	BTEX (8021)
BH03	S	8/16/2022	1015	0.5'	Grab/	1		X	X	X
BH03A	S	8/16/2022	1020	1'	Grab/	1		X	X	X

890-2772 Chain of Custody

Preservative Codes

None: NO DI Water: H_2O
Cool: Cool MeOH: Me
HCL: HC HNO_3: HN
H_2S0_4: H_2 NaOH: Na
H_3PO_4: HP
$NaHSO_4$: NABIS
$Na_2S_2O_3$: $NaSO_3$
Zn Acetate+NaOH: Zn
NaOH+Ascorbic Acid: SAPC

Sample Comments

Cost Center: 1081071001

Incident ID:NAPP2218642544

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 SiO_2 Na Sr Tl 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 Tl U Hg: 1631 / 245.1 / 7470 / 7471

	Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
1		Amanda Stuf	8/17/22 1613			
3				4		
5				6		

Revised Date 08/25/2020 Rev. 2020.2

Login Sample Receipt Checklist

Client: Ensolum

Job Number: 890-2772-1
SDG Number: 03E1558094

Login Number: 2772
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: 890-2772-1
SDG Number: 03E1558094

Login Number: 2772
List Number: 2
Creator: Rodriguez, Leticia

List Source: Eurofins Midland
List Creation: 08/19/22 10:36 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	

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ANALYTICAL REPORT

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

Laboratory Job ID: 890-2773-1
Laboratory Sample Delivery Group: 03E1558094
Client Project/Site: Pierce Canyon 28 Battery

For:
Ensolum
705 W. Wadley
Suite 210
Midland, Texas 79701

Attn: Ben Belill

JKramer

Authorized for release by:
8/31/2022 8:19:08 PM

Jessica Kramer, Project Manager
(432)704-5440
Jessica.Kramer@et.eurofinsus.com

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 28 Battery

Laboratory Job ID: 890-2773-1
SDG: 03E1558094

Table of Contents

Definitions/Glossary

Client: Ensolum Job ID: 890-2773-1
Project/Site: Pierce Canyon 28 Battery SDG: 03E1558094

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
*1	LCS/LCSD RPD exceeds control limits.
F1	MS and/or MSD recovery exceeds control limits.
F2	MS/MSD RPD exceeds control limits
S1-	Surrogate recovery exceeds control limits, low 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.
¤	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 28 Battery

Job ID: 890-2773-1
SDG: 03E1558094

Job ID: 890-2773-1

Laboratory: Eurofins Carlsbad

Narrative

Job Narrative
890-2773-1

Receipt
The samples were received on 8/17/2022 4:13 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 5.2°C

GC VOA
Method 8021B: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 880-32857 and analytical batch 880-33138 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: (890-2762-A-21-B), (890-2762-A-21-C MS) and (890-2762-A-21-D MSD). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

Method 8015MOD_NM: Surrogate recovery for the following sample was outside control limits: BH04 (890-2773-1). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

Method 8015MOD_NM: Surrogate recovery for the following sample was outside control limits: BH04A (890-2773-2). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

Method 8015MOD_NM: The method blank for preparation batch 880-32517 and analytical batch 880-32464 contained Gasoline Range Organics (GRO)-C6-C10 above the method detection limit. This target analyte concentration was less than the reporting limit (RL); therefore, re-extraction and/or re-analysis of samples was not performed.

Method 8015MOD_NM: The RPD of the laboratory control sample (LCS) and laboratory control sample duplicate (LCSD) for preparation batch 880-32517 and analytical batch 880-32464 recovered outside control limits for the following analytes: Gasoline Range Organics (GRO)-C6-C10.

Method 8015MOD_NM: The matrix spike / matrix spike duplicate (MS/MSD) recoveries and precision for preparation batch 880-32517 and analytical batch 880-32464 was outside control limits. Sample matrix interference and/or non-homogeneity is suspected.

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 28 Battery

Job ID: 890-2773-1
SDG: 03E1558094

Client Sample ID: BH04

Date Collected: 08/16/22 10:30
Date Received: 08/17/22 16:13

Lab Sample ID: 890-2773-1
Matrix: Solid

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00201	U	0.00201		mg/Kg		08/24/22 15:15	08/29/22 05:50	1
Toluene	<0.00201	U	0.00201		mg/Kg		08/24/22 15:15	08/29/22 05:50	1
Ethylbenzene	<0.00201	U	0.00201		mg/Kg		08/24/22 15:15	08/29/22 05:50	1
m-Xylene & p-Xylene	<0.00402	U	0.00402		mg/Kg		08/24/22 15:15	08/29/22 05:50	1
o-Xylene	<0.00201	U	0.00201		mg/Kg		08/24/22 15:15	08/29/22 05:50	1
Xylenes, Total	<0.00402	U	0.00402		mg/Kg		08/24/22 15:15	08/29/22 05:50	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*91*		*70 - 130*	*08/24/22 15:15*	*08/29/22 05:50*	*1*
1,4-Difluorobenzene (Surr)	*99*		*70 - 130*	*08/24/22 15:15*	*08/29/22 05:50*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00402	U	0.00402		mg/Kg			08/29/22 15:04	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			08/22/22 13:19	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 *1	49.9		mg/Kg		08/19/22 13:54	08/20/22 01:14	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		08/19/22 13:54	08/20/22 01:14	1
OII Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		08/19/22 13:54	08/20/22 01:14	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*61*	*S1-*	*70 - 130*	*08/19/22 13:54*	*08/20/22 01:14*	*1*
o-Terphenyl	*57*	*S1-*	*70 - 130*	*08/19/22 13:54*	*08/20/22 01:14*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**11.0**		5.00		mg/Kg			08/31/22 17:07	1

Client Sample ID: BH04A

Date Collected: 08/16/22 10:35
Date Received: 08/17/22 16:13

Lab Sample ID: 890-2773-2
Matrix: Solid

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00202	U	0.00202		mg/Kg		08/24/22 15:15	08/29/22 06:10	1
Toluene	<0.00202	U	0.00202		mg/Kg		08/24/22 15:15	08/29/22 06:10	1
Ethylbenzene	<0.00202	U	0.00202		mg/Kg		08/24/22 15:15	08/29/22 06:10	1
m-Xylene & p-Xylene	<0.00404	U	0.00404		mg/Kg		08/24/22 15:15	08/29/22 06:10	1
o-Xylene	<0.00202	U	0.00202		mg/Kg		08/24/22 15:15	08/29/22 06:10	1
Xylenes, Total	<0.00404	U	0.00404		mg/Kg		08/24/22 15:15	08/29/22 06:10	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*93*		*70 - 130*	*08/24/22 15:15*	*08/29/22 06:10*	*1*
1,4-Difluorobenzene (Surr)	*101*		*70 - 130*	*08/24/22 15:15*	*08/29/22 06:10*	*1*

Client Sample Results

Client: Ensolum
Project/Site: Pierce Canyon 28 Battery

Job ID: 890-2773-1
SDG: 03E1558094

Client Sample ID: BH04A

Date Collected: 08/16/22 10:35
Date Received: 08/17/22 16:13

Lab Sample ID: 890-2773-2

Matrix: Solid

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00404	U	0.00404		mg/Kg			08/29/22 15:04	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			08/22/22 13:19	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 *1	50.0		mg/Kg		08/19/22 13:54	08/20/22 01:58	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		08/19/22 13:54	08/20/22 01:58	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		08/19/22 13:54	08/20/22 01:58	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*49*	*S1-*	*70 - 130*	*08/19/22 13:54*	*08/20/22 01:58*	*1*
o-Terphenyl	*45*	*S1-*	*70 - 130*	*08/19/22 13:54*	*08/20/22 01:58*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**10.5**		5.02		mg/Kg			08/31/22 17:14	1

Surrogate Summary

Client: Ensolum
Project/Site: Pierce Canyon 28 Battery

Job ID: 890-2773-1
SDG: 03E1558094

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)
890-2771-A-1-C MS	Matrix Spike	86	108
890-2771-A-1-D MSD	Matrix Spike Duplicate	94	102
890-2773-1	BH04	91	99
890-2773-2	BH04A	93	101
LCS 880-32857/1-A	Lab Control Sample	101	96
LCSD 880-32857/2-A	Lab Control Sample Dup	98	96
MB 880-32857/5-A	Method Blank	84	114
MB 880-33026/5-A	Method Blank	78	121

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)
890-2762-A-21-C MS	Matrix Spike	64 S1-	56 S1-
890-2762-A-21-D MSD	Matrix Spike Duplicate	70	60 S1-
890-2773-1	BH04	61 S1-	57 S1-
890-2773-2	BH04A	49 S1-	45 S1-
LCS 880-32517/2-A	Lab Control Sample	111	107
LCSD 880-32517/3-A	Lab Control Sample Dup	108	101
MB 880-32517/1-A	Method Blank	78	79

Surrogate Legend

1CO = 1-Chlorooctane
OTPH = o-Terphenyl

QC Sample Results

Client: Ensolum
Project/Site: Pierce Canyon 28 Battery

Job ID: 890-2773-1
SDG: 03E1558094

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-32857/5-A
Matrix: Solid
Analysis Batch: 33138

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 32857

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		08/24/22 15:15	08/29/22 04:00	1
Toluene	<0.00200	U	0.00200		mg/Kg		08/24/22 15:15	08/29/22 04:00	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		08/24/22 15:15	08/29/22 04:00	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		08/24/22 15:15	08/29/22 04:00	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		08/24/22 15:15	08/29/22 04:00	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		08/24/22 15:15	08/29/22 04:00	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*84*		*70 - 130*	*08/24/22 15:15*	*08/29/22 04:00*	*1*
1,4-Difluorobenzene (Surr)	*114*		*70 - 130*	*08/24/22 15:15*	*08/29/22 04:00*	*1*

Lab Sample ID: LCS 880-32857/1-A
Matrix: Solid
Analysis Batch: 33138

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 32857

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Benzene			0.100	0.09205		mg/Kg		92	70 - 130		
Toluene			0.100	0.1038		mg/Kg		104	70 - 130		
Ethylbenzene			0.100	0.1055		mg/Kg		105	70 - 130		
m-Xylene & p-Xylene			0.200	0.1968		mg/Kg		98	70 - 130		
o-Xylene			0.100	0.1045		mg/Kg		105	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*101*		*70 - 130*
1,4-Difluorobenzene (Surr)	*96*		*70 - 130*

Lab Sample ID: LCSD 880-32857/2-A
Matrix: Solid
Analysis Batch: 33138

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 32857

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene			0.100	0.09149		mg/Kg		91	70 - 130	1	35
Toluene			0.100	0.1010		mg/Kg		101	70 - 130	3	35
Ethylbenzene			0.100	0.1023		mg/Kg		102	70 - 130	3	35
m-Xylene & p-Xylene			0.200	0.1907		mg/Kg		95	70 - 130	3	35
o-Xylene			0.100	0.1015		mg/Kg		102	70 - 130	3	35

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*98*		*70 - 130*
1,4-Difluorobenzene (Surr)	*96*		*70 - 130*

Lab Sample ID: 890-2771-A-1-C MS
Matrix: Solid
Analysis Batch: 33138

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 32857

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Benzene	<0.00200	U F2 F1	0.101	0.06187	F1	mg/Kg		62	70 - 130		
Toluene	<0.00200	U F2 F1	0.101	0.05727	F1	mg/Kg		57	70 - 130		

QC Sample Results

Client: Ensolum
Project/Site: Pierce Canyon 28 Battery

Job ID: 890-2773-1
SDG: 03E1558094

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

Lab Sample ID: 890-2771-A-1-C MS — **Client Sample ID: Matrix Spike**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 33138 — **Prep Batch: 32857**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Ethylbenzene	<0.00200	U F2 F1	0.101	0.05818	F1	mg/Kg		58	70 - 130
m-Xylene & p-Xylene	<0.00401	U F2 F1	0.201	0.09724	F1	mg/Kg		48	70 - 130
o-Xylene	<0.00200	U F2 F1	0.101	0.05296	F1	mg/Kg		53	70 - 130

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*86*		*70 - 130*
1,4-Difluorobenzene (Surr)	*108*		*70 - 130*

Lab Sample ID: 890-2771-A-1-D MSD — **Client Sample ID: Matrix Spike Duplicate**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 33138 — **Prep Batch: 32857**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	<0.00200	U F2 F1	0.0998	0.09682	F2	mg/Kg		97	70 - 130	44	35
Toluene	<0.00200	U F2 F1	0.0998	0.09590	F2	mg/Kg		96	70 - 130	50	35
Ethylbenzene	<0.00200	U F2 F1	0.0998	0.09225	F2	mg/Kg		92	70 - 130	45	35
m-Xylene & p-Xylene	<0.00401	U F2 F1	0.200	0.1688	F2	mg/Kg		85	70 - 130	54	35
o-Xylene	<0.00200	U F2 F1	0.0998	0.08965	F2	mg/Kg		90	70 - 130	51	35

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*94*		*70 - 130*
1,4-Difluorobenzene (Surr)	*102*		*70 - 130*

Lab Sample ID: MB 880-33026/5-A — **Client Sample ID: Method Blank**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 33138 — **Prep Batch: 33026**

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		08/26/22 09:25	08/28/22 16:24	1
Toluene	<0.00200	U	0.00200	mg/Kg		08/26/22 09:25	08/28/22 16:24	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		08/26/22 09:25	08/28/22 16:24	1
m-Xylene & p-Xylene	<0.00400	U	0.00400	mg/Kg		08/26/22 09:25	08/28/22 16:24	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		08/26/22 09:25	08/28/22 16:24	1
Xylenes, Total	<0.00400	U	0.00400	mg/Kg		08/26/22 09:25	08/28/22 16:24	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*78*		*70 - 130*	*08/26/22 09:25*	*08/28/22 16:24*	*1*
1,4-Difluorobenzene (Surr)	*121*		*70 - 130*	*08/26/22 09:25*	*08/28/22 16:24*	*1*

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

Lab Sample ID: MB 880-32517/1-A — **Client Sample ID: Method Blank**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 32464 — **Prep Batch: 32517**

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		08/19/22 13:54	08/19/22 20:12	1

QC Sample Results

Client: Ensolum
Project/Site: Pierce Canyon 28 Battery

Job ID: 890-2773-1
SDG: 03E1558094

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

Lab Sample ID: MB 880-32517/1-A
Matrix: Solid
Analysis Batch: 32464

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 32517

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		08/19/22 13:54	08/19/22 20:12	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		08/19/22 13:54	08/19/22 20:12	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*78*		*70 - 130*	*08/19/22 13:54*	*08/19/22 20:12*	*1*
o-Terphenyl	*79*		*70 - 130*	*08/19/22 13:54*	*08/19/22 20:12*	*1*

Lab Sample ID: LCS 880-32517/2-A
Matrix: Solid
Analysis Batch: 32464

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 32517

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Gasoline Range Organics (GRO)-C6-C10			1000	1106		mg/Kg		111	70 - 130		
Diesel Range Organics (Over C10-C28)			1000	984.6		mg/Kg		98	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1-Chlorooctane	*111*		*70 - 130*
o-Terphenyl	*107*		*70 - 130*

Lab Sample ID: LCSD 880-32517/3-A
Matrix: Solid
Analysis Batch: 32464

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 32517

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10			1000	891.6	*1	mg/Kg		89	70 - 130	21	20
Diesel Range Organics (Over C10-C28)			1000	963.8		mg/Kg		96	70 - 130	2	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1-Chlorooctane	*108*		*70 - 130*
o-Terphenyl	*101*		*70 - 130*

Lab Sample ID: 890-2762-A-21-C MS
Matrix: Solid
Analysis Batch: 32464

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 32517

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Gasoline Range Organics (GRO)-C6-C10	<49.9	U *1 F1 F2	999	468.5	F1	mg/Kg		45	70 - 130		
Diesel Range Organics (Over C10-C28)	78.2	F1	999	515.8	F1	mg/Kg		44	70 - 130		

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
1-Chlorooctane	*64*	*S1-*	*70 - 130*
o-Terphenyl	*56*	*S1-*	*70 - 130*

QC Sample Results

Client: Ensolum
Project/Site: Pierce Canyon 28 Battery

Job ID: 890-2773-1
SDG: 03E1558094

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

Lab Sample ID: 890-2762-A-21-D MSD — **Client Sample ID: Matrix Spike Duplicate**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 32464 — **Prep Batch: 32517**

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 *1 F1 F2	998	954.8	F2	mg/Kg		94	70 - 130	68	20
Diesel Range Organics (Over C10-C28)	78.2	F1	998	576.5	F1	mg/Kg		50	70 - 130	11	20

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
1-Chlorooctane	*70*		*70 - 130*
o-Terphenyl	*60*	*S1-*	*70 - 130*

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-32574/1-A — **Client Sample ID: Method Blank**
Matrix: Solid — **Prep Type: Soluble**
Analysis Batch: 33396

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.00	U	5.00		mg/Kg			08/31/22 13:40	1

Lab Sample ID: LCS 880-32574/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Solid — **Prep Type: Soluble**
Analysis Batch: 33396

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride			250	250.7		mg/Kg		100	90 - 110		

Lab Sample ID: LCSD 880-32574/3-A — **Client Sample ID: Lab Control Sample Dup**
Matrix: Solid — **Prep Type: Soluble**
Analysis Batch: 33396

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride			250	251.0		mg/Kg		100	90 - 110	0	20

Lab Sample ID: 890-2765-A-11-B MS — **Client Sample ID: Matrix Spike**
Matrix: Solid — **Prep Type: Soluble**
Analysis Batch: 33396

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride	20.3		251	288.6		mg/Kg		107	90 - 110		

Lab Sample ID: 890-2765-A-11-C MSD — **Client Sample ID: Matrix Spike Duplicate**
Matrix: Solid — **Prep Type: Soluble**
Analysis Batch: 33396

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	20.3		251	290.8		mg/Kg		108	90 - 110	1	20

QC Association Summary

Client: Ensolum
Project/Site: Pierce Canyon 28 Battery

Job ID: 890-2773-1
SDG: 03E1558094

GC VOA

Prep Batch: 32857

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2773-1	BH04	Total/NA	Solid	5035	
890-2773-2	BH04A	Total/NA	Solid	5035	
MB 880-32857/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-32857/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-32857/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
890-2771-A-1-C MS	Matrix Spike	Total/NA	Solid	5035	
890-2771-A-1-D MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	

Prep Batch: 33026

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 880-33026/5-A	Method Blank	Total/NA	Solid	5035	

Analysis Batch: 33138

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2773-1	BH04	Total/NA	Solid	8021B	32857
890-2773-2	BH04A	Total/NA	Solid	8021B	32857
MB 880-32857/5-A	Method Blank	Total/NA	Solid	8021B	32857
MB 880-33026/5-A	Method Blank	Total/NA	Solid	8021B	33026
LCS 880-32857/1-A	Lab Control Sample	Total/NA	Solid	8021B	32857
LCSD 880-32857/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	32857
890-2771-A-1-C MS	Matrix Spike	Total/NA	Solid	8021B	32857
890-2771-A-1-D MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	32857

Analysis Batch: 33249

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2773-1	BH04	Total/NA	Solid	Total BTEX	
890-2773-2	BH04A	Total/NA	Solid	Total BTEX	

GC Semi VOA

Analysis Batch: 32464

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2773-1	BH04	Total/NA	Solid	8015B NM	32517
890-2773-2	BH04A	Total/NA	Solid	8015B NM	32517
MB 880-32517/1-A	Method Blank	Total/NA	Solid	8015B NM	32517
LCS 880-32517/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	32517
LCSD 880-32517/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	32517
890-2762-A-21-C MS	Matrix Spike	Total/NA	Solid	8015B NM	32517
890-2762-A-21-D MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	32517

Prep Batch: 32517

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2773-1	BH04	Total/NA	Solid	8015NM Prep	
890-2773-2	BH04A	Total/NA	Solid	8015NM Prep	
MB 880-32517/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-32517/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-32517/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
890-2762-A-21-C MS	Matrix Spike	Total/NA	Solid	8015NM Prep	
890-2762-A-21-D MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	

QC Association Summary

Client: Ensolum
Project/Site: Pierce Canyon 28 Battery

Job ID: 890-2773-1
SDG: 03E1558094

GC Semi VOA

Analysis Batch: 32661

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2773-1	BH04	Total/NA	Solid	8015 NM	
890-2773-2	BH04A	Total/NA	Solid	8015 NM	

HPLC/IC

Leach Batch: 32574

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2773-1	BH04	Soluble	Solid	DI Leach	
890-2773-2	BH04A	Soluble	Solid	DI Leach	
MB 880-32574/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-32574/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-32574/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
890-2765-A-11-B MS	Matrix Spike	Soluble	Solid	DI Leach	
890-2765-A-11-C MSD	Matrix Spike Duplicate	Soluble	Solid	DI Leach	

Analysis Batch: 33396

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2773-1	BH04	Soluble	Solid	300.0	32574
890-2773-2	BH04A	Soluble	Solid	300.0	32574
MB 880-32574/1-A	Method Blank	Soluble	Solid	300.0	32574
LCS 880-32574/2-A	Lab Control Sample	Soluble	Solid	300.0	32574
LCSD 880-32574/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	32574
890-2765-A-11-B MS	Matrix Spike	Soluble	Solid	300.0	32574
890-2765-A-11-C MSD	Matrix Spike Duplicate	Soluble	Solid	300.0	32574

Lab Chronicle

Client: Ensolum
Project/Site: Pierce Canyon 28 Battery

Job ID: 890-2773-1
SDG: 03E1558094

Client Sample ID: BH04

Date Collected: 08/16/22 10:30
Date Received: 08/17/22 16:13

Lab Sample ID: 890-2773-1

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.97 g	5 mL	32857	08/24/22 15:15	MR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	33138	08/29/22 05:50	MR	EET MID
Total/NA	Analysis	Total BTEX		1			33249	08/29/22 15:04	SM	EET MID
Total/NA	Analysis	8015 NM		1			32661	08/22/22 13:19	SM	EET MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	32517	08/19/22 13:54	DM	EET MID
Total/NA	Analysis	8015B NM		1			32464	08/20/22 01:14	SM	EET MID
Soluble	Leach	DI Leach			5 g	50 mL	32574	08/21/22 17:07	SMC	EET MID
Soluble	Analysis	300.0		1	0 mL	0 mL	33396	08/31/22 17:07	CH	EET MID

Client Sample ID: BH04A

Date Collected: 08/16/22 10:35
Date Received: 08/17/22 16:13

Lab Sample ID: 890-2773-2

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.95 g	5 mL	32857	08/24/22 15:15	MR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	33138	08/29/22 06:10	MR	EET MID
Total/NA	Analysis	Total BTEX		1			33249	08/29/22 15:04	SM	EET MID
Total/NA	Analysis	8015 NM		1			32661	08/22/22 13:19	SM	EET MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	32517	08/19/22 13:54	DM	EET MID
Total/NA	Analysis	8015B NM		1			32464	08/20/22 01:58	SM	EET MID
Soluble	Leach	DI Leach			4.98 g	50 mL	32574	08/21/22 17:07	SMC	EET MID
Soluble	Analysis	300.0		1	0 mL	0 mL	33396	08/31/22 17:14	CH	EET MID

Laboratory References:

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

Accreditation/Certification Summary

Client: Ensolum
Project/Site: Pierce Canyon 28 Battery

Job ID: 890-2773-1
SDG: 03E1558094

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	T104704400-22-24	06-30-23

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

Method Summary

Client: Ensolum
Project/Site: Pierce Canyon 28 Battery

Job ID: 890-2773-1
SDG: 03E1558094

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

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

Sample Summary

Client: Ensolum
Project/Site: Pierce Canyon 28 Battery

Job ID: 890-2773-1
SDG: 03E1558094

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
890-2773-1	BH04	Solid	08/16/22 10:30	08/17/22 16:13
890-2773-2	BH04A	Solid	08/16/22 10:35	08/17/22 16:13

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Chain of Custody

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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Project Manager:	Ben Belill	Bill to: (if different)	Garrett Green
Company Name:	Ensolum, LLC	Company Name:	XTO Energy, Inc.
Address:	3122 National parks Hwy	Address:	3104 E. Green Street
City, State ZIP:	Carlsbad, NM 88220	City, State ZIP:	Carlsbad, NM 88220
Phone:	9898540852	Email:	bbelill@ensolum.com

Work Order Comments

Program: UST/PST ☐ PRP ☐ Brownfields ☐ RRC ☐ Superfund ☐
State of Project:
Reporting: Level II ☐ Level III ☐ PST/UST ☐ TRRP ☐ Level IV ☐
Deliverables: EDD ☐ ADaPT ☐ Other:

Project Name:	Pierce Canyon 28 Battery	Turn Around	
Project Number:	03E1558094	☑ Routine ☐ Rush	
Project Location:	EDDY COUNTY, NM	Due Date:	
Sampler's Name:	Kase Parker	TAT starts the day received by the lab, if received by 4:30pm	
PO #:			

SAMPLE RECEIPT			
Temp Blank:	(Yes) No	Wet Ice:	(Yes) No
Samples Received Intact:	(Yes) No	Thermometer ID:	IAM-007
Cooler Custody Seals:	Yes No (N/A)	Correction Factor:	-0.2
Sample Custody Seals:	Yes No (N/A)	Temperature Reading:	5.4
Total Containers:		Corrected Temperature:	5.2

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Grab/ Comp	# of Cont	Pres. Code	Parameters: CHLORIDES (EPA: 300.0)	TPH (8015)	BTEX (8021
BH04	S	8/16/2022	1030	0.5'	Grab/	1		X	X	X
BH04A	S	8/16/2022	1035	1'	Grab/	1		X	X	X

ANALYSIS REQUEST

890-2773 Chain of Custody

Preservative Codes

None: NO DI Water: H_2O
Cool: Cool MeOH: Me
HCL: HC HNO_3: HN
H_2SO_4: H_2 NaOH: Na
H_3PO_4: HP
$NaHSO_4$: NABIS
$Na_2S_2O_3$: $NaSO_3$
Zn Acetate+NaOH: Zn
NaOH+Ascorbic Acid: SAPC

Sample Comments

Cost Center: 1081071001

Incident ID:NAPP2218642544

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 SiO_2 Na Sr Tl 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 Tl U Hg: 1631 / 245.1 / 7470 / 7471

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
1	Amanda Stigh	8/17/22 1613	2		
3			4		
5			6		

Revised Date: 08/25/2020 Rev. 2020.2

Login Sample Receipt Checklist

Client: Ensolum

Job Number: 890-2773-1
SDG Number: 03E1558094

Login Number: 2773
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: 890-2773-1
SDG Number: 03E1558094

Login Number: 2773
List Number: 2
Creator: Rodriguez, Leticia

List Source: Eurofins Midland
List Creation: 08/19/22 10:36 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	

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ANALYTICAL REPORT

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

Laboratory Job ID: 890-2774-1
Laboratory Sample Delivery Group: 03E1558094
Client Project/Site: Pierce Canyon 28 Battery

For:
Ensolum
705 W. Wadley
Suite 210
Midland, Texas 79701

Attn: Ben Belill

JKramer

Authorized for release by:
8/29/2022 1:03:48 PM

Jessica Kramer, Project Manager
(432)704-5440
Jessica.Kramer@et.eurofinsus.com

Client: Ensolum
Project/Site: Pierce Canyon 28 Battery

Laboratory Job ID: 890-2774-1
SDG: 03E1558094

Table of Contents

Definitions/Glossary

Client: Ensolum Job ID: 890-2774-1
Project/Site: Pierce Canyon 28 Battery SDG: 03E1558094

Qualifiers

GC VOA

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

GC Semi VOA

Qualifier	Qualifier Description
*1	LCS/LCSD RPD exceeds control limits.
F1	MS and/or MSD recovery exceeds control limits.
F2	MS/MSD RPD exceeds control limits
S1-	Surrogate recovery exceeds control limits, low biased.
U	Indicates the analyte was analyzed for but not detected.

HPLC/IC

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.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	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 28 Battery

Job ID: 890-2774-1
SDG: 03E1558094

Job ID: 890-2774-1

Laboratory: Eurofins Carlsbad

Narrative

Job Narrative
890-2774-1

Receipt
The samples were received on 8/17/2022 4:13 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 5.2°C

GC VOA
Method 8021B: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 880-32855 and analytical batch 880-33040 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: (890-2762-A-21-B), (890-2762-A-21-C MS) and (890-2762-A-21-D MSD). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

Method 8015MOD_NM: Surrogate recovery for the following samples were outside control limits: BH01 (890-2774-1), BH01A (890-2774-2) and BH01B (890-2774-3). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

Method 8015MOD_NM: The method blank for preparation batch 880-32517 and analytical batch 880-32464 contained Gasoline Range Organics (GRO)-C6-C10 above the method detection limit. This target analyte concentration was less than the reporting limit (RL); therefore, re-extraction and/or re-analysis of samples was not performed.

Method 8015MOD_NM: The RPD of the laboratory control sample (LCS) and laboratory control sample duplicate (LCSD) for preparation batch 880-32517 and analytical batch 880-32464 recovered outside control limits for the following analytes: Gasoline Range Organics (GRO)-C6-C10.

Method 8015MOD_NM: The matrix spike / matrix spike duplicate (MS/MSD) recoveries and precision for preparation batch 880-32517 and analytical batch 880-32464 was outside control limits. Sample matrix interference and/or non-homogeneity is suspected.

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

HPLC/IC
Method 300_ORGFM_28D: The matrix spike / matrix spike duplicate (MS/MSD) recoveries and precision for preparation batch 880-32575 and analytical batch 880-32882 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample / laboratory sample control duplicate (LCS/LCSD) precision was within acceptance limits.The associated samples are: (880-18347-A-5-A), (880-18347-A-5-B MS) and (880-18347-A-5-C MSD).

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 28 Battery

Job ID: 890-2774-1
SDG: 03E1558094

Client Sample ID: BH01

Lab Sample ID: 890-2774-1
Matrix: Solid
Date Collected: 08/16/22 09:50
Date Received: 08/17/22 16:13
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		08/24/22 14:35	08/27/22 13:47	1
Toluene	<0.00200	U	0.00200		mg/Kg		08/24/22 14:35	08/27/22 13:47	1
Ethylbenzene	<0.00200	U F1	0.00200		mg/Kg		08/24/22 14:35	08/27/22 13:47	1
m-Xylene & p-Xylene	<0.00401	U F1	0.00401		mg/Kg		08/24/22 14:35	08/27/22 13:47	1
o-Xylene	<0.00200	U F1	0.00200		mg/Kg		08/24/22 14:35	08/27/22 13:47	1
Xylenes, Total	<0.00401	U F1	0.00401		mg/Kg		08/24/22 14:35	08/27/22 13:47	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*91*		*70 - 130*	*08/24/22 14:35*	*08/27/22 13:47*	*1*
1,4-Difluorobenzene (Surr)	*108*		*70 - 130*	*08/24/22 14:35*	*08/27/22 13:47*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00401	U	0.00401		mg/Kg			08/29/22 12:44	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	**180**		49.9		mg/Kg			08/22/22 13:19	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 *1	49.9		mg/Kg		08/19/22 13:54	08/20/22 02:19	1
Diesel Range Organics (Over C10-C28)	**180**		49.9		mg/Kg		08/19/22 13:54	08/20/22 02:19	1
OII Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		08/19/22 13:54	08/20/22 02:19	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*70*		*70 - 130*	*08/19/22 13:54*	*08/20/22 02:19*	*1*
o-Terphenyl	*69*	*S1-*	*70 - 130*	*08/19/22 13:54*	*08/20/22 02:19*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**1310**		5.03		mg/Kg			08/25/22 20:44	1

Client Sample ID: BH01A

Lab Sample ID: 890-2774-2
Matrix: Solid
Date Collected: 08/16/22 09:55
Date Received: 08/17/22 16:13
Sample Depth: 1

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00201	U	0.00201		mg/Kg		08/24/22 14:35	08/27/22 14:08	1
Toluene	<0.00201	U	0.00201		mg/Kg		08/24/22 14:35	08/27/22 14:08	1
Ethylbenzene	<0.00201	U	0.00201		mg/Kg		08/24/22 14:35	08/27/22 14:08	1
m-Xylene & p-Xylene	<0.00402	U	0.00402		mg/Kg		08/24/22 14:35	08/27/22 14:08	1
o-Xylene	<0.00201	U	0.00201		mg/Kg		08/24/22 14:35	08/27/22 14:08	1
Xylenes, Total	<0.00402	U	0.00402		mg/Kg		08/24/22 14:35	08/27/22 14:08	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*87*		*70 - 130*	*08/24/22 14:35*	*08/27/22 14:08*	*1*

Eurofins Carlsbad

Client Sample Results

Client: Ensolum
Project/Site: Pierce Canyon 28 Battery

Job ID: 890-2774-1
SDG: 03E1558094

Client Sample ID: BH01A

Lab Sample ID: 890-2774-2
Matrix: Solid

Date Collected: 08/16/22 09:55
Date Received: 08/17/22 16:13
Sample Depth: 1

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

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,4-Difluorobenzene (Surr)	*106*		*70 - 130*	*08/24/22 14:35*	*08/27/22 14:08*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00402	U	0.00402	mg/Kg			08/29/22 12:44	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			08/22/22 13:19	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 *1	49.9	mg/Kg		08/19/22 13:54	08/20/22 02:41	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9	mg/Kg		08/19/22 13:54	08/20/22 02:41	1
OII Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg		08/19/22 13:54	08/20/22 02:41	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*64*	*S1-*	*70 - 130*	*08/19/22 13:54*	*08/20/22 02:41*	*1*
o-Terphenyl	*64*	*S1-*	*70 - 130*	*08/19/22 13:54*	*08/20/22 02:41*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**91.5**		4.98	mg/Kg			08/25/22 09:27	1

Client Sample ID: BH01B

Lab Sample ID: 890-2774-3
Matrix: Solid

Date Collected: 08/16/22 10:00
Date Received: 08/17/22 16:13
Sample Depth: 2

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		08/24/22 14:35	08/27/22 14:28	1
Toluene	<0.00200	U	0.00200	mg/Kg		08/24/22 14:35	08/27/22 14:28	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		08/24/22 14:35	08/27/22 14:28	1
m-Xylene & p-Xylene	<0.00399	U	0.00399	mg/Kg		08/24/22 14:35	08/27/22 14:28	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		08/24/22 14:35	08/27/22 14:28	1
Xylenes, Total	<0.00399	U	0.00399	mg/Kg		08/24/22 14:35	08/27/22 14:28	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*90*		*70 - 130*	*08/24/22 14:35*	*08/27/22 14:28*	*1*
1,4-Difluorobenzene (Surr)	*107*		*70 - 130*	*08/24/22 14:35*	*08/27/22 14:28*	*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			08/29/22 12:44	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			08/22/22 13:19	1

Eurofins Carlsbad

Client Sample Results

Client: Ensolum
Project/Site: Pierce Canyon 28 Battery

Job ID: 890-2774-1
SDG: 03E1558094

Client Sample ID: BH01B

Date Collected: 08/16/22 10:00
Date Received: 08/17/22 16:13
Sample Depth: 2

Lab Sample ID: 890-2774-3

Matrix: Solid

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 *1	50.0		mg/Kg		08/19/22 13:54	08/20/22 03:03	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		08/19/22 13:54	08/20/22 03:03	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		08/19/22 13:54	08/20/22 03:03	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*58*	*S1-*	*70 - 130*	*08/19/22 13:54*	*08/20/22 03:03*	*1*
o-Terphenyl	*57*	*S1-*	*70 - 130*	*08/19/22 13:54*	*08/20/22 03:03*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**81.1**		4.99		mg/Kg			08/25/22 09:34	1

Surrogate Summary

Client: Ensolum
Project/Site: Pierce Canyon 28 Battery

Job ID: 890-2774-1
SDG: 03E1558094

Method: 8021B - Volatile Organic Compounds (GC)

Matrix: Solid | **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)	
		BFB1	DFBZ1
Lab Sample ID	Client Sample ID	(70-130)	(70-130)
890-2774-1	BH01	91	108
890-2774-1 MS	BH01	92	101
890-2774-1 MSD	BH01	91	109
890-2774-2	BH01A	87	106
890-2774-3	BH01B	90	107
LCS 880-32855/1-A	Lab Control Sample	88	104
LCSD 880-32855/2-A	Lab Control Sample Dup	93	100
MB 880-32705/5-B	Method Blank	80	118
MB 880-32855/5-A	Method Blank	78	123

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)	
		1CO1	OTPH1
Lab Sample ID	Client Sample ID	(70-130)	(70-130)
890-2762-A-21-C MS	Matrix Spike	64 S1-	56 S1-
890-2762-A-21-D MSD	Matrix Spike Duplicate	70	60 S1-
890-2774-1	BH01	70	69 S1-
890-2774-2	BH01A	64 S1-	64 S1-
890-2774-3	BH01B	58 S1-	57 S1-
LCS 880-32517/2-A	Lab Control Sample	111	107
LCSD 880-32517/3-A	Lab Control Sample Dup	108	101
MB 880-32517/1-A	Method Blank	78	79

Surrogate Legend

1CO = 1-Chlorooctane
OTPH = o-Terphenyl

QC Sample Results

Client: Ensolum
Project/Site: Pierce Canyon 28 Battery

Job ID: 890-2774-1
SDG: 03E1558094

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-32705/5-B
Matrix: Solid
Analysis Batch: 33040

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 32705

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		08/22/22 15:07	08/27/22 01:22	1
Toluene	<0.00200	U	0.00200		mg/Kg		08/22/22 15:07	08/27/22 01:22	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		08/22/22 15:07	08/27/22 01:22	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		08/22/22 15:07	08/27/22 01:22	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		08/22/22 15:07	08/27/22 01:22	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		08/22/22 15:07	08/27/22 01:22	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*80*		*70 - 130*	*08/22/22 15:07*	*08/27/22 01:22*	*1*
1,4-Difluorobenzene (Surr)	*118*		*70 - 130*	*08/22/22 15:07*	*08/27/22 01:22*	*1*

Lab Sample ID: MB 880-32855/5-A
Matrix: Solid
Analysis Batch: 33040

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 32855

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		08/24/22 14:35	08/27/22 13:18	1
Toluene	<0.00200	U	0.00200		mg/Kg		08/24/22 14:35	08/27/22 13:18	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		08/24/22 14:35	08/27/22 13:18	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		08/24/22 14:35	08/27/22 13:18	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		08/24/22 14:35	08/27/22 13:18	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		08/24/22 14:35	08/27/22 13:18	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*78*		*70 - 130*	*08/24/22 14:35*	*08/27/22 13:18*	*1*
1,4-Difluorobenzene (Surr)	*123*		*70 - 130*	*08/24/22 14:35*	*08/27/22 13:18*	*1*

Lab Sample ID: LCS 880-32855/1-A
Matrix: Solid
Analysis Batch: 33040

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 32855

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Benzene			0.100	0.1054		mg/Kg		105	70 - 130		
Toluene			0.100	0.09762		mg/Kg		98	70 - 130		
Ethylbenzene			0.100	0.09054		mg/Kg		91	70 - 130		
m-Xylene & p-Xylene			0.200	0.1665		mg/Kg		83	70 - 130		
o-Xylene			0.100	0.08925		mg/Kg		89	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*88*		*70 - 130*
1,4-Difluorobenzene (Surr)	*104*		*70 - 130*

Lab Sample ID: LCSD 880-32855/2-A
Matrix: Solid
Analysis Batch: 33040

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 32855

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene			0.100	0.09749		mg/Kg		97	70 - 130	8	35

QC Sample Results

Client: Ensolum
Project/Site: Pierce Canyon 28 Battery

Job ID: 890-2774-1
SDG: 03E1558094

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

Lab Sample ID: LCSD 880-32855/2-A — **Client Sample ID: Lab Control Sample Dup**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 33040 — **Prep Batch: 32855**

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Toluene			0.100	0.09902		mg/Kg		99	70 - 130	1	35
Ethylbenzene			0.100	0.09664		mg/Kg		97	70 - 130	7	35
m-Xylene & p-Xylene			0.200	0.1774		mg/Kg		89	70 - 130	6	35
o-Xylene			0.100	0.09451		mg/Kg		95	70 - 130	6	35

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*93*		*70 - 130*
1,4-Difluorobenzene (Surr)	*100*		*70 - 130*

Lab Sample ID: 890-2774-1 MS — **Client Sample ID: BH01**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 33040 — **Prep Batch: 32855**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	<0.00200	U	0.100	0.1002		mg/Kg		100	70 - 130
Toluene	<0.00200	U	0.100	0.08603		mg/Kg		86	70 - 130
Ethylbenzene	<0.00200	U F1	0.100	0.06428	F1	mg/Kg		64	70 - 130
m-Xylene & p-Xylene	<0.00401	U F1	0.201	0.09212	F1	mg/Kg		46	70 - 130
o-Xylene	<0.00200	U F1	0.100	0.06101	F1	mg/Kg		61	70 - 130

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*92*		*70 - 130*
1,4-Difluorobenzene (Surr)	*101*		*70 - 130*

Lab Sample ID: 890-2774-1 MSD — **Client Sample ID: BH01**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 33040 — **Prep Batch: 32855**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	<0.00200	U	0.0998	0.1123		mg/Kg		113	70 - 130	11	35
Toluene	<0.00200	U	0.0998	0.09676		mg/Kg		97	70 - 130	12	35
Ethylbenzene	<0.00200	U F1	0.0998	0.07774		mg/Kg		78	70 - 130	19	35
m-Xylene & p-Xylene	<0.00401	U F1	0.200	0.1288	F1	mg/Kg		65	70 - 130	33	35
o-Xylene	<0.00200	U F1	0.0998	0.07397		mg/Kg		74	70 - 130	19	35

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*91*		*70 - 130*
1,4-Difluorobenzene (Surr)	*109*		*70 - 130*

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

Lab Sample ID: MB 880-32517/1-A — **Client Sample ID: Method Blank**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 32464 — **Prep Batch: 32517**

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		08/19/22 13:54	08/19/22 20:12	1

QC Sample Results

Client: Ensolum
Project/Site: Pierce Canyon 28 Battery

Job ID: 890-2774-1
SDG: 03E1558094

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

Lab Sample ID: MB 880-32517/1-A — **Client Sample ID: Method Blank**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 32464 — **Prep Batch: 32517**

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		08/19/22 13:54	08/19/22 20:12	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		08/19/22 13:54	08/19/22 20:12	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*78*		*70 - 130*	*08/19/22 13:54*	*08/19/22 20:12*	*1*
o-Terphenyl	*79*		*70 - 130*	*08/19/22 13:54*	*08/19/22 20:12*	*1*

Lab Sample ID: LCS 880-32517/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 32464 — **Prep Batch: 32517**

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Gasoline Range Organics (GRO)-C6-C10			1000	1106		mg/Kg		111	70 - 130		
Diesel Range Organics (Over C10-C28)			1000	984.6		mg/Kg		98	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1-Chlorooctane	*111*		*70 - 130*
o-Terphenyl	*107*		*70 - 130*

Lab Sample ID: LCSD 880-32517/3-A — **Client Sample ID: Lab Control Sample Dup**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 32464 — **Prep Batch: 32517**

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10			1000	891.6	*1	mg/Kg		89	70 - 130	21	20
Diesel Range Organics (Over C10-C28)			1000	963.8		mg/Kg		96	70 - 130	2	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1-Chlorooctane	*108*		*70 - 130*
o-Terphenyl	*101*		*70 - 130*

Lab Sample ID: 890-2762-A-21-C MS — **Client Sample ID: Matrix Spike**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 32464 — **Prep Batch: 32517**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Gasoline Range Organics (GRO)-C6-C10	<49.9	U *1 F1 F2	999	468.5	F1	mg/Kg		45	70 - 130		
Diesel Range Organics (Over C10-C28)	78.2	F1	999	515.8	F1	mg/Kg		44	70 - 130		

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
1-Chlorooctane	*64*	*S1-*	*70 - 130*
o-Terphenyl	*56*	*S1-*	*70 - 130*

QC Sample Results

Client: Ensolum
Project/Site: Pierce Canyon 28 Battery

Job ID: 890-2774-1
SDG: 03E1558094

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

Lab Sample ID: 890-2762-A-21-D MSD — **Client Sample ID: Matrix Spike Duplicate**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 32464 — **Prep Batch: 32517**

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 *1 F1 F2	998	954.8	F2	mg/Kg		94	70 - 130	68	20
Diesel Range Organics (Over C10-C28)	78.2	F1	998	576.5	F1	mg/Kg		50	70 - 130	11	20

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
1-Chlorooctane	*70*		*70 - 130*
o-Terphenyl	*60*	*S1-*	*70 - 130*

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-32575/1-A — **Client Sample ID: Method Blank**
Matrix: Solid — **Prep Type: Soluble**
Analysis Batch: 32882

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.00	U	5.00		mg/Kg			08/25/22 06:18	1

Lab Sample ID: LCS 880-32575/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Solid — **Prep Type: Soluble**
Analysis Batch: 32882

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride			250	237.6		mg/Kg		95	90 - 110		

Lab Sample ID: LCSD 880-32575/3-A — **Client Sample ID: Lab Control Sample Dup**
Matrix: Solid — **Prep Type: Soluble**
Analysis Batch: 32882

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride			250	237.7		mg/Kg		95	90 - 110	0	20

Lab Sample ID: 880-18347-A-5-B MS — **Client Sample ID: Matrix Spike**
Matrix: Solid — **Prep Type: Soluble**
Analysis Batch: 32882

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride	222	F1 F2	249	354.8	F1	mg/Kg		53	90 - 110		

Lab Sample ID: 880-18347-A-5-C MSD — **Client Sample ID: Matrix Spike Duplicate**
Matrix: Solid — **Prep Type: Soluble**
Analysis Batch: 32882

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	222	F1 F2	249	464.4	F2	mg/Kg		98	90 - 110	27	20

QC Association Summary

Client: Ensolum
Project/Site: Pierce Canyon 28 Battery

Job ID: 890-2774-1
SDG: 03E1558094

GC VOA

Prep Batch: 32705

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 880-32705/5-B	Method Blank	Total/NA	Solid	5035	

Prep Batch: 32855

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2774-1	BH01	Total/NA	Solid	5035	
890-2774-2	BH01A	Total/NA	Solid	5035	
890-2774-3	BH01B	Total/NA	Solid	5035	
MB 880-32855/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-32855/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-32855/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
890-2774-1 MS	BH01	Total/NA	Solid	5035	
890-2774-1 MSD	BH01	Total/NA	Solid	5035	

Analysis Batch: 33040

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2774-1	BH01	Total/NA	Solid	8021B	32855
890-2774-2	BH01A	Total/NA	Solid	8021B	32855
890-2774-3	BH01B	Total/NA	Solid	8021B	32855
MB 880-32705/5-B	Method Blank	Total/NA	Solid	8021B	32705
MB 880-32855/5-A	Method Blank	Total/NA	Solid	8021B	32855
LCS 880-32855/1-A	Lab Control Sample	Total/NA	Solid	8021B	32855
LCSD 880-32855/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	32855
890-2774-1 MS	BH01	Total/NA	Solid	8021B	32855
890-2774-1 MSD	BH01	Total/NA	Solid	8021B	32855

Analysis Batch: 33224

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2774-1	BH01	Total/NA	Solid	Total BTEX	
890-2774-2	BH01A	Total/NA	Solid	Total BTEX	
890-2774-3	BH01B	Total/NA	Solid	Total BTEX	

GC Semi VOA

Analysis Batch: 32464

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2774-1	BH01	Total/NA	Solid	8015B NM	32517
890-2774-2	BH01A	Total/NA	Solid	8015B NM	32517
890-2774-3	BH01B	Total/NA	Solid	8015B NM	32517
MB 880-32517/1-A	Method Blank	Total/NA	Solid	8015B NM	32517
LCS 880-32517/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	32517
LCSD 880-32517/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	32517
890-2762-A-21-C MS	Matrix Spike	Total/NA	Solid	8015B NM	32517
890-2762-A-21-D MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	32517

Prep Batch: 32517

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2774-1	BH01	Total/NA	Solid	8015NM Prep	
890-2774-2	BH01A	Total/NA	Solid	8015NM Prep	
890-2774-3	BH01B	Total/NA	Solid	8015NM Prep	
MB 880-32517/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-32517/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	

QC Association Summary

Client: Ensolum
Project/Site: Pierce Canyon 28 Battery

Job ID: 890-2774-1
SDG: 03E1558094

GC Semi VOA (Continued)

Prep Batch: 32517 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCSD 880-32517/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
890-2762-A-21-C MS	Matrix Spike	Total/NA	Solid	8015NM Prep	
890-2762-A-21-D MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	

Analysis Batch: 32662

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2774-1	BH01	Total/NA	Solid	8015 NM	
890-2774-2	BH01A	Total/NA	Solid	8015 NM	
890-2774-3	BH01B	Total/NA	Solid	8015 NM	

HPLC/IC

Leach Batch: 32575

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2774-1	BH01	Soluble	Solid	DI Leach	
890-2774-2	BH01A	Soluble	Solid	DI Leach	
890-2774-3	BH01B	Soluble	Solid	DI Leach	
MB 880-32575/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-32575/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-32575/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
880-18347-A-5-B MS	Matrix Spike	Soluble	Solid	DI Leach	
880-18347-A-5-C MSD	Matrix Spike Duplicate	Soluble	Solid	DI Leach	

Analysis Batch: 32882

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2774-1	BH01	Soluble	Solid	300.0	32575
890-2774-2	BH01A	Soluble	Solid	300.0	32575
890-2774-3	BH01B	Soluble	Solid	300.0	32575
MB 880-32575/1-A	Method Blank	Soluble	Solid	300.0	32575
LCS 880-32575/2-A	Lab Control Sample	Soluble	Solid	300.0	32575
LCSD 880-32575/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	32575
880-18347-A-5-B MS	Matrix Spike	Soluble	Solid	300.0	32575
880-18347-A-5-C MSD	Matrix Spike Duplicate	Soluble	Solid	300.0	32575

Lab Chronicle

Client: Ensolum
Project/Site: Pierce Canyon 28 Battery

Job ID: 890-2774-1
SDG: 03E1558094

Client Sample ID: BH01

Date Collected: 08/16/22 09:50
Date Received: 08/17/22 16:13

Lab Sample ID: 890-2774-1

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.99 g	5 mL	32855	08/24/22 14:35	MR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	33040	08/27/22 13:47	MR	EET MID
Total/NA	Analysis	Total BTEX		1			33224	08/29/22 12:44	SM	EET MID
Total/NA	Analysis	8015 NM		1			32662	08/22/22 13:19	SM	EET MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	32517	08/19/22 13:54	DM	EET MID
Total/NA	Analysis	8015B NM		1			32464	08/20/22 02:19	SM	EET MID
Soluble	Leach	DI Leach			4.97 g	50 mL	32575	08/21/22 17:21	SMC	EET MID
Soluble	Analysis	300.0		1	0 mL	0 mL	32882	08/25/22 20:44	SMC	EET MID

Client Sample ID: BH01A

Date Collected: 08/16/22 09:55
Date Received: 08/17/22 16:13

Lab Sample ID: 890-2774-2

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.98 g	5 mL	32855	08/24/22 14:35	MR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	33040	08/27/22 14:08	MR	EET MID
Total/NA	Analysis	Total BTEX		1			33224	08/29/22 12:44	SM	EET MID
Total/NA	Analysis	8015 NM		1			32662	08/22/22 13:19	SM	EET MID
Total/NA	Prep	8015NM Prep			10.03 g	10 mL	32517	08/19/22 13:54	DM	EET MID
Total/NA	Analysis	8015B NM		1			32464	08/20/22 02:41	SM	EET MID
Soluble	Leach	DI Leach			5.02 g	50 mL	32575	08/21/22 17:21	SMC	EET MID
Soluble	Analysis	300.0		1	0 mL	0 mL	32882	08/25/22 09:27	SMC	EET MID

Client Sample ID: BH01B

Date Collected: 08/16/22 10:00
Date Received: 08/17/22 16:13

Lab Sample ID: 890-2774-3

Matrix: Solid

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	32855	08/24/22 14:35	MR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	33040	08/27/22 14:28	MR	EET MID
Total/NA	Analysis	Total BTEX		1			33224	08/29/22 12:44	SM	EET MID
Total/NA	Analysis	8015 NM		1			32662	08/22/22 13:19	SM	EET MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	32517	08/19/22 13:54	DM	EET MID
Total/NA	Analysis	8015B NM		1			32464	08/20/22 03:03	SM	EET MID
Soluble	Leach	DI Leach			5.01 g	50 mL	32575	08/21/22 17:21	SMC	EET MID
Soluble	Analysis	300.0		1	0 mL	0 mL	32882	08/25/22 09:34	SMC	EET MID

Laboratory References:

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

Accreditation/Certification Summary

Client: Ensolum
Project/Site: Pierce Canyon 28 Battery

Job ID: 890-2774-1
SDG: 03E1558094

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	T104704400-22-24	06-30-23

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

Method Summary

Client: Ensolum
Project/Site: Pierce Canyon 28 Battery

Job ID: 890-2774-1
SDG: 03E1558094

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

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

Sample Summary

Client: Ensolum
Project/Site: Pierce Canyon 28 Battery

Job ID: 890-2774-1
SDG: 03E1558094

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-2774-1	BH01	Solid	08/16/22 09:50	08/17/22 16:13	0.5
890-2774-2	BH01A	Solid	08/16/22 09:55	08/17/22 16:13	1
890-2774-3	BH01B	Solid	08/16/22 10:00	08/17/22 16:13	2

eurofins

Environment Testing
Xenco

Chain of Custody

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: _____

www.xenco.com Page 1 of 1

Project Manager:	Ben Belill	Bill to: (if different)	Garrett Green
Company Name:	Ensolum, LLC	Company Name:	XTO Energy, Inc.
Address:	3122 National parks Hwy	Address:	3104 E. Green Street
City, State ZIP:	Carlsbad, NM 88220	City, State ZIP:	Carlsbad, NM 88220
Phone:	9898540852	Email:	bbelill@ensolum.com

Work Order Comments

Program: UST/PST ☐ **PRP** ☐ **Brownfields** ☐ **RRC** ☐ **Superfund** ☐
State of Project:
Reporting: Level II ☐ Level III ☐ PST/UST ☐ TRRP ☐ Level IV ☐
Deliverables: EDD ☐ ADaPT ☐ Other:

Project Name:	Pierce Canyon 28 Battery	Turn Around	
Project Number:	03E1558094	☑ Routine ☐ Rush	
Project Location:	EDDY COUNTY, NM	Due Date:	
Sampler's Name:	Kase Parker	TAT starts the day received by the lab, if received by 4:30pm	
PO #:			

SAMPLE RECEIPT	Temp Blank:	Yes (No)	Wet Ice:	Yes (No)
Samples Received Intact:	(Yes) No	Thermometer ID:	TNM-007	
Cooler Custody Seals:	Yes No (N/A)	Correction Factor:	-0.2	
Sample Custody Seals:	Yes No (N/A)	Temperature Reading:	5.4	
Total Containers:		Corrected Temperature:	5.2	

ANALYSIS REQUEST

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Grab/ Comp	# of Cont	Pres. Code	CHLORIDES (EPA: 300.0)	TPH (8015)	BTEX (8021)
BH01	S	8/16/2022	0950	0.5'	Grab/	1		X	X	X
BH01A	S	8/16/2022	0955	1'	Grab/	1		X	X	X
BH01B	S	8/16/2022	1000	2'	Grab/	1		X	X	X

890-2774 Chain of Custody

Preservative Codes

None: NO DI Water: H_2O
Cool: Cool MeOH: Me
HCL: HC HNO_3: HN
H_2SO_4: H_2 NaOH: Na
H_3PO_4: HP
$NaHSO_4$: NABIS
$Na_2S_2O_3$: $NaSO_3$
Zn Acetate+NaOH: Zn
NaOH+Ascorbic Acid: SAPC

Sample Comments

Cost Center: 1081071001

Incident ID:NAPP2218642544

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 SiO_2 Na Sr Tl 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 Tl 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	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
1			8.17.22 1613			
3				4		
5				6		

Revised Date 08/25/2020 Rev. 2020.2

Login Sample Receipt Checklist

Client: Ensolum

Job Number: 890-2774-1
SDG Number: 03E1558094

Login Number: 2774
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: 890-2774-1
SDG Number: 03E1558094

Login Number: 2774
List Number: 2
Creator: Rodriguez, Leticia

List Source: Eurofins Midland
List Creation: 08/19/22 10:36 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	

ENSOLUM

APPENDIX E

NMOCD Notifications

Collins, Melanie

From: Green, Garrett J
Sent: Tuesday, June 28, 2022 12:21 PM
To: ocd.enviro@state.nm.us; Bratcher, Mike, EMNRD; Hamlet, Robert, EMNRD; Nobui, Jennifer, EMNRD
Cc: DelawareSpills /SM; Pennington, Shelby G
Subject: XTO 24 Hour Notification - Pierce Canyon 28 Battery - Released on 6/27/22

All,

This is notification of a release greater than 25 barrels that occurred yesterday at the Pierce Canyon 28 Battery near the GPS coordinates given below. All of the fluids remained in containment and all standing fluids were recovered by vacuum truck. Details will be provided with a form C-141. Please contact us with any questions or concerns.

GPS: 32.18245,-103.88038

Thank you,

Garrett Green
Environmental Coordinator
Delaware Business Unit
(575) 200-0729
Garrett.Green@ExxonMobil.com

XTO Energy, Inc.
3104 E. Greene Street | Carlsbad, NM 88220 | M: (575)200-0729

Green, Garrett J

From: Green, Garrett J
Sent: Friday, July 1, 2022 10:21 AM
To: Bratcher, Mike, EMNRD; Hamlet, Robert, EMNRD; ocd.enviro@state.nm.us
Cc: DelawareSpills /SM
Subject: XTO - 48 Hour Liner Inspection Notification - Pierce Canyon 28 Battery - Released on 6/27/22

Follow Up Flag: Follow up
Flag Status: Completed

Good morning,

This is sent as a 48-hour notification, XTO is scheduled to inspect the lined containment at Pierce Canyon 28 Battery released on (6/27/22), on Tuesday, July 5, 2022, at 9am MST. A 24 hour release notification was sent out on Tuesday, June 28, 2022 12:21 PM since the release was greater than 25 barrels in volume. Please call us with any questions or concerns.

GPS Coordinates: (32.18245,-103.88038)

Thank you,

Garrett Green
Environmental Coordinator
Delaware Business Unit
(575) 200-0729
Garrett.Green@ExxonMobil.com

XTO Energy, Inc.
3104 E. Greene Street | Carlsbad, NM 88220 | M: (575)200-0729

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 145795

CONDITIONS

Operator: XTO ENERGY, INC 6401 Holiday Hill Road Midland, TX 79707	OGRID: 5380
	Action Number: 145795
	Action Type: [C-141] Release Corrective Action (C-141)

CONDITIONS

Created By	Condition	Condition Date
jharimon	Please note that closure samples must be received at a temperature below 4 degrees F	12/14/2022