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	NAPP2213148421
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 6401 Holiday Hill Rd Bldg 5, Midland, Texas, 79707	

Location of Release Source

Latitude 32.18190 Longitude -103.83290
(NAD 83 in decimal degrees to 5 decimal places)

Site Name PLU Big Sinks 25 Battery	Site Type Tank Battery
Date Release Discovered 04/27/2022	API# *(if applicable)*

Unit Letter	Section	Township	Range	County
O	25	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) 0.96	Volume Recovered (bbls) 0.00
☐ Produced Water	Volume Released (bbls)	Volume Recovered (bbls)
	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: After scheduled inspection, downstream ball valve was opened, causing residual fluids to burp out of the flare and ignite in a small grass fire. Flames were extinguished with fire extinguisher. A third-party contractor has been retained for remediation purposes.

Form C-141
Page 2

State of New Mexico
Oil Conservation Division

Incident ID	NAPP2213148421
District RP	
Facility ID	
Application ID	

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 that results in a fire or is the result of a fire.

If YES, was immediate notice given to the OCD? By whom? To whom? When and by what means (phone, email, etc)?
Yes, by Garrett Green to Bratcher, Mike, EMNRD; Hamlet, Robert, EMNRD; Victoria Venegas; ocd.enviro@state.nm.us on Wednesday, April 27, 2022 4:53 PM via email.

Initial Response

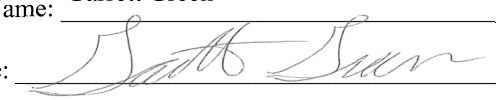
The responsible party must undertake the following actions immediately unless they could create a safety hazard that would result in injury

- ☒ 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: 05/11/2022
email: garrett.green@exxonmobil.com
Telephone: 575-200-0729

OCD Only

Received by: Jocelyn Harimon
Date: 05/11/2022

Location:	PLU 25 Big Sinks Battery	
Spill Date:	4/27/2022	
Area 1		
Approximate Area =	0.45	sq. ft.
Average Saturation (or depth) of spill =	0.13	inches
Average Porosity Factor =	0.15	
VOLUME OF LEAK		
Total Crude Oil =	0.96	bbls
Total Produced Water =	0.00	bbls
TOTAL VOLUME OF LEAK		
Total Crude Oil =	**0.96**	**bbls**
Total Produced Water =	**0.00**	**bbls**
TOTAL VOLUME RECOVERED		
Total Crude Oil =	**0.00**	**bbls**
Total Produced Water =	**0.00**	**bbls**

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

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

CONDITIONS

Operator: XTO ENERGY, INC 6401 Holiday Hill Road Midland, TX 79707	OGRID: 5380
	Action Number: 106082
	Action Type: [C-141] Release Corrective Action (C-141)

CONDITIONS

Created By	Condition	Condition Date
jharimon	None	5/11/2022

State of New Mexico
Oil Conservation Division

Incident ID	NAPP2202446534
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.

State of New Mexico
Oil Conservation Division

Incident ID	NAPP2202446534
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: __Environmental Coordinator_____

Signature:_____ _____ Date: __7/26/2022_____

email: __Garrett.Green@ExxonMobil.com_____ Telephone: ___575-200-0729_____

OCD Only

Received by: _____ Date: _____

State of New Mexico
Oil Conservation Division

Incident ID	NAPP2202446534
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: __Garret Green_____ Title: ____Environmental Coordinator_____

Signature: _____ Date: ___7/26/2022_____

email: ____Garrett.Green@ExxonMobil.com_____ Telephone: __575-200-0729_____

OCD Only

Received by: _____ Date: _____

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

Closure Approved by: Jennifer Nobui Date: 08/24/2022

Printed Name: Jennifer Nobui Title: Environmental Specialist A

July 26, 2022

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

Re: Closure Request
PLU Big Sinks 25 Battery
Incident Number NAPP2213148421
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 PLU Big Sinks 25 Battery (Site). The purpose of the site assessment and soil sampling activities was to assess for the presence or absence of impacts to soil resulting from a small crude oil flare fire at the Site. Based on the site assessment activities and analytical results from the soil sampling event, XTO is submitting this Closure Request for Incident Number NAPP2213148421.

SITE DESCRIPTION AND RELEASE SUMMARY

The Site is located in in Unit O, Section 25, Township 24 South, Range 30 East, in Eddy County, New Mexico (32.18190° N, 103.83290°W) and is associated with oil and gas exploration and production operations on federal land managed by the Bureau of Land Management (BLM).

On April 27, 2022, a downstream ball valve was opened after a scheduled inspection and caused approximately 0.96 barrels (bbls) of crude oil out of the flare, which ignited and extinguished on the ground. There were no fluids to recover. XTO reported the release immediately via email to the New Mexico Oil Conservation Division (NMOCD) on April 27, 2022 and submitted a Release Notification Form C-141 (Form C-141) on May 11, 2022. The release was assigned Incident Number NAPP2213148421.

SITE CHARACTERIZATION AND CLOSURE CRITERIA

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

Depth to groundwater at the Site is estimated to be greater than 100 feet below ground surface (bgs) based on the nearest groundwater well data. The closest permitted groundwater well with depth to groundwater data is New Mexico Office of the State Engineer well C-4484 Pod 1, located approximately 342 feet northeast of the Site. The dry soil boring has a total depth of 110 feet bgs. Ground surface

elevation at the groundwater well location is 3,453 feet above mean sea level (amsl), which is approximately 3 feet lower in elevation than the Site. All wells used for depth to groundwater determination are presented on Figure 1. The referenced well records are included in Appendix A.

The closest continuously flowing or significant watercourse to the Site is a dry wash, located approximately 9,695 feet north west of the Site. The Site is greater than 200 feet from a lakebed, sinkhole, or playa lake and greater than 300 feet from an occupied residence, school, hospital, institution, church, or wetland. The Site is greater than 1,000 feet to a freshwater well or spring and is not within a 100-year floodplain or overlying a subsurface mine. The Site is not underlain by unstable geology (low potential karst designation area). Site receptors are identified on Figure 1.

Based on the results of the Site Characterization, the following NMOCD Table 1 Closure Criteria (Closure Criteria) apply:

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

A reclamation requirement of 600 mg/kg chloride and 100 mg/kg TPH applies to the top 4 feet of the pasture area that was impacted by the release, per NMAC 19.15.29.13D (1) for the top 4 feet of areas to be reclaimed following remediation.

DELINEATION ACTIVITIES

On June 15, 2022, delineation activities were conducted to evaluate the release extent based on information provided on the Form C-141 and visual observations. Five potholes (PH01 through PH05) were advanced via backhoe to depth of 2 feet bgs to assess for the presence or absense of impacted soil. Delineation soil samples were collected from each of the potholes at depths of 0.5 feet bgs and 2 feet bgs. The delineation soil samples were field screened for volatile aromatic hydrocarbons utilizing a calibrated photoionization detector (PID) and chloride Hach® chloride QuanTab® test strips. Field screening results and observations for the potholes were logged on lithologic/soil sampling logs, which are included in Appendix B. The release extent and delineation soil sample locations were mapped utilizing a handheld Global Positioning System (GPS) unit and are depicted on Figure 2. Photographic documentation was completed during the Site visit and a photographic log is included in Appendix C.

The delineation soil samples were placed directly into pre-cleaned glass jars, labeled with the location, date, time, sampler name, method of analysis, and immediately placed on ice. The soil samples were transported at or below 4 degrees Celsius (°C) under strict chain-of-custody (COC) procedures to Eurofins Laboratories (Eurofins) in Carlsbad, New Mexico, for analysis of BTEX following United States Environmental Protection Agency (EPA) Method 8021B; TPH-GRO, TPH-DRO, and TPH-oil range organics (ORO) following EPA Method 8015M/D; and chloride following EPA Method 300.0.

LABORATORY ANALYTICAL RESULTS

Laboratory analytical results for delineation soil samples from potholes PH01 through PH05 indicated benzene, BTEX, TPH-GRO/TPH-DRO, TPH, and chloride concentrations were compliant with the Site Closure Criteria and reclamation requirement applied in the top 4 feet. Laboratory analytical results are summarized in Table 1 and the complete laboratory analytical reports are included as Appendix D.

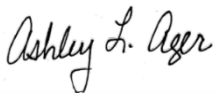
CLOSURE REQUEST

Site assessment activities were conducted at the Site to assess for the presence or absence of impacted soil resulting from the April 27, 2022 crude oil flare fire. Laboratory analytical results for the soil samples collected within and around the release extent, indicated benzene, BTEX, TPH-GRO/TPH-DRO, TPH, and chloride concentrations were compliant with the Site Closure Criteria and provided lateral and vertical delineation to below the most stringent Table 1 Closure Criteria. XTO removed the surficial staining from the fire and based on the soil sample analytical results, no further remediation was required. The area will be reseeded with a BLM approved seed mixture. XTO respectfully requests closure for Incident Number NAPP2213148421.

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

Sincerely,
Ensolum, LLC

Hadlie Green
Field Geologist



Ashley Ager
Program Director

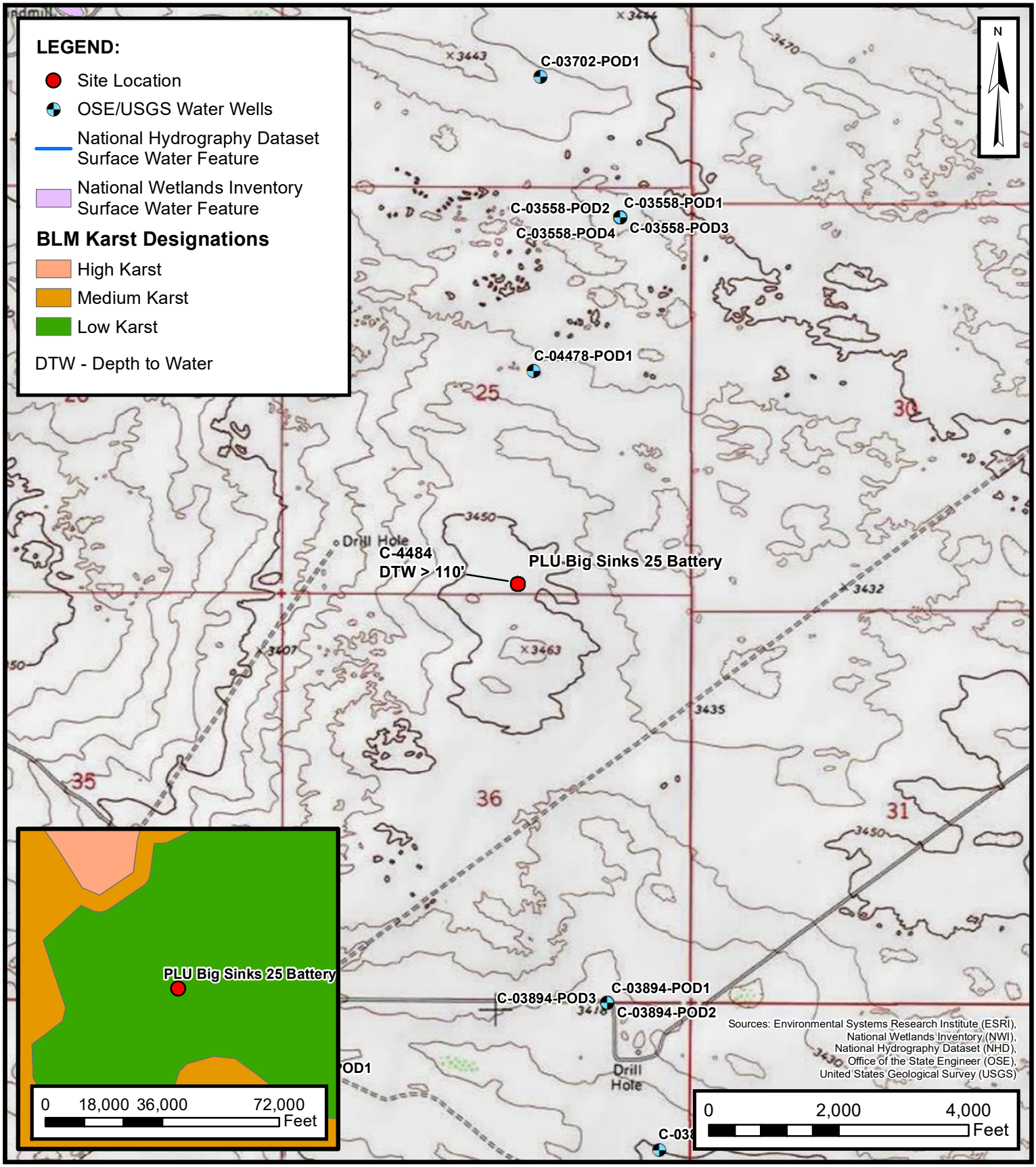
cc: Garrett Green, XTO
Bureau of Land Management

Appendices:

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

ENSOLUM

FIGURES



ENSOLUM
Environmental & Hydrogeologic Consultants

Site Location Map

PLU Big Sinks 25 Battery
XTO Energy, Inc.
NAPP2213148421
Unit O, Section 25, T24S, R30E
Eddy County, NM

FIGURE
1

ENSOLUM
Environmental & Hydrogeologic Consultants

Delineation Soil Sample Locations

PLU Big Sinks 25 Battery
XTO Energy, Inc.
NAPP2213148421
Unit O Sec 25 T24S R30E
Eddy County, NM

FIGURE
2

ENSOLUM

TABLES

ENSOLUM

TABLE 1
SOIL SAMPLE ANALYTICAL RESULTS
PLU Big Sinks 25 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										
PH01	06/15/2022	0.5	<0.00202	<0.00404	<49.9	<49.9	<49.9	<49.9	<49.9	<4.95
PH01A	06/15/2022	2	<0.00200	<0.00399	<50.0	<50.0	<50.0	<50.0	<50.0	<5.01
PH02	06/15/2022	0.5	<0.00200	<0.00400	<49.9	<49.9	<49.9	<49.9	<49.9	<4.98
PH02A	06/15/2022	2	<0.00201	<0.00402	<50.0	<50.0	<50.0	<50.0	<50.0	<4.99
PH03	06/15/2022	0.5	<0.00202	<0.00404	<50.0	<50.0	<50.0	<50.0	<50.0	<4.97
PH03A	06/15/2022	2	<0.00202	<0.00403	<50.0	<50.0	<50.0	<50.0	<50.0	<4.95
PH04	06/15/2022	0.5	<0.00200	<0.00399	<49.9	<49.9	<49.9	<49.9	<49.9	6.08
PH04A	06/15/2022	2	<0.00199	<0.00398	<50.0	<50.0	<50.0	<50.0	<50.0	<4.95
PH05	06/15/2022	0.5	<0.00199	<0.00398	<50.0	<50.0	<50.0	<50.0	<50.0	10.2
PH05A	06/15/2022	2	<0.00198	<0.00397	<49.9	<49.9	<49.9	<49.9	<49.9	6.83

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

ENSOLUM

APPENDIX A

Referenced Well Records

Atkins ENGINEERING ASSOCIATES INC.
2904 W 2nd St.
Roswell, NM 88201
voice: 575.624.2420
fax: 575.624.2421
www.atkinseng.com

6/7/2022

DII-NMOSE
1900 W 2nd Street
Roswell, NM 88201

Hand Delivered to the DII Office of the State Engineer

Re: Well Record C-4484 Pod1

To whom it may concern:

Attached please find a corrected well record to update the location and, in duplicate, for a one (1) soil borings, C-4484 Pod1.

If you have any questions, please contact me at 575.499.9244 or lucas@atkinseng.com.

Sincerely,

Lucas Middleton

Enclosures: as noted above

OSE DIT JUN 7 2022 PM3:24

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).
POD 1 (BH-1)		C-4484

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	59.14	N
	LONGITUDE	103	49	56.41	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

SW SW SE Sec. 25 T24S R30E

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)
11/19/2020	11/19/2020	temporary well material	110	n/a

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

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

DATE STATIC MEASURED: 11/19/2020-11/23/20

DRILLING FLUID: ☐ AIR ☐ MUD ADDITIVES – SPECIFY:

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

CHECK HERE IF PITLESS ADAPTER IS INSTALLED ☐

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

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

OSE DII JUN 22'22 PM 02:24

FOR OSE INTERNAL USE

WR-20 WELL RECORD & LOG (Version 01/28/2022)

FILE NO.	POD NO.	TRN NO.	
LOCATION		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	1	1	Sand, Fine-grained, poorly graded, Reddish-Brown	Y ✓N	
1	4	3	Sand, Fine-grained, poorly-graded, with caliche, Reddish-Brown	Y ✓N	
4	34	30	Caliche, well consolidated, Off-white, moist	Y ✓N	
34	91	57	Sandstone, Fine-grained, poorly-graded, poorly consolidated, Light Brown-Tan	Y ✓N	
91	110	19	Sandstone,Fine-grained, poorly-graded, moderately consolidated, Light 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	
				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 material removed and soil boring backfilled using drill cuttings from total depth to ten feet below ground surface(bgs), then hydrated bentonite chips ten feet bgs to surface.

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

Shane Eldridge, Carmelo Trevino, Cameron Pruitt

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 — OSE DIT JUN 7 2022 PM 3:25 — 6/7/2022

SIGNATURE OF DRILLER / PRINT SIGNEE NAME — DATE

FOR OSE INTERNAL USE — WR-20 WELL RECORD & LOG (Version 01/28/2022)

FILE NO.	POD NO.	TRN NO.	
LOCATION		WELL TAG ID NO.	PAGE 2 OF 2

c-4484-forsign

Final Audit Report 2022-06-07

Created:	2022-06-07
By:	Lucas Middleton (lucas@atkinseng.com)
Status:	Signed
Transaction ID:	CBJCHBCAABAAGWi4A62UsJioBX1XhQkgqzRwZGIZTfQw

"c-4484-forsign" History

Document created by Lucas Middleton (lucas@atkinseng.com)
2022-06-07 - 8:20:38 PM GMT- IP address: 69.21.254.158

Document emailed to Jack Atkins (jack@atkinseng.com) for signature
2022-06-07 - 8:21:32 PM GMT

Email viewed by Jack Atkins (jack@atkinseng.com)
2022-06-07 - 8:40:23 PM GMT

Document e-signed by Jack Atkins (jack@atkinseng.com)
Signature Date: 2022-06-07 - 8:41:10 PM GMT - Time Source: server

Agreement completed.
2022-06-07 - 8:41:10 PM GMT

USGS 320956103503001 24S.30E.36.33333

Eddy County, New Mexico
Latitude 32°09'56", Longitude 103°50'30" NAD27
Land-surface elevation 3,408 feet above NAVD88
The depth of the well is 480 feet below land surface.
This well is completed in the Pecos River Basin alluvial aquifer (N100PCSRVR) national aquifer.
This well is completed in the Rustler Formation (312RSLR) local aquifer.

Output formats

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

Date	Time	Water-level date-time accuracy	Parameter code	Water level, feet below land surface	Water level, feet above specific vertical datum	Referenced vertical datum	Status	Method of measurement	Measuring agency	Source of measurement	Water-level approval status
1958-08-19		D	62610		2961.04	NGVD29	1	Z			A
1958-08-19		D	62611		2962.75	NAVD88	1	Z			A
1958-08-19		D	72019	445.25			1	Z			A
1959-03-19		D	62610		2961.02	NGVD29	1	Z			A
1959-03-19		D	62611		2962.73	NAVD88	1	Z			A
1959-03-19		D	72019	445.27			1	Z			A
1985-02-06		D	62610		2959.79	NGVD29	1	Z			A
1985-02-06		D	62611		2961.50	NAVD88	1	Z			A
1985-02-06		D	72019	446.50			1	Z			A
1987-10-15		D	62610		2959.93	NGVD29	1	S			A
1987-10-15		D	62611		2961.64	NAVD88	1	S			A
1987-10-15		D	72019	446.36			1	S			A

ENSOLUM

APPENDIX B

Lithologic Soil Sampling Logs

ENSOLUM

	Sample Name: **PH01**	Date: **06/15/2022**
	Site Name: **PLU Big Sinks 25**	
	Incident Number: **NAPP2213148421**	
	Job Number: 03E1558046	
LITHOLOGIC / SOIL SAMPLING LOG	Logged By: GP	Method: Backhoe
Coordinates: **32.1823659, -103.8328329**	Hole Diameter: NA	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. No correction factors included.

Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample ID	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithologic Descriptions
D	<168	1.5	N	PHO1	0.5	0.5	SP-SM	Dry Red Sand, No Odor
D	<168	0.8	N			1	SP-SM	SAA
						1.5	SP-SM	SAA
D	<168	1.2	N	PH01A	2	2	SP-SM	SAA

TD @ 2 feet bgs

ENSOLUM	Sample Name: **PH02**	Date: **06/15/2022**
	Site Name: **PLU Big Sinks 25**	
	Incident Number: **NAPP2213148421**	
	Job Number: 03E1558046	
LITHOLOGIC / SOIL SAMPLING LOG	Logged By: GP	Method: Backhoe
Coordinates: **32.1823733, -103.8329376**	Hole Diameter: NA	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. No correction factors included.

Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample ID	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithologic Descriptions
D	<168	1.1	N	PHO2	0.5	0.5	SP-SM	Dry Red Sand, No Odor
D	<168	2.7	N			1	SP-SM	SAA
						1.5	SP-SM	SAA
D	<168	1.1	N	PH02A	2	2	SP-SM	SAA

TD @ 2 feet bgs

ENSOLUM	Sample Name: **PH03**	Date: **06/15/2022**
	Site Name: **PLU Big Sinks 25**	
	Incident Number: **NAPP2213148421**	
	Job Number: 03E1558046	
LITHOLOGIC / SOIL SAMPLING LOG	Logged By: GP	Method: Backhoe
Coordinates: **32.1824187, -103.8330267**	Hole Diameter: NA	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. No correction factors included.

Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample ID	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithologic Descriptions
D	<168	0.8	N	PH03	0.5	0.5	SP-SM	Dry Red Sand, No Odor
D	<168	0.3	N			1	SP-SM	SAA
						1.5	SP-SM	SAA
D	<168	0.5	N	PH03A	2	2	SP-SM	SAA

TD @ 2 feet bgs

ENSOLUM

	Sample Name: **PH04**	Date: **06/15/2022**
	Site Name: **PLU Big Sinks 25**	
	Incident Number: **NAPP2213148421**	
	Job Number: 03E1558046	
LITHOLOGIC / SOIL SAMPLING LOG	Logged By: GP	Method: Backhoe
Coordinates: **32.1824596, -103.8331005**	Hole Diameter: NA	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. No correction factors included.

Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample ID	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithologic Descriptions
D	<168	1.2	N	PH04	0.5	0.5	SP-SM	Dry Red Sand, No Odor
D	<168	0.9	N			1	SP-SM	SAA
						1.5	SP-SM	SAA
D	<168	0.6	N	PH04A	2	2	SP-SM	SAA

TD @ 2 feet bgs

ENSOLUM	Sample Name: **PH05**	Date: **06/15/2022**
	Site Name: **PLU Big Sinks 25**	
	Incident Number: **NAPP2213148421**	
	Job Number: 03E1558046	
LITHOLOGIC / SOIL SAMPLING LOG	Logged By: GP	Method: Backhoe
Coordinates: **32.1824062, -103.8328061**	Hole Diameter: NA	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. No correction factors included.

Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample ID	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithologic Descriptions
D	<168	1.3	N	PH05	0.5	0.5	SP-SM	Dry Red Sand Some Silt, No Odor
D	<168	0.8	N			1	SP-SM	SAA
						1.5	SP-SM	SAA
D	<168	1.1	N	PH05A	2	2	SP-SM	SAA

TD @ 2 feet bgs

ENSOLUM

APPENDIX C

Photographic Log

ENSOLUM

Photographic Log
XTO Energy, Inc.
PLU Big Sinks 25 Battery
Incident Number NAPP2213148421

Photograph 1 Date: 4/28/2022
Description: View facing north of release extent taken during the initial site assessment.

Photograph 2 Date: 4/28/2022
Description: View facing south of release extent taken during the initial site assessment.

Photograph 3 Date: 6/15/2022
Description: View of release extent following surficial removal of the staining from the fire facing northeast.

Photograph 4 Date: 6/15/2022
Description: View of release extent following surficial removal of the staining from the fire facing northeast.

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: 890-2418-1
Laboratory Sample Delivery Group: 03E1558046
Client Project/Site: PLU BS 25

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

Attn: Tacoma Morrissey

JKramer

Authorized for release by:
6/23/2022 9:18:26 AM

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

LINKS

Review your project results through my EOL

Have a Question? Ask The Expert

Visit us at: www.eurofinsus.com/Env

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

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

Client: Ensolum
Project/Site: PLU BS 25

Laboratory Job ID: 890-2418-1
SDG: 03E1558046

Table of Contents

Definitions/Glossary

Client: Ensolum Job ID: 890-2418-1
Project/Site: PLU BS 25 SDG: 03E1558046

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

HPLC/IC

Qualifier	Qualifier Description
F1	MS and/or MSD recovery 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: PLU BS 25

Job ID: 890-2418-1
SDG: 03E1558046

Job ID: 890-2418-1

Laboratory: Eurofins Carlsbad

Narrative

Job Narrative
890-2418-1

Receipt
The samples were received on 6/15/2022 2:34 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 20.2°C

GC VOA
Method 8021B: Spike compounds were inadvertently omitted during the extraction process for the matrix spike duplicate (MS/MSD); therefore, matrix spike duplicate recoveries are unavailable for preparation batch 880-27819 and analytical batch 880-27741. The associated laboratory control sample (LCS) met acceptance criteria.

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: The RPD of the laboratory control sample (LCS) and laboratory control sample duplicate (LCSD) for preparation batch 880-27745 and analytical batch 880-27737 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 for preparation batch 880-27745 and analytical batch 880-27737 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.

HPLC/IC
Method 300_ORGFM_28D: The matrix spike / matrix spike duplicate (MS/MSD) recoveries and precision for preparation batch 880-27807 and analytical batch 880-28016 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.

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: PLU BS 25

Job ID: 890-2418-1
SDG: 03E1558046

Client Sample ID: PH01

Lab Sample ID: 890-2418-1
Matrix: Solid
Date Collected: 06/15/22 09:45
Date Received: 06/15/22 14:34
Sample Depth: 0.5'

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00202	U	0.00202		mg/Kg		06/17/22 13:00	06/18/22 07:24	1
Toluene	<0.00202	U	0.00202		mg/Kg		06/17/22 13:00	06/18/22 07:24	1
Ethylbenzene	<0.00202	U	0.00202		mg/Kg		06/17/22 13:00	06/18/22 07:24	1
m-Xylene & p-Xylene	<0.00404	U	0.00404		mg/Kg		06/17/22 13:00	06/18/22 07:24	1
o-Xylene	<0.00202	U	0.00202		mg/Kg		06/17/22 13:00	06/18/22 07:24	1
Xylenes, Total	<0.00404	U	0.00404		mg/Kg		06/17/22 13:00	06/18/22 07:24	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*107*		*70 - 130*	*06/17/22 13:00*	*06/18/22 07:24*	*1*
1,4-Difluorobenzene (Surr)	*92*		*70 - 130*	*06/17/22 13:00*	*06/18/22 07:24*	*1*

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			06/20/22 14:56	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			06/20/22 12:00	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		06/17/22 08:09	06/17/22 17:50	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		06/17/22 08:09	06/17/22 17:50	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		06/17/22 08:09	06/17/22 17:50	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*97*		*70 - 130*	*06/17/22 08:09*	*06/17/22 17:50*	*1*
o-Terphenyl	*98*		*70 - 130*	*06/17/22 08:09*	*06/17/22 17:50*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<4.95	U	4.95		mg/Kg			06/22/22 20:22	1

Client Sample ID: PH01

Lab Sample ID: 890-2418-2
Matrix: Solid
Date Collected: 06/15/22 09:45
Date Received: 06/15/22 14:34
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		06/17/22 13:00	06/18/22 07:51	1
Toluene	<0.00200	U	0.00200		mg/Kg		06/17/22 13:00	06/18/22 07:51	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		06/17/22 13:00	06/18/22 07:51	1
m-Xylene & p-Xylene	<0.00399	U	0.00399		mg/Kg		06/17/22 13:00	06/18/22 07:51	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		06/17/22 13:00	06/18/22 07:51	1
Xylenes, Total	<0.00399	U	0.00399		mg/Kg		06/17/22 13:00	06/18/22 07:51	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*119*		*70 - 130*	*06/17/22 13:00*	*06/18/22 07:51*	*1*

Eurofins Carlsbad

Client Sample Results

Client: Ensolum
Project/Site: PLU BS 25

Job ID: 890-2418-1
SDG: 03E1558046

Client Sample ID: PH01

Lab Sample ID: 890-2418-2
Matrix: Solid
Date Collected: 06/15/22 09:45
Date Received: 06/15/22 14:34
Sample Depth: 2'

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

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,4-Difluorobenzene (Surr)	*102*		*70 - 130*	*06/17/22 13:00*	*06/18/22 07:51*	*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			06/20/22 14:56	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			06/20/22 12:00	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		06/17/22 08:09	06/17/22 18:11	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		06/17/22 08:09	06/17/22 18:11	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		06/17/22 08:09	06/17/22 18:11	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	*87*		*70 - 130*	*06/17/22 08:09*	*06/17/22 18:11*	*1*
o-Terphenyl	*90*		*70 - 130*	*06/17/22 08:09*	*06/17/22 18:11*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.01	U	5.01		mg/Kg			06/22/22 20:31	1

Client Sample ID: PH02

Lab Sample ID: 890-2418-3
Matrix: Solid
Date Collected: 06/15/22 10:00
Date Received: 06/15/22 14:34
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		06/17/22 13:00	06/18/22 08:18	1
Toluene	<0.00200	U	0.00200		mg/Kg		06/17/22 13:00	06/18/22 08:18	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		06/17/22 13:00	06/18/22 08:18	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		06/17/22 13:00	06/18/22 08:18	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		06/17/22 13:00	06/18/22 08:18	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		06/17/22 13:00	06/18/22 08:18	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	*120*		*70 - 130*	*06/17/22 13:00*	*06/18/22 08:18*	*1*
1,4-Difluorobenzene (Surr)	*100*		*70 - 130*	*06/17/22 13:00*	*06/18/22 08:18*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00400	U	0.00400		mg/Kg			06/20/22 14:56	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			06/20/22 12:00	1

Eurofins Carlsbad

Client Sample Results

Client: Ensolum
Project/Site: PLU BS 25

Job ID: 890-2418-1
SDG: 03E1558046

Client Sample ID: PH02
Date Collected: 06/15/22 10:00
Date Received: 06/15/22 14:34
Sample Depth: 0.5'

Lab Sample ID: 890-2418-3
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	<49.9	U *1	49.9		mg/Kg		06/17/22 08:09	06/17/22 19:15	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		06/17/22 08:09	06/17/22 19:15	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		06/17/22 08:09	06/17/22 19:15	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*84*		*70 - 130*	*06/17/22 08:09*	*06/17/22 19:15*	*1*
o-Terphenyl	*88*		*70 - 130*	*06/17/22 08:09*	*06/17/22 19:15*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<4.98	U	4.98		mg/Kg			06/22/22 20:40	1

Client Sample ID: PH02
Date Collected: 06/15/22 10:00
Date Received: 06/15/22 14:34
Sample Depth: 2

Lab Sample ID: 890-2418-4
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		06/17/22 13:00	06/18/22 08:52	1
Toluene	<0.00201	U	0.00201		mg/Kg		06/17/22 13:00	06/18/22 08:52	1
Ethylbenzene	<0.00201	U	0.00201		mg/Kg		06/17/22 13:00	06/18/22 08:52	1
m-Xylene & p-Xylene	<0.00402	U	0.00402		mg/Kg		06/17/22 13:00	06/18/22 08:52	1
o-Xylene	<0.00201	U	0.00201		mg/Kg		06/17/22 13:00	06/18/22 08:52	1
Xylenes, Total	<0.00402	U	0.00402		mg/Kg		06/17/22 13:00	06/18/22 08:52	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*120*		*70 - 130*	*06/17/22 13:00*	*06/18/22 08:52*	*1*
1,4-Difluorobenzene (Surr)	*91*		*70 - 130*	*06/17/22 13:00*	*06/18/22 08:52*	*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			06/20/22 14:56	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			06/20/22 12:00	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		06/17/22 08:09	06/17/22 19:37	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		06/17/22 08:09	06/17/22 19:37	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		06/17/22 08:09	06/17/22 19:37	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*86*		*70 - 130*	*06/17/22 08:09*	*06/17/22 19:37*	*1*
o-Terphenyl	*91*		*70 - 130*	*06/17/22 08:09*	*06/17/22 19:37*	*1*

Client Sample Results

Client: Ensolum
Project/Site: PLU BS 25

Job ID: 890-2418-1
SDG: 03E1558046

Client Sample ID: PH02

Lab Sample ID: 890-2418-4
Matrix: Solid
Date Collected: 06/15/22 10:00
Date Received: 06/15/22 14:34
Sample Depth: 2

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<4.99	U	4.99		mg/Kg			06/22/22 20:49	1

Client Sample ID: PH03

Lab Sample ID: 890-2418-5
Matrix: Solid
Date Collected: 06/15/22 10:15
Date Received: 06/15/22 14:34
Sample Depth: 0.5'

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00202	U	0.00202		mg/Kg		06/17/22 13:00	06/18/22 09:18	1
Toluene	<0.00202	U	0.00202		mg/Kg		06/17/22 13:00	06/18/22 09:18	1
Ethylbenzene	<0.00202	U	0.00202		mg/Kg		06/17/22 13:00	06/18/22 09:18	1
m-Xylene & p-Xylene	<0.00404	U	0.00404		mg/Kg		06/17/22 13:00	06/18/22 09:18	1
o-Xylene	<0.00202	U	0.00202		mg/Kg		06/17/22 13:00	06/18/22 09:18	1
Xylenes, Total	<0.00404	U	0.00404		mg/Kg		06/17/22 13:00	06/18/22 09:18	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*115*		*70 - 130*	*06/17/22 13:00*	*06/18/22 09:18*	*1*
1,4-Difluorobenzene (Surr)	*102*		*70 - 130*	*06/17/22 13:00*	*06/18/22 09:18*	*1*

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			06/20/22 14:56	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			06/20/22 12:00	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		06/17/22 08:09	06/17/22 19:58	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		06/17/22 08:09	06/17/22 19:58	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		06/17/22 08:09	06/17/22 19:58	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*85*		*70 - 130*	*06/17/22 08:09*	*06/17/22 19:58*	*1*
o-Terphenyl	*88*		*70 - 130*	*06/17/22 08:09*	*06/17/22 19:58*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<4.97	U	4.97		mg/Kg			06/22/22 20:58	1

Client Sample Results

Client: Ensolum
Project/Site: PLU BS 25

Job ID: 890-2418-1
SDG: 03E1558046

Client Sample ID: PH03

Lab Sample ID: 890-2418-6
Matrix: Solid
Date Collected: 06/15/22 10:15
Date Received: 06/15/22 14:34
Sample Depth: 2'

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00202	U	0.00202		mg/Kg		06/17/22 13:00	06/18/22 09:45	1
Toluene	<0.00202	U	0.00202		mg/Kg		06/17/22 13:00	06/18/22 09:45	1
Ethylbenzene	<0.00202	U	0.00202		mg/Kg		06/17/22 13:00	06/18/22 09:45	1
m-Xylene & p-Xylene	<0.00403	U	0.00403		mg/Kg		06/17/22 13:00	06/18/22 09:45	1
o-Xylene	<0.00202	U	0.00202		mg/Kg		06/17/22 13:00	06/18/22 09:45	1
Xylenes, Total	<0.00403	U	0.00403		mg/Kg		06/17/22 13:00	06/18/22 09:45	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*115*		*70 - 130*	*06/17/22 13:00*	*06/18/22 09:45*	*1*
1,4-Difluorobenzene (Surr)	*100*		*70 - 130*	*06/17/22 13:00*	*06/18/22 09:45*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00403	U	0.00403		mg/Kg			06/20/22 14:56	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			06/20/22 12:00	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		06/17/22 08:09	06/17/22 20:20	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		06/17/22 08:09	06/17/22 20:20	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		06/17/22 08:09	06/17/22 20:20	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*90*		*70 - 130*	*06/17/22 08:09*	*06/17/22 20:20*	*1*
o-Terphenyl	*93*		*70 - 130*	*06/17/22 08:09*	*06/17/22 20:20*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<4.95	U	4.95		mg/Kg			06/22/22 21:08	1

Client Sample ID: PH04

Lab Sample ID: 890-2418-7
Matrix: Solid
Date Collected: 06/15/22 10:30
Date Received: 06/15/22 14:34
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		06/17/22 13:00	06/18/22 10:10	1
Toluene	<0.00200	U	0.00200		mg/Kg		06/17/22 13:00	06/18/22 10:10	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		06/17/22 13:00	06/18/22 10:10	1
m-Xylene & p-Xylene	<0.00399	U	0.00399		mg/Kg		06/17/22 13:00	06/18/22 10:10	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		06/17/22 13:00	06/18/22 10:10	1
Xylenes, Total	<0.00399	U	0.00399		mg/Kg		06/17/22 13:00	06/18/22 10:10	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*122*		*70 - 130*	*06/17/22 13:00*	*06/18/22 10:10*	*1*

Client Sample Results

Client: Ensolum
Project/Site: PLU BS 25

Job ID: 890-2418-1
SDG: 03E1558046

Client Sample ID: PH04
Date Collected: 06/15/22 10:30
Date Received: 06/15/22 14:34
Sample Depth: 0.5'

Lab Sample ID: 890-2418-7
Matrix: Solid

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

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,4-Difluorobenzene (Surr)	*101*		*70 - 130*	*06/17/22 13:00*	*06/18/22 10:10*	*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			06/20/22 14:56	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			06/20/22 12:00	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		06/17/22 08:09	06/17/22 20:41	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9	mg/Kg		06/17/22 08:09	06/17/22 20:41	1
OII Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg		06/17/22 08:09	06/17/22 20:41	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*89*		*70 - 130*	*06/17/22 08:09*	*06/17/22 20:41*	*1*
o-Terphenyl	*91*		*70 - 130*	*06/17/22 08:09*	*06/17/22 20:41*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**6.08**	**F1**	4.98	mg/Kg			06/21/22 07:06	1

Client Sample ID: PH04
Date Collected: 06/15/22 10:30
Date Received: 06/15/22 14:34
Sample Depth: 2'

Lab Sample ID: 890-2418-8
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		06/17/22 13:00	06/18/22 10:36	1
Toluene	<0.00199	U	0.00199	mg/Kg		06/17/22 13:00	06/18/22 10:36	1
Ethylbenzene	<0.00199	U	0.00199	mg/Kg		06/17/22 13:00	06/18/22 10:36	1
m-Xylene & p-Xylene	<0.00398	U	0.00398	mg/Kg		06/17/22 13:00	06/18/22 10:36	1
o-Xylene	<0.00199	U	0.00199	mg/Kg		06/17/22 13:00	06/18/22 10:36	1
Xylenes, Total	<0.00398	U	0.00398	mg/Kg		06/17/22 13:00	06/18/22 10:36	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*125*		*70 - 130*	*06/17/22 13:00*	*06/18/22 10:36*	*1*
1,4-Difluorobenzene (Surr)	*101*		*70 - 130*	*06/17/22 13:00*	*06/18/22 10:36*	*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			06/20/22 14:56	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			06/20/22 12:00	1

Client Sample Results

Client: Ensolum
Project/Site: PLU BS 25

Job ID: 890-2418-1
SDG: 03E1558046

Client Sample ID: PH04

Date Collected: 06/15/22 10:30
Date Received: 06/15/22 14:34
Sample Depth: 2'

Lab Sample ID: 890-2418-8
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		06/17/22 08:09	06/17/22 21:02	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		06/17/22 08:09	06/17/22 21:02	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		06/17/22 08:09	06/17/22 21:02	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*87*		*70 - 130*	*06/17/22 08:09*	*06/17/22 21:02*	*1*
o-Terphenyl	*92*		*70 - 130*	*06/17/22 08:09*	*06/17/22 21:02*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<4.95	U	4.95		mg/Kg			06/21/22 07:29	1

Client Sample ID: PH05

Date Collected: 06/15/22 12:10
Date Received: 06/15/22 14:34
Sample Depth: 0.5'

Lab Sample ID: 890-2418-9
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		06/17/22 13:00	06/18/22 11:02	1
Toluene	<0.00198	U	0.00198		mg/Kg		06/17/22 13:00	06/18/22 11:02	1
Ethylbenzene	<0.00198	U	0.00198		mg/Kg		06/17/22 13:00	06/18/22 11:02	1
m-Xylene & p-Xylene	<0.00397	U	0.00397		mg/Kg		06/17/22 13:00	06/18/22 11:02	1
o-Xylene	<0.00198	U	0.00198		mg/Kg		06/17/22 13:00	06/18/22 11:02	1
Xylenes, Total	<0.00397	U	0.00397		mg/Kg		06/17/22 13:00	06/18/22 11:02	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*114*		*70 - 130*	*06/17/22 13:00*	*06/18/22 11:02*	*1*
1,4-Difluorobenzene (Surr)	*100*		*70 - 130*	*06/17/22 13:00*	*06/18/22 11:02*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00397	U	0.00397		mg/Kg			06/20/22 14:56	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			06/20/22 12:00	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		06/17/22 08:09	06/17/22 21:23	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		06/17/22 08:09	06/17/22 21:23	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		06/17/22 08:09	06/17/22 21:23	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*85*		*70 - 130*	*06/17/22 08:09*	*06/17/22 21:23*	*1*
o-Terphenyl	*90*		*70 - 130*	*06/17/22 08:09*	*06/17/22 21:23*	*1*

Client Sample Results

Client: Ensolum
Project/Site: PLU BS 25

Job ID: 890-2418-1
SDG: 03E1558046

Client Sample ID: PH05
Date Collected: 06/15/22 12:10
Date Received: 06/15/22 14:34
Sample Depth: 0.5'

Lab Sample ID: 890-2418-9
Matrix: Solid

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**6.83**		5.05		mg/Kg			06/21/22 07:37	1

Client Sample ID: PH05
Date Collected: 06/15/22 12:10
Date Received: 06/15/22 14:34
Sample Depth: 2'

Lab Sample ID: 890-2418-10
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		06/17/22 13:00	06/18/22 11:28	1
Toluene	<0.00199	U	0.00199		mg/Kg		06/17/22 13:00	06/18/22 11:28	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		06/17/22 13:00	06/18/22 11:28	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		06/17/22 13:00	06/18/22 11:28	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		06/17/22 13:00	06/18/22 11:28	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		06/17/22 13:00	06/18/22 11:28	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*118*		*70 - 130*	*06/17/22 13:00*	*06/18/22 11:28*	*1*
1,4-Difluorobenzene (Surr)	*102*		*70 - 130*	*06/17/22 13:00*	*06/18/22 11:28*	*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			06/20/22 14:56	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			06/20/22 12:00	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		06/17/22 08:09	06/17/22 21:45	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		06/17/22 08:09	06/17/22 21:45	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		06/17/22 08:09	06/17/22 21:45	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*83*		*70 - 130*	*06/17/22 08:09*	*06/17/22 21:45*	*1*
o-Terphenyl	*88*		*70 - 130*	*06/17/22 08:09*	*06/17/22 21:45*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**10.2**		4.99		mg/Kg			06/21/22 07:45	1

Surrogate Summary

Client: Ensolum
Project/Site: PLU BS 25

Job ID: 890-2418-1
SDG: 03E1558046

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)
880-16013-A-1-A MS	Matrix Spike	107	104
880-16013-A-1-B MSD	Matrix Spike Duplicate	84	92
890-2418-1	PH01	107	92
890-2418-2	PH01	119	102
890-2418-3	PH02	120	100
890-2418-4	PH02	120	91
890-2418-5	PH03	115	102
890-2418-6	PH03	115	100
890-2418-7	PH04	122	101
890-2418-8	PH04	125	101
890-2418-9	PH05	114	100
890-2418-10	PH05	118	102
LCS 880-27819/1-A	Lab Control Sample	113	97
LCSD 880-27819/2-A	Lab Control Sample Dup	118	106
MB 880-27628/5-A	Method Blank	84	92
MB 880-27819/5-A	Method Blank	86	89

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)
880-16002-A-5-B MS	Matrix Spike	82	81
880-16002-A-5-C MSD	Matrix Spike Duplicate	92	88
890-2418-1	PH01	97	98
890-2418-2	PH01	87	90
890-2418-3	PH02	84	88
890-2418-4	PH02	86	91
890-2418-5	PH03	85	88
890-2418-6	PH03	90	93
890-2418-7	PH04	89	91
890-2418-8	PH04	87	92
890-2418-9	PH05	85	90
890-2418-10	PH05	83	88
LCS 880-27745/2-A	Lab Control Sample	90	93
LCSD 880-27745/3-A	Lab Control Sample Dup	110	116
MB 880-27745/1-A	Method Blank	95	107

Surrogate Legend

1CO = 1-Chlorooctane

OTPH = o-Terphenyl

QC Sample Results

Client: Ensolum
Project/Site: PLU BS 25

Job ID: 890-2418-1
SDG: 03E1558046

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-27628/5-A
Matrix: Solid
Analysis Batch: 27741

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 27628

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		06/15/22 16:00	06/17/22 11:44	1
Toluene	<0.00200	U	0.00200		mg/Kg		06/15/22 16:00	06/17/22 11:44	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		06/15/22 16:00	06/17/22 11:44	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		06/15/22 16:00	06/17/22 11:44	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		06/15/22 16:00	06/17/22 11:44	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		06/15/22 16:00	06/17/22 11:44	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*84*		*70 - 130*	*06/15/22 16:00*	*06/17/22 11:44*	*1*
1,4-Difluorobenzene (Surr)	*92*		*70 - 130*	*06/15/22 16:00*	*06/17/22 11:44*	*1*

Lab Sample ID: MB 880-27819/5-A
Matrix: Solid
Analysis Batch: 27741

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 27819

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.000400	U	0.000400		mg/Kg		06/17/22 13:00	06/18/22 01:15	1
Toluene	<0.000400	U	0.000400		mg/Kg		06/17/22 13:00	06/18/22 01:15	1
Ethylbenzene	<0.000400	U	0.000400		mg/Kg		06/17/22 13:00	06/18/22 01:15	1
m-Xylene & p-Xylene	<0.000800	U	0.000800		mg/Kg		06/17/22 13:00	06/18/22 01:15	1
o-Xylene	<0.000400	U	0.000400		mg/Kg		06/17/22 13:00	06/18/22 01:15	1
Xylenes, Total	<0.000800	U	0.000800		mg/Kg		06/17/22 13:00	06/18/22 01:15	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*86*		*70 - 130*	*06/17/22 13:00*	*06/18/22 01:15*	*1*
1,4-Difluorobenzene (Surr)	*89*		*70 - 130*	*06/17/22 13:00*	*06/18/22 01:15*	*1*

Lab Sample ID: LCS 880-27819/1-A
Matrix: Solid
Analysis Batch: 27741

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 27819

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Benzene			0.100	0.08916		mg/Kg		89	70 - 130		
Toluene			0.100	0.09342		mg/Kg		93	70 - 130		
Ethylbenzene			0.100	0.09775		mg/Kg		98	70 - 130		
m-Xylene & p-Xylene			0.200	0.1941		mg/Kg		97	70 - 130		
o-Xylene			0.100	0.09740		mg/Kg		97	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*113*		*70 - 130*
1,4-Difluorobenzene (Surr)	*97*		*70 - 130*

Lab Sample ID: LCSD 880-27819/2-A
Matrix: Solid
Analysis Batch: 27741

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 27819

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene			0.100	0.09709		mg/Kg		97	70 - 130	9	35

QC Sample Results

Client: Ensolum
Project/Site: PLU BS 25

Job ID: 890-2418-1
SDG: 03E1558046

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

Lab Sample ID: LCSD 880-27819/2-A
Matrix: Solid
Analysis Batch: 27741

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 27819

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Toluene			0.100	0.08652		mg/Kg		87	70 - 130	8	35
Ethylbenzene			0.100	0.08308		mg/Kg		83	70 - 130	16	35
m-Xylene & p-Xylene			0.200	0.1577		mg/Kg		79	70 - 130	21	35
o-Xylene			0.100	0.08600		mg/Kg		86	70 - 130	12	35

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*118*		*70 - 130*
1,4-Difluorobenzene (Surr)	*106*		*70 - 130*

Lab Sample ID: 880-16013-A-1-A MS
Matrix: Solid
Analysis Batch: 27741

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 27819

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	<0.00201	U F1	0.100	0.09029		mg/Kg		90	70 - 130
Toluene	<0.00201	U F1	0.100	0.07715		mg/Kg		77	70 - 130
Ethylbenzene	<0.00201	U F1	0.100	0.07482		mg/Kg		75	70 - 130
m-Xylene & p-Xylene	<0.00402	U F1	0.200	0.1417		mg/Kg		71	70 - 130
o-Xylene	<0.00201	U F1	0.100	0.07556		mg/Kg		75	70 - 130

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*107*		*70 - 130*
1,4-Difluorobenzene (Surr)	*104*		*70 - 130*

Lab Sample ID: 880-16013-A-1-B MSD
Matrix: Solid
Analysis Batch: 27741

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 27819

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	<0.00201	U F1	0.0996	<0.00199	U F1	mg/Kg		0	70 - 130	NC	35
Toluene	<0.00201	U F1	0.0996	<0.00199	U F1	mg/Kg		0	70 - 130	NC	35
Ethylbenzene	<0.00201	U F1	0.0996	<0.00199	U F1	mg/Kg		0	70 - 130	NC	35
m-Xylene & p-Xylene	<0.00402	U F1	0.199	<0.00398	U F1	mg/Kg		0	70 - 130	NC	35
o-Xylene	<0.00201	U F1	0.0996	<0.00199	U F1	mg/Kg		0	70 - 130	NC	35

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*84*		*70 - 130*
1,4-Difluorobenzene (Surr)	*92*		*70 - 130*

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

Lab Sample ID: MB 880-27745/1-A
Matrix: Solid
Analysis Batch: 27737

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 27745

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		06/17/22 08:09	06/17/22 11:39	1

QC Sample Results

Client: Ensolum
Project/Site: PLU BS 25

Job ID: 890-2418-1
SDG: 03E1558046

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

Lab Sample ID: MB 880-27745/1-A
Matrix: Solid
Analysis Batch: 27737

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 27745

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		06/17/22 08:09	06/17/22 11:39	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		06/17/22 08:09	06/17/22 11:39	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*95*		*70 - 130*	*06/17/22 08:09*	*06/17/22 11:39*	*1*
o-Terphenyl	*107*		*70 - 130*	*06/17/22 08:09*	*06/17/22 11:39*	*1*

Lab Sample ID: LCS 880-27745/2-A
Matrix: Solid
Analysis Batch: 27737

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 27745

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Gasoline Range Organics (GRO)-C6-C10			1000	747.9		mg/Kg		75	70 - 130		
Diesel Range Organics (Over C10-C28)			1000	827.4		mg/Kg		83	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1-Chlorooctane	*90*		*70 - 130*
o-Terphenyl	*93*		*70 - 130*

Lab Sample ID: LCSD 880-27745/3-A
Matrix: Solid
Analysis Batch: 27737

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 27745

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10			1000	1165	*1	mg/Kg		117	70 - 130	44	20
Diesel Range Organics (Over C10-C28)			1000	978.1		mg/Kg		98	70 - 130	17	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1-Chlorooctane	*110*		*70 - 130*
o-Terphenyl	*116*		*70 - 130*

Lab Sample ID: 880-16002-A-5-B MS
Matrix: Solid
Analysis Batch: 27737

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 27745

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	998	756.7		mg/Kg		76	70 - 130		
Diesel Range Organics (Over C10-C28)	<49.9	U F1	998	668.6	F1	mg/Kg		63	70 - 130		

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
1-Chlorooctane	*82*		*70 - 130*
o-Terphenyl	*81*		*70 - 130*

QC Sample Results

Client: Ensolum
Project/Site: PLU BS 25

Job ID: 890-2418-1
SDG: 03E1558046

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

Lab Sample ID: 880-16002-A-5-C MSD
Matrix: Solid
Analysis Batch: 27737

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 27745

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	999	888.7		mg/Kg		89	70 - 130	16	20
Diesel Range Organics (Over C10-C28)	<49.9	U F1	999	726.8	F1	mg/Kg		68	70 - 130	8	20

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
1-Chlorooctane	*92*		*70 - 130*
o-Terphenyl	*88*		*70 - 130*

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-27807/1-A
Matrix: Solid
Analysis Batch: 28016

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			06/21/22 06:42	1

Lab Sample ID: LCS 880-27807/2-A
Matrix: Solid
Analysis Batch: 28016

Client Sample ID: Lab Control Sample
Prep Type: Soluble

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride			250	229.8		mg/Kg		92	90 - 110		

Lab Sample ID: LCSD 880-27807/3-A
Matrix: Solid
Analysis Batch: 28016

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	256.0		mg/Kg		102	90 - 110	11	20

Lab Sample ID: 890-2418-7 MS
Matrix: Solid
Analysis Batch: 28016

Client Sample ID: PH04
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride	6.08	F1	249	214.9	F1	mg/Kg		84	90 - 110		

Lab Sample ID: 890-2418-7 MSD
Matrix: Solid
Analysis Batch: 28016

Client Sample ID: PH04
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	6.08	F1	249	248.2		mg/Kg		97	90 - 110	14	20

QC Sample Results

Client: Ensolum
Project/Site: PLU BS 25

Job ID: 890-2418-1
SDG: 03E1558046

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: MB 880-27813/1-A
Matrix: Solid
Analysis Batch: 28069

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			06/22/22 16:31	1

Lab Sample ID: LCS 880-27813/2-A
Matrix: Solid
Analysis Batch: 28069

Client Sample ID: Lab Control Sample
Prep Type: Soluble

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride			250	272.8		mg/Kg		109	90 - 110		

Lab Sample ID: LCSD 880-27813/3-A
Matrix: Solid
Analysis Batch: 28069

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	272.6		mg/Kg		109	90 - 110	0	20

Lab Sample ID: 880-15995-A-2-B MS
Matrix: Solid
Analysis Batch: 28069

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	77.3		253	315.7		mg/Kg		94	90 - 110		

Lab Sample ID: 880-15995-A-2-C MSD
Matrix: Solid
Analysis Batch: 28069

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	77.3		253	316.2		mg/Kg		95	90 - 110	0	20

QC Association Summary

Client: Ensolum
Project/Site: PLU BS 25

Job ID: 890-2418-1
SDG: 03E1558046

GC VOA

Prep Batch: 27628

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 880-27628/5-A	Method Blank	Total/NA	Solid	5035	

Analysis Batch: 27741

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2418-1	PH01	Total/NA	Solid	8021B	27819
890-2418-2	PH01	Total/NA	Solid	8021B	27819
890-2418-3	PH02	Total/NA	Solid	8021B	27819
890-2418-4	PH02	Total/NA	Solid	8021B	27819
890-2418-5	PH03	Total/NA	Solid	8021B	27819
890-2418-6	PH03	Total/NA	Solid	8021B	27819
890-2418-7	PH04	Total/NA	Solid	8021B	27819
890-2418-8	PH04	Total/NA	Solid	8021B	27819
890-2418-9	PH05	Total/NA	Solid	8021B	27819
890-2418-10	PH05	Total/NA	Solid	8021B	27819
MB 880-27628/5-A	Method Blank	Total/NA	Solid	8021B	27628
MB 880-27819/5-A	Method Blank	Total/NA	Solid	8021B	27819
LCS 880-27819/1-A	Lab Control Sample	Total/NA	Solid	8021B	27819
LCSD 880-27819/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	27819
880-16013-A-1-A MS	Matrix Spike	Total/NA	Solid	8021B	27819
880-16013-A-1-B MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	27819

Prep Batch: 27819

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2418-1	PH01	Total/NA	Solid	5035	
890-2418-2	PH01	Total/NA	Solid	5035	
890-2418-3	PH02	Total/NA	Solid	5035	
890-2418-4	PH02	Total/NA	Solid	5035	
890-2418-5	PH03	Total/NA	Solid	5035	
890-2418-6	PH03	Total/NA	Solid	5035	
890-2418-7	PH04	Total/NA	Solid	5035	
890-2418-8	PH04	Total/NA	Solid	5035	
890-2418-9	PH05	Total/NA	Solid	5035	
890-2418-10	PH05	Total/NA	Solid	5035	
MB 880-27819/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-27819/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-27819/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
880-16013-A-1-A MS	Matrix Spike	Total/NA	Solid	5035	
880-16013-A-1-B MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	

Analysis Batch: 27955

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2418-1	PH01	Total/NA	Solid	Total BTEX	
890-2418-2	PH01	Total/NA	Solid	Total BTEX	
890-2418-3	PH02	Total/NA	Solid	Total BTEX	
890-2418-4	PH02	Total/NA	Solid	Total BTEX	
890-2418-5	PH03	Total/NA	Solid	Total BTEX	
890-2418-6	PH03	Total/NA	Solid	Total BTEX	
890-2418-7	PH04	Total/NA	Solid	Total BTEX	
890-2418-8	PH04	Total/NA	Solid	Total BTEX	
890-2418-9	PH05	Total/NA	Solid	Total BTEX	
890-2418-10	PH05	Total/NA	Solid	Total BTEX	

QC Association Summary

Client: Ensolum
Project/Site: PLU BS 25

Job ID: 890-2418-1
SDG: 03E1558046

GC Semi VOA

Analysis Batch: 27737

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2418-1	PH01	Total/NA	Solid	8015B NM	27745
890-2418-2	PH01	Total/NA	Solid	8015B NM	27745
890-2418-3	PH02	Total/NA	Solid	8015B NM	27745
890-2418-4	PH02	Total/NA	Solid	8015B NM	27745
890-2418-5	PH03	Total/NA	Solid	8015B NM	27745
890-2418-6	PH03	Total/NA	Solid	8015B NM	27745
890-2418-7	PH04	Total/NA	Solid	8015B NM	27745
890-2418-8	PH04	Total/NA	Solid	8015B NM	27745
890-2418-9	PH05	Total/NA	Solid	8015B NM	27745
890-2418-10	PH05	Total/NA	Solid	8015B NM	27745
MB 880-27745/1-A	Method Blank	Total/NA	Solid	8015B NM	27745
LCS 880-27745/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	27745
LCSD 880-27745/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	27745
880-16002-A-5-B MS	Matrix Spike	Total/NA	Solid	8015B NM	27745
880-16002-A-5-C MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	27745

Prep Batch: 27745

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2418-1	PH01	Total/NA	Solid	8015NM Prep	
890-2418-2	PH01	Total/NA	Solid	8015NM Prep	
890-2418-3	PH02	Total/NA	Solid	8015NM Prep	
890-2418-4	PH02	Total/NA	Solid	8015NM Prep	
890-2418-5	PH03	Total/NA	Solid	8015NM Prep	
890-2418-6	PH03	Total/NA	Solid	8015NM Prep	
890-2418-7	PH04	Total/NA	Solid	8015NM Prep	
890-2418-8	PH04	Total/NA	Solid	8015NM Prep	
890-2418-9	PH05	Total/NA	Solid	8015NM Prep	
890-2418-10	PH05	Total/NA	Solid	8015NM Prep	
MB 880-27745/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-27745/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-27745/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
880-16002-A-5-B MS	Matrix Spike	Total/NA	Solid	8015NM Prep	
880-16002-A-5-C MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	

Analysis Batch: 27902

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2418-1	PH01	Total/NA	Solid	8015 NM	
890-2418-2	PH01	Total/NA	Solid	8015 NM	
890-2418-3	PH02	Total/NA	Solid	8015 NM	
890-2418-4	PH02	Total/NA	Solid	8015 NM	
890-2418-5	PH03	Total/NA	Solid	8015 NM	
890-2418-6	PH03	Total/NA	Solid	8015 NM	
890-2418-7	PH04	Total/NA	Solid	8015 NM	
890-2418-8	PH04	Total/NA	Solid	8015 NM	
890-2418-9	PH05	Total/NA	Solid	8015 NM	
890-2418-10	PH05	Total/NA	Solid	8015 NM	

QC Association Summary

Client: Ensolum
Project/Site: PLU BS 25

Job ID: 890-2418-1
SDG: 03E1558046

HPLC/IC

Leach Batch: 27807

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2418-7	PH04	Soluble	Solid	DI Leach	
890-2418-8	PH04	Soluble	Solid	DI Leach	
890-2418-9	PH05	Soluble	Solid	DI Leach	
890-2418-10	PH05	Soluble	Solid	DI Leach	
MB 880-27807/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-27807/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-27807/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
890-2418-7 MS	PH04	Soluble	Solid	DI Leach	
890-2418-7 MSD	PH04	Soluble	Solid	DI Leach	

Leach Batch: 27813

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2418-1	PH01	Soluble	Solid	DI Leach	
890-2418-2	PH01	Soluble	Solid	DI Leach	
890-2418-3	PH02	Soluble	Solid	DI Leach	
890-2418-4	PH02	Soluble	Solid	DI Leach	
890-2418-5	PH03	Soluble	Solid	DI Leach	
890-2418-6	PH03	Soluble	Solid	DI Leach	
MB 880-27813/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-27813/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-27813/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
880-15995-A-2-B MS	Matrix Spike	Soluble	Solid	DI Leach	
880-15995-A-2-C MSD	Matrix Spike Duplicate	Soluble	Solid	DI Leach	

Analysis Batch: 28016

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2418-7	PH04	Soluble	Solid	300.0	27807
890-2418-8	PH04	Soluble	Solid	300.0	27807
890-2418-9	PH05	Soluble	Solid	300.0	27807
890-2418-10	PH05	Soluble	Solid	300.0	27807
MB 880-27807/1-A	Method Blank	Soluble	Solid	300.0	27807
LCS 880-27807/2-A	Lab Control Sample	Soluble	Solid	300.0	27807
LCSD 880-27807/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	27807
890-2418-7 MS	PH04	Soluble	Solid	300.0	27807
890-2418-7 MSD	PH04	Soluble	Solid	300.0	27807

Analysis Batch: 28069

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2418-1	PH01	Soluble	Solid	300.0	27813
890-2418-2	PH01	Soluble	Solid	300.0	27813
890-2418-3	PH02	Soluble	Solid	300.0	27813
890-2418-4	PH02	Soluble	Solid	300.0	27813
890-2418-5	PH03	Soluble	Solid	300.0	27813
890-2418-6	PH03	Soluble	Solid	300.0	27813
MB 880-27813/1-A	Method Blank	Soluble	Solid	300.0	27813
LCS 880-27813/2-A	Lab Control Sample	Soluble	Solid	300.0	27813
LCSD 880-27813/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	27813
880-15995-A-2-B MS	Matrix Spike	Soluble	Solid	300.0	27813
880-15995-A-2-C MSD	Matrix Spike Duplicate	Soluble	Solid	300.0	27813

Lab Chronicle

Client: Ensolum
Project/Site: PLU BS 25

Job ID: 890-2418-1
SDG: 03E1558046

Client Sample ID: PH01
Date Collected: 06/15/22 09:45
Date Received: 06/15/22 14:34

Lab Sample ID: 890-2418-1
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			4.95 g	5 mL	27819	06/17/22 13:00	MR	XEN MID
Total/NA	Analysis	8021B		1			27741	06/18/22 07:24	MR	XEN MID
Total/NA	Analysis	Total BTEX		1			27955	06/20/22 14:56	SM	XEN MID
Total/NA	Analysis	8015 NM		1			27902	06/20/22 12:00	SM	XEN MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	27745	06/17/22 08:09	DM	XEN MID
Total/NA	Analysis	8015B NM		1			27737	06/17/22 17:50	AJ	XEN MID
Soluble	Leach	DI Leach			5.05 g	50 mL	27813	06/17/22 12:02	SC	XEN MID
Soluble	Analysis	300.0		1			28069	06/22/22 20:22	CH	XEN MID

Client Sample ID: PH01
Date Collected: 06/15/22 09:45
Date Received: 06/15/22 14:34

Lab Sample ID: 890-2418-2
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	27819	06/17/22 13:00	MR	XEN MID
Total/NA	Analysis	8021B		1			27741	06/18/22 07:51	MR	XEN MID
Total/NA	Analysis	Total BTEX		1			27955	06/20/22 14:56	SM	XEN MID
Total/NA	Analysis	8015 NM		1			27902	06/20/22 12:00	SM	XEN MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	27745	06/17/22 08:09	DM	XEN MID
Total/NA	Analysis	8015B NM		1			27737	06/17/22 18:11	AJ	XEN MID
Soluble	Leach	DI Leach			4.99 g	50 mL	27813	06/17/22 12:02	SC	XEN MID
Soluble	Analysis	300.0		1			28069	06/22/22 20:31	CH	XEN MID

Client Sample ID: PH02
Date Collected: 06/15/22 10:00
Date Received: 06/15/22 14:34

Lab Sample ID: 890-2418-3
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			5.00 g	5 mL	27819	06/17/22 13:00	MR	XEN MID
Total/NA	Analysis	8021B		1			27741	06/18/22 08:18	MR	XEN MID
Total/NA	Analysis	Total BTEX		1			27955	06/20/22 14:56	SM	XEN MID
Total/NA	Analysis	8015 NM		1			27902	06/20/22 12:00	SM	XEN MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	27745	06/17/22 08:09	DM	XEN MID
Total/NA	Analysis	8015B NM		1			27737	06/17/22 19:15	AJ	XEN MID
Soluble	Leach	DI Leach			5.02 g	50 mL	27813	06/17/22 12:02	SC	XEN MID
Soluble	Analysis	300.0		1			28069	06/22/22 20:40	CH	XEN MID

Client Sample ID: PH02
Date Collected: 06/15/22 10:00
Date Received: 06/15/22 14:34

Lab Sample ID: 890-2418-4
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.98 g	5 mL	27819	06/17/22 13:00	MR	XEN MID
Total/NA	Analysis	8021B		1			27741	06/18/22 08:52	MR	XEN MID
Total/NA	Analysis	Total BTEX		1			27955	06/20/22 14:56	SM	XEN MID

Lab Chronicle

Client: Ensolum
Project/Site: PLU BS 25

Job ID: 890-2418-1
SDG: 03E1558046

Client Sample ID: PH02

Date Collected: 06/15/22 10:00
Date Received: 06/15/22 14:34

Lab Sample ID: 890-2418-4

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8015 NM		1			27902	06/20/22 12:00	SM	XEN MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	27745	06/17/22 08:09	DM	XEN MID
Total/NA	Analysis	8015B NM		1			27737	06/17/22 19:37	AJ	XEN MID
Soluble	Leach	DI Leach			5.01 g	50 mL	27813	06/17/22 12:02	SC	XEN MID
Soluble	Analysis	300.0		1			28069	06/22/22 20:49	CH	XEN MID

Client Sample ID: PH03

Date Collected: 06/15/22 10:15
Date Received: 06/15/22 14:34

Lab Sample ID: 890-2418-5

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	27819	06/17/22 13:00	MR	XEN MID
Total/NA	Analysis	8021B		1			27741	06/18/22 09:18	MR	XEN MID
Total/NA	Analysis	Total BTEX		1			27955	06/20/22 14:56	SM	XEN MID
Total/NA	Analysis	8015 NM		1			27902	06/20/22 12:00	SM	XEN MID
Total/NA	Prep	8015NM Prep			10.00 g	10 mL	27745	06/17/22 08:09	DM	XEN MID
Total/NA	Analysis	8015B NM		1			27737	06/17/22 19:58	AJ	XEN MID
Soluble	Leach	DI Leach			5.03 g	50 mL	27813	06/17/22 12:02	SC	XEN MID
Soluble	Analysis	300.0		1			28069	06/22/22 20:58	CH	XEN MID

Client Sample ID: PH03

Date Collected: 06/15/22 10:15
Date Received: 06/15/22 14:34

Lab Sample ID: 890-2418-6

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			4.96 g	5 mL	27819	06/17/22 13:00	MR	XEN MID
Total/NA	Analysis	8021B		1			27741	06/18/22 09:45	MR	XEN MID
Total/NA	Analysis	Total BTEX		1			27955	06/20/22 14:56	SM	XEN MID
Total/NA	Analysis	8015 NM		1			27902	06/20/22 12:00	SM	XEN MID
Total/NA	Prep	8015NM Prep			10.00 g	10 mL	27745	06/17/22 08:09	DM	XEN MID
Total/NA	Analysis	8015B NM		1			27737	06/17/22 20:20	AJ	XEN MID
Soluble	Leach	DI Leach			5.05 g	50 mL	27813	06/17/22 12:02	SC	XEN MID
Soluble	Analysis	300.0		1			28069	06/22/22 21:08	CH	XEN MID

Client Sample ID: PH04

Date Collected: 06/15/22 10:30
Date Received: 06/15/22 14:34

Lab Sample ID: 890-2418-7

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	27819	06/17/22 13:00	MR	XEN MID
Total/NA	Analysis	8021B		1			27741	06/18/22 10:10	MR	XEN MID
Total/NA	Analysis	Total BTEX		1			27955	06/20/22 14:56	SM	XEN MID
Total/NA	Analysis	8015 NM		1			27902	06/20/22 12:00	SM	XEN MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	27745	06/17/22 08:09	DM	XEN MID
Total/NA	Analysis	8015B NM		1			27737	06/17/22 20:41	AJ	XEN MID

Eurofins Carlsbad

Lab Chronicle

Client: Ensolum
Project/Site: PLU BS 25

Job ID: 890-2418-1
SDG: 03E1558046

Client Sample ID: PH04
Date Collected: 06/15/22 10:30
Date Received: 06/15/22 14:34

Lab Sample ID: 890-2418-7
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			5.02 g	50 mL	27807	06/17/22 11:43	SC	XEN MID
Soluble	Analysis	300.0		1			28016	06/21/22 07:06	CH	XEN MID

Client Sample ID: PH04
Date Collected: 06/15/22 10:30
Date Received: 06/15/22 14:34

Lab Sample ID: 890-2418-8
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	27819	06/17/22 13:00	MR	XEN MID
Total/NA	Analysis	8021B		1			27741	06/18/22 10:36	MR	XEN MID
Total/NA	Analysis	Total BTEX		1			27955	06/20/22 14:56	SM	XEN MID
Total/NA	Analysis	8015 NM		1			27902	06/20/22 12:00	SM	XEN MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	27745	06/17/22 08:09	DM	XEN MID
Total/NA	Analysis	8015B NM		1			27737	06/17/22 21:02	AJ	XEN MID
Soluble	Leach	DI Leach			5.05 g	50 mL	27807	06/17/22 11:43	SC	XEN MID
Soluble	Analysis	300.0		1			28016	06/21/22 07:29	CH	XEN MID

Client Sample ID: PH05
Date Collected: 06/15/22 12:10
Date Received: 06/15/22 14:34

Lab Sample ID: 890-2418-9
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			5.04 g	5 mL	27819	06/17/22 13:00	MR	XEN MID
Total/NA	Analysis	8021B		1			27741	06/18/22 11:02	MR	XEN MID
Total/NA	Analysis	Total BTEX		1			27955	06/20/22 14:56	SM	XEN MID
Total/NA	Analysis	8015 NM		1			27902	06/20/22 12:00	SM	XEN MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	27745	06/17/22 08:09	DM	XEN MID
Total/NA	Analysis	8015B NM		1			27737	06/17/22 21:23	AJ	XEN MID
Soluble	Leach	DI Leach			4.95 g	50 mL	27807	06/17/22 11:43	SC	XEN MID
Soluble	Analysis	300.0		1			28016	06/21/22 07:37	CH	XEN MID

Client Sample ID: PH05
Date Collected: 06/15/22 12:10
Date Received: 06/15/22 14:34

Lab Sample ID: 890-2418-10
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			5.02 g	5 mL	27819	06/17/22 13:00	MR	XEN MID
Total/NA	Analysis	8021B		1			27741	06/18/22 11:28	MR	XEN MID
Total/NA	Analysis	Total BTEX		1			27955	06/20/22 14:56	SM	XEN MID
Total/NA	Analysis	8015 NM		1			27902	06/20/22 12:00	SM	XEN MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	27745	06/17/22 08:09	DM	XEN MID
Total/NA	Analysis	8015B NM		1			27737	06/17/22 21:45	AJ	XEN MID
Soluble	Leach	DI Leach			5.01 g	50 mL	27807	06/17/22 11:43	SC	XEN MID
Soluble	Analysis	300.0		1			28016	06/21/22 07:45	CH	XEN MID

Lab Chronicle

Client: Ensolum
Project/Site: PLU BS 25

Job ID: 890-2418-1
SDG: 03E1558046

Laboratory References:

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

Accreditation/Certification Summary

Client: Ensolum
Project/Site: PLU BS 25

Job ID: 890-2418-1
SDG: 03E1558046

Laboratory: Eurofins Midland

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

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

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

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

Method Summary

Client: Ensolum
Project/Site: PLU BS 25

Job ID: 890-2418-1
SDG: 03E1558046

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

Protocol References:

ASTM = ASTM International

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

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

TAL SOP = TestAmerica Laboratories, Standard Operating Procedure

Laboratory References:

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

Sample Summary

Client: Ensolum
Project/Site: PLU BS 25

Job ID: 890-2418-1
SDG: 03E1558046

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-2418-1	PH01	Solid	06/15/22 09:45	06/15/22 14:34	0.5'
890-2418-2	PH01	Solid	06/15/22 09:45	06/15/22 14:34	2'
890-2418-3	PH02	Solid	06/15/22 10:00	06/15/22 14:34	0.5'
890-2418-4	PH02	Solid	06/15/22 10:00	06/15/22 14:34	2
890-2418-5	PH03	Solid	06/15/22 10:15	06/15/22 14:34	0.5'
890-2418-6	PH03	Solid	06/15/22 10:15	06/15/22 14:34	2'
890-2418-7	PH04	Solid	06/15/22 10:30	06/15/22 14:34	0.5'
890-2418-8	PH04	Solid	06/15/22 10:30	06/15/22 14:34	2'
890-2418-9	PH05	Solid	06/15/22 12:10	06/15/22 14:34	0.5'
890-2418-10	PH05	Solid	06/15/22 12:10	06/15/22 14:34	2'

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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
www.xenco.com

Work Order No: CIP - Cooling in Process

Page _____ of _____

Project Manager:	Tacoma Morrissey	Bill to: (if different)	Garrett Green
Company Name:	Ensolum	Company Name:	XTO Energy Inc
Address:	3122 National Parks Hwy	Address:	3104 E. Green St.
City, State ZIP:	Carlsbad NM 88220	City, State ZIP:	Carlsbad NM 88220
Phone:	337-257-7307	Email:	Tmorrissey@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:	PLU BS 25	Turn Around	
Project Number:	03E1554046	☒ Routine ☐ Rush	
Project Location:	Eddy County NM	Due Date:	
Sampler's Name:	Greg Pelese	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:	20.4
Total Containers:		Corrected Temperature:	20.2

ANALYSIS REQUEST

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 Identification	Matrix	Date Sampled	Time Sampled	Depth	Grab/ Comp	# of Cont	Pres. Code	Parameters: Chlorides (EPA: 300.0)	TPH (8015)	BTEX (8021)
PH 01 0.5'	S	6/15	0945	0.5	G			X	X	X
PH 01 2'	S	6/15	0945	2	G			X	X	X
PH 02 0.5'	S	6/15	1000	0.5	G			X	X	X
PH 02 2'	S	6/15	1000	2	G			X	X	X
PH 03 0.5'	S	6/15	1015	0.5	G			X	X	X
PH 03 2'	S	6/15	1015	2	G			X	X	X
PH 04 0.5'	S	6/15	1030	0.5	G			X	X	X
PH 04 2'	S	6/15	1030	2	G			X	X	X
PH 05 0.5'	S	6/15	1210	0.5	G			X	X	X
PH 05 2'	S	6/15	1210	2	G			X	X	X

890-2418 Chain of Custody

Sample Comments

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 Gregory Pelese	Amanda Stutz	6/15/22 1434	4		
3			6		
5					

Revised Date: 08/25/2020 Rev. 2020.2

Eurofins Carlsbad
1089 N Canal St
Carlsbad NM 88220
Phone: 575-988-3199 Fax: 575-988-3199

Chain of Custody Record

eurofins | Environment Testing America

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Kramer Jessica	Carrier Tracking No(s):	COC No: 890-796 1
Client Contact: Shipping/Receiving	Phone:	E-Mail: Jessica Kramer@et.eurofinsus.com	State of Origin: New Mexico	Page: Page 1 of 2
Company: Eurofins Environment Testing South Centr		Accreditations Required (See note): NELAP - Texas		Job #: 890-2418-1
Address: 1211 W Florida Ave	Due Date Requested: 6/21/2022			
City: Midland	TAT Requested (days):			
State Zip: TX 79701				
Phone: 432-704-5440(Tel)	PO #:			
Email:	WO #:			
Project Name: PLU BS 25	Project #: 89000093			
Site:	SSOW#:			

Preservation Codes

A HCL, B NaOH, C Zn Acetate, D Nitric Acid, E NaHSO4, F MeOH, G Amchlor, H Ascorbic Acid, I Ice, J DI Water, K EDTA, L EDA, M Hexane, N None, O AsNaO2, P Na2O4S, Q Na2SO3, R Na2S2O3, S H2SO4, T TSP Dodecahydrate, U Acetone, V MCAA, W pH 4-5, Y Trizma, Z other (specify)

Other:

Analysis Requested

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	8015MOD_NM/8015NM_S_Prep (MOD) Full TPH	8015MOD_Calc	300_ORGFM_28D/DI_LEACH Chloride	8021B/5035FP_Calc (MOD) BTEX	Total_BTEX_GCV	Total Number of containers	Special Instructions/Note:
			Preservation Code:										
PH01 (890-2418-1)	6/15/22	09 45 Mountain		Solid			X	X	X	X	X	1	
PH01 (890-2418-2)	6/15/22	09 45 Mountain		Solid			X	X	X	X	X	1	
PH02 (890-2418-3)	6/15/22	10 00 Mountain		Solid			X	X	X	X	X	1	
PH02 (890-2418-4)	6/15/22	10 00 Mountain		Solid			X	X	X	X	X	1	
PH03 (890-2418-5)	6/15/22	10 15 Mountain		Solid			X	X	X	X	X	1	
PH03 (890-2418-6)	6/15/22	10 15 Mountain		Solid			X	X	X	X	X	1	
PH04 (890-2418-7)	6/15/22	10 30 Mountain		Solid			X	X	X	X	X	1	
PH04 (890-2418-8)	6/15/22	10 30 Mountain		Solid			X	X	X	X	X	1	
PH05 (890-2418-9)	6/15/22	12 10 Mountain		Solid			X	X	X	X	X	1	

Note Since laboratory accreditations are subject to change Eurofins Environment Testing South Central LLC places the ownership of method analyte & accreditation compliance upon out subcontract laboratories This sample shipment is forwarded under chain-of-custody If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed the samples must be shipped back to the Eurofins Environment Testing South Central LLC laboratory or other instructions will be provided Any changes to accreditation status should be brought to Eurofins Environment Testing South Central, LLC attention immediately If all requested accreditations are current to date return the signed Chain of Custody attesting to said complicance to Eurofins Environment Testing South Central LLC.

Possible Hazard Identification	Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
Unconfirmed	☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months
Deliverable Requested I II III IV Other (specify) Primary Deliverable Rank 2	Special Instructions/QC Requirements

Empty Kit Relinquished by:	Date	Time	Method of Shipment:

	Relinquished by:	Date/Time	Company	Received by:	Date/Time	Company
	Relinquished by:	Date/Time	Company	Received by:	Date/Time	Company
	Relinquished by:	Date/Time	Company	Received by:	Date/Time	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No	Cooler Temperature(s) °C and Other Remarks.

Ver: 06/08/2021

Eurofins Carlsbad
1089 N Canal St
Carlsbad NM 88220
Phone: 575-988-3199 Fax 575-988-3199

Chain of Custody Record

eurofins | Environment Testing America

Client Information (Sub Contract Lab)	Sampler	Lab PM: Kramer Jessica	Carrier Tracking No(s)	COC No.: 890-796 2
Client Contact: Shipping/Receiving	Phone	E-Mail: Jessica Kramer@et.eurofinsus com	State of Origin: New Mexico	Page: Page 2 of 2
Company: Eurofins Environment Testing South Centr		Accreditations Required (See note): NELAP - Texas		Job #: 890-2418-1
Address: 1211 W Florida Ave	Due Date Requested: 6/21/2022			
City: Midland	TAT Requested (days):			
State Zip: TX 79701				
Phone: 432-704-5440(Tel)	PO #:			
Email	WO #:			
Project Name: PLU BS 25	Project #: 89000093			
Site:	SSOW#:			

Analysis Requested

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	8015MOD_NM/8015NM_S_Prep (MOD) Full TPH	8015MOD_Calc	300_ORGFM_28D/DI_LEACH Chloride	8021B/5035FP_Calc (MOD) BTEX	Total_BTEX_GCV	Total Number of containers	Special Instructions/Note
			Preservation Code:										
PH05 (890-2418-10)	6/15/22	12 10 Mountain		Solid			X	X	X	X	X	1	

Preservation Codes

A HCL	M Hexane		
B NaOH	N None		
C Zn Acetate	O AsNaO2		
D Nitric Acid	P Na2O4S		
E NaHSO4	Q Na2SO3		
F MeOH	R Na2S2O3		
G Amchlor	S H2SO4		
H Ascorbic Acid	T TSP Dodecahydrate		
I Ice	U Acetone		
J DI Water	V MCAA		
K EDTA	W pH 4-5		
L EDA	Y Trizma		
	Z other (specify)		

Other:

Note Since laboratory accreditations are subject to change Eurofins Environment Testing South Central LLC places the ownership of method, analyte & accreditation compliance upon out subcontract laboratories This sample shipment is forwarded under chain-of-custody If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed the samples must be shipped back to the Eurofins Environment Testing South Central LLC laboratory or other instructions will be provided Any changes to accreditation status should be brought to Eurofins Environment Testing South Central LLC attention immediately If all requested accreditations are current to date return the signed Chain of Custody attesting to said complicance to Eurofins Environment Testing South Central LLC

Possible Hazard Identification	Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
Unconfirmed	☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months
Deliverable Requested I II III IV Other (specify) Primary Deliverable Rank 2	Special Instructions/QC Requirements

Empty Kit Relinquished by	Date	Time	Method of Shipment

Relinquished by	Date/Time	Company	Received by	Date/Time	Company
Relinquished by	Date/Time	Company	Received by	Date/Time	Company
Relinquished by	Date/Time	Company	Received by	Date/Time	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No	Cooler Temperature(s) °C and Other Remarks

Ver: 06/08/2021

Login Sample Receipt Checklist

Client: Ensolum

Job Number: 890-2418-1
SDG Number: 03E1558046

Login Number: 2418
List Number: 1
Creator: Stutzman, Amanda

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: 890-2418-1
SDG Number: 03E1558046

Login Number: 2418
List Number: 2
Creator: Teel, Brianna

List Source: Eurofins Midland
List Creation: 06/17/22 11:01 AM

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.	True	
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").	True	

ENSOLUM

APPENDIX E

NMOCD Notifications

From: Aimee Cole
To: Tacoma Morrissey; Kalei Jennings
Subject: FW: XTO - Sampling Notification (week of 6/13/22 - 6/17/22) (updated)
Date: Monday, June 13, 2022 12:22:23 PM
Attachments: image001.png
image002.png
image003.png
image004.png

See below for your records.
Thanks!

Aimee Cole
Senior Managing Scientist
720-384-7365
Ensolum, LLC

From: Baker, Adrian <adrian.baker@exxonmobil.com>
Sent: Monday, June 13, 2022 9:39 AM
To: ocd.enviro@state.nm.us; Bratcher, Mike, EMNRD <mike.bratcher@state.nm.us>; Hamlet, Robert, EMNRD <Robert.Hamlet@state.nm.us>; Nobui, Jennifer, EMNRD <Jennifer.Nobui@state.nm.us>
Cc: DelawareSpills /SM <DelawareSpills@exxonmobil.com>; Green, Garrett J <garrett.green@exxonmobil.com>; Aimee Cole <acole@ensolum.com>
Subject: XTO - Sampling Notification (week of 6/13/22 - 6/17/22) (updated)

[**EXTERNAL EMAIL**]

All,

XTO plans to complete final sampling activities at the following sites the week of June 13, 2022.

Monday, June 13th

- JRU 106/ nAPP2212344322

Tuesday, June 14th

- PLU South Frac Pond / nAPP2211150068
- JRU DI2 702H & 707H / nAPP2211654411 & nAPP2208349430
- JRU DI 1 – Liner Delineation / Release Date May 30, 2022

Wednesday, June 15th

- PLU Big Sinks 25 Battery / nAPP2213148421

th

Thursday, June 16

- PLU 28 Big Sinks 127H / nAPP2210143304

Friday, June 17th

- PLU 28 Big Sinks 127H / nAPP2210143304

Adrian Baker
Environmental Coordinator
Permian Business Unit

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

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

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

CONDITIONS

Action 126822

CONDITIONS

Operator: XTO ENERGY, INC 6401 Holiday Hill Road Midland, TX 79707	OGRID: 5380
	Action Number: 126822
	Action Type: [C-141] Release Corrective Action (C-141)

CONDITIONS

Created By	Condition	Condition Date
jnobui	Closure Report Approved.	8/24/2022