ENSOLUM

September 16, 2024

New Mexico Energy Minerals and Natural Resources Department
1220 South St. Francis Drive
Santa Fe, New Mexico 87505

Re: Deferral Request
PLU 13 DTD
Incident Number NAPP2417738244
Eddy County, New Mexico

To Whom It May Concern:

Ensolum, LLC (Ensolum) on behalf of XTO Energy, Inc. (XTO), has prepared this *Deferral Request* to document assessment, delineation, and soil sampling activities at the PLU 13 DTD (Site). The purpose of the Site assessment and soil sampling activities was to assess for the presence or absence of impacts to soil following a release of crude oil. Based on field observations and soil sample laboratory analytical results, XTO is submitting this *Deferral Request*, describing Site assessment, and delineation activities that have occurred and requesting deferral of final remediation for Incident Number NAPP2417738244 until the Site is reconstructed, and/or the well pad is abandoned.

SITE DESCRIPTION AND RELEASE SUMMARY

The Site is located in Unit G, Section 24, Township 24 South, Range 30 East, in Eddy County, New Mexico (32.20567°, -103.83007°) and is associated with oil and gas exploration and production operations on federal land managed by the Bureau of Land Management (BLM).

On June 18, 2024, the air eliminator on the circulation pumps failed resulting in the release of approximately 8.0 barrels (bbls) of crude oil into a lined containment and onto the surface of the well pad, around active production equipment and process piping. A vacuum truck was immediately dispatched to the Site and recovered all released fluids. XTO submitted a Release Notification Form C-141 (Form C-141) on June 25, 2024 and the release was assigned Incident Number NAPP2417738244.

SITE CHARACTERIZATION AND CLOSURE CRITERIA

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

Depth to groundwater at the Site is estimated to be greater than 100 feet below ground surface (bgs) based on a soil boring drilled for determination of regional groundwater depth. On November 24, 2020, a soil boring permitted by New Mexico Office of the State Engineer (OSE) well C-4483, located approximately 0.29 miles northwest of the Site was drilled utilizing a truck-mounted hollow-stem auger rig. The boring was drilled to a total depth of 110 feet bgs. A field geologist logged and described soils continuously. No moisture or groundwater was encountered during drilling activities. The borehole was

left open for over 72 hours to allow for the potential slow infill of groundwater. After the 72-hour waiting period without observing groundwater, it was confirmed that groundwater at that location is greater than 110 feet bgs. The borehole was properly abandoned with drill cuttings and hydrated bentonite chips. The Well Record and Log for soil boring C-4483 is included in Appendix A.

The closest continuously flowing or significant watercourse to the Site is a freshwater emergent wetland, located approximately 5,074 feet northeast 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). Potential Site receptors are identified on Figure 1.

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

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

SITE ASSESSMENT AND LINER INSPECTION ACTIVITIES

On June 28, 2024, Ensolum personnel visited the Site to evaluate the release extent based on information provided on the Form C-141 and inspect the lined containment. A 48-hour advance notice of the liner inspection was submitted to NMOCD on June 26, 2024. Following the recovery of all released fluids, the liner was cleaned of all debris and power washed and a liner integrity inspection was conducted on June 28, 2024. Upon inspection, no rips, tears, holes, or damage were observed. The liner was determined to be operating as designed. The release extent area was mapped utilizing a handheld Global Positioning System (GPS) unit and is depicted on Figure 2. Photographic documentation of the site assessment and liner inspection are included in a Photographic Log provided in Appendix B.

DELINEATION AND SURFACE SCRAPING ACTIVITIES

On July 3, 2024, Ensolum personnel visited the Site to conduct delineation and surface scraping activities. One borehole (BH01) was advanced via hand auger to assess the vertical extent of the release. Four discrete soil samples were collected from BH01 at depths ranging from 0.5 feet to 10 feet bgs. Additionally, three delineation soil samples (SS01 through SS03) were collected around the release extent at a depth of 0.3 feet bgs, to define the edge of the release. All delineation soil samples were field screened for volatile organic compounds (VOCs) and chloride utilizing a calibrated photoionization detector (PID) and Hach® chloride QuanTab® test strips, respectively. Field screening results and observations from BH01 were documented on a lithologic/soil sampling log, which is included in Appendix C. All delineation soil sample locations are depicted on Figure 2.

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 under strict chain-of-custody procedures to Cardinal Laboratories (Cardinal) in Hobbs, New Mexico, for analysis of the following constituents of concern (COCs): BTEX following United States

Environmental Protection Agency (EPA) Method 8021B; TPH-GRO, TPH-DRO, and TPH-oil range organics (ORO) following EPA Method 8015M/D; and chloride following EPA Method SM4500. Soil samples delivered to the laboratory the same day they were collected may not have equilibrated to the 6 degrees Celsius required for shipment and long-term storage but are considered to have been received in acceptable condition by the laboratory.

Based on the presence of several active production equipment and process piping located within and around the work area, heavy equipment could not access the release area, therefore, surface scraping activities were conducted with hand tools in the area where surficial staining was present. Photographs 2 through 6 on the Photographic Log show the presence of all production equipment and process piping surrounding the release area. A total of approximately 1.5 cubic yards of impacted soil was removed during the surface scrape activities. The soil was transported and properly disposed of at R360 Landfill Disposal Facility in Hobbs, New Mexico.

LABORATORY ANALYTICAL RESULTS

Laboratory analytical results for delineation soil samples SS01 through SS03 collected outside the release area, indicated all COC concentrations were below the strictest Table 1 Closure Criteria, and thus, provide lateral definition of the release.

Laboratory analytical results for soil samples BH01 collected at 0.5 feet bgs, and BH01A collected at 4 feet bgs indicated TPH-GRO/TPH-DRO and total TPH concentrations exceeded Closure Criteria. BH01 also exibited BTEX concentrations that exceeded Closure Criteria. Only BH01 collected at 0.5 feet bgs could be removed by surface scraping due to active production equipment and pipelines surrounding the release area. Any further excavation at depth in the area of BH01, could potentially undermine the stability of the production equipment and piping, causing harm to the environment and onsite personnel. Laboratory analytical results for soil samples BH01B collected at 7 feet bgs, and BH01C collected at 10 feet bgs indicated COC concentrations were below the strictest Table 1 Closure Criteria and thus, provide vertical definition of the release. Laboratory analytical results are summarized on Table 1 and the complete laboratory analytical reports are included in Appendix D.

DEFFERAL REQUEST

XTO is requesting deferral of final remediation due to active production equipment and process piping present in the area of BH01. The estimated area of remaining impacted soil measures an area of 1,030 square feet, and a total of approximately 270 cubic yards of impacted soil remains in place, assuming a depth of 7 feet bgs based on laboratory analytical results from soil sample BH01B. The impacted soil is limited to the area where active production equipment and pipelines are present and remediation would require a major facility deconstruction. The deferral area has been vertically defined by soil sample BH01B at 7 feet bgs and laterally defined by SS01 through SS03. The proposed deferral area and all delineation soil samples used to define the deferral area are depicted on Figure 3. Since the release occurred on-pad at an active facility, revegetation will not occur until final reclamation of the pad is conducted.

During the investigation, Ensolum identified a previously approved *Deferral Request* that overlapps the release extent area. The *Deferral Request* report is in response to remediation work completed for a crude oil release (incident number NAPP2304448906) that occurred on February 1, 2023. The *Deferral Request* was submitted to NMOCD on September 19, 2023 and approved by NMOCD on September 19, 2023. The existence of the approved deferral area overlapping the release area explains the reasoning behind the size of the newly proposed deferral area being larger and deeper than anticipated, since nearly all fluids were recovered during initial response efforts. XTO believes the NMOCD should

consider the size of the deferral area to be acceptable, even though all released fluids were recovered. The previously approved *Deferral Request* is included in Appendix E.

Based on initial response efforts, vertical and lateral definition of the release, a liner integrity inspection indicating that the liner was operating as designed, depth to groundwater was determined to be greater than 100 feet, and the entirety of the release remained on pad, XTO does not believe deferment will result in imminent risk to human health, the environment, or groundwater. Based on the presence of active production equipment and process piping within the release area and the complete lateral and vertical definition of impacted soil remaining in place, XTO requests deferral of final remediation for Incident Number NAPP2417738244 until final reclamation of the well pad or major construction, whichever comes first.

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

Sincerely,
Ensolum, LLC

Benjamin J. Belill
Senior Geologist

Tacoma Morrissey
Associate Principal

cc: Amy Ruth, XTO
Kaylan Dirkx, XTO
BLM

Appendices:

Figure 1	Site Receptor Map
Figure 2	Delineation Soil Sample Locations
Figure 3	Deferral Area Map
Table 1	Soil Sample Analytical Results
Appendix A	Referenced Well Records
Appendix B	Photographic Log
Appendix C	Lithologic / Soil Sampling Logs
Appendix D	Laboratory Analytical Reports & Chain-of-Custody Documentation
Appendix E	*Deferral Request* Report; Dated May 1, 2023.

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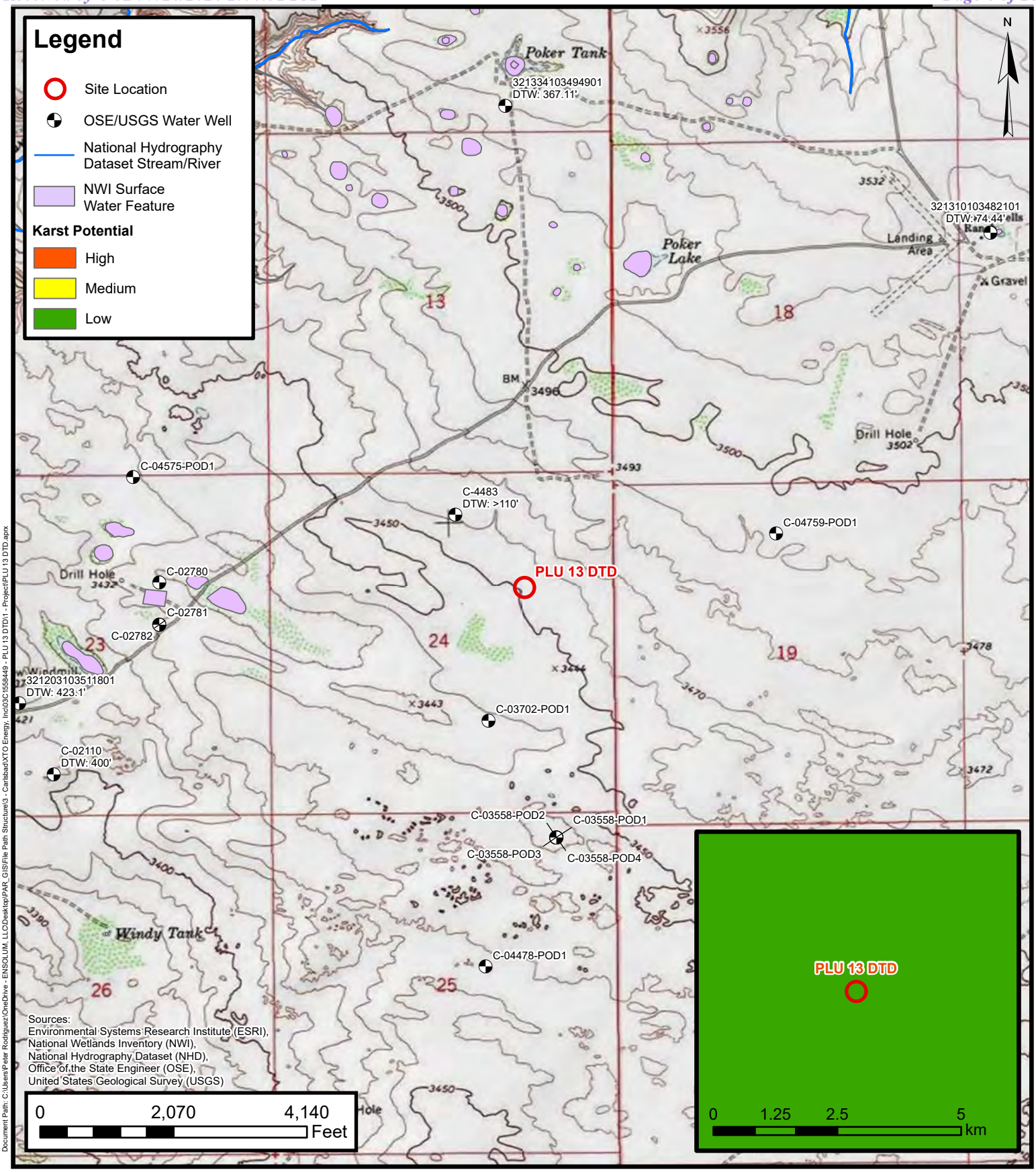
FIGURES



Document Path: C:\Users\Peter Rodriguez\OneDrive - ENSOLUM, LLC\Desktop\PAR_GIS\File Path Structure\3 - Carlsbad\XTO Energy, Inc\03C1558449 - PLU 13 DTD\1 - Project\PLU 13 DTD.aprx

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Environmental, Engineering and Hydrogeologic Consultants

Site Receptor Map

XTO Energy, Inc

PLU 13 DTD

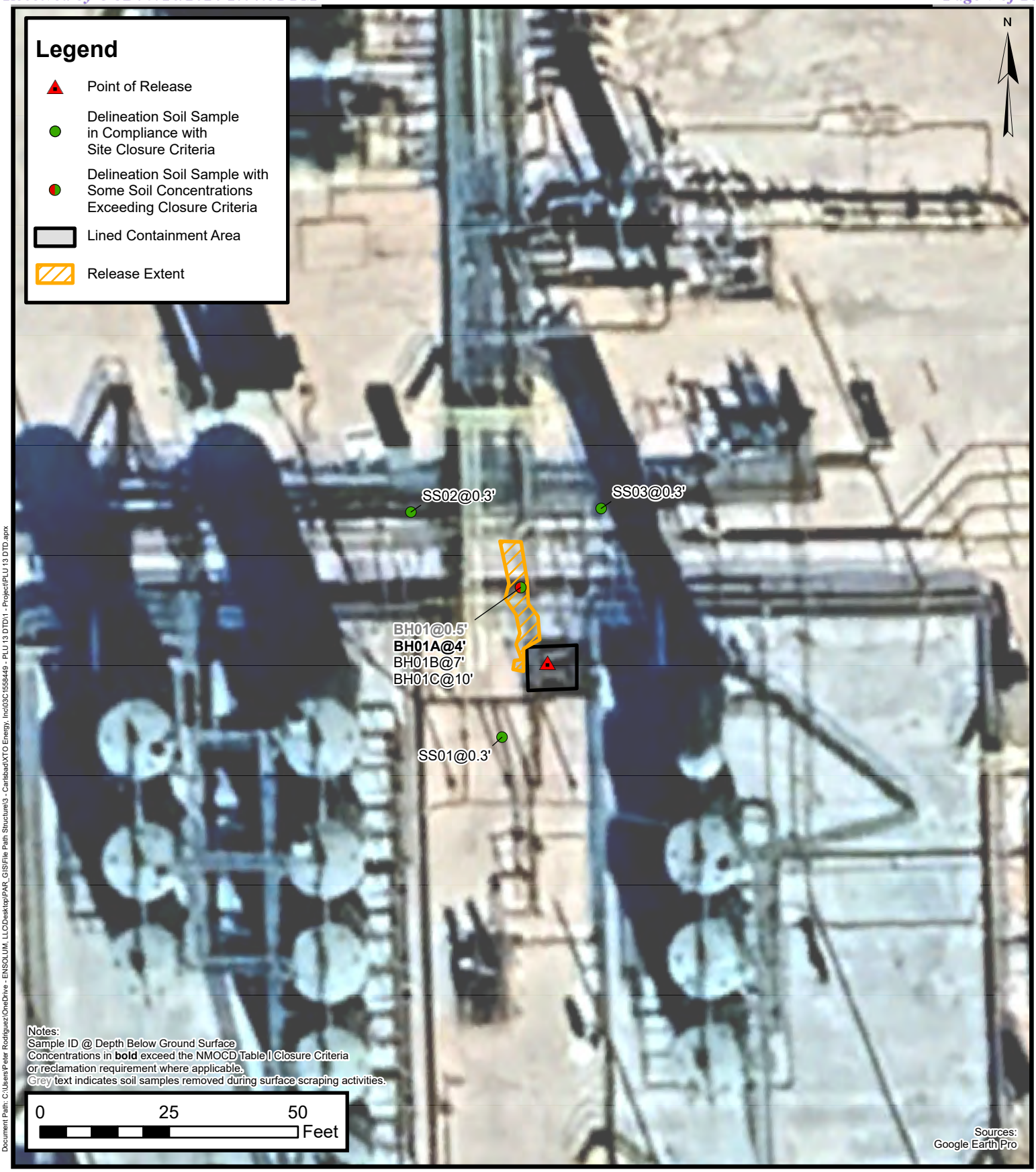
Incident Number: NAPP2417738244

Unit G, Sec 24, T24S, R30E

Eddy County, New Mexico

FIGURE

1



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Delineation Soil Sample Locations

XTO Energy, Inc

PLU 13 DTD

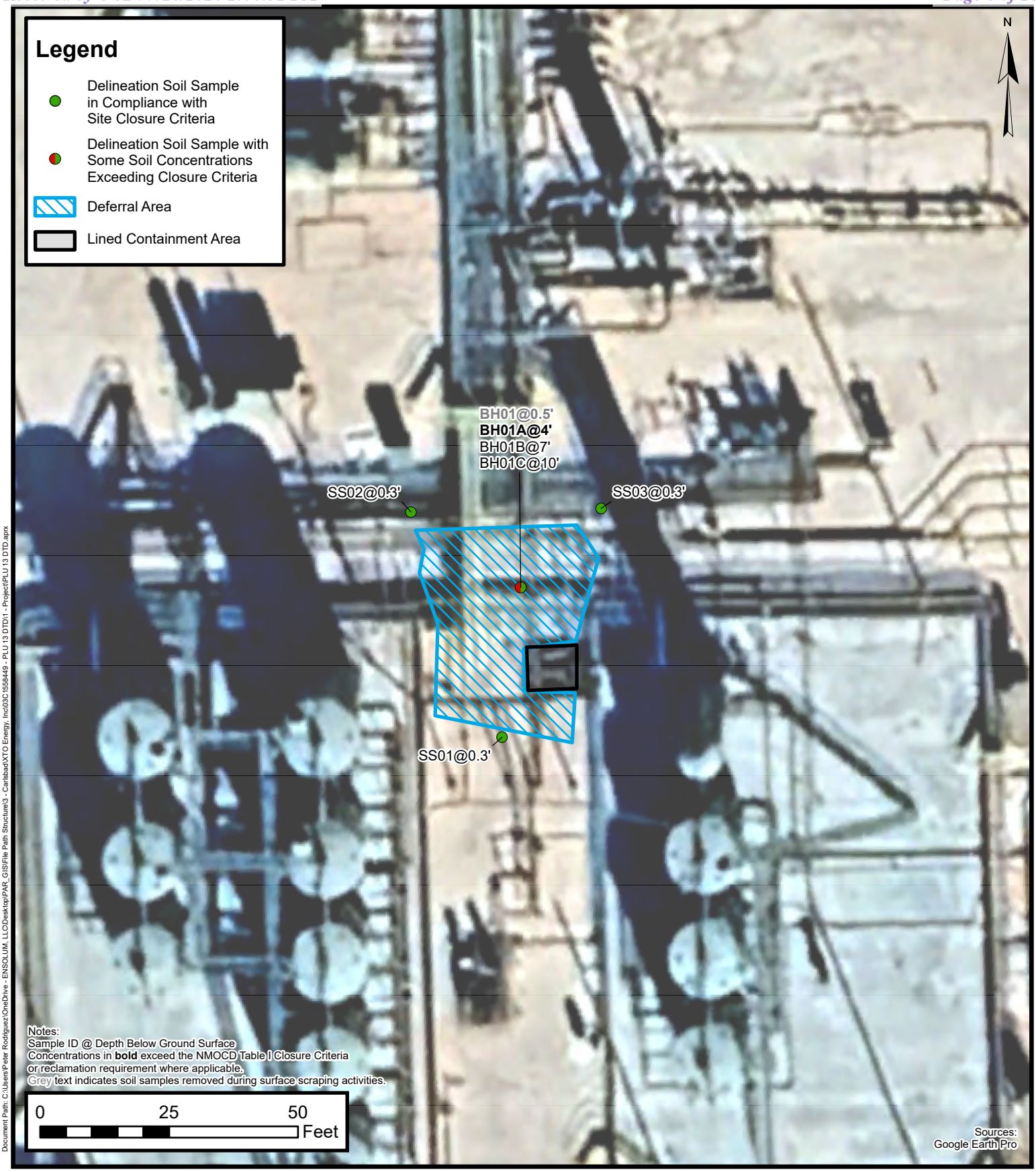
Incident Number: NAPP2417738244

Unit G, Sec 24, T24S, R30E

Eddy County, New Mexico

FIGURE

2



Document Path: C:\Users\Peter Rodriguez\OneDrive - ENSOLUM, LLC\Desktop\PAR_GIS\File Path Structure\3 - Carlsbad\XTO Energy, Inc\03C1558449 - PLU 13 DTD\1 - Project\PLU 13 DTD.aprx

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Environmental, Engineering and Hydrogeologic Consultants

Deferral Area Map

XTO Energy, Inc
PLU 13 DTD
Incident Number: NAPP2417738244
Unit G, Sec 24, T24S, R30E
Eddy County, New Mexico

FIGURE
3

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TABLES

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TABLE 1
SOIL SAMPLE ANALYTICAL RESULTS
PLU 13 DTD
XTO Energy, Inc
Eddy County, New Mexico

Sample I.D.	Sample Date	Sample Depth (feet bgs)	Benzene (mg/kg)	Total BTEX (mg/kg)	TPH GRO (mg/kg)	TPH DRO (mg/kg)	TPH ORO (mg/kg)	GRO+DRO (mg/kg)	Total TPH (mg/kg)	Chloride (mg/kg)
NMOCD Table I Closure Criteria (NMAC 19.15.29)			10	50	NE	NE	NE	1,000	2,500	20,000
Delineation Soil Samples										
SS01	07/03/2024	0.3	<0.050	<0.300	<10.0	17.5	<10.0	17.5	17.5	160
SS02	07/03/2024	0.3	<0.050	<0.300	<10.0	12.1	<10.0	12.1	12.1	304
SS03	07/03/2024	0.3	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	320
~~BH01~~	~~07/03/2024~~	~~0.5~~	~~4.55~~	~~**291**~~	~~9,010~~	~~18,300~~	~~2,560~~	~~**27,300**~~	~~**29,900**~~	~~48.0~~
BH01A	07/03/2024	4	<0.050	7.54	390	2,640	479	**3,030**	**5,670**	32.0
BH01B	07/03/2024	7	<0.050	<0.300	<10.0	12.3	<10.0	12.3	12.3	<16.0
BH01C	07/03/2024	10	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	16

Notes:

bgs: below ground surface

mg/kg: milligrams per kilogram

NMOCD: New Mexico Oil Conservation Division

BTEX: Benzene, Toluene, Ethylbenzene, and Xylenes

Concentrations in **bold** exceed the NMOCD Table I Closure Criteria or reclamation requirement where applicable.

GRO: Gasoline Range Organics

DRO: Diesel Range Organics

ORO: Oil Range Organics

TPH: Total Petroleum Hydrocarbon

NMAC: New Mexico Administrative Code

~~Grey~~ text indicates soil sample removed during surface scraping activities

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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

4/26/2023

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

Hand Delivered to the DII Office of the State Engineer

Re: Resubmitted Well Record C-4483 Pod1

To whom it may concern:

Attached please find a corrected well record and a plugging record, in duplicate, for a one (1) soil borings, C-4483 Pod1. The Longitude was corrected for both records.

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

Sincerely,

Lucas Middleton

Enclosures: as noted above

WELL RECORD & LOG

OFFICE OF THE STATE ENGINEER

www.ose.state.nm.us

1. GENERAL AND WELL LOCATION

OSE POD NO. (WELL NO.): POD1 (BH-01)	WELL TAG ID NO.: n/a	OSE FILE NO(S).: C-4483
WELL OWNER NAME(S): XTO Energy (Kyle Littrell)		PHONE (OPTIONAL):
WELL OWNER MAILING ADDRESS: 6401 Holiday Hill Dr.		CITY: Midland STATE: TX ZIP: 79707

WELL LOCATION (FROM GPS)	DEGREES	MINUTES	SECONDS	
LATITUDE	32°	12'	31.77"	N
LONGITUDE	~~104°~~ 103	50'	0.72"	W

* ACCURACY REQUIRED: ONE TENTH OF A SECOND
* DATUM REQUIRED: WGS 84

DESCRIPTION RELATING WELL LOCATION TO STREET ADDRESS AND COMMON LANDMARKS – PLSS (SECTION, TOWNSHJIP, RANGE) WHERE AVAILABLE: NW NW NE Sec. 24 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)
11/24/2020	11/24/2020	temporary well material	110	n/a

COMPLETED WELL IS: ☐ ARTESIAN ☑ DRY HOLE ☐ SHALLOW (UNCONFINED) — STATIC WATER LEVEL IN COMPLETED WELL (FT): n/a

DRILLING FLUID: ☑ AIR ☐ MUD ADDITIVES – SPECIFY:

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

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

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

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	24	24	Sand, Fine-grained,poorly-graded, with caliche, Tan-Off-White	Y ✓ N	
24	34	10	Sand, Fine-grained,poorly-graded, silty, with caliche gravel, Tan-Off-White	Y ✓ N	
34	51	17	Sand, Fine-grained,poorly-graded, silty, with caliche gravel, Light Brown	Y ✓ N	
51	54	3	Sand, Fine-grained,poorly-graded, silty, with caliche gravel, Light Brown-Brown	Y ✓ N	
54	76	22	Sand, Fine-grained,poorly-graded, Brown, dry	Y ✓ N	
76	101	25	Sand, Fine-grained,poorly-graded, Light-Brown, dry	Y ✓ N	
101	110	9	Sand, Fine-grained,poorly-graded, with gravel, Light-Brown, dry-moist	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 materials removed and the soil boring backfilled using drill cuttings from total depth to ten feet below ground surface, then hydrated bentonite chips from ten feet below ground surface to surface. Logs adapted from LTE on-site geologist.

RECEIVED OCD 12/27/2023 PM 12:22

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

Shane Eldridge

6. SIGNATURE

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

Jack Atkins — Jackie D. Atkins — 12/14/20

SIGNATURE OF DRILLER / PRINT SIGNEE NAME — DATE

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

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

PLUGGING RECORD

NOTE: **A Well Plugging Plan of Operations shall be approved by the State Engineer prior to plugging - 19.27.4 NMAC**

I. GENERAL / WELL OWNERSHIP:

State Engineer Well Number: C-4483-POD1

Well owner: XTO ENERGY (Kyle Littrell) Phone No.: 432.682.8873

Mailing address: 6401 Holiday Hill Dr.

City: Midland State: Texas Zip code: 79707

II. WELL PLUGGING INFORMATION:

1) Name of well drilling company that plugged well: Jackie D. Atkins (Atkins Engineering Associates Inc.)

2) New Mexico Well Driller License No.: 1249 Expiration Date: 04/30/21

3) Well plugging activities were supervised by the following well driller(s)/rig supervisor(s): Shane Elridge

4) Date well plugging began: 11/30/2020 Date well plugging concluded: 11/30/2020

5) GPS Well Location: Latitude: 32 deg, 12 min, 31.77 sec
Longitude: ~~104~~ 103 deg, 50 min, 0.72 sec, WGS 84

6) Depth of well confirmed at initiation of plugging as: 110 ft below ground level (bgl), by the following manner: weighted tape

7) Static water level measured at initiation of plugging: n/a ft bgl

8) Date well plugging plan of operations was approved by the State Engineer: 09/29/2020

9) Were all plugging activities consistent with an approved plugging plan? Yes If not, please describe differences between the approved plugging plan and the well as it was plugged (attach additional pages as needed):

10) Log of Plugging Activities - Label vertical scale with depths, and indicate separate plugging intervals with horizontal lines as necessary to illustrate material or methodology changes. Attach additional pages if necessary.

For each interval plugged, describe within the following columns:

Depth (ft bgl)	Plugging Material Used (include any additives used)	Volume of Material Placed (gallons)	Theoretical Volume of Borehole/ Casing (gallons)	Placement Method (tremie pipe, other)	Comments ("casing perforated first", "open annular space also plugged", etc.)
	0-10' Hydrated Bentonite	Approx. 26 gallons	26 gallons	Augers	
	10'-110' Drill Cuttings	Approx. 163 gallons	163 gallons	Boring	

MULTIPLY		BY		AND OBTAIN
cubic feet	x	7.4805	=	gallons
cubic yards	x	201.97	=	gallons

OCD 2024 PM

III. SIGNATURE:

I, Jackie D. Atkins, say that I am familiar with the rules of the Office of the State Engineer pertaining to the plugging of wells and that each and all of the statements in this Plugging Record and attachments are true to the best of my knowledge and belief.

Jack Atkins

Signature of Well Driller

12/14/2020

Date

Version: September 8, 2009
Page 2 of 2

2020-12-15_C-4483_POD1_OSE_Well Record and Log_plu13-forsign

Final Audit Report 2020-12-15

Created:	2020-12-15
By:	Lucas Middleton (lucas@atkinseng.com)
Status:	Signed
Transaction ID:	CBJCHBCAABAARxff6o4VHy1EHZsp0Yo_uFsm-rYe4wj2

"2020-12-15_C-4483_POD1_OSE_Well Record and Log_plu13-forsign" History

Document created by Lucas Middleton (lucas@atkinseng.com)
2020-12-15 - 8:03:25 PM GMT- IP address: 69.21.248.123

Document emailed to Jack Atkins (jack@atkinseng.com) for signature
2020-12-15 - 8:03:56 PM GMT

Email viewed by Jack Atkins (jack@atkinseng.com)
2020-12-15 - 8:27:59 PM GMT- IP address: 74.50.153.115

Document e-signed by Jack Atkins (jack@atkinseng.com)
Signature Date: 2020-12-15 - 8:29:23 PM GMT - Time Source: server- IP address: 74.50.153.115

Agreement completed.
2020-12-15 - 8:29:23 PM GMT

OCD Hobbs APR 27 2023 PM

Adobe Sign

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APPENDIX B

Photographic Log

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Photographic Log
XTO Energy, Inc.
PLU 13 DTD
Incident Number NAPP2417738244

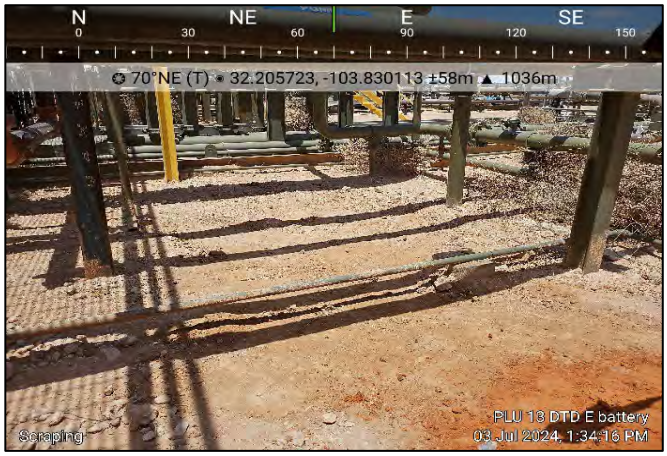
Photograph: 1 Date: 6/28/2024
Description: Liner inspection, facility sign.
View: Southeast

Photograph: 2 Date: 6/28/2024
Description: Lined containment and release area.
View: East

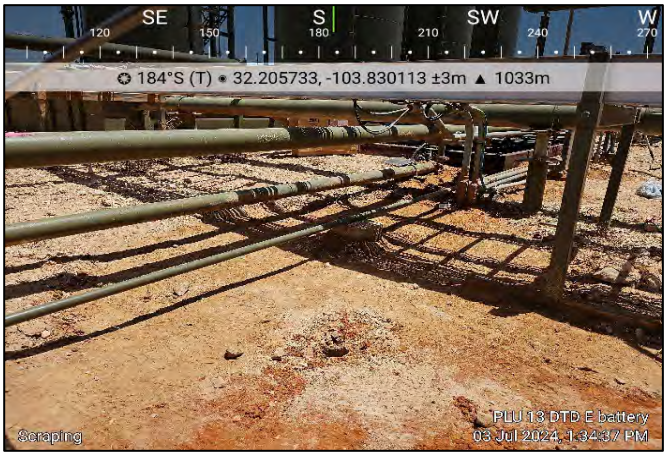
Photograph: 3 Date: 6/28/2024
Description: Liner inspection following powerwash.
View: North

Photograph: 4 Date: 6/28/2024
Description: Work area, restricted access.
View: South

Photographic Log
XTO Energy, Inc.
PLU 13 DTD
Incident Number NAPP2417738244



Photograph: 5 Date: 7/3/2024
Description: Surface scraping activities.
View: Northeast



Photograph: 6 Date: 7/3/2024
Description: Delineation and scraping activities.
View: East

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APPENDIX C

Lithologic Soil Sampling Logs

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Sample Name: BH01	Date: 7/3/2024	
Site Name: PLU 13 DTD		
Incident Number: NAPP2417738244		
Job Number: 03C1558449		
LITHOLOGIC / SOIL SAMPLING LOG	Logged By: US	Method: Hand Auger
Coordinates: 32.205703, -103.830131	Hole Diameter: 3.5"	Total Depth: 10

Comments: Field screening conducted with HACH Chloride Test Strips and PID for chloride and vapor, respectively. Chloride test performed with 1:4 dilution factor of soil to distilled water. A 40% correction factor was applied on all chloride screenings.

Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample ID	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithologic Descriptions
M	<173	>5000	Y	BH01	0.5	0	CCHE (fill)	0-0.5', CALICHE, tan, some sub angular gravel, light brown staining, mild H/C odor, fill.
							SP	0.5'-10', SAND, reddish brown, fine-very fine grained, poorly graded, trace clay, moist, no stain, mild H/C odor.
M	<173	3482	N		1	1		
M	<173	3716	N		2	2		
M	<173	1898	N		3	3		
M	<173	2657	N	BH01A	4	4		
M	<173	225.3	N		5	5		5'-9',light H/C odor.
M	<173	102	N		6	6		
M	<173	146	N	BH01B	7	7		
M	<173	159	N		8	8		
M	<173	141	N		9	9		
M	<173	64.8	N	BH01C	10	10		@10', no H/C odor.
							TD	Total depth at 10 feet bgs.
						11		
						12		

ENSOLUM

APPENDIX D

Laboratory Analytical Reports & Chain of Custody Documentation

CARDINAL Laboratories

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

July 17, 2024

BEN BELILL

ENSOLUM

3122 NATIONAL PARKS HWY

CARLSBAD, NM 88220

RE: PLU 13 DTD

Enclosed are the results of analyses for samples received by the laboratory on 07/15/24 14:27.

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

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

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

Accreditation applies to public drinking water matrices.

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

Sincerely,

Celey D. Keene

Celey D. Keene

Lab Director/Quality Manager

CARDINAL Laboratories

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

Analytical Results For:

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

Received:	07/15/2024	Sampling Date:	07/03/2024
Reported:	07/17/2024	Sampling Type:	Soil
Project Name:	PLU 13 DTD	Sampling Condition:	Cool & Intact
Project Number:	03C1558449	Sample Received By:	Tamara Oldaker
Project Location:	XTO 32.20567, -103.83007		

Sample ID: SS 01 0.3 (H244205-01)

BTEX 8021B mg/kg Analyzed By: JH

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	07/16/2024	ND	1.94	96.9	2.00	1.44	
Toluene*	<0.050	0.050	07/16/2024	ND	1.94	97.2	2.00	1.33	
Ethylbenzene*	<0.050	0.050	07/16/2024	ND	2.05	102	2.00	1.21	
Total Xylenes*	<0.150	0.150	07/16/2024	ND	6.04	101	6.00	1.16	
Total BTEX	<0.300	0.300	07/16/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID *96.8 %* *71.5-134*

Chloride, SM4500Cl-B mg/kg Analyzed By: AC

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**160**	16.0	07/16/2024	ND	432	108	400	0.00	

TPH 8015M mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	07/15/2024	ND	184	91.9	200	7.99	
DRO >C10-C28*	**17.5**	10.0	07/15/2024	ND	190	94.9	200	9.64	
EXT DRO >C28-C36	<10.0	10.0	07/15/2024	ND					

Surrogate: 1-Chlorooctane *85.5 %* *48.2-134*

Surrogate: 1-Chlorooctadecane *86.6 %* *49.1-148*

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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

Analytical Results For:

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

Received:	07/15/2024	Sampling Date:	07/03/2024
Reported:	07/17/2024	Sampling Type:	Soil
Project Name:	PLU 13 DTD	Sampling Condition:	Cool & Intact
Project Number:	03C1558449	Sample Received By:	Tamara Oldaker
Project Location:	XTO 32.20567, -103.83007		

Sample ID: SS 02 0.3 (H244205-02)

BTEX 8021B mg/kg Analyzed By: JH

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	07/16/2024	ND	1.94	96.9	2.00	1.44	
Toluene*	<0.050	0.050	07/16/2024	ND	1.94	97.2	2.00	1.33	
Ethylbenzene*	<0.050	0.050	07/16/2024	ND	2.05	102	2.00	1.21	
Total Xylenes*	<0.150	0.150	07/16/2024	ND	6.04	101	6.00	1.16	
Total BTEX	<0.300	0.300	07/16/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID *97.0 %* *71.5-134*

Chloride, SM4500Cl-B mg/kg Analyzed By: AC

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**304**	16.0	07/16/2024	ND	432	108	400	0.00	

TPH 8015M mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	07/15/2024	ND	184	91.9	200	7.99	
DRO >C10-C28*	**12.1**	10.0	07/15/2024	ND	190	94.9	200	9.64	
EXT DRO >C28-C36	<10.0	10.0	07/15/2024	ND					

Surrogate: 1-Chlorooctane *117 %* *48.2-134*

Surrogate: 1-Chlorooctadecane *117 %* *49.1-148*

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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

Analytical Results For:

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

Received:	07/15/2024	Sampling Date:	07/03/2024
Reported:	07/17/2024	Sampling Type:	Soil
Project Name:	PLU 13 DTD	Sampling Condition:	Cool & Intact
Project Number:	03C1558449	Sample Received By:	Tamara Oldaker
Project Location:	XTO 32.20567, -103.83007		

Sample ID: SS 03 0.3 (H244205-03)

BTEX 8021B mg/kg Analyzed By: JH

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	07/16/2024	ND	1.94	96.9	2.00	1.44	
Toluene*	<0.050	0.050	07/16/2024	ND	1.94	97.2	2.00	1.33	
Ethylbenzene*	<0.050	0.050	07/16/2024	ND	2.05	102	2.00	1.21	
Total Xylenes*	<0.150	0.150	07/16/2024	ND	6.04	101	6.00	1.16	
Total BTEX	<0.300	0.300	07/16/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID *96.7 %* *71.5-134*

Chloride, SM4500Cl-B mg/kg Analyzed By: AC

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**320**	16.0	07/16/2024	ND	432	108	400	0.00	

TPH 8015M mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	07/15/2024	ND	184	91.9	200	7.99	
DRO >C10-C28*	<10.0	10.0	07/15/2024	ND	190	94.9	200	9.64	
EXT DRO >C28-C36	<10.0	10.0	07/15/2024	ND					

Surrogate: 1-Chlorooctane *114 %* *48.2-134*

Surrogate: 1-Chlorooctadecane *116 %* *49.1-148*

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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

Notes and Definitions

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

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

Company Name: Ensolum, LLC		**BILL TO**	
Project Manager: Ben Belill		P.O. #:	
Address: 3122 National Parks Hwy		Company: XTO Energy	
City: Carlsbad	State: NM Zip: 88220	Attn: Amy Ruth	
Phone #: 989-854-0852	Fax #:	Address: 3104 Greene	
Project #: 03C155 8449	Project Owner: XTO	City: Carlsbad	
Project Name: PLU 13 DTD		State: NM Zip: 88220	
Project Location: 32.20567, -103.83057		Phone #: 432-661-0571	
Sampler Name: Uriel Santanilla + Tracy Hillard		Fax #:	

FOR LAB USE ONLY					MATRIX							PRESERV.			SAMPLING		ANALYSIS REQUEST											
Lab I.D.	Sample I.D.	Depth (feet)	(G)RAB OR (C)OMP.	# CONTAINERS	GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER :	ACID/BASE:	ICE / COOL	OTHER :	DATE	TIME	Chloride	BTEX	TPH										
H244205																												
1	SS01	0.3	C	1			X					X		7/3/24	1440	X	X	X										
2	SS02	0.3	1	1			1					1		1	1503	1	1	1										
3	SS03	0.3	1	1			1					1		1	1444	1	1	1										

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising whether based in contract or tort, shall be limited to the amount paid by the client for the analyses. All claims including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within 30 days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequental damages, including without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise.

Relinquished By:	Date: 7/6/24	Received By:	Verbal Result: ☐ Yes ☐ No Add'l Phone #:
	Time: 14:27		All Results are emailed. Please provide Email address: BBelill@ensolum.com, THillard@ensolum.com
Relinquished By:	Date:	Received By:	REMARKS: NAPP2417738244 WSL-Cont: 2191721001
	Time:		
Delivered By: (Circle One) Sampler - UPS - Bus - Other:	Observed Temp. °C 29 / Corrected Temp. °C	Sample Condition Cool: ☑ Yes ☐ No Intact: ☑ Yes ☐ No	CHECKED BY: (Initials)
			Turnaround Time: 48 hrs Standard ☐ Rush ☒
			Thermometer ID ~~#113~~ #140 Correction Factor ~~0.5°C~~ 7/15/24
			Bacteria (only) Sample Condition Cool ☐ Yes ☐ No Intact ☐ Yes ☐ No Observed Temp. °C Corrected Temp. °C

FORM-006 R 3.2 10/07/21

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

CARDINAL Laboratories

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

July 17, 2024

BEN BELILL

ENSOLUM

3122 NATIONAL PARKS HWY

CARLSBAD, NM 88220

RE: PLU 13 DTD

Enclosed are the results of analyses for samples received by the laboratory on 07/15/24 14:27.

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

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

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

Accreditation applies to public drinking water matrices.

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

Sincerely,

Celey D. Keene

Lab Director/Quality Manager

CARDINAL Laboratories

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

Analytical Results For:

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

Received:	07/15/2024	Sampling Date:	07/03/2024
Reported:	07/17/2024	Sampling Type:	Soil
Project Name:	PLU 13 DTD	Sampling Condition:	Cool & Intact
Project Number:	03C1558449	Sample Received By:	Tamara Oldaker
Project Location:	XTO 32.20567, -103.83007		

Sample ID: BH 01 0.5 (H244206-01)

BTEX 8021B mg/kg Analyzed By: JH S-04

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	**4.55**	1.00	07/16/2024	ND	1.92	96.0	2.00	2.68	
Toluene*	**61.5**	1.00	07/16/2024	ND	1.92	95.8	2.00	2.09	
Ethylbenzene*	**17.8**	1.00	07/16/2024	ND	1.96	98.0	2.00	0.826	
Total Xylenes*	**208**	3.00	07/16/2024	ND	5.77	96.2	6.00	0.655	
Total BTEX	**291**	6.00	07/16/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID *168 %* *71.5-134*

Chloride, SM4500Cl-B mg/kg Analyzed By: AC

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**48.0**	16.0	07/16/2024	ND	432	108	400	0.00	

TPH 8015M mg/kg Analyzed By: MS S-06

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	**9010**	50.0	07/16/2024	ND	184	91.9	200	7.99	
DRO >C10-C28*	**18300**	50.0	07/16/2024	ND	190	94.9	200	9.64	
EXT DRO >C28-C36	**2560**	50.0	07/16/2024	ND					

Surrogate: 1-Chlorooctane *875 %* *48.2-134*

Surrogate: 1-Chlorooctadecane *288 %* *49.1-148*

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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

Analytical Results For:

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

Received:	07/15/2024	Sampling Date:	07/03/2024
Reported:	07/17/2024	Sampling Type:	Soil
Project Name:	PLU 13 DTD	Sampling Condition:	Cool & Intact
Project Number:	03C1558449	Sample Received By:	Tamara Oldaker
Project Location:	XTO 32.20567, -103.83007		

Sample ID: BH 01A 4' (H244206-02)

BTEX 8021B mg/kg Analyzed By: JH S-04

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	07/16/2024	ND	1.92	96.0	2.00	2.68	
Toluene*	**0.898**	0.050	07/16/2024	ND	1.92	95.8	2.00	2.09	GC-NC1
Ethylbenzene*	<0.050	0.050	07/16/2024	ND	1.96	98.0	2.00	0.826	GC-NC
Total Xylenes*	**6.60**	0.150	07/16/2024	ND	5.77	96.2	6.00	0.655	GC-NC1
Total BTEX	**7.54**	0.300	07/16/2024	ND					GC-NC1

Surrogate: 4-Bromofluorobenzene (PID *396 %* *71.5-134*

Chloride, SM4500Cl-B mg/kg Analyzed By: AC

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**32.0**	16.0	07/16/2024	ND	432	108	400	0.00	

TPH 8015M mg/kg Analyzed By: MS S-04

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	**390**	10.0	07/15/2024	ND	184	91.9	200	7.99	
DRO >C10-C28*	**2640**	10.0	07/15/2024	ND	190	94.9	200	9.64	
EXT DRO >C28-C36	**479**	10.0	07/15/2024	ND					

Surrogate: 1-Chlorooctane *159 %* *48.2-134*

Surrogate: 1-Chlorooctadecane *135 %* *49.1-148*

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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

Analytical Results For:

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

Received:	07/15/2024	Sampling Date:	07/03/2024
Reported:	07/17/2024	Sampling Type:	Soil
Project Name:	PLU 13 DTD	Sampling Condition:	Cool & Intact
Project Number:	03C1558449	Sample Received By:	Tamara Oldaker
Project Location:	XTO 32.20567, -103.83007		

Sample ID: BH 01B 7' (H244206-03)

BTEX 8021B mg/kg Analyzed By: JH

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	07/16/2024	ND	1.92	96.0	2.00	2.68	
Toluene*	**0.058**	0.050	07/16/2024	ND	1.92	95.8	2.00	2.09	
Ethylbenzene*	<0.050	0.050	07/16/2024	ND	1.96	98.0	2.00	0.826	
Total Xylenes*	<0.150	0.150	07/16/2024	ND	5.77	96.2	6.00	0.655	
Total BTEX	<0.300	0.300	07/16/2024	ND					

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

Chloride, SM4500Cl-B mg/kg Analyzed By: AC

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	<16.0	16.0	07/16/2024	ND	432	108	400	0.00	

TPH 8015M mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	07/16/2024	ND	184	91.9	200	7.99	
DRO >C10-C28*	**12.3**	10.0	07/16/2024	ND	190	94.9	200	9.64	
EXT DRO >C28-C36	<10.0	10.0	07/16/2024	ND					

Surrogate: 1-Chlorooctane *103 %* *48.2-134*

Surrogate: 1-Chlorooctadecane *107 %* *49.1-148*

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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

Notes and Definitions

S-06	The recovery of this surrogate is outside control limits due to sample dilution required from high analyte concentration and/or matrix interference's.
S-04	The surrogate recovery for this sample is outside of established control limits due to a sample matrix effect.
GC-NC1	8260 confirmation analysis was performed; initial GC results were not supported by GC/MS analysis and are biased high with interfering compounds.
GC-NC	8260 confirmation analysis was performed; initial GC results were not supported by GC/MS analysis and are reported as ND.
ND	Analyte NOT DETECTED at or above the reporting limit
RPD	Relative Percent Difference
**	Samples not received at proper temperature of 6°C or below.
***	Insufficient time to reach temperature.
-	Chloride by SM4500Cl-B does not require samples be received at or below 6°C
	Samples reported on an as received basis (wet) unless otherwise noted on report

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

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

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

Company Name: Ensolum, LLC		**BILL TO**	
Project Manager: Ben Belill		P.O. #:	
Address: 3122 Natl Parks Hwy		Company: XTO Energy	
City: Carlsbad ~~NM~~ State: NM Zip: 88220		Attn: Amy Ruth	
Phone #: 989-854-0852	Fax #:	Address: 3104 Greene St	
Project #: 03C1558449	Project Owner: XTO	City: Carlsbad	
Project Name: PLU 13 DTD		State: NM Zip: 88220	
Project Location: 32.20567, -103.83007		Phone #: 432-661-0571	
Sampler Name: Ustel Santanilla + Tracy Hillard		Fax #:	

FOR LAB USE ONLY					MATRIX						PRESERV.			SAMPLING		ANALYSIS REQUEST											
Lab I.D.	Sample I.D.	Depth (feet)	(G)RAB OR (C)OMP.	# CONTAINERS	GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER :	ACID/BASE:	ICE / COOL	OTHER :	DATE	TIME	Chloride	BTEX	TPH									
H244206																											
1	BH01	0.5	G	1			X					X		7/3/24	1043	X	X	X									
2	BH01A	4'	"	"			"					"		"	1055	"	"	"									
3	BH01B	7'	"	"			"					"		"	1235	"	"	"									

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising whether based in contract or tort, shall be limited to the amount paid by the client for the analyses. All claims including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within 30 days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise.

Relinquished By:	Date: 7/5/24	Received By:	Verbal Result: ☐ Yes ☐ No Add'l Phone #:
	Time: 14:27		All Results are emailed. Please provide Email address: BBelill@ensolum.com, THillard@ensolum.com
Relinquished By:	Date:	Received By:	REMARKS: nAPP2417738244 cost center: 2191721001
	Time:		

Delivered By: (Circle One) Sampler - UPS - Bus - Other:	Observed Temp. °C 2.9 Corrected Temp. °C	Sample Condition Cool Yes Intact Yes / No No	CHECKED BY: (Initials)	Turnaround Time: Standard ☑ Rush ☐ 48 hrs Thermometer ID ~~#113~~ #140 Correction Factor ~~0.5°C~~ 0° 7/15/24	Bacteria (only) Sample Condition Cool Yes Intact Yes / No No Observed Temp. °C Corrected Temp. °C

FORM-006 R 3.2 10/07/21

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

CARDINAL Laboratories

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

July 17, 2024

BEN BELILL

ENSOLUM

3122 NATIONAL PARKS HWY

CARLSBAD, NM 88220

RE: PLU 13 DTD

Enclosed are the results of analyses for samples received by the laboratory on 07/15/24 14:27.

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

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

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

Accreditation applies to public drinking water matrices.

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

Sincerely,

Celey D. Keene

Lab Director/Quality Manager

CARDINAL Laboratories

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

Analytical Results For:

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

Received:	07/15/2024	Sampling Date:	07/03/2024
Reported:	07/17/2024	Sampling Type:	Soil
Project Name:	PLU 13 DTD	Sampling Condition:	Cool & Intact
Project Number:	03C1558449	Sample Received By:	Tamara Oldaker
Project Location:	XTO 32.20567, -103.83007		

Sample ID: BH 01 C 10' (H244207-01)

BTEX 8021B mg/kg Analyzed By: JH

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	07/16/2024	ND	1.92	96.0	2.00	2.68	
Toluene*	<0.050	0.050	07/16/2024	ND	1.92	95.8	2.00	2.09	
Ethylbenzene*	<0.050	0.050	07/16/2024	ND	1.96	98.0	2.00	0.826	
Total Xylenes*	<0.150	0.150	07/16/2024	ND	5.77	96.2	6.00	0.655	
Total BTEX	<0.300	0.300	07/16/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID *99.9 %* *71.5-134*

Chloride, SM4500Cl-B mg/kg Analyzed By: AC

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**16.0**	16.0	07/16/2024	ND	432	108	400	0.00	

TPH 8015M mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	07/15/2024	ND	184	91.9	200	7.99	
DRO >C10-C28*	<10.0	10.0	07/15/2024	ND	190	94.9	200	9.64	
EXT DRO >C28-C36	<10.0	10.0	07/15/2024	ND					

Surrogate: 1-Chlorooctane *111 %* *48.2-134*

Surrogate: 1-Chlorooctadecane *118 %* *49.1-148*

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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

Notes and Definitions

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

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

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

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

Company Name: Ensolum, LLC	**BILL TO**	**P.O. #:**	
Project Manager: Ben Belill		**Company:** XTO Energy	
Address: 3122 National Parks HWY		**Attn:** Amy Ruth	
City: Carlsbad **State:** NM **Zip:** 88220		**Address:** 3104 Greene	
Phone #: **Fax #:**		**City:** Carlsbad	
Project #: 03C1558449 **Project Owner:** XTO		**State:** NM **Zip:** 88220	
Project Name: PLU 13 DTD		**Phone #:** 432-661-0571	
Project Location: 32.20567, -103.83007		**Fax #:**	
Sampler Name: Uriel Santanilla + Tracy Hillard			

FOR LAB USE ONLY					MATRIX						PRESERV.			SAMPLING		ANALYSIS REQUEST		
Lab I.D.	Sample I.D.	Depth (feet)	(G)RAB OR (C)OMP.	# CONTAINERS	GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER :	ACID/BASE:	ICE / COOL	OTHER :	DATE	TIME	Chloride	TPH	BTEX
H244207-1	BH01C	10'	G	1			X					X		7/3/24	1305	X	X	X

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising whether based in contract or tort, shall be limited to the amount paid by the client for the analyses. All claims including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within 30 days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequental damages, including without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise.

Relinquished By:	**Date:** 7/3/24 **Time:** 14:27	**Received By:**	**Verbal Result:** ☐ Yes ☐ No **Add'l Phone #:**
			All Results are emailed. Please provide Email address: BBelill@ensolum.com, THillard@ensolum.com
Relinquished By:	**Date:** **Time:**	**Received By:**	**REMARKS:** nAPP2417738244 cost center: 2191721001
Delivered By: (Circle One) Sampler - UPS - Bus - Other:	Observed Temp. °C 2.9 Corrected Temp. °C	**Sample Condition** Cool ☑ Yes ☐ No Intact ☑ Yes ☐ No	**CHECKED BY: (Initials)** TO
			Turnaround Time: 48 hrs **Standard** ☐ **Rush** ☒ **Thermometer ID** ~~#113~~ #140 **Correction Factor** ~~-0.5°C~~ -0.5 7/15/24 **Bacteria (only) Sample Condition** Cool ☐ Yes ☐ No Intact ☐ Yes ☐ No **Observed Temp. °C** **Corrected Temp. °C**

FORM-006 R 3.2 10/07/21

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

ENSOLUM

APPENDIX E

Deferral Request Report; Dated May 1, 2023

State of New Mexico
Oil Conservation Division

Incident ID	NAPP2304448906
District RP	
Facility ID	
Application ID	

Remediation Plan

Remediation Plan Checklist: ***Each of the following items must be included in the plan.***

- ☐ Detailed description of proposed remediation technique
- ☐ Scaled sitemap with GPS coordinates showing delineation points
- ☐ Estimated volume of material to be remediated
- ☐ Closure criteria is to Table 1 specifications subject to 19.15.29.12(C)(4) NMAC
- ☐ Proposed schedule for remediation (note if remediation plan timeline is more than 90 days OCD approval is required)

Deferral Requests Only: ***Each of the following items must be confirmed as part of any request for deferral of remediation.***

☒ Contamination must be in areas immediately under or around production equipment where remediation could cause a major facility deconstruction.

☒ Extents of contamination must be fully delineated.

☒ Contamination does not cause an imminent risk to human health, the environment, or groundwater.

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: __5/1/2023_____

email: __garrett.green@exxonmobil.com_____ Telephone: ___575-200-0729

OCD Only

Received by: Jocelyn Harimon Date: 05/02/2023

☐ Approved ☐ Approved with Attached Conditions of Approval ☐ Denied ☒ Deferral Approved

Signature: Robert Hamlet Date: 9/19/2023

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	NAPP2304448906
District RP	
Facility ID	
Application ID	

Release Notification

Responsible Party

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

Location of Release Source

Latitude 32.20569 Longitude -103.83013

(NAD 83 in decimal degrees to 5 decimal places)

Site Name PLU 13 Dog Town Draw Battery	Site Type Tank Battery
Date Release Discovered 02/01/2023	API# *(if applicable)*

Unit Letter	Section	Township	Range	County
G	24	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) 23.78	Volume Recovered (bbls) 20.00
☐ 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: Piping under the air eliminator on the VRT circulation pump failed, releasing fluids into containment and onto pad. All free fluids were recovered. A third-party contractor has been retained for remediation purposes.

Form C-141
Page 2

State of New Mexico
Oil Conservation Division

Incident ID	NAPP2304448906
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? N/A
If YES, was immediate notice given to the OCD? By whom? To whom? When and by what means (phone, email, etc)? N/A	

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: 02/13/2023

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

OCD Only

Received by: Jocelyn Harimon Date: 02/13/2023

Location:	PLU 13 DTD Battery	
Spill Date:	2/1/2023	

Area 1		
Approximate Area =	112.29	cu.ft.
VOLUME OF LEAK		
Total Crude Oil =	20.00	bbls
Total Produced Water =	0.00	bbls

Area 2		
Approximate Area =	2263.00	sq. ft.
Average Saturation (or depth) of spill =	0.75	inches

Average Porosity Factor =	0.15	

VOLUME OF LEAK		
Total Crude Oil =	3.78	bbls
Total Produced Water =	0.00	bbls

TOTAL VOLUME OF LEAK		
Total Crude Oil =	**23.78**	**bbls**
Total Produced Water =	**0.00**	**bbls**
TOTAL VOLUME RECOVERED		
Total Crude Oil =	**20.00**	**bbls**
Total Produced Water =	**0.00**	**bbls**

State of New Mexico
Oil Conservation Division

Incident ID	NAPP2304448906
District RP	
Facility ID	
Application ID	

Site Assessment/Characterization

This information must be provided to the appropriate district office no later than 90 days after the release discovery date.

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

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

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

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

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

Form C-141
Page 4

State of New Mexico
Oil Conservation Division

Incident ID	NAPP2304448906
District RP	
Facility ID	
Application ID	

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

Printed Name: _ Garrett Green_____ Title: _SSHE Coordinator_____

Signature: _  _____ Date: __5/1/2023_____

email: __garrett.green@exxonmobil.com_____ Telephone: ___575-200-0729_____

OCD Only

Received by: ___Jocelyn Harimon_____ Date: __05/02/2023____

State of New Mexico
Oil Conservation Division

Incident ID	NAPP2304448906
District RP	
Facility ID	
Application ID	

Remediation Plan

Remediation Plan Checklist: ***Each of the following items must be included in the plan.***

- ☐ Detailed description of proposed remediation technique
- ☐ Scaled sitemap with GPS coordinates showing delineation points
- ☐ Estimated volume of material to be remediated
- ☐ Closure criteria is to Table 1 specifications subject to 19.15.29.12(C)(4) NMAC
- ☐ Proposed schedule for remediation (note if remediation plan timeline is more than 90 days OCD approval is required)

Deferral Requests Only: ***Each of the following items must be confirmed as part of any request for deferral of remediation.***

☒ Contamination must be in areas immediately under or around production equipment where remediation could cause a major facility deconstruction.

☒ Extents of contamination must be fully delineated.

☒ Contamination does not cause an imminent risk to human health, the environment, or groundwater.

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: __5/1/2023_____

email: __garrett.green@exxonmobil.com_____ Telephone: ___575-200-0729

OCD Only

Received by: Jocelyn Harimon Date: 05/02/2023

☐ Approved ☐ Approved with Attached Conditions of Approval ☐ Denied ☐ Deferral Approved

Signature: _____ Date: _____

ENSOLUM

May 1, 2023

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

Re: Deferral Request
PLU 13 Dog Town Draw Battery
Incident Number NAPP2304448906
Eddy County, New Mexico

To Whom It May Concern:

Ensolum, LLC (Ensolum), on behalf of XTO Energy, Inc. (XTO), has prepared this *Deferral Request* to document assessment and soil sampling activities at the PLU 13 Dog Town Draw Battery (Site). The purpose of the Site assessment and soil sampling activities was to assess for the presence or absence of impacts to soil following a release of crude oil at the Site. Based on field observations, field screening activities, and soil sample laboratory analytical results, XTO is submitting this *Deferral Request*, describing Site assessment and delineation activities that have occurred and requesting deferral of final remediation for Incident Number NAPP2304448906 until the Site is reconstructed, and/or the well pad is abandoned.

SITE DESCRIPTION AND RELEASE SUMMARY

The Site is located in Unit G, Section 24, Township 24 South, Range 30 East, in Eddy County, New Mexico (32.20569°, -103.83013°) and is associated with oil and gas exploration and production operations on federal land managed by the Bureau of Land Management (BLM).

On February 1, 2023, piping on the vapor recovery tower (VRT) circulation pump failed, resulting in the release of approximately 23.78 barrels (bbls) of crude oil into a lined containment and onto the surface of the well pad near active production equipment. A vacuum truck was immediately dispatched to the Site, and 20.00 bbls were recovered. XTO submitted a Release Notification Form C-141 (Form C-141) on February 13, 2023. The release was assigned Incident Number NAPP2304448906.

SITE CHARACTERIZATION AND CLOSURE CRITERIA

The Site was characterized to assess the applicability of Table I, Closure Criteria for Soils Impacted by a Release, of Title 19, Chapter 15, Part 29 (19.15.29) of the New Mexico Administrative Code (NMAC). Results from the characterization desktop review are presented on page 3 of the Form C-141, Site Assessment/Characterization.

Depth to groundwater at the Site is estimated to be greater than 100 below ground surface (bgs) based on a soil boring drilled for determination of regional groundwater depth. On November 24, 2020, a soil boring permitted by New Mexico Office of the State Engineer (NMOSE file number C-4483) was completed approximately 0.31 miles northwest of the Site utilizing a truck-mounted hollow-stem auger rig. Soil boring C-4483 was drilled to a depth of 110 feet bgs. A field geologist logged and described soils continuously. No moisture or groundwater was encountered during drilling activities. The borehole was left open for over 72 hours to allow for potential slow infill of groundwater. After the 72-hour waiting

period without observing groundwater, it was confirmed that groundwater beneath the Site is greater than 110 feet bgs. The borehole was properly abandoned with drill cuttings and hydrated bentonite chips. The Well Log is included in Appendix A.

The closest continuously flowing or significant watercourse to the Site is a freshwater emergent wetland, located approximately 4,288 feet west of the Site. The Site is greater than 200 feet from a lakebed, sinkhole, or playa lake, and is greater than 300 feet from an occupied residence, school, hospital, institution, church, or wetland. The Site is greater than 1,000 feet from a freshwater well or spring and is not within a 100-year floodplain or overlying a subsurface mine. The Site is not underlain by unstable geology (low potential karst designation area). Potential site receptors are identified on Figure 1.

Based on the results of the Site Characterization, the following New Mexico Oil Conservation Division (NMOCD) Table I Closure Criteria (Closure Criteria) apply:

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

SITE ASSESSMENT ACTIVITIES AND LABORATORY ANALYTICAL RESULTS

On March 14, 2023, Site assessment activities were conducted to evaluate the release extent based on information provided on the Form C-141 and visual observations. Six delineation soil samples (SS01 through SS06) were collected within and around the release extent at a depth of 0.5 feet bgs. Soil samples SS01 and SS02 were collected within the release extent and soil samples SS03 through SS06 were collected around the release extent in order to confirm lateral definition of the release. The delineation soil samples were field screened for volatile organic compounds (VOCs) utilizing a calibrated photoionization detector (PID) and chloride using Hach® chloride QuanTab® test strips. The release extent and soil sample locations were mapped utilizing a handheld Global Positioning System (GPS) unit and are depicted on Figure 2.

The soil samples were placed directly into pre-cleaned glass jars, labeled with the location, date, time, sampler name, method of analysis, and immediately placed on ice. The soil samples were transported under strict chain-of-custody procedures to Eurofins Laboratories (Eurofins) in Carlsbad, New Mexico, for analysis of the following constituents of concern (COCs): BTEX following United States Environmental Protection Agency (EPA) Method 8021B; TPH-GRO, TPH-DRO, and TPH-oil range organics (ORO) following EPA Method 8015M/D; and chloride following EPA Method 300.0. Soil samples delivered to the laboratory the same day they were collected may not have equilabrated to 6 degrees Celcius required for shipment and long term storage, but are considered to have been received in acceptable condition by the laboratory.

Laboratory analytical results for delineation soil samples SS01 and SS02 indicated BTEX, TPH-GRO/TPH-DRO, and TPH concentrations exceeded the Closure Criteria. Based on visible staining in the release area and laboratory analytical results, additional remediation activities were warranted.

DELINEATION SOIL SAMPLING AND SURFACE SCRAPING ACTIVITIES

On March 28, 2023, Ensolum personnel returned to the Site to complete additional delineation and inspect the liner of the containment. A 48-hour advance notice of liner inspection was provided via email to the NMOCD District II office. Two boreholes (BH01 and BH02) were advanced via hand auger to a depth of 7 feet bgs, to assess the vertical extent of the release. Boreholes BH01 and BH02 were advanced in the vicinity of soil sample locations SS01 and SS02, respectively. Discrete soil samples were collected from both boreholes at depths of 2 feet, 4 feet, and 7 feet bgs.

A liner integrity inspection was conducted by Ensolum personnel and the liner was determined to be in good working condition. Surface scraping of impacted soil was conducted from the release area as indicated by visible staining and laboratory analytical results from soil samples SS01 and SS02. Surface scraping activities were performed by use of hand tools to a maximum extent practicable (MEP) depth of 0.5 feet bgs. The surface scraped area and the locations of boreholes BH01 and BH02 are presented on Figure 2. Photographic documentation was conducted during the liner inspection and Site visits and a photographic log is included in Appendix B.

On April 20, 2023, Ensolum personnel returned to the Site to complete additional delineation. Four additional boreholes (BH03 through BH06) were advanced via hand auger to a depth of 2 feet bgs to assess the lateral extent of impacted soil. Boreholes BH03 through BH06 were advanced in the vicinity of soil sample locations SS03 through SS06, respectively. Soil from all boreholes advanced were field screened, handled, and analyzed as described above. Field screening results and observations for all boreholes completed were logged on lithologic/soil sampling logs, which are included in Appendix C. All delineation soil sample locations are depicted on Figure 2.

Laboratory analytical results for delineation soil sample BH01 at 2 feet bgs indicated BTEX, TPH-GRO/TPH-DRO, and TPH concentrations exceed the Closure Criteria; however, it should be noted the concentration of benzene in soil sample BH01 at 2 feet bgs was not detected above the laboratory reporting limit and was in compliance with the Closure Criteria. Laboratory analytical results for SS03 through SS06, and all other borehole delineation soil samples collected indicated all COC concentrations were compliant with the Closure Criteria and confirm the vertical and lateral extent is fully defined to the strictest Table I Closure Criteria. Laboratory analytical results are summarized in Table 1 and laboratory analytical reports are included in Appendix D.

The release occurred on the well pad, near active production equipment and active surface pipelines, and in-between two lined tank battery containments. Heavy equipment could not access any portion of the release area due to the area being restricted by active production equipment and active surface pipelines, all of which are located between the two lined tank battery containments. Additionally, XTO safety policy restricts soil disturbing activities to a 2-foot radius of any on-site production equipment. The estimated area of remaining impacted soil and delineation soil sample locations are presented on Figure 3. Based on the delineation soil sample results listed above, which indicates a thickness of 1.5 feet (since 0.5 feet has already been removed), the estimated area of remaining impacted soil measures approximately 1,030 square feet and a total of approximately 58 cubic yards of BTEX and TPH-impacted soil remains in place. A total of approximately 20 cubic yards of impacted soil was removed during the surface scrape activities. The impacted soil was transported and disposed of at the R360 Landfill Disposal Facility in Hobbs, New Mexico.

DEFERRAL REQUEST

XTO is requesting deferral of final remediation due to the presence of active production equipment and active pipelines surrounding in between two lined tank battery containments, where remediation would

require a major facility deconstruction. The impacted soil remaining in place is delineated vertically by delineation soil samples BH01B collected at 4 feet bgs. The soil is laterally delineated by delineation soil samples collected from boreholes SS03/BH03 through SS06/BH06.

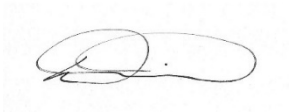
COCs that are currently left in-place are predominantly light-end petroleum hydrocarbons that will likely attenuate naturally over time through adsorption, photo-oxidation, volatilization, and microbial degradation. XTO does not believe deferment will result in imminent risk to human health, the environment, or groundwater. Depth to groundwater was determined to be greater than 100 feet bgs, the liner was determined to be in good working condition, and the impacted soil remaining in place is limited in areal and vertical extent. Any gross impacts were removed via scraping of the surface soils.

Based on the presence of active production equipment within the release area and the complete lateral and vertical delineation of impacted soil remaining in place, XTO requests deferral of final remediation for Incident Number NAPP2304448906 until final reclamation of the well pad or major construction, whichever comes first.

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

Sincerely,
Ensolum, LLC

Benjamin J. Belill
Project Geologist



Daniel R. Moir, PG
Senior Managing Geologist

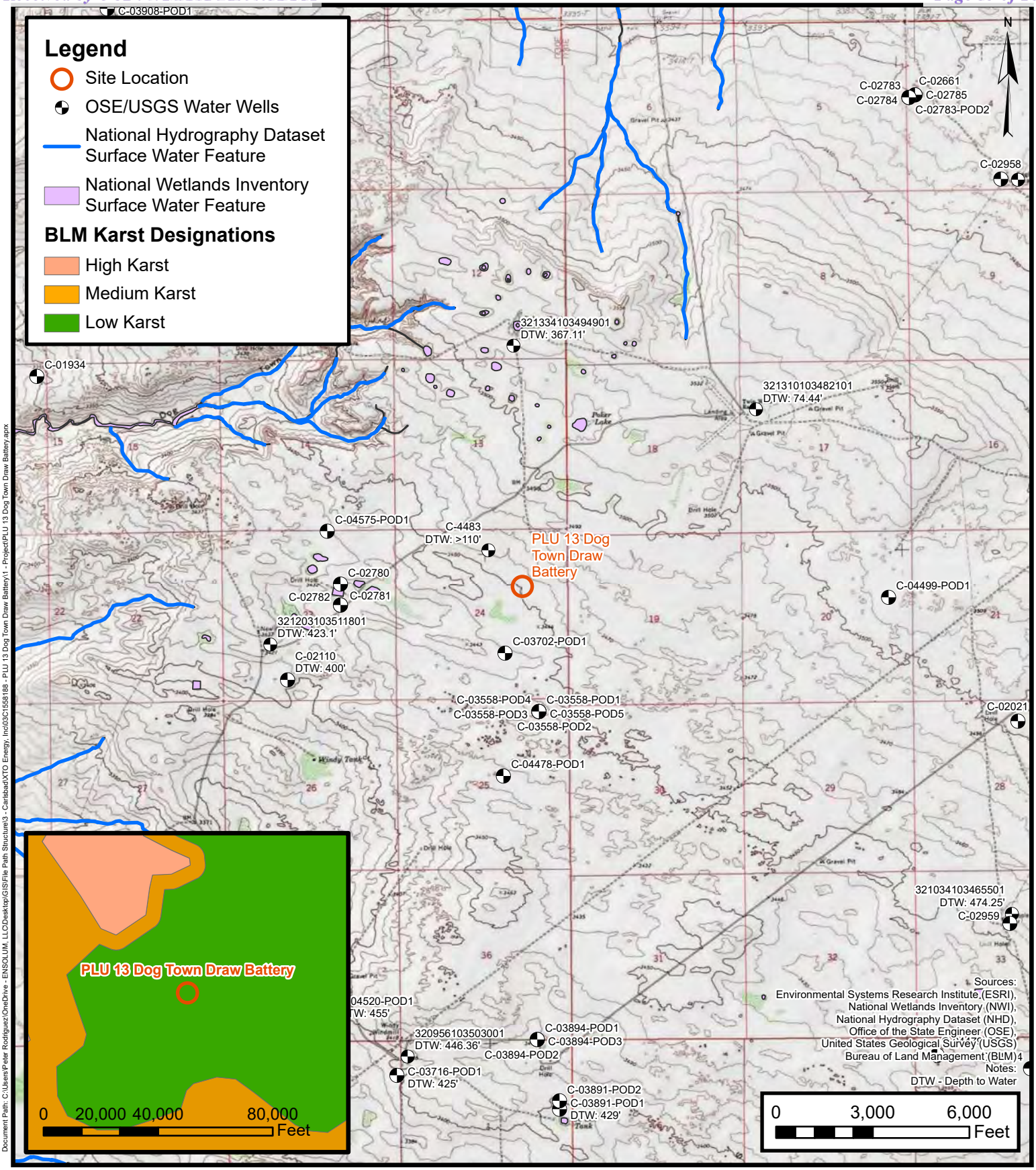
cc: Garrett Green, XTO
Shelby Pennington, XTO
BLM

Appendices:

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

ENSOLUM

FIGURES

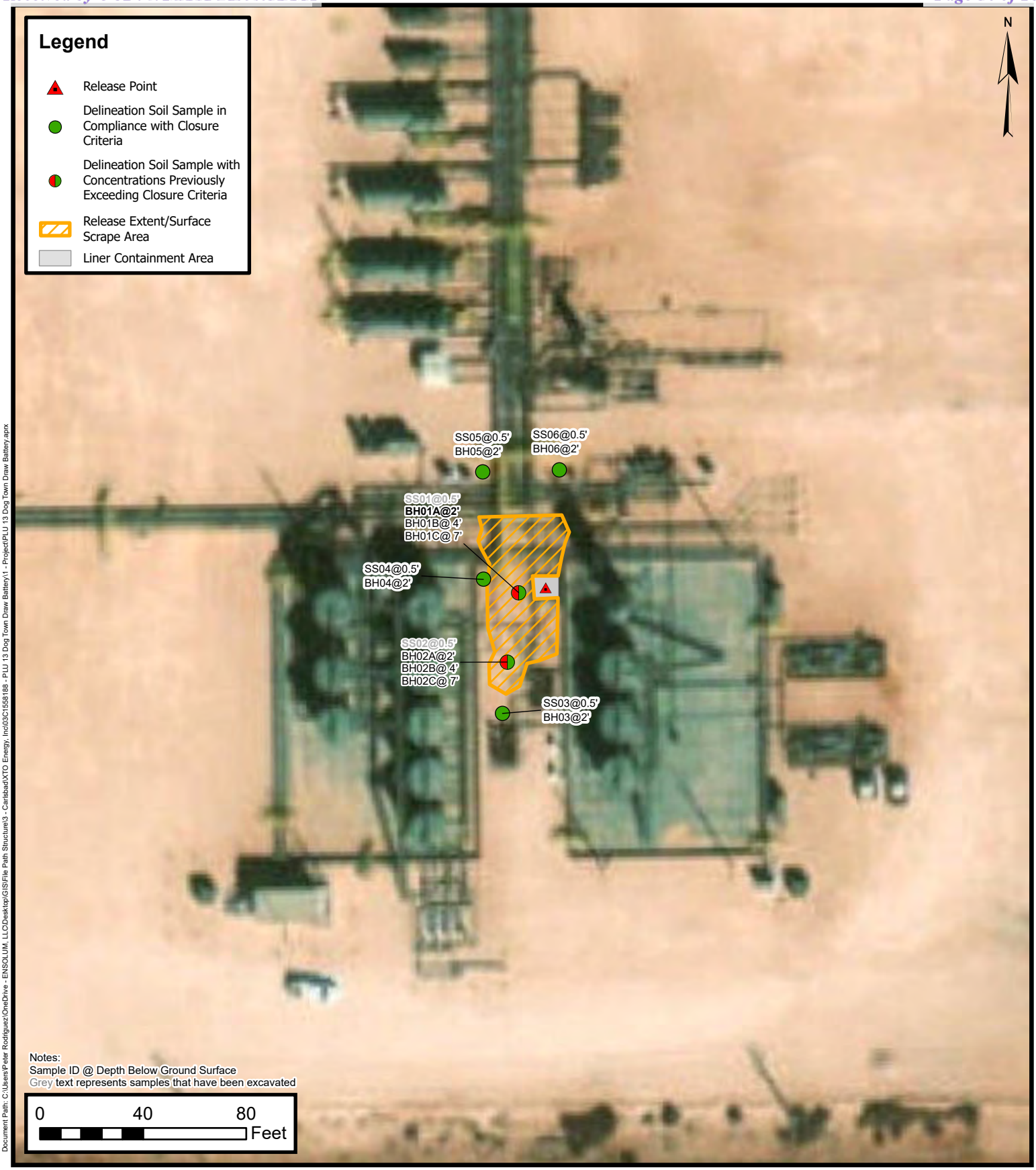


ENSOLUM
Environmental, Engineering and Hydrogeologic Consultants

Site Receptor Map

XTO Energy, Inc
PLU 13 Dog Town Draw Battery
Incident Number: NAPP2304448906
Unit G Sec 24 T24S R30E
Eddy County, New Mexico

FIGURE
1



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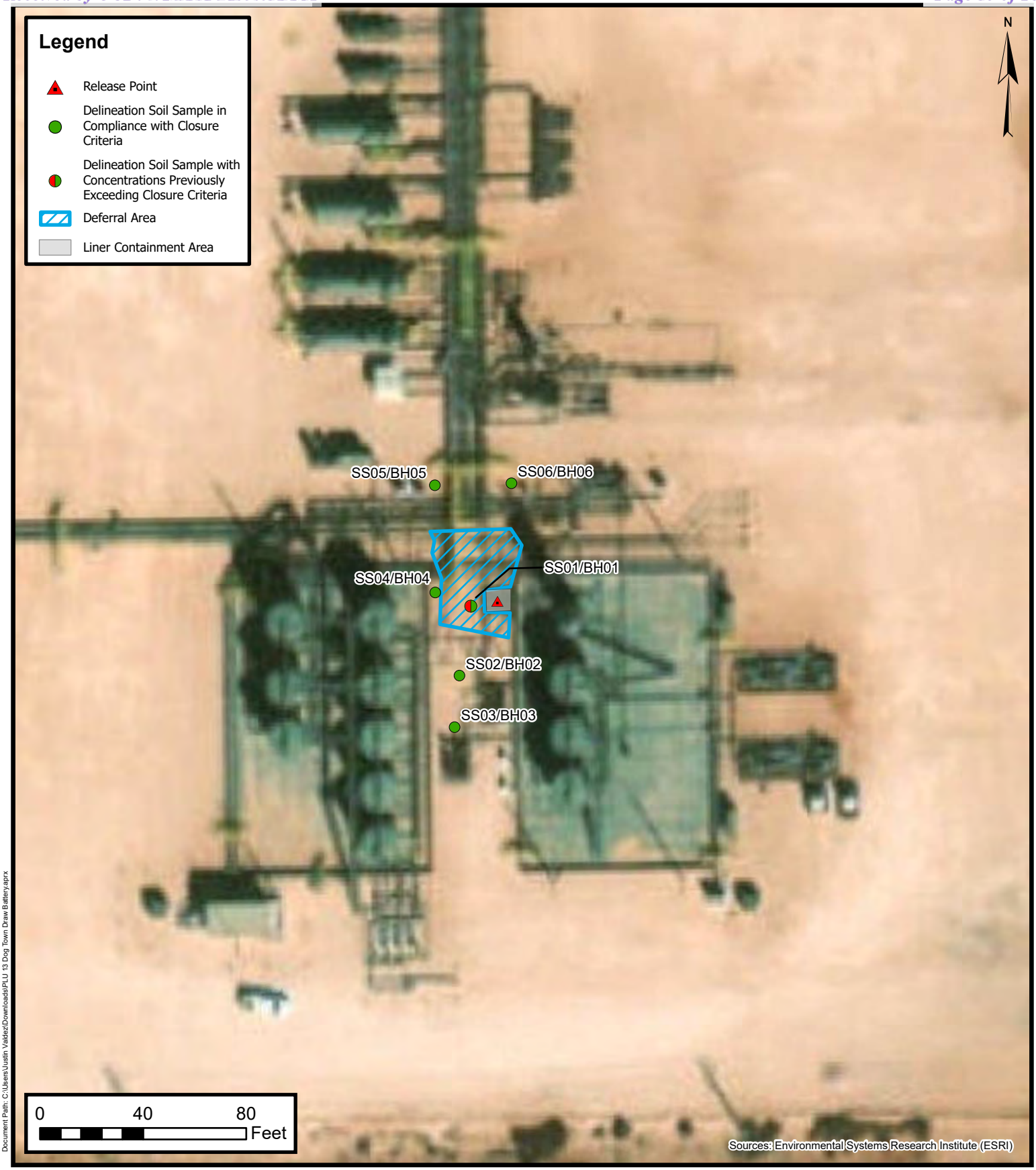
ENSOLUM
Environmental, Engineering and Hydrogeologic Consultants

Delineation Soil Sample Locations

XTO Energy, Inc
PLU 13 Dog Town Draw Battery
Incident Number: NAPP2304448906
Unit G Sec 24 T24S R30E
Eddy County, New Mexico

FIGURE
2



Document Path: C:\Users\Justin Valdez\Downloads\PLU 13 Dog Town Draw Battery.aprx

ENSOLUM
Environmental, Engineering and Hydrogeologic Consultants

Deferral Area Map

XTO Energy, Inc
PLU 13 Dog Town Draw Battery
Incident Number: NAPP2304448906
Unit G Sec 24 T24S R30E
Eddy County, New Mexico

FIGURE
3

ENSOLUM

TABLES

ENSOLUM

TABLE 1
SOIL SAMPLE ANALYTICAL RESULTS
PLU 13 Dog Town Draw 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 I Closure Criteria (NMAC 19.15.29)			10	50	NE	NE	NE	1,000	2,500	20,000
Delineation Soil Samples										
~~SS01~~	~~03/14/2023~~	~~0.5~~	~~3.33~~	~~**335**~~	~~7,690~~	~~7,400~~	~~794~~	~~**15,100**~~	~~**15,900**~~	~~44.9~~
BH01A	03/28/2023	2	<0.495	**78.0**	4,020	3,030	<49.8	**7,050**	**7,050**	133
BH01B	03/28/2023	4	<0.00200	<0.00399	59.2	112	<50.0	171	171	84.2
BH01C	03/28/2023	7	<0.00201	<0.00402	<49.9	<49.9	<49.9	<49.9	<49.9	92.1
~~SS02~~	~~03/14/2023~~	~~0.5~~	~~2.04~~	~~**311**~~	~~6,600~~	~~4,640~~	~~914~~	~~**11,300**~~	~~**12,200**~~	~~84.8~~
BH02A	03/28/2023	2	<0.00198	<0.00396	<49.9	<49.9	<49.9	<49.9	<49.9	92.9
BH02B	03/28/2023	4	<0.00199	<0.00398	<49.9	<49.9	<49.9	<49.9	<49.9	65.2
BH02C	03/28/2023	7	<0.00199	<0.00398	<50.0	<50.0	<50.0	<50.0	<50.0	<5.04
SS03	03/14/2023	0.5	<0.00198	<0.00396	<50.0	<50.0	<50.0	<50.0	<50.0	40.8
BH03	04/20/2023	2	<0.00200	<0.00399	<49.8	<49.8	<49.8	<49.8	<49.8	144
SS04	03/14/2023	0.5	<0.00199	<0.00398	<49.9	<49.9	<49.9	<49.9	<49.9	43.2
BH04	04/20/2023	2	<0.00199	<0.00398	<49.9	<49.9	<49.9	<49.9	<49.9	136
SS05	03/14/2023	0.5	<0.00200	<0.00399	<49.9	<49.9	<49.9	<49.9	<49.9	13.0
BH05	04/20/2023	2	<0.00201	<0.00402	<50.0	<50.0	<50.0	<50.0	<50.0	162
SS06	03/14/2023	0.5	<0.00201	<0.00402	<49.8	<49.8	<49.8	<49.8	<49.8	80.9
BH06	04/20/2023	2	<0.00201	<0.00402	<49.9	<49.9	<49.9	<49.9	<49.9	270

Notes:

bgs: below ground surface
mg/kg: milligrams per kilogram
NMOCD: New Mexico Oil Conservation Division
BTEX: Benzene, Toluene, Ethylbenzene, and Xylenes
Concentrations in **bold** exceed the NMOCD Table I Closure Criteria
GRO: Gasoline Range Organics
DRO: Diesel Range Organics
ORO: Oil Range Organics
TPH: Total Petroleum Hydrocarbon
NMAC: New Mexico Administrative Code
~~Grey~~ text indicates soil sample removed during surface scrape activities

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APPENDIX A

Referenced Well Records

WELL RECORD & LOG

OFFICE OF THE STATE ENGINEER

www.ose.state.nm.us

1. GENERAL AND WELL LOCATION

OSE POD NO. (WELL NO.)	WELL TAG ID NO.	OSE FILE NO(S).
POD1 (BH-01)	n/a	C-4483

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°	12'	31.77"	N
	LONGITUDE	~~104°~~ 103	50'	0.72"	W

* ACCURACY REQUIRED: ONE TENTH OF A SECOND
* DATUM REQUIRED: WGS 84

DESCRIPTION RELATING WELL LOCATION TO STREET ADDRESS AND COMMON LANDMARKS – PLSS (SECTION, TOWNSHJIP, RANGE) WHERE AVAILABLE
NW NW NE Sec. 24 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)
11/24/2020	11/24/2020	temporary well material	110	n/a

COMPLETED WELL IS: ☐ ARTESIAN ☑ DRY HOLE ☐ SHALLOW (UNCONFINED)
STATIC WATER LEVEL IN COMPLETED WELL (FT): n/a

DRILLING FLUID: ☑ AIR ☐ MUD ADDITIVES – SPECIFY:

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

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

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

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	24	24	Sand, Fine-grained,poorly-graded, with caliche, Tan-Off-White	Y ✓ N	
24	34	10	Sand, Fine-grained,poorly-graded, silty, with caliche gravel, Tan-Off-White	Y ✓ N	
34	51	17	Sand, Fine-grained,poorly-graded, silty, with caliche gravel, Light Brown	Y ✓ N	
51	54	3	Sand, Fine-grained,poorly-graded, silty, with caliche gravel, Light Brown-Brown	Y ✓ N	
54	76	22	Sand, Fine-grained,poorly-graded, Brown, dry	Y ✓ N	
76	101	25	Sand, Fine-grained,poorly-graded, Light-Brown, dry	Y ✓ N	
101	110	9	Sand, Fine-grained,poorly-graded, with gravel, Light-Brown, dry-moist	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 materials removed and the soil boring backfilled using drill cuttings from total depth to ten feet below ground surface, then hydrated bentonite chips from ten feet below ground surface to surface. Logs adapted from LTE on-site geologist.

RECEIVED OCD 12/27/2023 PM 12:22

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

Shane Eldridge

6. SIGNATURE

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

Jack Atkins — Jackie D. Atkins — 12/14/20

SIGNATURE OF DRILLER / PRINT SIGNEE NAME — DATE

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

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

ENSOLUM

APPENDIX B

Photographic Log

ENSOLUM

Photographic Log
XTO Energy, Inc
PLU 13 Dog Town Draw Battery
Incident Number NAPP2304448906

Photograph 1 Date: 3/14/2023
Description: Site assessment, release extent.
View: North

Photograph 2 Date: 3/14/2023
Description: Site assessment, release extent.
View: South

Photograph 3 Date: 3/28/2023
Description: Containment area, liner inspection.
View: South

Photograph 4 Date: 3/28/2023
Description: Delineation activities, BH02.
View: North

ENSOLUM

Photographic Log
XTO Energy, Inc
PLU 13 Dog Town Draw Battery
Incident Number NAPP2304448906

Photograph 5 Date: 3/28/2023
Description: Surface scraping activities.
View: South

Photograph 6 Date: 3/28/2023
Description: Surface scraping activities.
View: North

Photograph 7 Date: 3/28/2023
Description: Surface scraping activities.
View: South

Photograph 8 Date: 3/29/2023
Description: Surface scrape backfilled.
View: North

ENSOLUM

APPENDIX C

Lithologic Soil Sampling Logs

ENSOLUM

Sample Name: BH01	Date: 03/28/2023	
Site Name: PLU 13 Dog Town Draw Battery		
Incident Number: nAPP2304448906		
Job Number: 03C1558188		
LITHOLOGIC / SOIL SAMPLING LOG	Logged By: Mariaha O'Dell	Method: Hand Auger
Coordinates: 32.205653, -103.830147	Hole Diameter: 3.5"	Total Depth: 7'

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. Chloride field screenings include a 40% correction factor.

Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample ID	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithologic Descriptions
M	<173.6	2,331	Y	SS01	0.5	0	CCHE	0-1, CALICHE, moist, light brown, unconsolidated fill, dark brown staining, moderate-high H/C odor.
D	207	1,605	N		1	1	SP	1'-3', SAND, dry, reddish brown, poorly graded, very fine - fine grained, slight odor, no stain.
D	<173.6	1,273	N	BH01A	2	2		
M	<173.6	552	N		3	3	SW	3'-6', SAND, moist, reddish brown, well graded, very fine-fine grained, slight odor, no stain.
M	<173.6	125	N	BH01B	4	4		
M	<173.6	592	N		5	5		
D	<173.6	160	N		6	6	SW	6'-7', SAND, dry, reddish brown, well graded, very fine-fine grained, slight odor, no stain.
D	<173.6	55	N	BH01C	7	7		

Total Depth @ 7' bgs.

ENSOLUM

	Sample Name: BH02	Date: 03/28/2023
	Site Name: PLU 13 Dog Town Draw Battery	
	Incident Number: nAPP2304448906	
	Job Number: 03C1558188	
LITHOLOGIC / SOIL SAMPLING LOG	Logged By: Mariaha O'Dell	Method: Hand Auger
Coordinates: 32.205568, -103.830174	Hole Diameter: 3.5"	Total Depth: 7'

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. Chloride field screenings include a 40% correction factor.

Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample ID	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithologic Descriptions
M	<173.6	2,350	Y	SS02	0.5	0	CCHE	0-1, CALICHE, moist, light brown, unconsolidated fill, dark brown staining, moderate-high H/C odor.
D	<173.6	143	N		1	1	SP	1'-2', SAND, dry, reddish brown, poorly graded, very fine - fine grained, slight odor, no stain.
D	<173.6	6	N	BH02A	2	2	SW	2'-4', SAND, moist, reddish brown, well graded, very fine-fine grained, slight odor, no stain.
M	<173.6	3.7	N	BH02B	4	4	SW	4'-7', SAND, dry, reddish brown, well graded, very fine-fine grained, slight odor, no stain.
D	<173.6	11.2	N	BH02C	7	7		

Total Depth @ 7' bgs.

ENSOLUM

	Sample Name: BH03	Date: 04/20/2023
	Site Name: PLU 13 Dog Town Draw Battery	
	Incident Number: nAPP2304448906	
	Job Number: 03C1558188	
LITHOLOGIC / SOIL SAMPLING LOG	Logged By: Connor Whitman	Method: Hand Auger
Coordinates: 32.205523, -103.830169	Hole Diameter: 3.5"	Total Depth: 2'

Comments: Field screening conducted with HACH Chloride Test Strips and PID for chloride and vapor, respectively. Chloride test performed with 1:4 dilution factor of soil to distilled water. Chloride field screenings include a 40% correction factor.

Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample ID	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithologic Descriptions
M	<173.6	0.0	N	SS03	0.5	0	CCHE	0-1, CALICHE, moist, light brown, unconsolidated fill, no stain, no odor.
D	<173.6	0.0	N		1	1	SP	1'-2', SAND, dry, reddish brown, poorly graded, very fine - fine grained, slight odor, no stain.
D	<173.6	0.0	N	BH03	2	2	TD	Total depth at 2 feet bgs.

Total Depth @ 2' bgs.

ENSOLUM

	Sample Name: BH04	Date: 04/20/2023
	Site Name: PLU 13 Dog Town Draw Battery	
	Incident Number: nAPP2304448906	
	Job Number: 03C1558188	
LITHOLOGIC / SOIL SAMPLING LOG	Logged By: Connor Whitman	Method: Hand Auger
Coordinates: 32.205669, -103.830193	Hole Diameter: 3.5"	Total Depth: 2'

Comments: Field screening conducted with HACH Chloride Test Strips and PID for chloride and vapor, respectively. Chloride test performed with 1:4 dilution factor of soil to distilled water. Chloride field screenings include a 40% correction factor.

Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample ID	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithologic Descriptions
M	<173.6	0.0	N	SS04	0.5	0	CCHE	0-1, CALICHE, moist, light brown, unconsolidated fill, no stain, no odor.
D	<173.6	0.0	N		1	1	SP	1'-2', SAND, dry, reddish brown, poorly graded, very fine - fine grained, slight odor, no stain.
D	<173.6	3.1	N	BH04	2	2	TD	Total depth at 2 feet bgs.

Total Depth @ 2' bgs.

ENSOLUM

	Sample Name: BH05	Date: 04/20/2023
	Site Name: PLU 13 Dog Town Draw Battery	
	Incident Number: nAPP2304448906	
	Job Number: 03C1558188	
LITHOLOGIC / SOIL SAMPLING LOG	Logged By: Connor Whitman	Method: Hand Auger
Coordinates: 32.205784, -103.830198	Hole Diameter: 3.5"	Total Depth: 2'

Comments: Field screening conducted with HACH Chloride Test Strips and PID for chloride and vapor, respectively. Chloride test performed with 1:4 dilution factor of soil to distilled water. Chloride field screenings include a 40% correction factor.

Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample ID	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithologic Descriptions
M	<173.6	0.0	N	SS05	0.5	0	CCHE	0-1, CALICHE, moist, light brown, unconsolidated fill, no stain, no odor.
D	<173.6	0.5	N		1	1	SP	1'-2', SAND, dry, reddish brown, poorly graded, very fine - fine grained, slight odor, no stain.
D	<173.6	1.2	N	BH05	2	2	TD	Total depth at 2 feet bgs.

Total Depth @ 2' bgs.

ENSOLUM

	Sample Name: BH06	Date: 04/20/2023
	Site Name: PLU 13 Dog Town Draw Battery	
	Incident Number: nAPP2304448906	
	Job Number: 03C1558188	
LITHOLOGIC / SOIL SAMPLING LOG	Logged By: Connor Whitman	Method: Hand Auger
Coordinates: 32.205782, -103.830091	Hole Diameter: 3.5"	Total Depth: 2'

Comments: Field screening conducted with HACH Chloride Test Strips and PID for chloride and vapor, respectively. Chloride test performed with 1:4 dilution factor of soil to distilled water. Chloride field screenings include a 40% correction factor.

Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample ID	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithologic Descriptions
M	<173.6	0.0	N	SS06	0.5	0	CCHE	0-1, CALICHE, moist, light brown, unconsolidated fill, no stain, no odor.
D	<173.6	0.6	N		1	1	SP	1'-2', SAND, dry, reddish brown, poorly graded, very fine - fine grained, slight odor, no stain.
D	<173.6	0.7	N	BH06	2	2	TD	Total depth at 2 feet bgs.

Total Depth @ 2' bgs.

ENSOLUM

APPENDIX D

Laboratory Analytical Reports & Chain of Custody Documentation

eurofins | Environment Testing

ANALYTICAL REPORT

PREPARED FOR

Attn: Ben Belill
Ensolum
601 N. Marienfeld St.
Suite 400
Midland, Texas 79701

Generated 3/28/2023 7:58:51 AM

JOB DESCRIPTION

PLU 13 Dogtown Draw Battery
SDG NUMBER 03C1558188

JOB NUMBER

890-4314-1

Eurofins Carlsbad
1089 N Canal St.
Carlsbad NM 88220

Eurofins Carlsbad

Job Notes

Analytical test results meet all requirements of the associated regulatory program (i.e., NELAC (TNI), DoD, and ISO 17025) unless otherwise noted under the individual analysis.

Authorization

Generated
3/28/2023 7:58:51 AM

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

Client: Ensolum
Project/Site: PLU 13 Dogtown Draw Battery

Laboratory Job ID: 890-4314-1
SDG: 03C1558188

Table of Contents

Definitions/Glossary

Client: Ensolum
Project/Site: PLU 13 Dogtown Draw Battery

Job ID: 890-4314-1
SDG: 03C1558188

Qualifiers

GC VOA

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

GC Semi VOA

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

HPLC/IC

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

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	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 13 Dogtown Draw Battery

Job ID: 890-4314-1
SDG: 03C1558188

Job ID: 890-4314-1

Laboratory: Eurofins Carlsbad

Narrative

Job Narrative
890-4314-1

Receipt
The samples were received on 3/15/2023 11:53 AM. 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 1.0°C

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

GC Semi VOA
Method 8015MOD_NM: Surrogate recovery for the following samples were outside control limits: (CCV 880-49069/47), (LCS 880-49114/2-A) and (LCSD 880-49114/3-A). Evidence of matrix interferences is not obvious.

Method 8015MOD_NM: The surrogate recovery for the blank associated with preparation batch 880-49114 and analytical batch 880-49069 was outside the upper control limits.

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

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

Client Sample Results

Client: Ensolum
Project/Site: PLU 13 Dogtown Draw Battery

Job ID: 890-4314-1
SDG: 03C1558188

Client Sample ID: SS03

Date Collected: 03/14/23 10:30
Date Received: 03/15/23 11:53
Sample Depth: 0.5

Lab Sample ID: 890-4314-1
Matrix: Solid

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00198	U	0.00198		mg/Kg		03/23/23 14:58	03/25/23 01:37	1
Toluene	<0.00198	U	0.00198		mg/Kg		03/23/23 14:58	03/25/23 01:37	1
Ethylbenzene	<0.00198	U	0.00198		mg/Kg		03/23/23 14:58	03/25/23 01:37	1
m-Xylene & p-Xylene	<0.00396	U	0.00396		mg/Kg		03/23/23 14:58	03/25/23 01:37	1
o-Xylene	<0.00198	U	0.00198		mg/Kg		03/23/23 14:58	03/25/23 01:37	1
Xylenes, Total	<0.00396	U	0.00396		mg/Kg		03/23/23 14:58	03/25/23 01:37	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*105*		*70 - 130*	*03/23/23 14:58*	*03/25/23 01:37*	*1*
1,4-Difluorobenzene (Surr)	*104*		*70 - 130*	*03/23/23 14:58*	*03/25/23 01:37*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00396	U	0.00396		mg/Kg			03/25/23 16:16	1

Method: SW846 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			03/22/23 16:11	1

Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		03/21/23 12:04	03/22/23 00:22	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		03/21/23 12:04	03/22/23 00:22	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		03/21/23 12:04	03/22/23 00:22	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*83*		*70 - 130*	*03/21/23 12:04*	*03/22/23 00:22*	*1*
o-Terphenyl	*97*		*70 - 130*	*03/21/23 12:04*	*03/22/23 00:22*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**40.8**		4.99		mg/Kg			03/25/23 14:41	1

Client Sample ID: SS04

Date Collected: 03/14/23 10:40
Date Received: 03/15/23 11:53
Sample Depth: 0.5

Lab Sample ID: 890-4314-2
Matrix: Solid

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199		mg/Kg		03/23/23 14:58	03/25/23 01:58	1
Toluene	<0.00199	U	0.00199		mg/Kg		03/23/23 14:58	03/25/23 01:58	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		03/23/23 14:58	03/25/23 01:58	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		03/23/23 14:58	03/25/23 01:58	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		03/23/23 14:58	03/25/23 01:58	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		03/23/23 14:58	03/25/23 01:58	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*116*		*70 - 130*	*03/23/23 14:58*	*03/25/23 01:58*	*1*

Client Sample Results

Client: Ensolum
Project/Site: PLU 13 Dogtown Draw Battery

Job ID: 890-4314-1
SDG: 03C1558188

Client Sample ID: SS04

Date Collected: 03/14/23 10:40
Date Received: 03/15/23 11:53
Sample Depth: 0.5

Lab Sample ID: 890-4314-2

Matrix: Solid

Method: SW846 8021B - Volatile Organic Compounds (GC) (Continued)

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,4-Difluorobenzene (Surr)	*103*		*70 - 130*	*03/23/23 14:58*	*03/25/23 01:58*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398		mg/Kg			03/25/23 16:16	1

Method: SW846 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			03/22/23 16:11	1

Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9		mg/Kg		03/21/23 12:04	03/22/23 00:44	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		03/21/23 12:04	03/22/23 00:44	1
OII Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		03/21/23 12:04	03/22/23 00:44	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*102*		*70 - 130*	*03/21/23 12:04*	*03/22/23 00:44*	*1*
o-Terphenyl	*116*		*70 - 130*	*03/21/23 12:04*	*03/22/23 00:44*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**43.2**		4.96		mg/Kg			03/27/23 16:15	1

Client Sample ID: SS05

Date Collected: 03/14/23 10:45
Date Received: 03/15/23 11:53
Sample Depth: 0.5

Lab Sample ID: 890-4314-3

Matrix: Solid

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		03/23/23 14:58	03/25/23 02:18	1
Toluene	<0.00200	U	0.00200		mg/Kg		03/23/23 14:58	03/25/23 02:18	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		03/23/23 14:58	03/25/23 02:18	1
m-Xylene & p-Xylene	<0.00399	U	0.00399		mg/Kg		03/23/23 14:58	03/25/23 02:18	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		03/23/23 14:58	03/25/23 02:18	1
Xylenes, Total	<0.00399	U	0.00399		mg/Kg		03/23/23 14:58	03/25/23 02:18	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*115*		*70 - 130*	*03/23/23 14:58*	*03/25/23 02:18*	*1*
1,4-Difluorobenzene (Surr)	*93*		*70 - 130*	*03/23/23 14:58*	*03/25/23 02:18*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00399	U	0.00399		mg/Kg			03/25/23 16:16	1

Method: SW846 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			03/22/23 16:11	1

Client Sample Results

Client: Ensolum
Project/Site: PLU 13 Dogtown Draw Battery

Job ID: 890-4314-1
SDG: 03C1558188

Client Sample ID: SS05

Date Collected: 03/14/23 10:45
Date Received: 03/15/23 11:53
Sample Depth: 0.5

Lab Sample ID: 890-4314-3

Matrix: Solid

Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9		mg/Kg		03/21/23 12:04	03/22/23 01:06	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		03/21/23 12:04	03/22/23 01:06	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		03/21/23 12:04	03/22/23 01:06	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*82*		*70 - 130*	*03/21/23 12:04*	*03/22/23 01:06*	*1*
o-Terphenyl	*94*		*70 - 130*	*03/21/23 12:04*	*03/22/23 01:06*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**13.0**		5.05		mg/Kg			03/25/23 14:59	1

Client Sample ID: SS06

Date Collected: 03/14/23 10:50
Date Received: 03/15/23 11:53
Sample Depth: 0.5

Lab Sample ID: 890-4314-4

Matrix: Solid

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00201	U	0.00201		mg/Kg		03/23/23 14:58	03/25/23 02:39	1
Toluene	<0.00201	U	0.00201		mg/Kg		03/23/23 14:58	03/25/23 02:39	1
Ethylbenzene	<0.00201	U	0.00201		mg/Kg		03/23/23 14:58	03/25/23 02:39	1
m-Xylene & p-Xylene	<0.00402	U	0.00402		mg/Kg		03/23/23 14:58	03/25/23 02:39	1
o-Xylene	<0.00201	U	0.00201		mg/Kg		03/23/23 14:58	03/25/23 02:39	1
Xylenes, Total	<0.00402	U	0.00402		mg/Kg		03/23/23 14:58	03/25/23 02:39	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*116*		*70 - 130*	*03/23/23 14:58*	*03/25/23 02:39*	*1*
1,4-Difluorobenzene (Surr)	*103*		*70 - 130*	*03/23/23 14:58*	*03/25/23 02:39*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00402	U	0.00402		mg/Kg			03/25/23 16:16	1

Method: SW846 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.8	U	49.8		mg/Kg			03/22/23 16:11	1

Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.8	U	49.8		mg/Kg		03/21/23 12:04	03/22/23 01:50	1
Diesel Range Organics (Over C10-C28)	<49.8	U	49.8		mg/Kg		03/21/23 12:04	03/22/23 01:50	1
Oil Range Organics (Over C28-C36)	<49.8	U	49.8		mg/Kg		03/21/23 12:04	03/22/23 01:50	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*88*		*70 - 130*	*03/21/23 12:04*	*03/22/23 01:50*	*1*
o-Terphenyl	*102*		*70 - 130*	*03/21/23 12:04*	*03/22/23 01:50*	*1*

Client Sample Results

Client: Ensolum
Project/Site: PLU 13 Dogtown Draw Battery

Job ID: 890-4314-1
SDG: 03C1558188

Client Sample ID: SS06
Date Collected: 03/14/23 10:50
Date Received: 03/15/23 11:53
Sample Depth: 0.5

Lab Sample ID: 890-4314-4
Matrix: Solid

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	80.9		5.01		mg/Kg			03/25/23 15:03	1

Surrogate Summary

Client: Ensolum
Project/Site: PLU 13 Dogtown Draw Battery

Job ID: 890-4314-1
SDG: 03C1558188

Method: 8021B - Volatile Organic Compounds (GC)

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

		Percent Surrogate Recovery (Acceptance Limits)	
		BFB1	DFBZ1
Lab Sample ID	Client Sample ID	(70-130)	(70-130)
890-4314-1	SS03	105	104
890-4314-1 MS	SS03	113	109
890-4314-1 MSD	SS03	118	105
890-4314-2	SS04	116	103
890-4314-3	SS05	115	93
890-4314-4	SS06	116	103
LCS 880-49337/1-A	Lab Control Sample	113	109
LCSD 880-49337/2-A	Lab Control Sample Dup	117	110
MB 880-49331/5-A	Method Blank	101	100
MB 880-49337/5-A	Method Blank	101	101

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)
880-26040-A-1-B MS	Matrix Spike	101	104
880-26040-A-1-C MSD	Matrix Spike Duplicate	102	107
890-4314-1	SS03	83	97
890-4314-2	SS04	102	116
890-4314-3	SS05	82	94
890-4314-4	SS06	88	102
LCS 880-49114/2-A	Lab Control Sample	108	132 S1+
LCSD 880-49114/3-A	Lab Control Sample Dup	109	135 S1+
MB 880-49114/1-A	Method Blank	117	144 S1+

Surrogate Legend

1CO = 1-Chlorooctane
OTPH = o-Terphenyl

QC Sample Results

Client: Ensolum
Project/Site: PLU 13 Dogtown Draw Battery

Job ID: 890-4314-1
SDG: 03C1558188

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-49331/5-A
Matrix: Solid
Analysis Batch: 49375

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 49331

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		03/23/23 13:25	03/24/23 12:35	1
Toluene	<0.00200	U	0.00200		mg/Kg		03/23/23 13:25	03/24/23 12:35	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		03/23/23 13:25	03/24/23 12:35	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		03/23/23 13:25	03/24/23 12:35	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		03/23/23 13:25	03/24/23 12:35	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		03/23/23 13:25	03/24/23 12:35	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*101*		*70 - 130*	*03/23/23 13:25*	*03/24/23 12:35*	*1*
1,4-Difluorobenzene (Surr)	*100*		*70 - 130*	*03/23/23 13:25*	*03/24/23 12:35*	*1*

Lab Sample ID: MB 880-49337/5-A
Matrix: Solid
Analysis Batch: 49375

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 49337

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		03/23/23 14:58	03/25/23 01:09	1
Toluene	<0.00200	U	0.00200		mg/Kg		03/23/23 14:58	03/25/23 01:09	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		03/23/23 14:58	03/25/23 01:09	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		03/23/23 14:58	03/25/23 01:09	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		03/23/23 14:58	03/25/23 01:09	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		03/23/23 14:58	03/25/23 01:09	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*101*		*70 - 130*	*03/23/23 14:58*	*03/25/23 01:09*	*1*
1,4-Difluorobenzene (Surr)	*101*		*70 - 130*	*03/23/23 14:58*	*03/25/23 01:09*	*1*

Lab Sample ID: LCS 880-49337/1-A
Matrix: Solid
Analysis Batch: 49375

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 49337

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Benzene			0.100	0.1049		mg/Kg		105	70 - 130		
Toluene			0.100	0.1029		mg/Kg		103	70 - 130		
Ethylbenzene			0.100	0.09246		mg/Kg		92	70 - 130		
m-Xylene & p-Xylene			0.200	0.1835		mg/Kg		92	70 - 130		
o-Xylene			0.100	0.09346		mg/Kg		93	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*113*		*70 - 130*
1,4-Difluorobenzene (Surr)	*109*		*70 - 130*

Lab Sample ID: LCSD 880-49337/2-A
Matrix: Solid
Analysis Batch: 49375

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 49337

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene			0.100	0.1146		mg/Kg		115	70 - 130	9	35

QC Sample Results

Client: Ensolum
Project/Site: PLU 13 Dogtown Draw Battery

Job ID: 890-4314-1
SDG: 03C1558188

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

Lab Sample ID: LCSD 880-49337/2-A
Matrix: Solid
Analysis Batch: 49375

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 49337

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Toluene			0.100	0.1130		mg/Kg		113	70 - 130	9	35
Ethylbenzene			0.100	0.1006		mg/Kg		101	70 - 130	8	35
m-Xylene & p-Xylene			0.200	0.1988		mg/Kg		99	70 - 130	8	35
o-Xylene			0.100	0.1014		mg/Kg		101	70 - 130	8	35

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*117*		*70 - 130*
1,4-Difluorobenzene (Surr)	*110*		*70 - 130*

Lab Sample ID: 890-4314-1 MS
Matrix: Solid
Analysis Batch: 49375

Client Sample ID: SS03
Prep Type: Total/NA
Prep Batch: 49337

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	<0.00198	U	0.0998	0.08158		mg/Kg		82	70 - 130
Toluene	<0.00198	U	0.0998	0.07972		mg/Kg		79	70 - 130
Ethylbenzene	<0.00198	U	0.0998	0.07118		mg/Kg		71	70 - 130
m-Xylene & p-Xylene	<0.00396	U	0.200	0.1402		mg/Kg		70	70 - 130
o-Xylene	<0.00198	U	0.0998	0.07249		mg/Kg		73	70 - 130

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*113*		*70 - 130*
1,4-Difluorobenzene (Surr)	*109*		*70 - 130*

Lab Sample ID: 890-4314-1 MSD
Matrix: Solid
Analysis Batch: 49375

Client Sample ID: SS03
Prep Type: Total/NA
Prep Batch: 49337

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	<0.00198	U	0.100	0.09825		mg/Kg		98	70 - 130	19	35
Toluene	<0.00198	U	0.100	0.09473		mg/Kg		94	70 - 130	17	35
Ethylbenzene	<0.00198	U	0.100	0.07936		mg/Kg		79	70 - 130	11	35
m-Xylene & p-Xylene	<0.00396	U	0.200	0.1542		mg/Kg		77	70 - 130	9	35
o-Xylene	<0.00198	U	0.100	0.07951		mg/Kg		79	70 - 130	9	35

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*118*		*70 - 130*
1,4-Difluorobenzene (Surr)	*105*		*70 - 130*

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

Lab Sample ID: MB 880-49114/1-A
Matrix: Solid
Analysis Batch: 49069

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 49114

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		03/21/23 12:04	03/21/23 19:58	1

QC Sample Results

Client: Ensolum
Project/Site: PLU 13 Dogtown Draw Battery

Job ID: 890-4314-1
SDG: 03C1558188

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

Lab Sample ID: MB 880-49114/1-A
Matrix: Solid
Analysis Batch: 49069

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 49114

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		03/21/23 12:04	03/21/23 19:58	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		03/21/23 12:04	03/21/23 19:58	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*117*		*70 - 130*	*03/21/23 12:04*	*03/21/23 19:58*	*1*
o-Terphenyl	*144*	*S1+*	*70 - 130*	*03/21/23 12:04*	*03/21/23 19:58*	*1*

Lab Sample ID: LCS 880-49114/2-A
Matrix: Solid
Analysis Batch: 49069

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 49114

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Gasoline Range Organics (GRO)-C6-C10			1000	963.2		mg/Kg		96	70 - 130		
Diesel Range Organics (Over C10-C28)			1000	854.6		mg/Kg		85	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1-Chlorooctane	*108*		*70 - 130*
o-Terphenyl	*132*	*S1+*	*70 - 130*

Lab Sample ID: LCSD 880-49114/3-A
Matrix: Solid
Analysis Batch: 49069

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 49114

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10			1000	952.5		mg/Kg		95	70 - 130	1	20
Diesel Range Organics (Over C10-C28)			1000	878.0		mg/Kg		88	70 - 130	3	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1-Chlorooctane	*109*		*70 - 130*
o-Terphenyl	*135*	*S1+*	*70 - 130*

Lab Sample ID: 880-26040-A-1-B MS
Matrix: Solid
Analysis Batch: 49069

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 49114

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	997	1058		mg/Kg		106	70 - 130		
Diesel Range Organics (Over C10-C28)	<50.0	U	997	1078		mg/Kg		106	70 - 130		

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
1-Chlorooctane	*101*		*70 - 130*
o-Terphenyl	*104*		*70 - 130*

QC Sample Results

Client: Ensolum
Project/Site: PLU 13 Dogtown Draw Battery

Job ID: 890-4314-1
SDG: 03C1558188

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

Lab Sample ID: 880-26040-A-1-C MSD
Matrix: Solid
Analysis Batch: 49069

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 49114

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	<50.0	U	998	1066		mg/Kg		107	70 - 130	1	20
Diesel Range Organics (Over C10-C28)	<50.0	U	998	1110		mg/Kg		109	70 - 130	3	20

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
1-Chlorooctane	*102*		*70 - 130*
o-Terphenyl	*107*		*70 - 130*

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-49263/1-A
Matrix: Solid
Analysis Batch: 49472

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			03/25/23 14:27	1

Lab Sample ID: LCS 880-49263/2-A
Matrix: Solid
Analysis Batch: 49472

Client Sample ID: Lab Control Sample
Prep Type: Soluble

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride			250	242.2		mg/Kg		97	90 - 110		

Lab Sample ID: LCSD 880-49263/3-A
Matrix: Solid
Analysis Batch: 49472

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	249.0		mg/Kg		100	90 - 110	3	20

Lab Sample ID: 890-4314-1 MS
Matrix: Solid
Analysis Batch: 49472

Client Sample ID: SS03
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride	40.8		250	273.9		mg/Kg		93	90 - 110		

Lab Sample ID: 890-4314-1 MSD
Matrix: Solid
Analysis Batch: 49472

Client Sample ID: SS03
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	40.8		250	281.3		mg/Kg		96	90 - 110	3	20

QC Association Summary

Client: Ensolum
Project/Site: PLU 13 Dogtown Draw Battery

Job ID: 890-4314-1
SDG: 03C1558188

GC VOA

Prep Batch: 49331

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 880-49331/5-A	Method Blank	Total/NA	Solid	5035	

Prep Batch: 49337

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4314-1	SS03	Total/NA	Solid	5035	
890-4314-2	SS04	Total/NA	Solid	5035	
890-4314-3	SS05	Total/NA	Solid	5035	
890-4314-4	SS06	Total/NA	Solid	5035	
MB 880-49337/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-49337/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-49337/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
890-4314-1 MS	SS03	Total/NA	Solid	5035	
890-4314-1 MSD	SS03	Total/NA	Solid	5035	

Analysis Batch: 49375

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4314-1	SS03	Total/NA	Solid	8021B	49337
890-4314-2	SS04	Total/NA	Solid	8021B	49337
890-4314-3	SS05	Total/NA	Solid	8021B	49337
890-4314-4	SS06	Total/NA	Solid	8021B	49337
MB 880-49331/5-A	Method Blank	Total/NA	Solid	8021B	49331
MB 880-49337/5-A	Method Blank	Total/NA	Solid	8021B	49337
LCS 880-49337/1-A	Lab Control Sample	Total/NA	Solid	8021B	49337
LCSD 880-49337/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	49337
890-4314-1 MS	SS03	Total/NA	Solid	8021B	49337
890-4314-1 MSD	SS03	Total/NA	Solid	8021B	49337

Analysis Batch: 49495

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4314-1	SS03	Total/NA	Solid	Total BTEX	
890-4314-2	SS04	Total/NA	Solid	Total BTEX	
890-4314-3	SS05	Total/NA	Solid	Total BTEX	
890-4314-4	SS06	Total/NA	Solid	Total BTEX	

GC Semi VOA

Analysis Batch: 49069

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4314-1	SS03	Total/NA	Solid	8015B NM	49114
890-4314-2	SS04	Total/NA	Solid	8015B NM	49114
890-4314-3	SS05	Total/NA	Solid	8015B NM	49114
890-4314-4	SS06	Total/NA	Solid	8015B NM	49114
MB 880-49114/1-A	Method Blank	Total/NA	Solid	8015B NM	49114
LCS 880-49114/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	49114
LCSD 880-49114/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	49114
880-26040-A-1-B MS	Matrix Spike	Total/NA	Solid	8015B NM	49114
880-26040-A-1-C MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	49114

Prep Batch: 49114

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4314-1	SS03	Total/NA	Solid	8015NM Prep	

QC Association Summary

Client: Ensolum
Project/Site: PLU 13 Dogtown Draw Battery

Job ID: 890-4314-1
SDG: 03C1558188

GC Semi VOA (Continued)

Prep Batch: 49114 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4314-2	SS04	Total/NA	Solid	8015NM Prep	
890-4314-3	SS05	Total/NA	Solid	8015NM Prep	
890-4314-4	SS06	Total/NA	Solid	8015NM Prep	
MB 880-49114/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-49114/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-49114/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
880-26040-A-1-B MS	Matrix Spike	Total/NA	Solid	8015NM Prep	
880-26040-A-1-C MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	

Analysis Batch: 49233

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4314-1	SS03	Total/NA	Solid	8015 NM	
890-4314-2	SS04	Total/NA	Solid	8015 NM	
890-4314-3	SS05	Total/NA	Solid	8015 NM	
890-4314-4	SS06	Total/NA	Solid	8015 NM	

HPLC/IC

Leach Batch: 49263

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4314-1	SS03	Soluble	Solid	DI Leach	
890-4314-2	SS04	Soluble	Solid	DI Leach	
890-4314-3	SS05	Soluble	Solid	DI Leach	
890-4314-4	SS06	Soluble	Solid	DI Leach	
MB 880-49263/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-49263/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-49263/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
890-4314-1 MS	SS03	Soluble	Solid	DI Leach	
890-4314-1 MSD	SS03	Soluble	Solid	DI Leach	

Analysis Batch: 49472

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4314-1	SS03	Soluble	Solid	300.0	49263
890-4314-2	SS04	Soluble	Solid	300.0	49263
890-4314-3	SS05	Soluble	Solid	300.0	49263
890-4314-4	SS06	Soluble	Solid	300.0	49263
MB 880-49263/1-A	Method Blank	Soluble	Solid	300.0	49263
LCS 880-49263/2-A	Lab Control Sample	Soluble	Solid	300.0	49263
LCSD 880-49263/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	49263
890-4314-1 MS	SS03	Soluble	Solid	300.0	49263
890-4314-1 MSD	SS03	Soluble	Solid	300.0	49263

Lab Chronicle

Client: Ensolum
Project/Site: PLU 13 Dogtown Draw Battery

Job ID: 890-4314-1
SDG: 03C1558188

Client Sample ID: SS03
Date Collected: 03/14/23 10:30
Date Received: 03/15/23 11:53

Lab Sample ID: 890-4314-1
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.05 g	5 mL	49337	03/23/23 14:58	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	49375	03/25/23 01:37	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			49495	03/25/23 16:16	AJ	EET MID
Total/NA	Analysis	8015 NM		1			49233	03/22/23 16:11	AJ	EET MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	49114	03/21/23 12:04	AJ	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	49069	03/22/23 00:22	SM	EET MID
Soluble	Leach	DI Leach			5.01 g	50 mL	49263	03/22/23 22:04	KS	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	49472	03/25/23 14:41	SMC	EET MID

Client Sample ID: SS04
Date Collected: 03/14/23 10:40
Date Received: 03/15/23 11:53

Lab Sample ID: 890-4314-2
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			5.03 g	5 mL	49337	03/23/23 14:58	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	49375	03/25/23 01:58	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			49495	03/25/23 16:16	AJ	EET MID
Total/NA	Analysis	8015 NM		1			49233	03/22/23 16:11	AJ	EET MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	49114	03/21/23 12:04	AJ	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	49069	03/22/23 00:44	SM	EET MID
Soluble	Leach	DI Leach			5.04 g	50 mL	49263	03/22/23 22:04	KS	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	49472	03/27/23 16:15	SMC	EET MID

Client Sample ID: SS05
Date Collected: 03/14/23 10:45
Date Received: 03/15/23 11:53

Lab Sample ID: 890-4314-3
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.01 g	5 mL	49337	03/23/23 14:58	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	49375	03/25/23 02:18	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			49495	03/25/23 16:16	AJ	EET MID
Total/NA	Analysis	8015 NM		1			49233	03/22/23 16:11	AJ	EET MID
Total/NA	Prep	8015NM Prep			10.03 g	10 mL	49114	03/21/23 12:04	AJ	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	49069	03/22/23 01:06	SM	EET MID
Soluble	Leach	DI Leach			4.95 g	50 mL	49263	03/22/23 22:04	KS	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	49472	03/25/23 14:59	SMC	EET MID

Client Sample ID: SS06
Date Collected: 03/14/23 10:50
Date Received: 03/15/23 11:53

Lab Sample ID: 890-4314-4
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			4.97 g	5 mL	49337	03/23/23 14:58	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	49375	03/25/23 02:39	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			49495	03/25/23 16:16	AJ	EET MID

Lab Chronicle

Client: Ensolum
Project/Site: PLU 13 Dogtown Draw Battery

Job ID: 890-4314-1
SDG: 03C1558188

Client Sample ID: SS06

Date Collected: 03/14/23 10:50
Date Received: 03/15/23 11:53

Lab Sample ID: 890-4314-4

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			49233	03/22/23 16:11	AJ	EET MID
Total/NA	Prep	8015NM Prep			10.05 g	10 mL	49114	03/21/23 12:04	AJ	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	49069	03/22/23 01:50	SM	EET MID
Soluble	Leach	DI Leach			4.99 g	50 mL	49263	03/22/23 22:04	KS	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	49472	03/25/23 15:03	SMC	EET MID

Laboratory References:

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

Accreditation/Certification Summary

Client: Ensolum
Project/Site: PLU 13 Dogtown Draw Battery

Job ID: 890-4314-1
SDG: 03C1558188

Laboratory: Eurofins Midland

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

Authority	Program	Identification Number	Expiration Date
Texas	NELAP	T104704400-22-25	06-30-23

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

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

Method Summary

Client: Ensolum
Project/Site: PLU 13 Dogtown Draw Battery

Job ID: 890-4314-1
SDG: 03C1558188

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

Protocol References:

ASTM = ASTM International

EPA = US Environmental Protection Agency

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

TAL SOP = TestAmerica Laboratories, Standard Operating Procedure

Laboratory References:

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

Sample Summary

Client: Ensolum
Project/Site: PLU 13 Dogtown Draw Battery

Job ID: 890-4314-1
SDG: 03C1558188

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-4314-1	SS03	Solid	03/14/23 10:30	03/15/23 11:53	0.5
890-4314-2	SS04	Solid	03/14/23 10:40	03/15/23 11:53	0.5
890-4314-3	SS05	Solid	03/14/23 10:45	03/15/23 11:53	0.5
890-4314-4	SS06	Solid	03/14/23 10:50	03/15/23 11:53	0.5

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Chain of Custody

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

Work Order No: _____

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Project Manager:	Ben Belill	Bill to: (if different)	Garrett Green
Company Name:	Ensolum	Company Name:	XTO Energy
Address:	3122 National Parks Hwy	Address:	3104 E. Green St.
City, State ZIP:	Carlsbad, NM 88220	City, State ZIP:	Carlsbad, NM 88220
Phone:	303-887-2946	Email:	Garrett.Green@ExxonMobil.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 13 Dogtown Draw Battery	Turn Around	☑ Routine ☐ Rush
Project Number:	03C1558188	Due Date:	
Project Location:		TAT starts the day received by the lab, if received by 4:30pm	
Sampler's Name:	Connor Whitman		
PO #:			

SAMPLE RECEIPT			
Temp Blank:	Yes No	Wet Ice:	Yes No
Samples Received Intact:	Yes No	Thermometer ID:	THM007
Cooler Custody Seals:	Yes No N/A	Correction Factor:	-0.2
Sample Custody Seals:	Yes No N/A	Temperature Reading:	1.2
Total Containers:		Corrected Temperature:	1.0

ANALYSIS REQUEST

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Grab/ Comp	# of Cont	Pres. Code	CHLORIDES (EPA: 300.0)	TPH (8015)	BTEX (8021)
SS03	S	3/14/23	1030	.5	G	1		/	/	/
SS04	S	1	1040	.5	1	1		/	/	/
SS05	S	1	1045	.5	1	1		/	/	/
SS06	S	1	1050	.5	1	1		/	/	/

Parameters

890-4314 Chain of Custody

Preservative Codes

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

Sample Comments

Incident ID:
nAPP2304448906
Cost Center:
2191721001
AFE:

Total 200.7 / 6010 200.8 / 6020: 8RCRA 13PPM Texas 11 Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag SiO_2 Na Sr Tl Sn U V Zn

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

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

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
1		3.15.23 1157	3		
5			6		

Revised Date: 08/25/2020 Rev. 2020.2

Login Sample Receipt Checklist

Client: Ensolum

Job Number: 890-4314-1
SDG Number: 03C1558188

Login Number: 4314
List Number: 1
Creator: Clifton, Cloe

List Source: Eurofins Carlsbad

Question	Answer	Comment
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	N/A	Refer to Job Narrative for details.
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: 890-4314-1
SDG Number: 03C1558188

Login Number: 4314
List Number: 2
Creator: Rodriguez, Leticia

List Source: Eurofins Midland
List Creation: 03/16/23 10:28 AM

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

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ANALYTICAL REPORT

PREPARED FOR

Attn: Ben Belill
Ensolum
601 N. Marienfeld St.
Suite 400
Midland, Texas 79701

Generated 4/4/2023 2:55:09 PM

JOB DESCRIPTION

PLU 13 Dogtown Battery
SDG NUMBER 03C1558188

JOB NUMBER

890-4315-1

Eurofins Carlsbad
1089 N Canal St.
Carlsbad NM 88220

Eurofins Carlsbad

Job Notes

Analytical test results meet all requirements of the associated regulatory program (i.e., NELAC (TNI), DoD, and ISO 17025) unless otherwise noted under the individual analysis.

Authorization

Generated
4/4/2023 2:55:09 PM

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

Client: Ensolum
Project/Site: PLU 13 Dogtown Battery

Laboratory Job ID: 890-4315-1
SDG: 03C1558188

Table of Contents

Definitions/Glossary

Client: Ensolum
Project/Site: PLU 13 Dogtown Battery

Job ID: 890-4315-1
SDG: 03C1558188

Qualifiers

GC VOA

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

GC Semi VOA

Qualifier	Qualifier Description
*+	LCS and/or LCSD is outside acceptance limits, high biased.
S1+	Surrogate recovery exceeds control limits, high biased.
U	Indicates the analyte was analyzed for but not detected.

HPLC/IC

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

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	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 13 Dogtown Battery

Job ID: 890-4315-1
SDG: 03C1558188

Job ID: 890-4315-1

Laboratory: Eurofins Carlsbad

Narrative

Job Narrative
890-4315-1

Receipt
The samples were received on 3/15/2023 11:53 AM. 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 1.0°C

Receipt Exceptions
The following samples were received and analyzed from an unpreserved bulk soil jar: SS01 (890-4315-1) and SS02 (890-4315-2).

GC VOA
Method 8021B: Surrogate recovery for the following samples were outside control limits: SS01 (890-4315-1) and SS02 (890-4315-2). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

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 surrogate recovery for the blank associated with preparation batch 880-48884 and analytical batch 880-48908 was outside the upper control limits.

Method 8015MOD_NM: Surrogate recovery for the following samples were outside control limits: (LCS 880-48884/2-A) and (LCSD 880-48884/3-A). Evidence of matrix interferences is not obvious.

Method 8015MOD_NM: Surrogate recovery for the following samples were outside control limits: SS01 (890-4315-1) and SS02 (890-4315-2). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

Method 8015MOD_NM: The laboratory control sample (LCS) associated with preparation batch 880-48884 and analytical batch 880-48908 was outside acceptance criteria. Re-extraction and/or re-analysis could not be performed; therefore, the data have been reported. The batch matrix spike/matrix spike duplicate (MS/MSD) was within acceptance limits and may be used to evaluate matrix performance.

Method 8015MOD_NM: Surrogate recovery for the following sample was outside control limits: SS02 (890-4315-2). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

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

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

Client Sample Results

Client: Ensolum
Project/Site: PLU 13 Dogtown Battery

Job ID: 890-4315-1
SDG: 03C1558188

Client Sample ID: SS01

Lab Sample ID: 890-4315-1
Matrix: Solid
Date Collected: 03/14/23 10:05
Date Received: 03/15/23 11:53
Sample Depth: 0.5

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	3.33		2.01		mg/Kg		03/26/23 17:10	03/27/23 03:01	1000
Toluene	75.9		2.01		mg/Kg		03/26/23 17:10	03/27/23 03:01	1000
Ethylbenzene	10.6		2.01		mg/Kg		03/26/23 17:10	03/27/23 03:01	1000
m-Xylene & p-Xylene	200		4.02		mg/Kg		03/26/23 17:10	03/27/23 03:01	1000
o-Xylene	44.8		2.01		mg/Kg		03/26/23 17:10	03/27/23 03:01	1000
Xylenes, Total	245		4.02		mg/Kg		03/26/23 17:10	03/27/23 03:01	1000

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*153*	*S1+*	*70 - 130*	*03/26/23 17:10*	*03/27/23 03:01*	*1000*
1,4-Difluorobenzene (Surr)	*100*		*70 - 130*	*03/26/23 17:10*	*03/27/23 03:01*	*1000*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	335		4.02		mg/Kg			03/27/23 10:33	1

Method: SW846 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	15900		50.0		mg/Kg			04/04/23 15:41	1

Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	7690		50.0		mg/Kg		03/18/23 09:50	03/19/23 19:06	1
Diesel Range Organics (Over C10-C28)	7400	*+	50.0		mg/Kg		03/18/23 09:50	03/19/23 19:06	1
Oil Range Organics (Over C28-C36)	794		50.0		mg/Kg		03/18/23 09:50	03/19/23 19:06	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*327*	*S1+*	*70 - 130*	*03/18/23 09:50*	*03/19/23 19:06*	*1*
o-Terphenyl	*127*		*70 - 130*	*03/18/23 09:50*	*03/19/23 19:06*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	44.9		4.97		mg/Kg			03/25/23 15:08	1

Client Sample ID: SS02

Lab Sample ID: 890-4315-2
Matrix: Solid
Date Collected: 03/14/23 10:10
Date Received: 03/15/23 11:53
Sample Depth: 0.5

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	2.04		2.00		mg/Kg		03/26/23 17:10	03/27/23 03:21	1000
Toluene	62.7		2.00		mg/Kg		03/26/23 17:10	03/27/23 03:21	1000
Ethylbenzene	5.52		2.00		mg/Kg		03/26/23 17:10	03/27/23 03:21	1000
m-Xylene & p-Xylene	196		4.01		mg/Kg		03/26/23 17:10	03/27/23 03:21	1000
o-Xylene	44.8		2.00		mg/Kg		03/26/23 17:10	03/27/23 03:21	1000
Xylenes, Total	241		4.01		mg/Kg		03/26/23 17:10	03/27/23 03:21	1000

Client Sample Results

Client: Ensolum
Project/Site: PLU 13 Dogtown Battery

Job ID: 890-4315-1
SDG: 03C1558188

Client Sample ID: SS02

Date Collected: 03/14/23 10:10
Date Received: 03/15/23 11:53
Sample Depth: 0.5

Lab Sample ID: 890-4315-2

Matrix: Solid

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*138*	*S1+*	*70 - 130*	*03/26/23 17:10*	*03/27/23 03:21*	*1000*
1,4-Difluorobenzene (Surr)	*98*		*70 - 130*	*03/26/23 17:10*	*03/27/23 03:21*	*1000*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	**311**		4.01	mg/Kg			03/27/23 10:33	1

Method: SW846 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	**12200**		250	mg/Kg			03/28/23 09:09	1

Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	**6600**		49.9	mg/Kg		03/18/23 09:50	03/19/23 19:27	1
Diesel Range Organics (Over C10-C28)	**4640**		250	mg/Kg		03/24/23 16:55	03/27/23 19:18	5
Oil Range Organics (Over C28-C36)	**914**		49.9	mg/Kg		03/18/23 09:50	03/19/23 19:27	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*346*	*S1+*	*70 - 130*	*03/18/23 09:50*	*03/19/23 19:27*	*1*
o-Terphenyl	*142*	*S1+*	*70 - 130*	*03/18/23 09:50*	*03/19/23 19:27*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**84.8**		4.96	mg/Kg			03/25/23 15:22	1

Surrogate Summary

Client: Ensolum
Project/Site: PLU 13 Dogtown Battery

Job ID: 890-4315-1
SDG: 03C1558188

Method: 8021B - Volatile Organic Compounds (GC)

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

		Percent Surrogate Recovery (Acceptance Limits)	
		BFB1	DFBZ1
Lab Sample ID	Client Sample ID	(70-130)	(70-130)
890-4308-A-5-D MS	Matrix Spike	110	92
890-4308-A-5-E MSD	Matrix Spike Duplicate	108	89
890-4315-1	SS01	153 S1+	100
890-4315-2	SS02	138 S1+	98
LCS 880-49552/1-A	Lab Control Sample	102	91
LCSD 880-49552/2-A	Lab Control Sample Dup	111	91
MB 880-49230/5-A	Method Blank	104	83
MB 880-49552/5-A	Method Blank	101	81

Surrogate Legend

BFB = 4-Bromofluorobenzene (Surr)
DFBZ = 1,4-Difluorobenzene (Surr)

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

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

		Percent Surrogate Recovery (Acceptance Limits)	
		1CO1	OTPH1
Lab Sample ID	Client Sample ID	(70-130)	(70-130)
890-4308-A-41-B MS	Matrix Spike	97	101
890-4308-A-41-C MSD	Matrix Spike Duplicate	114	116
890-4315-1	SS01	327 S1+	127
890-4315-2	SS02	346 S1+	142 S1+
890-4361-A-1-B MS	Matrix Spike	108	87
890-4361-A-1-C MSD	Matrix Spike Duplicate	108	87
LCS 880-48884/2-A	Lab Control Sample	143 S1+	172 S1+
LCS 880-49457/2-A	Lab Control Sample	93	83
LCSD 880-48884/3-A	Lab Control Sample Dup	170 S1+	196 S1+
LCSD 880-49457/3-A	Lab Control Sample Dup	90	81
MB 880-48884/1-A	Method Blank	119	138 S1+
MB 880-49457/1-A	Method Blank	120	118

Surrogate Legend

1CO = 1-Chlorooctane
OTPH = o-Terphenyl

QC Sample Results

Client: Ensolum
Project/Site: PLU 13 Dogtown Battery

Job ID: 890-4315-1
SDG: 03C1558188

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-49230/5-A
Matrix: Solid
Analysis Batch: 49529

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 49230

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		03/22/23 15:57	03/26/23 13:07	1
Toluene	<0.00200	U	0.00200		mg/Kg		03/22/23 15:57	03/26/23 13:07	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		03/22/23 15:57	03/26/23 13:07	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		03/22/23 15:57	03/26/23 13:07	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		03/22/23 15:57	03/26/23 13:07	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		03/22/23 15:57	03/26/23 13:07	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*104*		*70 - 130*	*03/22/23 15:57*	*03/26/23 13:07*	*1*
1,4-Difluorobenzene (Surr)	*83*		*70 - 130*	*03/22/23 15:57*	*03/26/23 13:07*	*1*

Lab Sample ID: MB 880-49552/5-A
Matrix: Solid
Analysis Batch: 49529

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 49552

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		03/26/23 17:10	03/26/23 23:54	1
Toluene	<0.00200	U	0.00200		mg/Kg		03/26/23 17:10	03/26/23 23:54	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		03/26/23 17:10	03/26/23 23:54	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		03/26/23 17:10	03/26/23 23:54	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		03/26/23 17:10	03/26/23 23:54	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		03/26/23 17:10	03/26/23 23:54	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*101*		*70 - 130*	*03/26/23 17:10*	*03/26/23 23:54*	*1*
1,4-Difluorobenzene (Surr)	*81*		*70 - 130*	*03/26/23 17:10*	*03/26/23 23:54*	*1*

Lab Sample ID: LCS 880-49552/1-A
Matrix: Solid
Analysis Batch: 49529

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 49552

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Benzene			0.100	0.08510		mg/Kg		85	70 - 130		
Toluene			0.100	0.09072		mg/Kg		91	70 - 130		
Ethylbenzene			0.100	0.08643		mg/Kg		86	70 - 130		
m-Xylene & p-Xylene			0.200	0.1814		mg/Kg		91	70 - 130		
o-Xylene			0.100	0.09267		mg/Kg		93	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*102*		*70 - 130*
1,4-Difluorobenzene (Surr)	*91*		*70 - 130*

Lab Sample ID: LCSD 880-49552/2-A
Matrix: Solid
Analysis Batch: 49529

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 49552

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene			0.100	0.08482		mg/Kg		85	70 - 130	0	35

QC Sample Results

Client: Ensolum
Project/Site: PLU 13 Dogtown Battery

Job ID: 890-4315-1
SDG: 03C1558188

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

Lab Sample ID: LCSD 880-49552/2-A
Matrix: Solid
Analysis Batch: 49529

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 49552

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Toluene			0.100	0.09222		mg/Kg		92	70 - 130	2	35
Ethylbenzene			0.100	0.09247		mg/Kg		92	70 - 130	7	35
m-Xylene & p-Xylene			0.200	0.1967		mg/Kg		98	70 - 130	8	35
o-Xylene			0.100	0.1003		mg/Kg		100	70 - 130	8	35

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*111*		*70 - 130*
1,4-Difluorobenzene (Surr)	*91*		*70 - 130*

Lab Sample ID: 890-4308-A-5-D MS
Matrix: Solid
Analysis Batch: 49529

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 49552

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	<0.00200	U	0.0998	0.08721		mg/Kg		87	70 - 130
Toluene	<0.00200	U	0.0998	0.09370		mg/Kg		94	70 - 130
Ethylbenzene	<0.00200	U	0.0998	0.09186		mg/Kg		92	70 - 130
m-Xylene & p-Xylene	<0.00399	U	0.200	0.1944		mg/Kg		97	70 - 130
o-Xylene	<0.00200	U	0.0998	0.09918		mg/Kg		99	70 - 130

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*110*		*70 - 130*
1,4-Difluorobenzene (Surr)	*92*		*70 - 130*

Lab Sample ID: 890-4308-A-5-E MSD
Matrix: Solid
Analysis Batch: 49529

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 49552

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	<0.00200	U	0.100	0.08641		mg/Kg		86	70 - 130	1	35
Toluene	<0.00200	U	0.100	0.09289		mg/Kg		93	70 - 130	1	35
Ethylbenzene	<0.00200	U	0.100	0.09261		mg/Kg		92	70 - 130	1	35
m-Xylene & p-Xylene	<0.00399	U	0.200	0.1961		mg/Kg		98	70 - 130	1	35
o-Xylene	<0.00200	U	0.100	0.09979		mg/Kg		100	70 - 130	1	35

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*108*		*70 - 130*
1,4-Difluorobenzene (Surr)	*89*		*70 - 130*

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

Lab Sample ID: MB 880-48884/1-A
Matrix: Solid
Analysis Batch: 48908

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 48884

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		03/18/23 09:50	03/19/23 08:52	1

Eurofins Carlsbad

QC Sample Results

Client: Ensolum
Project/Site: PLU 13 Dogtown Battery

Job ID: 890-4315-1
SDG: 03C1558188

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

Lab Sample ID: MB 880-48884/1-A
Matrix: Solid
Analysis Batch: 48908

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 48884

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		03/18/23 09:50	03/19/23 08:52	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		03/18/23 09:50	03/19/23 08:52	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*119*		*70 - 130*	*03/18/23 09:50*	*03/19/23 08:52*	*1*
o-Terphenyl	*138*	*S1+*	*70 - 130*	*03/18/23 09:50*	*03/19/23 08:52*	*1*

Lab Sample ID: LCS 880-48884/2-A
Matrix: Solid
Analysis Batch: 48908

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 48884

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Gasoline Range Organics (GRO)-C6-C10			1000	1075		mg/Kg		107	70 - 130		
Diesel Range Organics (Over C10-C28)			1000	1126		mg/Kg		113	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1-Chlorooctane	*143*	*S1+*	*70 - 130*
o-Terphenyl	*172*	*S1+*	*70 - 130*

Lab Sample ID: LCSD 880-48884/3-A
Matrix: Solid
Analysis Batch: 48908

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 48884

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10			1000	1003		mg/Kg		100	70 - 130	7	20
Diesel Range Organics (Over C10-C28)			1000	1352	*+	mg/Kg		135	70 - 130	18	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1-Chlorooctane	*170*	*S1+*	*70 - 130*
o-Terphenyl	*196*	*S1+*	*70 - 130*

Lab Sample ID: 890-4308-A-41-B MS
Matrix: Solid
Analysis Batch: 48908

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 48884

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	998	897.9		mg/Kg		88	70 - 130		
Diesel Range Organics (Over C10-C28)	<49.9	U *+	998	950.3		mg/Kg		93	70 - 130		

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
1-Chlorooctane	*97*		*70 - 130*
o-Terphenyl	*101*		*70 - 130*

QC Sample Results

Client: Ensolum
Project/Site: PLU 13 Dogtown Battery

Job ID: 890-4315-1
SDG: 03C1558188

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

Lab Sample ID: 890-4308-A-41-C MSD
Matrix: Solid
Analysis Batch: 48908

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 48884

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	999	1048		mg/Kg		103	70 - 130	15	20
Diesel Range Organics (Over C10-C28)	<49.9	U *+	999	1099		mg/Kg		108	70 - 130	15	20

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
1-Chlorooctane	*114*		*70 - 130*
o-Terphenyl	*116*		*70 - 130*

Lab Sample ID: MB 880-49457/1-A
Matrix: Solid
Analysis Batch: 49559

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 49457

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		03/24/23 16:55	03/27/23 08:47	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		03/24/23 16:55	03/27/23 08:47	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		03/24/23 16:55	03/27/23 08:47	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*120*		*70 - 130*	*03/24/23 16:55*	*03/27/23 08:47*	*1*
o-Terphenyl	*118*		*70 - 130*	*03/24/23 16:55*	*03/27/23 08:47*	*1*

Lab Sample ID: LCS 880-49457/2-A
Matrix: Solid
Analysis Batch: 49559

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 49457

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Gasoline Range Organics (GRO)-C6-C10			1000	1022		mg/Kg		102	70 - 130		
Diesel Range Organics (Over C10-C28)			1000	876.8		mg/Kg		88	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1-Chlorooctane	*93*		*70 - 130*
o-Terphenyl	*83*		*70 - 130*

Lab Sample ID: LCSD 880-49457/3-A
Matrix: Solid
Analysis Batch: 49559

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 49457

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10			1000	861.9		mg/Kg		86	70 - 130	17	20
Diesel Range Organics (Over C10-C28)			1000	864.3		mg/Kg		86	70 - 130	1	20

QC Sample Results

Client: Ensolum
Project/Site: PLU 13 Dogtown Battery

Job ID: 890-4315-1
SDG: 03C1558188

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

Lab Sample ID: LCSD 880-49457/3-A
Matrix: Solid
Analysis Batch: 49559

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 49457

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
1-Chlorooctane	90		70 - 130
o-Terphenyl	81		70 - 130

Lab Sample ID: 890-4361-A-1-B MS
Matrix: Solid
Analysis Batch: 49559

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 49457

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	997	1038		mg/Kg		100	70 - 130
Diesel Range Organics (Over C10-C28)	<50.0	U	997	721.8		mg/Kg		70	70 - 130

Surrogate	MS %Recovery	MS Qualifier	Limits
1-Chlorooctane	108		70 - 130
o-Terphenyl	87		70 - 130

Lab Sample ID: 890-4361-A-1-C MSD
Matrix: Solid
Analysis Batch: 49559

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 49457

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	<50.0	U	998	1062		mg/Kg		102	70 - 130	2	20
Diesel Range Organics (Over C10-C28)	<50.0	U	998	727.0		mg/Kg		70	70 - 130	1	20

Surrogate	MSD %Recovery	MSD Qualifier	Limits
1-Chlorooctane	108		70 - 130
o-Terphenyl	87		70 - 130

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-49263/1-A
Matrix: Solid
Analysis Batch: 49472

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			03/25/23 14:27	1

Lab Sample ID: LCS 880-49263/2-A
Matrix: Solid
Analysis Batch: 49472

Client Sample ID: Lab Control Sample
Prep Type: Soluble

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride			250	242.2		mg/Kg		97	90 - 110

QC Sample Results

Client: Ensolum
Project/Site: PLU 13 Dogtown Battery

Job ID: 890-4315-1
SDG: 03C1558188

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: LCSD 880-49263/3-A
Matrix: Solid
Analysis Batch: 49472

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	249.0		mg/Kg		100	90 - 110	3	20

Lab Sample ID: 890-4314-A-1-C MS
Matrix: Solid
Analysis Batch: 49472

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	40.8		250	273.9		mg/Kg		93	90 - 110		

Lab Sample ID: 890-4314-A-1-D MSD
Matrix: Solid
Analysis Batch: 49472

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	40.8		250	281.3		mg/Kg		96	90 - 110	3	20

QC Association Summary

Client: Ensolum
Project/Site: PLU 13 Dogtown Battery

Job ID: 890-4315-1
SDG: 03C1558188

GC VOA

Prep Batch: 49230

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 880-49230/5-A	Method Blank	Total/NA	Solid	5035	

Analysis Batch: 49529

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4315-1	SS01	Total/NA	Solid	8021B	49552
890-4315-2	SS02	Total/NA	Solid	8021B	49552
MB 880-49230/5-A	Method Blank	Total/NA	Solid	8021B	49230
MB 880-49552/5-A	Method Blank	Total/NA	Solid	8021B	49552
LCS 880-49552/1-A	Lab Control Sample	Total/NA	Solid	8021B	49552
LCSD 880-49552/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	49552
890-4308-A-5-D MS	Matrix Spike	Total/NA	Solid	8021B	49552
890-4308-A-5-E MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	49552

Prep Batch: 49552

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4315-1	SS01	Total/NA	Solid	5035	
890-4315-2	SS02	Total/NA	Solid	5035	
MB 880-49552/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-49552/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-49552/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
890-4308-A-5-D MS	Matrix Spike	Total/NA	Solid	5035	
890-4308-A-5-E MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	

Analysis Batch: 49602

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4315-1	SS01	Total/NA	Solid	Total BTEX	
890-4315-2	SS02	Total/NA	Solid	Total BTEX	

GC Semi VOA

Prep Batch: 48884

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4315-1	SS01	Total/NA	Solid	8015NM Prep	
890-4315-2	SS02	Total/NA	Solid	8015NM Prep	
MB 880-48884/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-48884/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-48884/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
890-4308-A-41-B MS	Matrix Spike	Total/NA	Solid	8015NM Prep	
890-4308-A-41-C MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	

Analysis Batch: 48908

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4315-1	SS01	Total/NA	Solid	8015B NM	48884
890-4315-2	SS02	Total/NA	Solid	8015B NM	48884
MB 880-48884/1-A	Method Blank	Total/NA	Solid	8015B NM	48884
LCS 880-48884/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	48884
LCSD 880-48884/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	48884
890-4308-A-41-B MS	Matrix Spike	Total/NA	Solid	8015B NM	48884
890-4308-A-41-C MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	48884

QC Association Summary

Client: Ensolum
Project/Site: PLU 13 Dogtown Battery

Job ID: 890-4315-1
SDG: 03C1558188

GC Semi VOA

Prep Batch: 49457

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4315-2	SS02	Total/NA	Solid	8015NM Prep	
MB 880-49457/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-49457/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-49457/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
890-4361-A-1-B MS	Matrix Spike	Total/NA	Solid	8015NM Prep	
890-4361-A-1-C MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	

Analysis Batch: 49559

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4315-2	SS02	Total/NA	Solid	8015B NM	49457
MB 880-49457/1-A	Method Blank	Total/NA	Solid	8015B NM	49457
LCS 880-49457/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	49457
LCSD 880-49457/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	49457
890-4361-A-1-B MS	Matrix Spike	Total/NA	Solid	8015B NM	49457
890-4361-A-1-C MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	49457

Analysis Batch: 49695

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4315-1	SS01	Total/NA	Solid	8015 NM	
890-4315-2	SS02	Total/NA	Solid	8015 NM	

HPLC/IC

Leach Batch: 49263

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4315-1	SS01	Soluble	Solid	DI Leach	
890-4315-2	SS02	Soluble	Solid	DI Leach	
MB 880-49263/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-49263/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-49263/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
890-4314-A-1-C MS	Matrix Spike	Soluble	Solid	DI Leach	
890-4314-A-1-D MSD	Matrix Spike Duplicate	Soluble	Solid	DI Leach	

Analysis Batch: 49472

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4315-1	SS01	Soluble	Solid	300.0	49263
890-4315-2	SS02	Soluble	Solid	300.0	49263
MB 880-49263/1-A	Method Blank	Soluble	Solid	300.0	49263
LCS 880-49263/2-A	Lab Control Sample	Soluble	Solid	300.0	49263
LCSD 880-49263/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	49263
890-4314-A-1-C MS	Matrix Spike	Soluble	Solid	300.0	49263
890-4314-A-1-D MSD	Matrix Spike Duplicate	Soluble	Solid	300.0	49263

Lab Chronicle

Client: Ensolum
Project/Site: PLU 13 Dogtown Battery

Job ID: 890-4315-1
SDG: 03C1558188

Client Sample ID: SS01

Date Collected: 03/14/23 10:05
Date Received: 03/15/23 11:53

Lab Sample ID: 890-4315-1

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.97 g	5 mL	49552	03/26/23 17:10	MNR	EET MID
Total/NA	Analysis	8021B		1000	5 mL	5 mL	49529	03/27/23 03:01	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			49602	03/27/23 10:33	AJ	EET MID
Total/NA	Analysis	8015 NM		1			49695	04/04/23 15:41	SM	EET MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	48884	03/18/23 09:50	AJ	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	48908	03/19/23 19:06	SM	EET MID
Soluble	Leach	DI Leach			5.03 g	50 mL	49263	03/22/23 22:04	KS	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	49472	03/25/23 15:08	SMC	EET MID

Client Sample ID: SS02

Date Collected: 03/14/23 10:10
Date Received: 03/15/23 11:53

Lab Sample ID: 890-4315-2

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.99 g	5 mL	49552	03/26/23 17:10	MNR	EET MID
Total/NA	Analysis	8021B		1000	5 mL	5 mL	49529	03/27/23 03:21	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			49602	03/27/23 10:33	AJ	EET MID
Total/NA	Analysis	8015 NM		1			49695	03/28/23 09:09	SM	EET MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	49457	03/24/23 16:55	AJ	EET MID
Total/NA	Analysis	8015B NM		5	1 uL	1 uL	49559	03/27/23 19:18	SM	EET MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	48884	03/18/23 09:50	AJ	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	48908	03/19/23 19:27	SM	EET MID
Soluble	Leach	DI Leach			5.04 g	50 mL	49263	03/22/23 22:04	KS	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	49472	03/25/23 15:22	SMC	EET MID

Laboratory References:

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

Accreditation/Certification Summary

Client: Ensolum
Project/Site: PLU 13 Dogtown Battery

Job ID: 890-4315-1
SDG: 03C1558188

Laboratory: Eurofins Midland

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

Authority	Program	Identification Number	Expiration Date
Texas	NELAP	T104704400-22-25	06-30-23

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

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

Method Summary

Client: Ensolum
Project/Site: PLU 13 Dogtown Battery

Job ID: 890-4315-1
SDG: 03C1558188

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

Protocol References:

ASTM = ASTM International

EPA = US Environmental Protection Agency

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

TAL SOP = TestAmerica Laboratories, Standard Operating Procedure

Laboratory References:

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

Sample Summary

Client: Ensolum
Project/Site: PLU 13 Dogtown Battery

Job ID: 890-4315-1
SDG: 03C1558188

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-4315-1	SS01	Solid	03/14/23 10:05	03/15/23 11:53	0.5
890-4315-2	SS02	Solid	03/14/23 10:10	03/15/23 11:53	0.5

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Chain of Custody

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

Work Order No: _____

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Project Manager:	Ben Belill	Bill to: (if different)	Garrett Green
Company Name:	Ensolum	Company Name:	XTO Energy
Address:	3122 National Parks Hwy	Address:	3104 E. Green St.
City, State ZIP:	Carlsbad, NM 88220	City, State ZIP:	Carlsbad, NM 88220
Phone:	303-887-2946	Email:	Garrett.Green@ExxonMobil.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 13 Dogtown Draw Battery	Turn Around	☑ Routine ☐ Rush
Project Number:	03C1558188	Due Date:	
Project Location:		TAT starts the day received by the lab, if received by 4:30pm	
Sampler's Name:	Connor Whitman		
PO #:			

SAMPLE RECEIPT			
Temp Blank:	Yes (No)	Wet Ice:	(Yes) No
Samples Received Intact:	(Yes) No	Thermometer ID:	TM007
Cooler Custody Seals:	Yes No (N/A)	Correction Factor:	-0.2
Sample Custody Seals:	Yes No N/A	Temperature Reading:	1.2
Total Containers:		Corrected Temperature:	1.0

ANALYSIS REQUEST

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Grab/ Comp	# of Cont	Pres. Code	CHLORIDES (EPA: 300.0)	TPH (8015)	BTEX (8021)
SS01	S	3/14/23	1005	.5	G	1		/	/	/
SS02	S	3/14/23	1010	.5	G	1		/	/	/

Parameters

890-4315 Chain of Custody

Preservative Codes

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

Sample Comments

Incident ID:
nAPP2304448906
Cost Center:
2191721001
AFE:

Total 200.7 / 6010 200.8 / 6020: 8RCRA 13PPM Texas 11 Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag SiO_2 Na Sr Tl Sn U V Zn

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

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

	Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
1			3.15.23 1133			
3				4		
5				6		

Revised Date 08/25/2020 Rev. 2020.2

Login Sample Receipt Checklist

Client: Ensolum

Job Number: 890-4315-1
SDG Number: 03C1558188

Login Number: 4315
List Number: 1
Creator: Clifton, Cloe

List Source: Eurofins Carlsbad

Question	Answer	Comment
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	N/A	Refer to Job Narrative for details.
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: 890-4315-1
SDG Number: 03C1558188

Login Number: 4315
List Number: 2
Creator: Rodriguez, Leticia

List Source: Eurofins Midland
List Creation: 03/16/23 10:28 AM

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

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ANALYTICAL REPORT

PREPARED FOR

Attn: Tacoma Morrissey
Ensolum
601 N. Marienfeld St.
Suite 400
Midland, Texas 79701

Generated 4/10/2023 5:08:34 PM

JOB DESCRIPTION

PLU 13 DTD Battery
SDG NUMBER 03C1558188

JOB NUMBER

890-4428-1

Eurofins Carlsbad
1089 N Canal St.
Carlsbad NM 88220

Eurofins Carlsbad

Job Notes

Analytical test results meet all requirements of the associated regulatory program (i.e., NELAC (TNI), DoD, and ISO 17025) unless otherwise noted under the individual analysis.

Authorization

Generated
4/10/2023 5:08:34 PM

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

Client: Ensolum
Project/Site: PLU 13 DTD Battery

Laboratory Job ID: 890-4428-1
SDG: 03C1558188

Table of Contents

Definitions/Glossary

Client: Ensolum
Project/Site: PLU 13 DTD Battery

Job ID: 890-4428-1
SDG: 03C1558188

Qualifiers

GC VOA

Qualifier	Qualifier Description
F1	MS and/or MSD recovery exceeds control limits.
F2	MS/MSD RPD exceeds control limits
S1+	Surrogate recovery exceeds control limits, high biased.
U	Indicates the analyte was analyzed for but not detected.

GC Semi VOA

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

HPLC/IC

Qualifier	Qualifier Description
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 13 DTD Battery

Job ID: 890-4428-1
SDG: 03C1558188

Job ID: 890-4428-1

Laboratory: Eurofins Carlsbad

Narrative

Job Narrative
890-4428-1

Receipt
The samples were received on 3/28/2023 3:40 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 2.0°C

GC VOA
Method 8021B: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 880-50536 and analytical batch 880-50769 were outside control limits for one or more analytes, see QC Sample Results for detail. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery is within acceptance limits.

Method 8021B: Surrogate recovery for the following sample was outside control limits: BH01A (890-4428-1). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

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

GC Semi VOA
Method 8015MOD_NM: Surrogate recovery for the following sample was outside control limits: (LCS 880-50046/2-A). Evidence of matrix interferences is not obvious.

Method 8015MOD_NM: Surrogate recovery for the following sample was outside control limits: BH01A (890-4428-1). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

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 for preparation batch 880-50418 and analytical batch 880-50614 were outside control limits for one or more analytes, see QC Sample Results for detail. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery is within acceptance limits.BH01A (890-4428-1), BH01B (890-4428-2), BH01C (890-4428-3), BH02A (890-4428-4), BH02B (890-4428-5), BH02C (890-4428-6), (880-26530-A-11-B), (880-26530-A-11-C MS) and (880-26530-A-11-D MSD)

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

Client Sample Results

Client: Ensolum
Project/Site: PLU 13 DTD Battery

Job ID: 890-4428-1
SDG: 03C1558188

Client Sample ID: BH01A

Lab Sample ID: 890-4428-1
Matrix: Solid
Date Collected: 03/28/23 11:00
Date Received: 03/28/23 15:40

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.495	U	0.495		mg/Kg		04/10/23 09:30	04/10/23 14:39	250
Toluene	**10.2**		0.495		mg/Kg		04/10/23 09:30	04/10/23 14:39	250
Ethylbenzene	**7.48**		0.495		mg/Kg		04/10/23 09:30	04/10/23 14:39	250
m-Xylene & p-Xylene	**49.4**		0.990		mg/Kg		04/10/23 09:30	04/10/23 14:39	250
o-Xylene	**10.9**		0.495		mg/Kg		04/10/23 09:30	04/10/23 14:39	250
Xylenes, Total	**60.3**		0.990		mg/Kg		04/10/23 09:30	04/10/23 14:39	250

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*154*	*S1+*	*70 - 130*	*04/10/23 09:30*	*04/10/23 14:39*	*250*
1,4-Difluorobenzene (Surr)	*120*		*70 - 130*	*04/10/23 09:30*	*04/10/23 14:39*	*250*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	**78.0**		0.990		mg/Kg			04/10/23 17:51	1

Method: SW846 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	**7050**		49.8		mg/Kg			04/03/23 10:23	1

Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	**4020**		49.8		mg/Kg		03/31/23 14:28	04/02/23 03:14	1
Diesel Range Organics (Over C10-C28)	**3030**		49.8		mg/Kg		03/31/23 14:28	04/02/23 03:14	1
OII Range Organics (Over C28-C36)	<49.8	U	49.8		mg/Kg		03/31/23 14:28	04/02/23 03:14	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*146*	*S1+*	*70 - 130*	*03/31/23 14:28*	*04/02/23 03:14*	*1*
o-Terphenyl	*101*		*70 - 130*	*03/31/23 14:28*	*04/02/23 03:14*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**133**		4.99		mg/Kg			04/07/23 04:46	1

Client Sample ID: BH01B

Lab Sample ID: 890-4428-2
Matrix: Solid
Date Collected: 03/28/23 11:10
Date Received: 03/28/23 15:40

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		04/05/23 16:50	04/07/23 02:25	1
Toluene	<0.00200	U	0.00200		mg/Kg		04/05/23 16:50	04/07/23 02:25	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		04/05/23 16:50	04/07/23 02:25	1
m-Xylene & p-Xylene	<0.00399	U	0.00399		mg/Kg		04/05/23 16:50	04/07/23 02:25	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		04/05/23 16:50	04/07/23 02:25	1
Xylenes, Total	<0.00399	U	0.00399		mg/Kg		04/05/23 16:50	04/07/23 02:25	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*97*		*70 - 130*	*04/05/23 16:50*	*04/07/23 02:25*	*1*
1,4-Difluorobenzene (Surr)	*105*		*70 - 130*	*04/05/23 16:50*	*04/07/23 02:25*	*1*

Client Sample Results

Client: Ensolum
Project/Site: PLU 13 DTD Battery

Job ID: 890-4428-1
SDG: 03C1558188

Client Sample ID: BH01B

Date Collected: 03/28/23 11:10
Date Received: 03/28/23 15:40

Lab Sample ID: 890-4428-2
Matrix: Solid

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00399	U	0.00399		mg/Kg			04/07/23 18:40	1

Method: SW846 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	**171**		50.0		mg/Kg			04/03/23 10:23	1

Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	**59.2**		50.0		mg/Kg		03/31/23 14:28	04/02/23 03:35	1
Diesel Range Organics (Over C10-C28)	**112**		50.0		mg/Kg		03/31/23 14:28	04/02/23 03:35	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		03/31/23 14:28	04/02/23 03:35	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*99*		*70 - 130*	*03/31/23 14:28*	*04/02/23 03:35*	*1*
o-Terphenyl	*97*		*70 - 130*	*03/31/23 14:28*	*04/02/23 03:35*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**84.2**		4.98		mg/Kg			04/07/23 04:51	1

Client Sample ID: BH01C

Date Collected: 03/28/23 12:15
Date Received: 03/28/23 15:40

Lab Sample ID: 890-4428-3
Matrix: Solid

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00201	U	0.00201		mg/Kg		04/05/23 16:50	04/07/23 02:46	1
Toluene	<0.00201	U	0.00201		mg/Kg		04/05/23 16:50	04/07/23 02:46	1
Ethylbenzene	<0.00201	U	0.00201		mg/Kg		04/05/23 16:50	04/07/23 02:46	1
m-Xylene & p-Xylene	<0.00402	U	0.00402		mg/Kg		04/05/23 16:50	04/07/23 02:46	1
o-Xylene	<0.00201	U	0.00201		mg/Kg		04/05/23 16:50	04/07/23 02:46	1
Xylenes, Total	<0.00402	U	0.00402		mg/Kg		04/05/23 16:50	04/07/23 02:46	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*97*		*70 - 130*	*04/05/23 16:50*	*04/07/23 02:46*	*1*
1,4-Difluorobenzene (Surr)	*104*		*70 - 130*	*04/05/23 16:50*	*04/07/23 02:46*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00402	U	0.00402		mg/Kg			04/07/23 18:40	1

Method: SW846 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9		mg/Kg			04/03/23 10:23	1

Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9		mg/Kg		03/31/23 14:28	04/02/23 03:55	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		03/31/23 14:28	04/02/23 03:55	1

Eurofins Carlsbad

Client Sample Results

Client: Ensolum
Project/Site: PLU 13 DTD Battery

Job ID: 890-4428-1
SDG: 03C1558188

Client Sample ID: BH01C

Date Collected: 03/28/23 12:15
Date Received: 03/28/23 15:40

Lab Sample ID: 890-4428-3
Matrix: Solid

Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC) (Continued)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
OII Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		03/31/23 14:28	04/02/23 03:55	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*101*		*70 - 130*	*03/31/23 14:28*	*04/02/23 03:55*	*1*
o-Terphenyl	*96*		*70 - 130*	*03/31/23 14:28*	*04/02/23 03:55*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**92.1**		5.02		mg/Kg			04/07/23 04:56	1

Client Sample ID: BH02A

Date Collected: 03/28/23 11:55
Date Received: 03/28/23 15:40

Lab Sample ID: 890-4428-4
Matrix: Solid

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00198	U	0.00198		mg/Kg		04/05/23 16:50	04/07/23 03:06	1
Toluene	**0.00291**		0.00198		mg/Kg		04/05/23 16:50	04/07/23 03:06	1
Ethylbenzene	<0.00198	U	0.00198		mg/Kg		04/05/23 16:50	04/07/23 03:06	1
m-Xylene & p-Xylene	<0.00396	U	0.00396		mg/Kg		04/05/23 16:50	04/07/23 03:06	1
o-Xylene	<0.00198	U	0.00198		mg/Kg		04/05/23 16:50	04/07/23 03:06	1
Xylenes, Total	<0.00396	U	0.00396		mg/Kg		04/05/23 16:50	04/07/23 03:06	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*103*		*70 - 130*	*04/05/23 16:50*	*04/07/23 03:06*	*1*
1,4-Difluorobenzene (Surr)	*92*		*70 - 130*	*04/05/23 16:50*	*04/07/23 03:06*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00396	U	0.00396		mg/Kg			04/07/23 18:40	1

Method: SW846 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9		mg/Kg			04/03/23 10:23	1

Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9		mg/Kg		03/31/23 14:28	04/02/23 04:15	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		03/31/23 14:28	04/02/23 04:15	1
OII Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		03/31/23 14:28	04/02/23 04:15	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*107*		*70 - 130*	*03/31/23 14:28*	*04/02/23 04:15*	*1*
o-Terphenyl	*102*		*70 - 130*	*03/31/23 14:28*	*04/02/23 04:15*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**92.9**		4.95		mg/Kg			04/07/23 05:01	1

Client Sample Results

Client: Ensolum
Project/Site: PLU 13 DTD Battery

Job ID: 890-4428-1
SDG: 03C1558188

Client Sample ID: BH02B

Lab Sample ID: 890-4428-5
Matrix: Solid
Date Collected: 03/28/23 13:20
Date Received: 03/28/23 15:40

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199		mg/Kg		04/05/23 16:50	04/07/23 03:27	1
Toluene	<0.00199	U	0.00199		mg/Kg		04/05/23 16:50	04/07/23 03:27	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		04/05/23 16:50	04/07/23 03:27	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		04/05/23 16:50	04/07/23 03:27	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		04/05/23 16:50	04/07/23 03:27	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		04/05/23 16:50	04/07/23 03:27	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*99*		*70 - 130*	*04/05/23 16:50*	*04/07/23 03:27*	*1*
1,4-Difluorobenzene (Surr)	*107*		*70 - 130*	*04/05/23 16:50*	*04/07/23 03:27*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398		mg/Kg			04/07/23 18:40	1

Method: SW846 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9		mg/Kg			04/03/23 10:23	1

Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9		mg/Kg		03/31/23 14:28	04/02/23 04:36	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		03/31/23 14:28	04/02/23 04:36	1
OII Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		03/31/23 14:28	04/02/23 04:36	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*113*		*70 - 130*	*03/31/23 14:28*	*04/02/23 04:36*	*1*
o-Terphenyl	*101*		*70 - 130*	*03/31/23 14:28*	*04/02/23 04:36*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**65.2**		4.97		mg/Kg			04/07/23 05:06	1

Client Sample ID: BH02C

Lab Sample ID: 890-4428-6
Matrix: Solid
Date Collected: 03/28/23 13:25
Date Received: 03/28/23 15:40

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199		mg/Kg		04/05/23 16:50	04/07/23 03:47	1
Toluene	<0.00199	U	0.00199		mg/Kg		04/05/23 16:50	04/07/23 03:47	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		04/05/23 16:50	04/07/23 03:47	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		04/05/23 16:50	04/07/23 03:47	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		04/05/23 16:50	04/07/23 03:47	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		04/05/23 16:50	04/07/23 03:47	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*103*		*70 - 130*	*04/05/23 16:50*	*04/07/23 03:47*	*1*
1,4-Difluorobenzene (Surr)	*107*		*70 - 130*	*04/05/23 16:50*	*04/07/23 03:47*	*1*

Client Sample Results

Client: Ensolum
Project/Site: PLU 13 DTD Battery

Job ID: 890-4428-1
SDG: 03C1558188

Client Sample ID: BH02C

Date Collected: 03/28/23 13:25
Date Received: 03/28/23 15:40

Lab Sample ID: 890-4428-6

Matrix: Solid

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398		mg/Kg			04/07/23 18:40	1

Method: SW846 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0		mg/Kg			04/03/23 10:23	1

Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		03/31/23 14:28	04/02/23 04:56	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		03/31/23 14:28	04/02/23 04:56	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		03/31/23 14:28	04/02/23 04:56	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*104*		*70 - 130*	*03/31/23 14:28*	*04/02/23 04:56*	*1*
o-Terphenyl	*96*		*70 - 130*	*03/31/23 14:28*	*04/02/23 04:56*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.04	U	5.04		mg/Kg			04/07/23 05:10	1

Surrogate Summary

Client: Ensolum
Project/Site: PLU 13 DTD Battery

Job ID: 890-4428-1
SDG: 03C1558188

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)
880-26925-A-1-D MS	Matrix Spike	96	122
880-26925-A-1-E MSD	Matrix Spike Duplicate	116	104
890-4428-1	BH01A	154 S1+	120
890-4428-2	BH01B	97	105
890-4428-2 MS	BH01B	100	108
890-4428-2 MSD	BH01B	98	108
890-4428-3	BH01C	97	104
890-4428-4	BH02A	103	92
890-4428-5	BH02B	99	107
890-4428-6	BH02C	103	107
LCS 880-50431/1-A	Lab Control Sample	96	110
LCS 880-50536/1-A	Lab Control Sample	96	110
LCSD 880-50431/2-A	Lab Control Sample Dup	100	112
LCSD 880-50536/2-A	Lab Control Sample Dup	100	112
MB 880-50431/5-A	Method Blank	90	97
MB 880-50512/8	Method Blank	92	99
MB 880-50536/5-B	Method Blank	80	96

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)
880-26510-A-4-B MS	Matrix Spike	113	94
880-26510-A-4-C MSD	Matrix Spike Duplicate	113	97
890-4428-1	BH01A	146 S1+	101
890-4428-2	BH01B	99	97
890-4428-3	BH01C	101	96
890-4428-4	BH02A	107	102
890-4428-5	BH02B	113	101
890-4428-6	BH02C	104	96
LCS 880-50046/2-A	Lab Control Sample	138 S1+	132 S1+
LCSD 880-50046/3-A	Lab Control Sample Dup	124	117
MB 880-50046/1-A	Method Blank	113	113

Surrogate Legend

1CO = 1-Chlorooctane
OTPH = o-Terphenyl

QC Sample Results

Client: Ensolum
Project/Site: PLU 13 DTD Battery

Job ID: 890-4428-1
SDG: 03C1558188

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-50431/5-A
Matrix: Solid
Analysis Batch: 50512

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 50431

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		04/05/23 16:50	04/07/23 01:57	1
Toluene	<0.00200	U	0.00200		mg/Kg		04/05/23 16:50	04/07/23 01:57	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		04/05/23 16:50	04/07/23 01:57	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		04/05/23 16:50	04/07/23 01:57	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		04/05/23 16:50	04/07/23 01:57	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		04/05/23 16:50	04/07/23 01:57	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*90*		*70 - 130*	*04/05/23 16:50*	*04/07/23 01:57*	*1*
1,4-Difluorobenzene (Surr)	*97*		*70 - 130*	*04/05/23 16:50*	*04/07/23 01:57*	*1*

Lab Sample ID: LCS 880-50431/1-A
Matrix: Solid
Analysis Batch: 50512

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 50431

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Benzene			0.100	0.1002		mg/Kg		100	70 - 130		
Toluene			0.100	0.09691		mg/Kg		97	70 - 130		
Ethylbenzene			0.100	0.08430		mg/Kg		84	70 - 130		
m-Xylene & p-Xylene			0.200	0.1660		mg/Kg		83	70 - 130		
o-Xylene			0.100	0.08517		mg/Kg		85	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*96*		*70 - 130*
1,4-Difluorobenzene (Surr)	*110*		*70 - 130*

Lab Sample ID: LCSD 880-50431/2-A
Matrix: Solid
Analysis Batch: 50512

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 50431

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene			0.100	0.1022		mg/Kg		102	70 - 130	2	35
Toluene			0.100	0.1007		mg/Kg		101	70 - 130	4	35
Ethylbenzene			0.100	0.08698		mg/Kg		87	70 - 130	3	35
m-Xylene & p-Xylene			0.200	0.1715		mg/Kg		86	70 - 130	3	35
o-Xylene			0.100	0.08833		mg/Kg		88	70 - 130	4	35

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*100*		*70 - 130*
1,4-Difluorobenzene (Surr)	*112*		*70 - 130*

Lab Sample ID: 890-4428-2 MS
Matrix: Solid
Analysis Batch: 50512

Client Sample ID: BH01B
Prep Type: Total/NA
Prep Batch: 50431

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Benzene	<0.00200	U	0.0996	0.1061		mg/Kg		106	70 - 130		
Toluene	<0.00200	U	0.0996	0.1027		mg/Kg		102	70 - 130		

QC Sample Results

Client: Ensolum
Project/Site: PLU 13 DTD Battery

Job ID: 890-4428-1
SDG: 03C1558188

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

Lab Sample ID: 890-4428-2 MS
Matrix: Solid
Analysis Batch: 50512

Client Sample ID: BH01B
Prep Type: Total/NA
Prep Batch: 50431

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Ethylbenzene	<0.00200	U	0.0996	0.08929		mg/Kg		90	70 - 130
m-Xylene & p-Xylene	<0.00399	U	0.199	0.1758		mg/Kg		87	70 - 130
o-Xylene	<0.00200	U	0.0996	0.08952		mg/Kg		89	70 - 130

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*100*		*70 - 130*
1,4-Difluorobenzene (Surr)	*108*		*70 - 130*

Lab Sample ID: 890-4428-2 MSD
Matrix: Solid
Analysis Batch: 50512

Client Sample ID: BH01B
Prep Type: Total/NA
Prep Batch: 50431

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	<0.00200	U	0.0990	0.1055		mg/Kg		106	70 - 130	1	35
Toluene	<0.00200	U	0.0990	0.1020		mg/Kg		102	70 - 130	1	35
Ethylbenzene	<0.00200	U	0.0990	0.08913		mg/Kg		90	70 - 130	0	35
m-Xylene & p-Xylene	<0.00399	U	0.198	0.1759		mg/Kg		88	70 - 130	0	35
o-Xylene	<0.00200	U	0.0990	0.08888		mg/Kg		89	70 - 130	1	35

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*98*		*70 - 130*
1,4-Difluorobenzene (Surr)	*108*		*70 - 130*

Lab Sample ID: MB 880-50512/8
Matrix: Solid
Analysis Batch: 50512

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

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg			04/06/23 14:21	1
Toluene	<0.00200	U	0.00200	mg/Kg			04/06/23 14:21	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg			04/06/23 14:21	1
m-Xylene & p-Xylene	<0.00400	U	0.00400	mg/Kg			04/06/23 14:21	1
o-Xylene	<0.00200	U	0.00200	mg/Kg			04/06/23 14:21	1
Xylenes, Total	<0.00400	U	0.00400	mg/Kg			04/06/23 14:21	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*92*		*70 - 130*		*04/06/23 14:21*	*1*
1,4-Difluorobenzene (Surr)	*99*		*70 - 130*		*04/06/23 14:21*	*1*

Lab Sample ID: MB 880-50536/5-B
Matrix: Solid
Analysis Batch: 50769

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 50536

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		04/10/23 09:30	04/10/23 11:54	1
Toluene	<0.00200	U	0.00200	mg/Kg		04/10/23 09:30	04/10/23 11:54	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		04/10/23 09:30	04/10/23 11:54	1
m-Xylene & p-Xylene	<0.00400	U	0.00400	mg/Kg		04/10/23 09:30	04/10/23 11:54	1

QC Sample Results

Client: Ensolum
Project/Site: PLU 13 DTD Battery

Job ID: 890-4428-1
SDG: 03C1558188

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

Lab Sample ID: MB 880-50536/5-B
Matrix: Solid
Analysis Batch: 50769

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 50536

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
o-Xylene	<0.00200	U	0.00200		mg/Kg		04/10/23 09:30	04/10/23 11:54	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		04/10/23 09:30	04/10/23 11:54	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*80*		*70 - 130*	*04/10/23 09:30*	*04/10/23 11:54*	*1*
1,4-Difluorobenzene (Surr)	*96*		*70 - 130*	*04/10/23 09:30*	*04/10/23 11:54*	*1*

Lab Sample ID: LCS 880-50536/1-A
Matrix: Solid
Analysis Batch: 50769

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 50536

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Benzene			0.100	0.1031		mg/Kg		103	70 - 130		
Toluene			0.100	0.09177		mg/Kg		92	70 - 130		
Ethylbenzene			0.100	0.08629		mg/Kg		86	70 - 130		
m-Xylene & p-Xylene			0.200	0.1808		mg/Kg		90	70 - 130		
o-Xylene			0.100	0.09129		mg/Kg		91	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*96*		*70 - 130*
1,4-Difluorobenzene (Surr)	*110*		*70 - 130*

Lab Sample ID: LCSD 880-50536/2-A
Matrix: Solid
Analysis Batch: 50769

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 50536

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene			0.100	0.1183		mg/Kg		118	70 - 130	14	35
Toluene			0.100	0.1095		mg/Kg		110	70 - 130	18	35
Ethylbenzene			0.100	0.09842		mg/Kg		98	70 - 130	13	35
m-Xylene & p-Xylene			0.200	0.2032		mg/Kg		102	70 - 130	12	35
o-Xylene			0.100	0.1017		mg/Kg		102	70 - 130	11	35

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*100*		*70 - 130*
1,4-Difluorobenzene (Surr)	*112*		*70 - 130*

Lab Sample ID: 880-26925-A-1-D MS
Matrix: Solid
Analysis Batch: 50769

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 50536

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Benzene	<0.00199	U F2 F1	0.0998	0.04997	F1	mg/Kg		50	70 - 130		
Toluene	<0.00199	U F2 F1	0.0998	0.02828	F1	mg/Kg		27	70 - 130		
Ethylbenzene	<0.00199	U F2 F1	0.0998	0.01813	F1	mg/Kg		17	70 - 130		
m-Xylene & p-Xylene	0.00405	F2 F1	0.200	0.03772	F1	mg/Kg		17	70 - 130		
o-Xylene	<0.00199	U F2 F1	0.0998	0.01924	F1	mg/Kg		17	70 - 130		

QC Sample Results

Client: Ensolum
Project/Site: PLU 13 DTD Battery

Job ID: 890-4428-1
SDG: 03C1558188

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

Lab Sample ID: 880-26925-A-1-D MS
Matrix: Solid
Analysis Batch: 50769

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 50536

Surrogate	MS %Recovery	MS Qualifier	Limits
4-Bromofluorobenzene (Surr)	*96*		*70 - 130*
1,4-Difluorobenzene (Surr)	*122*		*70 - 130*

Lab Sample ID: 880-26925-A-1-E MSD
Matrix: Solid
Analysis Batch: 50769

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 50536

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	<0.00199	U F2 F1	0.0990	0.07394	F2	mg/Kg		75	70 - 130	39	35
Toluene	<0.00199	U F2 F1	0.0990	0.05099	F2 F1	mg/Kg		50	70 - 130	57	35
Ethylbenzene	<0.00199	U F2 F1	0.0990	0.03511	F2 F1	mg/Kg		34	70 - 130	64	35
m-Xylene & p-Xylene	0.00405	F2 F1	0.198	0.07537	F2 F1	mg/Kg		36	70 - 130	67	35
o-Xylene	<0.00199	U F2 F1	0.0990	0.04842	F2 F1	mg/Kg		47	70 - 130	86	35

Surrogate	MSD %Recovery	MSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	*116*		*70 - 130*
1,4-Difluorobenzene (Surr)	*104*		*70 - 130*

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

Lab Sample ID: MB 880-50046/1-A
Matrix: Solid
Analysis Batch: 50074

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 50046

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		03/31/23 14:28	04/01/23 20:26	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		03/31/23 14:28	04/01/23 20:26	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		03/31/23 14:28	04/01/23 20:26	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	*113*		*70 - 130*	*03/31/23 14:28*	*04/01/23 20:26*	*1*
o-Terphenyl	*113*		*70 - 130*	*03/31/23 14:28*	*04/01/23 20:26*	*1*

Lab Sample ID: LCS 880-50046/2-A
Matrix: Solid
Analysis Batch: 50074

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 50046

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Gasoline Range Organics (GRO)-C6-C10			1000	999.3		mg/Kg		100	70 - 130		
Diesel Range Organics (Over C10-C28)			1000	980.9		mg/Kg		98	70 - 130		

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1-Chlorooctane	*138*	*S1+*	*70 - 130*
o-Terphenyl	*132*	*S1+*	*70 - 130*

QC Sample Results

Client: Ensolum
Project/Site: PLU 13 DTD Battery

Job ID: 890-4428-1
SDG: 03C1558188

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

Lab Sample ID: LCSD 880-50046/3-A
Matrix: Solid
Analysis Batch: 50074

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 50046

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10			1000	978.3		mg/Kg		98	70 - 130	2	20
Diesel Range Organics (Over C10-C28)			1000	865.0		mg/Kg		87	70 - 130	13	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1-Chlorooctane	*124*		*70 - 130*
o-Terphenyl	*117*		*70 - 130*

Lab Sample ID: 880-26510-A-4-B MS
Matrix: Solid
Analysis Batch: 50074

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 50046

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	999	1131		mg/Kg		109	70 - 130
Diesel Range Organics (Over C10-C28)	130		999	890.2		mg/Kg		76	70 - 130

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
1-Chlorooctane	*113*		*70 - 130*
o-Terphenyl	*94*		*70 - 130*

Lab Sample ID: 880-26510-A-4-C MSD
Matrix: Solid
Analysis Batch: 50074

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 50046

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	999	1131		mg/Kg		109	70 - 130	0	20
Diesel Range Organics (Over C10-C28)	130		999	904.9		mg/Kg		78	70 - 130	2	20

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
1-Chlorooctane	*113*		*70 - 130*
o-Terphenyl	*97*		*70 - 130*

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-50418/1-A
Matrix: Solid
Analysis Batch: 50614

Client Sample ID: Method Blank
Prep Type: Soluble

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.00	U	5.00		mg/Kg			04/07/23 02:46	1

QC Sample Results

Client: Ensolum
Project/Site: PLU 13 DTD Battery

Job ID: 890-4428-1
SDG: 03C1558188

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: LCS 880-50418/2-A
Matrix: Solid
Analysis Batch: 50614

Client Sample ID: Lab Control Sample
Prep Type: Soluble

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride			250	249.7		mg/Kg		100	90 - 110		

Lab Sample ID: LCSD 880-50418/3-A
Matrix: Solid
Analysis Batch: 50614

Client Sample ID: Lab Control Sample Dup
Prep Type: Soluble

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

Lab Sample ID: 880-26530-A-11-C MS
Matrix: Solid
Analysis Batch: 50614

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	348	F1	250	525.3	F1	mg/Kg		71	90 - 110		

Lab Sample ID: 880-26530-A-11-D MSD
Matrix: Solid
Analysis Batch: 50614

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	348	F1	250	524.9	F1	mg/Kg		71	90 - 110	0	20

QC Association Summary

Client: Ensolum
Project/Site: PLU 13 DTD Battery

Job ID: 890-4428-1
SDG: 03C1558188

GC VOA

Prep Batch: 50431

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4428-2	BH01B	Total/NA	Solid	5035	
890-4428-3	BH01C	Total/NA	Solid	5035	
890-4428-4	BH02A	Total/NA	Solid	5035	
890-4428-5	BH02B	Total/NA	Solid	5035	
890-4428-6	BH02C	Total/NA	Solid	5035	
MB 880-50431/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-50431/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-50431/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
890-4428-2 MS	BH01B	Total/NA	Solid	5035	
890-4428-2 MSD	BH01B	Total/NA	Solid	5035	

Analysis Batch: 50512

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4428-2	BH01B	Total/NA	Solid	8021B	50431
890-4428-3	BH01C	Total/NA	Solid	8021B	50431
890-4428-4	BH02A	Total/NA	Solid	8021B	50431
890-4428-5	BH02B	Total/NA	Solid	8021B	50431
890-4428-6	BH02C	Total/NA	Solid	8021B	50431
MB 880-50431/5-A	Method Blank	Total/NA	Solid	8021B	50431
MB 880-50512/8	Method Blank	Total/NA	Solid	8021B	
LCS 880-50431/1-A	Lab Control Sample	Total/NA	Solid	8021B	50431
LCSD 880-50431/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	50431
890-4428-2 MS	BH01B	Total/NA	Solid	8021B	50431
890-4428-2 MSD	BH01B	Total/NA	Solid	8021B	50431

Prep Batch: 50536

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4428-1	BH01A	Total/NA	Solid	5035	
MB 880-50536/5-B	Method Blank	Total/NA	Solid	5035	
LCS 880-50536/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-50536/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
880-26925-A-1-D MS	Matrix Spike	Total/NA	Solid	5035	
880-26925-A-1-E MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	

Analysis Batch: 50643

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4428-1	BH01A	Total/NA	Solid	Total BTEX	
890-4428-2	BH01B	Total/NA	Solid	Total BTEX	
890-4428-3	BH01C	Total/NA	Solid	Total BTEX	
890-4428-4	BH02A	Total/NA	Solid	Total BTEX	
890-4428-5	BH02B	Total/NA	Solid	Total BTEX	
890-4428-6	BH02C	Total/NA	Solid	Total BTEX	

Analysis Batch: 50769

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4428-1	BH01A	Total/NA	Solid	8021B	50536
MB 880-50536/5-B	Method Blank	Total/NA	Solid	8021B	50536
LCS 880-50536/1-A	Lab Control Sample	Total/NA	Solid	8021B	50536
LCSD 880-50536/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	50536
880-26925-A-1-D MS	Matrix Spike	Total/NA	Solid	8021B	50536
880-26925-A-1-E MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	50536

QC Association Summary

Client: Ensolum
Project/Site: PLU 13 DTD Battery

Job ID: 890-4428-1
SDG: 03C1558188

GC Semi VOA

Prep Batch: 50046

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4428-1	BH01A	Total/NA	Solid	8015NM Prep	
890-4428-2	BH01B	Total/NA	Solid	8015NM Prep	
890-4428-3	BH01C	Total/NA	Solid	8015NM Prep	
890-4428-4	BH02A	Total/NA	Solid	8015NM Prep	
890-4428-5	BH02B	Total/NA	Solid	8015NM Prep	
890-4428-6	BH02C	Total/NA	Solid	8015NM Prep	
MB 880-50046/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-50046/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-50046/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
880-26510-A-4-B MS	Matrix Spike	Total/NA	Solid	8015NM Prep	
880-26510-A-4-C MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	

Analysis Batch: 50074

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4428-1	BH01A	Total/NA	Solid	8015B NM	50046
890-4428-2	BH01B	Total/NA	Solid	8015B NM	50046
890-4428-3	BH01C	Total/NA	Solid	8015B NM	50046
890-4428-4	BH02A	Total/NA	Solid	8015B NM	50046
890-4428-5	BH02B	Total/NA	Solid	8015B NM	50046
890-4428-6	BH02C	Total/NA	Solid	8015B NM	50046
MB 880-50046/1-A	Method Blank	Total/NA	Solid	8015B NM	50046
LCS 880-50046/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	50046
LCSD 880-50046/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	50046
880-26510-A-4-B MS	Matrix Spike	Total/NA	Solid	8015B NM	50046
880-26510-A-4-C MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	50046

Analysis Batch: 50157

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4428-1	BH01A	Total/NA	Solid	8015 NM	
890-4428-2	BH01B	Total/NA	Solid	8015 NM	
890-4428-3	BH01C	Total/NA	Solid	8015 NM	
890-4428-4	BH02A	Total/NA	Solid	8015 NM	
890-4428-5	BH02B	Total/NA	Solid	8015 NM	
890-4428-6	BH02C	Total/NA	Solid	8015 NM	

HPLC/IC

Leach Batch: 50418

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4428-1	BH01A	Soluble	Solid	DI Leach	
890-4428-2	BH01B	Soluble	Solid	DI Leach	
890-4428-3	BH01C	Soluble	Solid	DI Leach	
890-4428-4	BH02A	Soluble	Solid	DI Leach	
890-4428-5	BH02B	Soluble	Solid	DI Leach	
890-4428-6	BH02C	Soluble	Solid	DI Leach	
MB 880-50418/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-50418/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-50418/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
880-26530-A-11-C MS	Matrix Spike	Soluble	Solid	DI Leach	
880-26530-A-11-D MSD	Matrix Spike Duplicate	Soluble	Solid	DI Leach	

QC Association Summary

Client: Ensolum
Project/Site: PLU 13 DTD Battery

Job ID: 890-4428-1
SDG: 03C1558188

HPLC/IC

Analysis Batch: 50614

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4428-1	BH01A	Soluble	Solid	300.0	50418
890-4428-2	BH01B	Soluble	Solid	300.0	50418
890-4428-3	BH01C	Soluble	Solid	300.0	50418
890-4428-4	BH02A	Soluble	Solid	300.0	50418
890-4428-5	BH02B	Soluble	Solid	300.0	50418
890-4428-6	BH02C	Soluble	Solid	300.0	50418
MB 880-50418/1-A	Method Blank	Soluble	Solid	300.0	50418
LCS 880-50418/2-A	Lab Control Sample	Soluble	Solid	300.0	50418
LCSD 880-50418/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	50418
880-26530-A-11-C MS	Matrix Spike	Soluble	Solid	300.0	50418
880-26530-A-11-D MSD	Matrix Spike Duplicate	Soluble	Solid	300.0	50418

Lab Chronicle

Client: Ensolum
Project/Site: PLU 13 DTD Battery

Job ID: 890-4428-1
SDG: 03C1558188

Client Sample ID: BH01A
Date Collected: 03/28/23 11:00
Date Received: 03/28/23 15:40

Lab Sample ID: 890-4428-1
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.05 g	5 mL	50536	04/10/23 09:30	MNR	EET MID
Total/NA	Analysis	8021B		250	5 mL	5 mL	50769	04/10/23 14:39	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			50643	04/10/23 17:51	SM	EET MID
Total/NA	Analysis	8015 NM		1			50157	04/03/23 10:23	SM	EET MID
Total/NA	Prep	8015NM Prep			10.031 g	10 mL	50046	03/31/23 14:28	AJ	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	50074	04/02/23 03:14	SM	EET MID
Soluble	Leach	DI Leach			5.01 g	50 mL	50418	04/05/23 14:50	KS	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	50614	04/07/23 04:46	SMC	EET MID

Client Sample ID: BH01B
Date Collected: 03/28/23 11:10
Date Received: 03/28/23 15:40

Lab Sample ID: 890-4428-2
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	50431	04/05/23 16:50	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	50512	04/07/23 02:25	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			50643	04/07/23 18:40	SM	EET MID
Total/NA	Analysis	8015 NM		1			50157	04/03/23 10:23	SM	EET MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	50046	03/31/23 14:28	AJ	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	50074	04/02/23 03:35	SM	EET MID
Soluble	Leach	DI Leach			5.02 g	50 mL	50418	04/05/23 14:50	KS	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	50614	04/07/23 04:51	SMC	EET MID

Client Sample ID: BH01C
Date Collected: 03/28/23 12:15
Date Received: 03/28/23 15:40

Lab Sample ID: 890-4428-3
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			4.98 g	5 mL	50431	04/05/23 16:50	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	50512	04/07/23 02:46	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			50643	04/07/23 18:40	SM	EET MID
Total/NA	Analysis	8015 NM		1			50157	04/03/23 10:23	SM	EET MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	50046	03/31/23 14:28	AJ	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	50074	04/02/23 03:55	SM	EET MID
Soluble	Leach	DI Leach			4.98 g	50 mL	50418	04/05/23 14:50	KS	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	50614	04/07/23 04:56	SMC	EET MID

Client Sample ID: BH02A
Date Collected: 03/28/23 11:55
Date Received: 03/28/23 15:40

Lab Sample ID: 890-4428-4
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			5.05 g	5 mL	50431	04/05/23 16:50	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	50512	04/07/23 03:06	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			50643	04/07/23 18:40	SM	EET MID

Lab Chronicle

Client: Ensolum
Project/Site: PLU 13 DTD Battery

Job ID: 890-4428-1
SDG: 03C1558188

Client Sample ID: BH02A
Date Collected: 03/28/23 11:55
Date Received: 03/28/23 15:40

Lab Sample ID: 890-4428-4
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			50157	04/03/23 10:23	SM	EET MID
Total/NA	Prep	8015NM Prep			10.03 g	10 mL	50046	03/31/23 14:28	AJ	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	50074	04/02/23 04:15	SM	EET MID
Soluble	Leach	DI Leach			5.05 g	50 mL	50418	04/05/23 14:50	KS	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	50614	04/07/23 05:01	SMC	EET MID

Client Sample ID: BH02B
Date Collected: 03/28/23 13:20
Date Received: 03/28/23 15:40

Lab Sample ID: 890-4428-5
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			5.02 g	5 mL	50431	04/05/23 16:50	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	50512	04/07/23 03:27	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			50643	04/07/23 18:40	SM	EET MID
Total/NA	Analysis	8015 NM		1			50157	04/03/23 10:23	SM	EET MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	50046	03/31/23 14:28	AJ	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	50074	04/02/23 04:36	SM	EET MID
Soluble	Leach	DI Leach			5.03 g	50 mL	50418	04/05/23 14:50	KS	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	50614	04/07/23 05:06	SMC	EET MID

Client Sample ID: BH02C
Date Collected: 03/28/23 13:25
Date Received: 03/28/23 15:40

Lab Sample ID: 890-4428-6
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			5.03 g	5 mL	50431	04/05/23 16:50	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	50512	04/07/23 03:47	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			50643	04/07/23 18:40	SM	EET MID
Total/NA	Analysis	8015 NM		1			50157	04/03/23 10:23	SM	EET MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	50046	03/31/23 14:28	AJ	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	50074	04/02/23 04:56	SM	EET MID
Soluble	Leach	DI Leach			4.96 g	50 mL	50418	04/05/23 14:50	KS	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	50614	04/07/23 05:10	SMC	EET MID

Laboratory References:

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

Accreditation/Certification Summary

Client: Ensolum
Project/Site: PLU 13 DTD Battery

Job ID: 890-4428-1
SDG: 03C1558188

Laboratory: Eurofins Midland

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

Authority	Program	Identification Number	Expiration Date
Texas	NELAP	T104704400-22-25	06-30-23

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

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

Method Summary

Client: Ensolum
Project/Site: PLU 13 DTD Battery

Job ID: 890-4428-1
SDG: 03C1558188

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

Protocol References:

ASTM = ASTM International

EPA = US Environmental Protection Agency

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

TAL SOP = TestAmerica Laboratories, Standard Operating Procedure

Laboratory References:

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

Sample Summary

Client: Ensolum
Project/Site: PLU 13 DTD Battery

Job ID: 890-4428-1
SDG: 03C1558188

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
890-4428-1	BH01A	Solid	03/28/23 11:00	03/28/23 15:40
890-4428-2	BH01B	Solid	03/28/23 11:10	03/28/23 15:40
890-4428-3	BH01C	Solid	03/28/23 12:15	03/28/23 15:40
890-4428-4	BH02A	Solid	03/28/23 11:55	03/28/23 15:40
890-4428-5	BH02B	Solid	03/28/23 13:20	03/28/23 15:40
890-4428-6	BH02C	Solid	03/28/23 13:25	03/28/23 15:40

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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

We

890-4428 Chain of Custody

www.xenco.com Page 1 of 1

Project Manager:	Ben Belill	Bill to: (if different)	Garrett Green
Company Name:	Ensolum, LLC	Company Name:	XTO Energy
Address:	3122 National Parks HWY	Address:	3104 E. Greene St
City, State ZIP:	Carlsbad	City, State ZIP:	Carlsbad, NM 88220
Phone:	9703194316 4	Email:	Garrett.Green@ExxonMobile.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 13 DTD Battery	Turn Around	
Project Number:	03C1558188 J	☒ Routine ☐ Rush	Pres. Code
Project Location:	32.205169, -103.83013	Due Date:	5 days
Sampler's Name:	Mariana O'Dell	TAT starts the day received by the lab, if received by 4:30pm	
PO #:			

SAMPLE RECEIPT			
Temp Blank:	(Yes) No	Wet Ice:	(Yes) No
Samples Received Intact:	(Yes) No	Thermometer ID:	IR#007
Cooler Custody Seals:	Yes No (N/A)	Correction Factor:	-0.2
Sample Custody Seals:	Yes No (N/A)	Temperature Reading:	2.2
Total Containers:		Corrected Temperature:	2.0

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	Parameters: Chlorides	BTEX	TPH
BH01A	S	03/28/23	11:00	2'	G	1			
BH01B			11:10	4'					
BH01C			12:15	7'					
BH02A			11:55	2'					
BH02B			13:20	4'					
BH02C			13:25	7'					

Sample Comments

Incident #:
nAPP2304448906

Cost Center:
2191721001

Ben Belill:
bbelill@ensolum.com

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	M. O'Dell		3.28.23 1540			
3				4		
5				6		

Revised Date: 08/25/2020 Rev. 2020.2

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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

890-4428 Chain of Custody

www.xenco.com Page 1 of 1

Project Manager:	Ben Belill	Bill to: (if different)	Garrett Green
Company Name:	Ensolum, LLC	Company Name:	XTO Energy
Address:	3122 National Parks Hwy	Address:	3104 E. Greene St
City, State ZIP:	Carlsbad	City, State ZIP:	Carlsbad, NM 88220
Phone:	9703194304	Email:	Garrett.Green@ExxonMobile.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 13 DTD Battery	Turn Around	
Project Number:	03C1558188 J	☒ Routine ☐ Rush	
Project Location:	32.205109, -103.83013	Due Date:	5 days
Sampler's Name:	Manaha O'Dell	TAT starts the day received by the lab, if received by 4:30pm	
PO #:			

SAMPLE RECEIPT			
Temp Blank:	(Yes) No	Wet Ice:	(Yes) No
Samples Received Intact:	(Yes) No	Thermometer ID:	IR#0007
Cooler Custody Seals:	Yes No (N/A)	Correction Factor:	-0.2
Sample Custody Seals:	Yes No (N/A)	Temperature Reading:	2.2
Total Containers:		Corrected Temperature:	2.0

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Grab/ Comp	# of Cont	Pres. Code	Parameters: Chlorides	BTEX	TPH
BH01A	S	03/28/23	11:00	2'	G	1				
BH01B			11:10	4'						
BH01C			12:15	7'						
BH02A			11:55	2'						
BH02B			13:20	4'						
BH02C			13:25	7'						

Preservative Codes

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

Sample Comments

Incident #:
nAPP2304448906

Cost Center:
2191721001

Ben Belill:
bbelill@ensolum.com

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	M. O'Dell		3.28.23 1540			
3				4		
5				6		

Revised Date: 08/25/2020 Rev. 2020.2

Login Sample Receipt Checklist

Client: Ensolum

Job Number: 890-4428-1
SDG Number: 03C1558188

Login Number: 4428
List Number: 1
Creator: Kramer, Jessica

List Source: Eurofins Carlsbad

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

Login Sample Receipt Checklist

Client: Ensolum

Job Number: 890-4428-1
SDG Number: 03C1558188

Login Number: 4428
List Number: 2
Creator: Kramer, Jessica

List Source: Eurofins Midland
List Creation: 03/30/23 01:53 PM

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").	N/A	

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ANALYTICAL REPORT

PREPARED FOR

Attn: Ben Belill
Ensolum
601 N. Marienfeld St.
Suite 400
Midland, Texas 79701

Generated 5/1/2023 8:45:56 AM Revision 1

JOB DESCRIPTION

PLU 13 Dog Town Draw Battery
SDG NUMBER 03C1558188

JOB NUMBER

890-4559-1

Eurofins Carlsbad
1089 N Canal St.
Carlsbad NM 88220

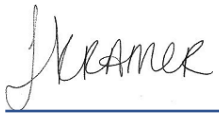
Eurofins Carlsbad

Job Notes

This report may not be reproduced except in full, and with written approval from the laboratory. The results relate only to the samples tested. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

Analytical test results meet all requirements of the associated regulatory program (i.e., NELAC (TNI), DoD, and ISO 17025) unless otherwise noted under the individual analysis.

Authorization



Generated
5/1/2023 8:45:56 AM
Revision 1

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

Client: Ensolum
Project/Site: PLU 13 Dog Town Draw Battery

Laboratory Job ID: 890-4559-1
SDG: 03C1558188

Table of Contents

Definitions/Glossary

Client: Ensolum
Project/Site: PLU 13 Dog Town Draw Battery

Job ID: 890-4559-1
SDG: 03C1558188

Qualifiers

GC VOA

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

GC Semi VOA

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

HPLC/IC

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

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	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 13 Dog Town Draw Battery

Job ID: 890-4559-1
SDG: 03C1558188

Job ID: 890-4559-1

Laboratory: Eurofins Carlsbad

Narrative

Job Narrative
890-4559-1

REVISION

The report being provided is a revision of the original report sent on 4/27/2023. The report (revision 1) is being revised due to Per client email, requesting TPH re run on sample #4.

Receipt
The samples were received on 4/21/2023 8:15 AM. 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 1.0°C

Receipt Exceptions
The following samples > were received and analyzed from an unpreserved bulk soil jar: BH03 (890-4559-1), BH04 (890-4559-2), BH05 (890-4559-3) and BH06 (890-4559-4).

GC VOA
Method 8021B: Surrogate recovery for the following samples were outside control limits: BH04 (890-4559-2) and BH06 (890-4559-4). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

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 surrogate recovery for the blank associated with preparation batch 880-51848 and analytical batch 880-51824 was outside the upper control limits.

Method 8015MOD_NM: Surrogate recovery for the following sample was outside control limits: (LCSD 880-51848/3-A). Evidence of matrix interferences is not obvious.

Method 8015MOD_NM: Surrogate recovery for the following sample was outside control limits: (890-4554-A-11-B). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

Method 8015MOD_NM: Surrogate recovery for the following samples were outside control limits: BH03 (890-4559-1), BH04 (890-4559-2) and BH05 (890-4559-3). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

Method 8015MOD_NM: Surrogate recovery for the following sample was outside control limits: (CCV 880-51824/5). Evidence of matrix interferences is not obvious.

Method 8015MOD_NM: Surrogate recovery for the following sample was outside control limits: (CCV 880-51824/31). Evidence of matrix interferences is not obvious.

Method 8015MOD_NM: The matrix spike / matrix spike duplicate (MS/MSD) precision for preparation batch 880-51848 and analytical batch 880-51824 was outside control limits. Sample non-homogeneity is suspected.

Method 8015MOD_NM: The continuing calibration verification (CCV) associated with batch 880-51824 recovered above the upper control limit for Gasoline Range Organics (GRO)-C6-C10. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported. The associated sample is impacted: (CCV 880-51824/5).

Method 8015MOD_NM: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 880-52181 and analytical batch 880-52159 were outside control limits for one or more analytes, see QC Sample Results for detail. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery is within acceptance limits.

Case Narrative

Client: Ensolum
Project/Site: PLU 13 Dog Town Draw Battery

Job ID: 890-4559-1
SDG: 03C1558188

Job ID: 890-4559-1 (Continued)

Laboratory: Eurofins Carlsbad (Continued)

Method 8015MOD_NM: Surrogate recovery for the following samples were outside control limits: BH06 (890-4559-4), (LCS 880-52181/2-A), (LCSD 880-52181/3-A), (880-27710-A-1-F), (880-27710-A-1-G MS) and (880-27710-A-1-H MSD). Evidence of matrix interferences is not obvious.

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

HPLC/IC

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

Client Sample Results

Client: Ensolum
Project/Site: PLU 13 Dog Town Draw Battery

Job ID: 890-4559-1
SDG: 03C1558188

Client Sample ID: BH03

Date Collected: 04/20/23 09:55
Date Received: 04/21/23 08:15
Sample Depth: 2

Lab Sample ID: 890-4559-1
Matrix: Solid

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		04/24/23 11:53	04/24/23 23:34	1
Toluene	<0.00200	U	0.00200		mg/Kg		04/24/23 11:53	04/24/23 23:34	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		04/24/23 11:53	04/24/23 23:34	1
m-Xylene & p-Xylene	<0.00399	U	0.00399		mg/Kg		04/24/23 11:53	04/24/23 23:34	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		04/24/23 11:53	04/24/23 23:34	1
Xylenes, Total	<0.00399	U	0.00399		mg/Kg		04/24/23 11:53	04/24/23 23:34	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*109*		*70 - 130*	*04/24/23 11:53*	*04/24/23 23:34*	*1*
1,4-Difluorobenzene (Surr)	*85*		*70 - 130*	*04/24/23 11:53*	*04/24/23 23:34*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00399	U	0.00399		mg/Kg			04/25/23 10:30	1

Method: SW846 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.8	U	49.8		mg/Kg			04/25/23 10:20	1

Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.8	U	49.8		mg/Kg		04/24/23 12:29	04/24/23 18:28	1
Diesel Range Organics (Over C10-C28)	<49.8	U	49.8		mg/Kg		04/24/23 12:29	04/24/23 18:28	1
Oil Range Organics (Over C28-C36)	<49.8	U	49.8		mg/Kg		04/24/23 12:29	04/24/23 18:28	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*120*		*70 - 130*	*04/24/23 12:29*	*04/24/23 18:28*	*1*
o-Terphenyl	*145*	*S1+*	*70 - 130*	*04/24/23 12:29*	*04/24/23 18:28*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**144**		5.04		mg/Kg			04/27/23 15:35	1

Client Sample ID: BH04

Date Collected: 04/20/23 10:20
Date Received: 04/21/23 08:15
Sample Depth: 2

Lab Sample ID: 890-4559-2
Matrix: Solid

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199		mg/Kg		04/24/23 11:53	04/24/23 23:54	1
Toluene	<0.00199	U	0.00199		mg/Kg		04/24/23 11:53	04/24/23 23:54	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		04/24/23 11:53	04/24/23 23:54	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		04/24/23 11:53	04/24/23 23:54	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		04/24/23 11:53	04/24/23 23:54	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		04/24/23 11:53	04/24/23 23:54	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*146*	*S1+*	*70 - 130*	*04/24/23 11:53*	*04/24/23 23:54*	*1*

Client Sample Results

Client: Ensolum
Project/Site: PLU 13 Dog Town Draw Battery

Job ID: 890-4559-1
SDG: 03C1558188

Client Sample ID: BH04

Date Collected: 04/20/23 10:20
Date Received: 04/21/23 08:15
Sample Depth: 2

Lab Sample ID: 890-4559-2

Matrix: Solid

Method: SW846 8021B - Volatile Organic Compounds (GC) (Continued)

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,4-Difluorobenzene (Surr)	*106*		*70 - 130*	*04/24/23 11:53*	*04/24/23 23:54*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398	mg/Kg			04/25/23 10:30	1

Method: SW846 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9	mg/Kg			04/25/23 10:20	1

Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9	mg/Kg		04/24/23 12:29	04/24/23 18:50	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9	mg/Kg		04/24/23 12:29	04/24/23 18:50	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg		04/24/23 12:29	04/24/23 18:50	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*135*	*S1+*	*70 - 130*	*04/24/23 12:29*	*04/24/23 18:50*	*1*
o-Terphenyl	*161*	*S1+*	*70 - 130*	*04/24/23 12:29*	*04/24/23 18:50*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**136**		5.00	mg/Kg			04/27/23 15:40	1

Client Sample ID: BH05

Date Collected: 04/20/23 13:50
Date Received: 04/21/23 08:15
Sample Depth: 2

Lab Sample ID: 890-4559-3

Matrix: Solid

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00201	U	0.00201	mg/Kg		04/24/23 11:53	04/25/23 00:15	1
Toluene	<0.00201	U	0.00201	mg/Kg		04/24/23 11:53	04/25/23 00:15	1
Ethylbenzene	<0.00201	U	0.00201	mg/Kg		04/24/23 11:53	04/25/23 00:15	1
m-Xylene & p-Xylene	<0.00402	U	0.00402	mg/Kg		04/24/23 11:53	04/25/23 00:15	1
o-Xylene	<0.00201	U	0.00201	mg/Kg		04/24/23 11:53	04/25/23 00:15	1
Xylenes, Total	<0.00402	U	0.00402	mg/Kg		04/24/23 11:53	04/25/23 00:15	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*115*		*70 - 130*	*04/24/23 11:53*	*04/25/23 00:15*	*1*
1,4-Difluorobenzene (Surr)	*72*		*70 - 130*	*04/24/23 11:53*	*04/25/23 00:15*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00402	U	0.00402	mg/Kg			04/25/23 10:30	1

Method: SW846 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0	mg/Kg			04/25/23 10:20	1

Client Sample Results

Client: Ensolum
Project/Site: PLU 13 Dog Town Draw Battery

Job ID: 890-4559-1
SDG: 03C1558188

Client Sample ID: BH05

Date Collected: 04/20/23 13:50
Date Received: 04/21/23 08:15
Sample Depth: 2

Lab Sample ID: 890-4559-3

Matrix: Solid

Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		04/24/23 12:29	04/24/23 19:11	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		04/24/23 12:29	04/24/23 19:11	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		04/24/23 12:29	04/24/23 19:11	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*130*		*70 - 130*	*04/24/23 12:29*	*04/24/23 19:11*	*1*
o-Terphenyl	*158*	*S1+*	*70 - 130*	*04/24/23 12:29*	*04/24/23 19:11*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**162**		5.05		mg/Kg			04/27/23 15:45	1

Client Sample ID: BH06

Date Collected: 04/20/23 13:15
Date Received: 04/21/23 08:15
Sample Depth: 2

Lab Sample ID: 890-4559-4

Matrix: Solid

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00201	U	0.00201		mg/Kg		04/24/23 11:53	04/25/23 00:35	1
Toluene	<0.00201	U	0.00201		mg/Kg		04/24/23 11:53	04/25/23 00:35	1
Ethylbenzene	<0.00201	U	0.00201		mg/Kg		04/24/23 11:53	04/25/23 00:35	1
m-Xylene & p-Xylene	<0.00402	U	0.00402		mg/Kg		04/24/23 11:53	04/25/23 00:35	1
o-Xylene	<0.00201	U	0.00201		mg/Kg		04/24/23 11:53	04/25/23 00:35	1
Xylenes, Total	<0.00402	U	0.00402		mg/Kg		04/24/23 11:53	04/25/23 00:35	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*117*		*70 - 130*	*04/24/23 11:53*	*04/25/23 00:35*	*1*
1,4-Difluorobenzene (Surr)	*64*	*S1-*	*70 - 130*	*04/24/23 11:53*	*04/25/23 00:35*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00402	U	0.00402		mg/Kg			04/25/23 10:30	1

Method: SW846 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9		mg/Kg			04/25/23 10:20	1

Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U *-	49.9		mg/Kg		04/28/23 09:48	04/28/23 15:05	1
Diesel Range Organics (Over C10-C28)	<49.9	U *-	49.9		mg/Kg		04/28/23 09:48	04/28/23 15:05	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		04/28/23 09:48	04/28/23 15:05	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*73*		*70 - 130*	*04/28/23 09:48*	*04/28/23 15:05*	*1*
o-Terphenyl	*55*	*S1-*	*70 - 130*	*04/28/23 09:48*	*04/28/23 15:05*	*1*

Client Sample Results

Client: Ensolum
Project/Site: PLU 13 Dog Town Draw Battery

Job ID: 890-4559-1
SDG: 03C1558188

Client Sample ID: BH06

Date Collected: 04/20/23 13:15
Date Received: 04/21/23 08:15
Sample Depth: 2

Lab Sample ID: 890-4559-4

Matrix: Solid

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	270		5.02		mg/Kg			04/27/23 15:49	1

Surrogate Summary

Client: Ensolum
Project/Site: PLU 13 Dog Town Draw Battery

Job ID: 890-4559-1
SDG: 03C1558188

Method: 8021B - Volatile Organic Compounds (GC)

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

		Percent Surrogate Recovery (Acceptance Limits)	
		BFB1	DFBZ1
Lab Sample ID	Client Sample ID	(70-130)	(70-130)
890-4559-1	BH03	109	85
890-4559-1 MS	BH03	122	110
890-4559-1 MSD	BH03	109	110
890-4559-2	BH04	146 S1+	106
890-4559-3	BH05	115	72
890-4559-4	BH06	117	64 S1-
LCS 880-51842/1-A	Lab Control Sample	114	87
LCSD 880-51842/2-A	Lab Control Sample Dup	117	109
MB 880-51796/5-A	Method Blank	74	82
MB 880-51842/5-A	Method Blank	76	80

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)
880-27710-A-1-G MS	Matrix Spike	71	51 S1-
880-27710-A-1-H MSD	Matrix Spike Duplicate	68 S1-	48 S1-
890-4554-A-11-C MS	Matrix Spike	91	103
890-4554-A-11-D MSD	Matrix Spike Duplicate	109	117
890-4559-1	BH03	120	145 S1+
890-4559-2	BH04	135 S1+	161 S1+
890-4559-3	BH05	130	158 S1+
890-4559-4	BH06	73	55 S1-
LCS 880-51848/2-A	Lab Control Sample	106	130
LCS 880-52181/2-A	Lab Control Sample	70	53 S1-
LCSD 880-51848/3-A	Lab Control Sample Dup	124	150 S1+
LCSD 880-52181/3-A	Lab Control Sample Dup	72	53 S1-
MB 880-51848/1-A	Method Blank	119	154 S1+
MB 880-52181/1-A	Method Blank	67 S1-	67 S1-

Surrogate Legend

1CO = 1-Chlorooctane
OTPH = o-Terphenyl

QC Sample Results

Client: Ensolum
Project/Site: PLU 13 Dog Town Draw Battery

Job ID: 890-4559-1
SDG: 03C1558188

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-51796/5-A
Matrix: Solid
Analysis Batch: 51793

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 51796

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		04/24/23 08:38	04/24/23 11:49	1
Toluene	<0.00200	U	0.00200		mg/Kg		04/24/23 08:38	04/24/23 11:49	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		04/24/23 08:38	04/24/23 11:49	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		04/24/23 08:38	04/24/23 11:49	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		04/24/23 08:38	04/24/23 11:49	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		04/24/23 08:38	04/24/23 11:49	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*74*		*70 - 130*	*04/24/23 08:38*	*04/24/23 11:49*	*1*
1,4-Difluorobenzene (Surr)	*82*		*70 - 130*	*04/24/23 08:38*	*04/24/23 11:49*	*1*

Lab Sample ID: MB 880-51842/5-A
Matrix: Solid
Analysis Batch: 51793

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 51842

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		04/24/23 11:53	04/24/23 23:12	1
Toluene	<0.00200	U	0.00200		mg/Kg		04/24/23 11:53	04/24/23 23:12	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		04/24/23 11:53	04/24/23 23:12	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		04/24/23 11:53	04/24/23 23:12	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		04/24/23 11:53	04/24/23 23:12	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		04/24/23 11:53	04/24/23 23:12	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*76*		*70 - 130*	*04/24/23 11:53*	*04/24/23 23:12*	*1*
1,4-Difluorobenzene (Surr)	*80*		*70 - 130*	*04/24/23 11:53*	*04/24/23 23:12*	*1*

Lab Sample ID: LCS 880-51842/1-A
Matrix: Solid
Analysis Batch: 51793

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 51842

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Benzene			0.100	0.07865		mg/Kg		79	70 - 130		
Toluene			0.100	0.08718		mg/Kg		87	70 - 130		
Ethylbenzene			0.100	0.08717		mg/Kg		87	70 - 130		
m-Xylene & p-Xylene			0.200	0.1841		mg/Kg		92	70 - 130		
o-Xylene			0.100	0.09410		mg/Kg		94	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*114*		*70 - 130*
1,4-Difluorobenzene (Surr)	*87*		*70 - 130*

Lab Sample ID: LCSD 880-51842/2-A
Matrix: Solid
Analysis Batch: 51793

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 51842

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene			0.100	0.08353		mg/Kg		84	70 - 130	6	35

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QC Sample Results

Client: Ensolum
Project/Site: PLU 13 Dog Town Draw Battery

Job ID: 890-4559-1
SDG: 03C1558188

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

Lab Sample ID: LCSD 880-51842/2-A
Matrix: Solid
Analysis Batch: 51793

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 51842

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Toluene			0.100	0.09106		mg/Kg		91	70 - 130	4	35
Ethylbenzene			0.100	0.08957		mg/Kg		90	70 - 130	3	35
m-Xylene & p-Xylene			0.200	0.1885		mg/Kg		94	70 - 130	2	35
o-Xylene			0.100	0.09665		mg/Kg		97	70 - 130	3	35

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*117*		*70 - 130*
1,4-Difluorobenzene (Surr)	*109*		*70 - 130*

Lab Sample ID: 890-4559-1 MS
Matrix: Solid
Analysis Batch: 51793

Client Sample ID: BH03
Prep Type: Total/NA
Prep Batch: 51842

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	<0.00200	U	0.0990	0.07712		mg/Kg		78	70 - 130
Toluene	<0.00200	U	0.0990	0.07818		mg/Kg		79	70 - 130
Ethylbenzene	<0.00200	U	0.0990	0.08385		mg/Kg		85	70 - 130
m-Xylene & p-Xylene	<0.00399	U	0.198	0.1760		mg/Kg		89	70 - 130
o-Xylene	<0.00200	U	0.0990	0.08930		mg/Kg		90	70 - 130

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*122*		*70 - 130*
1,4-Difluorobenzene (Surr)	*110*		*70 - 130*

Lab Sample ID: 890-4559-1 MSD
Matrix: Solid
Analysis Batch: 51793

Client Sample ID: BH03
Prep Type: Total/NA
Prep Batch: 51842

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	<0.00200	U	0.101	0.08184		mg/Kg		81	70 - 130	6	35
Toluene	<0.00200	U	0.101	0.07949		mg/Kg		79	70 - 130	2	35
Ethylbenzene	<0.00200	U	0.101	0.07477		mg/Kg		74	70 - 130	11	35
m-Xylene & p-Xylene	<0.00399	U	0.202	0.1522		mg/Kg		75	70 - 130	15	35
o-Xylene	<0.00200	U	0.101	0.07719		mg/Kg		77	70 - 130	15	35

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*109*		*70 - 130*
1,4-Difluorobenzene (Surr)	*110*		*70 - 130*

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

Lab Sample ID: MB 880-51848/1-A
Matrix: Solid
Analysis Batch: 51824

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 51848

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		04/24/23 12:29	04/24/23 15:31	1

QC Sample Results

Client: Ensolum
Project/Site: PLU 13 Dog Town Draw Battery

Job ID: 890-4559-1
SDG: 03C1558188

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

Lab Sample ID: MB 880-51848/1-A
Matrix: Solid
Analysis Batch: 51824

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 51848

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		04/24/23 12:29	04/24/23 15:31	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		04/24/23 12:29	04/24/23 15:31	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*119*		*70 - 130*	*04/24/23 12:29*	*04/24/23 15:31*	*1*
o-Terphenyl	*154*	*S1+*	*70 - 130*	*04/24/23 12:29*	*04/24/23 15:31*	*1*

Lab Sample ID: LCS 880-51848/2-A
Matrix: Solid
Analysis Batch: 51824

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 51848

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Gasoline Range Organics (GRO)-C6-C10			1000	969.9		mg/Kg		97	70 - 130		
Diesel Range Organics (Over C10-C28)			1000	911.5		mg/Kg		91	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1-Chlorooctane	*106*		*70 - 130*
o-Terphenyl	*130*		*70 - 130*

Lab Sample ID: LCSD 880-51848/3-A
Matrix: Solid
Analysis Batch: 51824

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 51848

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10			1000	1095		mg/Kg		109	70 - 130	12	20
Diesel Range Organics (Over C10-C28)			1000	1052		mg/Kg		105	70 - 130	14	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1-Chlorooctane	*124*		*70 - 130*
o-Terphenyl	*150*	*S1+*	*70 - 130*

Lab Sample ID: 890-4554-A-11-C MS
Matrix: Solid
Analysis Batch: 51824

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 51848

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Gasoline Range Organics (GRO)-C6-C10	<50.0	U F2	997	913.0		mg/Kg		92	70 - 130		
Diesel Range Organics (Over C10-C28)	<50.0	U	997	1056		mg/Kg		106	70 - 130		

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
1-Chlorooctane	*91*		*70 - 130*
o-Terphenyl	*103*		*70 - 130*

QC Sample Results

Client: Ensolum
Project/Site: PLU 13 Dog Town Draw Battery

Job ID: 890-4559-1
SDG: 03C1558188

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

Lab Sample ID: 890-4554-A-11-D MSD
Matrix: Solid
Analysis Batch: 51824

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 51848

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	<50.0	U F2	998	1200	F2	mg/Kg		120	70 - 130	27	20
Diesel Range Organics (Over C10-C28)	<50.0	U	998	1231		mg/Kg		123	70 - 130	15	20

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
1-Chlorooctane	*109*		*70 - 130*
o-Terphenyl	*117*		*70 - 130*

Lab Sample ID: MB 880-52181/1-A
Matrix: Solid
Analysis Batch: 52159

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 52181

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		04/28/23 09:48	04/28/23 09:19	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		04/28/23 09:48	04/28/23 09:19	1
Oll Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		04/28/23 09:48	04/28/23 09:19	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*67*	*S1-*	*70 - 130*	*04/28/23 09:48*	*04/28/23 09:19*	*1*
o-Terphenyl	*67*	*S1-*	*70 - 130*	*04/28/23 09:48*	*04/28/23 09:19*	*1*

Lab Sample ID: LCS 880-52181/2-A
Matrix: Solid
Analysis Batch: 52159

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 52181

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Gasoline Range Organics (GRO)-C6-C10			1000	895.1		mg/Kg		90	70 - 130		
Diesel Range Organics (Over C10-C28)			1000	811.1		mg/Kg		81	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1-Chlorooctane	*70*		*70 - 130*
o-Terphenyl	*53*	*S1-*	*70 - 130*

Lab Sample ID: LCSD 880-52181/3-A
Matrix: Solid
Analysis Batch: 52159

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 52181

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10			1000	903.2		mg/Kg		90	70 - 130	1	20
Diesel Range Organics (Over C10-C28)			1000	845.3		mg/Kg		85	70 - 130	4	20

QC Sample Results

Client: Ensolum
Project/Site: PLU 13 Dog Town Draw Battery

Job ID: 890-4559-1
SDG: 03C1558188

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

Lab Sample ID: LCSD 880-52181/3-A
Matrix: Solid
Analysis Batch: 52159

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 52181

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1-Chlorooctane	*72*		*70 - 130*
o-Terphenyl	*53*	*S1-*	*70 - 130*

Lab Sample ID: 880-27710-A-1-G MS
Matrix: Solid
Analysis Batch: 52159

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 52181

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 *- F1	999	655.2	F1	mg/Kg		66	70 - 130		
Diesel Range Organics (Over C10-C28)	<49.9	U *- F1	999	519.9	F1	mg/Kg		52	70 - 130		

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
1-Chlorooctane	*71*		*70 - 130*
o-Terphenyl	*51*	*S1-*	*70 - 130*

Lab Sample ID: 880-27710-A-1-H MSD
Matrix: Solid
Analysis Batch: 52159

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 52181

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 *- F1	997	628.7	F1	mg/Kg		63	70 - 130	4	20
Diesel Range Organics (Over C10-C28)	<49.9	U *- F1	997	492.8	F1	mg/Kg		49	70 - 130	5	20

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
1-Chlorooctane	*68*	*S1-*	*70 - 130*
o-Terphenyl	*48*	*S1-*	*70 - 130*

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-51907/1-A
Matrix: Solid
Analysis Batch: 52121

Client Sample ID: Method Blank
Prep Type: Soluble

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.00	U	5.00		mg/Kg			04/27/23 14:42	1

Lab Sample ID: LCS 880-51907/2-A
Matrix: Solid
Analysis Batch: 52121

Client Sample ID: Lab Control Sample
Prep Type: Soluble

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride			250	273.1		mg/Kg		109	90 - 110		

QC Sample Results

Client: Ensolum
Project/Site: PLU 13 Dog Town Draw Battery

Job ID: 890-4559-1
SDG: 03C1558188

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: LCSD 880-51907/3-A
Matrix: Solid
Analysis Batch: 52121

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	262.9		mg/Kg		105	90 - 110	4	20

Lab Sample ID: 890-4556-A-1-C MS
Matrix: Solid
Analysis Batch: 52121

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	423		253	688.2		mg/Kg		105	90 - 110		

Lab Sample ID: 890-4556-A-1-D MSD
Matrix: Solid
Analysis Batch: 52121

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	423		253	690.2		mg/Kg		106	90 - 110	0	20

QC Association Summary

Client: Ensolum
Project/Site: PLU 13 Dog Town Draw Battery

Job ID: 890-4559-1
SDG: 03C1558188

GC VOA

Analysis Batch: 51793

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4559-1	BH03	Total/NA	Solid	8021B	51842
890-4559-2	BH04	Total/NA	Solid	8021B	51842
890-4559-3	BH05	Total/NA	Solid	8021B	51842
890-4559-4	BH06	Total/NA	Solid	8021B	51842
MB 880-51796/5-A	Method Blank	Total/NA	Solid	8021B	51796
MB 880-51842/5-A	Method Blank	Total/NA	Solid	8021B	51842
LCS 880-51842/1-A	Lab Control Sample	Total/NA	Solid	8021B	51842
LCSD 880-51842/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	51842
890-4559-1 MS	BH03	Total/NA	Solid	8021B	51842
890-4559-1 MSD	BH03	Total/NA	Solid	8021B	51842

Prep Batch: 51796

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 880-51796/5-A	Method Blank	Total/NA	Solid	5035	

Prep Batch: 51842

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4559-1	BH03	Total/NA	Solid	5035	
890-4559-2	BH04	Total/NA	Solid	5035	
890-4559-3	BH05	Total/NA	Solid	5035	
890-4559-4	BH06	Total/NA	Solid	5035	
MB 880-51842/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-51842/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-51842/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
890-4559-1 MS	BH03	Total/NA	Solid	5035	
890-4559-1 MSD	BH03	Total/NA	Solid	5035	

Analysis Batch: 51938

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4559-1	BH03	Total/NA	Solid	Total BTEX	
890-4559-2	BH04	Total/NA	Solid	Total BTEX	
890-4559-3	BH05	Total/NA	Solid	Total BTEX	
890-4559-4	BH06	Total/NA	Solid	Total BTEX	

GC Semi VOA

Analysis Batch: 51824

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4559-1	BH03	Total/NA	Solid	8015B NM	51848
890-4559-2	BH04	Total/NA	Solid	8015B NM	51848
890-4559-3	BH05	Total/NA	Solid	8015B NM	51848
MB 880-51848/1-A	Method Blank	Total/NA	Solid	8015B NM	51848
LCS 880-51848/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	51848
LCSD 880-51848/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	51848
890-4554-A-11-C MS	Matrix Spike	Total/NA	Solid	8015B NM	51848
890-4554-A-11-D MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	51848

Prep Batch: 51848

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4559-1	BH03	Total/NA	Solid	8015NM Prep	
890-4559-2	BH04	Total/NA	Solid	8015NM Prep	

QC Association Summary

Client: Ensolum
Project/Site: PLU 13 Dog Town Draw Battery

Job ID: 890-4559-1
SDG: 03C1558188

GC Semi VOA (Continued)

Prep Batch: 51848 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4559-3	BH05	Total/NA	Solid	8015NM Prep	
MB 880-51848/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-51848/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-51848/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
890-4554-A-11-C MS	Matrix Spike	Total/NA	Solid	8015NM Prep	
890-4554-A-11-D MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	

Analysis Batch: 51936

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4559-1	BH03	Total/NA	Solid	8015 NM	
890-4559-2	BH04	Total/NA	Solid	8015 NM	
890-4559-3	BH05	Total/NA	Solid	8015 NM	
890-4559-4	BH06	Total/NA	Solid	8015 NM	

Analysis Batch: 52159

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4559-4	BH06	Total/NA	Solid	8015B NM	52181
MB 880-52181/1-A	Method Blank	Total/NA	Solid	8015B NM	52181
LCS 880-52181/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	52181
LCSD 880-52181/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	52181
880-27710-A-1-G MS	Matrix Spike	Total/NA	Solid	8015B NM	52181
880-27710-A-1-H MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	52181

Prep Batch: 52181

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4559-4	BH06	Total/NA	Solid	8015NM Prep	
MB 880-52181/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-52181/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-52181/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
880-27710-A-1-G MS	Matrix Spike	Total/NA	Solid	8015NM Prep	
880-27710-A-1-H MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	

HPLC/IC

Leach Batch: 51907

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4559-1	BH03	Soluble	Solid	DI Leach	
890-4559-2	BH04	Soluble	Solid	DI Leach	
890-4559-3	BH05	Soluble	Solid	DI Leach	
890-4559-4	BH06	Soluble	Solid	DI Leach	
MB 880-51907/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-51907/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-51907/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
890-4556-A-1-C MS	Matrix Spike	Soluble	Solid	DI Leach	
890-4556-A-1-D MSD	Matrix Spike Duplicate	Soluble	Solid	DI Leach	

Analysis Batch: 52121

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4559-1	BH03	Soluble	Solid	300.0	51907
890-4559-2	BH04	Soluble	Solid	300.0	51907
890-4559-3	BH05	Soluble	Solid	300.0	51907

QC Association Summary

Client: Ensolum
Project/Site: PLU 13 Dog Town Draw Battery

Job ID: 890-4559-1
SDG: 03C1558188

HPLC/IC (Continued)

Analysis Batch: 52121 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4559-4	BH06	Soluble	Solid	300.0	51907
MB 880-51907/1-A	Method Blank	Soluble	Solid	300.0	51907
LCS 880-51907/2-A	Lab Control Sample	Soluble	Solid	300.0	51907
LCSD 880-51907/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	51907
890-4556-A-1-C MS	Matrix Spike	Soluble	Solid	300.0	51907
890-4556-A-1-D MSD	Matrix Spike Duplicate	Soluble	Solid	300.0	51907

Lab Chronicle

Client: Ensolum
Project/Site: PLU 13 Dog Town Draw Battery

Job ID: 890-4559-1
SDG: 03C1558188

Client Sample ID: BH03
Date Collected: 04/20/23 09:55
Date Received: 04/21/23 08:15

Lab Sample ID: 890-4559-1
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.01 g	5 mL	51842	04/24/23 11:53	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	51793	04/24/23 23:34	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			51938	04/25/23 10:30	SM	EET MID
Total/NA	Analysis	8015 NM		1			51936	04/25/23 10:20	SM	EET MID
Total/NA	Prep	8015NM Prep			10.04 g	10 mL	51848	04/24/23 12:29	AJ	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	51824	04/24/23 18:28	SM	EET MID
Soluble	Leach	DI Leach			4.96 g	50 mL	51907	04/25/23 07:45	KS	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	52121	04/27/23 15:35	SMC	EET MID

Client Sample ID: BH04
Date Collected: 04/20/23 10:20
Date Received: 04/21/23 08:15

Lab Sample ID: 890-4559-2
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			5.03 g	5 mL	51842	04/24/23 11:53	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	51793	04/24/23 23:54	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			51938	04/25/23 10:30	SM	EET MID
Total/NA	Analysis	8015 NM		1			51936	04/25/23 10:20	SM	EET MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	51848	04/24/23 12:29	AJ	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	51824	04/24/23 18:50	SM	EET MID
Soluble	Leach	DI Leach			5 g	50 mL	51907	04/25/23 07:45	KS	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	52121	04/27/23 15:40	SMC	EET MID

Client Sample ID: BH05
Date Collected: 04/20/23 13:50
Date Received: 04/21/23 08:15

Lab Sample ID: 890-4559-3
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			4.97 g	5 mL	51842	04/24/23 11:53	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	51793	04/25/23 00:15	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			51938	04/25/23 10:30	SM	EET MID
Total/NA	Analysis	8015 NM		1			51936	04/25/23 10:20	SM	EET MID
Total/NA	Prep	8015NM Prep			10.00 g	10 mL	51848	04/24/23 12:29	AJ	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	51824	04/24/23 19:11	SM	EET MID
Soluble	Leach	DI Leach			4.95 g	50 mL	51907	04/25/23 07:45	KS	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	52121	04/27/23 15:45	SMC	EET MID

Client Sample ID: BH06
Date Collected: 04/20/23 13:15
Date Received: 04/21/23 08:15

Lab Sample ID: 890-4559-4
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	51842	04/24/23 11:53	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	51793	04/25/23 00:35	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			51938	04/25/23 10:30	SM	EET MID

Lab Chronicle

Client: Ensolum
Project/Site: PLU 13 Dog Town Draw Battery

Job ID: 890-4559-1
SDG: 03C1558188

Client Sample ID: BH06

Date Collected: 04/20/23 13:15
Date Received: 04/21/23 08:15

Lab Sample ID: 890-4559-4

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			51936	04/25/23 10:20	SM	EET MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	52181	04/28/23 09:48	AM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	52159	04/28/23 15:05	AJ	EET MID
Soluble	Leach	DI Leach			4.98 g	50 mL	51907	04/25/23 07:45	KS	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	52121	04/27/23 15:49	SMC	EET MID

Laboratory References:

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

Accreditation/Certification Summary

Client: Ensolum
Project/Site: PLU 13 Dog Town Draw Battery

Job ID: 890-4559-1
SDG: 03C1558188

Laboratory: Eurofins Midland

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

Authority	Program	Identification Number	Expiration Date
Texas	NELAP	T104704400-22-25	06-30-23

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

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

Method Summary

Client: Ensolum
Project/Site: PLU 13 Dog Town Draw Battery

Job ID: 890-4559-1
SDG: 03C1558188

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

Protocol References:

ASTM = ASTM International
EPA = US Environmental Protection Agency
SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.
TAL SOP = TestAmerica Laboratories, Standard Operating Procedure

Laboratory References:

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

Sample Summary

Client: Ensolum
Project/Site: PLU 13 Dog Town Draw Battery

Job ID: 890-4559-1
SDG: 03C1558188

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-4559-1	BH03	Solid	04/20/23 09:55	04/21/23 08:15	2
890-4559-2	BH04	Solid	04/20/23 10:20	04/21/23 08:15	2
890-4559-3	BH05	Solid	04/20/23 13:50	04/21/23 08:15	2
890-4559-4	BH06	Solid	04/20/23 13:15	04/21/23 08:15	2

eurofins | Environment Testing Xenco

Chain of Custody

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

Work Order No: _____

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Project Manager:	Ben Belill	Bill to: (if different)	Garrett Green
Company Name:	Ensolum	Company Name:	XTO Energy
Address:	3122 National Parks Hwy	Address:	3104 E. Green St.
City, State ZIP:	Carlsbad, NM 88220	City, State ZIP:	Carlsbad, NM 88220
Phone:	303-887-2946	Email:	Garrett.Green@ExxonMobil.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 13 Dog Town Draw Battery	Turn Around	☐ Routine ☑ Rush
Project Number:	03C1558188	Due Date:	3 Day
Project Location:		TAT starts the day received by the lab, if received by 4:30pm	
Sampler's Name:	Connor Whitman		
PO #:			

SAMPLE RECEIPT			
Temp Blank:	Yes No	Wet Ice:	Yes No
Samples Received Intact:	Yes No	Thermometer ID:	TM059
Cooler Custody Seals:	Yes No N/A	Correction Factor:	-0.2
Sample Custody Seals:	Yes No N/A	Temperature Reading:	1.2
Total Containers:		Corrected Temperature:	1.0

ANALYSIS REQUEST

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Grab/ Comp	# of Cont	Pres. Code	CHLORIDES (EPA: 3000.0)	TPH (8015)	BTEX (8021)
BH03	S	4/20/23	9:55	2	G	1		✓	✓	✓
BH04			10:20	2	G	1		✓	✓	✓
BH05			1:50	2	G	1		✓	✓	✓
BH06			1:15	2	G	1		✓	✓	✓

Parameters

Preservative Codes

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

Sample Comments

Incident ID:
nAPP2304448906

Cost Center:
2191721001

AFE:

Total 200.7 / 6010 200.8 / 6020: 8RCRA 13PPM Texas 11 Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag SiO_2 Na Sr Tl Sn U V Zn

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

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

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
1		4.21.23 815	2		
3			4		
5			6		

Revised Date: 08/25/2020 Rev. 2020.2

Login Sample Receipt Checklist

Client: Ensolum

Job Number: 890-4559-1
SDG Number: 03C1558188

Login Number: 4559
List Number: 1
Creator: Clifton, Cloe

List Source: Eurofins Carlsbad

Question	Answer	Comment
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	N/A	Refer to Job Narrative for details.
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: 890-4559-1
SDG Number: 03C1558188

Login Number: 4559
List Number: 2
Creator: Rodriguez, Leticia

List Source: Eurofins Midland
List Creation: 04/24/23 09:11 AM

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

ENSOLUM

APPENDIX E

NMOCD Notifications

Ben Belill

From: Green, Garrett J <garrett.green@exxonmobil.com>
Sent: Thursday, March 23, 2023 9:48 AM
To: Enviro, OCD, EMNRD; Bratcher, Michael, EMNRD; Harimon, Jocelyn, EMNRD; Hamlet, Robert, EMNRD
Cc: Ben Belill; DelawareSpills /SM
Subject: XTO - 48 Hour Liner Inspection Notification - PLU 13 Dog Town Draw Battery / nAPP2304448906

[**EXTERNAL EMAIL**]

Good Morning,

This is sent as a 48-hour notification, XTO is scheduled to inspect the following lined containments listed below on Tuesday, March 28, 2023. Please call us with any questions or concerns.

Site: PLU 13 Dog Town Draw Battery
Incident Number: nAPP2304448906
Time: 10:00 am MST
GPS Coordinates: (32.20569,-103.83013)

Thank you,

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

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

Ben Belill

From: Green, Garrett J <garrett.green@exxonmobil.com>
Sent: Thursday, March 23, 2023 9:51 AM
To: Enviro, OCD, EMNRD; Bratcher, Michael, EMNRD; Harimon, Jocelyn, EMNRD; Hamlet, Robert, EMNRD
Cc: Ben Belill; DelawareSpills /SM
Subject: XTO - Sampling Notification (Week of 3/27/23 - 3/31/23)

[**EXTERNAL EMAIL**]

All,

XTO plans to complete final sampling activities at the sites listed below for the week of Mar 27, 2023.

Tuesday, Mar 28, 2023
- PLU 13 Dog Town Draw Battery / nAPP2304448906
- Nash 53 SWD / NAB1918643207, NRM2022758966, NAPP2102934064, NAPP2100847227, and NAPP2100838523

Wednesday, Mar 29, 2023
- PLU Pierce Canyon 12 Battery / nAPP2306152871
- PLU 13 Dog Town Draw Battery / nAPP2304448906

Thursday, Mar 30, 2023
- PLU Pierce Canyon 12 Battery / nAPP2306152871
- BEU 149 / NAB1814128371
- PLU 15 TWR Battery / nAPP2305833429

Friday, Mar 31, 2023
- PLU 15 TWR Battery / nAPP2305833429
- JRU 21 SWD / nAB1834656162

Thank you,

Garrett Green
Environmental Coordinator
Delaware Business Unit
(575) 200-0729
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XTO Energy, Inc.
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CONDITIONS

Action 212728

CONDITIONS

Operator: XTO ENERGY, INC 6401 Holiday Hill Road Midland, TX 79707	OGRID: 5380
	Action Number: 212728
	Action Type: [C-141] Release Corrective Action (C-141)

CONDITIONS

Created By	Condition	Condition Date
rhamlet	XTO's deferral requests to complete final remediation during any future major construction/alteration or final plugging/abandonment, whichever occurs first. Ensolum and XTO do not believe deferment will result in imminent risk to human health, the environment, or groundwater. The area requested for deferral is the impacted soil in and around active production equipment and active pipelines in between two lined tank battery containments shown on Figure 3 of the report, which include sample area (SS01/BH01). The area has been delineated and documented in the report. At this time, OCD approves this request. The Deferral Request and C-141 will be accepted for record and marked accordingly. The release will remain open in OCD database files and reflect an open environmental issue.	9/19/2023

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QUESTIONS

Action 383931

QUESTIONS

Operator: XTO ENERGY, INC 6401 Holiday Hill Road Midland, TX 79707	OGRID: 5380
	Action Number: 383931
	Action Type: [C-141] Deferral Request C-141 (C-141-v-Deferral)

QUESTIONS

Prerequisites	
Incident ID (n#)	**nAPP2417738244**
Incident Name	**NAPP2417738244 PLU 13 DTD @ 0**
Incident Type	**Oil Release**
Incident Status	**Deferral Request Received**

Location of Release Source	
Please answer all the questions in this group.	
Site Name	PLU 13 DTD
Date Release Discovered	06/18/2024
Surface Owner	Federal

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

Nature and Volume of Release	
Material(s) released, please answer all that apply below. Any calculations or specific justifications for the volumes provided should be attached to the follow-up C-141 submission.	
Crude Oil Released (bbls) Details	Cause: Equipment Failure | Pump | Crude Oil | Released: 8 BBL | Recovered: 8 BBL | Lost: 0 BBL.
Produced Water Released (bbls) Details	*Not answered.*
Is the concentration of chloride in the produced water >10,000 mg/l	No
Condensate Released (bbls) Details	*Not answered.*
Natural Gas Vented (Mcf) Details	*Not answered.*
Natural Gas Flared (Mcf) Details	*Not answered.*
Other Released Details	*Not answered.*
Are there additional details for the questions above (i.e. any answer containing Other, Specify, Unknown, and/or Fire, or any negative lost amounts)	*Not answered.*

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QUESTIONS (continued)

Operator: XTO ENERGY, INC 6401 Holiday Hill Road Midland, TX 79707	OGRID: 5380
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QUESTIONS

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

Initial Response	
The responsible party must undertake the following actions immediately unless they could create a safety hazard that would result in injury.	
The source of the release has been stopped	True
The impacted area has been secured to protect human health and the environment	True
Released materials have been contained via the use of berms or dikes, absorbent pads, or other containment devices	True
All free liquids and recoverable materials have been removed and managed appropriately	True
If all the actions described above have not been undertaken, explain why	*Not answered.*
Per Paragraph (4) of Subsection B of 19.15.29.8 NMAC the responsible party may commence remediation immediately after discovery of a release. If remediation has begun, please prepare and attach a narrative of actions to date in the follow-up C-141 submission. If remedial efforts have been successfully completed or if the release occurred within a lined containment area (see Subparagraph (a) of Paragraph (5) of Subsection A of 19.15.29.11 NMAC), please prepare and attach all information needed for closure evaluation in the follow-up C-141 submission.	

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

I hereby agree and sign off to the above statement	Name: Alan Romero Title: Regulatory Analyst Email: alan.romero1@exxonmobil.com Date: 08/13/2024

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QUESTIONS (continued)

Operator: XTO ENERGY, INC 6401 Holiday Hill Road Midland, TX 79707	OGRID: 5380
	Action Number: 383931
	Action Type: [C-141] Deferral Request C-141 (C-141-v-Deferral)

QUESTIONS

Site Characterization	
Please answer all the questions in this group (only required when seeking remediation plan approval and beyond). This information must be provided to the appropriate district office no later than 90 days after the release discovery date.	
What is the shallowest depth to groundwater beneath the area affected by the release in feet below ground surface (ft bgs)	Between 100 and 500 (ft.)
What method was used to determine the depth to ground water	OCD Imaging Records Lookup
Did this release impact groundwater or surface water	No
What is the minimum distance, between the closest lateral extents of the release and the following surface areas:	
A continuously flowing watercourse or any other significant watercourse	Between ½ and 1 (mi.)
Any lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark)	Greater than 5 (mi.)
An occupied permanent residence, school, hospital, institution, or church	Between 1 and 5 (mi.)
A spring or a private domestic fresh water well used by less than five households for domestic or stock watering purposes	Between 1 and 5 (mi.)
Any other fresh water well or spring	Between 1 and 5 (mi.)
Incorporated municipal boundaries or a defined municipal fresh water well field	Greater than 5 (mi.)
A wetland	Between ½ and 1 (mi.)
A subsurface mine	Greater than 5 (mi.)
An (non-karst) unstable area	Greater than 5 (mi.)
Categorize the risk of this well / site being in a karst geology	Low
A 100-year floodplain	Between ½ and 1 (mi.)
Did the release impact areas not on an exploration, development, production, or storage site	No

Remediation Plan	
Please answer all the questions that apply or are indicated. This information must be provided to the appropriate district office no later than 90 days after the release discovery date.	
Requesting a remediation plan approval with this submission	Yes
Attach a comprehensive report demonstrating the lateral and vertical extents of soil contamination associated with the release have been determined, pursuant to 19.15.29.11 NMAC and 19.15.29.13 NMAC.	
Have the lateral and vertical extents of contamination been fully delineated	Yes
Was this release entirely contained within a lined containment area	No
Soil Contamination Sampling: (Provide the highest observable value for each, in milligrams per kilograms.)	
Chloride (EPA 300.0 or SM4500 Cl B)	320
TPH (GRO+DRO+MRO) (EPA SW-846 Method 8015M)	5670
GRO+DRO (EPA SW-846 Method 8015M)	3030
BTEX (EPA SW-846 Method 8021B or 8260B)	7.5
Benzene (EPA SW-846 Method 8021B or 8260B)	0
Per Subsection B of 19.15.29.11 NMAC unless the site characterization report includes completed efforts at remediation, the report must include a proposed remediation plan in accordance with 19.15.29.12 NMAC, which includes the anticipated timelines for beginning and completing the remediation.	
On what estimated date will the remediation commence	06/28/2024
On what date will (or did) the final sampling or liner inspection occur	07/03/2024
On what date will (or was) the remediation complete(d)	07/03/2024
What is the estimated surface area (in square feet) that will be reclaimed	1030
What is the estimated volume (in cubic yards) that will be reclaimed	270
What is the estimated surface area (in square feet) that will be remediated	1030
What is the estimated volume (in cubic yards) that will be remediated	270
These estimated dates and measurements are recognized to be the best guess or calculation at the time of submission and may (be) change(d) over time as more remediation efforts are completed.	
The OCD recognizes that proposed remediation measures may have to be minimally adjusted in accordance with the physical realities encountered during remediation. If the responsible party has any need to significantly deviate from the remediation plan proposed, then it should consult with the division to determine if another remediation plan submission is required.	

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QUESTIONS (continued)

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QUESTIONS

Remediation Plan (continued)	
Please answer all the questions that apply or are indicated. This information must be provided to the appropriate district office no later than 90 days after the release discovery date.	
This remediation will (or is expected to) utilize the following processes to remediate / reduce contaminants:	
(Select all answers below that apply.)	
(Ex Situ) Excavation and **off-site** disposal (i.e. dig and haul, hydrovac, etc.)	Yes
Which OCD approved facility will be used for **off-site** disposal	HALFWAY DISPOSAL AND LANDFILL [fEEM0112334510]
OR which OCD approved well (API) will be used for **off-site** disposal	*Not answered.*
OR is the **off-site** disposal site, to be used, out-of-state	*Not answered.*
OR is the **off-site** disposal site, to be used, an NMED facility	*Not answered.*
(Ex Situ) Excavation and **on-site** remediation (i.e. On-Site Land Farms)	*Not answered.*
(In Situ) Soil Vapor Extraction	*Not answered.*
(In Situ) Chemical processing (i.e. Soil Shredding, Potassium Permanganate, etc.)	*Not answered.*
(In Situ) Biological processing (i.e. Microbes / Fertilizer, etc.)	*Not answered.*
(In Situ) Physical processing (i.e. Soil Washing, Gypsum, Disking, etc.)	*Not answered.*
Ground Water Abatement pursuant to 19.15.30 NMAC	*Not answered.*
OTHER (Non-listed remedial process)	*Not answered.*
Per Subsection B of 19.15.29.11 NMAC unless the site characterization report includes completed efforts at remediation, the report must include a proposed remediation plan in accordance with 19.15.29.12 NMAC, which includes the anticipated timelines for beginning and completing the remediation.	
I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to OCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the OCD does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In addition, OCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.	
I hereby agree and sign off to the above statement	Name: Amy Ruth Title: Coordinator SSHE Environmental Email: amy.ruth@exxonmobil.com Date: 09/16/2024
The OCD recognizes that proposed remediation measures may have to be minimally adjusted in accordance with the physical realities encountered during remediation. If the responsible party has any need to significantly deviate from the remediation plan proposed, then it should consult with the division to determine if another remediation plan submission is required.	

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QUESTIONS (continued)

Operator: XTO ENERGY, INC 6401 Holiday Hill Road Midland, TX 79707	OGRID: 5380
	Action Number: 383931
	Action Type: [C-141] Deferral Request C-141 (C-141-v-Deferral)

QUESTIONS

Deferral Requests Only	
Only answer the questions in this group if seeking a deferral upon approval this submission. Each of the following items must be confirmed as part of any request for deferral of remediation.	
Requesting a deferral of the remediation closure due date with the approval of this submission	Yes
Have the lateral and vertical extents of contamination been fully delineated	**Yes**
Is the remaining contamination in areas immediately under or around production equipment where remediation could cause a major facility deconstruction	Yes
Please list or describe the production equipment and how (re)moving the equipment would cause major facility deconstruction	pipelines, stairs, stair supports, electrical lines, electrical support rails, pipeline supports Removal could cause inaccessibility to battery, electrical hazards to onsite staff, unstable production equipment, additional unauthorized releases.
What is the remaining surface area (in square feet) that will still need to be remediated if a deferral is granted	1030
What is the remaining volume (in cubic yards) that will still need to be remediated if a deferral is granted	270
Per Paragraph (2) of Subsection C of 19.15.29.12 NMAC if contamination is located in areas immediately under or around production equipment such as production tanks, wellheads and pipelines where remediation could cause a major facility deconstruction, the remediation, restoration and reclamation may be deferred with division written approval until the equipment is removed during other operations, or when the well or facility is plugged or abandoned, whichever comes first.	
Enter the facility ID (f#) on which this deferral should be granted	PLU 13 DOG TOWN DRAW EAST BTY [fAPP2126355488]
Enter the well API (30-) on which this deferral should be granted	*Not answered.*
Contamination does not cause an imminent risk to human health, the environment, or groundwater	True
Per Subsection B of 19.15.29.11 NMAC unless the site characterization report includes completed efforts at remediation, the report must include a proposed remediation plan in accordance with 19.15.29.12 NMAC, which includes the anticipated timelines for beginning and completing the remediation.	
I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to OCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the OCD does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In addition, OCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.	
I hereby agree and sign off to the above statement	Name: Amy Ruth Title: Coordinator SSHE Environmental Email: amy.ruth@exxonmobil.com Date: 09/16/2024

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QUESTIONS (continued)

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

QUESTIONS

Sampling Event Information	
Last sampling notification (C-141N) recorded	**357836**
Sampling date pursuant to Subparagraph (a) of Paragraph (1) of Subsection D of 19.15.29.12 NMAC	**07/03/2024**
What was the (estimated) number of samples that were to be gathered	**10**
What was the sampling surface area in square feet	**1000**

Remediation Closure Request	
Only answer the questions in this group if seeking remediation closure for this release because all remediation steps have been completed.	
Requesting a remediation closure approval with this submission	No

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CONDITIONS

Action 383931

CONDITIONS

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

CONDITIONS

Created By	Condition	Condition Date
rhamlet	XTO's deferral requests final remediation for (Incident Number NAPP2417738244) until final reclamation of the well pad or major construction, whichever comes first. Ensolum and XTO do not believe deferment will result in imminent risk to human health, the environment, or groundwater. The impacted soil is the area in blue on figure 3 in the immediate vicinity to borehole BH01 that is limited to the area beneath active production equipment and pipelines, where remediation would require a major facility deconstruction. At this time, OCD approves this request. The Deferral Request and C-141 will be accepted for record and marked accordingly. The release will remain open in OCD database files and reflect an open environmental issue.	10/2/2024