ENSOLUM

February 20, 2024

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

Re: Closure Request
PLU 18 Brushy Draw TB
Incident Number NAPP2334060921
Eddy County, New Mexico

To Whom It May Concern:

Ensolum, LLC (Ensolum), on behalf of XTO Energy, Inc. (XTO), has prepared this *Closure Request* to document assessment, excavation, and soil sampling activities performed at the PLU 18 Brushy Draw Tank Battery (TB; Site). The purpose of the Site assessment, excavation, and soil sampling activities was to address waste-containing soil following a release of produced water at the Site. Based on excavation activities and soil sample laboratory analytical results, XTO is submitting this *Closure Request*, describing remediation that has occurred and requesting no further remediation for Incident Number NAPP2334060921. Reclamation and revegetation activities will be completed during pad abandonment.

SITE DESCRIPTION AND RELEASE SUMMARY

The Site is located in Unit E, Section 18, Township 25 South, Range 30 East, in Eddy County, New Mexico (32.13277°, -103.92829°) and is associated with oil and gas exploration and production operations on Federal Land managed by the Bureau of Land Management (BLM).

On November 22, 2023, a pump malfunction caused a coupling to strike a pressure gauge, resulting in the release of approximately 8.30 barrels (bbls) of produced water into a lined containment and onto the surface of the facility pad. A vacuum truck was immediately dispatched to recover free-standing fluids; approximately 4.0 bbls of released fluids were recovered. XTO reported the release to the New Mexico Oil Conservation Division (NMOCD) on a Release Notification Form C-141 (Form C-141) on December 6, 2023. The release was assigned Incident Number NAPP2334060921.

SITE CHARACTERIZATION AND CLOSURE CRITERIA

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

Depth to groundwater at the Site is estimated to be greater than 100 feet below ground surface (bgs) based on the nearest groundwater well data. Depth to groundwater data is based on a soil boring permitted by the New Mexico Office of the State Engineer (NMOSE) located approximately 119 feet north of the Site. The soil boring, permit number C-04529, was drilled to assess depth to groundwater on May 14, 2021. The boring was drilled to a total depth of 101 feet bgs and allowed to equilibrate for at

least 72 hours to allow for slow infill of water to enter the well if present. Groundwater was not detected during drilling or after the 72-hour waiting period and was subsequently backfilled per the NMOSE permit. The Well Record and Log is included in Appendix A. All wells used to determine depth to groundwater are depicted on Figure 1.

The closest continuously flowing or significant watercourse to the Site is a freshwater emergent wetland, located approximately 3,611 feet north of the Site. The Site is greater than 200 feet from any 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 from any freshwater well or spring and is not within a 100-year floodplain or overlying a subsurface mine. The Site is not underlain by unstable geology (low potential karst designation area). Potential Site receptors are identified on Figure 1.

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

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

SITE ASSESSMENT AND DELINEATION ACTIVITIES

On January 5, 2024, Ensolum personnel visited the Site to evaluate the release extent based on information provided on the Form C-141 and visual observations. The release extent was mapped utilizing a handheld Global Positioning System (GPS) unit and is depicted on Figure 2. Photographic documentation was conducted during the Site assessment and is included in a Photographic Log in Appendix B. Based on visible staining within the release area, delineation and excavation activities appeared to be warranted.

A 48-hour advance notice of liner inspection (C-141L) was submitted to the NMOCD. A liner integrity inspection was conducted on January 17, 2024. No liner breach was identified and the liner appeared to be operating as designed. Photographic documentation was conducted during the inspection and is included in Appendix B.

Four potholes (PH01 through PH04) were advanced within the release extent by use of heavy equipment to assess the vertical extent of the release. Discrete delineation soil samples were collected from each pothole at depths ranging from 0.5 feet to 2 feet bgs. 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 delineation soil sample locations are depicted on Figure 2. Field screening results and observations for the potholes were logged on lithologic/soil sampling logs, which are included in Appendix C.

The delineation soil samples were placed directly into pre-cleaned glass jars, labeled with the location, date, time, sampler name, method of analysis, and immediately placed on ice. The soil samples were transported 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-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 are 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.

EXCAVATION SOIL SAMPLING ACTIVITIES

While impacted soil related to the November 2023 release was not identified at the Site, waste-containg soil was and in accessible areas. As such, waste-containing soil was excavated from the release area as indicated by field screening concentrations from delineation soil samples collected in potholes PH01 through PH04. Excavation activities were performed utilizing a track hoe and transport vehicles. The entirety of the excavation occurred on the well pad. To direct excavation activities, soil was screened for VOCs and chloride.

Following removal of waste-containing soil, 5-point composite soil samples were collected every 200 square feet from the floor and sidewalls of the excavation. The 5-point composite samples were collected by placing five equivalent aliquots of soil into a 1-gallon, resealable plastic bag and homogenizing the samples by thoroughly mixing. Confirmation soil samples FS01 through FS19 were collected from the floor of the excavation at depths ranging from 1-foot to 2 feet bgs. Confirmation soil samples SW01 through SW05 were collected from the sidewalls of the excavation at depths ranging from the ground surface to 2 feet bgs. The excavation confirmation soil samples were handled and analyzed following the same procedures as described above. The excavation extent and excavation confirmation soil sample locations are presented on Figure 3. Photographic documentation of the excavation is included in Appendix B.

The final excavation extent measured approximately 3,345 square feet. A total of approximately 190 cubic yards of waste-containing soil was removed during the excavation activities. The waste-containing soil was transported and properly disposed of at R360 Landfill Disposal Facility in Hobbs, New Mexico.

LABORATORY ANALYTICAL RESULTS

Laboratory analytical results for all delineation and confirmation soil samples indicated all COC concentrations were compliant with the Closure Criteria. Laboratory analytical results for delineation soil samples PH01 through PH04, collected at 0.5 feet bgs, indicated chloride concentrations exceeded the reclamation requirement and as such, waste-containing soil was removed during excavation activities. No impacted or waste-containing soil remains in place at the Site. Laboratory analytical results are summarized in Table 1 and the complete laboratory analytical reports are included in Appendix D.

CLOSURE REQUEST

Site assessment, delineation, and excavation activities were conducted at the Site to address the November 2023 release of produced water. Laboratory analytical results for excavation soil samples collected from the final excavation extent indicated all COC concentrations were compliant with the Site Closure Criteria and reclamation requirement. Based on laboratory analytical results, no further remediation is required. The release is vertically defined by confirmation floor soil samples FS01 through FS19 and laterally defined by confirmation sidewall soil samples SW01 through SW05. No additional excavation will be needed at the time of pad abandonment or major facility reconstruction as a result of this release. Following pad abandonment or major facility reconstruction, the work area will be reseeded with the recommended BLM seed mixture. On January 18, 2024, XTO backfilled the northern half of the excavation because the area was subject to high traffic. The caliche material used for the backfill was

purchased locally and the area recontoured to match pre-existing Site conditions. Photographic documentation of the backfill is included in Appendix B. The remainder of the excavation is scheduled to be backfilled the week of February 19, 2024.

Excavation of soil has mitigated adverse conditions at this Site. The release has been vertically and laterally defined. The lined containment was inspected and appears to be operating as designed. Depth to groundwater is confirmed to be greater than 100 feet bgs and no other sensitive receptors were identified near the release extent. XTO believes these remedial actions are protective of human health, the environment, and groundwater. As such, XTO respectfully requests no further remediation for Incident Number NAPP2334060921.

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

Sincerely,
Ensolum, LLC

Mariaha O'Dell

Mariaha O'Dell
Staff Geologist

Daniel Moir, P.G.
Senior Managing Geologist

cc: Garrett Green, XTO
Tommee Lambert, XTO
Bureau of Land Management

Appendices:

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

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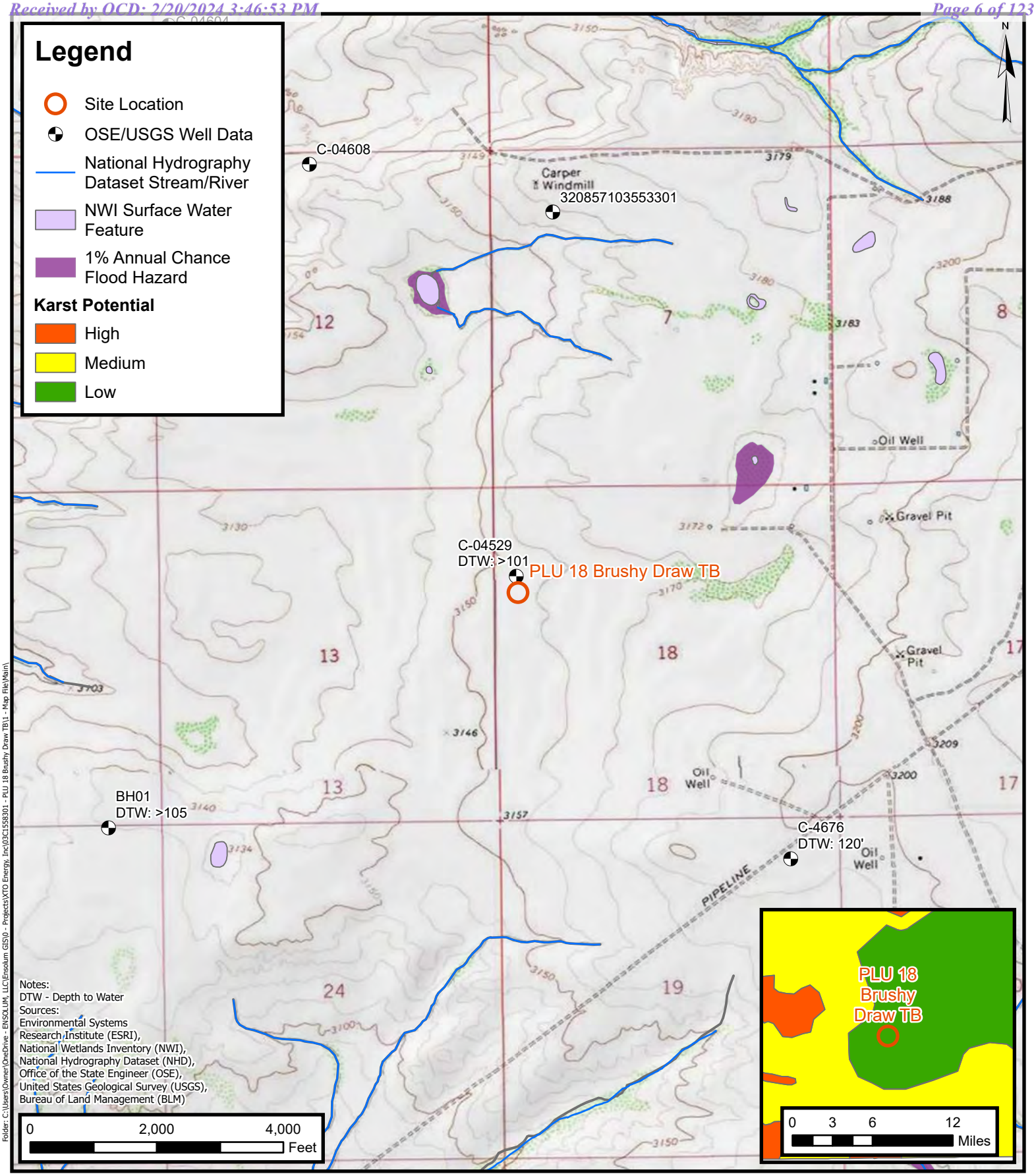
FIGURES



Folder: C:\Users\Owner\OneDrive - ENSOLUM, LLC\Ensolum GIS\0 - Projects\XTO Energy, Inc\03C1558301 - PLU 18 Brushy Draw TB\1 - Map File\Main\

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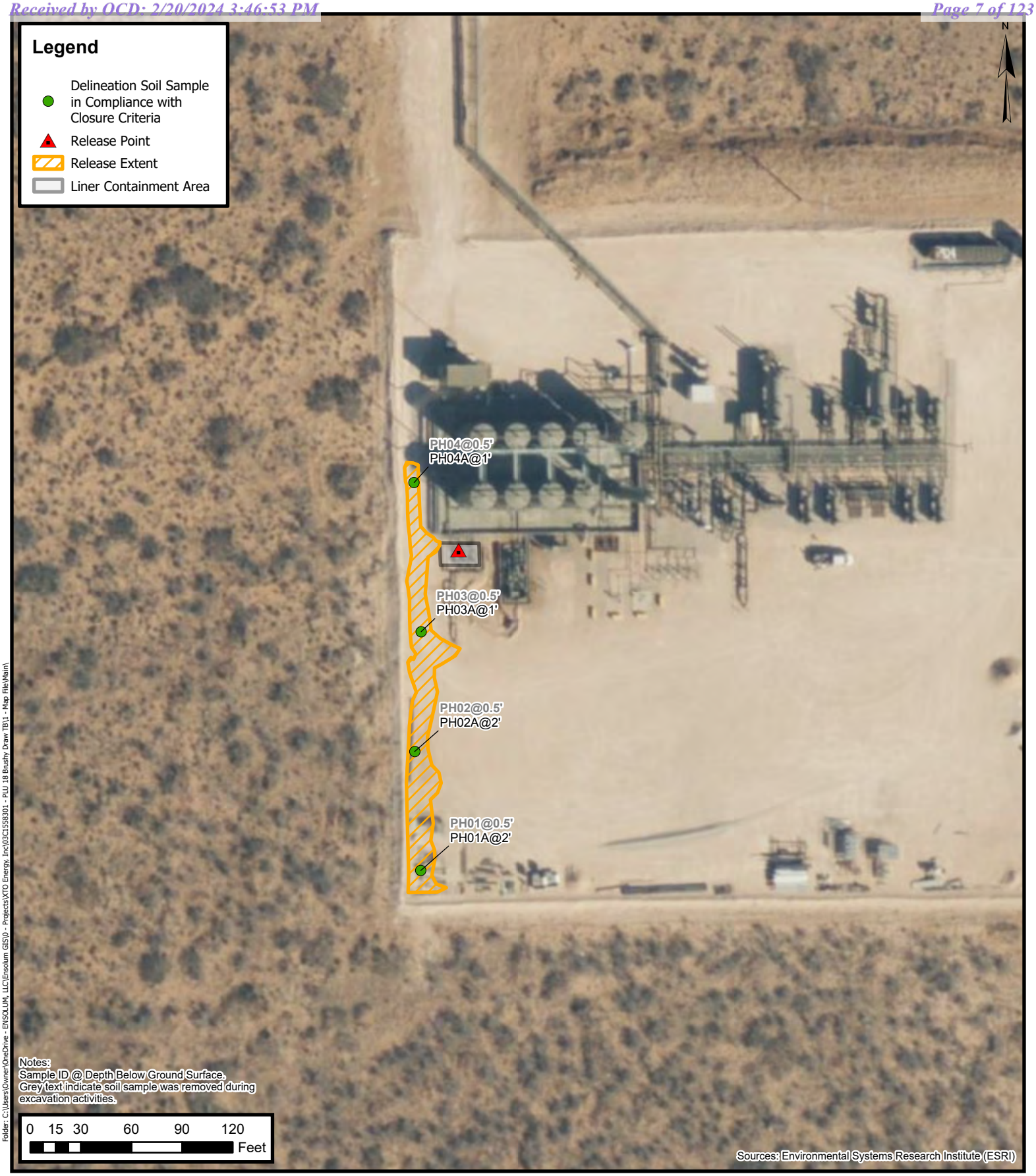
Environmental, Engineering and Hydrogeologic Consultants

Site Receptor Map

XTO Energy, Inc
PLU 18 Brushy Draw TB
Incident Number: NAPP2334060921
Unit E, Sec 18, T25S, R30E
Eddy County, NM

FIGURE 1



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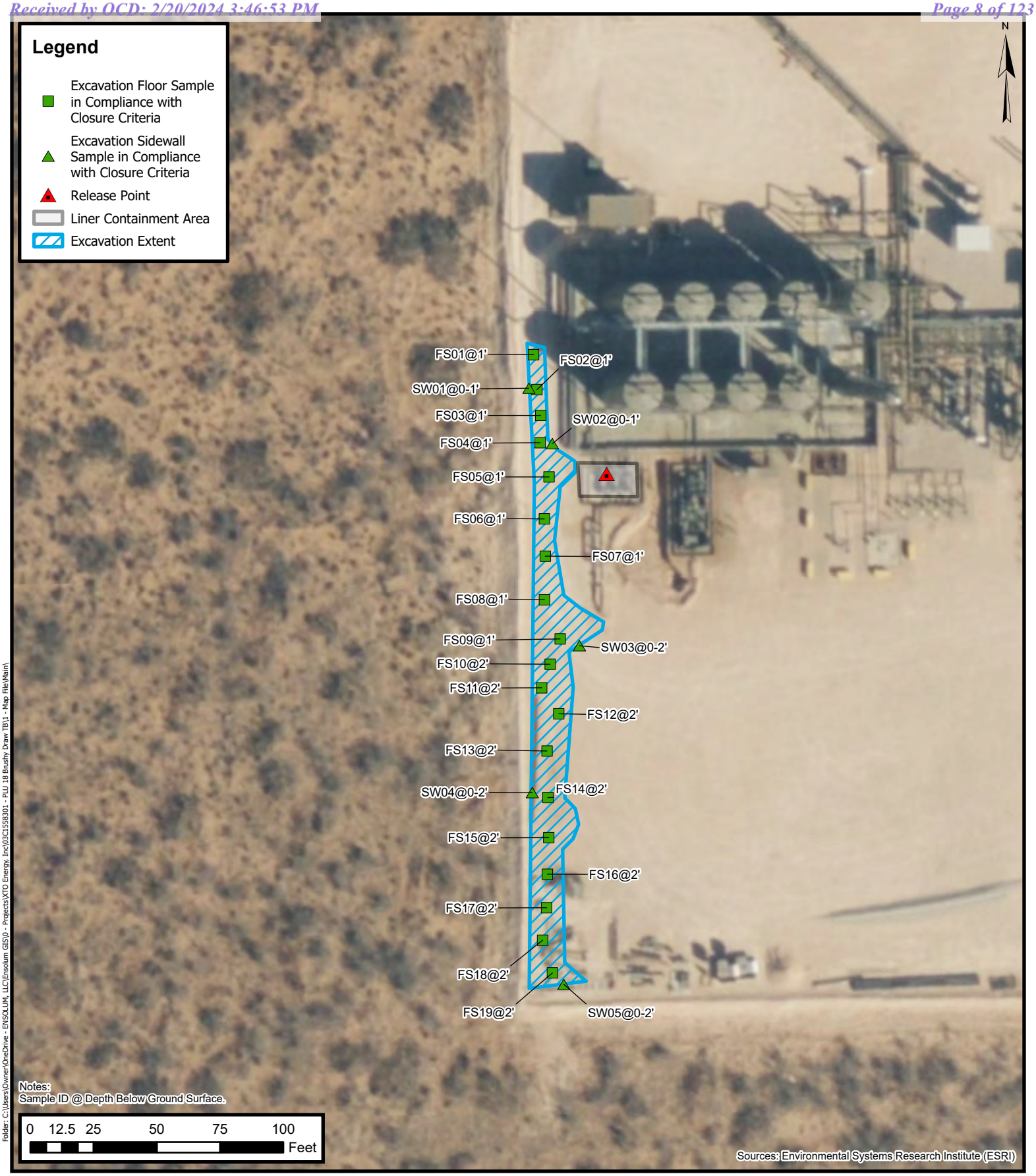
Delineation Soil Sample Locations

XTO Energy, Inc
PLU 18 Brushy Draw TB
Incident Number: NAPP2334060921
Unit E, Sec 18, T25S, R30E
Eddy County, New Mexico

FIGURE 2



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Excavation Soil Sample Locations

XTO Energy, Inc
PLU 18 Brushy Draw TB
Incident Number: NAPP2334060921
Unit E, Sec 18, T25S, R30E
Eddy County, New Mexico

FIGURE 3

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TABLES

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TABLE 1
SOIL SAMPLE ANALYTICAL RESULTS
PLU 18 Brushy Draw TB
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										
~~PH01~~	~~01/17/2024~~	~~0.5~~	~~<0.00200~~	~~<0.00399~~	~~<50.1~~	~~<50.1~~	~~<50.1~~	~~<50.1~~	~~<50.1~~	~~2,760~~
PH01A	01/17/2024	2	<0.00200	<0.00400	<50.1	<50.1	<50.1	<50.1	<50.1	32.3
~~PH02~~	~~01/17/2024~~	~~0.5~~	~~<0.00199~~	~~<0.00398~~	~~<50.4~~	~~<50.4~~	~~<50.4~~	~~<50.4~~	~~<50.4~~	~~3,750~~
PH02A	01/17/2024	2	<0.00200	<0.00399	56.3	56.3	56.3	56.3	56.3	73.6
~~PH03~~	~~01/17/2024~~	~~0.5~~	~~<0.00201~~	~~<0.00402~~	~~<49.8~~	~~<49.8~~	~~<49.8~~	~~<49.8~~	~~<49.8~~	~~988~~
PH03A	01/17/2024	1	<0.00200	<0.00401	<49.7	<49.7	<49.7	<49.7	<49.7	50.0
~~PH04~~	~~01/17/2024~~	~~0.5~~	~~<0.00200~~	~~<0.00399~~	~~<49.6~~	~~<49.6~~	~~<49.6~~	~~<49.6~~	~~<49.6~~	~~1,380~~
PH04A	01/17/2024	1	<0.00201	<0.00402	<50.2	<50.2	<50.2	<50.2	<50.2	45.8
Confirmation Soil Samples										
FS01	01/17/2024	1	<0.00200	<0.00401	<50.4	<50.4	<50.4	<50.4	<50.4	90.3
FS02	01/17/2024	1	<0.00202	<0.00403	<50.5	<50.5	<50.5	<50.5	<50.5	218
FS03	01/17/2024	1	<0.00199	<0.00398	<50.0	<50.0	<50.0	<50.0	<50.0	85.9
FS04	01/17/2024	1	<0.00198	<0.00397	<49.6	<49.6	<49.6	<49.6	<49.6	37.8
FS05	01/17/2024	1	<0.00199	<0.00398	<49.6	<49.6	<49.6	<49.6	<49.6	86.0
FS06	01/17/2024	1	<0.00200	<0.00399	<50.3	<50.3	<50.3	<50.3	<50.3	48.4
FS07	01/17/2024	1	<0.00201	<0.00402	<50.1	<50.1	<50.1	<50.1	<50.1	69.8
FS08	01/18/2024	1	<0.00201	<0.00402	<49.6	<49.6	<49.6	<49.6	<49.6	78.8
FS09	01/18/2024	1	<0.00199	<0.00398	<49.7	<49.7	<49.7	<49.7	<49.7	23.4
FS10	01/18/2024	2	<0.00199	<0.00398	<49.5	<49.5	<49.5	<49.5	<49.5	57.9
FS11	01/18/2024	2	<0.00200	<0.00399	<49.9	<49.9	<49.9	<49.9	<49.9	35.5
FS12	01/18/2024	2	<0.00201	<0.00402	<49.6	<49.6	<49.6	<49.6	<49.6	245
FS13	01/18/2024	2	<0.00200	<0.00401	<50.2	<50.2	<50.2	<50.2	<50.2	379
FS14	01/18/2024	2	<0.00199	<0.00398	<49.7	<49.7	<49.7	<49.7	<49.7	122
FS15	01/18/2024	2	<0.00200	<0.00399	<49.7	<49.7	<49.7	<49.7	<49.7	11.1
FS16	01/18/2024	2	<0.00201	<0.00402	<49.7	<49.7	<49.7	<49.7	<49.7	8.30
FS17	01/18/2024	2	<0.00200	<0.00401	<50.4	<50.4	<50.4	<50.4	<50.4	14.6
FS18	01/18/2024	2	<0.00199	<0.00398	<50.5	<50.5	<50.5	<50.5	<50.5	<5.02
FS19	01/18/2024	2	<0.00199	<0.00398	<50.4	<50.4	<50.4	<50.4	<50.4	8.12
SW01	01/17/2024	0 - 1	<0.00200	<0.00401	<50.5	<50.5	<50.5	<50.5	<50.5	78.5
SW02	01/17/2024	0 - 1	<0.00201	<0.00402	<49.5	<49.5	<49.5	<49.5	<49.5	22.7
SW03	01/18/2024	0 - 2	<0.00199	<0.00398	<50.5	<50.5	<50.5	<50.5	<50.5	28.4

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TABLE 1
SOIL SAMPLE ANALYTICAL RESULTS
PLU 18 Brushy Draw TB
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**
SW04	01/18/2024	0 - 2	<0.00200	<0.00399	<49.8	<49.8	<49.8	<49.8	<49.8	141
SW05	01/18/2024	0 - 2	<0.00201	<0.00402	<49.9	<49.9	<49.9	<49.9	<49.9	441

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 excavation 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 (MW-1)	n/a	C-4529

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°	8'	2.07"	N
	LONGITUDE	103°	55'	42.27"	W

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

DESCRIPTION RELATING WELL LOCATION TO STREET ADDRESS AND COMMON LANDMARKS – PLSS (SECTION, TOWNSHIP, RANGE) WHERE AVAILABLE
NW NW Sec. 18 T25S 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)
05/14/2021	05/14/2021	temporary well material	101	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	101	±6.5	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. C-4529	POD NO. 1	TRN NO. 692934	
LOCATION Exp1 25S.30E.18.131		WELL TAG ID NO. —	PAGE 1 OF 2

OSE DTT JUN 10 2021 PM 2:45

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	4	4	SAND, poorly graded, fine-very grained, caliche gravel, Reddish-brown, dry	Y ✓ N	
4	29	25	CALICHE, poorly consolidated, with sand medium grained, tan-off white, dry	Y ✓ N	
29	39	10	SAND, poorly graded, fine-very grained, some caliche gravel, Tan-brown, dry	Y ✓ N	
39	54	15	SILTY SAND, poorly graded, very- fine grained, Light brown, dry	Y ✓ N	
54	59	5	SILTY SAND, poorly graded, very- fine grained, caliche gravel Light brown, dr	Y ✓ N	
59	73	14	SANDY CLAY, very-fine grained sand, low plasticity, Brown- Red Brown, moi	Y ✓ N	
73	79	6	CLAYEY SAND, low plasticity, very-fine grained sand, Brown/Red Brown, mo	Y ✓ N	
79	83	4	SANDY CLAY, very-fine grained sand, low plasticity, Brown- Dark Brown, mo	Y ✓ N	
83	94	9	SANDY CLAY, very-fine grained sand, low plasticity, Reddish Brown, moist	Y ✓ N	
94	99	5	SANDY CLAY, very-fine grained sand, low plasticity, Brown-Dark Brown, dry	Y ✓ N	
99	101	2	SANDY CLAY, very-fine grained sand, low plasticity, Earth Brown, dry	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 WSP on-site geologist.

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

Shane Eldridge, Carmelo Trevino, Cameron Pruitt

6. SIGNATURE

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

Jack Atkins — Jackie D. Atkins — 06/09/2021

SIGNATURE OF DRILLER / PRINT SIGNEE NAME — DATE

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

FILE NO. C-4525	POD NO. 1	TRN NO. 692934
LOCATION	WELL TAG ID NO.	PAGE 2 OF 2

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APPENDIX B

Photographic Log

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Photographic Log
XTO Energy
PLU 18 Brushy Draw TB
Incident Number NAPP2334060921

Photograph: 1 Date: 1/5/2024
Description: Site assessment activities, release extent
View: North

Photograph: 2 Date: 1/5/2024
Description: Site assessment activities, release extent
View: South

Photograph: 3 Date: 1/17/2024
Description: Liner inspection
View: West

Photograph: 4 Date: 1/17/2024
Description: Liner inspection
View: Southeast

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Photographic Log
XTO Energy
PLU 18 Brushy Draw TB
Incident Number NAPP2334060921

Photograph: 5 Date: 1/18/2024
Description: Final excavation extent.
View: South

Photograph: 6 Date: 1/18/2024
Description: Final excavation extent.
View: Northwest

Photograph: 7 Date: 1/18/2024
Description: Final excavation extent
View: North

Photograph: 8 Date: 1/18/2024
Description: Northern half of excavation backfilled.
View: North

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APPENDIX C

Lithologic Soil Sampling Logs

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	Sample Name: PH01	Date: 01/17/2024
	Site Name: PLU 18 Brushy Draw TB	
	Incident Number: NAPP2334060921	
	Job Number: 03C1558301	
LITHOLOGIC / SOIL SAMPLING LOG	Logged By: M. O'Dell	Method: Trackhoe
Coordinates: 32.132476, -103.928340	Hole Diameter: 2.5'	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. All chloride 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
						0	CCHE (fill)	Caliche/Sand mixture. Brown, well graded, very fine to fine grained, dry, fill.
D	6,670	0.0	Y	PH01	0.5			
D	1,708	0.0	N		1	1	SW	Sand. Brown, very fine to fine grained, well graded, dry
D	<168	0.0	N	PH01A	2	2		

TD @ 2' bgs.

ENSOLUM

	Sample Name: PH02	Date: 01/17/2024
	Site Name: PLU 18 Brushy Draw TB	
	Incident Number: NAPP2334060921	
	Job Number: 03C1558301	
LITHOLOGIC / SOIL SAMPLING LOG	Logged By: M. O'Dell	Method: Trackhoe
Coordinates: 32.132670, -103.928349	Hole Diameter: 2.5'	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. All chloride 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
						0	CCHE (fill)	Caliche/Sand mixture. Brown, well graded, very fine to fine grained, dry, fill.
D	4,833	0.0	N	PH02	0.5			
D	3,450	0.0	N		1	1	SW	Sand. Brown, very fine to fine grained, well graded, dry
D	201.6	0.0	N	PH02A	2	2		

TD @ 2' bgs.

ENSOLUM

	Sample Name: PH03	Date: 01/17/2024
	Site Name: PLU 18 Brushy Draw TB	
	Incident Number: NAPP2334060921	
	Job Number: 03C1558301	
LITHOLOGIC / SOIL SAMPLING LOG	Logged By: M. O'Dell	Method: Trackhoe
Coordinates: 32.132865, -103.928335	Hole Diameter: 2.5'	Total Depth: 1'

Comments: Field screening conducted with HACH Chloride Test Strips and PID for chloride and vapor, respectively. Chloride test performed with 1:4 dilution factor of soil to distilled water. All chloride 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
						0	CCHE (fill)	Caliche/Sand mixture. Brown, well graded, very fine to fine grained, dry, fill.
D	2,996	0.0	N	PH03	0.5			
D	<168	0.0	N	PH03A	1	1	SW	Sand. Brown, very fine to fine grained, well graded, dry

TD @ 1' bgs.

ENSOLUM

	Sample Name: PH04	Date: 01/17/2024
	Site Name: PLU 18 Brushy Draw TB	
	Incident Number: NAPP2334060921	
	Job Number: 03C1558301	
LITHOLOGIC / SOIL SAMPLING LOG	Logged By: M. O'Dell	Method: Trackhoe
Coordinates: 32.133109, -103.928345	Hole Diameter: 2.5'	Total Depth: 1'

Comments: Field screening conducted with HACH Chloride Test Strips and PID for chloride and vapor, respectively. Chloride test performed with 1:4 dilution factor of soil to distilled water. All chloride 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
						0	CCHE (fill)	Caliche/Sand mixture. Brown, well graded, very fine to fine grained, dry, fill.
D	1,708	0.0	N	PH04	0.5			
D	<168	0.0	N	PH04A	1	1	SW	Sand. Brown, very fine to fine grained, well graded, dry

TD @ 1' 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 1/31/2024 1:34:38 PM

JOB DESCRIPTION

PLU 18 Brushy Draw TB
03C1558301

JOB NUMBER

890-5982-1

Eurofins Carlsbad
1089 N Canal St.
Carlsbad NM 88220

See page two for job notes and contact information.

my EOL

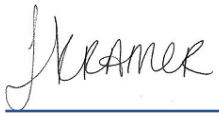
Eurofins Carlsbad

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



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1/31/2024 1:34:38 PM

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

Client: Ensolum
Project/Site: PLU 18 Brushy Draw TB

Laboratory Job ID: 890-5982-1
SDG: 03C1558301

Table of Contents

Definitions/Glossary

Client: Ensolum
Project/Site: PLU 18 Brushy Draw TB

Job ID: 890-5982-1
SDG: 03C1558301

Qualifiers

GC VOA

Qualifier	Qualifier Description
*+	LCS and/or LCSD is outside acceptance limits, high biased.
F1	MS and/or MSD recovery 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.

GC Semi VOA

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

HPLC/IC

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

Glossary

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

Case Narrative

Client: Ensolum Job ID: 890-5982-1
Project: PLU 18 Brushy Draw TB

Job ID: 890-5982-1 Eurofins Carlsbad

Job Narrative
890-5982-1

Analytical test results meet all requirements of the associated regulatory program listed on the Accreditation/Certification Summary Page unless otherwise noted under the individual analysis. Data qualifiers are applied to indicate exceptions. Noncompliant quality control (QC) is further explained in narrative comments.

- Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD may be performed, unless otherwise specified in the method.
- Surrogate and/or isotope dilution analyte recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in the narrative.

Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.

Receipt
The samples were received on 1/17/2024 4:35 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

Receipt Exceptions
The following samples were received and analyzed from an unpreserved bulk soil jar: PH01 (890-5982-1), PH01A (890-5982-2), PH02 (890-5982-3), PH02A (890-5982-4), PH03 (890-5982-5), PH03A (890-5982-6), PH04 (890-5982-7), PH04A (890-5982-8), FS01 (890-5982-9), FS02 (890-5982-10), FS03 (890-5982-11), FS04 (890-5982-12), FS05 (890-5982-13), FS06 (890-5982-14), FS07 (890-5982-15), SW01 (890-5982-16) and SW02 (890-5982-17).

GC VOA
Method 8021B: The continuing calibration verification (CCV) associated with batch 880-71764 recovered under the lower control limit for Benzene and o-Xylene. The samples associated with this CCV were ran within 12 hours of passing CCV; therefore, the data have been reported.

Method 8021B: The matrix spike duplicate (MSD) recoveries for preparation batch 880-71343 and analytical batch 880-71764 were outside control limits. Non-homogeneity is suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.

Method 8021B: The continuing calibration verification (CCV) associated with batch 880-71764 recovered above the upper control limit for Ethylbenzene, m-Xylene & p-Xylene and o-Xylene. 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 880-71764/51).

Method 8021B: The matrix spike (MS) and/or matrix spike duplicate (MSD) recovery for preparation batch 880-71633 and analytical batch 880-71772 was outside control limits for the following analyte(s): Benzene, Ethylbenzene, m-Xylene & p-Xylene and o-Xylene. Results may be biased high because this analyte is a common laboratory solvent and contaminant.

Method 8021B: Surrogate recovery for the following samples were outside control limits: (890-5988-A-1-G), (890-5988-A-1-E MS) and (890-5988-A-1-F MSD). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

Method 8021B: The surrogate recovery for the blank associated with preparation batch 880-71633 and analytical batch 880-71772 was outside the control limits.

Method 8021B: The laboratory control sample duplicate (LCSD) for preparation batch 880-71633 and analytical batch 880-71772 recovered outside control limits for the following analytes: m-Xylene & p-Xylene. Since only an acceptable LCS is required per the method, the data has been qualified and reported.

Method 8021B: Surrogate recovery for the following sample was outside control limits: FS03 (890-5982-11). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

Method 8021B: The laboratory control sample (LCS) for preparation batch 880-71537 and analytical batch 880-71915 recovered outside control limits for the following analytes: m-Xylene & p-Xylene. Since only an acceptable LCS or LCSD is required per the method, the LCSD shows recovery for the batch therefore the data has been qualified and reported.

Case Narrative

Client: Ensolum Job ID: 890-5982-1
Project: PLU 18 Brushy Draw TB

Job ID: 890-5982-1 (Continued) Eurofins Carlsbad

Method 8021B: The surrogate recovery for the blank associated with preparation batch 880-71537 and analytical batch 880-71915 was outside the control limits.

Method 8021B: The matrix spike duplicate (MSD) recoveries for preparation batch 880-71537 and analytical batch 880-71915 were outside control limits. Non-homogeneity is suspected because the associated laboratory control sample duplicate (LCSD) recovery was within acceptance limits.

Method 8021B: The matrix spike duplicate (MSD) recoveries for preparation batch 880-71692 and analytical batch 880-72000 were outside control limits. Non-homogeneity is suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.

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

GC Semi VOA
Method 8015MOD_NM: Surrogate recovery for the following sample was outside control limits: FS03 (890-5982-11). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

Method 8015MOD_NM: The RPD of the laboratory control sample (LCS) and laboratory control sample duplicate (LCSD) for preparation batch 880-71251 and analytical batch 880-71655 recovered outside control limits for the following analytes: Diesel Range Organics (Over C10-C28).

Method 8015MOD_NM: The continuing calibration verification (CCV) associated with batch 880-71655 recovered below the lower control limit for Gasoline Range Organics (GRO)-C6-C10, Diesel Range Organics (Over C10-C28) and Total TPH. An acceptable CCV was ran within the 12 hour window, therefore the data has been qualified and reported. The associated sample is impacted: (CCV 880-71655/47).

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 18 Brushy Draw TB

Job ID: 890-5982-1
SDG: 03C1558301

Client Sample ID: PH01

Date Collected: 01/17/24 09:30
Date Received: 01/17/24 16:35
Sample Depth: 0.5'

Lab Sample ID: 890-5982-1
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		01/22/24 14:55	01/29/24 12:17	1
Toluene	<0.00200	U	0.00200		mg/Kg		01/22/24 14:55	01/29/24 12:17	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		01/22/24 14:55	01/29/24 12:17	1
m-Xylene & p-Xylene	<0.00399	U	0.00399		mg/Kg		01/22/24 14:55	01/29/24 12:17	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		01/22/24 14:55	01/29/24 12:17	1
Xylenes, Total	<0.00399	U	0.00399		mg/Kg		01/22/24 14:55	01/29/24 12:17	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*83*		*70 - 130*	*01/22/24 14:55*	*01/29/24 12:17*	*1*
1,4-Difluorobenzene (Surr)	*81*		*70 - 130*	*01/22/24 14:55*	*01/29/24 12:17*	*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			01/29/24 12:17	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.1	U	50.1		mg/Kg			01/26/24 19:59	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	<50.1	U	50.1		mg/Kg		01/19/24 17:02	01/26/24 19:59	1
Diesel Range Organics (Over C10-C28)	<50.1	U *1	50.1		mg/Kg		01/19/24 17:02	01/26/24 19:59	1
OII Range Organics (Over C28-C36)	<50.1	U	50.1		mg/Kg		01/19/24 17:02	01/26/24 19:59	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*86*		*70 - 130*	*01/19/24 17:02*	*01/26/24 19:59*	*1*
o-Terphenyl	*103*		*70 - 130*	*01/19/24 17:02*	*01/26/24 19:59*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**2760**		24.8		mg/Kg			01/22/24 20:32	5

Client Sample ID: PH01A

Date Collected: 01/17/24 09:40
Date Received: 01/17/24 16:35
Sample Depth: 2'

Lab Sample ID: 890-5982-2
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		01/22/24 14:55	01/29/24 12:38	1
Toluene	<0.00200	U	0.00200		mg/Kg		01/22/24 14:55	01/29/24 12:38	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		01/22/24 14:55	01/29/24 12:38	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		01/22/24 14:55	01/29/24 12:38	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		01/22/24 14:55	01/29/24 12:38	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		01/22/24 14:55	01/29/24 12:38	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*89*		*70 - 130*	*01/22/24 14:55*	*01/29/24 12:38*	*1*

Client Sample Results

Client: Ensolum
Project/Site: PLU 18 Brushy Draw TB

Job ID: 890-5982-1
SDG: 03C1558301

Client Sample ID: PH01A

Date Collected: 01/17/24 09:40
Date Received: 01/17/24 16:35
Sample Depth: 2'

Lab Sample ID: 890-5982-2

Matrix: Solid

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

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,4-Difluorobenzene (Surr)	*76*		*70 - 130*	*01/22/24 14:55*	*01/29/24 12:38*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00400	U	0.00400	mg/Kg			01/29/24 12:38	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.1	U	50.1	mg/Kg			01/26/24 21:05	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	<50.1	U	50.1	mg/Kg		01/19/24 17:02	01/26/24 21:05	1
Diesel Range Organics (Over C10-C28)	<50.1	U *1	50.1	mg/Kg		01/19/24 17:02	01/26/24 21:05	1
OII Range Organics (Over C28-C36)	<50.1	U	50.1	mg/Kg		01/19/24 17:02	01/26/24 21:05	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*94*		*70 - 130*	*01/19/24 17:02*	*01/26/24 21:05*	*1*
o-Terphenyl	*114*		*70 - 130*	*01/19/24 17:02*	*01/26/24 21:05*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**32.3**		5.02	mg/Kg			01/22/24 20:39	1

Client Sample ID: PH02

Date Collected: 01/17/24 09:45
Date Received: 01/17/24 16:35
Sample Depth: 0.5'

Lab Sample ID: 890-5982-3

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		01/25/24 18:00	01/30/24 05:11	1
Toluene	<0.00199	U	0.00199	mg/Kg		01/25/24 18:00	01/30/24 05:11	1
Ethylbenzene	<0.00199	U	0.00199	mg/Kg		01/25/24 18:00	01/30/24 05:11	1
m-Xylene & p-Xylene	<0.00398	U *+	0.00398	mg/Kg		01/25/24 18:00	01/30/24 05:11	1
o-Xylene	<0.00199	U	0.00199	mg/Kg		01/25/24 18:00	01/30/24 05:11	1
Xylenes, Total	<0.00398	U *+	0.00398	mg/Kg		01/25/24 18:00	01/30/24 05:11	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*81*		*70 - 130*	*01/25/24 18:00*	*01/30/24 05:11*	*1*
1,4-Difluorobenzene (Surr)	*78*		*70 - 130*	*01/25/24 18:00*	*01/30/24 05:11*	*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			01/30/24 05:11	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.4	U	50.4	mg/Kg			01/26/24 21:27	1

Eurofins Carlsbad

Client Sample Results

Client: Ensolum
Project/Site: PLU 18 Brushy Draw TB

Job ID: 890-5982-1
SDG: 03C1558301

Client Sample ID: PH02

Date Collected: 01/17/24 09:45
Date Received: 01/17/24 16:35
Sample Depth: 0.5'

Lab Sample ID: 890-5982-3
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	<50.4	U	50.4		mg/Kg		01/19/24 17:02	01/26/24 21:27	1
Diesel Range Organics (Over C10-C28)	<50.4	U *1	50.4		mg/Kg		01/19/24 17:02	01/26/24 21:27	1
OII Range Organics (Over C28-C36)	<50.4	U	50.4		mg/Kg		01/19/24 17:02	01/26/24 21:27	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*100*		*70 - 130*	*01/19/24 17:02*	*01/26/24 21:27*	*1*
o-Terphenyl	*119*		*70 - 130*	*01/19/24 17:02*	*01/26/24 21:27*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**3750**		25.2		mg/Kg			01/22/24 20:46	5

Client Sample ID: PH02A

Date Collected: 01/17/24 09:55
Date Received: 01/17/24 16:35
Sample Depth: 2'

Lab Sample ID: 890-5982-4
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		01/29/24 10:00	01/30/24 05:32	1
Toluene	<0.00200	U	0.00200		mg/Kg		01/29/24 10:00	01/30/24 05:32	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		01/29/24 10:00	01/30/24 05:32	1
m-Xylene & p-Xylene	<0.00399	U *+	0.00399		mg/Kg		01/29/24 10:00	01/30/24 05:32	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		01/29/24 10:00	01/30/24 05:32	1
Xylenes, Total	<0.00399	U *+	0.00399		mg/Kg		01/29/24 10:00	01/30/24 05:32	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*77*		*70 - 130*	*01/29/24 10:00*	*01/30/24 05:32*	*1*
1,4-Difluorobenzene (Surr)	*84*		*70 - 130*	*01/29/24 10:00*	*01/30/24 05:32*	*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			01/30/24 05:32	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	**56.3**		50.5		mg/Kg			01/26/24 21:48	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	<50.5	U	50.5		mg/Kg		01/19/24 17:02	01/26/24 21:48	1
Diesel Range Organics (Over C10-C28)	**56.3**	***1**	50.5		mg/Kg		01/19/24 17:02	01/26/24 21:48	1
OII Range Organics (Over C28-C36)	<50.5	U	50.5		mg/Kg		01/19/24 17:02	01/26/24 21:48	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*96*		*70 - 130*	*01/19/24 17:02*	*01/26/24 21:48*	*1*
o-Terphenyl	*117*		*70 - 130*	*01/19/24 17:02*	*01/26/24 21:48*	*1*

Client Sample Results

Client: Ensolum
Project/Site: PLU 18 Brushy Draw TB

Job ID: 890-5982-1
SDG: 03C1558301

Client Sample ID: PH02A

Lab Sample ID: 890-5982-4
Matrix: Solid
Date Collected: 01/17/24 09:55
Date Received: 01/17/24 16:35
Sample Depth: 2'

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	73.6		5.01		mg/Kg			01/22/24 20:53	1

Client Sample ID: PH03

Lab Sample ID: 890-5982-5
Matrix: Solid
Date Collected: 01/17/24 10:30
Date Received: 01/17/24 16:35
Sample Depth: 0.5'

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		01/29/24 10:00	01/30/24 05:52	1
Toluene	<0.00201	U	0.00201		mg/Kg		01/29/24 10:00	01/30/24 05:52	1
Ethylbenzene	<0.00201	U	0.00201		mg/Kg		01/29/24 10:00	01/30/24 05:52	1
m-Xylene & p-Xylene	<0.00402	U *+	0.00402		mg/Kg		01/29/24 10:00	01/30/24 05:52	1
o-Xylene	<0.00201	U	0.00201		mg/Kg		01/29/24 10:00	01/30/24 05:52	1
Xylenes, Total	<0.00402	U *+	0.00402		mg/Kg		01/29/24 10:00	01/30/24 05:52	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*78*		*70 - 130*	*01/29/24 10:00*	*01/30/24 05:52*	*1*
1,4-Difluorobenzene (Surr)	*81*		*70 - 130*	*01/29/24 10:00*	*01/30/24 05:52*	*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			01/30/24 05:52	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			01/26/24 22:11	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		01/19/24 17:02	01/26/24 22:11	1
Diesel Range Organics (Over C10-C28)	<49.8	U *1	49.8		mg/Kg		01/19/24 17:02	01/26/24 22:11	1
OII Range Organics (Over C28-C36)	<49.8	U	49.8		mg/Kg		01/19/24 17:02	01/26/24 22:11	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*78*		*70 - 130*	*01/19/24 17:02*	*01/26/24 22:11*	*1*
o-Terphenyl	*95*		*70 - 130*	*01/19/24 17:02*	*01/26/24 22:11*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	988		4.98		mg/Kg			01/22/24 21:13	1

Client Sample Results

Client: Ensolum
Project/Site: PLU 18 Brushy Draw TB

Job ID: 890-5982-1
SDG: 03C1558301

Client Sample ID: PH03A

Date Collected: 01/17/24 10:35
Date Received: 01/17/24 16:35
Sample Depth: 1'

Lab Sample ID: 890-5982-6
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		01/29/24 10:00	01/30/24 06:13	1
Toluene	<0.00200	U	0.00200		mg/Kg		01/29/24 10:00	01/30/24 06:13	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		01/29/24 10:00	01/30/24 06:13	1
m-Xylene & p-Xylene	<0.00401	U *+	0.00401		mg/Kg		01/29/24 10:00	01/30/24 06:13	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		01/29/24 10:00	01/30/24 06:13	1
Xylenes, Total	<0.00401	U *+	0.00401		mg/Kg		01/29/24 10:00	01/30/24 06:13	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*81*		*70 - 130*	*01/29/24 10:00*	*01/30/24 06:13*	*1*
1,4-Difluorobenzene (Surr)	*75*		*70 - 130*	*01/29/24 10:00*	*01/30/24 06:13*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00401	U	0.00401		mg/Kg			01/30/24 06:13	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.7	U	49.7		mg/Kg			01/26/24 22:34	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	<49.7	U	49.7		mg/Kg		01/19/24 17:02	01/26/24 22:34	1
Diesel Range Organics (Over C10-C28)	<49.7	U *1	49.7		mg/Kg		01/19/24 17:02	01/26/24 22:34	1
OII Range Organics (Over C28-C36)	<49.7	U	49.7		mg/Kg		01/19/24 17:02	01/26/24 22:34	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*78*		*70 - 130*	*01/19/24 17:02*	*01/26/24 22:34*	*1*
o-Terphenyl	*97*		*70 - 130*	*01/19/24 17:02*	*01/26/24 22:34*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**50.0**		4.95		mg/Kg			01/22/24 21:20	1

Client Sample ID: PH04

Date Collected: 01/17/24 10:55
Date Received: 01/17/24 16:35
Sample Depth: 0.5'

Lab Sample ID: 890-5982-7
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		01/26/24 11:33	01/31/24 11:56	1
Toluene	<0.00200	U	0.00200		mg/Kg		01/26/24 11:33	01/31/24 11:56	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		01/26/24 11:33	01/31/24 11:56	1
m-Xylene & p-Xylene	<0.00399	U	0.00399		mg/Kg		01/26/24 11:33	01/31/24 11:56	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		01/26/24 11:33	01/31/24 11:56	1
Xylenes, Total	<0.00399	U	0.00399		mg/Kg		01/26/24 11:33	01/31/24 11:56	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*85*		*70 - 130*	*01/26/24 11:33*	*01/31/24 11:56*	*1*

Client Sample Results

Client: Ensolum
Project/Site: PLU 18 Brushy Draw TB

Job ID: 890-5982-1
SDG: 03C1558301

Client Sample ID: PH04

Date Collected: 01/17/24 10:55
Date Received: 01/17/24 16:35
Sample Depth: 0.5'

Lab Sample ID: 890-5982-7
Matrix: Solid

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

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,4-Difluorobenzene (Surr)	*76*		*70 - 130*	*01/26/24 11:33*	*01/31/24 11:56*	*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			01/31/24 11:56	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.6	U	49.6	mg/Kg			01/26/24 22:57	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	<49.6	U	49.6	mg/Kg		01/19/24 17:02	01/26/24 22:57	1
Diesel Range Organics (Over C10-C28)	<49.6	U *1	49.6	mg/Kg		01/19/24 17:02	01/26/24 22:57	1
OII Range Organics (Over C28-C36)	<49.6	U	49.6	mg/Kg		01/19/24 17:02	01/26/24 22:57	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*100*		*70 - 130*	*01/19/24 17:02*	*01/26/24 22:57*	*1*
o-Terphenyl	*120*		*70 - 130*	*01/19/24 17:02*	*01/26/24 22:57*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**1380**		25.2	mg/Kg			01/22/24 21:41	5

Client Sample ID: PH04A

Date Collected: 01/17/24 11:00
Date Received: 01/17/24 16:35
Sample Depth: 1'

Lab Sample ID: 890-5982-8
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		01/26/24 11:33	01/31/24 12:17	1
Toluene	<0.00201	U	0.00201	mg/Kg		01/26/24 11:33	01/31/24 12:17	1
Ethylbenzene	<0.00201	U	0.00201	mg/Kg		01/26/24 11:33	01/31/24 12:17	1
m-Xylene & p-Xylene	<0.00402	U	0.00402	mg/Kg		01/26/24 11:33	01/31/24 12:17	1
o-Xylene	<0.00201	U	0.00201	mg/Kg		01/26/24 11:33	01/31/24 12:17	1
Xylenes, Total	<0.00402	U	0.00402	mg/Kg		01/26/24 11:33	01/31/24 12:17	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*86*		*70 - 130*	*01/26/24 11:33*	*01/31/24 12:17*	*1*
1,4-Difluorobenzene (Surr)	*75*		*70 - 130*	*01/26/24 11:33*	*01/31/24 12:17*	*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			01/31/24 12:17	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.2	U	50.2	mg/Kg			01/26/24 23:19	1

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Client Sample Results

Client: Ensolum
Project/Site: PLU 18 Brushy Draw TB

Job ID: 890-5982-1
SDG: 03C1558301

Client Sample ID: PH04A

Lab Sample ID: 890-5982-8
Matrix: Solid
Date Collected: 01/17/24 11:00
Date Received: 01/17/24 16:35
Sample Depth: 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	<50.2	U	50.2		mg/Kg		01/19/24 17:02	01/26/24 23:19	1
Diesel Range Organics (Over C10-C28)	<50.2	U *1	50.2		mg/Kg		01/19/24 17:02	01/26/24 23:19	1
OII Range Organics (Over C28-C36)	<50.2	U	50.2		mg/Kg		01/19/24 17:02	01/26/24 23:19	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*83*		*70 - 130*	*01/19/24 17:02*	*01/26/24 23:19*	*1*
o-Terphenyl	*100*		*70 - 130*	*01/19/24 17:02*	*01/26/24 23:19*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**45.8**		5.02		mg/Kg			01/22/24 21:47	1

Client Sample ID: FS01

Lab Sample ID: 890-5982-9
Matrix: Solid
Date Collected: 01/17/24 13:40
Date Received: 01/17/24 16:35
Sample Depth: 1'

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		01/26/24 11:33	01/31/24 12:37	1
Toluene	<0.00200	U	0.00200		mg/Kg		01/26/24 11:33	01/31/24 12:37	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		01/26/24 11:33	01/31/24 12:37	1
m-Xylene & p-Xylene	<0.00401	U	0.00401		mg/Kg		01/26/24 11:33	01/31/24 12:37	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		01/26/24 11:33	01/31/24 12:37	1
Xylenes, Total	<0.00401	U	0.00401		mg/Kg		01/26/24 11:33	01/31/24 12:37	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*89*		*70 - 130*	*01/26/24 11:33*	*01/31/24 12:37*	*1*
1,4-Difluorobenzene (Surr)	*72*		*70 - 130*	*01/26/24 11:33*	*01/31/24 12:37*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00401	U	0.00401		mg/Kg			01/31/24 12:37	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.4	U	50.4		mg/Kg			01/26/24 23:40	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	<50.4	U	50.4		mg/Kg		01/19/24 17:02	01/26/24 23:40	1
Diesel Range Organics (Over C10-C28)	<50.4	U *1	50.4		mg/Kg		01/19/24 17:02	01/26/24 23:40	1
OII Range Organics (Over C28-C36)	<50.4	U	50.4		mg/Kg		01/19/24 17:02	01/26/24 23:40	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*104*		*70 - 130*	*01/19/24 17:02*	*01/26/24 23:40*	*1*
o-Terphenyl	*126*		*70 - 130*	*01/19/24 17:02*	*01/26/24 23:40*	*1*

Client Sample Results

Client: Ensolum
Project/Site: PLU 18 Brushy Draw TB

Job ID: 890-5982-1
SDG: 03C1558301

Client Sample ID: FS01

Lab Sample ID: 890-5982-9
Matrix: Solid
Date Collected: 01/17/24 13:40
Date Received: 01/17/24 16:35
Sample Depth: 1'

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	90.3		4.99		mg/Kg			01/22/24 21:54	1

Client Sample ID: FS02

Lab Sample ID: 890-5982-10
Matrix: Solid
Date Collected: 01/17/24 13:45
Date Received: 01/17/24 16:35
Sample Depth: 1'

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00202	U	0.00202		mg/Kg		01/22/24 14:55	01/29/24 17:35	1
Toluene	<0.00202	U	0.00202		mg/Kg		01/22/24 14:55	01/29/24 17:35	1
Ethylbenzene	<0.00202	U	0.00202		mg/Kg		01/22/24 14:55	01/29/24 17:35	1
m-Xylene & p-Xylene	<0.00403	U	0.00403		mg/Kg		01/22/24 14:55	01/29/24 17:35	1
o-Xylene	<0.00202	U	0.00202		mg/Kg		01/22/24 14:55	01/29/24 17:35	1
Xylenes, Total	<0.00403	U	0.00403		mg/Kg		01/22/24 14:55	01/29/24 17:35	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*88*		*70 - 130*	*01/22/24 14:55*	*01/29/24 17:35*	*1*
1,4-Difluorobenzene (Surr)	*73*		*70 - 130*	*01/22/24 14:55*	*01/29/24 17:35*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00403	U	0.00403		mg/Kg			01/29/24 17:35	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.5	U	50.5		mg/Kg			01/27/24 00:04	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	<50.5	U	50.5		mg/Kg		01/19/24 17:02	01/27/24 00:04	1
Diesel Range Organics (Over C10-C28)	<50.5	U *1	50.5		mg/Kg		01/19/24 17:02	01/27/24 00:04	1
OII Range Organics (Over C28-C36)	<50.5	U	50.5		mg/Kg		01/19/24 17:02	01/27/24 00:04	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*83*		*70 - 130*	*01/19/24 17:02*	*01/27/24 00:04*	*1*
o-Terphenyl	*99*		*70 - 130*	*01/19/24 17:02*	*01/27/24 00:04*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	218		5.03		mg/Kg			01/22/24 22:01	1

Client Sample Results

Client: Ensolum
Project/Site: PLU 18 Brushy Draw TB

Job ID: 890-5982-1
SDG: 03C1558301

Client Sample ID: FS03

Lab Sample ID: 890-5982-11
Matrix: Solid
Date Collected: 01/17/24 13:50
Date Received: 01/17/24 16:35
Sample Depth: 1'

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		01/22/24 14:55	01/29/24 17:55	1
Toluene	<0.00199	U	0.00199		mg/Kg		01/22/24 14:55	01/29/24 17:55	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		01/22/24 14:55	01/29/24 17:55	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		01/22/24 14:55	01/29/24 17:55	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		01/22/24 14:55	01/29/24 17:55	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		01/22/24 14:55	01/29/24 17:55	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*86*		*70 - 130*	*01/22/24 14:55*	*01/29/24 17:55*	*1*
1,4-Difluorobenzene (Surr)	*69*	*S1-*	*70 - 130*	*01/22/24 14:55*	*01/29/24 17:55*	*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			01/29/24 17:55	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			01/27/24 00:49	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		01/19/24 17:02	01/27/24 00:49	1
Diesel Range Organics (Over C10-C28)	<50.0	U *1	50.0		mg/Kg		01/19/24 17:02	01/27/24 00:49	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		01/19/24 17:02	01/27/24 00:49	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*59*	*S1-*	*70 - 130*	*01/19/24 17:02*	*01/27/24 00:49*	*1*
o-Terphenyl	*71*		*70 - 130*	*01/19/24 17:02*	*01/27/24 00:49*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**85.9**		5.04		mg/Kg			01/22/24 22:08	1

Client Sample ID: FS04

Lab Sample ID: 890-5982-12
Matrix: Solid
Date Collected: 01/17/24 14:00
Date Received: 01/17/24 16:35
Sample Depth: 1'

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		01/22/24 14:55	01/29/24 18:16	1
Toluene	<0.00198	U	0.00198		mg/Kg		01/22/24 14:55	01/29/24 18:16	1
Ethylbenzene	<0.00198	U	0.00198		mg/Kg		01/22/24 14:55	01/29/24 18:16	1
m-Xylene & p-Xylene	<0.00397	U	0.00397		mg/Kg		01/22/24 14:55	01/29/24 18:16	1
o-Xylene	<0.00198	U	0.00198		mg/Kg		01/22/24 14:55	01/29/24 18:16	1
Xylenes, Total	<0.00397	U	0.00397		mg/Kg		01/22/24 14:55	01/29/24 18:16	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*93*		*70 - 130*	*01/22/24 14:55*	*01/29/24 18:16*	*1*

Client Sample Results

Client: Ensolum
Project/Site: PLU 18 Brushy Draw TB

Job ID: 890-5982-1
SDG: 03C1558301

Client Sample ID: FS04

Lab Sample ID: 890-5982-12
Matrix: Solid
Date Collected: 01/17/24 14:00
Date Received: 01/17/24 16:35
Sample Depth: 1'

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

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,4-Difluorobenzene (Surr)	*73*		*70 - 130*	*01/22/24 14:55*	*01/29/24 18:16*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00397	U	0.00397	mg/Kg			01/29/24 18:16	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.6	U	49.6	mg/Kg			01/27/24 01:12	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	<49.6	U	49.6	mg/Kg		01/19/24 17:02	01/27/24 01:12	1
Diesel Range Organics (Over C10-C28)	<49.6	U *1	49.6	mg/Kg		01/19/24 17:02	01/27/24 01:12	1
OII Range Organics (Over C28-C36)	<49.6	U	49.6	mg/Kg		01/19/24 17:02	01/27/24 01:12	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*77*		*70 - 130*	*01/19/24 17:02*	*01/27/24 01:12*	*1*
o-Terphenyl	*93*		*70 - 130*	*01/19/24 17:02*	*01/27/24 01:12*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**37.8**		5.04	mg/Kg			01/22/24 22:15	1

Client Sample ID: FS05

Lab Sample ID: 890-5982-13
Matrix: Solid
Date Collected: 01/17/24 14:10
Date Received: 01/17/24 16:35
Sample Depth: 1'

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		01/22/24 14:55	01/29/24 18:36	1
Toluene	<0.00199	U	0.00199	mg/Kg		01/22/24 14:55	01/29/24 18:36	1
Ethylbenzene	<0.00199	U	0.00199	mg/Kg		01/22/24 14:55	01/29/24 18:36	1
m-Xylene & p-Xylene	<0.00398	U	0.00398	mg/Kg		01/22/24 14:55	01/29/24 18:36	1
o-Xylene	<0.00199	U	0.00199	mg/Kg		01/22/24 14:55	01/29/24 18:36	1
Xylenes, Total	<0.00398	U	0.00398	mg/Kg		01/22/24 14:55	01/29/24 18:36	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*75*		*70 - 130*	*01/22/24 14:55*	*01/29/24 18:36*	*1*
1,4-Difluorobenzene (Surr)	*72*		*70 - 130*	*01/22/24 14:55*	*01/29/24 18:36*	*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			01/29/24 18:36	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.6	U	49.6	mg/Kg			01/27/24 01:33	1

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Client Sample Results

Client: Ensolum
Project/Site: PLU 18 Brushy Draw TB

Job ID: 890-5982-1
SDG: 03C1558301

Client Sample ID: FS05

Lab Sample ID: 890-5982-13
Matrix: Solid
Date Collected: 01/17/24 14:10
Date Received: 01/17/24 16:35
Sample Depth: 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	<49.6	U	49.6		mg/Kg		01/19/24 17:02	01/27/24 01:33	1
Diesel Range Organics (Over C10-C28)	<49.6	U *1	49.6		mg/Kg		01/19/24 17:02	01/27/24 01:33	1
OII Range Organics (Over C28-C36)	<49.6	U	49.6		mg/Kg		01/19/24 17:02	01/27/24 01:33	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*80*		*70 - 130*	*01/19/24 17:02*	*01/27/24 01:33*	*1*
o-Terphenyl	*97*		*70 - 130*	*01/19/24 17:02*	*01/27/24 01:33*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**86.0**		4.98		mg/Kg			01/22/24 22:22	1

Client Sample ID: FS06

Lab Sample ID: 890-5982-14
Matrix: Solid
Date Collected: 01/17/24 14:15
Date Received: 01/17/24 16:35
Sample Depth: 1'

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		01/22/24 14:55	01/29/24 18:57	1
Toluene	<0.00200	U	0.00200		mg/Kg		01/22/24 14:55	01/29/24 18:57	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		01/22/24 14:55	01/29/24 18:57	1
m-Xylene & p-Xylene	<0.00399	U	0.00399		mg/Kg		01/22/24 14:55	01/29/24 18:57	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		01/22/24 14:55	01/29/24 18:57	1
Xylenes, Total	<0.00399	U	0.00399		mg/Kg		01/22/24 14:55	01/29/24 18:57	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*78*		*70 - 130*	*01/22/24 14:55*	*01/29/24 18:57*	*1*
1,4-Difluorobenzene (Surr)	*83*		*70 - 130*	*01/22/24 14:55*	*01/29/24 18:57*	*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			01/29/24 18:57	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.3	U	50.3		mg/Kg			01/27/24 01:56	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	<50.3	U	50.3		mg/Kg		01/19/24 17:02	01/27/24 01:56	1
Diesel Range Organics (Over C10-C28)	<50.3	U *1	50.3		mg/Kg		01/19/24 17:02	01/27/24 01:56	1
OII Range Organics (Over C28-C36)	<50.3	U	50.3		mg/Kg		01/19/24 17:02	01/27/24 01:56	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*89*		*70 - 130*	*01/19/24 17:02*	*01/27/24 01:56*	*1*
o-Terphenyl	*106*		*70 - 130*	*01/19/24 17:02*	*01/27/24 01:56*	*1*

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Client Sample Results

Client: Ensolum
Project/Site: PLU 18 Brushy Draw TB

Job ID: 890-5982-1
SDG: 03C1558301

Client Sample ID: FS06

Lab Sample ID: 890-5982-14
Matrix: Solid
Date Collected: 01/17/24 14:15
Date Received: 01/17/24 16:35
Sample Depth: 1'

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	48.4		4.96		mg/Kg			01/22/24 16:26	1

Client Sample ID: FS07

Lab Sample ID: 890-5982-15
Matrix: Solid
Date Collected: 01/17/24 14:20
Date Received: 01/17/24 16:35
Sample Depth: 1'

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		01/22/24 14:55	01/29/24 19:17	1
Toluene	<0.00201	U	0.00201		mg/Kg		01/22/24 14:55	01/29/24 19:17	1
Ethylbenzene	<0.00201	U	0.00201		mg/Kg		01/22/24 14:55	01/29/24 19:17	1
m-Xylene & p-Xylene	<0.00402	U	0.00402		mg/Kg		01/22/24 14:55	01/29/24 19:17	1
o-Xylene	<0.00201	U	0.00201		mg/Kg		01/22/24 14:55	01/29/24 19:17	1
Xylenes, Total	<0.00402	U	0.00402		mg/Kg		01/22/24 14:55	01/29/24 19:17	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*90*		*70 - 130*	*01/22/24 14:55*	*01/29/24 19:17*	*1*
1,4-Difluorobenzene (Surr)	*76*		*70 - 130*	*01/22/24 14:55*	*01/29/24 19:17*	*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			01/29/24 19:17	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.1	U	50.1		mg/Kg			01/27/24 02:19	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	<50.1	U	50.1		mg/Kg		01/19/24 17:02	01/27/24 02:19	1
Diesel Range Organics (Over C10-C28)	<50.1	U *1	50.1		mg/Kg		01/19/24 17:02	01/27/24 02:19	1
OII Range Organics (Over C28-C36)	<50.1	U	50.1		mg/Kg		01/19/24 17:02	01/27/24 02:19	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*81*		*70 - 130*	*01/19/24 17:02*	*01/27/24 02:19*	*1*
o-Terphenyl	*98*		*70 - 130*	*01/19/24 17:02*	*01/27/24 02:19*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	69.8		5.05		mg/Kg			01/22/24 16:42	1

Client Sample Results

Client: Ensolum
Project/Site: PLU 18 Brushy Draw TB

Job ID: 890-5982-1
SDG: 03C1558301

Client Sample ID: SW01

Lab Sample ID: 890-5982-16
Matrix: Solid
Date Collected: 01/17/24 14:25
Date Received: 01/17/24 16:35
Sample Depth: 0-1'

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		01/22/24 14:55	01/29/24 19:38	1
Toluene	<0.00200	U	0.00200		mg/Kg		01/22/24 14:55	01/29/24 19:38	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		01/22/24 14:55	01/29/24 19:38	1
m-Xylene & p-Xylene	<0.00401	U	0.00401		mg/Kg		01/22/24 14:55	01/29/24 19:38	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		01/22/24 14:55	01/29/24 19:38	1
Xylenes, Total	<0.00401	U	0.00401		mg/Kg		01/22/24 14:55	01/29/24 19:38	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*77*		*70 - 130*	*01/22/24 14:55*	*01/29/24 19:38*	*1*
1,4-Difluorobenzene (Surr)	*83*		*70 - 130*	*01/22/24 14:55*	*01/29/24 19:38*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00401	U	0.00401		mg/Kg			01/29/24 19:38	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.5	U	50.5		mg/Kg			01/27/24 02:41	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	<50.5	U	50.5		mg/Kg		01/19/24 17:02	01/27/24 02:41	1
Diesel Range Organics (Over C10-C28)	<50.5	U *1	50.5		mg/Kg		01/19/24 17:02	01/27/24 02:41	1
OII Range Organics (Over C28-C36)	<50.5	U	50.5		mg/Kg		01/19/24 17:02	01/27/24 02:41	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*84*		*70 - 130*	*01/19/24 17:02*	*01/27/24 02:41*	*1*
o-Terphenyl	*102*		*70 - 130*	*01/19/24 17:02*	*01/27/24 02:41*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**78.5**		5.04		mg/Kg			01/22/24 16:47	1

Client Sample ID: SW02

Lab Sample ID: 890-5982-17
Matrix: Solid
Date Collected: 01/17/24 14:30
Date Received: 01/17/24 16:35
Sample Depth: 0-1'

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		01/24/24 15:35	01/30/24 13:32	1
Toluene	<0.00201	U	0.00201		mg/Kg		01/24/24 15:35	01/30/24 13:32	1
Ethylbenzene	<0.00201	U	0.00201		mg/Kg		01/24/24 15:35	01/30/24 13:32	1
m-Xylene & p-Xylene	<0.00402	U *+	0.00402		mg/Kg		01/24/24 15:35	01/30/24 13:32	1
o-Xylene	<0.00201	U	0.00201		mg/Kg		01/24/24 15:35	01/30/24 13:32	1
Xylenes, Total	<0.00402	U	0.00402		mg/Kg		01/24/24 15:35	01/30/24 13:32	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*84*		*70 - 130*	*01/24/24 15:35*	*01/30/24 13:32*	*1*

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Client Sample Results

Client: Ensolum
Project/Site: PLU 18 Brushy Draw TB

Job ID: 890-5982-1
SDG: 03C1558301

Client Sample ID: SW02
Date Collected: 01/17/24 14:30
Date Received: 01/17/24 16:35
Sample Depth: 0-1'

Lab Sample ID: 890-5982-17
Matrix: Solid

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

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,4-Difluorobenzene (Surr)	*70*		*70 - 130*	*01/24/24 15:35*	*01/30/24 13:32*	*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			01/30/24 13:32	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.5	U	49.5		mg/Kg			01/27/24 03:03	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	<49.5	U	49.5		mg/Kg		01/19/24 17:02	01/27/24 03:03	1
Diesel Range Organics (Over C10-C28)	<49.5	U *1	49.5		mg/Kg		01/19/24 17:02	01/27/24 03:03	1
OII Range Organics (Over C28-C36)	<49.5	U	49.5		mg/Kg		01/19/24 17:02	01/27/24 03:03	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*80*		*70 - 130*	*01/19/24 17:02*	*01/27/24 03:03*	*1*
o-Terphenyl	*96*		*70 - 130*	*01/19/24 17:02*	*01/27/24 03:03*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**22.7**		4.99		mg/Kg			01/22/24 16:52	1

Surrogate Summary

Client: Ensolum
Project/Site: PLU 18 Brushy Draw TB

Job ID: 890-5982-1
SDG: 03C1558301

Method: 8021B - Volatile Organic Compounds (GC)

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

		Percent Surrogate Recovery (Acceptance Limits)											
Lab Sample ID	Client Sample ID	BFB1 (70-130)	DFBZ1 (70-130)										
880-38189-A-1-B MS	Matrix Spike	119	102										
880-38189-A-1-C MSD	Matrix Spike Duplicate	118	99										
880-38301-A-1-B MS	Matrix Spike	115	107										
880-38301-A-1-C MSD	Matrix Spike Duplicate	91	77										
890-5981-A-1-E MS	Matrix Spike	109	104										
890-5981-A-1-F MSD	Matrix Spike Duplicate	115	104										
890-5982-1	PH01	83	81										
890-5982-2	PH01A	89	76										
890-5982-3	PH02	81	78										
890-5982-4	PH02A	77	84										
890-5982-5	PH03	78	81										
890-5982-6	PH03A	81	75										
890-5982-7	PH04	85	76										
890-5982-8	PH04A	86	75										
890-5982-9	FS01	89	72										
890-5982-10	FS02	88	73										
890-5982-11	FS03	86	69 S1-										
890-5982-12	FS04	93	73										
890-5982-13	FS05	75	72										
890-5982-14	FS06	78	83										
890-5982-15	FS07	90	76										
890-5982-16	SW01	77	83										
890-5982-17	SW02	84	70										
890-5988-A-1-E MS	Matrix Spike	280 S1+	95										
890-5988-A-1-F MSD	Matrix Spike Duplicate	504 S1+	93										
LCS 880-71343/1-A	Lab Control Sample	118	102										
LCS 880-71537/1-A	Lab Control Sample	111	102										
LCS 880-71633/1-A	Lab Control Sample	116	101										
LCS 880-71692/1-A	Lab Control Sample	112	102										
LCSD 880-71343/2-A	Lab Control Sample Dup	128	106										
LCSD 880-71537/2-A	Lab Control Sample Dup	109	101										
LCSD 880-71633/2-A	Lab Control Sample Dup	115	101										
LCSD 880-71692/2-A	Lab Control Sample Dup	104	94										
MB 880-71343/5-A	Method Blank	71	84										
MB 880-71537/5-A	Method Blank	67 S1-	88										
MB 880-71633/5-A	Method Blank	69 S1-	83										
MB 880-71690/5-A	Method Blank	76	79										
MB 880-71692/5-A	Method Blank	79	79										

Surrogate Legend

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

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

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

		Percent Surrogate Recovery (Acceptance Limits)											
Lab Sample ID	Client Sample ID	1CO1 (70-130)	OTPH1 (70-130)										
890-5982-1	PH01	86	103										

Surrogate Summary

Client: Ensolum Job ID: 890-5982-1
Project/Site: PLU 18 Brushy Draw TB SDG: 03C1558301

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

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

		Percent Surrogate Recovery (Acceptance Limits)									
Lab Sample ID	Client Sample ID	1CO1 (70-130)	OTPH1 (70-130)								
890-5982-1 MS	PH01	88	89								
890-5982-1 MSD	PH01	91	91								
890-5982-2	PH01A	94	114								
890-5982-3	PH02	100	119								
890-5982-4	PH02A	96	117								
890-5982-5	PH03	78	95								
890-5982-6	PH03A	78	97								
890-5982-7	PH04	100	120								
890-5982-8	PH04A	83	100								
890-5982-9	FS01	104	126								
890-5982-10	FS02	83	99								
890-5982-11	FS03	59 S1-	71								
890-5982-12	FS04	77	93								
890-5982-13	FS05	80	97								
890-5982-14	FS06	89	106								
890-5982-15	FS07	81	98								
890-5982-16	SW01	84	102								
890-5982-17	SW02	80	96								
LCS 880-71251/2-A	Lab Control Sample	81	103								
LCSD 880-71251/3-A	Lab Control Sample Dup	88	108								
MB 880-71251/1-A	Method Blank	98	119								

Surrogate Legend

1CO = 1-Chlorooctane

OTPH = o-Terphenyl

QC Sample Results

Client: Ensolum
Project/Site: PLU 18 Brushy Draw TB

Job ID: 890-5982-1
SDG: 03C1558301

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-71343/5-A
Matrix: Solid
Analysis Batch: 71764

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 71343

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		01/22/24 14:55	01/29/24 10:33	1
Toluene	<0.00200	U	0.00200		mg/Kg		01/22/24 14:55	01/29/24 10:33	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		01/22/24 14:55	01/29/24 10:33	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		01/22/24 14:55	01/29/24 10:33	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		01/22/24 14:55	01/29/24 10:33	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		01/22/24 14:55	01/29/24 10:33	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*71*		*70 - 130*	*01/22/24 14:55*	*01/29/24 10:33*	*1*
1,4-Difluorobenzene (Surr)	*84*		*70 - 130*	*01/22/24 14:55*	*01/29/24 10:33*	*1*

Lab Sample ID: LCS 880-71343/1-A
Matrix: Solid
Analysis Batch: 71764

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 71343

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Benzene			0.100	0.1109		mg/Kg		111	70 - 130		
Toluene			0.100	0.1084		mg/Kg		108	70 - 130		
Ethylbenzene			0.100	0.1235		mg/Kg		124	70 - 130		
m-Xylene & p-Xylene			0.200	0.2589		mg/Kg		129	70 - 130		
o-Xylene			0.100	0.1258		mg/Kg		126	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*118*		*70 - 130*
1,4-Difluorobenzene (Surr)	*102*		*70 - 130*

Lab Sample ID: LCSD 880-71343/2-A
Matrix: Solid
Analysis Batch: 71764

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 71343

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene			0.100	0.09840		mg/Kg		98	70 - 130	12	35
Toluene			0.100	0.1009		mg/Kg		101	70 - 130	7	35
Ethylbenzene			0.100	0.1248		mg/Kg		125	70 - 130	1	35
m-Xylene & p-Xylene			0.200	0.2595		mg/Kg		130	70 - 130	0	35
o-Xylene			0.100	0.1260		mg/Kg		126	70 - 130	0	35

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*128*		*70 - 130*
1,4-Difluorobenzene (Surr)	*106*		*70 - 130*

Lab Sample ID: 880-38189-A-1-B MS
Matrix: Solid
Analysis Batch: 71764

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 71343

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Benzene	<0.00198	U	0.0996	0.09967		mg/Kg		100	70 - 130		
Toluene	<0.00198	U	0.0996	0.1048		mg/Kg		105	70 - 130		

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QC Sample Results

Client: Ensolum
Project/Site: PLU 18 Brushy Draw TB

Job ID: 890-5982-1
SDG: 03C1558301

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

Lab Sample ID: 880-38189-A-1-B MS | **Client Sample ID: Matrix Spike**
Matrix: Solid | **Prep Type: Total/NA**
Analysis Batch: 71764 | **Prep Batch: 71343**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Ethylbenzene	<0.00198	U F1	0.0996	0.1245		mg/Kg		125	70 - 130
m-Xylene & p-Xylene	<0.00396	U F1	0.199	0.2478		mg/Kg		124	70 - 130
o-Xylene	<0.00198	U F1	0.0996	0.1177		mg/Kg		118	70 - 130

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*119*		*70 - 130*
1,4-Difluorobenzene (Surr)	*102*		*70 - 130*

Lab Sample ID: 880-38189-A-1-C MSD | **Client Sample ID: Matrix Spike Duplicate**
Matrix: Solid | **Prep Type: Total/NA**
Analysis Batch: 71764 | **Prep Batch: 71343**

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	0.1113		mg/Kg		111	70 - 130	11	35
Toluene	<0.00198	U	0.100	0.1202		mg/Kg		119	70 - 130	14	35
Ethylbenzene	<0.00198	U F1	0.100	0.1365	F1	mg/Kg		136	70 - 130	9	35
m-Xylene & p-Xylene	<0.00396	U F1	0.201	0.2816	F1	mg/Kg		140	70 - 130	13	35
o-Xylene	<0.00198	U F1	0.100	0.1336	F1	mg/Kg		133	70 - 130	13	35

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*118*		*70 - 130*
1,4-Difluorobenzene (Surr)	*99*		*70 - 130*

Lab Sample ID: MB 880-71537/5-A | **Client Sample ID: Method Blank**
Matrix: Solid | **Prep Type: Total/NA**
Analysis Batch: 71915 | **Prep Batch: 71537**

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		01/24/24 15:35	01/30/24 10:46	1
Toluene	<0.00200	U	0.00200		mg/Kg		01/24/24 15:35	01/30/24 10:46	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		01/24/24 15:35	01/30/24 10:46	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		01/24/24 15:35	01/30/24 10:46	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		01/24/24 15:35	01/30/24 10:46	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		01/24/24 15:35	01/30/24 10:46	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*67*	*S1-*	*70 - 130*	*01/24/24 15:35*	*01/30/24 10:46*	*1*
1,4-Difluorobenzene (Surr)	*88*		*70 - 130*	*01/24/24 15:35*	*01/30/24 10:46*	*1*

Lab Sample ID: LCS 880-71537/1-A | **Client Sample ID: Lab Control Sample**
Matrix: Solid | **Prep Type: Total/NA**
Analysis Batch: 71915 | **Prep Batch: 71537**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	0.100	0.1118		mg/Kg		112	70 - 130
Toluene	0.100	0.1124		mg/Kg		112	70 - 130
Ethylbenzene	0.100	0.1262		mg/Kg		126	70 - 130
m-Xylene & p-Xylene	0.200	0.2642	*+	mg/Kg		132	70 - 130

QC Sample Results

Client: Ensolum
Project/Site: PLU 18 Brushy Draw TB

Job ID: 890-5982-1
SDG: 03C1558301

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

Lab Sample ID: LCS 880-71537/1-A
Matrix: Solid
Analysis Batch: 71915

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 71537

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
o-Xylene			0.100	0.1256		mg/Kg		126	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*111*		*70 - 130*
1,4-Difluorobenzene (Surr)	*102*		*70 - 130*

Lab Sample ID: LCSD 880-71537/2-A
Matrix: Solid
Analysis Batch: 71915

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 71537

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene			0.100	0.1041		mg/Kg		104	70 - 130	7	35
Toluene			0.100	0.1056		mg/Kg		106	70 - 130	6	35
Ethylbenzene			0.100	0.1153		mg/Kg		115	70 - 130	9	35
m-Xylene & p-Xylene			0.200	0.2440		mg/Kg		122	70 - 130	8	35
o-Xylene			0.100	0.1157		mg/Kg		116	70 - 130	8	35

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*109*		*70 - 130*
1,4-Difluorobenzene (Surr)	*101*		*70 - 130*

Lab Sample ID: 890-5981-A-1-E MS
Matrix: Solid
Analysis Batch: 71915

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 71537

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Benzene	<0.00199	U	0.0996	0.09687		mg/Kg		97	70 - 130		
Toluene	<0.00199	U	0.0996	0.09463		mg/Kg		94	70 - 130		
Ethylbenzene	<0.00199	U	0.0996	0.1029		mg/Kg		103	70 - 130		
m-Xylene & p-Xylene	<0.00398	U F1 *+	0.199	0.2163		mg/Kg		109	70 - 130		
o-Xylene	<0.00199	U	0.0996	0.1044		mg/Kg		105	70 - 130		

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*109*		*70 - 130*
1,4-Difluorobenzene (Surr)	*104*		*70 - 130*

Lab Sample ID: 890-5981-A-1-F MSD
Matrix: Solid
Analysis Batch: 71915

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 71537

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	<0.00199	U	0.0990	0.1214		mg/Kg		123	70 - 130	22	35
Toluene	<0.00199	U	0.0990	0.1155		mg/Kg		116	70 - 130	20	35
Ethylbenzene	<0.00199	U	0.0990	0.1272		mg/Kg		128	70 - 130	21	35
m-Xylene & p-Xylene	<0.00398	U F1 *+	0.198	0.2662	F1	mg/Kg		134	70 - 130	21	35
o-Xylene	<0.00199	U	0.0990	0.1272		mg/Kg		128	70 - 130	20	35

QC Sample Results

Client: Ensolum
Project/Site: PLU 18 Brushy Draw TB

Job ID: 890-5982-1
SDG: 03C1558301

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

Lab Sample ID: 890-5981-A-1-F MSD
Matrix: Solid
Analysis Batch: 71915

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 71537

Surrogate	MSD %Recovery	MSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	115		70 - 130
1,4-Difluorobenzene (Surr)	104		70 - 130

Lab Sample ID: MB 880-71633/5-A
Matrix: Solid
Analysis Batch: 71772

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 71633

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		01/25/24 18:00	01/29/24 22:21	1
Toluene	<0.00200	U	0.00200		mg/Kg		01/25/24 18:00	01/29/24 22:21	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		01/25/24 18:00	01/29/24 22:21	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		01/25/24 18:00	01/29/24 22:21	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		01/25/24 18:00	01/29/24 22:21	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		01/25/24 18:00	01/29/24 22:21	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	69	S1-	70 - 130	01/25/24 18:00	01/29/24 22:21	1
1,4-Difluorobenzene (Surr)	83		70 - 130	01/25/24 18:00	01/29/24 22:21	1

Lab Sample ID: LCS 880-71633/1-A
Matrix: Solid
Analysis Batch: 71772

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 71633

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Benzene			0.100	0.1103		mg/Kg		110	70 - 130		
Toluene			0.100	0.1082		mg/Kg		108	70 - 130		
Ethylbenzene			0.100	0.1273		mg/Kg		127	70 - 130		
m-Xylene & p-Xylene			0.200	0.2599		mg/Kg		130	70 - 130		
o-Xylene			0.100	0.1270		mg/Kg		127	70 - 130		

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene (Surr)	116		70 - 130
1,4-Difluorobenzene (Surr)	101		70 - 130

Lab Sample ID: LCSD 880-71633/2-A
Matrix: Solid
Analysis Batch: 71772

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 71633

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene			0.100	0.1102		mg/Kg		110	70 - 130	0	35
Toluene			0.100	0.1107		mg/Kg		111	70 - 130	2	35
Ethylbenzene			0.100	0.1274		mg/Kg		127	70 - 130	0	35
m-Xylene & p-Xylene			0.200	0.2642	*+	mg/Kg		132	70 - 130	2	35
o-Xylene			0.100	0.1280		mg/Kg		128	70 - 130	1	35

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	115		70 - 130

QC Sample Results

Client: Ensolum
Project/Site: PLU 18 Brushy Draw TB

Job ID: 890-5982-1
SDG: 03C1558301

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

Lab Sample ID: LCSD 880-71633/2-A
Matrix: Solid
Analysis Batch: 71772

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 71633

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

Lab Sample ID: 890-5988-A-1-E MS
Matrix: Solid
Analysis Batch: 71772

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 71633

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	<0.00201	U F1	0.0996	0.07314		mg/Kg		73	70 - 130
Toluene	0.0262	F1	0.0996	0.07949	F1	mg/Kg		54	70 - 130
Ethylbenzene	0.259	F2 F1	0.0996	0.2700	F1	mg/Kg		11	70 - 130

Surrogate	MS %Recovery	MS Qualifier	Limits
4-Bromofluorobenzene (Surr)	280	S1+	70 - 130
1,4-Difluorobenzene (Surr)	95		70 - 130

Lab Sample ID: 890-5988-A-1-F MSD
Matrix: Solid
Analysis Batch: 71772

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 71633

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	<0.00201	U F1	0.0990	0.06463	F1	mg/Kg		65	70 - 130	12	35
Toluene	0.0262	F1	0.0990	0.1030		mg/Kg		78	70 - 130	26	35

Surrogate	MSD %Recovery	MSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	504	S1+	70 - 130
1,4-Difluorobenzene (Surr)	93		70 - 130

Lab Sample ID: MB 880-71690/5-A
Matrix: Solid
Analysis Batch: 71764

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 71690

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		01/26/24 11:23	01/28/24 23:01	1
Toluene	<0.00200	U	0.00200	mg/Kg		01/26/24 11:23	01/28/24 23:01	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		01/26/24 11:23	01/28/24 23:01	1
m-Xylene & p-Xylene	<0.00400	U	0.00400	mg/Kg		01/26/24 11:23	01/28/24 23:01	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		01/26/24 11:23	01/28/24 23:01	1
Xylenes, Total	<0.00400	U	0.00400	mg/Kg		01/26/24 11:23	01/28/24 23:01	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	76		70 - 130	01/26/24 11:23	01/28/24 23:01	1
1,4-Difluorobenzene (Surr)	79		70 - 130	01/26/24 11:23	01/28/24 23:01	1

QC Sample Results

Client: Ensolum
Project/Site: PLU 18 Brushy Draw TB

Job ID: 890-5982-1
SDG: 03C1558301

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

Lab Sample ID: MB 880-71692/5-A
Matrix: Solid
Analysis Batch: 72000

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 71692

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		01/26/24 11:33	01/31/24 11:14	1
Toluene	<0.00200	U	0.00200		mg/Kg		01/26/24 11:33	01/31/24 11:14	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		01/26/24 11:33	01/31/24 11:14	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		01/26/24 11:33	01/31/24 11:14	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		01/26/24 11:33	01/31/24 11:14	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		01/26/24 11:33	01/31/24 11:14	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*79*		*70 - 130*	*01/26/24 11:33*	*01/31/24 11:14*	*1*
1,4-Difluorobenzene (Surr)	*79*		*70 - 130*	*01/26/24 11:33*	*01/31/24 11:14*	*1*

Lab Sample ID: LCS 880-71692/1-A
Matrix: Solid
Analysis Batch: 72000

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 71692

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Benzene			0.100	0.1010		mg/Kg		101	70 - 130		
Toluene			0.100	0.09485		mg/Kg		95	70 - 130		
Ethylbenzene			0.100	0.09005		mg/Kg		90	70 - 130		
m-Xylene & p-Xylene			0.200	0.1985		mg/Kg		99	70 - 130		
o-Xylene			0.100	0.1164		mg/Kg		116	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*112*		*70 - 130*
1,4-Difluorobenzene (Surr)	*102*		*70 - 130*

Lab Sample ID: LCSD 880-71692/2-A
Matrix: Solid
Analysis Batch: 72000

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 71692

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene			0.100	0.09042		mg/Kg		90	70 - 130	11	35
Toluene			0.100	0.09201		mg/Kg		92	70 - 130	3	35
Ethylbenzene			0.100	0.09967		mg/Kg		100	70 - 130	10	35
m-Xylene & p-Xylene			0.200	0.2074		mg/Kg		104	70 - 130	4	35
o-Xylene			0.100	0.09905		mg/Kg		99	70 - 130	16	35

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*104*		*70 - 130*
1,4-Difluorobenzene (Surr)	*94*		*70 - 130*

Lab Sample ID: 880-38301-A-1-B MS
Matrix: Solid
Analysis Batch: 72000

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 71692

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Benzene	<0.00199	U F1	0.0990	0.09160		mg/Kg		93	70 - 130		
Toluene	<0.00199	U	0.0990	0.1016		mg/Kg		103	70 - 130		

QC Sample Results

Client: Ensolum
Project/Site: PLU 18 Brushy Draw TB

Job ID: 890-5982-1
SDG: 03C1558301

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

Lab Sample ID: 880-38301-A-1-B MS
Matrix: Solid
Analysis Batch: 72000

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 71692

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Ethylbenzene	<0.00199	U	0.0990	0.1170		mg/Kg		118	70 - 130
m-Xylene & p-Xylene	<0.00398	U	0.198	0.2324		mg/Kg		117	70 - 130
o-Xylene	<0.00199	U	0.0990	0.1108		mg/Kg		112	70 - 130

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*115*		*70 - 130*
1,4-Difluorobenzene (Surr)	*107*		*70 - 130*

Lab Sample ID: 880-38301-A-1-C MSD
Matrix: Solid
Analysis Batch: 72000

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 71692

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	<0.00199	U F1	0.0998	0.06629	F1	mg/Kg		66	70 - 130	32	35
Toluene	<0.00199	U	0.0998	0.08918		mg/Kg		89	70 - 130	13	35
Ethylbenzene	<0.00199	U	0.0998	0.09755		mg/Kg		98	70 - 130	18	35
m-Xylene & p-Xylene	<0.00398	U	0.200	0.1780		mg/Kg		89	70 - 130	27	35
o-Xylene	<0.00199	U	0.0998	0.08585		mg/Kg		86	70 - 130	25	35

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*91*		*70 - 130*
1,4-Difluorobenzene (Surr)	*77*		*70 - 130*

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

Lab Sample ID: MB 880-71251/1-A
Matrix: Solid
Analysis Batch: 71655

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 71251

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		01/19/24 17:02	01/26/24 18:52	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		01/19/24 17:02	01/26/24 18:52	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		01/19/24 17:02	01/26/24 18:52	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*98*		*70 - 130*	*01/19/24 17:02*	*01/26/24 18:52*	*1*
o-Terphenyl	*119*		*70 - 130*	*01/19/24 17:02*	*01/26/24 18:52*	*1*

Lab Sample ID: LCS 880-71251/2-A
Matrix: Solid
Analysis Batch: 71655

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 71251

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Gasoline Range Organics (GRO)-C6-C10			1000	897.3		mg/Kg		90	70 - 130
Diesel Range Organics (Over C10-C28)			1000	864.5		mg/Kg		86	70 - 130

QC Sample Results

Client: Ensolum
Project/Site: PLU 18 Brushy Draw TB

Job ID: 890-5982-1
SDG: 03C1558301

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

Lab Sample ID: LCS 880-71251/2-A
Matrix: Solid
Analysis Batch: 71655

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 71251

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1-Chlorooctane	81		70 - 130
o-Terphenyl	103		70 - 130

Lab Sample ID: LCSD 880-71251/3-A
Matrix: Solid
Analysis Batch: 71655

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 71251

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10			1000	1085		mg/Kg		108	70 - 130	19	20
Diesel Range Organics (Over C10-C28)			1000	1149	*1	mg/Kg		115	70 - 130	28	20

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
1-Chlorooctane	88		70 - 130
o-Terphenyl	108		70 - 130

Lab Sample ID: 890-5982-1 MS
Matrix: Solid
Analysis Batch: 71655

Client Sample ID: PH01
Prep Type: Total/NA
Prep Batch: 71251

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Gasoline Range Organics (GRO)-C6-C10	<50.1	U	997	816.2		mg/Kg		79	70 - 130
Diesel Range Organics (Over C10-C28)	<50.1	U *1	997	998.9		mg/Kg		97	70 - 130

Surrogate	MS %Recovery	MS Qualifier	Limits
1-Chlorooctane	88		70 - 130
o-Terphenyl	89		70 - 130

Lab Sample ID: 890-5982-1 MSD
Matrix: Solid
Analysis Batch: 71655

Client Sample ID: PH01
Prep Type: Total/NA
Prep Batch: 71251

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	<50.1	U	997	883.0		mg/Kg		86	70 - 130	8	20
Diesel Range Organics (Over C10-C28)	<50.1	U *1	997	1046		mg/Kg		102	70 - 130	5	20

Surrogate	MSD %Recovery	MSD Qualifier	Limits
1-Chlorooctane	91		70 - 130
o-Terphenyl	91		70 - 130

QC Sample Results

Client: Ensolum
Project/Site: PLU 18 Brushy Draw TB

Job ID: 890-5982-1
SDG: 03C1558301

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-71219/1-A
Matrix: Solid
Analysis Batch: 71364

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			01/22/24 18:57	1

Lab Sample ID: LCS 880-71219/2-A
Matrix: Solid
Analysis Batch: 71364

Client Sample ID: Lab Control Sample
Prep Type: Soluble

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride			250	269.5		mg/Kg		108	90 - 110		

Lab Sample ID: LCSD 880-71219/3-A
Matrix: Solid
Analysis Batch: 71364

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	267.9		mg/Kg		107	90 - 110	1	20

Lab Sample ID: 890-5982-4 MS
Matrix: Solid
Analysis Batch: 71364

Client Sample ID: PH02A
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride	73.6		251	346.1		mg/Kg		109	90 - 110		

Lab Sample ID: 890-5982-4 MSD
Matrix: Solid
Analysis Batch: 71364

Client Sample ID: PH02A
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	73.6		251	346.5		mg/Kg		109	90 - 110	0	20

Lab Sample ID: MB 880-71220/1-A
Matrix: Solid
Analysis Batch: 71365

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			01/22/24 16:11	1

Lab Sample ID: LCS 880-71220/2-A
Matrix: Solid
Analysis Batch: 71365

Client Sample ID: Lab Control Sample
Prep Type: Soluble

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride			250	242.3		mg/Kg		97	90 - 110		

Lab Sample ID: LCSD 880-71220/3-A
Matrix: Solid
Analysis Batch: 71365

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	243.9		mg/Kg		98	90 - 110	1	20

QC Sample Results

Client: Ensolum
Project/Site: PLU 18 Brushy Draw TB

Job ID: 890-5982-1
SDG: 03C1558301

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: 890-5982-14 MS
Matrix: Solid
Analysis Batch: 71365

Client Sample ID: FS06
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride	48.4		248	296.3		mg/Kg		100	90 - 110		

Lab Sample ID: 890-5982-14 MSD
Matrix: Solid
Analysis Batch: 71365

Client Sample ID: FS06
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	48.4		248	296.6		mg/Kg		100	90 - 110	0	20

QC Association Summary

Client: Ensolum
Project/Site: PLU 18 Brushy Draw TB

Job ID: 890-5982-1
SDG: 03C1558301

GC VOA

Prep Batch: 71343

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-5982-1	PH01	Total/NA	Solid	5035	
890-5982-2	PH01A	Total/NA	Solid	5035	
890-5982-10	FS02	Total/NA	Solid	5035	
890-5982-11	FS03	Total/NA	Solid	5035	
890-5982-12	FS04	Total/NA	Solid	5035	
890-5982-13	FS05	Total/NA	Solid	5035	
890-5982-14	FS06	Total/NA	Solid	5035	
890-5982-15	FS07	Total/NA	Solid	5035	
890-5982-16	SW01	Total/NA	Solid	5035	
MB 880-71343/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-71343/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-71343/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
880-38189-A-1-B MS	Matrix Spike	Total/NA	Solid	5035	
880-38189-A-1-C MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	

Prep Batch: 71537

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-5982-17	SW02	Total/NA	Solid	5035	
MB 880-71537/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-71537/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-71537/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
890-5981-A-1-E MS	Matrix Spike	Total/NA	Solid	5035	
890-5981-A-1-F MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	

Prep Batch: 71633

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-5982-3	PH02	Total/NA	Solid	5035	
890-5982-4	PH02A	Total/NA	Solid	5035	
890-5982-5	PH03	Total/NA	Solid	5035	
890-5982-6	PH03A	Total/NA	Solid	5035	
MB 880-71633/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-71633/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-71633/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
890-5988-A-1-E MS	Matrix Spike	Total/NA	Solid	5035	
890-5988-A-1-F MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	

Prep Batch: 71690

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 880-71690/5-A	Method Blank	Total/NA	Solid	5035	

Prep Batch: 71692

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-5982-7	PH04	Total/NA	Solid	5035	
890-5982-8	PH04A	Total/NA	Solid	5035	
890-5982-9	FS01	Total/NA	Solid	5035	
MB 880-71692/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-71692/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-71692/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
880-38301-A-1-B MS	Matrix Spike	Total/NA	Solid	5035	
880-38301-A-1-C MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	

QC Association Summary

Client: Ensolum
Project/Site: PLU 18 Brushy Draw TB

Job ID: 890-5982-1
SDG: 03C1558301

GC VOA

Analysis Batch: 71764

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-5982-1	PH01	Total/NA	Solid	8021B	71343
890-5982-2	PH01A	Total/NA	Solid	8021B	71343
890-5982-10	FS02	Total/NA	Solid	8021B	71343
890-5982-11	FS03	Total/NA	Solid	8021B	71343
890-5982-12	FS04	Total/NA	Solid	8021B	71343
890-5982-13	FS05	Total/NA	Solid	8021B	71343
890-5982-14	FS06	Total/NA	Solid	8021B	71343
890-5982-15	FS07	Total/NA	Solid	8021B	71343
890-5982-16	SW01	Total/NA	Solid	8021B	71343
MB 880-71343/5-A	Method Blank	Total/NA	Solid	8021B	71343
MB 880-71690/5-A	Method Blank	Total/NA	Solid	8021B	71690
LCS 880-71343/1-A	Lab Control Sample	Total/NA	Solid	8021B	71343
LCSD 880-71343/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	71343
880-38189-A-1-B MS	Matrix Spike	Total/NA	Solid	8021B	71343
880-38189-A-1-C MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	71343

Analysis Batch: 71772

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-5982-3	PH02	Total/NA	Solid	8021B	71633
890-5982-4	PH02A	Total/NA	Solid	8021B	71633
890-5982-5	PH03	Total/NA	Solid	8021B	71633
890-5982-6	PH03A	Total/NA	Solid	8021B	71633
MB 880-71633/5-A	Method Blank	Total/NA	Solid	8021B	71633
LCS 880-71633/1-A	Lab Control Sample	Total/NA	Solid	8021B	71633
LCSD 880-71633/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	71633
890-5988-A-1-E MS	Matrix Spike	Total/NA	Solid	8021B	71633
890-5988-A-1-F MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	71633

Analysis Batch: 71829

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-5982-1	PH01	Total/NA	Solid	Total BTEX	
890-5982-2	PH01A	Total/NA	Solid	Total BTEX	
890-5982-3	PH02	Total/NA	Solid	Total BTEX	
890-5982-4	PH02A	Total/NA	Solid	Total BTEX	
890-5982-5	PH03	Total/NA	Solid	Total BTEX	
890-5982-6	PH03A	Total/NA	Solid	Total BTEX	
890-5982-7	PH04	Total/NA	Solid	Total BTEX	
890-5982-8	PH04A	Total/NA	Solid	Total BTEX	
890-5982-9	FS01	Total/NA	Solid	Total BTEX	
890-5982-10	FS02	Total/NA	Solid	Total BTEX	
890-5982-11	FS03	Total/NA	Solid	Total BTEX	
890-5982-12	FS04	Total/NA	Solid	Total BTEX	
890-5982-13	FS05	Total/NA	Solid	Total BTEX	
890-5982-14	FS06	Total/NA	Solid	Total BTEX	
890-5982-15	FS07	Total/NA	Solid	Total BTEX	
890-5982-16	SW01	Total/NA	Solid	Total BTEX	
890-5982-17	SW02	Total/NA	Solid	Total BTEX	

Analysis Batch: 71915

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-5982-17	SW02	Total/NA	Solid	8021B	71537

QC Association Summary

Client: Ensolum
Project/Site: PLU 18 Brushy Draw TB

Job ID: 890-5982-1
SDG: 03C1558301

GC VOA (Continued)

Analysis Batch: 71915 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 880-71537/5-A	Method Blank	Total/NA	Solid	8021B	71537
LCS 880-71537/1-A	Lab Control Sample	Total/NA	Solid	8021B	71537
LCSD 880-71537/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	71537
890-5981-A-1-E MS	Matrix Spike	Total/NA	Solid	8021B	71537
890-5981-A-1-F MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	71537

Analysis Batch: 72000

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-5982-7	PH04	Total/NA	Solid	8021B	71692
890-5982-8	PH04A	Total/NA	Solid	8021B	71692
890-5982-9	FS01	Total/NA	Solid	8021B	71692
MB 880-71692/5-A	Method Blank	Total/NA	Solid	8021B	71692
LCS 880-71692/1-A	Lab Control Sample	Total/NA	Solid	8021B	71692
LCSD 880-71692/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	71692
880-38301-A-1-B MS	Matrix Spike	Total/NA	Solid	8021B	71692
880-38301-A-1-C MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	71692

GC Semi VOA

Prep Batch: 71251

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-5982-1	PH01	Total/NA	Solid	8015NM Prep	
890-5982-2	PH01A	Total/NA	Solid	8015NM Prep	
890-5982-3	PH02	Total/NA	Solid	8015NM Prep	
890-5982-4	PH02A	Total/NA	Solid	8015NM Prep	
890-5982-5	PH03	Total/NA	Solid	8015NM Prep	
890-5982-6	PH03A	Total/NA	Solid	8015NM Prep	
890-5982-7	PH04	Total/NA	Solid	8015NM Prep	
890-5982-8	PH04A	Total/NA	Solid	8015NM Prep	
890-5982-9	FS01	Total/NA	Solid	8015NM Prep	
890-5982-10	FS02	Total/NA	Solid	8015NM Prep	
890-5982-11	FS03	Total/NA	Solid	8015NM Prep	
890-5982-12	FS04	Total/NA	Solid	8015NM Prep	
890-5982-13	FS05	Total/NA	Solid	8015NM Prep	
890-5982-14	FS06	Total/NA	Solid	8015NM Prep	
890-5982-15	FS07	Total/NA	Solid	8015NM Prep	
890-5982-16	SW01	Total/NA	Solid	8015NM Prep	
890-5982-17	SW02	Total/NA	Solid	8015NM Prep	
MB 880-71251/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-71251/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-71251/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
890-5982-1 MS	PH01	Total/NA	Solid	8015NM Prep	
890-5982-1 MSD	PH01	Total/NA	Solid	8015NM Prep	

Analysis Batch: 71655

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-5982-1	PH01	Total/NA	Solid	8015B NM	71251
890-5982-2	PH01A	Total/NA	Solid	8015B NM	71251
890-5982-3	PH02	Total/NA	Solid	8015B NM	71251
890-5982-4	PH02A	Total/NA	Solid	8015B NM	71251
890-5982-5	PH03	Total/NA	Solid	8015B NM	71251

QC Association Summary

Client: Ensolum
Project/Site: PLU 18 Brushy Draw TB

Job ID: 890-5982-1
SDG: 03C1558301

GC Semi VOA (Continued)

Analysis Batch: 71655 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-5982-6	PH03A	Total/NA	Solid	8015B NM	71251
890-5982-7	PH04	Total/NA	Solid	8015B NM	71251
890-5982-8	PH04A	Total/NA	Solid	8015B NM	71251
890-5982-9	FS01	Total/NA	Solid	8015B NM	71251
890-5982-10	FS02	Total/NA	Solid	8015B NM	71251
890-5982-11	FS03	Total/NA	Solid	8015B NM	71251
890-5982-12	FS04	Total/NA	Solid	8015B NM	71251
890-5982-13	FS05	Total/NA	Solid	8015B NM	71251
890-5982-14	FS06	Total/NA	Solid	8015B NM	71251
890-5982-15	FS07	Total/NA	Solid	8015B NM	71251
890-5982-16	SW01	Total/NA	Solid	8015B NM	71251
890-5982-17	SW02	Total/NA	Solid	8015B NM	71251
MB 880-71251/1-A	Method Blank	Total/NA	Solid	8015B NM	71251
LCS 880-71251/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	71251
LCSD 880-71251/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	71251
890-5982-1 MS	PH01	Total/NA	Solid	8015B NM	71251
890-5982-1 MSD	PH01	Total/NA	Solid	8015B NM	71251

Analysis Batch: 71888

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-5982-1	PH01	Total/NA	Solid	8015 NM	
890-5982-2	PH01A	Total/NA	Solid	8015 NM	
890-5982-3	PH02	Total/NA	Solid	8015 NM	
890-5982-4	PH02A	Total/NA	Solid	8015 NM	
890-5982-5	PH03	Total/NA	Solid	8015 NM	
890-5982-6	PH03A	Total/NA	Solid	8015 NM	
890-5982-7	PH04	Total/NA	Solid	8015 NM	
890-5982-8	PH04A	Total/NA	Solid	8015 NM	
890-5982-9	FS01	Total/NA	Solid	8015 NM	
890-5982-10	FS02	Total/NA	Solid	8015 NM	
890-5982-11	FS03	Total/NA	Solid	8015 NM	
890-5982-12	FS04	Total/NA	Solid	8015 NM	
890-5982-13	FS05	Total/NA	Solid	8015 NM	
890-5982-14	FS06	Total/NA	Solid	8015 NM	
890-5982-15	FS07	Total/NA	Solid	8015 NM	
890-5982-16	SW01	Total/NA	Solid	8015 NM	
890-5982-17	SW02	Total/NA	Solid	8015 NM	

HPLC/IC

Leach Batch: 71219

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-5982-1	PH01	Soluble	Solid	DI Leach	
890-5982-2	PH01A	Soluble	Solid	DI Leach	
890-5982-3	PH02	Soluble	Solid	DI Leach	
890-5982-4	PH02A	Soluble	Solid	DI Leach	
890-5982-5	PH03	Soluble	Solid	DI Leach	
890-5982-6	PH03A	Soluble	Solid	DI Leach	
890-5982-7	PH04	Soluble	Solid	DI Leach	
890-5982-8	PH04A	Soluble	Solid	DI Leach	
890-5982-9	FS01	Soluble	Solid	DI Leach	

QC Association Summary

Client: Ensolum
Project/Site: PLU 18 Brushy Draw TB

Job ID: 890-5982-1
SDG: 03C1558301

HPLC/IC (Continued)

Leach Batch: 71219 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-5982-10	FS02	Soluble	Solid	DI Leach	
890-5982-11	FS03	Soluble	Solid	DI Leach	
890-5982-12	FS04	Soluble	Solid	DI Leach	
890-5982-13	FS05	Soluble	Solid	DI Leach	
MB 880-71219/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-71219/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-71219/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
890-5982-4 MS	PH02A	Soluble	Solid	DI Leach	
890-5982-4 MSD	PH02A	Soluble	Solid	DI Leach	

Leach Batch: 71220

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-5982-14	FS06	Soluble	Solid	DI Leach	
890-5982-15	FS07	Soluble	Solid	DI Leach	
890-5982-16	SW01	Soluble	Solid	DI Leach	
890-5982-17	SW02	Soluble	Solid	DI Leach	
MB 880-71220/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-71220/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-71220/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
890-5982-14 MS	FS06	Soluble	Solid	DI Leach	
890-5982-14 MSD	FS06	Soluble	Solid	DI Leach	

Analysis Batch: 71364

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-5982-1	PH01	Soluble	Solid	300.0	71219
890-5982-2	PH01A	Soluble	Solid	300.0	71219
890-5982-3	PH02	Soluble	Solid	300.0	71219
890-5982-4	PH02A	Soluble	Solid	300.0	71219
890-5982-5	PH03	Soluble	Solid	300.0	71219
890-5982-6	PH03A	Soluble	Solid	300.0	71219
890-5982-7	PH04	Soluble	Solid	300.0	71219
890-5982-8	PH04A	Soluble	Solid	300.0	71219
890-5982-9	FS01	Soluble	Solid	300.0	71219
890-5982-10	FS02	Soluble	Solid	300.0	71219
890-5982-11	FS03	Soluble	Solid	300.0	71219
890-5982-12	FS04	Soluble	Solid	300.0	71219
890-5982-13	FS05	Soluble	Solid	300.0	71219
MB 880-71219/1-A	Method Blank	Soluble	Solid	300.0	71219
LCS 880-71219/2-A	Lab Control Sample	Soluble	Solid	300.0	71219
LCSD 880-71219/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	71219
890-5982-4 MS	PH02A	Soluble	Solid	300.0	71219
890-5982-4 MSD	PH02A	Soluble	Solid	300.0	71219

Analysis Batch: 71365

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-5982-14	FS06	Soluble	Solid	300.0	71220
890-5982-15	FS07	Soluble	Solid	300.0	71220
890-5982-16	SW01	Soluble	Solid	300.0	71220
890-5982-17	SW02	Soluble	Solid	300.0	71220
MB 880-71220/1-A	Method Blank	Soluble	Solid	300.0	71220
LCS 880-71220/2-A	Lab Control Sample	Soluble	Solid	300.0	71220

QC Association Summary

Client: Ensolum
Project/Site: PLU 18 Brushy Draw TB

Job ID: 890-5982-1
SDG: 03C1558301

HPLC/IC (Continued)

Analysis Batch: 71365 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCSD 880-71220/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	71220
890-5982-14 MS	FS06	Soluble	Solid	300.0	71220
890-5982-14 MSD	FS06	Soluble	Solid	300.0	71220

Lab Chronicle

Client: Ensolum
Project/Site: PLU 18 Brushy Draw TB

Job ID: 890-5982-1
SDG: 03C1558301

Client Sample ID: PH01

Date Collected: 01/17/24 09:30
Date Received: 01/17/24 16:35

Lab Sample ID: 890-5982-1
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	71343	01/22/24 14:55	EL	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	71764	01/29/24 12:17	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			71829	01/29/24 12:17	SM	EET MID
Total/NA	Analysis	8015 NM		1			71888	01/26/24 19:59	SM	EET MID
Total/NA	Prep	8015NM Prep			9.99 g	10 mL	71251	01/19/24 17:02	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	71655	01/26/24 19:59	SM	EET MID
Soluble	Leach	DI Leach			5.04 g	50 mL	71219	01/19/24 14:36	SA	EET MID
Soluble	Analysis	300.0		5	50 mL	50 mL	71364	01/22/24 20:32	SMC	EET MID

Client Sample ID: PH01A

Date Collected: 01/17/24 09:40
Date Received: 01/17/24 16:35

Lab Sample ID: 890-5982-2
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			5.00 g	5 mL	71343	01/22/24 14:55	EL	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	71764	01/29/24 12:38	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			71829	01/29/24 12:38	SM	EET MID
Total/NA	Analysis	8015 NM		1			71888	01/26/24 21:05	SM	EET MID
Total/NA	Prep	8015NM Prep			9.98 g	10 mL	71251	01/19/24 17:02	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	71655	01/26/24 21:05	SM	EET MID
Soluble	Leach	DI Leach			4.98 g	50 mL	71219	01/19/24 14:36	SA	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	71364	01/22/24 20:39	SMC	EET MID

Client Sample ID: PH02

Date Collected: 01/17/24 09:45
Date Received: 01/17/24 16:35

Lab Sample ID: 890-5982-3
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			5.03 g	5 mL	71633	01/25/24 18:00	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	71772	01/30/24 05:11	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			71829	01/30/24 05:11	SM	EET MID
Total/NA	Analysis	8015 NM		1			71888	01/26/24 21:27	SM	EET MID
Total/NA	Prep	8015NM Prep			9.92 g	10 mL	71251	01/19/24 17:02	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	71655	01/26/24 21:27	SM	EET MID
Soluble	Leach	DI Leach			4.97 g	50 mL	71219	01/19/24 14:36	SA	EET MID
Soluble	Analysis	300.0		5	50 mL	50 mL	71364	01/22/24 20:46	SMC	EET MID

Client Sample ID: PH02A

Date Collected: 01/17/24 09:55
Date Received: 01/17/24 16:35

Lab Sample ID: 890-5982-4
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			5.01 g	5 mL	71633	01/29/24 10:00	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	71772	01/30/24 05:32	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			71829	01/30/24 05:32	SM	EET MID

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Lab Chronicle

Client: Ensolum
Project/Site: PLU 18 Brushy Draw TB

Job ID: 890-5982-1
SDG: 03C1558301

Client Sample ID: PH02A
Date Collected: 01/17/24 09:55
Date Received: 01/17/24 16:35

Lab Sample ID: 890-5982-4
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			71888	01/26/24 21:48	SM	EET MID
Total/NA	Prep	8015NM Prep			9.90 g	10 mL	71251	01/19/24 17:02	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	71655	01/26/24 21:48	SM	EET MID
Soluble	Leach	DI Leach			4.99 g	50 mL	71219	01/19/24 14:36	SA	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	71364	01/22/24 20:53	SMC	EET MID

Client Sample ID: PH03
Date Collected: 01/17/24 10:30
Date Received: 01/17/24 16:35

Lab Sample ID: 890-5982-5
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.97 g	5 mL	71633	01/29/24 10:00	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	71772	01/30/24 05:52	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			71829	01/30/24 05:52	SM	EET MID
Total/NA	Analysis	8015 NM		1			71888	01/26/24 22:11	SM	EET MID
Total/NA	Prep	8015NM Prep			10.04 g	10 mL	71251	01/19/24 17:02	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	71655	01/26/24 22:11	SM	EET MID
Soluble	Leach	DI Leach			5.02 g	50 mL	71219	01/19/24 14:36	SA	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	71364	01/22/24 21:13	SMC	EET MID

Client Sample ID: PH03A
Date Collected: 01/17/24 10:35
Date Received: 01/17/24 16:35

Lab Sample ID: 890-5982-6
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.99 g	5 mL	71633	01/29/24 10:00	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	71772	01/30/24 06:13	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			71829	01/30/24 06:13	SM	EET MID
Total/NA	Analysis	8015 NM		1			71888	01/26/24 22:34	SM	EET MID
Total/NA	Prep	8015NM Prep			10.06 g	10 mL	71251	01/19/24 17:02	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	71655	01/26/24 22:34	SM	EET MID
Soluble	Leach	DI Leach			5.05 g	50 mL	71219	01/19/24 14:36	SA	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	71364	01/22/24 21:20	SMC	EET MID

Client Sample ID: PH04
Date Collected: 01/17/24 10:55
Date Received: 01/17/24 16:35

Lab Sample ID: 890-5982-7
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.01 g	5 mL	71692	01/26/24 11:33	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	72000	01/31/24 11:56	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			71829	01/31/24 11:56	SM	EET MID
Total/NA	Analysis	8015 NM		1			71888	01/26/24 22:57	SM	EET MID
Total/NA	Prep	8015NM Prep			10.09 g	10 mL	71251	01/19/24 17:02	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	71655	01/26/24 22:57	SM	EET MID

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Lab Chronicle

Client: Ensolum
Project/Site: PLU 18 Brushy Draw TB

Job ID: 890-5982-1
SDG: 03C1558301

Client Sample ID: PH04

Date Collected: 01/17/24 10:55
Date Received: 01/17/24 16:35

Lab Sample ID: 890-5982-7

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			4.96 g	50 mL	71219	01/19/24 14:36	SA	EET MID
Soluble	Analysis	300.0		5	50 mL	50 mL	71364	01/22/24 21:41	SMC	EET MID

Client Sample ID: PH04A

Date Collected: 01/17/24 11:00
Date Received: 01/17/24 16:35

Lab Sample ID: 890-5982-8

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.97 g	5 mL	71692	01/26/24 11:33	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	72000	01/31/24 12:17	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			71829	01/31/24 12:17	SM	EET MID
Total/NA	Analysis	8015 NM		1			71888	01/26/24 23:19	SM	EET MID
Total/NA	Prep	8015NM Prep			9.97 g	10 mL	71251	01/19/24 17:02	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	71655	01/26/24 23:19	SM	EET MID
Soluble	Leach	DI Leach			4.98 g	50 mL	71219	01/19/24 14:36	SA	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	71364	01/22/24 21:47	SMC	EET MID

Client Sample ID: FS01

Date Collected: 01/17/24 13:40
Date Received: 01/17/24 16:35

Lab Sample ID: 890-5982-9

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.99 g	5 mL	71692	01/26/24 11:33	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	72000	01/31/24 12:37	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			71829	01/31/24 12:37	SM	EET MID
Total/NA	Analysis	8015 NM		1			71888	01/26/24 23:40	SM	EET MID
Total/NA	Prep	8015NM Prep			9.92 g	10 mL	71251	01/19/24 17:02	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	71655	01/26/24 23:40	SM	EET MID
Soluble	Leach	DI Leach			5.01 g	50 mL	71219	01/19/24 14:36	SA	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	71364	01/22/24 21:54	SMC	EET MID

Client Sample ID: FS02

Date Collected: 01/17/24 13:45
Date Received: 01/17/24 16:35

Lab Sample ID: 890-5982-10

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.96 g	5 mL	71343	01/22/24 14:55	EL	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	71764	01/29/24 17:35	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			71829	01/29/24 17:35	SM	EET MID
Total/NA	Analysis	8015 NM		1			71888	01/27/24 00:04	SM	EET MID
Total/NA	Prep	8015NM Prep			9.90 g	10 mL	71251	01/19/24 17:02	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	71655	01/27/24 00:04	SM	EET MID
Soluble	Leach	DI Leach			4.97 g	50 mL	71219	01/19/24 14:36	SA	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	71364	01/22/24 22:01	SMC	EET MID

Lab Chronicle

Client: Ensolum
Project/Site: PLU 18 Brushy Draw TB

Job ID: 890-5982-1
SDG: 03C1558301

Client Sample ID: FS03

Lab Sample ID: 890-5982-11
Matrix: Solid
Date Collected: 01/17/24 13:50
Date Received: 01/17/24 16:35

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	71343	01/22/24 14:55	EL	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	71764	01/29/24 17:55	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			71829	01/29/24 17:55	SM	EET MID
Total/NA	Analysis	8015 NM		1			71888	01/27/24 00:49	SM	EET MID
Total/NA	Prep	8015NM Prep			10.00 g	10 mL	71251	01/19/24 17:02	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	71655	01/27/24 00:49	SM	EET MID
Soluble	Leach	DI Leach			4.96 g	50 mL	71219	01/19/24 14:36	SA	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	71364	01/22/24 22:08	SMC	EET MID

Client Sample ID: FS04

Lab Sample ID: 890-5982-12
Matrix: Solid
Date Collected: 01/17/24 14:00
Date Received: 01/17/24 16:35

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.04 g	5 mL	71343	01/22/24 14:55	EL	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	71764	01/29/24 18:16	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			71829	01/29/24 18:16	SM	EET MID
Total/NA	Analysis	8015 NM		1			71888	01/27/24 01:12	SM	EET MID
Total/NA	Prep	8015NM Prep			10.08 g	10 mL	71251	01/19/24 17:02	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	71655	01/27/24 01:12	SM	EET MID
Soluble	Leach	DI Leach			4.96 g	50 mL	71219	01/19/24 14:36	SA	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	71364	01/22/24 22:15	SMC	EET MID

Client Sample ID: FS05

Lab Sample ID: 890-5982-13
Matrix: Solid
Date Collected: 01/17/24 14:10
Date Received: 01/17/24 16:35

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	71343	01/22/24 14:55	EL	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	71764	01/29/24 18:36	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			71829	01/29/24 18:36	SM	EET MID
Total/NA	Analysis	8015 NM		1			71888	01/27/24 01:33	SM	EET MID
Total/NA	Prep	8015NM Prep			10.09 g	10 mL	71251	01/19/24 17:02	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	71655	01/27/24 01:33	SM	EET MID
Soluble	Leach	DI Leach			5.02 g	50 mL	71219	01/19/24 14:36	SA	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	71364	01/22/24 22:22	SMC	EET MID

Client Sample ID: FS06

Lab Sample ID: 890-5982-14
Matrix: Solid
Date Collected: 01/17/24 14:15
Date Received: 01/17/24 16:35

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	71343	01/22/24 14:55	EL	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	71764	01/29/24 18:57	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			71829	01/29/24 18:57	SM	EET MID

Eurofins Carlsbad

Lab Chronicle

Client: Ensolum
Project/Site: PLU 18 Brushy Draw TB

Job ID: 890-5982-1
SDG: 03C1558301

Client Sample ID: FS06
Date Collected: 01/17/24 14:15
Date Received: 01/17/24 16:35

Lab Sample ID: 890-5982-14
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			71888	01/27/24 01:56	SM	EET MID
Total/NA	Prep	8015NM Prep			9.94 g	10 mL	71251	01/19/24 17:02	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	71655	01/27/24 01:56	SM	EET MID
Soluble	Leach	DI Leach			5.04 g	50 mL	71220	01/19/24 14:41	SA	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	71365	01/22/24 16:26	SMC	EET MID

Client Sample ID: FS07
Date Collected: 01/17/24 14:20
Date Received: 01/17/24 16:35

Lab Sample ID: 890-5982-15
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	71343	01/22/24 14:55	EL	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	71764	01/29/24 19:17	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			71829	01/29/24 19:17	SM	EET MID
Total/NA	Analysis	8015 NM		1			71888	01/27/24 02:19	SM	EET MID
Total/NA	Prep	8015NM Prep			9.98 g	10 mL	71251	01/19/24 17:02	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	71655	01/27/24 02:19	SM	EET MID
Soluble	Leach	DI Leach			4.95 g	50 mL	71220	01/19/24 14:41	SA	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	71365	01/22/24 16:42	SMC	EET MID

Client Sample ID: SW01
Date Collected: 01/17/24 14:25
Date Received: 01/17/24 16:35

Lab Sample ID: 890-5982-16
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	71343	01/22/24 14:55	EL	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	71764	01/29/24 19:38	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			71829	01/29/24 19:38	SM	EET MID
Total/NA	Analysis	8015 NM		1			71888	01/27/24 02:41	SM	EET MID
Total/NA	Prep	8015NM Prep			9.90 g	10 mL	71251	01/19/24 17:02	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	71655	01/27/24 02:41	SM	EET MID
Soluble	Leach	DI Leach			4.96 g	50 mL	71220	01/19/24 14:41	SA	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	71365	01/22/24 16:47	SMC	EET MID

Client Sample ID: SW02
Date Collected: 01/17/24 14:30
Date Received: 01/17/24 16:35

Lab Sample ID: 890-5982-17
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	71537	01/24/24 15:35	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	71915	01/30/24 13:32	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			71829	01/30/24 13:32	SM	EET MID
Total/NA	Analysis	8015 NM		1			71888	01/27/24 03:03	SM	EET MID
Total/NA	Prep	8015NM Prep			10.10 g	10 mL	71251	01/19/24 17:02	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	71655	01/27/24 03:03	SM	EET MID

Lab Chronicle

Client: Ensolum
Project/Site: PLU 18 Brushy Draw TB

Job ID: 890-5982-1
SDG: 03C1558301

Client Sample ID: SW02

Date Collected: 01/17/24 14:30
Date Received: 01/17/24 16:35

Lab Sample ID: 890-5982-17

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			5.01 g	50 mL	71220	01/19/24 14:41	SA	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	71365	01/22/24 16:52	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 18 Brushy Draw TB

Job ID: 890-5982-1
SDG: 03C1558301

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	T104704400-23-26	06-30-24

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 18 Brushy Draw TB

Job ID: 890-5982-1
SDG: 03C1558301

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 18 Brushy Draw TB

Job ID: 890-5982-1
SDG: 03C1558301

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-5982-1	PH01	Solid	01/17/24 09:30	01/17/24 16:35	0.5'
890-5982-2	PH01A	Solid	01/17/24 09:40	01/17/24 16:35	2'
890-5982-3	PH02	Solid	01/17/24 09:45	01/17/24 16:35	0.5'
890-5982-4	PH02A	Solid	01/17/24 09:55	01/17/24 16:35	2'
890-5982-5	PH03	Solid	01/17/24 10:30	01/17/24 16:35	0.5'
890-5982-6	PH03A	Solid	01/17/24 10:35	01/17/24 16:35	1'
890-5982-7	PH04	Solid	01/17/24 10:55	01/17/24 16:35	0.5'
890-5982-8	PH04A	Solid	01/17/24 11:00	01/17/24 16:35	1'
890-5982-9	FS01	Solid	01/17/24 13:40	01/17/24 16:35	1'
890-5982-10	FS02	Solid	01/17/24 13:45	01/17/24 16:35	1'
890-5982-11	FS03	Solid	01/17/24 13:50	01/17/24 16:35	1'
890-5982-12	FS04	Solid	01/17/24 14:00	01/17/24 16:35	1'
890-5982-13	FS05	Solid	01/17/24 14:10	01/17/24 16:35	1'
890-5982-14	FS06	Solid	01/17/24 14:15	01/17/24 16:35	1'
890-5982-15	FS07	Solid	01/17/24 14:20	01/17/24 16:35	1'
890-5982-16	SW01	Solid	01/17/24 14:25	01/17/24 16:35	0-1'
890-5982-17	SW02	Solid	01/17/24 14:30	01/17/24 16:35	0-1'

Loc: 890
5982

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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
Little Rock, AR (501) 224-5060

890-5982 Chain of Custody

Page 1 of 2

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, NM 88220	City, State ZIP:	Carlsbad, NM 88220
Phone:	(989) 854-0852	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 18 Brushy Draw TB	Turn Around	☐ Routine ☐ Rush
Project Number:	03C1558301	Due Date:	
Project Location:	32.13277, -103.92829	TAT starts the day received by the lab, if received by 4:30pm	
Sampler's Name:	Mariaha O'Dell		
PO #:			

SAMPLE RECEIPT				
Samples Received Intact:	(Yes) No	Thermometer ID:	Tanac	
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	

Temp Blank: (Yes) No Wet Ice: (Yes) No

ANALYSIS REQUEST

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Grab/ Comp	# of Cont	Pres. Code	Parameters: Chlorides	BTEX	TPH
PH01	S	1/17/24	9:30	0.5'	G	1		X	X	X
PH01A			9:40	2	G					
PH02			9:45	0.5'	G					
PH02A			9:55	2	G					
PH03			10:30	0.5'	G					
PH03A			10:35	1	G					
PH04			10:55	0.5'	G					
PH04A			11:00	1'	G					
FS01			13:40	1'	C					
FS02			13:45	1'	C					

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

Sample Comments
Cost center: 1056711001
Incident #: NAPP2334061921
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		16:35 1/17	2		
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
Little Rock, AR (501) 224-5060

Work Order No: _____

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, NM 88220	City, State ZIP:	Carlsbad, NM 88220
Phone:	(989) 854-0852	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 18 Brushy Draw TB	Turn Around	
Project Number:	03C1558301	☐ Routine ☐ Rush	
Project Location:	32.13277, -103.92829	Due Date:	
Sampler's Name:	Mariaha 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:		
Cooler Custody Seals:	Yes No N/A	Correction Factor:		
Sample Custody Seals:	Yes No N/A	Temperature Reading:		
Total Containers:		Corrected Temperature:		

Preservative Codes
None: NO — DI Water: H_2O
Cool: Cool — MeOH: Me
HCL: HC — HNO_3
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	Sample Comments
FS03	S	1/17/24	13:50	1'	C	1	X	X	X	Cost center: 1051711001
FS04			14:00	1'						Incident #:
FS05			14:10	1'						NAPP2334060921
FS06			14:15	1'						Ben Belill:
FS07			14:20	1'						bbelill@ensolum.com
SW01			14:25	0-1'						
SW02			14:30	0-1'						

ND

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		16:35 1/17	2		
3			4		
5			6		

Revised Date: 08/25/2020 Rev. 2020.2

Login Sample Receipt Checklist

Client: Ensolum

Job Number: 890-5982-1
SDG Number: 03C1558301

Login Number: 5982
List Number: 1
Creator: Lopez, Abraham

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: 890-5982-1
SDG Number: 03C1558301

Login Number: 5982
List Number: 2
Creator: Rodriguez, Leticia

List Source: Eurofins Midland
List Creation: 01/19/24 03:48 PM

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 2/1/2024 12:45:43 PM

JOB DESCRIPTION

PLU 18 Brushy Draw TB
03C1558301

JOB NUMBER

890-5992-1

Eurofins Carlsbad
1089 N Canal St.
Carlsbad NM 88220

See page two for job notes and contact information.

my EOL

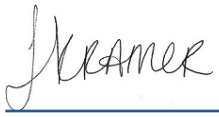
Eurofins Carlsbad

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
2/1/2024 12:45:43 PM

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

Client: Ensolum
Project/Site: PLU 18 Brushy Draw TB

Laboratory Job ID: 890-5992-1
SDG: 03C1558301

Table of Contents

Definitions/Glossary

Client: Ensolum
Project/Site: PLU 18 Brushy Draw TB

Job ID: 890-5992-1
SDG: 03C1558301

Qualifiers

GC VOA

Qualifier	Qualifier Description
*+	LCS and/or LCSD is outside acceptance limits, high biased.
S1-	Surrogate recovery exceeds control limits, low 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
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 Job ID: 890-5992-1
Project: PLU 18 Brushy Draw TB

Job ID: 890-5992-1 Eurofins Carlsbad

Job Narrative
890-5992-1

Analytical test results meet all requirements of the associated regulatory program listed on the Accreditation/Certification Summary Page unless otherwise noted under the individual analysis. Data qualifiers are applied to indicate exceptions. Noncompliant quality control (QC) is further explained in narrative comments.

- Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD may be performed, unless otherwise specified in the method.
- Surrogate and/or isotope dilution analyte recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in the narrative.

Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.

Receipt
The samples were received on 1/18/2024 3:24 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 2.4°C

Receipt Exceptions
The following samples were received and analyzed from an unpreserved bulk soil jar: FS08 (890-5992-1), FS09 (890-5992-2), FS10 (890-5992-3), FS11 (890-5992-4), FS12 (890-5992-5), FS13 (890-5992-6), SW03 (890-5992-7), FS14 (890-5992-8), FS15 (890-5992-9), FS16 (890-5992-10), FS17 (890-5992-11), FS18 (890-5992-12), FS19 (890-5992-13), SW04 (890-5992-14) and SW05 (890-5992-15).

GC VOA
Method 8021B: The surrogate recovery for the blank associated with preparation batch 880-71537 and 880-71635 and analytical batch 880-71915 was outside the control limits.

Method 8021B: Surrogate recovery for the following samples were outside control limits: FS14 (890-5992-8) and FS16 (890-5992-10). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

Method 8021B: The continuing calibration verification (CCV) associated with batch 880-71915 recovered over the higher control limit for Benzene, Toluene, Ethylbenzene, m-Xylene & p-Xylene and o-Xylene. The samples associated with this CCV were ran within 12 hours of passing CCV; therefore, the data have been reported.

Method 8021B: Surrogate recovery for the following samples were outside control limits: FS19 (890-5992-13) and SW04 (890-5992-14). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

Method 8021B: The laboratory control sample (LCS) associated with preparation batch 880-71635 and analytical batch 880-71915 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.

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 880-71509 and analytical batch 880-71993 was outside the upper control limits.

Method 8015MOD_NM: Surrogate recovery for the following samples were outside control limits: FS08 (890-5992-1), FS10 (890-5992-3) and FS11 (890-5992-4). 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: SW03 (890-5992-7), FS14 (890-5992-8) and FS19 (890-5992-13). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

Method 8015MOD_NM: The method blank for preparation batch 880-71509 and analytical batch 880-71993 contained Gasoline Range Organics (GRO)-C6-C10 and Diesel Range Organics (Over C10-C28) above the method detection limit. This target analyte

Case Narrative

Client: Ensolum Job ID: 890-5992-1
Project: PLU 18 Brushy Draw TB

Job ID: 890-5992-1 (Continued) Eurofins Carlsbad

concentration was less than the reporting limit (RL) in the method blank; therefore, re-extraction and/or re-analysis of samples 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 18 Brushy Draw TB

Job ID: 890-5992-1
SDG: 03C1558301

Client Sample ID: FS08

Lab Sample ID: 890-5992-1
Matrix: Solid
Date Collected: 01/18/24 08:30
Date Received: 01/18/24 15:24

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		01/25/24 18:02	01/30/24 21:50	1
Toluene	<0.00201	U	0.00201		mg/Kg		01/25/24 18:02	01/30/24 21:50	1
Ethylbenzene	<0.00201	U *+	0.00201		mg/Kg		01/25/24 18:02	01/30/24 21:50	1
m-Xylene & p-Xylene	<0.00402	U *+	0.00402		mg/Kg		01/25/24 18:02	01/30/24 21:50	1
o-Xylene	<0.00201	U *+	0.00201		mg/Kg		01/25/24 18:02	01/30/24 21:50	1
Xylenes, Total	<0.00402	U *+	0.00402		mg/Kg		01/25/24 18:02	01/30/24 21:50	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*75*		*70 - 130*	*01/25/24 18:02*	*01/30/24 21:50*	*1*
1,4-Difluorobenzene (Surr)	*83*		*70 - 130*	*01/25/24 18:02*	*01/30/24 21:50*	*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			01/30/24 21:50	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.6	U	49.6		mg/Kg			01/31/24 10:47	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	<49.6	U	49.6		mg/Kg		01/24/24 10:27	01/31/24 10:47	1
Diesel Range Organics (Over C10-C28)	<49.6	U	49.6		mg/Kg		01/24/24 10:27	01/31/24 10:47	1
OII Range Organics (Over C28-C36)	<49.6	U	49.6		mg/Kg		01/24/24 10:27	01/31/24 10:47	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*134*	*S1+*	*70 - 130*	*01/24/24 10:27*	*01/31/24 10:47*	*1*
o-Terphenyl	*105*		*70 - 130*	*01/24/24 10:27*	*01/31/24 10:47*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**78.8**		5.02		mg/Kg			01/24/24 09:57	1

Client Sample ID: FS09

Lab Sample ID: 890-5992-2
Matrix: Solid
Date Collected: 01/18/24 08:35
Date Received: 01/18/24 15:24

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		01/25/24 18:02	01/30/24 22:10	1
Toluene	<0.00199	U	0.00199		mg/Kg		01/25/24 18:02	01/30/24 22:10	1
Ethylbenzene	<0.00199	U *+	0.00199		mg/Kg		01/25/24 18:02	01/30/24 22:10	1
m-Xylene & p-Xylene	<0.00398	U *+	0.00398		mg/Kg		01/25/24 18:02	01/30/24 22:10	1
o-Xylene	<0.00199	U *+	0.00199		mg/Kg		01/25/24 18:02	01/30/24 22:10	1
Xylenes, Total	<0.00398	U *+	0.00398		mg/Kg		01/25/24 18:02	01/30/24 22:10	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*82*		*70 - 130*	*01/25/24 18:02*	*01/30/24 22:10*	*1*
1,4-Difluorobenzene (Surr)	*81*		*70 - 130*	*01/25/24 18:02*	*01/30/24 22:10*	*1*

Client Sample Results

Client: Ensolum
Project/Site: PLU 18 Brushy Draw TB

Job ID: 890-5992-1
SDG: 03C1558301

Client Sample ID: FS09

Lab Sample ID: 890-5992-2
Matrix: Solid
Date Collected: 01/18/24 08:35
Date Received: 01/18/24 15:24

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			01/30/24 22:10	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.7	U	49.7		mg/Kg			01/31/24 11:50	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	<49.7	U	49.7		mg/Kg		01/24/24 10:27	01/31/24 11:50	1
Diesel Range Organics (Over C10-C28)	<49.7	U	49.7		mg/Kg		01/24/24 10:27	01/31/24 11:50	1
OII Range Organics (Over C28-C36)	<49.7	U	49.7		mg/Kg		01/24/24 10:27	01/31/24 11:50	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*120*		*70 - 130*	*01/24/24 10:27*	*01/31/24 11:50*	*1*
o-Terphenyl	*91*		*70 - 130*	*01/24/24 10:27*	*01/31/24 11:50*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**23.4**		5.03		mg/Kg			01/24/24 10:12	1

Client Sample ID: FS10

Lab Sample ID: 890-5992-3
Matrix: Solid
Date Collected: 01/18/24 08:40
Date Received: 01/18/24 15:24

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		01/25/24 18:02	01/30/24 22:31	1
Toluene	<0.00199	U	0.00199		mg/Kg		01/25/24 18:02	01/30/24 22:31	1
Ethylbenzene	<0.00199	U *+	0.00199		mg/Kg		01/25/24 18:02	01/30/24 22:31	1
m-Xylene & p-Xylene	<0.00398	U *+	0.00398		mg/Kg		01/25/24 18:02	01/30/24 22:31	1
o-Xylene	<0.00199	U *+	0.00199		mg/Kg		01/25/24 18:02	01/30/24 22:31	1
Xylenes, Total	<0.00398	U *+	0.00398		mg/Kg		01/25/24 18:02	01/30/24 22:31	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*82*		*70 - 130*	*01/25/24 18:02*	*01/30/24 22:31*	*1*
1,4-Difluorobenzene (Surr)	*85*		*70 - 130*	*01/25/24 18:02*	*01/30/24 22:31*	*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			01/30/24 22:31	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.5	U	49.5		mg/Kg			01/31/24 12:12	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	<49.5	U	49.5		mg/Kg		01/24/24 10:27	01/31/24 12:12	1
Diesel Range Organics (Over C10-C28)	<49.5	U	49.5		mg/Kg		01/24/24 10:27	01/31/24 12:12	1

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Client Sample Results

Client: Ensolum
Project/Site: PLU 18 Brushy Draw TB

Job ID: 890-5992-1
SDG: 03C1558301

Client Sample ID: FS10

Lab Sample ID: 890-5992-3
Matrix: Solid
Date Collected: 01/18/24 08:40
Date Received: 01/18/24 15:24

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)	<49.5	U	49.5		mg/Kg		01/24/24 10:27	01/31/24 12:12	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*148*	*S1+*	*70 - 130*	*01/24/24 10:27*	*01/31/24 12:12*	*1*
o-Terphenyl	*118*		*70 - 130*	*01/24/24 10:27*	*01/31/24 12:12*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**57.9**		4.97		mg/Kg			01/24/24 10:18	1

Client Sample ID: FS11

Lab Sample ID: 890-5992-4
Matrix: Solid
Date Collected: 01/18/24 08:45
Date Received: 01/18/24 15:24

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		01/25/24 18:02	01/30/24 22:51	1
Toluene	<0.00200	U	0.00200		mg/Kg		01/25/24 18:02	01/30/24 22:51	1
Ethylbenzene	<0.00200	U *+	0.00200		mg/Kg		01/25/24 18:02	01/30/24 22:51	1
m-Xylene & p-Xylene	<0.00399	U *+	0.00399		mg/Kg		01/25/24 18:02	01/30/24 22:51	1
o-Xylene	<0.00200	U *+	0.00200		mg/Kg		01/25/24 18:02	01/30/24 22:51	1
Xylenes, Total	<0.00399	U *+	0.00399		mg/Kg		01/25/24 18:02	01/30/24 22:51	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*78*		*70 - 130*	*01/25/24 18:02*	*01/30/24 22:51*	*1*
1,4-Difluorobenzene (Surr)	*77*		*70 - 130*	*01/25/24 18:02*	*01/30/24 22:51*	*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			01/30/24 22:51	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			01/31/24 12:33	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		01/24/24 10:27	01/31/24 12:33	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		01/24/24 10:27	01/31/24 12:33	1
OII Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		01/24/24 10:27	01/31/24 12:33	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*138*	*S1+*	*70 - 130*	*01/24/24 10:27*	*01/31/24 12:33*	*1*
o-Terphenyl	*108*		*70 - 130*	*01/24/24 10:27*	*01/31/24 12:33*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**35.5**		4.97		mg/Kg			01/24/24 10:23	1

Client Sample Results

Client: Ensolum
Project/Site: PLU 18 Brushy Draw TB

Job ID: 890-5992-1
SDG: 03C1558301

Client Sample ID: FS12

Lab Sample ID: 890-5992-5
Matrix: Solid
Date Collected: 01/18/24 08:50
Date Received: 01/18/24 15:24

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		01/25/24 18:02	01/30/24 23:12	1
Toluene	<0.00201	U	0.00201		mg/Kg		01/25/24 18:02	01/30/24 23:12	1
Ethylbenzene	<0.00201	U *+	0.00201		mg/Kg		01/25/24 18:02	01/30/24 23:12	1
m-Xylene & p-Xylene	<0.00402	U *+	0.00402		mg/Kg		01/25/24 18:02	01/30/24 23:12	1
o-Xylene	<0.00201	U *+	0.00201		mg/Kg		01/25/24 18:02	01/30/24 23:12	1
Xylenes, Total	<0.00402	U *+	0.00402		mg/Kg		01/25/24 18:02	01/30/24 23:12	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*79*		*70 - 130*	*01/25/24 18:02*	*01/30/24 23:12*	*1*
1,4-Difluorobenzene (Surr)	*77*		*70 - 130*	*01/25/24 18:02*	*01/30/24 23:12*	*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			01/30/24 23:12	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.6	U	49.6		mg/Kg			01/31/24 12:55	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	<49.6	U	49.6		mg/Kg		01/24/24 10:27	01/31/24 12:55	1
Diesel Range Organics (Over C10-C28)	<49.6	U	49.6		mg/Kg		01/24/24 10:27	01/31/24 12:55	1
OII Range Organics (Over C28-C36)	<49.6	U	49.6		mg/Kg		01/24/24 10:27	01/31/24 12:55	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*127*		*70 - 130*	*01/24/24 10:27*	*01/31/24 12:55*	*1*
o-Terphenyl	*96*		*70 - 130*	*01/24/24 10:27*	*01/31/24 12:55*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**245**		4.96		mg/Kg			01/24/24 10:28	1

Client Sample ID: FS13

Lab Sample ID: 890-5992-6
Matrix: Solid
Date Collected: 01/18/24 09:35
Date Received: 01/18/24 15:24

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		01/25/24 18:02	01/30/24 23:32	1
Toluene	<0.00200	U	0.00200		mg/Kg		01/25/24 18:02	01/30/24 23:32	1
Ethylbenzene	<0.00200	U *+	0.00200		mg/Kg		01/25/24 18:02	01/30/24 23:32	1
m-Xylene & p-Xylene	<0.00401	U *+	0.00401		mg/Kg		01/25/24 18:02	01/30/24 23:32	1
o-Xylene	<0.00200	U *+	0.00200		mg/Kg		01/25/24 18:02	01/30/24 23:32	1
Xylenes, Total	<0.00401	U *+	0.00401		mg/Kg		01/25/24 18:02	01/30/24 23:32	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*79*		*70 - 130*	*01/25/24 18:02*	*01/30/24 23:32*	*1*
1,4-Difluorobenzene (Surr)	*80*		*70 - 130*	*01/25/24 18:02*	*01/30/24 23:32*	*1*

Client Sample Results

Client: Ensolum
Project/Site: PLU 18 Brushy Draw TB

Job ID: 890-5992-1
SDG: 03C1558301

Client Sample ID: FS13

Lab Sample ID: 890-5992-6
Matrix: Solid
Date Collected: 01/18/24 09:35
Date Received: 01/18/24 15:24

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00401	U	0.00401		mg/Kg			01/30/24 23:32	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.2	U	50.2		mg/Kg			01/31/24 13:28	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	<50.2	U	50.2		mg/Kg		01/24/24 10:27	01/31/24 13:28	1
Diesel Range Organics (Over C10-C28)	<50.2	U	50.2		mg/Kg		01/24/24 10:27	01/31/24 13:28	1
OII Range Organics (Over C28-C36)	<50.2	U	50.2		mg/Kg		01/24/24 10:27	01/31/24 13:28	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*121*		*70 - 130*	*01/24/24 10:27*	*01/31/24 13:28*	*1*
o-Terphenyl	*92*		*70 - 130*	*01/24/24 10:27*	*01/31/24 13:28*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**379**		4.99		mg/Kg			01/24/24 10:43	1

Client Sample ID: SW03

Lab Sample ID: 890-5992-7
Matrix: Solid
Date Collected: 01/18/24 09:40
Date Received: 01/18/24 15:24

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		01/25/24 18:02	01/30/24 23:53	1
Toluene	<0.00199	U	0.00199		mg/Kg		01/25/24 18:02	01/30/24 23:53	1
Ethylbenzene	<0.00199	U *+	0.00199		mg/Kg		01/25/24 18:02	01/30/24 23:53	1
m-Xylene & p-Xylene	<0.00398	U *+	0.00398		mg/Kg		01/25/24 18:02	01/30/24 23:53	1
o-Xylene	<0.00199	U *+	0.00199		mg/Kg		01/25/24 18:02	01/30/24 23:53	1
Xylenes, Total	<0.00398	U *+	0.00398		mg/Kg		01/25/24 18:02	01/30/24 23:53	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*81*		*70 - 130*	*01/25/24 18:02*	*01/30/24 23:53*	*1*
1,4-Difluorobenzene (Surr)	*83*		*70 - 130*	*01/25/24 18:02*	*01/30/24 23:53*	*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			01/30/24 23:53	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.5	U	50.5		mg/Kg			01/31/24 13:49	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	<50.5	U	50.5		mg/Kg		01/24/24 10:27	01/31/24 13:49	1
Diesel Range Organics (Over C10-C28)	<50.5	U	50.5		mg/Kg		01/24/24 10:27	01/31/24 13:49	1

Eurofins Carlsbad

Client Sample Results

Client: Ensolum
Project/Site: PLU 18 Brushy Draw TB

Job ID: 890-5992-1
SDG: 03C1558301

Client Sample ID: SW03

Lab Sample ID: 890-5992-7
Matrix: Solid
Date Collected: 01/18/24 09:40
Date Received: 01/18/24 15:24

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)	<50.5	U	50.5		mg/Kg		01/24/24 10:27	01/31/24 13:49	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*146*	*S1+*	*70 - 130*	*01/24/24 10:27*	*01/31/24 13:49*	*1*
o-Terphenyl	*114*		*70 - 130*	*01/24/24 10:27*	*01/31/24 13:49*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**28.4**		4.95		mg/Kg			01/24/24 10:48	1

Client Sample ID: FS14

Lab Sample ID: 890-5992-8
Matrix: Solid
Date Collected: 01/18/24 09:45
Date Received: 01/18/24 15:24

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		01/25/24 18:02	01/31/24 00:13	1
Toluene	<0.00199	U	0.00199		mg/Kg		01/25/24 18:02	01/31/24 00:13	1
Ethylbenzene	<0.00199	U *+	0.00199		mg/Kg		01/25/24 18:02	01/31/24 00:13	1
m-Xylene & p-Xylene	<0.00398	U *+	0.00398		mg/Kg		01/25/24 18:02	01/31/24 00:13	1
o-Xylene	<0.00199	U *+	0.00199		mg/Kg		01/25/24 18:02	01/31/24 00:13	1
Xylenes, Total	<0.00398	U *+	0.00398		mg/Kg		01/25/24 18:02	01/31/24 00:13	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*86*		*70 - 130*	*01/25/24 18:02*	*01/31/24 00:13*	*1*
1,4-Difluorobenzene (Surr)	*69*	*S1-*	*70 - 130*	*01/25/24 18:02*	*01/31/24 00:13*	*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			01/31/24 00:13	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.7	U	49.7		mg/Kg			01/31/24 14:11	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	<49.7	U	49.7		mg/Kg		01/24/24 10:27	01/31/24 14:11	1
Diesel Range Organics (Over C10-C28)	<49.7	U	49.7		mg/Kg		01/24/24 10:27	01/31/24 14:11	1
OII Range Organics (Over C28-C36)	<49.7	U	49.7		mg/Kg		01/24/24 10:27	01/31/24 14:11	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*148*	*S1+*	*70 - 130*	*01/24/24 10:27*	*01/31/24 14:11*	*1*
o-Terphenyl	*118*		*70 - 130*	*01/24/24 10:27*	*01/31/24 14:11*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**122**		5.01		mg/Kg			01/24/24 10:54	1

Client Sample Results

Client: Ensolum
Project/Site: PLU 18 Brushy Draw TB

Job ID: 890-5992-1
SDG: 03C1558301

Client Sample ID: FS15

Lab Sample ID: 890-5992-9
Matrix: Solid
Date Collected: 01/18/24 09:50
Date Received: 01/18/24 15:24

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		01/25/24 18:02	01/31/24 00:34	1
Toluene	<0.00200	U	0.00200		mg/Kg		01/25/24 18:02	01/31/24 00:34	1
Ethylbenzene	<0.00200	U *+	0.00200		mg/Kg		01/25/24 18:02	01/31/24 00:34	1
m-Xylene & p-Xylene	<0.00399	U *+	0.00399		mg/Kg		01/25/24 18:02	01/31/24 00:34	1
o-Xylene	<0.00200	U *+	0.00200		mg/Kg		01/25/24 18:02	01/31/24 00:34	1
Xylenes, Total	<0.00399	U *+	0.00399		mg/Kg		01/25/24 18:02	01/31/24 00:34	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*79*		*70 - 130*	*01/25/24 18:02*	*01/31/24 00:34*	*1*
1,4-Difluorobenzene (Surr)	*76*		*70 - 130*	*01/25/24 18:02*	*01/31/24 00:34*	*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			01/31/24 00:34	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.7	U	49.7		mg/Kg			01/31/24 14:33	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	<49.7	U	49.7		mg/Kg		01/24/24 10:27	01/31/24 14:33	1
Diesel Range Organics (Over C10-C28)	<49.7	U	49.7		mg/Kg		01/24/24 10:27	01/31/24 14:33	1
OII Range Organics (Over C28-C36)	<49.7	U	49.7		mg/Kg		01/24/24 10:27	01/31/24 14:33	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*127*		*70 - 130*	*01/24/24 10:27*	*01/31/24 14:33*	*1*
o-Terphenyl	*97*		*70 - 130*	*01/24/24 10:27*	*01/31/24 14:33*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**11.1**		5.03		mg/Kg			01/24/24 10:59	1

Client Sample ID: FS16

Lab Sample ID: 890-5992-10
Matrix: Solid
Date Collected: 01/18/24 09:55
Date Received: 01/18/24 15:24

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		01/25/24 18:02	01/31/24 00:54	1
Toluene	<0.00201	U	0.00201		mg/Kg		01/25/24 18:02	01/31/24 00:54	1
Ethylbenzene	<0.00201	U *+	0.00201		mg/Kg		01/25/24 18:02	01/31/24 00:54	1
m-Xylene & p-Xylene	<0.00402	U *+	0.00402		mg/Kg		01/25/24 18:02	01/31/24 00:54	1
o-Xylene	<0.00201	U *+	0.00201		mg/Kg		01/25/24 18:02	01/31/24 00:54	1
Xylenes, Total	<0.00402	U *+	0.00402		mg/Kg		01/25/24 18:02	01/31/24 00:54	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*93*		*70 - 130*	*01/25/24 18:02*	*01/31/24 00:54*	*1*
1,4-Difluorobenzene (Surr)	*68*	*S1-*	*70 - 130*	*01/25/24 18:02*	*01/31/24 00:54*	*1*

Client Sample Results

Client: Ensolum
Project/Site: PLU 18 Brushy Draw TB

Job ID: 890-5992-1
SDG: 03C1558301

Client Sample ID: FS16

Lab Sample ID: 890-5992-10
Matrix: Solid
Date Collected: 01/18/24 09:55
Date Received: 01/18/24 15:24

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			01/31/24 00:54	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.7	U	49.7		mg/Kg			01/31/24 14:54	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	<49.7	U	49.7		mg/Kg		01/24/24 10:27	01/31/24 14:54	1
Diesel Range Organics (Over C10-C28)	<49.7	U	49.7		mg/Kg		01/24/24 10:27	01/31/24 14:54	1
OII Range Organics (Over C28-C36)	<49.7	U	49.7		mg/Kg		01/24/24 10:27	01/31/24 14:54	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*128*		*70 - 130*	*01/24/24 10:27*	*01/31/24 14:54*	*1*
o-Terphenyl	*98*		*70 - 130*	*01/24/24 10:27*	*01/31/24 14:54*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**8.30**		4.99		mg/Kg			01/24/24 11:04	1

Client Sample ID: FS17

Lab Sample ID: 890-5992-11
Matrix: Solid
Date Collected: 01/18/24 10:00
Date Received: 01/18/24 15:24

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		01/25/24 18:02	01/31/24 02:17	1
Toluene	<0.00200	U	0.00200		mg/Kg		01/25/24 18:02	01/31/24 02:17	1
Ethylbenzene	<0.00200	U *+	0.00200		mg/Kg		01/25/24 18:02	01/31/24 02:17	1
m-Xylene & p-Xylene	<0.00401	U *+	0.00401		mg/Kg		01/25/24 18:02	01/31/24 02:17	1
o-Xylene	<0.00200	U *+	0.00200		mg/Kg		01/25/24 18:02	01/31/24 02:17	1
Xylenes, Total	<0.00401	U *+	0.00401		mg/Kg		01/25/24 18:02	01/31/24 02:17	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*77*		*70 - 130*	*01/25/24 18:02*	*01/31/24 02:17*	*1*
1,4-Difluorobenzene (Surr)	*82*		*70 - 130*	*01/25/24 18:02*	*01/31/24 02:17*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00401	U	0.00401		mg/Kg			01/31/24 02:17	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.4	U	50.4		mg/Kg			01/31/24 15:37	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	<50.4	U	50.4		mg/Kg		01/24/24 10:27	01/31/24 15:37	1
Diesel Range Organics (Over C10-C28)	<50.4	U	50.4		mg/Kg		01/24/24 10:27	01/31/24 15:37	1

Client Sample Results

Client: Ensolum
Project/Site: PLU 18 Brushy Draw TB

Job ID: 890-5992-1
SDG: 03C1558301

Client Sample ID: FS17

Lab Sample ID: 890-5992-11
Matrix: Solid
Date Collected: 01/18/24 10:00
Date Received: 01/18/24 15:24

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)	<50.4	U	50.4		mg/Kg		01/24/24 10:27	01/31/24 15:37	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*114*		*70 - 130*	*01/24/24 10:27*	*01/31/24 15:37*	*1*
o-Terphenyl	*90*		*70 - 130*	*01/24/24 10:27*	*01/31/24 15:37*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**14.6**		5.05		mg/Kg			01/24/24 11:09	1

Client Sample ID: FS18

Lab Sample ID: 890-5992-12
Matrix: Solid
Date Collected: 01/18/24 10:05
Date Received: 01/18/24 15:24

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		01/25/24 18:02	01/31/24 02:38	1
Toluene	<0.00199	U	0.00199		mg/Kg		01/25/24 18:02	01/31/24 02:38	1
Ethylbenzene	<0.00199	U *+	0.00199		mg/Kg		01/25/24 18:02	01/31/24 02:38	1
m-Xylene & p-Xylene	<0.00398	U *+	0.00398		mg/Kg		01/25/24 18:02	01/31/24 02:38	1
o-Xylene	<0.00199	U *+	0.00199		mg/Kg		01/25/24 18:02	01/31/24 02:38	1
Xylenes, Total	<0.00398	U *+	0.00398		mg/Kg		01/25/24 18:02	01/31/24 02:38	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*100*		*70 - 130*	*01/25/24 18:02*	*01/31/24 02:38*	*1*
1,4-Difluorobenzene (Surr)	*72*		*70 - 130*	*01/25/24 18:02*	*01/31/24 02:38*	*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			01/31/24 02:38	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.5	U	50.5		mg/Kg			01/31/24 15:58	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	<50.5	U	50.5		mg/Kg		01/24/24 10:27	01/31/24 15:58	1
Diesel Range Organics (Over C10-C28)	<50.5	U	50.5		mg/Kg		01/24/24 10:27	01/31/24 15:58	1
OII Range Organics (Over C28-C36)	<50.5	U	50.5		mg/Kg		01/24/24 10:27	01/31/24 15:58	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*127*		*70 - 130*	*01/24/24 10:27*	*01/31/24 15:58*	*1*
o-Terphenyl	*96*		*70 - 130*	*01/24/24 10:27*	*01/31/24 15:58*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.02	U	5.02		mg/Kg			01/24/24 11:24	1

Client Sample Results

Client: Ensolum
Project/Site: PLU 18 Brushy Draw TB

Job ID: 890-5992-1
SDG: 03C1558301

Client Sample ID: FS19

Lab Sample ID: 890-5992-13
Matrix: Solid
Date Collected: 01/18/24 10:20
Date Received: 01/18/24 15:24

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		01/25/24 18:02	01/31/24 02:58	1
Toluene	<0.00199	U	0.00199		mg/Kg		01/25/24 18:02	01/31/24 02:58	1
Ethylbenzene	<0.00199	U *+	0.00199		mg/Kg		01/25/24 18:02	01/31/24 02:58	1
m-Xylene & p-Xylene	<0.00398	U *+	0.00398		mg/Kg		01/25/24 18:02	01/31/24 02:58	1
o-Xylene	<0.00199	U *+	0.00199		mg/Kg		01/25/24 18:02	01/31/24 02:58	1
Xylenes, Total	<0.00398	U *+	0.00398		mg/Kg		01/25/24 18:02	01/31/24 02:58	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*84*		*70 - 130*	*01/25/24 18:02*	*01/31/24 02:58*	*1*
1,4-Difluorobenzene (Surr)	*68*	*S1-*	*70 - 130*	*01/25/24 18:02*	*01/31/24 02:58*	*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			01/31/24 02:58	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.4	U	50.4		mg/Kg			01/31/24 16:19	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	<50.4	U	50.4		mg/Kg		01/24/24 10:27	01/31/24 16:19	1
Diesel Range Organics (Over C10-C28)	<50.4	U	50.4		mg/Kg		01/24/24 10:27	01/31/24 16:19	1
OII Range Organics (Over C28-C36)	<50.4	U	50.4		mg/Kg		01/24/24 10:27	01/31/24 16:19	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*132*	*S1+*	*70 - 130*	*01/24/24 10:27*	*01/31/24 16:19*	*1*
o-Terphenyl	*105*		*70 - 130*	*01/24/24 10:27*	*01/31/24 16:19*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**8.12**		4.96		mg/Kg			01/24/24 11:30	1

Client Sample ID: SW04

Lab Sample ID: 890-5992-14
Matrix: Solid
Date Collected: 01/18/24 10:10
Date Received: 01/18/24 15:24

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		01/25/24 18:02	01/31/24 03:19	1
Toluene	<0.00200	U	0.00200		mg/Kg		01/25/24 18:02	01/31/24 03:19	1
Ethylbenzene	<0.00200	U *+	0.00200		mg/Kg		01/25/24 18:02	01/31/24 03:19	1
m-Xylene & p-Xylene	<0.00399	U *+	0.00399		mg/Kg		01/25/24 18:02	01/31/24 03:19	1
o-Xylene	<0.00200	U *+	0.00200		mg/Kg		01/25/24 18:02	01/31/24 03:19	1
Xylenes, Total	<0.00399	U *+	0.00399		mg/Kg		01/25/24 18:02	01/31/24 03:19	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*86*		*70 - 130*	*01/25/24 18:02*	*01/31/24 03:19*	*1*
1,4-Difluorobenzene (Surr)	*62*	*S1-*	*70 - 130*	*01/25/24 18:02*	*01/31/24 03:19*	*1*

Client Sample Results

Client: Ensolum
Project/Site: PLU 18 Brushy Draw TB

Job ID: 890-5992-1
SDG: 03C1558301

Client Sample ID: SW04

Lab Sample ID: 890-5992-14
Matrix: Solid
Date Collected: 01/18/24 10:10
Date Received: 01/18/24 15:24

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			01/31/24 03:19	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			01/31/24 16:40	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		01/24/24 10:27	01/31/24 16:40	1
Diesel Range Organics (Over C10-C28)	<49.8	U	49.8		mg/Kg		01/24/24 10:27	01/31/24 16:40	1
OII Range Organics (Over C28-C36)	<49.8	U	49.8		mg/Kg		01/24/24 10:27	01/31/24 16:40	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*128*		*70 - 130*	*01/24/24 10:27*	*01/31/24 16:40*	*1*
o-Terphenyl	*99*		*70 - 130*	*01/24/24 10:27*	*01/31/24 16:40*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**141**		4.97		mg/Kg			01/24/24 11:45	1

Client Sample ID: SW05

Lab Sample ID: 890-5992-15
Matrix: Solid
Date Collected: 01/18/24 10:15
Date Received: 01/18/24 15:24

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		01/25/24 18:02	01/31/24 03:39	1
Toluene	<0.00201	U	0.00201		mg/Kg		01/25/24 18:02	01/31/24 03:39	1
Ethylbenzene	<0.00201	U *+	0.00201		mg/Kg		01/25/24 18:02	01/31/24 03:39	1
m-Xylene & p-Xylene	<0.00402	U *+	0.00402		mg/Kg		01/25/24 18:02	01/31/24 03:39	1
o-Xylene	<0.00201	U *+	0.00201		mg/Kg		01/25/24 18:02	01/31/24 03:39	1
Xylenes, Total	<0.00402	U *+	0.00402		mg/Kg		01/25/24 18:02	01/31/24 03:39	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*92*		*70 - 130*	*01/25/24 18:02*	*01/31/24 03:39*	*1*
1,4-Difluorobenzene (Surr)	*71*		*70 - 130*	*01/25/24 18:02*	*01/31/24 03:39*	*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			01/31/24 03:39	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			01/31/24 17:01	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		01/24/24 10:27	01/31/24 17:01	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		01/24/24 10:27	01/31/24 17:01	1

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Client Sample Results

Client: Ensolum
Project/Site: PLU 18 Brushy Draw TB

Job ID: 890-5992-1
SDG: 03C1558301

Client Sample ID: SW05
Date Collected: 01/18/24 10:15
Date Received: 01/18/24 15:24

Lab Sample ID: 890-5992-15
Matrix: Solid

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Oll Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		01/24/24 10:27	01/31/24 17:01	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*120*		*70 - 130*	*01/24/24 10:27*	*01/31/24 17:01*	*1*
o-Terphenyl	*93*		*70 - 130*	*01/24/24 10:27*	*01/31/24 17:01*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	441		4.97		mg/Kg			01/24/24 11:50	1

Surrogate Summary

Client: Ensolum
Project/Site: PLU 18 Brushy Draw TB

Job ID: 890-5992-1
SDG: 03C1558301

Method: 8021B - Volatile Organic Compounds (GC)

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

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	BFB1 (70-130)	DFBZ1 (70-130)
890-5992-1	FS08	75	83
890-5992-1 MS	FS08	119	97
890-5992-1 MSD	FS08	120	104
890-5992-2	FS09	82	81
890-5992-3	FS10	82	85
890-5992-4	FS11	78	77
890-5992-5	FS12	79	77
890-5992-6	FS13	79	80
890-5992-7	SW03	81	83
890-5992-8	FS14	86	69 S1-
890-5992-9	FS15	79	76
890-5992-10	FS16	93	68 S1-
890-5992-11	FS17	77	82
890-5992-12	FS18	100	72
890-5992-13	FS19	84	68 S1-
890-5992-14	SW04	86	62 S1-
890-5992-15	SW05	92	71
LCS 880-71635/1-A	Lab Control Sample	112	99
LCSD 880-71635/2-A	Lab Control Sample Dup	117	83
MB 880-71537/5-A	Method Blank	67 S1-	88
MB 880-71635/5-A	Method Blank	68 S1-	88

Surrogate Legend

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

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

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

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	1CO1 (70-130)	OTPH1 (70-130)
890-5992-1	FS08	134 S1+	105
890-5992-1 MS	FS08	125	85
890-5992-1 MSD	FS08	123	84
890-5992-2	FS09	120	91
890-5992-3	FS10	148 S1+	118
890-5992-4	FS11	138 S1+	108
890-5992-5	FS12	127	96
890-5992-6	FS13	121	92
890-5992-7	SW03	146 S1+	114
890-5992-8	FS14	148 S1+	118
890-5992-9	FS15	127	97
890-5992-10	FS16	128	98
890-5992-11	FS17	114	90
890-5992-12	FS18	127	96
890-5992-13	FS19	132 S1+	105
890-5992-14	SW04	128	99
890-5992-15	SW05	120	93
LCS 880-71509/2-A	Lab Control Sample	95	80

Surrogate Summary

Client: Ensolum Job ID: 890-5992-1
Project/Site: PLU 18 Brushy Draw TB SDG: 03C1558301

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

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

		Percent Surrogate Recovery (Acceptance Limits)									
		1CO1	OTPH1								
Lab Sample ID	Client Sample ID	(70-130)	(70-130)								
LCSD 880-71509/3-A	Lab Control Sample Dup	102	95								
MB 880-71509/1-A	Method Blank	140 S1+	113								

Surrogate Legend

1CO = 1-Chlorooctane

OTPH = o-Terphenyl

QC Sample Results

Client: Ensolum
Project/Site: PLU 18 Brushy Draw TB

Job ID: 890-5992-1
SDG: 03C1558301

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-71537/5-A
Matrix: Solid
Analysis Batch: 71915

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 71537

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		01/24/24 15:35	01/30/24 10:46	1
Toluene	<0.00200	U	0.00200		mg/Kg		01/24/24 15:35	01/30/24 10:46	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		01/24/24 15:35	01/30/24 10:46	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		01/24/24 15:35	01/30/24 10:46	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		01/24/24 15:35	01/30/24 10:46	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		01/24/24 15:35	01/30/24 10:46	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*67*	*S1-*	*70 - 130*	*01/24/24 15:35*	*01/30/24 10:46*	*1*
1,4-Difluorobenzene (Surr)	*88*		*70 - 130*	*01/24/24 15:35*	*01/30/24 10:46*	*1*

Lab Sample ID: MB 880-71635/5-A
Matrix: Solid
Analysis Batch: 71915

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 71635

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		01/25/24 18:02	01/30/24 21:28	1
Toluene	<0.00200	U	0.00200		mg/Kg		01/25/24 18:02	01/30/24 21:28	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		01/25/24 18:02	01/30/24 21:28	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		01/25/24 18:02	01/30/24 21:28	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		01/25/24 18:02	01/30/24 21:28	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		01/25/24 18:02	01/30/24 21:28	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*68*	*S1-*	*70 - 130*	*01/25/24 18:02*	*01/30/24 21:28*	*1*
1,4-Difluorobenzene (Surr)	*88*		*70 - 130*	*01/25/24 18:02*	*01/30/24 21:28*	*1*

Lab Sample ID: LCS 880-71635/1-A
Matrix: Solid
Analysis Batch: 71915

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 71635

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Benzene			0.100	0.1170		mg/Kg		117	70 - 130		
Toluene			0.100	0.1224		mg/Kg		122	70 - 130		
Ethylbenzene			0.100	0.1364	*+	mg/Kg		136	70 - 130		
m-Xylene & p-Xylene			0.200	0.2868	*+	mg/Kg		143	70 - 130		
o-Xylene			0.100	0.1392	*+	mg/Kg		139	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*112*		*70 - 130*
1,4-Difluorobenzene (Surr)	*99*		*70 - 130*

Lab Sample ID: LCSD 880-71635/2-A
Matrix: Solid
Analysis Batch: 71915

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 71635

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene			0.100	0.1110		mg/Kg		111	70 - 130	5	35

QC Sample Results

Client: Ensolum
Project/Site: PLU 18 Brushy Draw TB

Job ID: 890-5992-1
SDG: 03C1558301

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

Lab Sample ID: LCSD 880-71635/2-A — **Client Sample ID: Lab Control Sample Dup**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 71915 — **Prep Batch: 71635**

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Toluene			0.100	0.1192		mg/Kg		119	70 - 130	3	35
Ethylbenzene			0.100	0.1370	*+	mg/Kg		137	70 - 130	0	35
m-Xylene & p-Xylene			0.200	0.2881	*+	mg/Kg		144	70 - 130	0	35
o-Xylene			0.100	0.1386	*+	mg/Kg		139	70 - 130	0	35

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*117*		*70 - 130*
1,4-Difluorobenzene (Surr)	*83*		*70 - 130*

Lab Sample ID: 890-5992-1 MS — **Client Sample ID: FS08**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 71915 — **Prep Batch: 71635**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	<0.00201	U	0.0996	0.09181		mg/Kg		92	70 - 130
Toluene	<0.00201	U	0.0996	0.1004		mg/Kg		100	70 - 130
Ethylbenzene	<0.00201	U *+	0.0996	0.1170		mg/Kg		117	70 - 130
m-Xylene & p-Xylene	<0.00402	U *+	0.199	0.2380		mg/Kg		119	70 - 130
o-Xylene	<0.00201	U *+	0.0996	0.1137		mg/Kg		114	70 - 130

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*119*		*70 - 130*
1,4-Difluorobenzene (Surr)	*97*		*70 - 130*

Lab Sample ID: 890-5992-1 MSD — **Client Sample ID: FS08**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 71915 — **Prep Batch: 71635**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	<0.00201	U	0.0990	0.09254		mg/Kg		93	70 - 130	1	35
Toluene	<0.00201	U	0.0990	0.09780		mg/Kg		98	70 - 130	3	35
Ethylbenzene	<0.00201	U *+	0.0990	0.1158		mg/Kg		117	70 - 130	1	35
m-Xylene & p-Xylene	<0.00402	U *+	0.198	0.2366		mg/Kg		120	70 - 130	1	35
o-Xylene	<0.00201	U *+	0.0990	0.1127		mg/Kg		114	70 - 130	1	35

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*120*		*70 - 130*
1,4-Difluorobenzene (Surr)	*104*		*70 - 130*

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

Lab Sample ID: MB 880-71509/1-A — **Client Sample ID: Method Blank**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 71993 — **Prep Batch: 71509**

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		01/24/24 10:27	01/31/24 08:11	1

QC Sample Results

Client: Ensolum
Project/Site: PLU 18 Brushy Draw TB

Job ID: 890-5992-1
SDG: 03C1558301

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

Lab Sample ID: MB 880-71509/1-A
Matrix: Solid
Analysis Batch: 71993

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 71509

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		01/24/24 10:27	01/31/24 08:11	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		01/24/24 10:27	01/31/24 08:11	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*140*	*S1+*	*70 - 130*	*01/24/24 10:27*	*01/31/24 08:11*	*1*
o-Terphenyl	*113*		*70 - 130*	*01/24/24 10:27*	*01/31/24 08:11*	*1*

Lab Sample ID: LCS 880-71509/2-A
Matrix: Solid
Analysis Batch: 71993

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 71509

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Gasoline Range Organics (GRO)-C6-C10			1000	1097		mg/Kg		110	70 - 130		
Diesel Range Organics (Over C10-C28)			1000	985.1		mg/Kg		99	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1-Chlorooctane	*95*		*70 - 130*
o-Terphenyl	*80*		*70 - 130*

Lab Sample ID: LCSD 880-71509/3-A
Matrix: Solid
Analysis Batch: 71993

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 71509

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10			1000	1063		mg/Kg		106	70 - 130	3	20
Diesel Range Organics (Over C10-C28)			1000	945.1		mg/Kg		95	70 - 130	4	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1-Chlorooctane	*102*		*70 - 130*
o-Terphenyl	*95*		*70 - 130*

Lab Sample ID: 890-5992-1 MS
Matrix: Solid
Analysis Batch: 71993

Client Sample ID: FS08
Prep Type: Total/NA
Prep Batch: 71509

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Gasoline Range Organics (GRO)-C6-C10	<49.6	U	1010	996.3		mg/Kg		97	70 - 130		
Diesel Range Organics (Over C10-C28)	<49.6	U	1010	1288		mg/Kg		125	70 - 130		

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
1-Chlorooctane	*125*		*70 - 130*
o-Terphenyl	*85*		*70 - 130*

QC Sample Results

Client: Ensolum
Project/Site: PLU 18 Brushy Draw TB

Job ID: 890-5992-1
SDG: 03C1558301

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

Lab Sample ID: 890-5992-1 MSD — **Client Sample ID: FS08**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 71993 — **Prep Batch: 71509**

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	<49.6	U	1010	984.8		mg/Kg		96	70 - 130	1	20
Diesel Range Organics (Over C10-C28)	<49.6	U	1010	1282		mg/Kg		125	70 - 130	0	20

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
1-Chlorooctane	*123*		*70 - 130*
o-Terphenyl	*84*		*70 - 130*

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-71310/1-A — **Client Sample ID: Method Blank**
Matrix: Solid — **Prep Type: Soluble**
Analysis Batch: 71389

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.00	U	5.00		mg/Kg			01/24/24 09:41	1

Lab Sample ID: LCS 880-71310/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Solid — **Prep Type: Soluble**
Analysis Batch: 71389

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride			250	238.7		mg/Kg		95	90 - 110		

Lab Sample ID: LCSD 880-71310/3-A — **Client Sample ID: Lab Control Sample Dup**
Matrix: Solid — **Prep Type: Soluble**
Analysis Batch: 71389

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride			250	238.0		mg/Kg		95	90 - 110	0	20

Lab Sample ID: 890-5992-1 MS — **Client Sample ID: FS08**
Matrix: Solid — **Prep Type: Soluble**
Analysis Batch: 71389

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride	78.8		251	325.0		mg/Kg		98	90 - 110		

Lab Sample ID: 890-5992-1 MSD — **Client Sample ID: FS08**
Matrix: Solid — **Prep Type: Soluble**
Analysis Batch: 71389

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	78.8		251	328.7		mg/Kg		100	90 - 110	1	20

QC Sample Results

Client: Ensolum
Project/Site: PLU 18 Brushy Draw TB

Job ID: 890-5992-1
SDG: 03C1558301

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: 890-5992-11 MS
Matrix: Solid
Analysis Batch: 71389

Client Sample ID: FS17
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride	14.6		253	263.1		mg/Kg		98	90 - 110		

Lab Sample ID: 890-5992-11 MSD
Matrix: Solid
Analysis Batch: 71389

Client Sample ID: FS17
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	14.6		253	266.4		mg/Kg		100	90 - 110	1	20

QC Association Summary

Client: Ensolum
Project/Site: PLU 18 Brushy Draw TB

Job ID: 890-5992-1
SDG: 03C1558301

GC VOA

Prep Batch: 71537

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 880-71537/5-A	Method Blank	Total/NA	Solid	5035	

Prep Batch: 71635

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-5992-1	FS08	Total/NA	Solid	5035	
890-5992-2	FS09	Total/NA	Solid	5035	
890-5992-3	FS10	Total/NA	Solid	5035	
890-5992-4	FS11	Total/NA	Solid	5035	
890-5992-5	FS12	Total/NA	Solid	5035	
890-5992-6	FS13	Total/NA	Solid	5035	
890-5992-7	SW03	Total/NA	Solid	5035	
890-5992-8	FS14	Total/NA	Solid	5035	
890-5992-9	FS15	Total/NA	Solid	5035	
890-5992-10	FS16	Total/NA	Solid	5035	
890-5992-11	FS17	Total/NA	Solid	5035	
890-5992-12	FS18	Total/NA	Solid	5035	
890-5992-13	FS19	Total/NA	Solid	5035	
890-5992-14	SW04	Total/NA	Solid	5035	
890-5992-15	SW05	Total/NA	Solid	5035	
MB 880-71635/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-71635/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-71635/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
890-5992-1 MS	FS08	Total/NA	Solid	5035	
890-5992-1 MSD	FS08	Total/NA	Solid	5035	

Analysis Batch: 71915

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-5992-1	FS08	Total/NA	Solid	8021B	71635
890-5992-2	FS09	Total/NA	Solid	8021B	71635
890-5992-3	FS10	Total/NA	Solid	8021B	71635
890-5992-4	FS11	Total/NA	Solid	8021B	71635
890-5992-5	FS12	Total/NA	Solid	8021B	71635
890-5992-6	FS13	Total/NA	Solid	8021B	71635
890-5992-7	SW03	Total/NA	Solid	8021B	71635
890-5992-8	FS14	Total/NA	Solid	8021B	71635
890-5992-9	FS15	Total/NA	Solid	8021B	71635
890-5992-10	FS16	Total/NA	Solid	8021B	71635
890-5992-11	FS17	Total/NA	Solid	8021B	71635
890-5992-12	FS18	Total/NA	Solid	8021B	71635
890-5992-13	FS19	Total/NA	Solid	8021B	71635
890-5992-14	SW04	Total/NA	Solid	8021B	71635
890-5992-15	SW05	Total/NA	Solid	8021B	71635
MB 880-71537/5-A	Method Blank	Total/NA	Solid	8021B	71537
MB 880-71635/5-A	Method Blank	Total/NA	Solid	8021B	71635
LCS 880-71635/1-A	Lab Control Sample	Total/NA	Solid	8021B	71635
LCSD 880-71635/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	71635
890-5992-1 MS	FS08	Total/NA	Solid	8021B	71635
890-5992-1 MSD	FS08	Total/NA	Solid	8021B	71635

QC Association Summary

Client: Ensolum
Project/Site: PLU 18 Brushy Draw TB

Job ID: 890-5992-1
SDG: 03C1558301

GC VOA

Analysis Batch: 72053

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-5992-1	FS08	Total/NA	Solid	Total BTEX	
890-5992-2	FS09	Total/NA	Solid	Total BTEX	
890-5992-3	FS10	Total/NA	Solid	Total BTEX	
890-5992-4	FS11	Total/NA	Solid	Total BTEX	
890-5992-5	FS12	Total/NA	Solid	Total BTEX	
890-5992-6	FS13	Total/NA	Solid	Total BTEX	
890-5992-7	SW03	Total/NA	Solid	Total BTEX	
890-5992-8	FS14	Total/NA	Solid	Total BTEX	
890-5992-9	FS15	Total/NA	Solid	Total BTEX	
890-5992-10	FS16	Total/NA	Solid	Total BTEX	
890-5992-11	FS17	Total/NA	Solid	Total BTEX	
890-5992-12	FS18	Total/NA	Solid	Total BTEX	
890-5992-13	FS19	Total/NA	Solid	Total BTEX	
890-5992-14	SW04	Total/NA	Solid	Total BTEX	
890-5992-15	SW05	Total/NA	Solid	Total BTEX	

GC Semi VOA

Prep Batch: 71509

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-5992-1	FS08	Total/NA	Solid	8015NM Prep	
890-5992-2	FS09	Total/NA	Solid	8015NM Prep	
890-5992-3	FS10	Total/NA	Solid	8015NM Prep	
890-5992-4	FS11	Total/NA	Solid	8015NM Prep	
890-5992-5	FS12	Total/NA	Solid	8015NM Prep	
890-5992-6	FS13	Total/NA	Solid	8015NM Prep	
890-5992-7	SW03	Total/NA	Solid	8015NM Prep	
890-5992-8	FS14	Total/NA	Solid	8015NM Prep	
890-5992-9	FS15	Total/NA	Solid	8015NM Prep	
890-5992-10	FS16	Total/NA	Solid	8015NM Prep	
890-5992-11	FS17	Total/NA	Solid	8015NM Prep	
890-5992-12	FS18	Total/NA	Solid	8015NM Prep	
890-5992-13	FS19	Total/NA	Solid	8015NM Prep	
890-5992-14	SW04	Total/NA	Solid	8015NM Prep	
890-5992-15	SW05	Total/NA	Solid	8015NM Prep	
MB 880-71509/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-71509/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-71509/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
890-5992-1 MS	FS08	Total/NA	Solid	8015NM Prep	
890-5992-1 MSD	FS08	Total/NA	Solid	8015NM Prep	

Analysis Batch: 71993

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-5992-1	FS08	Total/NA	Solid	8015B NM	71509
890-5992-2	FS09	Total/NA	Solid	8015B NM	71509
890-5992-3	FS10	Total/NA	Solid	8015B NM	71509
890-5992-4	FS11	Total/NA	Solid	8015B NM	71509
890-5992-5	FS12	Total/NA	Solid	8015B NM	71509
890-5992-6	FS13	Total/NA	Solid	8015B NM	71509
890-5992-7	SW03	Total/NA	Solid	8015B NM	71509
890-5992-8	FS14	Total/NA	Solid	8015B NM	71509

QC Association Summary

Client: Ensolum
Project/Site: PLU 18 Brushy Draw TB

Job ID: 890-5992-1
SDG: 03C1558301

GC Semi VOA (Continued)

Analysis Batch: 71993 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-5992-9	FS15	Total/NA	Solid	8015B NM	71509
890-5992-10	FS16	Total/NA	Solid	8015B NM	71509
890-5992-11	FS17	Total/NA	Solid	8015B NM	71509
890-5992-12	FS18	Total/NA	Solid	8015B NM	71509
890-5992-13	FS19	Total/NA	Solid	8015B NM	71509
890-5992-14	SW04	Total/NA	Solid	8015B NM	71509
890-5992-15	SW05	Total/NA	Solid	8015B NM	71509
MB 880-71509/1-A	Method Blank	Total/NA	Solid	8015B NM	71509
LCS 880-71509/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	71509
LCSD 880-71509/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	71509
890-5992-1 MS	FS08	Total/NA	Solid	8015B NM	71509
890-5992-1 MSD	FS08	Total/NA	Solid	8015B NM	71509

Analysis Batch: 72146

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-5992-1	FS08	Total/NA	Solid	8015 NM	
890-5992-2	FS09	Total/NA	Solid	8015 NM	
890-5992-3	FS10	Total/NA	Solid	8015 NM	
890-5992-4	FS11	Total/NA	Solid	8015 NM	
890-5992-5	FS12	Total/NA	Solid	8015 NM	
890-5992-6	FS13	Total/NA	Solid	8015 NM	
890-5992-7	SW03	Total/NA	Solid	8015 NM	
890-5992-8	FS14	Total/NA	Solid	8015 NM	
890-5992-9	FS15	Total/NA	Solid	8015 NM	
890-5992-10	FS16	Total/NA	Solid	8015 NM	
890-5992-11	FS17	Total/NA	Solid	8015 NM	
890-5992-12	FS18	Total/NA	Solid	8015 NM	
890-5992-13	FS19	Total/NA	Solid	8015 NM	
890-5992-14	SW04	Total/NA	Solid	8015 NM	
890-5992-15	SW05	Total/NA	Solid	8015 NM	

HPLC/IC

Leach Batch: 71310

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-5992-1	FS08	Soluble	Solid	DI Leach	
890-5992-2	FS09	Soluble	Solid	DI Leach	
890-5992-3	FS10	Soluble	Solid	DI Leach	
890-5992-4	FS11	Soluble	Solid	DI Leach	
890-5992-5	FS12	Soluble	Solid	DI Leach	
890-5992-6	FS13	Soluble	Solid	DI Leach	
890-5992-7	SW03	Soluble	Solid	DI Leach	
890-5992-8	FS14	Soluble	Solid	DI Leach	
890-5992-9	FS15	Soluble	Solid	DI Leach	
890-5992-10	FS16	Soluble	Solid	DI Leach	
890-5992-11	FS17	Soluble	Solid	DI Leach	
890-5992-12	FS18	Soluble	Solid	DI Leach	
890-5992-13	FS19	Soluble	Solid	DI Leach	
890-5992-14	SW04	Soluble	Solid	DI Leach	
890-5992-15	SW05	Soluble	Solid	DI Leach	
MB 880-71310/1-A	Method Blank	Soluble	Solid	DI Leach	

QC Association Summary

Client: Ensolum
Project/Site: PLU 18 Brushy Draw TB

Job ID: 890-5992-1
SDG: 03C1558301

HPLC/IC (Continued)

Leach Batch: 71310 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 880-71310/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-71310/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
890-5992-1 MS	FS08	Soluble	Solid	DI Leach	
890-5992-1 MSD	FS08	Soluble	Solid	DI Leach	
890-5992-11 MS	FS17	Soluble	Solid	DI Leach	
890-5992-11 MSD	FS17	Soluble	Solid	DI Leach	

Analysis Batch: 71389

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-5992-1	FS08	Soluble	Solid	300.0	71310
890-5992-2	FS09	Soluble	Solid	300.0	71310
890-5992-3	FS10	Soluble	Solid	300.0	71310
890-5992-4	FS11	Soluble	Solid	300.0	71310
890-5992-5	FS12	Soluble	Solid	300.0	71310
890-5992-6	FS13	Soluble	Solid	300.0	71310
890-5992-7	SW03	Soluble	Solid	300.0	71310
890-5992-8	FS14	Soluble	Solid	300.0	71310
890-5992-9	FS15	Soluble	Solid	300.0	71310
890-5992-10	FS16	Soluble	Solid	300.0	71310
890-5992-11	FS17	Soluble	Solid	300.0	71310
890-5992-12	FS18	Soluble	Solid	300.0	71310
890-5992-13	FS19	Soluble	Solid	300.0	71310
890-5992-14	SW04	Soluble	Solid	300.0	71310
890-5992-15	SW05	Soluble	Solid	300.0	71310
MB 880-71310/1-A	Method Blank	Soluble	Solid	300.0	71310
LCS 880-71310/2-A	Lab Control Sample	Soluble	Solid	300.0	71310
LCSD 880-71310/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	71310
890-5992-1 MS	FS08	Soluble	Solid	300.0	71310
890-5992-1 MSD	FS08	Soluble	Solid	300.0	71310
890-5992-11 MS	FS17	Soluble	Solid	300.0	71310
890-5992-11 MSD	FS17	Soluble	Solid	300.0	71310

Lab Chronicle

Client: Ensolum
Project/Site: PLU 18 Brushy Draw TB

Job ID: 890-5992-1
SDG: 03C1558301

Client Sample ID: FS08

Lab Sample ID: 890-5992-1
Matrix: Solid
Date Collected: 01/18/24 08:30
Date Received: 01/18/24 15:24

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	71635	01/25/24 18:02	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	71915	01/30/24 21:50	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			72053	01/30/24 21:50	SM	EET MID
Total/NA	Analysis	8015 NM		1			72146	01/31/24 10:47	SM	EET MID
Total/NA	Prep	8015NM Prep			10.08 g	10 mL	71509	01/24/24 10:27	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	71993	01/31/24 10:47	SM	EET MID
Soluble	Leach	DI Leach			4.98 g	50 mL	71310	01/22/24 10:36	SA	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	71389	01/24/24 09:57	SMC	EET MID

Client Sample ID: FS09

Lab Sample ID: 890-5992-2
Matrix: Solid
Date Collected: 01/18/24 08:35
Date Received: 01/18/24 15:24

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	71635	01/25/24 18:02	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	71915	01/30/24 22:10	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			72053	01/30/24 22:10	SM	EET MID
Total/NA	Analysis	8015 NM		1			72146	01/31/24 11:50	SM	EET MID
Total/NA	Prep	8015NM Prep			10.06 g	10 mL	71509	01/24/24 10:27	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	71993	01/31/24 11:50	SM	EET MID
Soluble	Leach	DI Leach			4.97 g	50 mL	71310	01/22/24 10:36	SA	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	71389	01/24/24 10:12	SMC	EET MID

Client Sample ID: FS10

Lab Sample ID: 890-5992-3
Matrix: Solid
Date Collected: 01/18/24 08:40
Date Received: 01/18/24 15:24

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	71635	01/25/24 18:02	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	71915	01/30/24 22:31	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			72053	01/30/24 22:31	SM	EET MID
Total/NA	Analysis	8015 NM		1			72146	01/31/24 12:12	SM	EET MID
Total/NA	Prep	8015NM Prep			10.10 g	10 mL	71509	01/24/24 10:27	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	71993	01/31/24 12:12	SM	EET MID
Soluble	Leach	DI Leach			5.03 g	50 mL	71310	01/22/24 10:36	SA	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	71389	01/24/24 10:18	SMC	EET MID

Client Sample ID: FS11

Lab Sample ID: 890-5992-4
Matrix: Solid
Date Collected: 01/18/24 08:45
Date Received: 01/18/24 15:24

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	71635	01/25/24 18:02	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	71915	01/30/24 22:51	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			72053	01/30/24 22:51	SM	EET MID

Lab Chronicle

Client: Ensolum
Project/Site: PLU 18 Brushy Draw TB

Job ID: 890-5992-1
SDG: 03C1558301

Client Sample ID: FS11

Lab Sample ID: 890-5992-4
Matrix: Solid
Date Collected: 01/18/24 08:45
Date Received: 01/18/24 15:24

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			72146	01/31/24 12:33	SM	EET MID
Total/NA	Prep	8015NM Prep			10.03 g	10 mL	71509	01/24/24 10:27	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	71993	01/31/24 12:33	SM	EET MID
Soluble	Leach	DI Leach			5.03 g	50 mL	71310	01/22/24 10:36	SA	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	71389	01/24/24 10:23	SMC	EET MID

Client Sample ID: FS12

Lab Sample ID: 890-5992-5
Matrix: Solid
Date Collected: 01/18/24 08:50
Date Received: 01/18/24 15:24

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	71635	01/25/24 18:02	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	71915	01/30/24 23:12	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			72053	01/30/24 23:12	SM	EET MID
Total/NA	Analysis	8015 NM		1			72146	01/31/24 12:55	SM	EET MID
Total/NA	Prep	8015NM Prep			10.09 g	10 mL	71509	01/24/24 10:27	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	71993	01/31/24 12:55	SM	EET MID
Soluble	Leach	DI Leach			5.04 g	50 mL	71310	01/22/24 10:36	SA	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	71389	01/24/24 10:28	SMC	EET MID

Client Sample ID: FS13

Lab Sample ID: 890-5992-6
Matrix: Solid
Date Collected: 01/18/24 09:35
Date Received: 01/18/24 15:24

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	71635	01/25/24 18:02	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	71915	01/30/24 23:32	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			72053	01/30/24 23:32	SM	EET MID
Total/NA	Analysis	8015 NM		1			72146	01/31/24 13:28	SM	EET MID
Total/NA	Prep	8015NM Prep			9.97 g	10 mL	71509	01/24/24 10:27	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	71993	01/31/24 13:28	SM	EET MID
Soluble	Leach	DI Leach			5.01 g	50 mL	71310	01/22/24 10:36	SA	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	71389	01/24/24 10:43	SMC	EET MID

Client Sample ID: SW03

Lab Sample ID: 890-5992-7
Matrix: Solid
Date Collected: 01/18/24 09:40
Date Received: 01/18/24 15:24

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	71635	01/25/24 18:02	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	71915	01/30/24 23:53	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			72053	01/30/24 23:53	SM	EET MID
Total/NA	Analysis	8015 NM		1			72146	01/31/24 13:49	SM	EET MID
Total/NA	Prep	8015NM Prep			9.90 g	10 mL	71509	01/24/24 10:27	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	71993	01/31/24 13:49	SM	EET MID

Lab Chronicle

Client: Ensolum
Project/Site: PLU 18 Brushy Draw TB

Job ID: 890-5992-1
SDG: 03C1558301

Client Sample ID: SW03
Date Collected: 01/18/24 09:40
Date Received: 01/18/24 15:24

Lab Sample ID: 890-5992-7
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			5.05 g	50 mL	71310	01/22/24 10:36	SA	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	71389	01/24/24 10:48	SMC	EET MID

Client Sample ID: FS14
Date Collected: 01/18/24 09:45
Date Received: 01/18/24 15:24

Lab Sample ID: 890-5992-8
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.03 g	5 mL	71635	01/25/24 18:02	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	71915	01/31/24 00:13	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			72053	01/31/24 00:13	SM	EET MID
Total/NA	Analysis	8015 NM		1			72146	01/31/24 14:11	SM	EET MID
Total/NA	Prep	8015NM Prep			10.06 g	10 mL	71509	01/24/24 10:27	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	71993	01/31/24 14:11	SM	EET MID
Soluble	Leach	DI Leach			4.99 g	50 mL	71310	01/22/24 10:36	SA	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	71389	01/24/24 10:54	SMC	EET MID

Client Sample ID: FS15
Date Collected: 01/18/24 09:50
Date Received: 01/18/24 15:24

Lab Sample ID: 890-5992-9
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.01 g	5 mL	71635	01/25/24 18:02	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	71915	01/31/24 00:34	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			72053	01/31/24 00:34	SM	EET MID
Total/NA	Analysis	8015 NM		1			72146	01/31/24 14:33	SM	EET MID
Total/NA	Prep	8015NM Prep			10.06 g	10 mL	71509	01/24/24 10:27	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	71993	01/31/24 14:33	SM	EET MID
Soluble	Leach	DI Leach			4.97 g	50 mL	71310	01/22/24 10:36	SA	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	71389	01/24/24 10:59	SMC	EET MID

Client Sample ID: FS16
Date Collected: 01/18/24 09:55
Date Received: 01/18/24 15:24

Lab Sample ID: 890-5992-10
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.97 g	5 mL	71635	01/25/24 18:02	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	71915	01/31/24 00:54	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			72053	01/31/24 00:54	SM	EET MID
Total/NA	Analysis	8015 NM		1			72146	01/31/24 14:54	SM	EET MID
Total/NA	Prep	8015NM Prep			10.06 g	10 mL	71509	01/24/24 10:27	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	71993	01/31/24 14:54	SM	EET MID
Soluble	Leach	DI Leach			5.01 g	50 mL	71310	01/22/24 10:36	SA	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	71389	01/24/24 11:04	SMC	EET MID

Lab Chronicle

Client: Ensolum
Project/Site: PLU 18 Brushy Draw TB

Job ID: 890-5992-1
SDG: 03C1558301

Client Sample ID: FS17

Lab Sample ID: 890-5992-11
Matrix: Solid
Date Collected: 01/18/24 10:00
Date Received: 01/18/24 15:24

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	71635	01/25/24 18:02	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	71915	01/31/24 02:17	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			72053	01/31/24 02:17	SM	EET MID
Total/NA	Analysis	8015 NM		1			72146	01/31/24 15:37	SM	EET MID
Total/NA	Prep	8015NM Prep			9.92 g	10 mL	71509	01/24/24 10:27	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	71993	01/31/24 15:37	SM	EET MID
Soluble	Leach	DI Leach			4.95 g	50 mL	71310	01/22/24 10:36	SA	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	71389	01/24/24 11:09	SMC	EET MID

Client Sample ID: FS18

Lab Sample ID: 890-5992-12
Matrix: Solid
Date Collected: 01/18/24 10:05
Date Received: 01/18/24 15:24

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	71635	01/25/24 18:02	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	71915	01/31/24 02:38	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			72053	01/31/24 02:38	SM	EET MID
Total/NA	Analysis	8015 NM		1			72146	01/31/24 15:58	SM	EET MID
Total/NA	Prep	8015NM Prep			9.91 g	10 mL	71509	01/24/24 10:27	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	71993	01/31/24 15:58	SM	EET MID
Soluble	Leach	DI Leach			4.98 g	50 mL	71310	01/22/24 10:36	SA	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	71389	01/24/24 11:24	SMC	EET MID

Client Sample ID: FS19

Lab Sample ID: 890-5992-13
Matrix: Solid
Date Collected: 01/18/24 10:20
Date Received: 01/18/24 15:24

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	71635	01/25/24 18:02	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	71915	01/31/24 02:58	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			72053	01/31/24 02:58	SM	EET MID
Total/NA	Analysis	8015 NM		1			72146	01/31/24 16:19	SM	EET MID
Total/NA	Prep	8015NM Prep			9.93 g	10 mL	71509	01/24/24 10:27	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	71993	01/31/24 16:19	SM	EET MID
Soluble	Leach	DI Leach			5.04 g	50 mL	71310	01/22/24 10:36	SA	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	71389	01/24/24 11:30	SMC	EET MID

Client Sample ID: SW04

Lab Sample ID: 890-5992-14
Matrix: Solid
Date Collected: 01/18/24 10:10
Date Received: 01/18/24 15:24

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	71635	01/25/24 18:02	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	71915	01/31/24 03:19	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			72053	01/31/24 03:19	SM	EET MID

Lab Chronicle

Client: Ensolum
Project/Site: PLU 18 Brushy Draw TB

Job ID: 890-5992-1
SDG: 03C1558301

Client Sample ID: SW04

Lab Sample ID: 890-5992-14

Date Collected: 01/18/24 10:10
Matrix: Solid
Date Received: 01/18/24 15:24

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			72146	01/31/24 16:40	SM	EET MID
Total/NA	Prep	8015NM Prep			10.05 g	10 mL	71509	01/24/24 10:27	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	71993	01/31/24 16:40	SM	EET MID
Soluble	Leach	DI Leach			5.03 g	50 mL	71310	01/22/24 10:36	SA	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	71389	01/24/24 11:45	SMC	EET MID

Client Sample ID: SW05

Lab Sample ID: 890-5992-15

Date Collected: 01/18/24 10:15
Matrix: Solid
Date Received: 01/18/24 15:24

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	71635	01/25/24 18:02	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	71915	01/31/24 03:39	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			72053	01/31/24 03:39	SM	EET MID
Total/NA	Analysis	8015 NM		1			72146	01/31/24 17:01	SM	EET MID
Total/NA	Prep	8015NM Prep			10.03 g	10 mL	71509	01/24/24 10:27	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	71993	01/31/24 17:01	SM	EET MID
Soluble	Leach	DI Leach			5.03 g	50 mL	71310	01/22/24 10:36	SA	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	71389	01/24/24 11:50	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 18 Brushy Draw TB

Job ID: 890-5992-1
SDG: 03C1558301

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	T104704400-23-26	06-30-24

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 18 Brushy Draw TB

Job ID: 890-5992-1
SDG: 03C1558301

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 18 Brushy Draw TB

Job ID: 890-5992-1
SDG: 03C1558301

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
890-5992-1	FS08	Solid	01/18/24 08:30	01/18/24 15:24
890-5992-2	FS09	Solid	01/18/24 08:35	01/18/24 15:24
890-5992-3	FS10	Solid	01/18/24 08:40	01/18/24 15:24
890-5992-4	FS11	Solid	01/18/24 08:45	01/18/24 15:24
890-5992-5	FS12	Solid	01/18/24 08:50	01/18/24 15:24
890-5992-6	FS13	Solid	01/18/24 09:35	01/18/24 15:24
890-5992-7	SW03	Solid	01/18/24 09:40	01/18/24 15:24
890-5992-8	FS14	Solid	01/18/24 09:45	01/18/24 15:24
890-5992-9	FS15	Solid	01/18/24 09:50	01/18/24 15:24
890-5992-10	FS16	Solid	01/18/24 09:55	01/18/24 15:24
890-5992-11	FS17	Solid	01/18/24 10:00	01/18/24 15:24
890-5992-12	FS18	Solid	01/18/24 10:05	01/18/24 15:24
890-5992-13	FS19	Solid	01/18/24 10:20	01/18/24 15:24
890-5992-14	SW04	Solid	01/18/24 10:10	01/18/24 15:24
890-5992-15	SW05	Solid	01/18/24 10:15	01/18/24 15:24

Loc: 890
5992

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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

890-5992 Chain of Custody

5992

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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, NM 88220	City, State ZIP:	Carlsbad, NM 88220
Phone:	(989) 854-0852 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 18 Brushy Draw TB	Turn Around	
Project Number:	036 1558301	☒ Routine ☐ Rush	
Project Location:	32.13277, -103.92829	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:	TN#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:	2.4

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

ANALYSIS REQUEST — Parameters: Chlorides, TPH, BTEX

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Grab/ Comp	# of Cont	Pres. Code
FS08	S	1/18/24	8:30	1'	C	1	
FS09			8:35	1'			
FS10			8:40	2'			
FS11			8:45	2'			
FS12			8:50	2			
FS13			9:35	2'			
SW03			9:40	0-2'			
FS14			9:45	2'			
FS15			9:50	2'			
FS16			9:55	2'			

Sample Comments

Incident #:
NAPP2334060921
Cost center:
1056711001
Ben Belill:
bbelille.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			15:24 1/19			
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

Work Order No: _____

www.xenco.com Page 2 of 2

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, NM 88220	City, State ZIP:	Carlsbad, NM 88220
Phone:	(989) 854-0852 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 18 Brushy Draw TB	Turn Around	☒ Routine ☐ Rush
Project Number:	03C155 8301	Due Date:	5 days
Project Location:	32.13277, -103.92829	TAT starts the day received by the lab, if received by 4:30pm	
Sampler's Name:	Mariana O'Dell		
PO #:			

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

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	Chlorides	TPH	BTEX	Sample Comments
FS17	S	1/18/24	10:00	2'	C	1	X	X	X	Incident #:
FS18			10:05	2'						NAPP2334060921
FS19			10:20	2'						Cost Center:
SW04			10:20	0-2'						1056711001
SW05	↓	↓	10:15	0-2'	↓	↓	↓	↓	↓	Ben Belill:
										bbelill@ensolum.com
									NO	

ANALYSIS REQUEST

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		15:24 1/18	4		
3			6		
5					

Revised Date: 08/25/2020 Rev. 2020.2

Login Sample Receipt Checklist

Client: Ensolum

Job Number: 890-5992-1
SDG Number: 03C1558301

Login Number: 5992
List Number: 1
Creator: Lopez, Abraham

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: 890-5992-1
SDG Number: 03C1558301

Login Number: 5992
List Number: 2
Creator: Rodriguez, Leticia

List Source: Eurofins Midland
List Creation: 01/22/24 08:25 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	

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

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

QUESTIONS

Action 316120

QUESTIONS

Operator: XTO ENERGY, INC 6401 Holiday Hill Road Midland, TX 79707	OGRID: 5380
	Action Number: 316120
	Action Type: [C-141] Remediation Closure Request C-141 (C-141-v-Closure)

QUESTIONS

Prerequisites	
Incident ID (n#)	**nAPP2334060921**
Incident Name	**NAPP2334060921 PLU 18 BRUSHY DRAW CTB @ 0**
Incident Type	**Produced Water Release**
Incident Status	**Remediation Closure Report Received**

Location of Release Source	
Please answer all the questions in this group.	
Site Name	PLU 18 Brushy Draw CTB
Date Release Discovered	11/22/2023
Surface Owner	Federal

Incident Details	
Please answer all the questions in this group.	
Incident Type	Produced Water Release
Did this release result in a fire or is the result of a fire	No
Did this release result in any injuries	No
Has this release reached or does it have a reasonable probability of reaching a watercourse	No
Has this release endangered or does it have a reasonable probability of endangering public health	No
Has this release substantially damaged or will it substantially damage property or the environment	No
Is this release of a volume that is or may with reasonable probability be detrimental to fresh water	No

Nature and Volume of Release	
Material(s) released, please answer all that apply below. Any calculations or specific justifications for the volumes provided should be attached to the follow-up C-141 submission.	
Crude Oil Released (bbls) Details	*Not answered.*
Produced Water Released (bbls) Details	Cause: Equipment Failure | Pump | Produced Water | Released: 8 BBL | Recovered: 4 BBL | Lost: 4 BBL.
Is the concentration of chloride in the produced water >10,000 mg/l	Yes
Condensate Released (bbls) Details	*Not answered.*
Natural Gas Vented (Mcf) Details	*Not answered.*
Natural Gas Flared (Mcf) Details	*Not answered.*
Other Released Details	*Not answered.*
Are there additional details for the questions above (i.e. any answer containing Other, Specify, Unknown, and/or Fire, or any negative lost amounts)	*Not answered.*

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1000 Rio Brazos Rd., Aztec, NM 87410
Phone:(505) 334-6178 Fax:(505) 334-6170
District IV
1220 S. St Francis Dr., Santa Fe, NM 87505
Phone:(505) 476-3470 Fax:(505) 476-3462

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

QUESTIONS (continued)

Operator: XTO ENERGY, INC 6401 Holiday Hill Road Midland, TX 79707	OGRID: 5380
	Action Number: 316120
	Action Type: [C-141] Remediation Closure Request C-141 (C-141-v-Closure)

QUESTIONS

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

Initial Response	
The responsible party must undertake the following actions immediately unless they could create a safety hazard that would result in injury.	
The source of the release has been stopped	True
The impacted area has been secured to protect human health and the environment	True
Released materials have been contained via the use of berms or dikes, absorbent pads, or other containment devices	True
All free liquids and recoverable materials have been removed and managed appropriately	True
If all the actions described above have not been undertaken, explain why	*Not answered.*
Per Paragraph (4) of Subsection B of 19.15.29.8 NMAC the responsible party may commence remediation immediately after discovery of a release. If remediation has begun, please prepare and attach a narrative of actions to date in the follow-up C-141 submission. If remedial efforts have been successfully completed or if the release occurred within a lined containment area (see Subparagraph (a) of Paragraph (5) of Subsection A of 19.15.29.11 NMAC), please prepare and attach all information needed for closure evaluation in the follow-up C-141 submission.	

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

I hereby agree and sign off to the above statement	Name: Garrett Green Title: SHE Coordinator Email: garrett.green@exxonmobil.com Date: 12/06/2023

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QUESTIONS (continued)

Operator: XTO ENERGY, INC 6401 Holiday Hill Road Midland, TX 79707	OGRID: 5380
	Action Number: 316120
	Action Type: [C-141] Remediation Closure Request C-141 (C-141-v-Closure)

QUESTIONS

Site Characterization	
Please answer all the questions in this group (only required when seeking remediation plan approval and beyond). This information must be provided to the appropriate district office no later than 90 days after the release discovery date.	
What is the shallowest depth to groundwater beneath the area affected by the release in feet below ground surface (ft bgs)	Between 100 and 500 (ft.)
What method was used to determine the depth to ground water	OCD Imaging Records Lookup
Did this release impact groundwater or surface water	No
What is the minimum distance, between the closest lateral extents of the release and the following surface areas:	
A continuously flowing watercourse or any other significant watercourse	Between 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 1 and 5 (mi.)
Did the release impact areas not on an exploration, development, production, or storage site	No

Remediation Plan	
Please answer all the questions that apply or are indicated. This information must be provided to the appropriate district office no later than 90 days after the release discovery date.	
Requesting a remediation plan approval with this submission	Yes
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)	441
TPH (GRO+DRO+MRO) (EPA SW-846 Method 8015M)	56.3
GRO+DRO (EPA SW-846 Method 8015M)	56.3
BTEX (EPA SW-846 Method 8021B or 8260B)	0
Benzene (EPA SW-846 Method 8021B or 8260B)	0
Per Subsection B of 19.15.29.11 NMAC unless the site characterization report includes completed efforts at remediation, the report must include a proposed remediation plan in accordance with 19.15.29.12 NMAC, which includes the anticipated timelines for beginning and completing the remediation.	
On what estimated date will the remediation commence	01/17/2024
On what date will (or did) the final sampling or liner inspection occur	01/18/2024
On what date will (or was) the remediation complete(d)	01/18/2024
What is the estimated surface area (in square feet) that will be reclaimed	3345
What is the estimated volume (in cubic yards) that will be reclaimed	190
What is the estimated surface area (in square feet) that will be remediated	3345
What is the estimated volume (in cubic yards) that will be remediated	190
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)

Operator: XTO ENERGY, INC 6401 Holiday Hill Road Midland, TX 79707	OGRID: 5380
	Action Number: 316120
	Action Type: [C-141] Remediation Closure Request C-141 (C-141-v-Closure)

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: Garrett Green Title: SHE Coordinator Email: garrett.green@exxonmobil.com Date: 02/20/2024
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: 316120
	Action Type: [C-141] Remediation Closure Request C-141 (C-141-v-Closure)

QUESTIONS

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

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QUESTIONS (continued)

Operator: XTO ENERGY, INC 6401 Holiday Hill Road Midland, TX 79707	OGRID: 5380
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QUESTIONS

Sampling Event Information	
Last sampling notification (C-141N) recorded	**302589**
Sampling date pursuant to Subparagraph (a) of Paragraph (1) of Subsection D of 19.15.29.12 NMAC	**01/19/2024**
What was the (estimated) number of samples that were to be gathered	**30**
What was the sampling surface area in square feet	**6000**

Remediation Closure Request	
Only answer the questions in this group if seeking remediation closure for this release because all remediation steps have been completed.	
Requesting a remediation closure approval with this submission	Yes
Have the lateral and vertical extents of contamination been fully delineated	**Yes**
Was this release entirely contained within a lined containment area	**No**
All areas reasonably needed for production or subsequent drilling operations have been stabilized, returned to the sites existing grade, and have a soil cover that prevents ponding of water, minimizing dust and erosion	Yes
What was the total surface area (in square feet) remediated	3345
What was the total volume (cubic yards) remediated	190
All areas not reasonably needed for production or subsequent drilling operations have been reclaimed to contain a minimum of four feet of non-waste contain earthen material with concentrations less than 600 mg/kg chlorides, 100 mg/kg TPH, 50 mg/kg BTEX, and 10 mg/kg Benzene	Yes
What was the total surface area (in square feet) reclaimed	3345
What was the total volume (in cubic yards) reclaimed	190
Summarize any additional remediation activities not included by answers (above)	Site assessment, delineation, and excavation activities were conducted at the Site to address the November 2023 release of produced water. Laboratory analytical results for excavation soil samples collected from the final excavation extent indicated all COC concentrations were compliant with the Site Closure Criteria and reclamation requirement. Based on laboratory analytical results, no further remediation is required. The release is vertically defined by confirmation floor soil samples FS01 through FS19 and laterally defined by confirmation sidewall soil samples SW01 through SW05. No additional excavation will be needed at the time of pad abandonment or major facility reconstruction as a result of this release. Following pad abandonment or major facility reconstruction, the work area will be reseeded with the recommended BLM seed mixture. On January 18, 2024, XTO backfilled the northern half of the excavation because the area was subject to high traffic. The caliche material used for the backfill was purchased locally and the area recontoured to match pre-existing Site conditions. Photographic documentation of the backfill is included in Appendix B. The remainder of the excavation is scheduled to be backfilled the week of February 19, 2024. Excavation of soil has mitigated adverse conditions at this Site. The release has been vertically and laterally defined. The lined containment was inspected and appears to be operating as designed. Depth to groundwater is confirmed to be greater than 100 feet bgs and no other sensitive receptors were identified near the release extent. XTO believes these remedial actions are protective of human health, the environment, and groundwater. As such, XTO respectfully requests no further remediation for Incident Number NAPP2334060921.
The responsible party must attach information demonstrating they have complied with all applicable closure requirements and any conditions or directives of the OCD. This demonstration should be in the form of a comprehensive report (in .pdf format) including a scaled site map, sampling diagrams, relevant field notes, photographs of any excavation prior to backfilling, laboratory data including chain of custody documents of final sampling, and a narrative of the remedial activities. Refer to 19.15.29.12 NMAC.	

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to OCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the OCD does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In addition, OCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations. The responsible party acknowledges they must substantially restore, reclaim, and re-vegetate the impacted surface area to the conditions that existed prior to the release or their final land use in accordance with 19.15.29.13 NMAC including notification to the OCD when reclamation and re-vegetation are complete.

I hereby agree and sign off to the above statement	Name: Garrett Green Title: SHE Coordinator Email: garrett.green@exxonmobil.com Date: 02/20/2024

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QUESTIONS (continued)

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	Action Number: 316120
	Action Type: [C-141] Remediation Closure Request C-141 (C-141-v-Closure)

QUESTIONS

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

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CONDITIONS

Action 316120

CONDITIONS

Operator:	OGRID:
XTO ENERGY, INC 6401 Holiday Hill Road Midland, TX 79707	5380
	Action Number: 316120
	Action Type: [C-141] Remediation Closure Request C-141 (C-141-v-Closure)

CONDITIONS

Created By	Condition	Condition Date
rhamlet	We have received your Remediation Closure Report for Incident #NAPP2334060921 PLU 18 BRUSHY DRAW CTB, thank you. This Remediation Closure Report is approved.	4/22/2024