ENSOLUM

March 7, 2024

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

Re: Remediation Work Plan and Variance Request
PLU 17 Twin Wells Ranch 702H
Incident Number NAPP2335329764
Eddy County, New Mexico

To Whom It May Concern:

Ensolum, LLC (Ensolum), on behalf of XTO Energy, Inc. (XTO), has prepared the following *Remediation Work Plan (Work Plan)* to document assessment and delineation activities completed to date and propose remedial actions to address impacted soil identified at the PLU 17 Twin Wells Ranch 702H (Site). The purpose of the Site assessment and delineation activities was to determine the presence or absence of impacted soil resulting from a release of produced water at the Site. The following *Work Plan* proposes to excavate impacted soil and requests variances for Closure Criteria and confirmation soil sampling frequency.

SITE DESCRIPTION AND RELEASE SUMMARY

The Site is located in Unit D, Section 20, Township 24 South, Range 31 East, in Eddy County, New Mexico (32.207560°, -103.806370°) and is associated with oil and gas exploration and production operations on Federal Land managed by the Bureau of Land Management (BLM).

On December 11, 2023, a produce water transfer pipeline supplying a nearby drilling rig failed, resulting in the release of 392 barrels (bbls) of produced water onto the surface of a right-of-way (ROW) and into the adjacent pasture area. No released fluids were recovered. XTO immediately reported the release to the New Mexico Oil Conservation Division (NMOCD) via email and submitted a Notification of Release (NOR) on an Initial C-141 Application (C-141) on December 19, 2023. The release was assigned Incident Number NAPP2335329764.

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 a soil boring drilled for determination of regional groundwater depth. In August 2023, a soil boring permitted by New Mexico Office of the State Engineer (NMOSE file number C-04759) was completed approximately 0.57 miles west of the release utilizing air rotary drilling methods. Soil boring C-04759 was drilled to a depth of 110 feet bgs. A field geologist logged and described soils continuously. No moisture or groundwater was encountered during drilling activities. The soil boring was left open for over 72 hours to allow for potential slow infill of groundwater. After the 72-hour waiting period without

observing groundwater, it was confirmed that groundwater beneath the Site is greater than 110 feet bgs. The borehole was properly abandoned with drill cuttings and hydrated bentonite chips. The Well Log is included in Appendix A.

The closest continuously flowing or significant watercourse to the Site is a freshwater emergent wetland, located approximately 4,733 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 to a freshwater well or spring and is not within a 100-year floodplain or overlying a subsurface mine. The Site is not underlain by unstable geology (low potential karst designation area). Potential Site receptors are identified on Figure 1.

Based on the results of the Site Characterization, the following NMOCD Table 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

Based on the lack of sensitive receptors at the Site, a low potential karst designation, and surrounding nearby depth to groundwater data estimating regional depth to groundwater greater than 100 feet bgs, XTO is requesting NMOCD consider a variance to its guidance that depth to groundwater determination be restricted to data from wells within ½-mile of the release. The nearest depth-to-groundwater data includes the above-mentioned soil boring C-04759 that documents dry conditions to at least 110 feet bgs. The boring was located 0.57 miles west of the release, just outside the preferred ½-mile radius. A second nearby dry soil boring, C-04499, is located 0.73 miles in the opposite direction (east) of the release, confirming groundwater is not present above 100 feet bgs in the general area of the Site. The data points are current, as C-04759 was drilled in August 2023 and C-04499 was drilled December 2020. The next nearest data point is United States Geological Survey (USGS) well 321310103482101 located 0.86 miles north of the release with a recorded depth to water of 74.44 feet bgs. However, the last recorded depth to groundwater measurement was collected in January 2013 and the well is listed as an “Inactive Site” on the USGS National Water Information System Mapper. There is an indication that this well went dry, as the previously recorded measurements demonstrated an increasing depth to groundwater with time. The USGS well is also located in a potential historic stock pond (currently dry) and may have been influenced by surface water storage in the past. The closest groundwater well data has reasonably estimated depth to groundwater at the Site as greater than 100 feet. If boring C-04759 had been drilled 300 feet closer to the release, it would be accepted. There is no evidence suggesting the 300-feet makes any difference in the subsurface hydrogeology, and therefore is equally protective of the public, the environment, and groundwater. Based on the above-mentioned findings, XTO requests the estimated depth to groundwater at the Site be accepted. All Well Logs used for the depth to groundwater investigation are included in Appendix A.

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

SITE ASSESSMENT AND DELINEATION SOIL SAMPLING ACTIVITIES

Between January 12, and January 17, 2024, Ensolum personnel conducted Site assessment and delineation activities to evaluate the release extent based on information provided in the C-141 and visual observations. Seventeen potholes (PH01 through PH17) were advanced utilizing heavy equipment and a hand auger to investigate the extent of the release. The potholes were advanced to depths ranging from 1-foot to 10 feet bgs. Discrete delineation soil samples were collected from each pothole at depths ranging from 0.5 feet to 10 feet bgs. All delineation soil samples were field screened for volatile organic compounds (VOCs) utilizing a calibrated photoionization detector (PID) and chloride using Hach® chloride QuanTab® test strips. The release extent and delineation soil sample locations were mapped utilizing a handheld Global Positioning System (GPS) unit and are depicted on Figure 2. A photographic log of the Site assessment and delineation activities is included in Appendix B. Field screening results and observations for all potholes were logged on lithologic/soil sampling logs, which are included in Appendix C.

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

LABORATORY ANALYTICAL RESULTS

Laboratory analytical results for delineation soil samples indicated no hydrocarbons (BTEX and TPH) were detected in any samples. Chloride concentrations exceeded the reclamation requirement in all soil samples collected within the top 4 feet of the release extent, except PH09 and PH13. The elevated chloride concentrations ranged from 947 mg/kg in PH14A to 6,910 mg/kg in PH05A. Samples collected at 4 feet bgs and deeper met the Site Closure Criteria for chloride. Analytical results for the terminal depths of all but one (PH14) of the potholes indicated vertical definition is established between 6 and 10 feet bgs to the strictest Table I Closure Criteria standards. Laboratory analytical results are summarized in Table 1 and the complete laboratory analytical report is included in Appendix D.

PROPOSED REMEDIATION WORK PLAN

XTO proposes to remove chloride-impacted soil identified at the Site. An estimated 4,100 cubic yards of impacted soil will be removed, and the proposed excavation extent is depicted on Figure 3. Following the removal of impacted soil, confirmation samples will be collected along the floors and sidewalls of the final excavation extent. Additionally, confirmation samples will be collected where potholes PH09 and PH13 were advanced. Although these samples meet the reclamation requirement and suggest no remediation is required, all areas of the release footprint will be included as part of the confirmation sampling program.

Due to the estimated size of the excavation, XTO requests a variance for frequency of confirmation samples. XTO proposes five-point composite samples be collected at a sampling frequency of 500 square feet. The proposed sampling frequency would reduce the total amount of samples from approximately 192 samples (200 square-foot frequency) to approximately 78 samples. The quantity of samples is unlikely to reduce the ability to identify residual contaminants, especially since the strictest

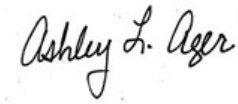
600 mg/kg chloride concentration in the reclamation requirement is being applied in the top 4 feet. No receptors will be impacted. Most of the soil in the root zone (top 4 feet) will be removed, eliminating potential impact to vegetation. Wildlife and humans are not generally affected by chloride concentrations in soil through touch or ingestion, especially at near 600 mg/kg levels. The sampling frequency of 500 square feet is sufficient to confirm impacted soil removal at this level of impact and extent, particularly since higher concentrations exist below 4 feet and have been determined to be protective of human health and environment by the NMOCD through application of Table I.

The proposed collection of sidewall confirmation soil samples will serve as horizontal definition of the release. The soil samples will be handled and analyzed for COCs as described above and submitted to Eurofins for laboratory analysis. The excavated soil will be transferred to a New Mexico approved landfill facility for disposal. The excavation will be backfilled and recontoured to match pre-existing Site conditions and the pasture area will be reseeded with a BLM-approved seed mixture.

XTO believes this *Work Plan* is protective of human health, the environment, and groundwater. As such, XTO requests approval of this *Work Plan* with variances by NMOCD. XTO will complete the excavation and soil sampling activities within 90 days of the date of approval of this *Work Plan* by the NMOCD. If you have any questions or comments, please contact Ms. Tacoma Morrissey at (337) 257-8307 or tmorrissey@ensolum.com.

Sincerely,
Ensolum, LLC

Benjamin J. Belill
Senior Geologist



Ashley L. Ager, MS., PG.
Principal

cc: Amy Ruth, XTO
Amanda Garcia, XTO
BLM

Appendices:

Figure 1	Site Receptor Map
Figure 2	Delineation Soil Sample Locations
Figure 3	Proposed Excavation Extent
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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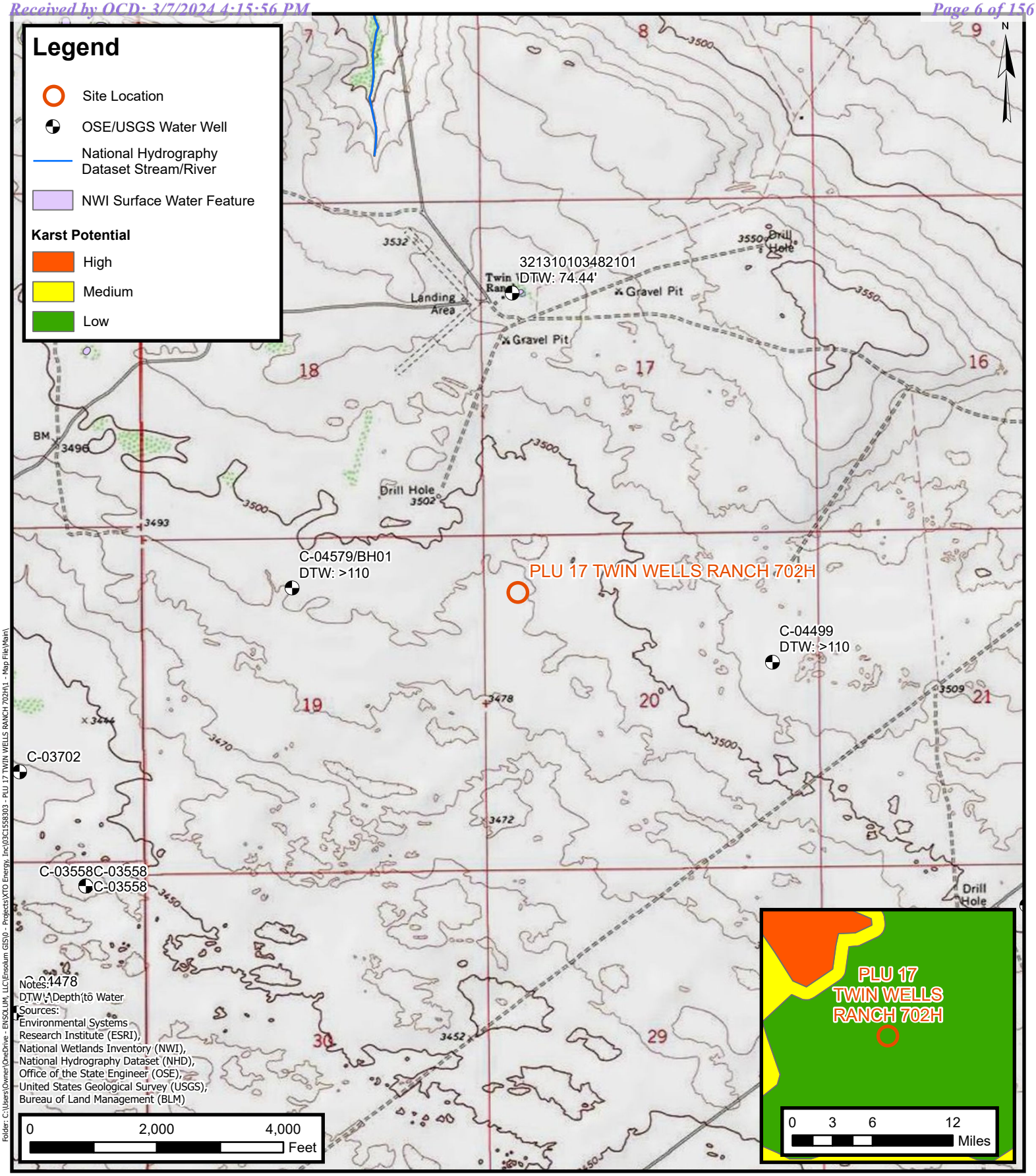
FIGURES



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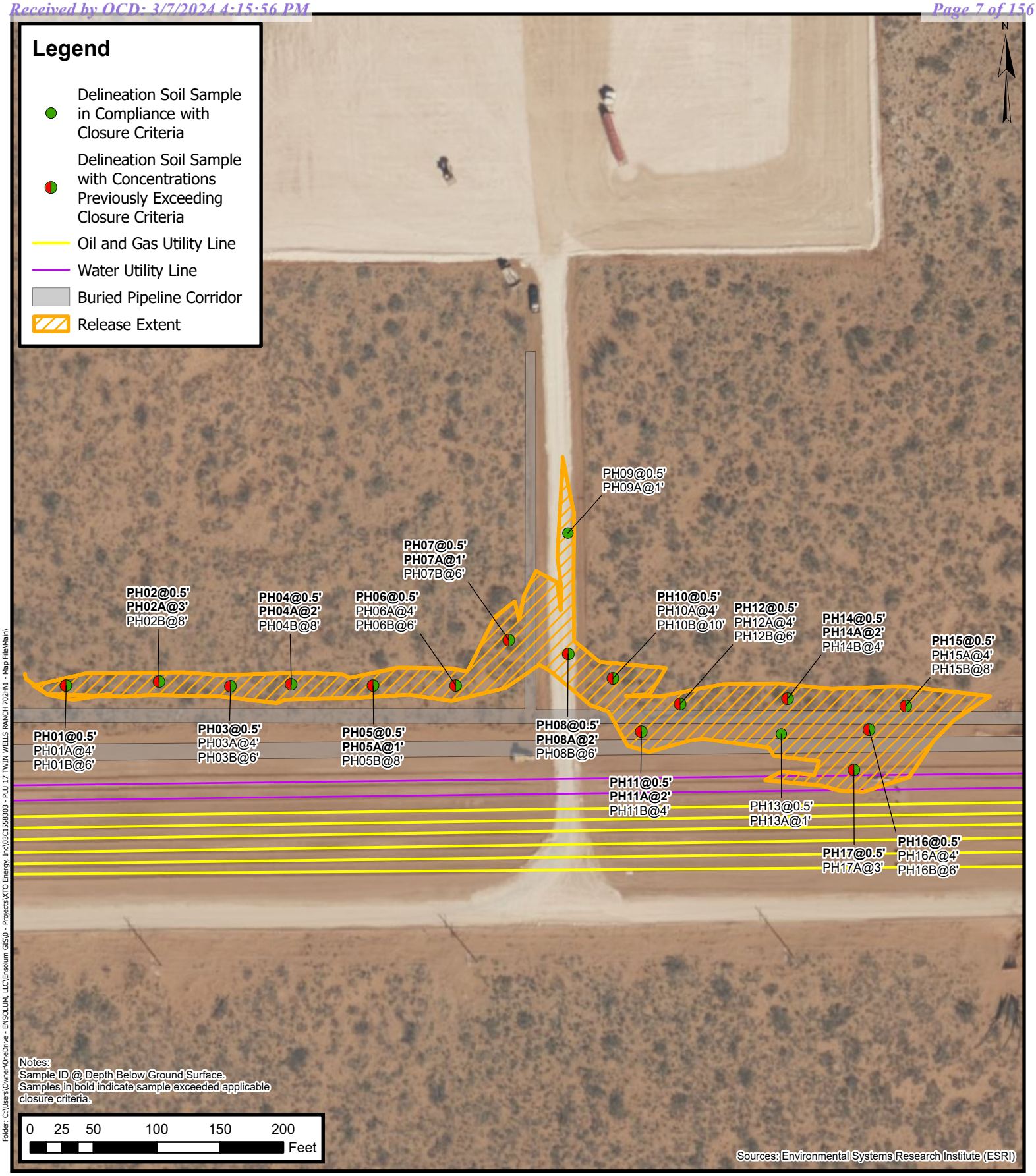
Site Receptor Map

XTO Energy, Inc.
PLU 17 TWIN WELLS RANCH 702H
Incident Number: NAPP2335329764
Unit D, Section 20, T24S, R31E
Eddy County, New Mexico

FIGURE 1



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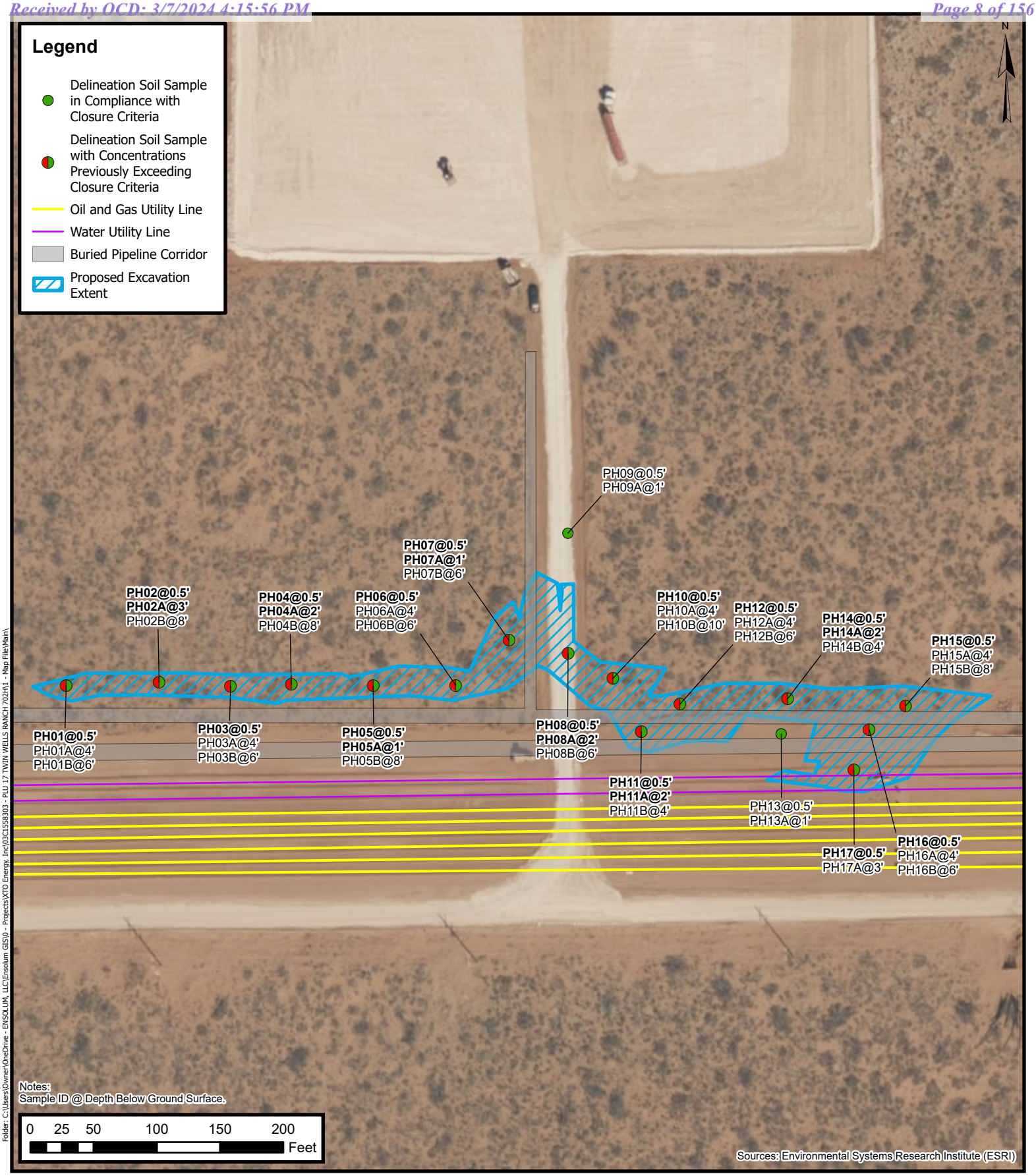
Delineation Soil Sample Locations

XTO Energy, Inc.
PLU 17 TWIN WELLS RANCH 702H
Incident Number: NAPP2335329764
Unit D, Section 20, T24S, R31E
Eddy County, New Mexico

FIGURE 2



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Proposed Excavation Extent

XTO Energy, Inc.
PLU 17 TWIN WELLS RANCH 702H
Incident Number: NAPP2335329764
Unit D, Section 20, T24S, R31E
Eddy County, New Mexico

FIGURE 3

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TABLES

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TABLE 1
SOIL SAMPLE ANALYTICAL RESULTS
PLU 17 Twin Wells Ranch 702H
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	01/12/2024	0.5	<0.00201	<0.00402	<49.7	<49.7	<49.7	<49.7	<49.7	**2,450**
PH01A	01/12/2024	4	<0.00201	<0.00402	<50.4	<50.4	<50.4	<50.4	<50.4	5,630
PH01B	01/12/2024	6	<0.00199	<0.00398	<50.5	<50.5	<50.5	<50.5	<50.5	180
PH02	01/12/2024	0.5	<0.00199	<0.00398	<49.6	<49.6	<49.6	<49.6	<49.6	**2,150**
PH02A	01/12/2024	3	<0.00200	<0.00399	<49.6	<49.6	<49.6	<49.6	<49.6	**4,420**
PH02B	01/12/2024	8	<0.00200	<0.00401	<49.6	<49.6	<49.6	<49.6	<49.6	334
PH03	01/12/2024	0.5	<0.00199	<0.00398	<50.3	<50.3	<50.3	<50.3	<50.3	**2,570**
PH03A	01/12/2024	1	<0.00198	<0.00396	<50.3	<50.3	<50.3	<50.3	<50.3	**2,560**
PH03B	01/12/2024	8	<0.00199	<0.00398	<49.7	<49.7	<49.7	<49.7	<49.7	19.2
PH04	01/12/2024	0.5	<0.00200	<0.00399	<50.2	<50.2	<50.2	<50.2	<50.2	**1,940**
PH04A	01/12/2024	2	<0.00201	<0.00402	<50.4	<50.4	<50.4	<50.4	<50.4	**2,220**
PH04B	01/12/2024	8	<0.00202	<0.00404	<49.8	<49.8	<49.8	<49.8	<49.8	90.3
PH05	01/12/2024	0.5	<0.00199	<0.00398	70.8	<49.6	<49.6	70.8	70.8	**2,290**
PH05A	01/12/2024	1	<0.00198	<0.00396	<50.4	<50.4	<50.4	<50.4	<50.4	**6,910**
PH05B	01/12/2024	8	<0.00199	<0.00398	<50.5	<50.5	<50.5	<50.5	<50.5	483
PH06	01/12/2024	0.5	<0.00200	<0.00399	<50.0	<50.0	<50.0	<50.0	<50.0	**1,970**
PH06A	01/12/2024	4	<0.00200	0.00426	<49.9	<49.9	<49.9	<49.9	<49.9	3,560
PH06B	01/12/2024	6	<0.00199	<0.00398	<50.0	<50.0	<50.0	<50.0	<50.0	174
PH07	01/16/2024	0.5	<0.00199	<0.00398	<49.6	<49.6	<49.6	<49.6	<49.6	**2,520**
PH07A	01/16/2024	1	<0.00200	<0.00401	<49.8	<49.8	<49.8	<49.8	<49.8	**2,230**
PH07B	01/16/2024	6	<0.00201	<0.00402	<49.6	<49.6	<49.6	<49.6	<49.6	120
PH08	01/16/2024	0.5	<0.00202	<0.00403	<49.6	<49.6	<49.6	<49.6	<49.6	**2,270**
PH08A	01/16/2024	2	<0.00199	<0.00398	<49.9	<49.9	<49.9	<49.9	<49.9	**2,910**
PH08B	01/16/2024	6	<0.00200	<0.00399	<50.2	<50.2	<50.2	<50.2	<50.2	111
PH09	01/17/2024	0.5	<0.00201	<0.00402	<50.4	<50.4	<50.4	<50.4	<50.4	42.9
PH09A	01/17/2024	1	<0.00202	<0.00403	<50.5	<50.5	<50.5	<50.5	<50.5	19.0
PH10	01/16/2024	0.5	<0.00199	<0.00398	<49.7	<49.7	<49.7	<49.7	<49.7	**2,680**
PH10A	01/16/2024	4	<0.00199	<0.00398	<49.9	<49.9	<49.9	<49.9	<49.9	1,150
PH10B	01/16/2024	10	<0.00200	<0.00399	<49.8	<49.8	<49.8	<49.8	<49.8	89.5
PH11	01/17/2024	0.5	<0.00199	<0.00398	<49.7	<49.7	<49.7	<49.7	<49.7	**2,460**
PH11A	01/17/2024	2	<0.00199	<0.00398	<50.1	<50.1	<50.1	<50.1	<50.1	**2,920**

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TABLE 1
SOIL SAMPLE ANALYTICAL RESULTS
PLU 17 Twin Wells Ranch 702H
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
PH11B	01/17/2024	4	<0.00200	<0.00399	<50.5	<50.5	<50.5	<50.5	<50.5	12.3
PH12	01/17/2024	0.5	<0.00201	<0.00402	<50.5	<50.5	<50.5	<50.5	<50.5	**2,570**
PH12A	01/17/2024	4	<0.00200	<0.00401	<49.9	<49.9	<49.9	<49.9	<49.9	5,540
PH12B	01/17/2024	6	<0.00199	<0.00398	<49.9	<49.9	<49.9	<49.9	<49.9	454
PH13	01/17/2024	0.5	<0.00199	<0.00398	<49.6	<49.6	<49.6	<49.6	<49.6	6.48
PH13A	01/17/2024	1	<0.00200	<0.00399	<50.2	<50.2	<50.2	<50.2	<50.2	8.33
PH14	01/17/2024	0.5	<0.00201	<0.00402	<50.4	<50.4	<50.4	<50.4	<50.4	**1,590**
PH14A	01/17/2024	2	<0.00200	<0.00401	<50.1	<50.1	<50.1	<50.1	<50.1	**947**
PH14B	01/17/2024	4	<0.00199	<0.00398	<49.9	65.4	<49.9	65.4	65.4	727
PH15	01/17/2024	0.5	<0.00199	<0.00398	<49.7	<49.7	<49.7	<49.7	<49.7	**3,980**
PH15A	01/17/2024	4	<0.00200	<0.00399	<49.7	<49.7	<49.7	<49.7	<49.7	2,500
PH15B	01/17/2024	8	<0.00201	<0.00402	<50.1	<50.1	<50.1	<50.1	<50.1	92.2
PH16	01/17/2024	0.5	<0.00199	<0.00398	<50.5	<50.5	<50.5	<50.5	<50.5	**1,710**
PH16A	01/17/2024	4	<0.00199	<0.00398	<50.5	<50.5	<50.5	<50.5	<50.5	3,070
PH16B	01/17/2024	6	<0.00200	<0.00399	<49.9	<49.9	<49.9	<49.9	<49.9	25.0
PH17	01/17/2024	0.5	<0.00201	<0.00402	<49.6	<49.6	<49.6	<49.6	<49.6	**2,680**
PH17A	01/17/2024	3	<0.00200	<0.00401	<49.6	<49.6	<49.6	<49.6	<49.6	26.6

Notes:

bgs: below ground surface

mg/kg: milligrams per kilogram

NMOCD: New Mexico Oil Conservation Division

BTEX: Benzene, Toluene, Ethylbenzene, and Xylenes

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

GRO: Gasoline Range Organics

DRO: Diesel Range Organics

ORO: Oil Range Organics

TPH: Total Petroleum Hydrocarbon

NMAC: New Mexico Administrative Code

~~Grey~~ text indicates soil sample removed during excavation activities

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APPENDIX A

Referenced Well Records

ENSOLUM	Sample Name: C-4759 (BH01)	Date: 8/07/2023
	Site Name: PLU 18 TWR SAT BATTERY	
	Incident Number: nAPP2230551957	
	Job Number: 03C1558144	
LITHOLOGIC / SOIL SAMPLING LOG	Logged By: M. O'Dell	Method: Air Rotary Rig
Coordinates: 32.207892, -103.817942	Hole Diameter: N/A	Total Depth: 110'
Comments: No field screening or sampling was conducted at the site.		

Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample ID	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithologic Descriptions
						0		
						10	SP	0-10'. Sand w/ trace caliche. Reddish brown, very fine to fine grained, subrounded to subangular, poorly graded, dry.
						20	CCHE	10-40'.Caliche w/ sand. Light brown to tan, very fine to fine grained, subrounded to subangular, poorly graded, dry.
						30		
						40	SP	40-100'. Sand w/ trace caliche. Reddish brown, very fine to fine grained, subrounded to subangular grains, poorly graded, dry.
						50		50': Injecting/adding water & soap at 50'
						60		
						70		
						80		
						90		
						100	SP/SC	100-110'. Clayey sand, reddish orange very fine to fine grained, poorly graded, dry.
						110		110': stopped drilling and set casing at 110'.

TD @ 110' bgs.

WELL RECORD & LOG

OFFICE OF THE STATE ENGINEER

www.ose.state.nm.us

1. GENERAL AND WELL LOCATION

OSE POD NO. (WELL NO.): POD1 (MW-1)	WELL TAG ID NO.: n/a	OSE FILE NO(S).: C-4499
WELL OWNER NAME(S): XTO Energy (Kyle Littrell)		PHONE (OPTIONAL):
WELL OWNER MAILING ADDRESS: 6401 Holiday Hill Dr.		CITY: Midland STATE: TX ZIP: 79707

WELL LOCATION (FROM GPS)	DEGREES	MINUTES	SECONDS	
LATITUDE	32°	12'	15.89"	N
LONGITUDE	-103°	47'	36.29"	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: SE NE Sec. 20 T24S R31E

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)
12/30/2020	12/30/2020	temporary well material	110	n/a

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

DRILLING FLUID: ☑ AIR ☐ MUD ADDITIVES – SPECIFY:

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

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

3. ANNULAR MATERIAL

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

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

FILE NO. C-4499	POD NO. 1	TRN NO. 682532
LOCATION 24S.31E.20.243	WELL TAG ID NO. —	PAGE 1 OF 2

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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	6	6	SAND, well graded, fine-to-large grain particles red-brown, dry	~~Y~~ ✓ N	
6	8	2	SAND, poorly graded, fine grained little clay mod. plasitcity, red-brown, moist	Y ✓ N	
8	11	3	CALICHE, mod. consolidated, some sand, medium /fine grain, white-tan, dry	Y ✓ N	
11	46	35	CALICHE, mod. consolidated, some sand, medium to fine grain, white-tan, dry.	Y ✓ N	
46	74	28	SAND, well-graded, medium grain,caliche gravel (1-4mm), light brown, dry.	Y ✓ N	
74	110	36	SAND, well-graded, fine/large grain, few clay, cohesive, red-brown, dry	Y ✓ N	
				Y N	
				Y N	
				Y N	
				Y N	
				Y N	
				Y N	
				Y N	
				Y N	
				Y N	
				Y N	
				Y N	
				Y N	
				Y N	
				Y N	

METHOD USED TO ESTIMATE YIELD OF WATER-BEARING STRATA:

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

TOTAL ESTIMATED WELL YIELD (gpm): 0.00

5. TEST; RIG SUPERVISION

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

MISCELLANEOUS INFORMATION: Temporary well 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

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 — 01/15/2021

SIGNATURE OF DRILLER / PRINT SIGNEE NAME — DATE

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

FILE NO. C-4499	POD NO. 1	TRN NO. 682532
LOCATION	WELL TAG ID NO.	PAGE 2 OF 2

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Click to hideNews Bulletins

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

Groundwater levels for the Nation

Important: Next Generation Monitoring Location Page

Search Results -- 1 sites found

Agency code = usgs
site_no list =
- 321310103482101

Minimum number of levels = 1
Save file of selected sites to local disk for future upload

USGS 321310103482101 24S.31E.17.13120

Eddy County, New Mexico
Latitude 32°13'14.1", Longitude 103°48'23.4" NAD83
Land-surface elevation 3,530.00 feet above NGVD29
This well is completed in the Other aquifers (N9999OTHER) national aquifer.
This well is completed in the Alluvium, Bolson Deposits and Other Surface Deposits (110AVMB) local aquifer.

Output formats

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

Date	Time	? Water-level date-time accuracy	? Parameter code	Water level, feet below land surface	Water level, feet above specific vertical datum	Referenced vertical datum	? Status	? Method of measurement	? Measuring agency	? Source measur
1959-02-03		D	62610		3459.50	NGVD29	P	Z		
1959-02-03		D	62611		3461.24	NAVD88	P	Z		
1959-02-03		D	72019	70.50			P	Z		
1959-03-25		D	62610		3462.33	NGVD29	1	Z		
1959-03-25		D	62611		3464.07	NAVD88	1	Z		
1959-03-25		D	72019	67.67			1	Z		
1976-12-02		D	62610		3463.98	NGVD29	1	Z		
1976-12-02		D	62611		3465.72	NAVD88	1	Z		
1976-12-02		D	72019	66.02			1	Z		
2013-01-17	21:00 UTC	m	62610		3455.56	NGVD29	1	S	USGS	
2013-01-17	21:00 UTC	m	62611		3457.30	NAVD88	1	S	USGS	
2013-01-17	21:00 UTC	m	72019	74.44			1	S	USGS	

Explanation

Section	Code	Description
Water-level date-time accuracy	D	Date is accurate to the Day

Section	Code	Description
Water-level date-time accuracy	m	Date is accurate to the Minute
Parameter code	62610	Groundwater level above NGVD 1929, feet
Parameter code	62611	Groundwater level above NAVD 1988, feet
Parameter code	72019	Depth to water level, feet below land surface
Referenced vertical datum	NAVD88	North American Vertical Datum of 1988
Referenced vertical datum	NGVD29	National Geodetic Vertical Datum of 1929
Status	1	Static
Status	P	Pumping
Method of measurement	S	Steel-tape measurement.
Method of measurement	Z	Other.
Measuring agency		Not determined
Measuring agency	USGS	U.S. Geological Survey
Source of measurement		Not determined
Source of measurement	S	Measured by personnel of reporting agency.
Water-level approval status	A	Approved for publication -- Processing and review completed.

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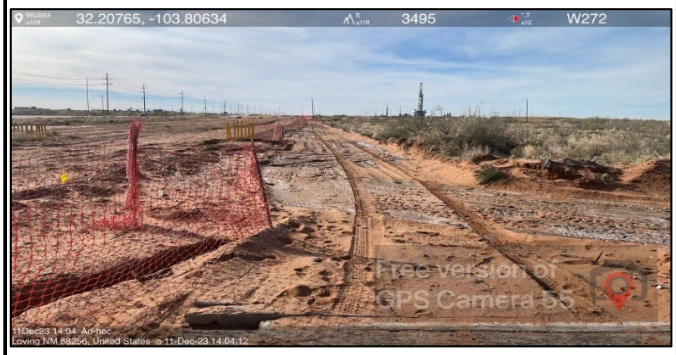
APPENDIX B

Photographic Log

ENSOLUM

Photographic Log
XTO Energy, Inc
PLU 17 Twin Wells Ranch 702H
Incident Number NAPP2335329764

Photograph: 1 Date: 12/11/2023
Description: Soil staining near release point.
View: Northwest



Photograph: 2 Date: 12/11/2023
Description: Soil staining along right-of-way.
View: West

Photograph: 3 Date:1/12/2014
Description: Release area near pipeline corridor.
View: West

Photograph: 4 Date: 1/17/2024
Description: Delineation activities, PH15.
View: Southwest

ENSOLUM

APPENDIX C

Lithologic Soil Sampling Logs

ENSOLUM
Environmental, Engineering and Hydrogeologic Consultants

Sample Name: PH01	Date: 1/12/24
Site Name: PLU 17 Twin Wells Ranch 702H	
Incident Number: NAPP2335329764	
Job Number: 03C1558303	

LITHOLOGIC / SOIL SAMPLING LOG

	Logged By: MR	Method: Backhoe
Coordinates: 32.207662, -103.807542	Hole Diameter: ~2'	Total Depth: 6'

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

Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample ID	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithologic Descriptions
			Y			0	SP-SM	0-2' SAND with silt, medium brown, medium to fine grained. Poorly sorted, no stain past 0.5', no odor,
M	3,758	27.6		PH01	0.5			moist.
M	4,094	22.2	N			1		
M	5,684	25.1	N			2		2-5' SAA, reddish color.
M	7,230	12.1	N			3		
M	7,829	16.6	N	PH01A	4	4		
						5	CCHE	5-6' CALICHE, light to medium brown, coarse grained, sub-rounded grains, no stain, no odor, dry.
D	274	0.2	N	PH01B	6	6		
						TD		Total Depth @ 6' bgs.

ENSOLUM
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Sample Name: PH02	Date: 1/12/24	
Site Name: PLU 17 Twin Wells Ranch 702H		
Incident Number: NAPP2335329764		
Job Number: 03C1558303		
LITHOLOGIC / SOIL SAMPLING LOG	Logged By: MR	Method: Backhoe
Coordinates: 32.207667, -103.807305	Hole Diameter: ~2'	Total Depth: 8'

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

Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample ID	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithologic Descriptions
			Y			0	SP-SM	0-2' SAND with silt, medium brown, medium to fine grained, poorly sorted, no stain past 0.5', no odor,
M	2,638	28.2		PH02	0.5			moist.
M	4,094	14.1	N			1		
M	3,259	15.7	N			2		2-5' SAA, red-brown color.
M	5,242	13.6	N	PH02A	3	3		
M	3,153	5.6	N			4		
						5	CCHE	5-8' CALICHE, light to medium brown, coarse grained, sub-rounded grains, no stain, no odor, dry.
D	862	2.3	N			6		
						7		
D	364	0.6	N	PH02B	8	8		
						TD		Total Depth @ 8' bgs.

ENSOLUM
Environmental, Engineering and Hydrogeologic Consultants

Sample Name: PH03	Date: 1/12/24	
Site Name: PLU 17 Twin Wells Ranch 702H		
Incident Number: NAPP2335329764		
Job Number: 03C1558303		
LITHOLOGIC / SOIL SAMPLING LOG	Logged By: MR	Method: Backhoe
Coordinates: 32.207657, -103.807122	Hole Diameter: ~2'	Total Depth: 8'

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

Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample ID	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithologic Descriptions
			Y			0	SP-SM	0-2' SAND with silt, medium brown, medium to fine grained, poorly sorted, no stain past 0.5', no odor, moist.
M	4,452	19.8		PH03	0.5			
M	4,833	13.2	N	PH03A	1	1		
M	3,259	11.5	N			2		2-5' SAA, red-brown color.
M	4,094	12.6	N			3		
M	2,005	7.2	N			4		
						5	CCHE	5-8' CALICHE, light to medium brown, coarse grained, sub-rounded grains, no stain, no odor, dry.
D	526	1.1	N			6		
						7		
D	<168	0.2	N	PH03B	8	8		
						TD		Total Depth @ 8' bgs.

ENSOLUM
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Sample Name: PH04	Date: 1/12/24	
Site Name: PLU 17 Twin Wells Ranch 702H		
Incident Number: NAPP2335329764		
Job Number: 03C1558303		
LITHOLOGIC / SOIL SAMPLING LOG	Logged By: MR	Method: Backhoe
Coordinates: 32.207659, -103.806967	Hole Diameter: ~2'	Total Depth: 8'

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

Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample ID	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithologic Descriptions
			Y			0	SP-SM	0-6' SAND with silt, medium brown, medium to fine grained, poorly sorted, no stain past 0.5', no odor, moist.
M	4,094	16.2		PH04	0.5			
M	3,259	7.1	N			1		
M	4,452	3.2	N	PH04A	2	2		
M	2,464	0.6	N			3		
M	4,094	0.7	N			4		
						5	CCHE	6-8' CALICHE, some sand, light to medium brown, coarse, sub-rounded grains, no stain, no odor, dry.
D	650	0.2	N			6		
						7		
D	<168	0.0	N	PH04B	8	8		8' CALICHE, white, coarse and sub-rounded grains, no stain, no odor, dry.
						TD		Total Depth @ 8' bgs.

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Sample Name: PH05	Date: 1/12/24
Site Name: PLU 17 Twin Wells Ranch 702H	
Incident Number: NAPP2335329764	
Job Number: 03C1558303	
LITHOLOGIC / SOIL SAMPLING LOG	Logged By: MR / Method: Backhoe
Coordinates: 32.207654, -103.806757	Hole Diameter: ~2' / Total Depth: 8'

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

Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample ID	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithologic Descriptions
			Y			0	SP-SM	0-6' SAND with silt, medium brown, medium to fine grained, poorly sorted, no stain past 0.5', no odor,
M	3,259	24.1		PH05	0.5			moist.
M	10,870	25.2	N	PH05A	1	1		
M	3,153	18.9	N			2		
M	2,296	2.7	N			3		
M	4,094	1.8	N			4		
						5	CCHE	6-8' CALICHE, some sand, light to medium brown, coarse, sub-rounded grains, no stain, no odor, dry.
D	650	0.5	N			6		
						7		
D	274.4	0.3	N	PH05B	8	8		8' CALICHE, white, coarse and sub-rounded grains, no stain, no odor, dry.
						TD		Total Depth @ 8' bgs.

ENSOLUM
Environmental, Engineering and Hydrogeologic Consultants

Sample Name: PH06	Date: 1/12/24
Site Name: PLU 17 Twin Wells Ranch 702H	
Incident Number: NAPP2335329764	
Job Number: 03C1558303	

LITHOLOGIC / SOIL SAMPLING LOG

Logged By: MR	Method: Backhoe
Hole Diameter: ~2'	Total Depth: 6'

Coordinates: 32.207653, -103.806547

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

Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample ID	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithologic Descriptions
			Y			0	SP-SM	0-6' SAND with silt, red brown, medium to fine grained. Poorly sorted, no stain past 0.5', no odor,
M	3,035	12.7		PH06	0.5			moist.
M	2,828	5.9	N			1		
M	2,296	0.6	N			2		
M	2,638	0.5	N			3		
M	7,829	0.6	N	PH06A	4	4		
						5		
D	202	0.2	N	PH06B	6	6	CCHE	6' CALICHE with sand, medium brown, coarse grained, sub-rounded grains, no stain, no odor, dry.
						TD		Total Depth @ 6' bgs.

ENSOLUM
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Sample Name: PH07	Date: 1/16/24
Site Name: PLU 17 Twin Wells Ranch 702H	
Incident Number: NAPP2335329764	
Job Number: 03C1558303	

LITHOLOGIC / SOIL SAMPLING LOG

Logged By: MR	Method: Backhoe
Coordinates: 32.207750, -103.806409	Hole Diameter: ~2' / Total Depth: 6'

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

Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample ID	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithologic Descriptions
			Y			0	SP-SM	0-6' SAND with silt, medium brown, medium to fine grained. Poorly sorted, no stain past 0.5', no odor, moist.
M	2,828	2.3		PH07	0.5			
M	3,511	0.2	N	PH07A	1	1		
M	3,259	0.6	N			2		
M	3,035	0.7	N			3		
M	2,464	0.3	N			4		
						5		
D	<168	0.2	N	PH07B	6	6	CCHE	6' CALICHE with sand, medium brown, coarse grained, sub-rounded grains, no stain, no odor, dry.
						TD		Total Depth @ 6' bgs.

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Sample Name: PH08	Date: 1/16/24	
Site Name: PLU 17 Twin Wells Ranch 702H		
Incident Number: NAPP2335329764		
Job Number: 03C1558303		
LITHOLOGIC / SOIL SAMPLING LOG	Logged By: MR	Method: Backhoe
Coordinates: 32.207720, -103.806258	Hole Diameter: ~2'	Total Depth: 6'

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

Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample ID	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithologic Descriptions
			Y			0	SP-SM	0-2' SAND with silt, medium brown, medium to fine grained. Poorly sorted, no stain past 0.5', no odor,
M	2,464	10.5		PH08	0.5			moist.
M	4,430	9.6	N			1		
M	4,430	0.9	N	PH08A	2	2		2-4' SAA, red-brown color.
M	4,049	1.3	N			3		
D	790	0.2	N			4	CCHE	4-6' CALICHE, white to light brown, poorly sorted, coarse, sub-rounded grains, no stain, no odor, dry.
						5		
D	<168	0.1	N	PH08B	6	6		
						TD		Total Depth @ 6' bgs.

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Sample Name: PH09	Date: 1/17/24	
Site Name: PLU 17 Twin Wells Ranch 702H		
Incident Number: NAPP2335329764		
Job Number: 03C1558303		
LITHOLOGIC / SOIL SAMPLING LOG	Logged By: MR	Method: Backhoe
Coordinates: 32.207981, -103.806256	Hole Diameter: ~2'	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. A 40% correction factor is included in all chloride screenings.

Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample ID	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithologic Descriptions
			Y			0	SP-SM	0-1' SAND with silt, medium brown, medium to fine grained. Poorly sorted, no stain past 0.5', no odor, moist.
M	<168	0.9		PH09	0.5			
M	<168	0.1	N	PH09A	1	1		
						TD		Total Depth @ 1' bgs.

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Sample Name: PH10	Date: 1/16/24	
Site Name: PLU 17 Twin Wells Ranch 702H		
Incident Number: NAPP2335329764		
Job Number: 03C1558303		
LITHOLOGIC / SOIL SAMPLING LOG	Logged By: MR	Method: Backhoe
Coordinates: 32.207665, -103.806145	Hole Diameter: ~2'	Total Depth: 10'

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

Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample ID	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithologic Descriptions
			Y			0	SP-SM	0-6' SAND with silt, medium brown, medium to fine grained, poorly sorted, no stain past 0.5', no odor, moist.
M	4,049	7.5		PH10	0.5			
M	3,035	5.2	N			1		
M	2,296	0.8	N			2		
M	2,464	0.1	N			3		
M	3,259	0.2	N	PH10A	4	4		
						5	CCHE	6-10' CALICHE, light to medium brown, coarse, sub-rounded grains, no stain, no odor, dry.
D	862	0.1	N			6		
						7		
D	790	0.1	N			8		
						9		
D	<168	0.0		PH10B	10	10		
						TD		Total Depth @ 10' bgs.

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Sample Name: PH11	Date: 1/17/24
Site Name: PLU 17 Twin Wells Ranch 702H	
Incident Number: NAPP2335329764	
Job Number: 03C1558303	

LITHOLOGIC / SOIL SAMPLING LOG

Logged By: MR	Method: Backhoe
Coordinates: 32.207548, -103.806074	Hole Diameter: ~2'	Total Depth: 4'

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

Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample ID	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithologic Descriptions
			Y			0	SP-SM	0-4' SAND with silt, medium brown, medium to fine grained. Poorly sorted, no stain past 0.5', no odor, moist.
M	2,464	0.6		PH11	0.5			
M	2,145	1.3	N			1		
M	3,035	0.5	N	PH11A	2	2		
M	717	0.6	N			3		
M	<168	0.3	N	PH11B	4	4		
						TD		Total Depth @ 4' bgs.

ENSOLUM
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Sample Name: PH12	Date: 1/17/24
Site Name: PLU 17 Twin Wells Ranch 702H	
Incident Number: NAPP2335329764	
Job Number: 03C1558303	

LITHOLOGIC / SOIL SAMPLING LOG

Logged By: MR	Method: Backhoe
Coordinates: 32.207607, -103.805974	Hole Diameter: ~2'
	Total Depth: 6'

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

Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample ID	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithologic Descriptions
			Y			0	SP-SM	0-4' SAND with silt, medium brown, medium to fine grained. Poorly sorted, no stain past 0.5', no odor,
M	3,511	7.5		PH12	0.5			moist.
M	2,828	6.2	N			1		
M	3,035	3.4	N			2		
M	2,005	0.2	N			3		
M	3,259	0.1	N	PH12A	4	4	SP-SC	4-6' SAND with clay, red brown, fine to very fine grains Poorly sorted, no stain, no odor, moist.
						5		
D	235	0.0	N	PH12B	6	6	CCHE	6' CALICHE, white, coarse and sub-rounded grains, poorly sorted, no stain, no odor, dry.
						TD		Total Depth @ 6' bgs.

ENSOLUM
Environmental, Engineering and Hydrogeologic Consultants

Sample Name: PH13	Date: 1/17/24	
Site Name: PLU 17 Twin Wells Ranch 702H		
Incident Number: NAPP2335329764		
Job Number: 03C1558303		
LITHOLOGIC / SOIL SAMPLING LOG	Logged By: MR	Method: Backhoe
Coordinates: 32.207540, -103.805716	Hole Diameter: ~2'	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. A 40% correction factor is included in all chloride screenings.

Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample ID	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithologic Descriptions
			Y			0	SP-SM	0-1' SAND with silt, medium brown, medium to fine grained. Poorly sorted, no stain past 0.5', no odor, moist.
M	<168	0.2		PH13	0.5			
M	<168	0.0	N	PH13A	1	1		
						TD		Total Depth @ 1' bgs.

ENSOLUM
Environmental, Engineering and Hydrogeologic Consultants

Sample Name: PH14	Date: 1/17/24	
Site Name: PLU 17 Twin Wells Ranch 702H		
Incident Number: NAPP2335329764		
Job Number: 03C1558303		
LITHOLOGIC / SOIL SAMPLING LOG	Logged By: MR	Method: Backhoe
Coordinates: 32.207616, -103.805699	Hole Diameter: ~2'	Total Depth: 4'

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

Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample ID	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithologic Descriptions
			Y			0	SP-SM	0-4' SAND with silt, medium brown, medium to fine grained. Poorly sorted, no stain past 0.5', no odor, moist.
M	1,204	0.8		PH14	0.5			
M	1,400	0.7	N			1		
M	2,145	0.9	N	PH14A	2	2		
M	<168	0.5	N			3		
M	<168	0.1	N	PH14B	4	4	SP-SC	4' SAND with clay, red brown, fine to very fine grains, poorly sorted, no stain, no odor, moist.
						TD		Total Depth @ 4' bgs.

ENSOLUM
Environmental, Engineering and Hydrogeologic Consultants

Sample Name: PH15	Date: 1/17/24
Site Name: PLU 17 Twin Wells Ranch 702H	
Incident Number: NAPP2335329764	
Job Number: 03C1558303	

LITHOLOGIC / SOIL SAMPLING LOG

Logged By: MR	Method: Backhoe
Coordinates: 32.207598, -103.805397	Hole Diameter: ~2'
	Total Depth: 8'

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

Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample ID	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithologic Descriptions
			Y			0	SP-SM	0-8' SAND with silt, medium brown, medium to fine grained, poorly sorted, no stain past 0.5', no odor, moist.
M	3,259	10.7		PH15	0.5			
M	4,452	8.2	N			1		
M	4,094	1.7	N			2		
M	3,259	0.9	N			3		
M	5,684	0.8	N	PH15A	4	4		
						5		
D	1,742	1.0	N			6		
						7		
D	<168	0.1	N	PH15B	8	8	CCHE	8' CALICHE, white, coarse and sub-rounded grains, no stain, no odor, dry.
						TD		Total Depth @ 8' bgs.

ENSOLUM
Environmental, Engineering and Hydrogeologic Consultants

Sample Name: PH16	Date: 1/17/24
Site Name: PLU 17 Twin Wells Ranch 702H	
Incident Number: NAPP2335329764	
Job Number: 03C1558303	

LITHOLOGIC / SOIL SAMPLING LOG

Logged By: MR	Method: Hand Auger
Coordinates: 32.207546, -103.805491	Hole Diameter: 4"
	Total Depth: 6'

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

Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample ID	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithologic Descriptions
			Y			0	SP-SM	0-4' SAND with silt, medium brown, medium to fine grained. Poorly sorted, no stain past 0.5', no odor, moist.
M	2,464	7.5		PH16	0.5			
M	1,870	6.2	N			1		
M	2,464	3.4	N			2		
M	717	0.2	N			3		
M	3,259	0.1	N	PH16A	4	4	SP-SC	4-6' SAND with clay, red brown, fine to very fine grains Poorly sorted, no stain, no odor, moist.
						5		
D	<168	0.0	N	PH16B	6	6	CCHE	6' CALICHE, white, coarse and sub-rounded grains, poorly sorted, no stain, no odor, dry.
						TD		Total Depth @ 6' bgs.

ENSOLUM
Environmental, Engineering and Hydrogeologic Consultants

Sample Name: PH17	Date: 1/17/24	
Site Name: PLU 17 Twin Wells Ranch 702H		
Incident Number: NAPP2335329764		
Job Number: 03C1558303		
LITHOLOGIC / SOIL SAMPLING LOG	Logged By: MR	Method: Hand Auger
Coordinates: 32.207459, -103.805532	Hole Diameter: 4"	Total Depth: 3'

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

Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample ID	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithologic Descriptions
			Y			0	SP-SM	0-3' SAND with silt, medium brown, medium to fine grained. Poorly sorted, no stain past 0.5', no odor, moist.
M	3,035	4.1		PH17	0.5			
M	1,742	0.7	N			1		
M	274	0.6	N			2		
M	<168	0.1	N	PH17A	3	3		
						TD		Total Depth @ 3' bgs.

ENSOLUM

APPENDIX D

Laboratory Analytical Reports & Chain of Custody Documentation

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ANALYTICAL REPORT

PREPARED FOR

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

Generated 1/22/2024 3:44:07 PM

JOB DESCRIPTION

PLU 17 Twin Wells Ranch 702H
03C1558303

JOB NUMBER

890-5972-1

Eurofins Carlsbad
1089 N Canal St.
Carlsbad NM 88220

See page two for job notes and contact information.

my EOL

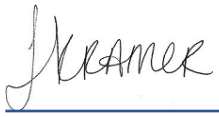
Eurofins Carlsbad

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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1/22/2024 3:44:07 PM

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

Client: Ensolum
Project/Site: PLU 17 Twin Wells Ranch 702H

Laboratory Job ID: 890-5972-1
SDG: 03C1558303

Table of Contents

Definitions/Glossary

Client: Ensolum Job ID: 890-5972-1
Project/Site: PLU 17 Twin Wells Ranch 702H SDG: 03C1558303

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, high biased.
U	Indicates the analyte was analyzed for but not detected.

GC Semi VOA

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

HPLC/IC

Qualifier	Qualifier Description
F1	MS and/or MSD recovery exceeds control limits.
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: 890-5972-1
Project: PLU 17 Twin Wells Ranch 702H

Job ID: 890-5972-1 Eurofins Carlsbad

Job Narrative
890-5972-1

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 1/15/2024 9:05 AM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was -0.8°C

Receipt Exceptions
The following samples were received and analyzed from an unpreserved bulk soil jar: PH01 (890-5972-1), PH01A (890-5972-2), PH01B (890-5972-3), PH02 (890-5972-4), PH02A (890-5972-5), PH02B (890-5972-6), PH03 (890-5972-7), PH03A (890-5972-8), PH03B (890-5972-9), PH04 (890-5972-10), PH04A (890-5972-11), PH04B (890-5972-12), PH05 (890-5972-13), PH05A (890-5972-14), PH05B (890-5972-15), PH06 (890-5972-16), PH06A (890-5972-17) and PH06B (890-5972-18).

GC VOA
Method 8021B: The surrogate recovery for the blank associated with preparation batch 880-71133 and analytical batch 880-71154 was outside the upper control limits.

Method 8021B: Surrogate recovery for the following samples were outside control limits: PH01 (890-5972-1), PH01A (890-5972-2), PH05 (890-5972-13) and PH06A (890-5972-17). 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 880-71154 recovered above the upper control limit for <AffectedAnalytes>. 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 880-71154/33).

Method 8021B: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 880-71132 and analytical batch 880-71154 were outside control limits for one or more analytes. See QC Sample Results for detail. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery is within acceptance limits.

Method 8021B: The laboratory control sample duplicate (LCSD) for preparation batch 880-71132 and analytical batch 880-71154 recovered outside control limits for the following analytes: m-Xylene & p-Xylene. Since only an acceptable LCS is required per the method, the LCS shows recovery for the batch therefore the data has been qualified and reported.

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

GC Semi VOA
Method 8015MOD_NM: Surrogate recovery for the following samples were outside control limits: PH01 (890-5972-1), PH02 (890-5972-4), PH02A (890-5972-5), PH02B (890-5972-6), PH03 (890-5972-7), PH03B (890-5972-9) and (890-5972-A-1-E MS). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

Method 8015MOD_NM: The matrix spike / matrix spike duplicate (MS/MSD) recoveries and precision for preparation batch 880-71029 and analytical batch 880-71032 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample / laboratory sample control duplicate (LCS/LCSD) precision was within acceptance limits.

Method 8015MOD_NM: Surrogate recovery for the following samples were outside control limits: PH04B (890-5972-12), PH05B (890-5972-15), PH06 (890-5972-16) and PH06B (890-5972-18). Evidence of matrix interference is present; therefore, re-extraction

Case Narrative

Client: Ensolum Job ID: 890-5972-1
Project: PLU 17 Twin Wells Ranch 702H

Job ID: 890-5972-1 (Continued) Eurofins Carlsbad

and/or re-analysis was not performed.

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

HPLC/IC
Method 300_ORGFM_28D: The matrix spike / matrix spike duplicate (MS/MSD) recoveries and precision for preparation batch 880-71003 and analytical batch 880-71077 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample / laboratory sample control duplicate (LCS/LCSD) precision was within acceptance limits.

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

Client Sample Results

Client: Ensolum
Project/Site: PLU 17 Twin Wells Ranch 702H

Job ID: 890-5972-1
SDG: 03C1558303

Client Sample ID: PH01

Date Collected: 01/12/24 10:35
Date Received: 01/15/24 09:05
Sample Depth: 0.5'

Lab Sample ID: 890-5972-1
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		01/18/24 14:53	01/20/24 00:17	1
Toluene	<0.00201	U	0.00201		mg/Kg		01/18/24 14:53	01/20/24 00:17	1
Ethylbenzene	<0.00201	U	0.00201		mg/Kg		01/18/24 14:53	01/20/24 00:17	1
m-Xylene & p-Xylene	<0.00402	U *+ F1	0.00402		mg/Kg		01/18/24 14:53	01/20/24 00:17	1
o-Xylene	<0.00201	U F1	0.00201		mg/Kg		01/18/24 14:53	01/20/24 00:17	1
Xylenes, Total	<0.00402	U *+ F1	0.00402		mg/Kg		01/18/24 14:53	01/20/24 00:17	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*179*	*S1+*	*70 - 130*	*01/18/24 14:53*	*01/20/24 00:17*	*1*
1,4-Difluorobenzene (Surr)	*127*		*70 - 130*	*01/18/24 14:53*	*01/20/24 00:17*	*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			01/20/24 00:17	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			01/17/24 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	<49.7	U F1	49.7		mg/Kg		01/16/24 16:03	01/17/24 10:47	1
Diesel Range Organics (Over C10-C28)	<49.7	U F1 F2	49.7		mg/Kg		01/16/24 16:03	01/17/24 10:47	1
OII Range Organics (Over C28-C36)	<49.7	U	49.7		mg/Kg		01/16/24 16:03	01/17/24 10:47	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*66*	*S1-*	*70 - 130*	*01/16/24 16:03*	*01/17/24 10:47*	*1*
o-Terphenyl	*66*	*S1-*	*70 - 130*	*01/16/24 16:03*	*01/17/24 10:47*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**2450**		24.9		mg/Kg			01/17/24 20:43	5

Client Sample ID: PH01A

Date Collected: 01/12/24 10:55
Date Received: 01/15/24 09:05
Sample Depth: 4'

Lab Sample ID: 890-5972-2
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		01/18/24 14:53	01/20/24 00:38	1
Toluene	<0.00201	U	0.00201		mg/Kg		01/18/24 14:53	01/20/24 00:38	1
Ethylbenzene	<0.00201	U	0.00201		mg/Kg		01/18/24 14:53	01/20/24 00:38	1
m-Xylene & p-Xylene	<0.00402	U *+	0.00402		mg/Kg		01/18/24 14:53	01/20/24 00:38	1
o-Xylene	<0.00201	U	0.00201		mg/Kg		01/18/24 14:53	01/20/24 00:38	1
Xylenes, Total	<0.00402	U *+	0.00402		mg/Kg		01/18/24 14:53	01/20/24 00:38	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*232*	*S1+*	*70 - 130*	*01/18/24 14:53*	*01/20/24 00:38*	*1*

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Client Sample Results

Client: Ensolum
Project/Site: PLU 17 Twin Wells Ranch 702H

Job ID: 890-5972-1
SDG: 03C1558303

Client Sample ID: PH01A

Lab Sample ID: 890-5972-2
Matrix: Solid
Date Collected: 01/12/24 10:55
Date Received: 01/15/24 09:05
Sample Depth: 4'

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

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,4-Difluorobenzene (Surr)	*122*		*70 - 130*	*01/18/24 14:53*	*01/20/24 00:38*	*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			01/20/24 00:38	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			01/17/24 11:55	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	<50.4	U	50.4	mg/Kg		01/16/24 16:03	01/17/24 11:55	1
Diesel Range Organics (Over C10-C28)	<50.4	U	50.4	mg/Kg		01/16/24 16:03	01/17/24 11:55	1
OII Range Organics (Over C28-C36)	<50.4	U	50.4	mg/Kg		01/16/24 16:03	01/17/24 11:55	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*74*		*70 - 130*	*01/16/24 16:03*	*01/17/24 11:55*	*1*
o-Terphenyl	*75*		*70 - 130*	*01/16/24 16:03*	*01/17/24 11:55*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**5630**		50.0	mg/Kg			01/17/24 20:59	10

Client Sample ID: PH01B

Lab Sample ID: 890-5972-3
Matrix: Solid
Date Collected: 01/12/24 11:00
Date Received: 01/15/24 09:05
Sample Depth: 6'

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		01/18/24 14:53	01/20/24 00:58	1
Toluene	<0.00199	U	0.00199	mg/Kg		01/18/24 14:53	01/20/24 00:58	1
Ethylbenzene	<0.00199	U	0.00199	mg/Kg		01/18/24 14:53	01/20/24 00:58	1
m-Xylene & p-Xylene	<0.00398	U *+	0.00398	mg/Kg		01/18/24 14:53	01/20/24 00:58	1
o-Xylene	<0.00199	U	0.00199	mg/Kg		01/18/24 14:53	01/20/24 00:58	1
Xylenes, Total	<0.00398	U *+	0.00398	mg/Kg		01/18/24 14:53	01/20/24 00:58	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*103*		*70 - 130*	*01/18/24 14:53*	*01/20/24 00:58*	*1*
1,4-Difluorobenzene (Surr)	*112*		*70 - 130*	*01/18/24 14:53*	*01/20/24 00:58*	*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			01/20/24 00:58	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			01/17/24 12:18	1

Client Sample Results

Client: Ensolum
Project/Site: PLU 17 Twin Wells Ranch 702H

Job ID: 890-5972-1
SDG: 03C1558303

Client Sample ID: PH01B

Lab Sample ID: 890-5972-3
Matrix: Solid
Date Collected: 01/12/24 11:00
Date Received: 01/15/24 09:05
Sample Depth: 6'

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		01/16/24 16:03	01/17/24 12:18	1
Diesel Range Organics (Over C10-C28)	<50.5	U	50.5		mg/Kg		01/16/24 16:03	01/17/24 12:18	1
OII Range Organics (Over C28-C36)	<50.5	U	50.5		mg/Kg		01/16/24 16:03	01/17/24 12:18	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*77*		*70 - 130*	*01/16/24 16:03*	*01/17/24 12:18*	*1*
o-Terphenyl	*77*		*70 - 130*	*01/16/24 16:03*	*01/17/24 12:18*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**180**		4.95		mg/Kg			01/17/24 21:04	1

Client Sample ID: PH02

Lab Sample ID: 890-5972-4
Matrix: Solid
Date Collected: 01/12/24 12:50
Date Received: 01/15/24 09:05
Sample Depth: 0.5'

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		01/18/24 14:53	01/20/24 01:18	1
Toluene	<0.00199	U	0.00199		mg/Kg		01/18/24 14:53	01/20/24 01:18	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		01/18/24 14:53	01/20/24 01:18	1
m-Xylene & p-Xylene	<0.00398	U *+	0.00398		mg/Kg		01/18/24 14:53	01/20/24 01:18	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		01/18/24 14:53	01/20/24 01:18	1
Xylenes, Total	<0.00398	U *+	0.00398		mg/Kg		01/18/24 14:53	01/20/24 01:18	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*109*		*70 - 130*	*01/18/24 14:53*	*01/20/24 01:18*	*1*
1,4-Difluorobenzene (Surr)	*109*		*70 - 130*	*01/18/24 14:53*	*01/20/24 01:18*	*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			01/20/24 01:18	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			01/17/24 12:39	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		01/16/24 16:03	01/17/24 12:39	1
Diesel Range Organics (Over C10-C28)	<49.6	U	49.6		mg/Kg		01/16/24 16:03	01/17/24 12:39	1
OII Range Organics (Over C28-C36)	<49.6	U	49.6		mg/Kg		01/16/24 16:03	01/17/24 12:39	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*65*	*S1-*	*70 - 130*	*01/16/24 16:03*	*01/17/24 12:39*	*1*
o-Terphenyl	*64*	*S1-*	*70 - 130*	*01/16/24 16:03*	*01/17/24 12:39*	*1*

Client Sample Results

Client: Ensolum
Project/Site: PLU 17 Twin Wells Ranch 702H

Job ID: 890-5972-1
SDG: 03C1558303

Client Sample ID: PH02

Date Collected: 01/12/24 12:50
Date Received: 01/15/24 09:05
Sample Depth: 0.5'

Lab Sample ID: 890-5972-4

Matrix: Solid

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	2150		25.0		mg/Kg			01/17/24 21:09	5

Client Sample ID: PH02A

Date Collected: 01/12/24 13:05
Date Received: 01/15/24 09:05
Sample Depth: 3'

Lab Sample ID: 890-5972-5

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		01/18/24 14:53	01/20/24 01:39	1
Toluene	<0.00200	U	0.00200		mg/Kg		01/18/24 14:53	01/20/24 01:39	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		01/18/24 14:53	01/20/24 01:39	1
m-Xylene & p-Xylene	<0.00399	U *+	0.00399		mg/Kg		01/18/24 14:53	01/20/24 01:39	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		01/18/24 14:53	01/20/24 01:39	1
Xylenes, Total	<0.00399	U *+	0.00399		mg/Kg		01/18/24 14:53	01/20/24 01:39	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*115*		*70 - 130*	*01/18/24 14:53*	*01/20/24 01:39*	*1*
1,4-Difluorobenzene (Surr)	*115*		*70 - 130*	*01/18/24 14:53*	*01/20/24 01:39*	*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			01/20/24 01:39	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			01/17/24 13:00	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		01/16/24 16:03	01/17/24 13:00	1
Diesel Range Organics (Over C10-C28)	<49.6	U	49.6		mg/Kg		01/16/24 16:03	01/17/24 13:00	1
OII Range Organics (Over C28-C36)	<49.6	U	49.6		mg/Kg		01/16/24 16:03	01/17/24 13:00	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*65*	*S1-*	*70 - 130*	*01/16/24 16:03*	*01/17/24 13:00*	*1*
o-Terphenyl	*64*	*S1-*	*70 - 130*	*01/16/24 16:03*	*01/17/24 13:00*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	4420		50.4		mg/Kg			01/17/24 21:14	10

Client Sample Results

Client: Ensolum
Project/Site: PLU 17 Twin Wells Ranch 702H

Job ID: 890-5972-1
SDG: 03C1558303

Client Sample ID: PH02B

Date Collected: 01/12/24 13:30
Date Received: 01/15/24 09:05
Sample Depth: 8'

Lab Sample ID: 890-5972-6
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		01/18/24 14:53	01/20/24 01:59	1
Toluene	<0.00200	U	0.00200		mg/Kg		01/18/24 14:53	01/20/24 01:59	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		01/18/24 14:53	01/20/24 01:59	1
m-Xylene & p-Xylene	<0.00401	U *+	0.00401		mg/Kg		01/18/24 14:53	01/20/24 01:59	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		01/18/24 14:53	01/20/24 01:59	1
Xylenes, Total	<0.00401	U *+	0.00401		mg/Kg		01/18/24 14:53	01/20/24 01:59	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*114*		*70 - 130*	*01/18/24 14:53*	*01/20/24 01:59*	*1*
1,4-Difluorobenzene (Surr)	*107*		*70 - 130*	*01/18/24 14:53*	*01/20/24 01:59*	*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			01/20/24 01:59	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			01/17/24 13:22	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		01/16/24 16:03	01/17/24 13:22	1
Diesel Range Organics (Over C10-C28)	<49.6	U	49.6		mg/Kg		01/16/24 16:03	01/17/24 13:22	1
OII Range Organics (Over C28-C36)	<49.6	U	49.6		mg/Kg		01/16/24 16:03	01/17/24 13:22	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*64*	*S1-*	*70 - 130*	*01/16/24 16:03*	*01/17/24 13:22*	*1*
o-Terphenyl	*64*	*S1-*	*70 - 130*	*01/16/24 16:03*	*01/17/24 13:22*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**334**		4.97		mg/Kg			01/17/24 21:30	1

Client Sample ID: PH03

Date Collected: 01/12/24 13:40
Date Received: 01/15/24 09:05
Sample Depth: 0.5'

Lab Sample ID: 890-5972-7
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		01/18/24 14:53	01/20/24 02:20	1
Toluene	<0.00199	U	0.00199		mg/Kg		01/18/24 14:53	01/20/24 02:20	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		01/18/24 14:53	01/20/24 02:20	1
m-Xylene & p-Xylene	<0.00398	U *+	0.00398		mg/Kg		01/18/24 14:53	01/20/24 02:20	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		01/18/24 14:53	01/20/24 02:20	1
Xylenes, Total	<0.00398	U *+	0.00398		mg/Kg		01/18/24 14:53	01/20/24 02:20	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*126*		*70 - 130*	*01/18/24 14:53*	*01/20/24 02:20*	*1*

Client Sample Results

Client: Ensolum
Project/Site: PLU 17 Twin Wells Ranch 702H

Job ID: 890-5972-1
SDG: 03C1558303

Client Sample ID: PH03

Date Collected: 01/12/24 13:40
Date Received: 01/15/24 09:05
Sample Depth: 0.5'

Lab Sample ID: 890-5972-7

Matrix: Solid

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

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,4-Difluorobenzene (Surr)	*126*		*70 - 130*	*01/18/24 14:53*	*01/20/24 02:20*	*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			01/20/24 02:20	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			01/17/24 13:43	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		01/16/24 16:03	01/17/24 13:43	1
Diesel Range Organics (Over C10-C28)	<50.3	U	50.3	mg/Kg		01/16/24 16:03	01/17/24 13:43	1
OII Range Organics (Over C28-C36)	<50.3	U	50.3	mg/Kg		01/16/24 16:03	01/17/24 13:43	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*63*	*S1-*	*70 - 130*	*01/16/24 16:03*	*01/17/24 13:43*	*1*
o-Terphenyl	*63*	*S1-*	*70 - 130*	*01/16/24 16:03*	*01/17/24 13:43*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**2570**		24.8	mg/Kg			01/17/24 21:35	5

Client Sample ID: PH03A

Date Collected: 01/12/24 13:45
Date Received: 01/15/24 09:05
Sample Depth: 1'

Lab Sample ID: 890-5972-8

Matrix: Solid

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00198	U	0.00198	mg/Kg		01/18/24 14:53	01/20/24 02:40	1
Toluene	<0.00198	U	0.00198	mg/Kg		01/18/24 14:53	01/20/24 02:40	1
Ethylbenzene	<0.00198	U	0.00198	mg/Kg		01/18/24 14:53	01/20/24 02:40	1
m-Xylene & p-Xylene	<0.00396	U *+	0.00396	mg/Kg		01/18/24 14:53	01/20/24 02:40	1
o-Xylene	<0.00198	U	0.00198	mg/Kg		01/18/24 14:53	01/20/24 02:40	1
Xylenes, Total	<0.00396	U *+	0.00396	mg/Kg		01/18/24 14:53	01/20/24 02:40	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*107*		*70 - 130*	*01/18/24 14:53*	*01/20/24 02:40*	*1*
1,4-Difluorobenzene (Surr)	*113*		*70 - 130*	*01/18/24 14:53*	*01/20/24 02:40*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00396	U	0.00396	mg/Kg			01/20/24 02:40	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			01/17/24 14:05	1

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Client Sample Results

Client: Ensolum
Project/Site: PLU 17 Twin Wells Ranch 702H

Job ID: 890-5972-1
SDG: 03C1558303

Client Sample ID: PH03A

Date Collected: 01/12/24 13:45
Date Received: 01/15/24 09:05
Sample Depth: 1'

Lab Sample ID: 890-5972-8
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	<50.3	U	50.3		mg/Kg		01/16/24 16:03	01/17/24 14:05	1
Diesel Range Organics (Over C10-C28)	<50.3	U	50.3		mg/Kg		01/16/24 16:03	01/17/24 14:05	1
OII Range Organics (Over C28-C36)	<50.3	U	50.3		mg/Kg		01/16/24 16:03	01/17/24 14:05	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*75*		*70 - 130*	*01/16/24 16:03*	*01/17/24 14:05*	*1*
o-Terphenyl	*74*		*70 - 130*	*01/16/24 16:03*	*01/17/24 14:05*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**2560**		24.9		mg/Kg			01/17/24 21:40	5

Client Sample ID: PH03B

Date Collected: 01/12/24 14:10
Date Received: 01/15/24 09:05
Sample Depth: 8'

Lab Sample ID: 890-5972-9
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		01/18/24 14:53	01/20/24 03:01	1
Toluene	<0.00199	U	0.00199		mg/Kg		01/18/24 14:53	01/20/24 03:01	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		01/18/24 14:53	01/20/24 03:01	1
m-Xylene & p-Xylene	<0.00398	U *+	0.00398		mg/Kg		01/18/24 14:53	01/20/24 03:01	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		01/18/24 14:53	01/20/24 03:01	1
Xylenes, Total	<0.00398	U *+	0.00398		mg/Kg		01/18/24 14:53	01/20/24 03:01	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*119*		*70 - 130*	*01/18/24 14:53*	*01/20/24 03:01*	*1*
1,4-Difluorobenzene (Surr)	*113*		*70 - 130*	*01/18/24 14:53*	*01/20/24 03:01*	*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			01/20/24 03:01	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			01/17/24 14:26	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		01/16/24 16:03	01/17/24 14:26	1
Diesel Range Organics (Over C10-C28)	<49.7	U	49.7		mg/Kg		01/16/24 16:03	01/17/24 14:26	1
OII Range Organics (Over C28-C36)	<49.7	U	49.7		mg/Kg		01/16/24 16:03	01/17/24 14:26	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*58*	*S1-*	*70 - 130*	*01/16/24 16:03*	*01/17/24 14:26*	*1*
o-Terphenyl	*59*	*S1-*	*70 - 130*	*01/16/24 16:03*	*01/17/24 14:26*	*1*

Client Sample Results

Client: Ensolum
Project/Site: PLU 17 Twin Wells Ranch 702H

Job ID: 890-5972-1
SDG: 03C1558303

Client Sample ID: PH03B

Lab Sample ID: 890-5972-9
Matrix: Solid
Date Collected: 01/12/24 14:10
Date Received: 01/15/24 09:05
Sample Depth: 8'

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	19.2		5.05		mg/Kg			01/17/24 21:45	1

Client Sample ID: PH04

Lab Sample ID: 890-5972-10
Matrix: Solid
Date Collected: 01/12/24 14:25
Date Received: 01/15/24 09:05
Sample Depth: 0.5'

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		01/18/24 14:53	01/20/24 03:21	1
Toluene	<0.00200	U	0.00200		mg/Kg		01/18/24 14:53	01/20/24 03:21	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		01/18/24 14:53	01/20/24 03:21	1
m-Xylene & p-Xylene	<0.00399	U *+	0.00399		mg/Kg		01/18/24 14:53	01/20/24 03:21	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		01/18/24 14:53	01/20/24 03:21	1
Xylenes, Total	<0.00399	U *+	0.00399		mg/Kg		01/18/24 14:53	01/20/24 03:21	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*116*		*70 - 130*	*01/18/24 14:53*	*01/20/24 03:21*	*1*
1,4-Difluorobenzene (Surr)	*107*		*70 - 130*	*01/18/24 14:53*	*01/20/24 03:21*	*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			01/20/24 03:21	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			01/17/24 15:34	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	<50.2	U	50.2		mg/Kg		01/16/24 16:03	01/17/24 15:34	1
Diesel Range Organics (Over C10-C28)	<50.2	U	50.2		mg/Kg		01/16/24 16:03	01/17/24 15:34	1
OII Range Organics (Over C28-C36)	<50.2	U	50.2		mg/Kg		01/16/24 16:03	01/17/24 15:34	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*73*		*70 - 130*	*01/16/24 16:03*	*01/17/24 15:34*	*1*
o-Terphenyl	*73*		*70 - 130*	*01/16/24 16:03*	*01/17/24 15:34*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	1940		25.1		mg/Kg			01/17/24 21:50	5

Client Sample Results

Client: Ensolum
Project/Site: PLU 17 Twin Wells Ranch 702H

Job ID: 890-5972-1
SDG: 03C1558303

Client Sample ID: PH04A

Lab Sample ID: 890-5972-11
Matrix: Solid
Date Collected: 01/12/24 14:35
Date Received: 01/15/24 09:05
Sample Depth: 2'

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		01/18/24 14:53	01/20/24 05:11	1
Toluene	<0.00201	U	0.00201		mg/Kg		01/18/24 14:53	01/20/24 05:11	1
Ethylbenzene	<0.00201	U	0.00201		mg/Kg		01/18/24 14:53	01/20/24 05:11	1
m-Xylene & p-Xylene	<0.00402	U *+	0.00402		mg/Kg		01/18/24 14:53	01/20/24 05:11	1
o-Xylene	<0.00201	U	0.00201		mg/Kg		01/18/24 14:53	01/20/24 05:11	1
Xylenes, Total	<0.00402	U *+	0.00402		mg/Kg		01/18/24 14:53	01/20/24 05:11	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*93*		*70 - 130*	*01/18/24 14:53*	*01/20/24 05:11*	*1*
1,4-Difluorobenzene (Surr)	*105*		*70 - 130*	*01/18/24 14:53*	*01/20/24 05:11*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00402	U	0.00402		mg/Kg			01/20/24 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			01/17/24 15:55	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	<50.4	U	50.4		mg/Kg		01/16/24 16:03	01/17/24 15:55	1
Diesel Range Organics (Over C10-C28)	<50.4	U	50.4		mg/Kg		01/16/24 16:03	01/17/24 15:55	1
OII Range Organics (Over C28-C36)	<50.4	U	50.4		mg/Kg		01/16/24 16:03	01/17/24 15:55	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*75*		*70 - 130*	*01/16/24 16:03*	*01/17/24 15:55*	*1*
o-Terphenyl	*75*		*70 - 130*	*01/16/24 16:03*	*01/17/24 15:55*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**2220**	**F1**	25.1		mg/Kg			01/17/24 21:55	5

Client Sample ID: PH04B

Lab Sample ID: 890-5972-12
Matrix: Solid
Date Collected: 01/12/24 14:55
Date Received: 01/15/24 09:05
Sample Depth: 8'

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		01/18/24 14:53	01/20/24 05:32	1
Toluene	<0.00202	U	0.00202		mg/Kg		01/18/24 14:53	01/20/24 05:32	1
Ethylbenzene	<0.00202	U	0.00202		mg/Kg		01/18/24 14:53	01/20/24 05:32	1
m-Xylene & p-Xylene	<0.00404	U *+	0.00404		mg/Kg		01/18/24 14:53	01/20/24 05:32	1
o-Xylene	<0.00202	U	0.00202		mg/Kg		01/18/24 14:53	01/20/24 05:32	1
Xylenes, Total	<0.00404	U *+	0.00404		mg/Kg		01/18/24 14:53	01/20/24 05:32	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*112*		*70 - 130*	*01/18/24 14:53*	*01/20/24 05:32*	*1*

Client Sample Results

Client: Ensolum
Project/Site: PLU 17 Twin Wells Ranch 702H

Job ID: 890-5972-1
SDG: 03C1558303

Client Sample ID: PH04B

Date Collected: 01/12/24 14:55
Date Received: 01/15/24 09:05
Sample Depth: 8'

Lab Sample ID: 890-5972-12
Matrix: Solid

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

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,4-Difluorobenzene (Surr)	*111*		*70 - 130*	*01/18/24 14:53*	*01/20/24 05:32*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00404	U	0.00404	mg/Kg			01/20/24 05:32	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.8	U	49.8	mg/Kg			01/17/24 16:17	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		01/16/24 16:03	01/17/24 16:17	1
Diesel Range Organics (Over C10-C28)	<49.8	U	49.8	mg/Kg		01/16/24 16:03	01/17/24 16:17	1
OII Range Organics (Over C28-C36)	<49.8	U	49.8	mg/Kg		01/16/24 16:03	01/17/24 16:17	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*60*	*S1-*	*70 - 130*	*01/16/24 16:03*	*01/17/24 16:17*	*1*
o-Terphenyl	*61*	*S1-*	*70 - 130*	*01/16/24 16:03*	*01/17/24 16:17*	*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			01/17/24 22:11	1

Client Sample ID: PH05

Date Collected: 01/12/24 15:00
Date Received: 01/15/24 09:05
Sample Depth: 0.5'

Lab Sample ID: 890-5972-13
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		01/18/24 14:53	01/20/24 05:52	1
Toluene	<0.00199	U	0.00199	mg/Kg		01/18/24 14:53	01/20/24 05:52	1
Ethylbenzene	<0.00199	U	0.00199	mg/Kg		01/18/24 14:53	01/20/24 05:52	1
m-Xylene & p-Xylene	<0.00398	U *+	0.00398	mg/Kg		01/18/24 14:53	01/20/24 05:52	1
o-Xylene	<0.00199	U	0.00199	mg/Kg		01/18/24 14:53	01/20/24 05:52	1
Xylenes, Total	<0.00398	U *+	0.00398	mg/Kg		01/18/24 14:53	01/20/24 05:52	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*125*		*70 - 130*	*01/18/24 14:53*	*01/20/24 05:52*	*1*
1,4-Difluorobenzene (Surr)	*133*	*S1+*	*70 - 130*	*01/18/24 14:53*	*01/20/24 05:52*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398	mg/Kg			01/20/24 05:52	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	**70.8**		49.6	mg/Kg			01/17/24 16:38	1

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Client Sample Results

Client: Ensolum
Project/Site: PLU 17 Twin Wells Ranch 702H

Job ID: 890-5972-1
SDG: 03C1558303

Client Sample ID: PH05

Date Collected: 01/12/24 15:00
Date Received: 01/15/24 09:05
Sample Depth: 0.5'

Lab Sample ID: 890-5972-13
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	70.8		49.6		mg/Kg		01/16/24 16:03	01/17/24 16:38	1
Diesel Range Organics (Over C10-C28)	<49.6	U	49.6		mg/Kg		01/16/24 16:03	01/17/24 16:38	1
OII Range Organics (Over C28-C36)	<49.6	U	49.6		mg/Kg		01/16/24 16:03	01/17/24 16:38	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*74*		*70 - 130*	*01/16/24 16:03*	*01/17/24 16:38*	*1*
o-Terphenyl	*74*		*70 - 130*	*01/16/24 16:03*	*01/17/24 16:38*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	2290		24.9		mg/Kg			01/17/24 22:16	5

Client Sample ID: PH05A

Date Collected: 01/12/24 15:05
Date Received: 01/15/24 09:05
Sample Depth: 1'

Lab Sample ID: 890-5972-14
Matrix: Solid

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00198	U	0.00198		mg/Kg		01/18/24 14:53	01/20/24 06:13	1
Toluene	<0.00198	U	0.00198		mg/Kg		01/18/24 14:53	01/20/24 06:13	1
Ethylbenzene	<0.00198	U	0.00198		mg/Kg		01/18/24 14:53	01/20/24 06:13	1
m-Xylene & p-Xylene	<0.00396	U *+	0.00396		mg/Kg		01/18/24 14:53	01/20/24 06:13	1
o-Xylene	<0.00198	U	0.00198		mg/Kg		01/18/24 14:53	01/20/24 06:13	1
Xylenes, Total	<0.00396	U *+	0.00396		mg/Kg		01/18/24 14:53	01/20/24 06:13	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*108*		*70 - 130*	*01/18/24 14:53*	*01/20/24 06:13*	*1*
1,4-Difluorobenzene (Surr)	*111*		*70 - 130*	*01/18/24 14:53*	*01/20/24 06:13*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00396	U	0.00396		mg/Kg			01/20/24 06:13	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.4	U	50.4		mg/Kg			01/17/24 17:00	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		01/16/24 16:03	01/17/24 17:00	1
Diesel Range Organics (Over C10-C28)	<50.4	U	50.4		mg/Kg		01/16/24 16:03	01/17/24 17:00	1
OII Range Organics (Over C28-C36)	<50.4	U	50.4		mg/Kg		01/16/24 16:03	01/17/24 17:00	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*74*		*70 - 130*	*01/16/24 16:03*	*01/17/24 17:00*	*1*
o-Terphenyl	*72*		*70 - 130*	*01/16/24 16:03*	*01/17/24 17:00*	*1*

Client Sample Results

Client: Ensolum
Project/Site: PLU 17 Twin Wells Ranch 702H

Job ID: 890-5972-1
SDG: 03C1558303

Client Sample ID: PH05A

Lab Sample ID: 890-5972-14
Matrix: Solid
Date Collected: 01/12/24 15:05
Date Received: 01/15/24 09:05
Sample Depth: 1'

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	6910		49.5		mg/Kg			01/17/24 22:31	10

Client Sample ID: PH05B

Lab Sample ID: 890-5972-15
Matrix: Solid
Date Collected: 01/12/24 15:30
Date Received: 01/15/24 09:05
Sample Depth: 8'

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		01/18/24 14:53	01/20/24 06:33	1
Toluene	<0.00199	U	0.00199		mg/Kg		01/18/24 14:53	01/20/24 06:33	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		01/18/24 14:53	01/20/24 06:33	1
m-Xylene & p-Xylene	<0.00398	U *+	0.00398		mg/Kg		01/18/24 14:53	01/20/24 06:33	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		01/18/24 14:53	01/20/24 06:33	1
Xylenes, Total	<0.00398	U *+	0.00398		mg/Kg		01/18/24 14:53	01/20/24 06:33	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*101*		*70 - 130*	*01/18/24 14:53*	*01/20/24 06:33*	*1*
1,4-Difluorobenzene (Surr)	*114*		*70 - 130*	*01/18/24 14:53*	*01/20/24 06:33*	*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			01/20/24 06:33	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			01/17/24 17:21	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		01/16/24 16:03	01/17/24 17:21	1
Diesel Range Organics (Over C10-C28)	<50.5	U	50.5		mg/Kg		01/16/24 16:03	01/17/24 17:21	1
OII Range Organics (Over C28-C36)	<50.5	U	50.5		mg/Kg		01/16/24 16:03	01/17/24 17:21	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*65*	*S1-*	*70 - 130*	*01/16/24 16:03*	*01/17/24 17:21*	*1*
o-Terphenyl	*64*	*S1-*	*70 - 130*	*01/16/24 16:03*	*01/17/24 17:21*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	483		4.97		mg/Kg			01/17/24 22:36	1

Client Sample Results

Client: Ensolum
Project/Site: PLU 17 Twin Wells Ranch 702H

Job ID: 890-5972-1
SDG: 03C1558303

Client Sample ID: PH06

Date Collected: 01/12/24 15:40
Date Received: 01/15/24 09:05
Sample Depth: 0.5'

Lab Sample ID: 890-5972-16
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		01/18/24 14:53	01/20/24 06:53	1
Toluene	<0.00200	U	0.00200		mg/Kg		01/18/24 14:53	01/20/24 06:53	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		01/18/24 14:53	01/20/24 06:53	1
m-Xylene & p-Xylene	<0.00399	U *+	0.00399		mg/Kg		01/18/24 14:53	01/20/24 06:53	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		01/18/24 14:53	01/20/24 06:53	1
Xylenes, Total	<0.00399	U *+	0.00399		mg/Kg		01/18/24 14:53	01/20/24 06:53	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*107*		*70 - 130*	*01/18/24 14:53*	*01/20/24 06:53*	*1*
1,4-Difluorobenzene (Surr)	*115*		*70 - 130*	*01/18/24 14:53*	*01/20/24 06:53*	*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			01/20/24 06:53	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			01/17/24 17:42	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		01/16/24 16:03	01/17/24 17:42	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		01/16/24 16:03	01/17/24 17:42	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		01/16/24 16:03	01/17/24 17:42	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*65*	*S1-*	*70 - 130*	*01/16/24 16:03*	*01/17/24 17:42*	*1*
o-Terphenyl	*66*	*S1-*	*70 - 130*	*01/16/24 16:03*	*01/17/24 17:42*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**1970**		25.0		mg/Kg			01/17/24 22:41	5

Client Sample ID: PH06A

Date Collected: 01/12/24 16:00
Date Received: 01/15/24 09:05
Sample Depth: 4'

Lab Sample ID: 890-5972-17
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		01/18/24 14:53	01/20/24 07:14	1
Toluene	<0.00200	U	0.00200		mg/Kg		01/18/24 14:53	01/20/24 07:14	1
Ethylbenzene	**0.00208**		0.00200		mg/Kg		01/18/24 14:53	01/20/24 07:14	1
m-Xylene & p-Xylene	<0.00401	U *+	0.00401		mg/Kg		01/18/24 14:53	01/20/24 07:14	1
o-Xylene	**0.00218**		0.00200		mg/Kg		01/18/24 14:53	01/20/24 07:14	1
Xylenes, Total	<0.00401	U *+	0.00401		mg/Kg		01/18/24 14:53	01/20/24 07:14	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*366*	*S1+*	*70 - 130*	*01/18/24 14:53*	*01/20/24 07:14*	*1*

Client Sample Results

Client: Ensolum
Project/Site: PLU 17 Twin Wells Ranch 702H

Job ID: 890-5972-1
SDG: 03C1558303

Client Sample ID: PH06A

Lab Sample ID: 890-5972-17
Matrix: Solid
Date Collected: 01/12/24 16:00
Date Received: 01/15/24 09:05
Sample Depth: 4'

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

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,4-Difluorobenzene (Surr)	*112*		*70 - 130*	*01/18/24 14:53*	*01/20/24 07:14*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	**0.00426**		0.00401	mg/Kg			01/20/24 07:14	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			01/17/24 18:04	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	<49.9	U	49.9	mg/Kg		01/16/24 16:03	01/17/24 18:04	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9	mg/Kg		01/16/24 16:03	01/17/24 18:04	1
OII Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg		01/16/24 16:03	01/17/24 18:04	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*87*		*70 - 130*	*01/16/24 16:03*	*01/17/24 18:04*	*1*
o-Terphenyl	*88*		*70 - 130*	*01/16/24 16:03*	*01/17/24 18:04*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**3560**		25.0	mg/Kg			01/17/24 22:47	5

Client Sample ID: PH06B

Lab Sample ID: 890-5972-18
Matrix: Solid
Date Collected: 01/12/24 16:05
Date Received: 01/15/24 09:05
Sample Depth: 6'

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		01/18/24 14:53	01/20/24 07:34	1
Toluene	<0.00199	U	0.00199	mg/Kg		01/18/24 14:53	01/20/24 07:34	1
Ethylbenzene	<0.00199	U	0.00199	mg/Kg		01/18/24 14:53	01/20/24 07:34	1
m-Xylene & p-Xylene	<0.00398	U *+	0.00398	mg/Kg		01/18/24 14:53	01/20/24 07:34	1
o-Xylene	<0.00199	U	0.00199	mg/Kg		01/18/24 14:53	01/20/24 07:34	1
Xylenes, Total	<0.00398	U *+	0.00398	mg/Kg		01/18/24 14:53	01/20/24 07:34	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*113*		*70 - 130*	*01/18/24 14:53*	*01/20/24 07:34*	*1*
1,4-Difluorobenzene (Surr)	*111*		*70 - 130*	*01/18/24 14:53*	*01/20/24 07:34*	*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			01/20/24 07:34	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			01/17/24 18:25	1

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Client Sample Results

Client: Ensolum
Project/Site: PLU 17 Twin Wells Ranch 702H

Job ID: 890-5972-1
SDG: 03C1558303

Client Sample ID: PH06B
Date Collected: 01/12/24 16:05
Date Received: 01/15/24 09:05
Sample Depth: 6'

Lab Sample ID: 890-5972-18
Matrix: Solid

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		01/16/24 16:03	01/17/24 18:25	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		01/16/24 16:03	01/17/24 18:25	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		01/16/24 16:03	01/17/24 18:25	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*62*	*S1-*	*70 - 130*	*01/16/24 16:03*	*01/17/24 18:25*	*1*
o-Terphenyl	*62*	*S1-*	*70 - 130*	*01/16/24 16:03*	*01/17/24 18:25*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**174**		4.99		mg/Kg			01/17/24 22:52	1

Surrogate Summary

Client: Ensolum
Project/Site: PLU 17 Twin Wells Ranch 702H

Job ID: 890-5972-1
SDG: 03C1558303

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)
890-5972-1	PH01	179 S1+	127
890-5972-1 MS	PH01	109	121
890-5972-1 MSD	PH01	114	101
890-5972-2	PH01A	232 S1+	122
890-5972-3	PH01B	103	112
890-5972-4	PH02	109	109
890-5972-5	PH02A	115	115
890-5972-6	PH02B	114	107
890-5972-7	PH03	126	126
890-5972-8	PH03A	107	113
890-5972-9	PH03B	119	113
890-5972-10	PH04	116	107
890-5972-11	PH04A	93	105
890-5972-12	PH04B	112	111
890-5972-13	PH05	125	133 S1+
890-5972-14	PH05A	108	111
890-5972-15	PH05B	101	114
890-5972-16	PH06	107	115
890-5972-17	PH06A	366 S1+	112
890-5972-18	PH06B	113	111
LCS 880-71132/1-A	Lab Control Sample	103	103
LCSD 880-71132/2-A	Lab Control Sample Dup	113	103
MB 880-71132/5-A	Method Blank	118	121
MB 880-71133/5-A	Method Blank	138 S1+	133 S1+

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)
890-5972-1	PH01	66 S1-	66 S1-
890-5972-1 MS	PH01	63 S1-	60 S1-
890-5972-1 MSD	PH01	76	73
890-5972-2	PH01A	74	75
890-5972-3	PH01B	77	77
890-5972-4	PH02	65 S1-	64 S1-
890-5972-5	PH02A	65 S1-	64 S1-
890-5972-6	PH02B	64 S1-	64 S1-
890-5972-7	PH03	63 S1-	63 S1-
890-5972-8	PH03A	75	74
890-5972-9	PH03B	58 S1-	59 S1-
890-5972-10	PH04	73	73
890-5972-11	PH04A	75	75
890-5972-12	PH04B	60 S1-	61 S1-
890-5972-13	PH05	74	74

Surrogate Summary

Client: Ensolum Job ID: 890-5972-1
Project/Site: PLU 17 Twin Wells Ranch 702H SDG: 03C1558303

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)										
890-5972-14	PH05A	74	72										
890-5972-15	PH05B	65 S1-	64 S1-										
890-5972-16	PH06	65 S1-	66 S1-										
890-5972-17	PH06A	87	88										
890-5972-18	PH06B	62 S1-	62 S1-										
LCS 880-71029/2-A	Lab Control Sample	90	104										
LCSD 880-71029/3-A	Lab Control Sample Dup	84	98										
MB 880-71029/1-A - RA2	Method Blank	85	91										

Surrogate Legend

1CO = 1-Chlorooctane

OTPH = o-Terphenyl

QC Sample Results

Client: Ensolum
Project/Site: PLU 17 Twin Wells Ranch 702H

Job ID: 890-5972-1
SDG: 03C1558303

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-71132/5-A
Matrix: Solid
Analysis Batch: 71154

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 71132

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		01/18/24 14:53	01/19/24 23:48	1
Toluene	<0.00200	U	0.00200		mg/Kg		01/18/24 14:53	01/19/24 23:48	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		01/18/24 14:53	01/19/24 23:48	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		01/18/24 14:53	01/19/24 23:48	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		01/18/24 14:53	01/19/24 23:48	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		01/18/24 14:53	01/19/24 23:48	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*118*		*70 - 130*	*01/18/24 14:53*	*01/19/24 23:48*	*1*
1,4-Difluorobenzene (Surr)	*121*		*70 - 130*	*01/18/24 14:53*	*01/19/24 23:48*	*1*

Lab Sample ID: LCS 880-71132/1-A
Matrix: Solid
Analysis Batch: 71154

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 71132

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Benzene			0.100	0.1244		mg/Kg		124	70 - 130		
Toluene			0.100	0.1072		mg/Kg		107	70 - 130		
Ethylbenzene			0.100	0.1125		mg/Kg		113	70 - 130		
m-Xylene & p-Xylene			0.200	0.2409		mg/Kg		120	70 - 130		
o-Xylene			0.100	0.1172		mg/Kg		117	70 - 130		

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

Lab Sample ID: LCSD 880-71132/2-A
Matrix: Solid
Analysis Batch: 71154

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 71132

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene			0.100	0.1267		mg/Kg		127	70 - 130	2	35
Toluene			0.100	0.1122		mg/Kg		112	70 - 130	5	35
Ethylbenzene			0.100	0.1228		mg/Kg		123	70 - 130	9	35
m-Xylene & p-Xylene			0.200	0.2716	*+	mg/Kg		136	70 - 130	12	35
o-Xylene			0.100	0.1277		mg/Kg		128	70 - 130	9	35

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*113*		*70 - 130*
1,4-Difluorobenzene (Surr)	*103*		*70 - 130*

Lab Sample ID: 890-5972-1 MS
Matrix: Solid
Analysis Batch: 71154

Client Sample ID: PH01
Prep Type: Total/NA
Prep Batch: 71132

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Benzene	<0.00201	U	0.100	0.1265		mg/Kg		126	70 - 130		
Toluene	<0.00201	U	0.100	0.08455		mg/Kg		84	70 - 130		

QC Sample Results

Client: Ensolum
Project/Site: PLU 17 Twin Wells Ranch 702H

Job ID: 890-5972-1
SDG: 03C1558303

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

Lab Sample ID: 890-5972-1 MS
Matrix: Solid
Analysis Batch: 71154

Client Sample ID: PH01
Prep Type: Total/NA
Prep Batch: 71132

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Ethylbenzene	<0.00201	U	0.100	0.09492		mg/Kg		94	70 - 130
m-Xylene & p-Xylene	<0.00402	U *+ F1	0.200	0.2367		mg/Kg		118	70 - 130
o-Xylene	<0.00201	U F1	0.100	0.1198		mg/Kg		120	70 - 130

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*109*		*70 - 130*
1,4-Difluorobenzene (Surr)	*121*		*70 - 130*

Lab Sample ID: 890-5972-1 MSD
Matrix: Solid
Analysis Batch: 71154

Client Sample ID: PH01
Prep Type: Total/NA
Prep Batch: 71132

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	<0.00201	U	0.0996	0.1210		mg/Kg		121	70 - 130	4	35
Toluene	<0.00201	U	0.0996	0.1060		mg/Kg		106	70 - 130	23	35
Ethylbenzene	<0.00201	U	0.0996	0.1118		mg/Kg		112	70 - 130	16	35
m-Xylene & p-Xylene	<0.00402	U *+ F1	0.199	0.2654	F1	mg/Kg		133	70 - 130	11	35
o-Xylene	<0.00201	U F1	0.0996	0.1340	F1	mg/Kg		135	70 - 130	11	35

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*114*		*70 - 130*
1,4-Difluorobenzene (Surr)	*101*		*70 - 130*

Lab Sample ID: MB 880-71133/5-A
Matrix: Solid
Analysis Batch: 71154

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 71133

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		01/18/24 14:55	01/19/24 12:11	1
Toluene	<0.00200	U	0.00200		mg/Kg		01/18/24 14:55	01/19/24 12:11	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		01/18/24 14:55	01/19/24 12:11	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		01/18/24 14:55	01/19/24 12:11	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		01/18/24 14:55	01/19/24 12:11	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		01/18/24 14:55	01/19/24 12:11	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*138*	*S1+*	*70 - 130*	*01/18/24 14:55*	*01/19/24 12:11*	*1*
1,4-Difluorobenzene (Surr)	*133*	*S1+*	*70 - 130*	*01/18/24 14:55*	*01/19/24 12:11*	*1*

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

Lab Sample ID: LCS 880-71029/2-A
Matrix: Solid
Analysis Batch: 71032

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 71029

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Gasoline Range Organics (GRO)-C6-C10	1000	823.0		mg/Kg		82	70 - 130

QC Sample Results

Client: Ensolum
Project/Site: PLU 17 Twin Wells Ranch 702H

Job ID: 890-5972-1
SDG: 03C1558303

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

Lab Sample ID: LCS 880-71029/2-A
Matrix: Solid
Analysis Batch: 71032

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 71029

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Diesel Range Organics (Over C10-C28)			1000	852.7		mg/Kg		85	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1-Chlorooctane	*90*		*70 - 130*
o-Terphenyl	*104*		*70 - 130*

Lab Sample ID: LCSD 880-71029/3-A
Matrix: Solid
Analysis Batch: 71032

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 71029

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10			1000	858.5		mg/Kg		86	70 - 130	4	20
Diesel Range Organics (Over C10-C28)			1000	807.3		mg/Kg		81	70 - 130	5	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1-Chlorooctane	*84*		*70 - 130*
o-Terphenyl	*98*		*70 - 130*

Lab Sample ID: 890-5972-1 MS
Matrix: Solid
Analysis Batch: 71032

Client Sample ID: PH01
Prep Type: Total/NA
Prep Batch: 71029

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Gasoline Range Organics (GRO)-C6-C10	<49.7	U F1	1000	667.6	F1	mg/Kg		62	70 - 130		
Diesel Range Organics (Over C10-C28)	<49.7	U F1 F2	1000	635.5	F1	mg/Kg		63	70 - 130		

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
1-Chlorooctane	*63*	*S1-*	*70 - 130*
o-Terphenyl	*60*	*S1-*	*70 - 130*

Lab Sample ID: 890-5972-1 MSD
Matrix: Solid
Analysis Batch: 71032

Client Sample ID: PH01
Prep Type: Total/NA
Prep Batch: 71029

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	<49.7	U F1	1000	785.7		mg/Kg		74	70 - 130	16	20
Diesel Range Organics (Over C10-C28)	<49.7	U F1 F2	1000	796.8	F2	mg/Kg		80	70 - 130	23	20

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
1-Chlorooctane	*76*		*70 - 130*
o-Terphenyl	*73*		*70 - 130*

QC Sample Results

Client: Ensolum
Project/Site: PLU 17 Twin Wells Ranch 702H

Job ID: 890-5972-1
SDG: 03C1558303

Method: 8015B NM - Diesel Range Organics (DRO) (GC) - RA2

Lab Sample ID: MB 880-71029/1-A
Matrix: Solid
Analysis Batch: 71032

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 71029

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10 - RA2	<50.0	U	50.0		mg/Kg		01/16/24 16:03	01/17/24 08:01	1
Diesel Range Organics (Over C10-C28) - RA2	<50.0	U	50.0		mg/Kg		01/16/24 16:03	01/17/24 08:01	1
OII Range Organics (Over C28-C36) - RA2	<50.0	U	50.0		mg/Kg		01/16/24 16:03	01/17/24 08:01	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane - RA2	*85*		*70 - 130*	*01/16/24 16:03*	*01/17/24 08:01*	*1*
o-Terphenyl - RA2	*91*		*70 - 130*	*01/16/24 16:03*	*01/17/24 08:01*	*1*

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-71003/1-A
Matrix: Solid
Analysis Batch: 71077

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			01/17/24 20:28	1

Lab Sample ID: LCS 880-71003/2-A
Matrix: Solid
Analysis Batch: 71077

Client Sample ID: Lab Control Sample
Prep Type: Soluble

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride			250	243.5		mg/Kg		97	90 - 110		

Lab Sample ID: LCSD 880-71003/3-A
Matrix: Solid
Analysis Batch: 71077

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	250.4		mg/Kg		100	90 - 110	3	20

Lab Sample ID: 890-5972-1 MS
Matrix: Solid
Analysis Batch: 71077

Client Sample ID: PH01
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride	2450		1250	3744		mg/Kg		104	90 - 110		

Lab Sample ID: 890-5972-1 MSD
Matrix: Solid
Analysis Batch: 71077

Client Sample ID: PH01
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	2450		1250	3746		mg/Kg		104	90 - 110	0	20

QC Sample Results

Client: Ensolum
Project/Site: PLU 17 Twin Wells Ranch 702H

Job ID: 890-5972-1
SDG: 03C1558303

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: 890-5972-11 MS
Matrix: Solid
Analysis Batch: 71077

Client Sample ID: PH04A
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride	2220	F1	1250	3777	F1	mg/Kg		124	90 - 110		

Lab Sample ID: 890-5972-11 MSD
Matrix: Solid
Analysis Batch: 71077

Client Sample ID: PH04A
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	2220	F1	1250	3786	F1	mg/Kg		125	90 - 110	0	20

QC Association Summary

Client: Ensolum
Project/Site: PLU 17 Twin Wells Ranch 702H

Job ID: 890-5972-1
SDG: 03C1558303

GC VOA

Prep Batch: 71132

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-5972-1	PH01	Total/NA	Solid	5035	
890-5972-2	PH01A	Total/NA	Solid	5035	
890-5972-3	PH01B	Total/NA	Solid	5035	
890-5972-4	PH02	Total/NA	Solid	5035	
890-5972-5	PH02A	Total/NA	Solid	5035	
890-5972-6	PH02B	Total/NA	Solid	5035	
890-5972-7	PH03	Total/NA	Solid	5035	
890-5972-8	PH03A	Total/NA	Solid	5035	
890-5972-9	PH03B	Total/NA	Solid	5035	
890-5972-10	PH04	Total/NA	Solid	5035	
890-5972-11	PH04A	Total/NA	Solid	5035	
890-5972-12	PH04B	Total/NA	Solid	5035	
890-5972-13	PH05	Total/NA	Solid	5035	
890-5972-14	PH05A	Total/NA	Solid	5035	
890-5972-15	PH05B	Total/NA	Solid	5035	
890-5972-16	PH06	Total/NA	Solid	5035	
890-5972-17	PH06A	Total/NA	Solid	5035	
890-5972-18	PH06B	Total/NA	Solid	5035	
MB 880-71132/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-71132/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-71132/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
890-5972-1 MS	PH01	Total/NA	Solid	5035	
890-5972-1 MSD	PH01	Total/NA	Solid	5035	

Prep Batch: 71133

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 880-71133/5-A	Method Blank	Total/NA	Solid	5035	

Analysis Batch: 71154

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-5972-1	PH01	Total/NA	Solid	8021B	71132
890-5972-2	PH01A	Total/NA	Solid	8021B	71132
890-5972-3	PH01B	Total/NA	Solid	8021B	71132
890-5972-4	PH02	Total/NA	Solid	8021B	71132
890-5972-5	PH02A	Total/NA	Solid	8021B	71132
890-5972-6	PH02B	Total/NA	Solid	8021B	71132
890-5972-7	PH03	Total/NA	Solid	8021B	71132
890-5972-8	PH03A	Total/NA	Solid	8021B	71132
890-5972-9	PH03B	Total/NA	Solid	8021B	71132
890-5972-10	PH04	Total/NA	Solid	8021B	71132
890-5972-11	PH04A	Total/NA	Solid	8021B	71132
890-5972-12	PH04B	Total/NA	Solid	8021B	71132
890-5972-13	PH05	Total/NA	Solid	8021B	71132
890-5972-14	PH05A	Total/NA	Solid	8021B	71132
890-5972-15	PH05B	Total/NA	Solid	8021B	71132
890-5972-16	PH06	Total/NA	Solid	8021B	71132
890-5972-17	PH06A	Total/NA	Solid	8021B	71132
890-5972-18	PH06B	Total/NA	Solid	8021B	71132
MB 880-71132/5-A	Method Blank	Total/NA	Solid	8021B	71132
MB 880-71133/5-A	Method Blank	Total/NA	Solid	8021B	71133
LCS 880-71132/1-A	Lab Control Sample	Total/NA	Solid	8021B	71132

QC Association Summary

Client: Ensolum
Project/Site: PLU 17 Twin Wells Ranch 702H

Job ID: 890-5972-1
SDG: 03C1558303

GC VOA (Continued)

Analysis Batch: 71154 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCSD 880-71132/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	71132
890-5972-1 MS	PH01	Total/NA	Solid	8021B	71132
890-5972-1 MSD	PH01	Total/NA	Solid	8021B	71132

Analysis Batch: 71369

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-5972-1	PH01	Total/NA	Solid	Total BTEX	
890-5972-2	PH01A	Total/NA	Solid	Total BTEX	
890-5972-3	PH01B	Total/NA	Solid	Total BTEX	
890-5972-4	PH02	Total/NA	Solid	Total BTEX	
890-5972-5	PH02A	Total/NA	Solid	Total BTEX	
890-5972-6	PH02B	Total/NA	Solid	Total BTEX	
890-5972-7	PH03	Total/NA	Solid	Total BTEX	
890-5972-8	PH03A	Total/NA	Solid	Total BTEX	
890-5972-9	PH03B	Total/NA	Solid	Total BTEX	
890-5972-10	PH04	Total/NA	Solid	Total BTEX	
890-5972-11	PH04A	Total/NA	Solid	Total BTEX	
890-5972-12	PH04B	Total/NA	Solid	Total BTEX	
890-5972-13	PH05	Total/NA	Solid	Total BTEX	
890-5972-14	PH05A	Total/NA	Solid	Total BTEX	
890-5972-15	PH05B	Total/NA	Solid	Total BTEX	
890-5972-16	PH06	Total/NA	Solid	Total BTEX	
890-5972-17	PH06A	Total/NA	Solid	Total BTEX	
890-5972-18	PH06B	Total/NA	Solid	Total BTEX	

GC Semi VOA

Prep Batch: 71029

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-5972-1	PH01	Total/NA	Solid	8015NM Prep	
890-5972-2	PH01A	Total/NA	Solid	8015NM Prep	
890-5972-3	PH01B	Total/NA	Solid	8015NM Prep	
890-5972-4	PH02	Total/NA	Solid	8015NM Prep	
890-5972-5	PH02A	Total/NA	Solid	8015NM Prep	
890-5972-6	PH02B	Total/NA	Solid	8015NM Prep	
890-5972-7	PH03	Total/NA	Solid	8015NM Prep	
890-5972-8	PH03A	Total/NA	Solid	8015NM Prep	
890-5972-9	PH03B	Total/NA	Solid	8015NM Prep	
890-5972-10	PH04	Total/NA	Solid	8015NM Prep	
890-5972-11	PH04A	Total/NA	Solid	8015NM Prep	
890-5972-12	PH04B	Total/NA	Solid	8015NM Prep	
890-5972-13	PH05	Total/NA	Solid	8015NM Prep	
890-5972-14	PH05A	Total/NA	Solid	8015NM Prep	
890-5972-15	PH05B	Total/NA	Solid	8015NM Prep	
890-5972-16	PH06	Total/NA	Solid	8015NM Prep	
890-5972-17	PH06A	Total/NA	Solid	8015NM Prep	
890-5972-18	PH06B	Total/NA	Solid	8015NM Prep	
MB 880-71029/1-A - RA2	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-71029/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-71029/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
890-5972-1 MS	PH01	Total/NA	Solid	8015NM Prep	

QC Association Summary

Client: Ensolum
Project/Site: PLU 17 Twin Wells Ranch 702H

Job ID: 890-5972-1
SDG: 03C1558303

GC Semi VOA (Continued)

Prep Batch: 71029 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-5972-1 MSD	PH01	Total/NA	Solid	8015NM Prep	

Analysis Batch: 71032

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-5972-1	PH01	Total/NA	Solid	8015B NM	71029
890-5972-2	PH01A	Total/NA	Solid	8015B NM	71029
890-5972-3	PH01B	Total/NA	Solid	8015B NM	71029
890-5972-4	PH02	Total/NA	Solid	8015B NM	71029
890-5972-5	PH02A	Total/NA	Solid	8015B NM	71029
890-5972-6	PH02B	Total/NA	Solid	8015B NM	71029
890-5972-7	PH03	Total/NA	Solid	8015B NM	71029
890-5972-8	PH03A	Total/NA	Solid	8015B NM	71029
890-5972-9	PH03B	Total/NA	Solid	8015B NM	71029
890-5972-10	PH04	Total/NA	Solid	8015B NM	71029
890-5972-11	PH04A	Total/NA	Solid	8015B NM	71029
890-5972-12	PH04B	Total/NA	Solid	8015B NM	71029
890-5972-13	PH05	Total/NA	Solid	8015B NM	71029
890-5972-14	PH05A	Total/NA	Solid	8015B NM	71029
890-5972-15	PH05B	Total/NA	Solid	8015B NM	71029
890-5972-16	PH06	Total/NA	Solid	8015B NM	71029
890-5972-17	PH06A	Total/NA	Solid	8015B NM	71029
890-5972-18	PH06B	Total/NA	Solid	8015B NM	71029
MB 880-71029/1-A - RA2	Method Blank	Total/NA	Solid	8015B NM	71029
LCS 880-71029/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	71029
LCSD 880-71029/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	71029
890-5972-1 MS	PH01	Total/NA	Solid	8015B NM	71029
890-5972-1 MSD	PH01	Total/NA	Solid	8015B NM	71029

Analysis Batch: 71081

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-5972-1	PH01	Total/NA	Solid	8015 NM	
890-5972-2	PH01A	Total/NA	Solid	8015 NM	
890-5972-3	PH01B	Total/NA	Solid	8015 NM	
890-5972-4	PH02	Total/NA	Solid	8015 NM	
890-5972-5	PH02A	Total/NA	Solid	8015 NM	
890-5972-6	PH02B	Total/NA	Solid	8015 NM	
890-5972-7	PH03	Total/NA	Solid	8015 NM	
890-5972-8	PH03A	Total/NA	Solid	8015 NM	
890-5972-9	PH03B	Total/NA	Solid	8015 NM	
890-5972-10	PH04	Total/NA	Solid	8015 NM	
890-5972-11	PH04A	Total/NA	Solid	8015 NM	
890-5972-12	PH04B	Total/NA	Solid	8015 NM	
890-5972-13	PH05	Total/NA	Solid	8015 NM	
890-5972-14	PH05A	Total/NA	Solid	8015 NM	
890-5972-15	PH05B	Total/NA	Solid	8015 NM	
890-5972-16	PH06	Total/NA	Solid	8015 NM	
890-5972-17	PH06A	Total/NA	Solid	8015 NM	
890-5972-18	PH06B	Total/NA	Solid	8015 NM	

QC Association Summary

Client: Ensolum
Project/Site: PLU 17 Twin Wells Ranch 702H

Job ID: 890-5972-1
SDG: 03C1558303

HPLC/IC

Leach Batch: 71003

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-5972-1	PH01	Soluble	Solid	DI Leach	
890-5972-2	PH01A	Soluble	Solid	DI Leach	
890-5972-3	PH01B	Soluble	Solid	DI Leach	
890-5972-4	PH02	Soluble	Solid	DI Leach	
890-5972-5	PH02A	Soluble	Solid	DI Leach	
890-5972-6	PH02B	Soluble	Solid	DI Leach	
890-5972-7	PH03	Soluble	Solid	DI Leach	
890-5972-8	PH03A	Soluble	Solid	DI Leach	
890-5972-9	PH03B	Soluble	Solid	DI Leach	
890-5972-10	PH04	Soluble	Solid	DI Leach	
890-5972-11	PH04A	Soluble	Solid	DI Leach	
890-5972-12	PH04B	Soluble	Solid	DI Leach	
890-5972-13	PH05	Soluble	Solid	DI Leach	
890-5972-14	PH05A	Soluble	Solid	DI Leach	
890-5972-15	PH05B	Soluble	Solid	DI Leach	
890-5972-16	PH06	Soluble	Solid	DI Leach	
890-5972-17	PH06A	Soluble	Solid	DI Leach	
890-5972-18	PH06B	Soluble	Solid	DI Leach	
MB 880-71003/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-71003/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-71003/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
890-5972-1 MS	PH01	Soluble	Solid	DI Leach	
890-5972-1 MSD	PH01	Soluble	Solid	DI Leach	
890-5972-11 MS	PH04A	Soluble	Solid	DI Leach	
890-5972-11 MSD	PH04A	Soluble	Solid	DI Leach	

Analysis Batch: 71077

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-5972-1	PH01	Soluble	Solid	300.0	71003
890-5972-2	PH01A	Soluble	Solid	300.0	71003
890-5972-3	PH01B	Soluble	Solid	300.0	71003
890-5972-4	PH02	Soluble	Solid	300.0	71003
890-5972-5	PH02A	Soluble	Solid	300.0	71003
890-5972-6	PH02B	Soluble	Solid	300.0	71003
890-5972-7	PH03	Soluble	Solid	300.0	71003
890-5972-8	PH03A	Soluble	Solid	300.0	71003
890-5972-9	PH03B	Soluble	Solid	300.0	71003
890-5972-10	PH04	Soluble	Solid	300.0	71003
890-5972-11	PH04A	Soluble	Solid	300.0	71003
890-5972-12	PH04B	Soluble	Solid	300.0	71003
890-5972-13	PH05	Soluble	Solid	300.0	71003
890-5972-14	PH05A	Soluble	Solid	300.0	71003
890-5972-15	PH05B	Soluble	Solid	300.0	71003
890-5972-16	PH06	Soluble	Solid	300.0	71003
890-5972-17	PH06A	Soluble	Solid	300.0	71003
890-5972-18	PH06B	Soluble	Solid	300.0	71003
MB 880-71003/1-A	Method Blank	Soluble	Solid	300.0	71003
LCS 880-71003/2-A	Lab Control Sample	Soluble	Solid	300.0	71003
LCSD 880-71003/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	71003
890-5972-1 MS	PH01	Soluble	Solid	300.0	71003
890-5972-1 MSD	PH01	Soluble	Solid	300.0	71003

QC Association Summary

Client: Ensolum
Project/Site: PLU 17 Twin Wells Ranch 702H

Job ID: 890-5972-1
SDG: 03C1558303

HPLC/IC (Continued)

Analysis Batch: 71077 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-5972-11 MS	PH04A	Soluble	Solid	300.0	71003
890-5972-11 MSD	PH04A	Soluble	Solid	300.0	71003

Lab Chronicle

Client: Ensolum
Project/Site: PLU 17 Twin Wells Ranch 702H

Job ID: 890-5972-1
SDG: 03C1558303

Client Sample ID: PH01

Date Collected: 01/12/24 10:35
Date Received: 01/15/24 09:05

Lab Sample ID: 890-5972-1

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.97 g	5 mL	71132	01/18/24 14:53	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	71154	01/20/24 00:17	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			71369	01/20/24 00:17	SM	EET MID
Total/NA	Analysis	8015 NM		1			71081	01/17/24 10:47	SM	EET MID
Total/NA	Prep	8015NM Prep			10.06 g	10 mL	71029	01/16/24 16:03	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	71032	01/17/24 10:47	SM	EET MID
Soluble	Leach	DI Leach			5.02 g	50 mL	71003	01/16/24 13:52	SA	EET MID
Soluble	Analysis	300.0		5			71077	01/17/24 20:43	CH	EET MID

Client Sample ID: PH01A

Date Collected: 01/12/24 10:55
Date Received: 01/15/24 09:05

Lab Sample ID: 890-5972-2

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.98 g	5 mL	71132	01/18/24 14:53	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	71154	01/20/24 00:38	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			71369	01/20/24 00:38	SM	EET MID
Total/NA	Analysis	8015 NM		1			71081	01/17/24 11:55	SM	EET MID
Total/NA	Prep	8015NM Prep			9.92 g	10 mL	71029	01/16/24 16:03	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	71032	01/17/24 11:55	SM	EET MID
Soluble	Leach	DI Leach			5 g	50 mL	71003	01/16/24 13:52	SA	EET MID
Soluble	Analysis	300.0		10			71077	01/17/24 20:59	CH	EET MID

Client Sample ID: PH01B

Date Collected: 01/12/24 11:00
Date Received: 01/15/24 09:05

Lab Sample ID: 890-5972-3

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			5.02 g	5 mL	71132	01/18/24 14:53	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	71154	01/20/24 00:58	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			71369	01/20/24 00:58	SM	EET MID
Total/NA	Analysis	8015 NM		1			71081	01/17/24 12:18	SM	EET MID
Total/NA	Prep	8015NM Prep			9.90 g	10 mL	71029	01/16/24 16:03	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	71032	01/17/24 12:18	SM	EET MID
Soluble	Leach	DI Leach			5.05 g	50 mL	71003	01/16/24 13:52	SA	EET MID
Soluble	Analysis	300.0		1			71077	01/17/24 21:04	CH	EET MID

Client Sample ID: PH02

Date Collected: 01/12/24 12:50
Date Received: 01/15/24 09:05

Lab Sample ID: 890-5972-4

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			5.03 g	5 mL	71132	01/18/24 14:53	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	71154	01/20/24 01:18	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			71369	01/20/24 01:18	SM	EET MID

Lab Chronicle

Client: Ensolum
Project/Site: PLU 17 Twin Wells Ranch 702H

Job ID: 890-5972-1
SDG: 03C1558303

Client Sample ID: PH02
Date Collected: 01/12/24 12:50
Date Received: 01/15/24 09:05

Lab Sample ID: 890-5972-4
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			71081	01/17/24 12:39	SM	EET MID
Total/NA	Prep	8015NM Prep			10.09 g	10 mL	71029	01/16/24 16:03	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	71032	01/17/24 12:39	SM	EET MID
Soluble	Leach	DI Leach			5.01 g	50 mL	71003	01/16/24 13:52	SA	EET MID
Soluble	Analysis	300.0		5			71077	01/17/24 21:09	CH	EET MID

Client Sample ID: PH02A
Date Collected: 01/12/24 13:05
Date Received: 01/15/24 09:05

Lab Sample ID: 890-5972-5
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.01 g	5 mL	71132	01/18/24 14:53	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	71154	01/20/24 01:39	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			71369	01/20/24 01:39	SM	EET MID
Total/NA	Analysis	8015 NM		1			71081	01/17/24 13:00	SM	EET MID
Total/NA	Prep	8015NM Prep			10.09 g	10 mL	71029	01/16/24 16:03	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	71032	01/17/24 13:00	SM	EET MID
Soluble	Leach	DI Leach			4.96 g	50 mL	71003	01/16/24 13:52	SA	EET MID
Soluble	Analysis	300.0		10			71077	01/17/24 21:14	CH	EET MID

Client Sample ID: PH02B
Date Collected: 01/12/24 13:30
Date Received: 01/15/24 09:05

Lab Sample ID: 890-5972-6
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	71132	01/18/24 14:53	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	71154	01/20/24 01:59	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			71369	01/20/24 01:59	SM	EET MID
Total/NA	Analysis	8015 NM		1			71081	01/17/24 13:22	SM	EET MID
Total/NA	Prep	8015NM Prep			10.09 g	10 mL	71029	01/16/24 16:03	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	71032	01/17/24 13:22	SM	EET MID
Soluble	Leach	DI Leach			5.03 g	50 mL	71003	01/16/24 13:52	SA	EET MID
Soluble	Analysis	300.0		1			71077	01/17/24 21:30	CH	EET MID

Client Sample ID: PH03
Date Collected: 01/12/24 13:40
Date Received: 01/15/24 09:05

Lab Sample ID: 890-5972-7
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			5.02 g	5 mL	71132	01/18/24 14:53	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	71154	01/20/24 02:20	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			71369	01/20/24 02:20	SM	EET MID
Total/NA	Analysis	8015 NM		1			71081	01/17/24 13:43	SM	EET MID
Total/NA	Prep	8015NM Prep			9.94 g	10 mL	71029	01/16/24 16:03	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	71032	01/17/24 13:43	SM	EET MID

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Lab Chronicle

Client: Ensolum
Project/Site: PLU 17 Twin Wells Ranch 702H

Job ID: 890-5972-1
SDG: 03C1558303

Client Sample ID: PH03

Date Collected: 01/12/24 13:40
Date Received: 01/15/24 09:05

Lab Sample ID: 890-5972-7
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			5.04 g	50 mL	71003	01/16/24 13:52	SA	EET MID
Soluble	Analysis	300.0		5			71077	01/17/24 21:35	CH	EET MID

Client Sample ID: PH03A

Date Collected: 01/12/24 13:45
Date Received: 01/15/24 09:05

Lab Sample ID: 890-5972-8
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			5.05 g	5 mL	71132	01/18/24 14:53	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	71154	01/20/24 02:40	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			71369	01/20/24 02:40	SM	EET MID
Total/NA	Analysis	8015 NM		1			71081	01/17/24 14:05	SM	EET MID
Total/NA	Prep	8015NM Prep			9.95 g	10 mL	71029	01/16/24 16:03	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	71032	01/17/24 14:05	SM	EET MID
Soluble	Leach	DI Leach			5.03 g	50 mL	71003	01/16/24 13:52	SA	EET MID
Soluble	Analysis	300.0		5			71077	01/17/24 21:40	CH	EET MID

Client Sample ID: PH03B

Date Collected: 01/12/24 14:10
Date Received: 01/15/24 09:05

Lab Sample ID: 890-5972-9
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			5.03 g	5 mL	71132	01/18/24 14:53	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	71154	01/20/24 03:01	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			71369	01/20/24 03:01	SM	EET MID
Total/NA	Analysis	8015 NM		1			71081	01/17/24 14:26	SM	EET MID
Total/NA	Prep	8015NM Prep			10.06 g	10 mL	71029	01/16/24 16:03	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	71032	01/17/24 14:26	SM	EET MID
Soluble	Leach	DI Leach			4.95 g	50 mL	71003	01/16/24 13:52	SA	EET MID
Soluble	Analysis	300.0		1			71077	01/17/24 21:45	CH	EET MID

Client Sample ID: PH04

Date Collected: 01/12/24 14:25
Date Received: 01/15/24 09:05

Lab Sample ID: 890-5972-10
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.01 g	5 mL	71132	01/18/24 14:53	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	71154	01/20/24 03:21	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			71369	01/20/24 03:21	SM	EET MID
Total/NA	Analysis	8015 NM		1			71081	01/17/24 15:34	SM	EET MID
Total/NA	Prep	8015NM Prep			9.97 g	10 mL	71029	01/16/24 16:03	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	71032	01/17/24 15:34	SM	EET MID
Soluble	Leach	DI Leach			4.98 g	50 mL	71003	01/16/24 13:52	SA	EET MID
Soluble	Analysis	300.0		5			71077	01/17/24 21:50	CH	EET MID

Lab Chronicle

Client: Ensolum
Project/Site: PLU 17 Twin Wells Ranch 702H

Job ID: 890-5972-1
SDG: 03C1558303

Client Sample ID: PH04A

Date Collected: 01/12/24 14:35
Date Received: 01/15/24 09:05

Lab Sample ID: 890-5972-11
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	71132	01/18/24 14:53	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	71154	01/20/24 05:11	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			71369	01/20/24 05:11	SM	EET MID
Total/NA	Analysis	8015 NM		1			71081	01/17/24 15:55	SM	EET MID
Total/NA	Prep	8015NM Prep			9.93 g	10 mL	71029	01/16/24 16:03	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	71032	01/17/24 15:55	SM	EET MID
Soluble	Leach	DI Leach			4.99 g	50 mL	71003	01/16/24 13:52	SA	EET MID
Soluble	Analysis	300.0		5			71077	01/17/24 21:55	CH	EET MID

Client Sample ID: PH04B

Date Collected: 01/12/24 14:55
Date Received: 01/15/24 09:05

Lab Sample ID: 890-5972-12
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.95 g	5 mL	71132	01/18/24 14:53	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	71154	01/20/24 05:32	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			71369	01/20/24 05:32	SM	EET MID
Total/NA	Analysis	8015 NM		1			71081	01/17/24 16:17	SM	EET MID
Total/NA	Prep	8015NM Prep			10.04 g	10 mL	71029	01/16/24 16:03	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	71032	01/17/24 16:17	SM	EET MID
Soluble	Leach	DI Leach			5.01 g	50 mL	71003	01/16/24 13:52	SA	EET MID
Soluble	Analysis	300.0		1			71077	01/17/24 22:11	CH	EET MID

Client Sample ID: PH05

Date Collected: 01/12/24 15:00
Date Received: 01/15/24 09:05

Lab Sample ID: 890-5972-13
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.02 g	5 mL	71132	01/18/24 14:53	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	71154	01/20/24 05:52	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			71369	01/20/24 05:52	SM	EET MID
Total/NA	Analysis	8015 NM		1			71081	01/17/24 16:38	SM	EET MID
Total/NA	Prep	8015NM Prep			10.09 g	10 mL	71029	01/16/24 16:03	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	71032	01/17/24 16:38	SM	EET MID
Soluble	Leach	DI Leach			5.03 g	50 mL	71003	01/16/24 13:52	SA	EET MID
Soluble	Analysis	300.0		5			71077	01/17/24 22:16	CH	EET MID

Client Sample ID: PH05A

Date Collected: 01/12/24 15:05
Date Received: 01/15/24 09:05

Lab Sample ID: 890-5972-14
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.05 g	5 mL	71132	01/18/24 14:53	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	71154	01/20/24 06:13	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			71369	01/20/24 06:13	SM	EET MID

Eurofins Carlsbad

Lab Chronicle

Client: Ensolum
Project/Site: PLU 17 Twin Wells Ranch 702H

Job ID: 890-5972-1
SDG: 03C1558303

Client Sample ID: PH05A
Date Collected: 01/12/24 15:05
Date Received: 01/15/24 09:05

Lab Sample ID: 890-5972-14
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			71081	01/17/24 17:00	SM	EET MID
Total/NA	Prep	8015NM Prep			9.92 g	10 mL	71029	01/16/24 16:03	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	71032	01/17/24 17:00	SM	EET MID
Soluble	Leach	DI Leach			5.05 g	50 mL	71003	01/16/24 13:52	SA	EET MID
Soluble	Analysis	300.0		10			71077	01/17/24 22:31	CH	EET MID

Client Sample ID: PH05B
Date Collected: 01/12/24 15:30
Date Received: 01/15/24 09:05

Lab Sample ID: 890-5972-15
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			5.03 g	5 mL	71132	01/18/24 14:53	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	71154	01/20/24 06:33	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			71369	01/20/24 06:33	SM	EET MID
Total/NA	Analysis	8015 NM		1			71081	01/17/24 17:21	SM	EET MID
Total/NA	Prep	8015NM Prep			9.90 g	10 mL	71029	01/16/24 16:03	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	71032	01/17/24 17:21	SM	EET MID
Soluble	Leach	DI Leach			5.03 g	50 mL	71003	01/16/24 13:52	SA	EET MID
Soluble	Analysis	300.0		1			71077	01/17/24 22:36	CH	EET MID

Client Sample ID: PH06
Date Collected: 01/12/24 15:40
Date Received: 01/15/24 09:05

Lab Sample ID: 890-5972-16
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			5.01 g	5 mL	71132	01/18/24 14:53	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	71154	01/20/24 06:53	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			71369	01/20/24 06:53	SM	EET MID
Total/NA	Analysis	8015 NM		1			71081	01/17/24 17:42	SM	EET MID
Total/NA	Prep	8015NM Prep			10.00 g	10 mL	71029	01/16/24 16:03	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	71032	01/17/24 17:42	SM	EET MID
Soluble	Leach	DI Leach			5 g	50 mL	71003	01/16/24 13:52	SA	EET MID
Soluble	Analysis	300.0		5			71077	01/17/24 22:41	CH	EET MID

Client Sample ID: PH06A
Date Collected: 01/12/24 16:00
Date Received: 01/15/24 09:05

Lab Sample ID: 890-5972-17
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			4.99 g	5 mL	71132	01/18/24 14:53	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	71154	01/20/24 07:14	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			71369	01/20/24 07:14	SM	EET MID
Total/NA	Analysis	8015 NM		1			71081	01/17/24 18:04	SM	EET MID
Total/NA	Prep	8015NM Prep			10.03 g	10 mL	71029	01/16/24 16:03	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	71032	01/17/24 18:04	SM	EET MID

Lab Chronicle

Client: Ensolum
Project/Site: PLU 17 Twin Wells Ranch 702H

Job ID: 890-5972-1
SDG: 03C1558303

Client Sample ID: PH06A

Lab Sample ID: 890-5972-17

Date Collected: 01/12/24 16:00
Matrix: Solid
Date Received: 01/15/24 09:05

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 g	50 mL	71003	01/16/24 13:52	SA	EET MID
Soluble	Analysis	300.0		5			71077	01/17/24 22:47	CH	EET MID

Client Sample ID: PH06B

Lab Sample ID: 890-5972-18

Date Collected: 01/12/24 16:05
Matrix: Solid
Date Received: 01/15/24 09:05

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.02 g	5 mL	71132	01/18/24 14:53	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	71154	01/20/24 07:34	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			71369	01/20/24 07:34	SM	EET MID
Total/NA	Analysis	8015 NM		1			71081	01/17/24 18:25	SM	EET MID
Total/NA	Prep	8015NM Prep			10.00 g	10 mL	71029	01/16/24 16:03	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	71032	01/17/24 18:25	SM	EET MID
Soluble	Leach	DI Leach			5.01 g	50 mL	71003	01/16/24 13:52	SA	EET MID
Soluble	Analysis	300.0		1			71077	01/17/24 22:52	CH	EET MID

Laboratory References:

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

Accreditation/Certification Summary

Client: Ensolum
Project/Site: PLU 17 Twin Wells Ranch 702H

Job ID: 890-5972-1
SDG: 03C1558303

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 17 Twin Wells Ranch 702H

Job ID: 890-5972-1
SDG: 03C1558303

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 17 Twin Wells Ranch 702H

Job ID: 890-5972-1
SDG: 03C1558303

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-5972-1	PH01	Solid	01/12/24 10:35	01/15/24 09:05	0.5'
890-5972-2	PH01A	Solid	01/12/24 10:55	01/15/24 09:05	4'
890-5972-3	PH01B	Solid	01/12/24 11:00	01/15/24 09:05	6'
890-5972-4	PH02	Solid	01/12/24 12:50	01/15/24 09:05	0.5'
890-5972-5	PH02A	Solid	01/12/24 13:05	01/15/24 09:05	3'
890-5972-6	PH02B	Solid	01/12/24 13:30	01/15/24 09:05	8'
890-5972-7	PH03	Solid	01/12/24 13:40	01/15/24 09:05	0.5'
890-5972-8	PH03A	Solid	01/12/24 13:45	01/15/24 09:05	1'
890-5972-9	PH03B	Solid	01/12/24 14:10	01/15/24 09:05	8'
890-5972-10	PH04	Solid	01/12/24 14:25	01/15/24 09:05	0.5'
890-5972-11	PH04A	Solid	01/12/24 14:35	01/15/24 09:05	2'
890-5972-12	PH04B	Solid	01/12/24 14:55	01/15/24 09:05	8'
890-5972-13	PH05	Solid	01/12/24 15:00	01/15/24 09:05	0.5'
890-5972-14	PH05A	Solid	01/12/24 15:05	01/15/24 09:05	1'
890-5972-15	PH05B	Solid	01/12/24 15:30	01/15/24 09:05	8'
890-5972-16	PH06	Solid	01/12/24 15:40	01/15/24 09:05	0.5'
890-5972-17	PH06A	Solid	01/12/24 16:00	01/15/24 09:05	4'
890-5972-18	PH06B	Solid	01/12/24 16:05	01/15/24 09:05	6'

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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 1 of 2

Project Manager:	Ben Belill	Bill to: (if different)	Garrett Green
Company Name:	Ensolum, LLC	Company Name:	XTO Energy
Address:	3122 Nat'l Parks Hwy	Address:	3104 E Greene St
City, State ZIP:	Carlsbad, NM 88220	City, State ZIP:	Carlsbad, NM 88220
Phone:	989-854-0852 Email:		bbelill@ensolum.com

Work Order Comments

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

Project Name:	PLU 17 TWIN WELLS RANCH 702H	Turn Around	
Project Number:	03C1558303	☑ Routine ☐ Rush	
Project Location:	32.20756, -103.80537	Due Date:	
Sampler's Name:	Meredith Roberts	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:	TM007
Cooler Custody Seals:	Yes No N/A	Correction Factor:	-0.2
Sample Custody Seals:	Yes No N/A	Temperature Reading:	-1.0
Total Containers:		Corrected Temperature:	-0.8

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	BTEX	Chlorides	TPH
PH01	S	1/12/24	1035	0.5'	G	1	X	X	X
PH01A			1055	4'					
PH01B			1100	6'					
PH02			1250	0.5'					
PH02A			1305	3'					
PH02B			1330	8'					
PH03			1340	0.5'					
PH03A			1345	1'					
PH03B			1410	8'					
PH04	↓	↓	1425	0.5'	↓	↓	↓	↓	↓

890-5972 Chain of Custody

Sample Comments

Incident #:
NAPP2335329764

Cost Center:
2203571001

mroberts@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			9:05 1/15	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

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 Nat'l Parks Hwy	Address:	3104 E Greene St
City, State ZIP:	Carlsbad, NM 88220	City, State ZIP:	Carlsbad, NM 88220
Phone:	989-854-0852 Email:		bbelill@ensolum.com

Work Order Comments

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

Project Name:	PLU 17 TWIN WELLS RANCH 702H	Turn Around	
Project Number:	03C1558303	☑ Routine ☐ Rush	
Project Location:	32.20756, -103.80637	Due Date:	
Sampler's Name:	Meredith Roberts	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: 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	BTEX	Chlorides	TPH
PH04A	S	1/12/24	1435	2'	G	1	X	X	X
PH04B			1455	8'					
PH05			1500	0.5'					
PH05A			1505	1'					
PH05B			1530	8'					
PH06			1540	0.5'					
PH06A			1600	4'					
PH06B			1605	6'					

Parameters

Sample Comments

Incident #: NAPP2335329764

Cost Center: 2203371001

mroberts@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			9:05 1/12			
3				4		
5				6		

Revised Date: 08/25/2020 Rev. 2020.2

Login Sample Receipt Checklist

Client: Ensolum

Job Number: 890-5972-1
SDG Number: 03C1558303

Login Number: 5972
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: 890-5972-1
SDG Number: 03C1558303

Login Number: 5972
List Number: 2
Creator: Rodriguez, Leticia

List Source: Eurofins Midland
List Creation: 01/16/24 12:15 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 1/30/2024 2:19:53 PM

JOB DESCRIPTION

PLU 17 TWIN WELLS RANCH 702H
03C1558303

JOB NUMBER

890-5986-1

Eurofins Carlsbad
1089 N Canal St.
Carlsbad NM 88220

See page two for job notes and contact information.

my EOL

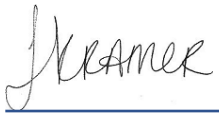
Eurofins Carlsbad

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

Client: Ensolum
Project/Site: PLU 17 TWIN WELLS RANCH 702H

Laboratory Job ID: 890-5986-1
SDG: 03C1558303

Table of Contents

Definitions/Glossary

Client: Ensolum Job ID: 890-5986-1
Project/Site: PLU 17 TWIN WELLS RANCH 702H SDG: 03C1558303

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
F2	MS/MSD RPD exceeds control limits
S1-	Surrogate recovery exceeds control limits, low biased.
S1+	Surrogate recovery exceeds control limits, high biased.
U	Indicates the analyte was analyzed for but not detected.

HPLC/IC

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

Glossary

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

Case Narrative

Client: Ensolum Job ID: 890-5986-1
Project: PLU 17 TWIN WELLS RANCH 702H

Job ID: 890-5986-1 Eurofins Carlsbad

Job Narrative
890-5986-1

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 8:12 AM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was -0.6°C

Receipt Exceptions
The following samples were received and analyzed from an unpreserved bulk soil jar: PH 07 (890-5986-1), PH 07A (890-5986-2), PH 07B (890-5986-3), PH 08 (890-5986-4), PH 08A (890-5986-5), PH 08B (890-5986-6), PH 09 (890-5986-7), PH 09A (890-5986-8), PH 10 (890-5986-9), PH 10A (890-5986-10), PH 10B (890-5986-11), PH 11 (890-5986-12), PH 11A (890-5986-13), PH 11B (890-5986-14), PH 12 (890-5986-15), PH 12A (890-5986-16), PH 12B (890-5986-17), PH 13 (890-5986-18), PH 13A (890-5986-19), PH 14 (890-5986-20), PH 14A (890-5986-21), PH 14B (890-5986-22), PH 15 (890-5986-23), PH 15A (890-5986-24), PH 15B (890-5986-25), PH 16 (890-5986-26), PH 16A (890-5986-27), PH 16B (890-5986-28), PH 17 (890-5986-29) and PH 17A (890-5986-30).

GC VOA
Method 8021B: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 880-71518 and analytical batch 880-71762 were outside control limits for one or more analytes. See QC Sample Results for detail. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery is within acceptance limits.

Method 8021B: The surrogate recovery for the blank associated with preparation batch 880-71518 and analytical batch 880-71762 was outside the upper control limits.

Method 8021B: The matrix spike duplicate (MSD) recoveries for preparation batch 880-71631 and analytical batch 880-71765 were outside control limits. Non-homogeneity is suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.

Method 8021B: The surrogate recovery for the blank associated with preparation batch 880-71534 and 880-71631 and analytical batch 880-71765 was outside the upper control limits.

Method 8021B: Surrogate recovery for the following samples were outside control limits: PH 12A (890-5986-16), PH 13 (890-5986-18), PH 15A (890-5986-24) and PH 16 (890-5986-26). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

Method 8021B: The laboratory control sample duplicate (LCSD) for preparation batch 880-71631 and analytical batch 880-71765 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.

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

GC Semi VOA
Method 8015MOD_NM: Surrogate recovery for the following sample was outside control limits: (LCS 880-71254/2-A). Evidence of matrix interferences is not obvious.

Method 8015MOD_NM: Surrogate recovery for the following samples were outside control limits: PH 14B (890-5986-22), PH 15 (890-5986-23), PH 15A (890-5986-24) and PH 16B (890-5986-28). Evidence of matrix interference is present; therefore, re-

Case Narrative

Client: Ensolum Job ID: 890-5986-1
Project: PLU 17 TWIN WELLS RANCH 702H

Job ID: 890-5986-1 (Continued) Eurofins Carlsbad

extraction and/or re-analysis was not performed.

Method 8015MOD_NM: The matrix spike / matrix spike duplicate (MS/MSD) precision for preparation batch 880-71254 and analytical batch 880-71766 was outside control limits. Sample non-homogeneity is suspected.

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

HPLC/IC
Method 300_ORGFM_28D: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 880-71228 and 880-71228 and analytical batch 880-71388 were outside control limits for one or more analytes. See QC Sample Results for detail. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery is within acceptance limits.

Method 300_ORGFM_28D: Spike compounds were inadvertently doubled for the matrix spike/matrix spike duplicate (MS/MSD) for preparation batch 880-71228 and analytical batch 880-71388. The associated laboratory control sample (LCS) met acceptance criteria.

PH 15A (890-5986-24), (890-5986-A-24-B MS) and (890-5986-A-24-C MSD)

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

Client Sample Results

Client: Ensolum
Project/Site: PLU 17 TWIN WELLS RANCH 702H

Job ID: 890-5986-1
SDG: 03C1558303

Client Sample ID: PH 07

Date Collected: 01/16/24 09:40
Date Received: 01/18/24 08:12
Sample Depth: 0.5'

Lab Sample ID: 890-5986-1
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		01/24/24 14:18	01/28/24 18:58	1
Toluene	<0.00199	U	0.00199		mg/Kg		01/24/24 14:18	01/28/24 18:58	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		01/24/24 14:18	01/28/24 18:58	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		01/24/24 14:18	01/28/24 18:58	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		01/24/24 14:18	01/28/24 18:58	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		01/24/24 14:18	01/28/24 18:58	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*104*		*70 - 130*	*01/24/24 14:18*	*01/28/24 18:58*	*1*
1,4-Difluorobenzene (Surr)	*86*		*70 - 130*	*01/24/24 14:18*	*01/28/24 18:58*	*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			01/28/24 18:58	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			01/28/24 10:51	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 17:09	01/28/24 10:51	1
Diesel Range Organics (Over C10-C28)	<49.6	U	49.6		mg/Kg		01/19/24 17:09	01/28/24 10:51	1
OII Range Organics (Over C28-C36)	<49.6	U	49.6		mg/Kg		01/19/24 17:09	01/28/24 10:51	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*88*		*70 - 130*	*01/19/24 17:09*	*01/28/24 10:51*	*1*
o-Terphenyl	*96*		*70 - 130*	*01/19/24 17:09*	*01/28/24 10:51*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**2520**		24.8		mg/Kg			01/24/24 13:28	5

Client Sample ID: PH 07A

Date Collected: 01/16/24 09:45
Date Received: 01/18/24 08:12
Sample Depth: 1'

Lab Sample ID: 890-5986-2
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		01/24/24 14:18	01/28/24 19:18	1
Toluene	<0.00200	U	0.00200		mg/Kg		01/24/24 14:18	01/28/24 19:18	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		01/24/24 14:18	01/28/24 19:18	1
m-Xylene & p-Xylene	<0.00401	U	0.00401		mg/Kg		01/24/24 14:18	01/28/24 19:18	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		01/24/24 14:18	01/28/24 19:18	1
Xylenes, Total	<0.00401	U	0.00401		mg/Kg		01/24/24 14:18	01/28/24 19:18	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*109*		*70 - 130*	*01/24/24 14:18*	*01/28/24 19:18*	*1*

Eurofins Carlsbad

Client Sample Results

Client: Ensolum
Project/Site: PLU 17 TWIN WELLS RANCH 702H

Job ID: 890-5986-1
SDG: 03C1558303

Client Sample ID: PH 07A

Date Collected: 01/16/24 09:45
Date Received: 01/18/24 08:12
Sample Depth: 1'

Lab Sample ID: 890-5986-2

Matrix: Solid

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

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,4-Difluorobenzene (Surr)	*94*		*70 - 130*	*01/24/24 14:18*	*01/28/24 19:18*	*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			01/28/24 19:18	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			01/28/24 11:59	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	<49.8	U	49.8	mg/Kg		01/19/24 17:09	01/28/24 11:59	1
Diesel Range Organics (Over C10-C28)	<49.8	U	49.8	mg/Kg		01/19/24 17:09	01/28/24 11:59	1
OII Range Organics (Over C28-C36)	<49.8	U	49.8	mg/Kg		01/19/24 17:09	01/28/24 11:59	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*80*		*70 - 130*	*01/19/24 17:09*	*01/28/24 11:59*	*1*
o-Terphenyl	*87*		*70 - 130*	*01/19/24 17:09*	*01/28/24 11:59*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**2230**		25.1	mg/Kg			01/24/24 13:34	5

Client Sample ID: PH 07B

Date Collected: 01/16/24 10:05
Date Received: 01/18/24 08:12
Sample Depth: 6'

Lab Sample ID: 890-5986-3

Matrix: Solid

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00201	U	0.00201	mg/Kg		01/24/24 14:18	01/28/24 19:39	1
Toluene	<0.00201	U	0.00201	mg/Kg		01/24/24 14:18	01/28/24 19:39	1
Ethylbenzene	<0.00201	U	0.00201	mg/Kg		01/24/24 14:18	01/28/24 19:39	1
m-Xylene & p-Xylene	<0.00402	U	0.00402	mg/Kg		01/24/24 14:18	01/28/24 19:39	1
o-Xylene	<0.00201	U	0.00201	mg/Kg		01/24/24 14:18	01/28/24 19:39	1
Xylenes, Total	<0.00402	U	0.00402	mg/Kg		01/24/24 14:18	01/28/24 19:39	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*104*		*70 - 130*	*01/24/24 14:18*	*01/28/24 19:39*	*1*
1,4-Difluorobenzene (Surr)	*93*		*70 - 130*	*01/24/24 14:18*	*01/28/24 19:39*	*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			01/28/24 19:39	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			01/28/24 12:20	1

Eurofins Carlsbad

Client Sample Results

Client: Ensolum
Project/Site: PLU 17 TWIN WELLS RANCH 702H

Job ID: 890-5986-1
SDG: 03C1558303

Client Sample ID: PH 07B

Lab Sample ID: 890-5986-3
Matrix: Solid
Date Collected: 01/16/24 10:05
Date Received: 01/18/24 08:12
Sample Depth: 6'

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 17:09	01/28/24 12:20	1
Diesel Range Organics (Over C10-C28)	<49.6	U	49.6		mg/Kg		01/19/24 17:09	01/28/24 12:20	1
OII Range Organics (Over C28-C36)	<49.6	U	49.6		mg/Kg		01/19/24 17:09	01/28/24 12:20	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*90*		*70 - 130*	*01/19/24 17:09*	*01/28/24 12:20*	*1*
o-Terphenyl	*100*		*70 - 130*	*01/19/24 17:09*	*01/28/24 12:20*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**120**		4.98		mg/Kg			01/24/24 13:39	1

Client Sample ID: PH 08

Lab Sample ID: 890-5986-4
Matrix: Solid
Date Collected: 01/16/24 10:35
Date Received: 01/18/24 08:12
Sample Depth: 0.5'

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		01/24/24 14:18	01/28/24 19:59	1
Toluene	<0.00202	U	0.00202		mg/Kg		01/24/24 14:18	01/28/24 19:59	1
Ethylbenzene	<0.00202	U	0.00202		mg/Kg		01/24/24 14:18	01/28/24 19:59	1
m-Xylene & p-Xylene	<0.00403	U	0.00403		mg/Kg		01/24/24 14:18	01/28/24 19:59	1
o-Xylene	<0.00202	U	0.00202		mg/Kg		01/24/24 14:18	01/28/24 19:59	1
Xylenes, Total	<0.00403	U	0.00403		mg/Kg		01/24/24 14:18	01/28/24 19:59	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*103*		*70 - 130*	*01/24/24 14:18*	*01/28/24 19:59*	*1*
1,4-Difluorobenzene (Surr)	*90*		*70 - 130*	*01/24/24 14:18*	*01/28/24 19:59*	*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			01/28/24 19:59	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			01/28/24 12:43	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 17:09	01/28/24 12:43	1
Diesel Range Organics (Over C10-C28)	<49.6	U	49.6		mg/Kg		01/19/24 17:09	01/28/24 12:43	1
OII Range Organics (Over C28-C36)	<49.6	U	49.6		mg/Kg		01/19/24 17:09	01/28/24 12:43	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*78*		*70 - 130*	*01/19/24 17:09*	*01/28/24 12:43*	*1*
o-Terphenyl	*83*		*70 - 130*	*01/19/24 17:09*	*01/28/24 12:43*	*1*

Client Sample Results

Client: Ensolum
Project/Site: PLU 17 TWIN WELLS RANCH 702H

Job ID: 890-5986-1
SDG: 03C1558303

Client Sample ID: PH 08

Lab Sample ID: 890-5986-4
Matrix: Solid
Date Collected: 01/16/24 10:35
Date Received: 01/18/24 08:12
Sample Depth: 0.5'

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	2270		25.0		mg/Kg			01/24/24 13:44	5

Client Sample ID: PH 08A

Lab Sample ID: 890-5986-5
Matrix: Solid
Date Collected: 01/16/24 10:45
Date Received: 01/18/24 08:12
Sample Depth: 2'

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		01/24/24 14:18	01/28/24 20:20	1
Toluene	<0.00199	U	0.00199		mg/Kg		01/24/24 14:18	01/28/24 20:20	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		01/24/24 14:18	01/28/24 20:20	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		01/24/24 14:18	01/28/24 20:20	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		01/24/24 14:18	01/28/24 20:20	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		01/24/24 14:18	01/28/24 20:20	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*102*		*70 - 130*	*01/24/24 14:18*	*01/28/24 20:20*	*1*
1,4-Difluorobenzene (Surr)	*97*		*70 - 130*	*01/24/24 14:18*	*01/28/24 20:20*	*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			01/28/24 20:20	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			01/28/24 13:05	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	<49.9	U	49.9		mg/Kg		01/19/24 17:09	01/28/24 13:05	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		01/19/24 17:09	01/28/24 13:05	1
OII Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		01/19/24 17:09	01/28/24 13:05	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*78*		*70 - 130*	*01/19/24 17:09*	*01/28/24 13:05*	*1*
o-Terphenyl	*83*		*70 - 130*	*01/19/24 17:09*	*01/28/24 13:05*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	2910		25.1		mg/Kg			01/24/24 13:59	5

Client Sample Results

Client: Ensolum
Project/Site: PLU 17 TWIN WELLS RANCH 702H

Job ID: 890-5986-1
SDG: 03C1558303

Client Sample ID: PH 08B

Lab Sample ID: 890-5986-6
Matrix: Solid
Date Collected: 01/16/24 11:00
Date Received: 01/18/24 08:12
Sample Depth: 6'

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		01/24/24 14:18	01/28/24 20:40	1
Toluene	<0.00200	U	0.00200		mg/Kg		01/24/24 14:18	01/28/24 20:40	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		01/24/24 14:18	01/28/24 20:40	1
m-Xylene & p-Xylene	<0.00399	U	0.00399		mg/Kg		01/24/24 14:18	01/28/24 20:40	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		01/24/24 14:18	01/28/24 20:40	1
Xylenes, Total	<0.00399	U	0.00399		mg/Kg		01/24/24 14:18	01/28/24 20:40	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*115*		*70 - 130*	*01/24/24 14:18*	*01/28/24 20:40*	*1*
1,4-Difluorobenzene (Surr)	*91*		*70 - 130*	*01/24/24 14:18*	*01/28/24 20:40*	*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			01/28/24 20:40	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			01/28/24 13:29	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 17:09	01/28/24 13:29	1
Diesel Range Organics (Over C10-C28)	<50.2	U	50.2		mg/Kg		01/19/24 17:09	01/28/24 13:29	1
OII Range Organics (Over C28-C36)	<50.2	U	50.2		mg/Kg		01/19/24 17:09	01/28/24 13:29	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*77*		*70 - 130*	*01/19/24 17:09*	*01/28/24 13:29*	*1*
o-Terphenyl	*84*		*70 - 130*	*01/19/24 17:09*	*01/28/24 13:29*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**111**		5.03		mg/Kg			01/24/24 14:04	1

Client Sample ID: PH 09

Lab Sample ID: 890-5986-7
Matrix: Solid
Date Collected: 01/17/24 15:05
Date Received: 01/18/24 08:12
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		01/24/24 14:18	01/28/24 21:00	1
Toluene	<0.00201	U	0.00201		mg/Kg		01/24/24 14:18	01/28/24 21:00	1
Ethylbenzene	<0.00201	U	0.00201		mg/Kg		01/24/24 14:18	01/28/24 21:00	1
m-Xylene & p-Xylene	<0.00402	U	0.00402		mg/Kg		01/24/24 14:18	01/28/24 21:00	1
o-Xylene	<0.00201	U	0.00201		mg/Kg		01/24/24 14:18	01/28/24 21:00	1
Xylenes, Total	<0.00402	U	0.00402		mg/Kg		01/24/24 14:18	01/28/24 21:00	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*107*		*70 - 130*	*01/24/24 14:18*	*01/28/24 21:00*	*1*

Client Sample Results

Client: Ensolum
Project/Site: PLU 17 TWIN WELLS RANCH 702H

Job ID: 890-5986-1
SDG: 03C1558303

Client Sample ID: PH 09

Date Collected: 01/17/24 15:05
Date Received: 01/18/24 08:12
Sample Depth: 0.5'

Lab Sample ID: 890-5986-7
Matrix: Solid

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

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,4-Difluorobenzene (Surr)	*90*		*70 - 130*	*01/24/24 14:18*	*01/28/24 21:00*	*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			01/28/24 21:00	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			01/28/24 13:51	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 17:09	01/28/24 13:51	1
Diesel Range Organics (Over C10-C28)	<50.4	U	50.4	mg/Kg		01/19/24 17:09	01/28/24 13:51	1
OII Range Organics (Over C28-C36)	<50.4	U	50.4	mg/Kg		01/19/24 17:09	01/28/24 13:51	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*81*		*70 - 130*	*01/19/24 17:09*	*01/28/24 13:51*	*1*
o-Terphenyl	*84*		*70 - 130*	*01/19/24 17:09*	*01/28/24 13:51*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**42.9**		5.05	mg/Kg			01/24/24 14:20	1

Client Sample ID: PH 09A

Date Collected: 01/17/24 15:10
Date Received: 01/18/24 08:12
Sample Depth: 1'

Lab Sample ID: 890-5986-8
Matrix: Solid

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		01/24/24 14:18	01/28/24 22:50	1
Toluene	<0.00202	U	0.00202	mg/Kg		01/24/24 14:18	01/28/24 22:50	1
Ethylbenzene	<0.00202	U	0.00202	mg/Kg		01/24/24 14:18	01/28/24 22:50	1
m-Xylene & p-Xylene	<0.00403	U	0.00403	mg/Kg		01/24/24 14:18	01/28/24 22:50	1
o-Xylene	<0.00202	U	0.00202	mg/Kg		01/24/24 14:18	01/28/24 22:50	1
Xylenes, Total	<0.00403	U	0.00403	mg/Kg		01/24/24 14:18	01/28/24 22:50	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*86*		*70 - 130*	*01/24/24 14:18*	*01/28/24 22:50*	*1*
1,4-Difluorobenzene (Surr)	*97*		*70 - 130*	*01/24/24 14:18*	*01/28/24 22:50*	*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			01/28/24 22:50	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			01/28/24 14:13	1

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Client Sample Results

Client: Ensolum
Project/Site: PLU 17 TWIN WELLS RANCH 702H

Job ID: 890-5986-1
SDG: 03C1558303

Client Sample ID: PH 09A

Lab Sample ID: 890-5986-8
Matrix: Solid
Date Collected: 01/17/24 15:10
Date Received: 01/18/24 08:12
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	<50.5	U	50.5		mg/Kg		01/19/24 17:09	01/28/24 14:13	1
Diesel Range Organics (Over C10-C28)	<50.5	U	50.5		mg/Kg		01/19/24 17:09	01/28/24 14:13	1
Oil Range Organics (Over C28-C36)	<50.5	U	50.5		mg/Kg		01/19/24 17:09	01/28/24 14:13	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*82*		*70 - 130*	*01/19/24 17:09*	*01/28/24 14:13*	*1*
o-Terphenyl	*87*		*70 - 130*	*01/19/24 17:09*	*01/28/24 14:13*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**19.0**		5.04		mg/Kg			01/24/24 14:25	1

Client Sample ID: PH 10

Lab Sample ID: 890-5986-9
Matrix: Solid
Date Collected: 01/16/24 12:30
Date Received: 01/18/24 08:12
Sample Depth: 0.5'

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		01/24/24 14:18	01/28/24 23:11	1
Toluene	<0.00199	U	0.00199		mg/Kg		01/24/24 14:18	01/28/24 23:11	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		01/24/24 14:18	01/28/24 23:11	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		01/24/24 14:18	01/28/24 23:11	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		01/24/24 14:18	01/28/24 23:11	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		01/24/24 14:18	01/28/24 23:11	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*100*		*70 - 130*	*01/24/24 14:18*	*01/28/24 23:11*	*1*
1,4-Difluorobenzene (Surr)	*107*		*70 - 130*	*01/24/24 14:18*	*01/28/24 23:11*	*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			01/28/24 23:11	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			01/28/24 14:35	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 17:09	01/28/24 14:35	1
Diesel Range Organics (Over C10-C28)	<49.7	U	49.7		mg/Kg		01/19/24 17:09	01/28/24 14:35	1
Oil Range Organics (Over C28-C36)	<49.7	U	49.7		mg/Kg		01/19/24 17:09	01/28/24 14:35	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*78*		*70 - 130*	*01/19/24 17:09*	*01/28/24 14:35*	*1*
o-Terphenyl	*83*		*70 - 130*	*01/19/24 17:09*	*01/28/24 14:35*	*1*

Client Sample Results

Client: Ensolum
Project/Site: PLU 17 TWIN WELLS RANCH 702H

Job ID: 890-5986-1
SDG: 03C1558303

Client Sample ID: PH 10

Lab Sample ID: 890-5986-9
Matrix: Solid
Date Collected: 01/16/24 12:30
Date Received: 01/18/24 08:12
Sample Depth: 0.5'

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	2680		24.9		mg/Kg			01/24/24 14:30	5

Client Sample ID: PH 10A

Lab Sample ID: 890-5986-10
Matrix: Solid
Date Collected: 01/16/24 12:50
Date Received: 01/18/24 08:12
Sample Depth: 4'

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		01/24/24 14:18	01/28/24 23:31	1
Toluene	<0.00199	U	0.00199		mg/Kg		01/24/24 14:18	01/28/24 23:31	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		01/24/24 14:18	01/28/24 23:31	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		01/24/24 14:18	01/28/24 23:31	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		01/24/24 14:18	01/28/24 23:31	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		01/24/24 14:18	01/28/24 23:31	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*110*		*70 - 130*	*01/24/24 14:18*	*01/28/24 23:31*	*1*
1,4-Difluorobenzene (Surr)	*107*		*70 - 130*	*01/24/24 14:18*	*01/28/24 23:31*	*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			01/28/24 23:31	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			01/28/24 14:57	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	<49.9	U	49.9		mg/Kg		01/19/24 17:09	01/28/24 14:57	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		01/19/24 17:09	01/28/24 14:57	1
OII Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		01/19/24 17:09	01/28/24 14:57	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*88*		*70 - 130*	*01/19/24 17:09*	*01/28/24 14:57*	*1*
o-Terphenyl	*96*		*70 - 130*	*01/19/24 17:09*	*01/28/24 14:57*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	1150		4.97		mg/Kg			01/24/24 14:35	1

Client Sample Results

Client: Ensolum
Project/Site: PLU 17 TWIN WELLS RANCH 702H

Job ID: 890-5986-1
SDG: 03C1558303

Client Sample ID: PH 10B

Lab Sample ID: 890-5986-11
Matrix: Solid
Date Collected: 01/16/24 13:10
Date Received: 01/18/24 08:12
Sample Depth: 10'

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		01/24/24 14:18	01/28/24 23:52	1
Toluene	<0.00200	U	0.00200		mg/Kg		01/24/24 14:18	01/28/24 23:52	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		01/24/24 14:18	01/28/24 23:52	1
m-Xylene & p-Xylene	<0.00399	U	0.00399		mg/Kg		01/24/24 14:18	01/28/24 23:52	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		01/24/24 14:18	01/28/24 23:52	1
Xylenes, Total	<0.00399	U	0.00399		mg/Kg		01/24/24 14:18	01/28/24 23:52	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*103*		*70 - 130*	*01/24/24 14:18*	*01/28/24 23:52*	*1*
1,4-Difluorobenzene (Surr)	*104*		*70 - 130*	*01/24/24 14:18*	*01/28/24 23:52*	*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			01/28/24 23:52	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			01/28/24 15:41	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.8	U	49.8		mg/Kg		01/19/24 17:09	01/28/24 15:41	1
Diesel Range Organics (Over C10-C28)	<49.8	U	49.8		mg/Kg		01/19/24 17:09	01/28/24 15:41	1
OII Range Organics (Over C28-C36)	<49.8	U	49.8		mg/Kg		01/19/24 17:09	01/28/24 15:41	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*87*		*70 - 130*	*01/19/24 17:09*	*01/28/24 15:41*	*1*
o-Terphenyl	*93*		*70 - 130*	*01/19/24 17:09*	*01/28/24 15:41*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**89.5**		4.99		mg/Kg			01/24/24 14:40	1

Client Sample ID: PH 11

Lab Sample ID: 890-5986-12
Matrix: Solid
Date Collected: 01/17/24 13:40
Date Received: 01/18/24 08:12
Sample Depth: 0.5'

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 17:57	01/30/24 02:15	1
Toluene	<0.00199	U	0.00199		mg/Kg		01/25/24 17:57	01/30/24 02:15	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		01/25/24 17:57	01/30/24 02:15	1
m-Xylene & p-Xylene	<0.00398	U *+	0.00398		mg/Kg		01/25/24 17:57	01/30/24 02:15	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		01/25/24 17:57	01/30/24 02:15	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		01/25/24 17:57	01/30/24 02:15	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*107*		*70 - 130*	*01/25/24 17:57*	*01/30/24 02:15*	*1*

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Client Sample Results

Client: Ensolum
Project/Site: PLU 17 TWIN WELLS RANCH 702H

Job ID: 890-5986-1
SDG: 03C1558303

Client Sample ID: PH 11

Date Collected: 01/17/24 13:40
Date Received: 01/18/24 08:12
Sample Depth: 0.5'

Lab Sample ID: 890-5986-12
Matrix: Solid

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

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,4-Difluorobenzene (Surr)	*87*		*70 - 130*	*01/25/24 17:57*	*01/30/24 02:15*	*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 02:15	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			01/28/24 16:02	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 17:09	01/28/24 16:02	1
Diesel Range Organics (Over C10-C28)	<49.7	U	49.7	mg/Kg		01/19/24 17:09	01/28/24 16:02	1
OII Range Organics (Over C28-C36)	<49.7	U	49.7	mg/Kg		01/19/24 17:09	01/28/24 16:02	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	*92*		*70 - 130*	*01/19/24 17:09*	*01/28/24 16:02*	*1*
o-Terphenyl	*100*		*70 - 130*	*01/19/24 17:09*	*01/28/24 16:02*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**2460**		25.1	mg/Kg			01/24/24 14:45	5

Client Sample ID: PH 11A

Date Collected: 01/17/24 13:50
Date Received: 01/18/24 08:12
Sample Depth: 2'

Lab Sample ID: 890-5986-13
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 17:57	01/30/24 02:41	1
Toluene	<0.00199	U	0.00199	mg/Kg		01/25/24 17:57	01/30/24 02:41	1
Ethylbenzene	<0.00199	U	0.00199	mg/Kg		01/25/24 17:57	01/30/24 02:41	1
m-Xylene & p-Xylene	<0.00398	U *+	0.00398	mg/Kg		01/25/24 17:57	01/30/24 02:41	1
o-Xylene	<0.00199	U	0.00199	mg/Kg		01/25/24 17:57	01/30/24 02:41	1
Xylenes, Total	<0.00398	U	0.00398	mg/Kg		01/25/24 17:57	01/30/24 02:41	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	*101*		*70 - 130*	*01/25/24 17:57*	*01/30/24 02:41*	*1*
1,4-Difluorobenzene (Surr)	*113*		*70 - 130*	*01/25/24 17:57*	*01/30/24 02:41*	*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 02:41	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			01/28/24 16:26	1

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Client Sample Results

Client: Ensolum
Project/Site: PLU 17 TWIN WELLS RANCH 702H

Job ID: 890-5986-1
SDG: 03C1558303

Client Sample ID: PH 11A

Date Collected: 01/17/24 13:50
Date Received: 01/18/24 08:12
Sample Depth: 2'

Lab Sample ID: 890-5986-13
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	<50.1	U	50.1		mg/Kg		01/19/24 17:09	01/28/24 16:26	1
Diesel Range Organics (Over C10-C28)	<50.1	U	50.1		mg/Kg		01/19/24 17:09	01/28/24 16:26	1
OII Range Organics (Over C28-C36)	<50.1	U	50.1		mg/Kg		01/19/24 17:09	01/28/24 16:26	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*86*		*70 - 130*	*01/19/24 17:09*	*01/28/24 16:26*	*1*
o-Terphenyl	*93*		*70 - 130*	*01/19/24 17:09*	*01/28/24 16:26*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**2920**		24.8		mg/Kg			01/24/24 14:51	5

Client Sample ID: PH 11B

Date Collected: 01/17/24 14:00
Date Received: 01/18/24 08:12
Sample Depth: 4'

Lab Sample ID: 890-5986-14
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		01/25/24 17:57	01/30/24 03:07	1
Toluene	<0.00200	U	0.00200		mg/Kg		01/25/24 17:57	01/30/24 03:07	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		01/25/24 17:57	01/30/24 03:07	1
m-Xylene & p-Xylene	<0.00399	U *+	0.00399		mg/Kg		01/25/24 17:57	01/30/24 03:07	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		01/25/24 17:57	01/30/24 03:07	1
Xylenes, Total	<0.00399	U	0.00399		mg/Kg		01/25/24 17:57	01/30/24 03:07	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*110*		*70 - 130*	*01/25/24 17:57*	*01/30/24 03:07*	*1*
1,4-Difluorobenzene (Surr)	*109*		*70 - 130*	*01/25/24 17:57*	*01/30/24 03:07*	*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 03:07	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			01/28/24 16:46	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 17:09	01/28/24 16:46	1
Diesel Range Organics (Over C10-C28)	<50.5	U	50.5		mg/Kg		01/19/24 17:09	01/28/24 16:46	1
OII Range Organics (Over C28-C36)	<50.5	U	50.5		mg/Kg		01/19/24 17:09	01/28/24 16:46	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*80*		*70 - 130*	*01/19/24 17:09*	*01/28/24 16:46*	*1*
o-Terphenyl	*89*		*70 - 130*	*01/19/24 17:09*	*01/28/24 16:46*	*1*

Client Sample Results

Client: Ensolum
Project/Site: PLU 17 TWIN WELLS RANCH 702H

Job ID: 890-5986-1
SDG: 03C1558303

Client Sample ID: PH 11B

Lab Sample ID: 890-5986-14
Matrix: Solid
Date Collected: 01/17/24 14:00
Date Received: 01/18/24 08:12
Sample Depth: 4'

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	12.3		5.05		mg/Kg			01/24/24 11:28	1

Client Sample ID: PH 12

Lab Sample ID: 890-5986-15
Matrix: Solid
Date Collected: 01/17/24 13:10
Date Received: 01/18/24 08:12
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		01/25/24 17:57	01/30/24 03:32	1
Toluene	<0.00201	U	0.00201		mg/Kg		01/25/24 17:57	01/30/24 03:32	1
Ethylbenzene	<0.00201	U	0.00201		mg/Kg		01/25/24 17:57	01/30/24 03:32	1
m-Xylene & p-Xylene	<0.00402	U *+	0.00402		mg/Kg		01/25/24 17:57	01/30/24 03:32	1
o-Xylene	<0.00201	U	0.00201		mg/Kg		01/25/24 17:57	01/30/24 03:32	1
Xylenes, Total	<0.00402	U	0.00402		mg/Kg		01/25/24 17:57	01/30/24 03:32	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*95*		*70 - 130*	*01/25/24 17:57*	*01/30/24 03:32*	*1*
1,4-Difluorobenzene (Surr)	*90*		*70 - 130*	*01/25/24 17:57*	*01/30/24 03:32*	*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 03:32	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			01/28/24 17:07	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 17:09	01/28/24 17:07	1
Diesel Range Organics (Over C10-C28)	<50.5	U	50.5		mg/Kg		01/19/24 17:09	01/28/24 17:07	1
OII Range Organics (Over C28-C36)	<50.5	U	50.5		mg/Kg		01/19/24 17:09	01/28/24 17:07	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*84*		*70 - 130*	*01/19/24 17:09*	*01/28/24 17:07*	*1*
o-Terphenyl	*91*		*70 - 130*	*01/19/24 17:09*	*01/28/24 17:07*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	2570		25.1		mg/Kg			01/24/24 11:48	5

Client Sample Results

Client: Ensolum
Project/Site: PLU 17 TWIN WELLS RANCH 702H

Job ID: 890-5986-1
SDG: 03C1558303

Client Sample ID: PH 12A

Lab Sample ID: 890-5986-16
Matrix: Solid
Date Collected: 01/17/24 13:30
Date Received: 01/18/24 08:12
Sample Depth: 4'

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 17:57	01/30/24 03:58	1
Toluene	<0.00200	U	0.00200		mg/Kg		01/25/24 17:57	01/30/24 03:58	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		01/25/24 17:57	01/30/24 03:58	1
m-Xylene & p-Xylene	<0.00401	U *+	0.00401		mg/Kg		01/25/24 17:57	01/30/24 03:58	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		01/25/24 17:57	01/30/24 03:58	1
Xylenes, Total	<0.00401	U	0.00401		mg/Kg		01/25/24 17:57	01/30/24 03:58	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*59*	*S1-*	*70 - 130*	*01/25/24 17:57*	*01/30/24 03:58*	*1*
1,4-Difluorobenzene (Surr)	*104*		*70 - 130*	*01/25/24 17:57*	*01/30/24 03:58*	*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 03:58	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			01/28/24 17:28	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	<49.9	U	49.9		mg/Kg		01/19/24 17:09	01/28/24 17:28	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		01/19/24 17:09	01/28/24 17:28	1
OII Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		01/19/24 17:09	01/28/24 17:28	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*90*		*70 - 130*	*01/19/24 17:09*	*01/28/24 17:28*	*1*
o-Terphenyl	*100*		*70 - 130*	*01/19/24 17:09*	*01/28/24 17:28*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**5540**		49.8		mg/Kg			01/24/24 14:40	10

Client Sample ID: PH 12B

Lab Sample ID: 890-5986-17
Matrix: Solid
Date Collected: 01/17/24 13:35
Date Received: 01/18/24 08:12
Sample Depth: 6'

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 17:57	01/30/24 04:24	1
Toluene	<0.00199	U	0.00199		mg/Kg		01/25/24 17:57	01/30/24 04:24	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		01/25/24 17:57	01/30/24 04:24	1
m-Xylene & p-Xylene	<0.00398	U *+	0.00398		mg/Kg		01/25/24 17:57	01/30/24 04:24	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		01/25/24 17:57	01/30/24 04:24	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		01/25/24 17:57	01/30/24 04:24	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*73*		*70 - 130*	*01/25/24 17:57*	*01/30/24 04:24*	*1*

Client Sample Results

Client: Ensolum
Project/Site: PLU 17 TWIN WELLS RANCH 702H

Job ID: 890-5986-1
SDG: 03C1558303

Client Sample ID: PH 12B

Lab Sample ID: 890-5986-17
Matrix: Solid

Date Collected: 01/17/24 13:35
Date Received: 01/18/24 08:12
Sample Depth: 6'

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

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,4-Difluorobenzene (Surr)	*90*		*70 - 130*	*01/25/24 17:57*	*01/30/24 04:24*	*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 04:24	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			01/28/24 17:49	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	<49.9	U	49.9	mg/Kg		01/19/24 17:09	01/28/24 17:49	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9	mg/Kg		01/19/24 17:09	01/28/24 17:49	1
OII Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg		01/19/24 17:09	01/28/24 17:49	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*75*		*70 - 130*	*01/19/24 17:09*	*01/28/24 17:49*	*1*
o-Terphenyl	*82*		*70 - 130*	*01/19/24 17:09*	*01/28/24 17:49*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**454**		4.99	mg/Kg			01/24/24 14:46	1

Client Sample ID: PH 13

Lab Sample ID: 890-5986-18
Matrix: Solid

Date Collected: 01/17/24 13:00
Date Received: 01/18/24 08:12
Sample Depth: 0.5'

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 17:57	01/30/24 04:50	1
Toluene	<0.00199	U	0.00199	mg/Kg		01/25/24 17:57	01/30/24 04:50	1
Ethylbenzene	<0.00199	U	0.00199	mg/Kg		01/25/24 17:57	01/30/24 04:50	1
m-Xylene & p-Xylene	<0.00398	U *+	0.00398	mg/Kg		01/25/24 17:57	01/30/24 04:50	1
o-Xylene	<0.00199	U	0.00199	mg/Kg		01/25/24 17:57	01/30/24 04:50	1
Xylenes, Total	<0.00398	U	0.00398	mg/Kg		01/25/24 17:57	01/30/24 04:50	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*108*		*70 - 130*	*01/25/24 17:57*	*01/30/24 04:50*	*1*
1,4-Difluorobenzene (Surr)	*67*	*S1-*	*70 - 130*	*01/25/24 17:57*	*01/30/24 04:50*	*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 04:50	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			01/28/24 18:10	1

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Client Sample Results

Client: Ensolum
Project/Site: PLU 17 TWIN WELLS RANCH 702H

Job ID: 890-5986-1
SDG: 03C1558303

Client Sample ID: PH 13

Date Collected: 01/17/24 13:00
Date Received: 01/18/24 08:12
Sample Depth: 0.5'

Lab Sample ID: 890-5986-18
Matrix: Solid

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.6	U	49.6		mg/Kg		01/19/24 17:09	01/28/24 18:10	1
Diesel Range Organics (Over C10-C28)	<49.6	U	49.6		mg/Kg		01/19/24 17:09	01/28/24 18:10	1
OII Range Organics (Over C28-C36)	<49.6	U	49.6		mg/Kg		01/19/24 17:09	01/28/24 18:10	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*89*		*70 - 130*	*01/19/24 17:09*	*01/28/24 18:10*	*1*
o-Terphenyl	*94*		*70 - 130*	*01/19/24 17:09*	*01/28/24 18:10*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**6.48**		4.96		mg/Kg			01/24/24 14:53	1

Client Sample ID: PH 13A

Date Collected: 01/17/24 13:05
Date Received: 01/18/24 08:12
Sample Depth: 1'0

Lab Sample ID: 890-5986-19
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		01/25/24 17:57	01/30/24 05:16	1
Toluene	<0.00200	U	0.00200		mg/Kg		01/25/24 17:57	01/30/24 05:16	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		01/25/24 17:57	01/30/24 05:16	1
m-Xylene & p-Xylene	<0.00399	U *+	0.00399		mg/Kg		01/25/24 17:57	01/30/24 05:16	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		01/25/24 17:57	01/30/24 05:16	1
Xylenes, Total	<0.00399	U	0.00399		mg/Kg		01/25/24 17:57	01/30/24 05:16	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*108*		*70 - 130*	*01/25/24 17:57*	*01/30/24 05:16*	*1*
1,4-Difluorobenzene (Surr)	*96*		*70 - 130*	*01/25/24 17:57*	*01/30/24 05:16*	*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 05:16	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			01/28/24 18:31	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 17:09	01/28/24 18:31	1
Diesel Range Organics (Over C10-C28)	<50.2	U	50.2		mg/Kg		01/19/24 17:09	01/28/24 18:31	1
OII Range Organics (Over C28-C36)	<50.2	U	50.2		mg/Kg		01/19/24 17:09	01/28/24 18:31	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*88*		*70 - 130*	*01/19/24 17:09*	*01/28/24 18:31*	*1*
o-Terphenyl	*93*		*70 - 130*	*01/19/24 17:09*	*01/28/24 18:31*	*1*

Client Sample Results

Client: Ensolum
Project/Site: PLU 17 TWIN WELLS RANCH 702H

Job ID: 890-5986-1
SDG: 03C1558303

Client Sample ID: PH 13A

Lab Sample ID: 890-5986-19
Matrix: Solid
Date Collected: 01/17/24 13:05
Date Received: 01/18/24 08:12
Sample Depth: 1'0

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	8.33		5.03		mg/Kg			01/24/24 15:14	1

Client Sample ID: PH 14

Lab Sample ID: 890-5986-20
Matrix: Solid
Date Collected: 01/17/24 12:35
Date Received: 01/18/24 08:12
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		01/25/24 17:57	01/30/24 05:42	1
Toluene	<0.00201	U	0.00201		mg/Kg		01/25/24 17:57	01/30/24 05:42	1
Ethylbenzene	<0.00201	U	0.00201		mg/Kg		01/25/24 17:57	01/30/24 05:42	1
m-Xylene & p-Xylene	<0.00402	U *+	0.00402		mg/Kg		01/25/24 17:57	01/30/24 05:42	1
o-Xylene	<0.00201	U	0.00201		mg/Kg		01/25/24 17:57	01/30/24 05:42	1
Xylenes, Total	<0.00402	U	0.00402		mg/Kg		01/25/24 17:57	01/30/24 05:42	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*103*		*70 - 130*	*01/25/24 17:57*	*01/30/24 05:42*	*1*
1,4-Difluorobenzene (Surr)	*112*		*70 - 130*	*01/25/24 17:57*	*01/30/24 05:42*	*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 05:42	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			01/28/24 18:51	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 17:09	01/28/24 18:51	1
Diesel Range Organics (Over C10-C28)	<50.4	U	50.4		mg/Kg		01/19/24 17:09	01/28/24 18:51	1
OII Range Organics (Over C28-C36)	<50.4	U	50.4		mg/Kg		01/19/24 17:09	01/28/24 18:51	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*78*		*70 - 130*	*01/19/24 17:09*	*01/28/24 18:51*	*1*
o-Terphenyl	*84*		*70 - 130*	*01/19/24 17:09*	*01/28/24 18:51*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	1590		25.1		mg/Kg			01/24/24 15:21	5

Client Sample Results

Client: Ensolum
Project/Site: PLU 17 TWIN WELLS RANCH 702H

Job ID: 890-5986-1
SDG: 03C1558303

Client Sample ID: PH 14A

Lab Sample ID: 890-5986-21
Matrix: Solid
Date Collected: 01/17/24 12:45
Date Received: 01/18/24 08:12
Sample Depth: 2'

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 17:57	01/30/24 07:26	1
Toluene	<0.00200	U	0.00200		mg/Kg		01/25/24 17:57	01/30/24 07:26	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		01/25/24 17:57	01/30/24 07:26	1
m-Xylene & p-Xylene	<0.00401	U *+	0.00401		mg/Kg		01/25/24 17:57	01/30/24 07:26	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		01/25/24 17:57	01/30/24 07:26	1
Xylenes, Total	<0.00401	U	0.00401		mg/Kg		01/25/24 17:57	01/30/24 07:26	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*84*		*70 - 130*	*01/25/24 17:57*	*01/30/24 07:26*	*1*
1,4-Difluorobenzene (Surr)	*79*		*70 - 130*	*01/25/24 17:57*	*01/30/24 07:26*	*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 07:26	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			01/29/24 10:30	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 F2	50.1		mg/Kg		01/19/24 17:22	01/29/24 10:30	1
Diesel Range Organics (Over C10-C28)	<50.1	U	50.1		mg/Kg		01/19/24 17:22	01/29/24 10:30	1
OII Range Organics (Over C28-C36)	<50.1	U	50.1		mg/Kg		01/19/24 17:22	01/29/24 10:30	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*122*		*70 - 130*	*01/19/24 17:22*	*01/29/24 10:30*	*1*
o-Terphenyl	*101*		*70 - 130*	*01/19/24 17:22*	*01/29/24 10:30*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**947**		4.97		mg/Kg			01/24/24 15:28	1

Client Sample ID: PH 14B

Lab Sample ID: 890-5986-22
Matrix: Solid
Date Collected: 01/17/24 12:55
Date Received: 01/18/24 08:12
Sample Depth: 4'

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 17:57	01/30/24 07:53	1
Toluene	<0.00199	U	0.00199		mg/Kg		01/25/24 17:57	01/30/24 07:53	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		01/25/24 17:57	01/30/24 07:53	1
m-Xylene & p-Xylene	<0.00398	U *+	0.00398		mg/Kg		01/25/24 17:57	01/30/24 07:53	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		01/25/24 17:57	01/30/24 07:53	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		01/25/24 17:57	01/30/24 07:53	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*108*		*70 - 130*	*01/25/24 17:57*	*01/30/24 07:53*	*1*

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Client Sample Results

Client: Ensolum
Project/Site: PLU 17 TWIN WELLS RANCH 702H

Job ID: 890-5986-1
SDG: 03C1558303

Client Sample ID: PH 14B

Lab Sample ID: 890-5986-22
Matrix: Solid

Date Collected: 01/17/24 12:55
Date Received: 01/18/24 08:12
Sample Depth: 4'

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

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,4-Difluorobenzene (Surr)	*111*		*70 - 130*	*01/25/24 17:57*	*01/30/24 07:53*	*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 07:53	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	**65.4**		49.9	mg/Kg			01/29/24 11:35	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		01/19/24 17:22	01/29/24 11:35	1
Diesel Range Organics (Over C10-C28)	**65.4**		49.9	mg/Kg		01/19/24 17:22	01/29/24 11:35	1
OII Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg		01/19/24 17:22	01/29/24 11:35	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	*135*	*S1+*	*70 - 130*	*01/19/24 17:22*	*01/29/24 11:35*	*1*
o-Terphenyl	*115*		*70 - 130*	*01/19/24 17:22*	*01/29/24 11:35*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**727**		49.6	mg/Kg			01/24/24 15:34	10

Client Sample ID: PH 15

Lab Sample ID: 890-5986-23
Matrix: Solid

Date Collected: 01/17/24 11:30
Date Received: 01/18/24 08:12
Sample Depth: 0.5'

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 17:57	01/30/24 08:19	1
Toluene	<0.00199	U	0.00199	mg/Kg		01/25/24 17:57	01/30/24 08:19	1
Ethylbenzene	<0.00199	U	0.00199	mg/Kg		01/25/24 17:57	01/30/24 08:19	1
m-Xylene & p-Xylene	<0.00398	U *+	0.00398	mg/Kg		01/25/24 17:57	01/30/24 08:19	1
o-Xylene	<0.00199	U	0.00199	mg/Kg		01/25/24 17:57	01/30/24 08:19	1
Xylenes, Total	<0.00398	U	0.00398	mg/Kg		01/25/24 17:57	01/30/24 08:19	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	*104*		*70 - 130*	*01/25/24 17:57*	*01/30/24 08:19*	*1*
1,4-Difluorobenzene (Surr)	*113*		*70 - 130*	*01/25/24 17:57*	*01/30/24 08:19*	*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 08:19	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			01/29/24 11:56	1

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Client Sample Results

Client: Ensolum
Project/Site: PLU 17 TWIN WELLS RANCH 702H

Job ID: 890-5986-1
SDG: 03C1558303

Client Sample ID: PH 15

Lab Sample ID: 890-5986-23
Matrix: Solid
Date Collected: 01/17/24 11:30
Date Received: 01/18/24 08:12
Sample Depth: 0.5'

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 17:22	01/29/24 11:56	1
Diesel Range Organics (Over C10-C28)	<49.7	U	49.7		mg/Kg		01/19/24 17:22	01/29/24 11:56	1
OII Range Organics (Over C28-C36)	<49.7	U	49.7		mg/Kg		01/19/24 17:22	01/29/24 11:56	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*144*	*S1+*	*70 - 130*	*01/19/24 17:22*	*01/29/24 11:56*	*1*
o-Terphenyl	*113*		*70 - 130*	*01/19/24 17:22*	*01/29/24 11:56*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**3980**		25.2		mg/Kg			01/24/24 15:41	5

Client Sample ID: PH 15A

Lab Sample ID: 890-5986-24
Matrix: Solid
Date Collected: 01/17/24 11:50
Date Received: 01/18/24 08:12
Sample Depth: 4'

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 17:57	01/30/24 08:45	1
Toluene	<0.00200	U	0.00200		mg/Kg		01/25/24 17:57	01/30/24 08:45	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		01/25/24 17:57	01/30/24 08:45	1
m-Xylene & p-Xylene	<0.00399	U *+	0.00399		mg/Kg		01/25/24 17:57	01/30/24 08:45	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		01/25/24 17:57	01/30/24 08:45	1
Xylenes, Total	<0.00399	U	0.00399		mg/Kg		01/25/24 17:57	01/30/24 08:45	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*129*		*70 - 130*	*01/25/24 17:57*	*01/30/24 08:45*	*1*
1,4-Difluorobenzene (Surr)	*133*	*S1+*	*70 - 130*	*01/25/24 17:57*	*01/30/24 08:45*	*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 08:45	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			01/29/24 12:18	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 17:22	01/29/24 12:18	1
Diesel Range Organics (Over C10-C28)	<49.7	U	49.7		mg/Kg		01/19/24 17:22	01/29/24 12:18	1
OII Range Organics (Over C28-C36)	<49.7	U	49.7		mg/Kg		01/19/24 17:22	01/29/24 12:18	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*132*	*S1+*	*70 - 130*	*01/19/24 17:22*	*01/29/24 12:18*	*1*
o-Terphenyl	*109*		*70 - 130*	*01/19/24 17:22*	*01/29/24 12:18*	*1*

Client Sample Results

Client: Ensolum
Project/Site: PLU 17 TWIN WELLS RANCH 702H

Job ID: 890-5986-1
SDG: 03C1558303

Client Sample ID: PH 15A

Lab Sample ID: 890-5986-24
Matrix: Solid
Date Collected: 01/17/24 11:50
Date Received: 01/18/24 08:12
Sample Depth: 4'

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	2500	F1	25.2		mg/Kg			01/24/24 15:48	5

Client Sample ID: PH 15B

Lab Sample ID: 890-5986-25
Matrix: Solid
Date Collected: 01/17/24 12:00
Date Received: 01/18/24 08:12
Sample Depth: 8'

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 17:57	01/30/24 09:11	1
Toluene	<0.00201	U	0.00201		mg/Kg		01/25/24 17:57	01/30/24 09:11	1
Ethylbenzene	<0.00201	U	0.00201		mg/Kg		01/25/24 17:57	01/30/24 09:11	1
m-Xylene & p-Xylene	<0.00402	U *+	0.00402		mg/Kg		01/25/24 17:57	01/30/24 09:11	1
o-Xylene	<0.00201	U	0.00201		mg/Kg		01/25/24 17:57	01/30/24 09:11	1
Xylenes, Total	<0.00402	U	0.00402		mg/Kg		01/25/24 17:57	01/30/24 09:11	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*113*		*70 - 130*	*01/25/24 17:57*	*01/30/24 09:11*	*1*
1,4-Difluorobenzene (Surr)	*80*		*70 - 130*	*01/25/24 17:57*	*01/30/24 09:11*	*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 09:11	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			01/29/24 12:40	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	<50.1	U	50.1		mg/Kg		01/19/24 17:22	01/29/24 12:40	1
Diesel Range Organics (Over C10-C28)	<50.1	U	50.1		mg/Kg		01/19/24 17:22	01/29/24 12:40	1
OII Range Organics (Over C28-C36)	<50.1	U	50.1		mg/Kg		01/19/24 17:22	01/29/24 12:40	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*127*		*70 - 130*	*01/19/24 17:22*	*01/29/24 12:40*	*1*
o-Terphenyl	*103*		*70 - 130*	*01/19/24 17:22*	*01/29/24 12:40*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	92.2		4.98		mg/Kg			01/24/24 16:09	1

Client Sample Results

Client: Ensolum
Project/Site: PLU 17 TWIN WELLS RANCH 702H

Job ID: 890-5986-1
SDG: 03C1558303

Client Sample ID: PH 16

Date Collected: 01/17/24 12:05
Date Received: 01/18/24 08:12
Sample Depth: 0.5'

Lab Sample ID: 890-5986-26
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 17:57	01/30/24 09:37	1
Toluene	<0.00199	U	0.00199		mg/Kg		01/25/24 17:57	01/30/24 09:37	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		01/25/24 17:57	01/30/24 09:37	1
m-Xylene & p-Xylene	<0.00398	U *+	0.00398		mg/Kg		01/25/24 17:57	01/30/24 09:37	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		01/25/24 17:57	01/30/24 09:37	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		01/25/24 17:57	01/30/24 09:37	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*136*	*S1+*	*70 - 130*	*01/25/24 17:57*	*01/30/24 09:37*	*1*
1,4-Difluorobenzene (Surr)	*107*		*70 - 130*	*01/25/24 17:57*	*01/30/24 09:37*	*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 09:37	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			01/29/24 13:01	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	<50.5	U	50.5		mg/Kg		01/19/24 17:22	01/29/24 13:01	1
Diesel Range Organics (Over C10-C28)	<50.5	U	50.5		mg/Kg		01/19/24 17:22	01/29/24 13:01	1
OII Range Organics (Over C28-C36)	<50.5	U	50.5		mg/Kg		01/19/24 17:22	01/29/24 13:01	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*126*		*70 - 130*	*01/19/24 17:22*	*01/29/24 13:01*	*1*
o-Terphenyl	*99*		*70 - 130*	*01/19/24 17:22*	*01/29/24 13:01*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**1710**		25.1		mg/Kg			01/24/24 16:16	5

Client Sample ID: PH 16A

Date Collected: 01/17/24 12:25
Date Received: 01/18/24 08:12
Sample Depth: 4'

Lab Sample ID: 890-5986-27
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 17:57	01/30/24 10:04	1
Toluene	<0.00199	U	0.00199		mg/Kg		01/25/24 17:57	01/30/24 10:04	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		01/25/24 17:57	01/30/24 10:04	1
m-Xylene & p-Xylene	<0.00398	U *+	0.00398		mg/Kg		01/25/24 17:57	01/30/24 10:04	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		01/25/24 17:57	01/30/24 10:04	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		01/25/24 17:57	01/30/24 10:04	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*95*		*70 - 130*	*01/25/24 17:57*	*01/30/24 10:04*	*1*

Client Sample Results

Client: Ensolum
Project/Site: PLU 17 TWIN WELLS RANCH 702H

Job ID: 890-5986-1
SDG: 03C1558303

Client Sample ID: PH 16A

Lab Sample ID: 890-5986-27
Matrix: Solid
Date Collected: 01/17/24 12:25
Date Received: 01/18/24 08:12
Sample Depth: 4'

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

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,4-Difluorobenzene (Surr)	*82*		*70 - 130*	*01/25/24 17:57*	*01/30/24 10:04*	*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 10:04	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			01/29/24 13:23	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.5	U	50.5	mg/Kg		01/19/24 17:22	01/29/24 13:23	1
Diesel Range Organics (Over C10-C28)	<50.5	U	50.5	mg/Kg		01/19/24 17:22	01/29/24 13:23	1
OII Range Organics (Over C28-C36)	<50.5	U	50.5	mg/Kg		01/19/24 17:22	01/29/24 13:23	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	*124*		*70 - 130*	*01/19/24 17:22*	*01/29/24 13:23*	*1*
o-Terphenyl	*101*		*70 - 130*	*01/19/24 17:22*	*01/29/24 13:23*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**3070**		25.1	mg/Kg			01/24/24 16:36	5

Client Sample ID: PH 16B

Lab Sample ID: 890-5986-28
Matrix: Solid
Date Collected: 01/17/24 12:30
Date Received: 01/18/24 08:12
Sample Depth: 6'

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 17:57	01/30/24 10:30	1
Toluene	<0.00200	U	0.00200	mg/Kg		01/25/24 17:57	01/30/24 10:30	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		01/25/24 17:57	01/30/24 10:30	1
m-Xylene & p-Xylene	<0.00399	U *+	0.00399	mg/Kg		01/25/24 17:57	01/30/24 10:30	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		01/25/24 17:57	01/30/24 10:30	1
Xylenes, Total	<0.00399	U	0.00399	mg/Kg		01/25/24 17:57	01/30/24 10:30	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	*126*		*70 - 130*	*01/25/24 17:57*	*01/30/24 10:30*	*1*
1,4-Difluorobenzene (Surr)	*108*		*70 - 130*	*01/25/24 17:57*	*01/30/24 10:30*	*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 10:30	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9	mg/Kg			01/29/24 13:45	1

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Client Sample Results

Client: Ensolum
Project/Site: PLU 17 TWIN WELLS RANCH 702H

Job ID: 890-5986-1
SDG: 03C1558303

Client Sample ID: PH 16B

Lab Sample ID: 890-5986-28
Matrix: Solid
Date Collected: 01/17/24 12:30
Date Received: 01/18/24 08:12
Sample Depth: 6'

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		01/19/24 17:22	01/29/24 13:45	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		01/19/24 17:22	01/29/24 13:45	1
OII Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		01/19/24 17:22	01/29/24 13:45	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*139*	*S1+*	*70 - 130*	*01/19/24 17:22*	*01/29/24 13:45*	*1*
o-Terphenyl	*110*		*70 - 130*	*01/19/24 17:22*	*01/29/24 13:45*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**25.0**		5.00		mg/Kg			01/24/24 16:43	1

Client Sample ID: PH 17

Lab Sample ID: 890-5986-29
Matrix: Solid
Date Collected: 01/17/24 14:25
Date Received: 01/18/24 08:12
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		01/25/24 17:57	01/30/24 10:56	1
Toluene	<0.00201	U	0.00201		mg/Kg		01/25/24 17:57	01/30/24 10:56	1
Ethylbenzene	<0.00201	U	0.00201		mg/Kg		01/25/24 17:57	01/30/24 10:56	1
m-Xylene & p-Xylene	<0.00402	U *+	0.00402		mg/Kg		01/25/24 17:57	01/30/24 10:56	1
o-Xylene	<0.00201	U	0.00201		mg/Kg		01/25/24 17:57	01/30/24 10:56	1
Xylenes, Total	<0.00402	U	0.00402		mg/Kg		01/25/24 17:57	01/30/24 10:56	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*123*		*70 - 130*	*01/25/24 17:57*	*01/30/24 10:56*	*1*
1,4-Difluorobenzene (Surr)	*97*		*70 - 130*	*01/25/24 17:57*	*01/30/24 10:56*	*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 10:56	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			01/29/24 14:06	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 17:22	01/29/24 14:06	1
Diesel Range Organics (Over C10-C28)	<49.6	U	49.6		mg/Kg		01/19/24 17:22	01/29/24 14:06	1
OII Range Organics (Over C28-C36)	<49.6	U	49.6		mg/Kg		01/19/24 17:22	01/29/24 14:06	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*121*		*70 - 130*	*01/19/24 17:22*	*01/29/24 14:06*	*1*
o-Terphenyl	*99*		*70 - 130*	*01/19/24 17:22*	*01/29/24 14:06*	*1*

Client Sample Results

Client: Ensolum
Project/Site: PLU 17 TWIN WELLS RANCH 702H

Job ID: 890-5986-1
SDG: 03C1558303

Client Sample ID: PH 17

Lab Sample ID: 890-5986-29
Matrix: Solid
Date Collected: 01/17/24 14:25
Date Received: 01/18/24 08:12
Sample Depth: 0.5'

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	2680		25.2		mg/Kg			01/24/24 16:50	5

Client Sample ID: PH 17A

Lab Sample ID: 890-5986-30
Matrix: Solid
Date Collected: 01/17/24 14:40
Date Received: 01/18/24 08:12
Sample Depth: 3'

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 17:57	01/30/24 11:22	1
Toluene	<0.00200	U	0.00200		mg/Kg		01/25/24 17:57	01/30/24 11:22	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		01/25/24 17:57	01/30/24 11:22	1
m-Xylene & p-Xylene	<0.00401	U *+	0.00401		mg/Kg		01/25/24 17:57	01/30/24 11:22	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		01/25/24 17:57	01/30/24 11:22	1
Xylenes, Total	<0.00401	U	0.00401		mg/Kg		01/25/24 17:57	01/30/24 11:22	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*100*		*70 - 130*	*01/25/24 17:57*	*01/30/24 11:22*	*1*
1,4-Difluorobenzene (Surr)	*102*		*70 - 130*	*01/25/24 17:57*	*01/30/24 11:22*	*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 11:22	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			01/29/24 14:28	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	<49.6	U	49.6		mg/Kg		01/19/24 17:22	01/29/24 14:28	1
Diesel Range Organics (Over C10-C28)	<49.6	U	49.6		mg/Kg		01/19/24 17:22	01/29/24 14:28	1
OII Range Organics (Over C28-C36)	<49.6	U	49.6		mg/Kg		01/19/24 17:22	01/29/24 14:28	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*113*		*70 - 130*	*01/19/24 17:22*	*01/29/24 14:28*	*1*
o-Terphenyl	*93*		*70 - 130*	*01/19/24 17:22*	*01/29/24 14:28*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	26.6		5.05		mg/Kg			01/24/24 16:57	1

Surrogate Summary

Client: Ensolum
Project/Site: PLU 17 TWIN WELLS RANCH 702H

Job ID: 890-5986-1
SDG: 03C1558303

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)										
890-5985-A-1-E MS	Matrix Spike	108	98										
890-5985-A-1-F MSD	Matrix Spike Duplicate	114	107										
890-5985-A-21-D MS	Matrix Spike	125	123										
890-5985-A-21-E MSD	Matrix Spike Duplicate	95	88										
890-5986-1	PH 07	104	86										
890-5986-2	PH 07A	109	94										
890-5986-3	PH 07B	104	93										
890-5986-4	PH 08	103	90										
890-5986-5	PH 08A	102	97										
890-5986-6	PH 08B	115	91										
890-5986-7	PH 09	107	90										
890-5986-8	PH 09A	86	97										
890-5986-9	PH 10	100	107										
890-5986-10	PH 10A	110	107										
890-5986-11	PH 10B	103	104										
890-5986-12	PH 11	107	87										
890-5986-13	PH 11A	101	113										
890-5986-14	PH 11B	110	109										
890-5986-15	PH 12	95	90										
890-5986-16	PH 12A	59 S1-	104										
890-5986-17	PH 12B	73	90										
890-5986-18	PH 13	108	67 S1-										
890-5986-19	PH 13A	108	96										
890-5986-20	PH 14	103	112										
890-5986-21	PH 14A	84	79										
890-5986-22	PH 14B	108	111										
890-5986-23	PH 15	104	113										
890-5986-24	PH 15A	129	133 S1+										
890-5986-25	PH 15B	113	80										
890-5986-26	PH 16	136 S1+	107										
890-5986-27	PH 16A	95	82										
890-5986-28	PH 16B	126	108										
890-5986-29	PH 17	123	97										
890-5986-30	PH 17A	100	102										
LCS 880-71518/1-A	Lab Control Sample	105	101										
LCS 880-71631/1-A	Lab Control Sample	108	98										
LCSD 880-71518/2-A	Lab Control Sample Dup	111	98										
LCSD 880-71631/2-A	Lab Control Sample Dup	119	86										
MB 880-71518/5-A	Method Blank	130	132 S1+										
MB 880-71534/5-A	Method Blank	59 S1-	104										
MB 880-71631/5-A	Method Blank	51 S1-	104										

Surrogate Legend

BFB = 4-Bromofluorobenzene (Surr)

DFBZ = 1,4-Difluorobenzene (Surr)

Surrogate Summary

Client: Ensolum
Job ID: 890-5986-1
Project/Site: PLU 17 TWIN WELLS RANCH 702H
SDG: 03C1558303

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)								
890-5986-1	PH 07	88	96								
890-5986-1 MS	PH 07	91	82								
890-5986-1 MSD	PH 07	98	90								
890-5986-2	PH 07A	80	87								
890-5986-3	PH 07B	90	100								
890-5986-4	PH 08	78	83								
890-5986-5	PH 08A	78	83								
890-5986-6	PH 08B	77	84								
890-5986-7	PH 09	81	84								
890-5986-8	PH 09A	82	87								
890-5986-9	PH 10	78	83								
890-5986-10	PH 10A	88	96								
890-5986-11	PH 10B	87	93								
890-5986-12	PH 11	92	100								
890-5986-13	PH 11A	86	93								
890-5986-14	PH 11B	80	89								
890-5986-15	PH 12	84	91								
890-5986-16	PH 12A	90	100								
890-5986-17	PH 12B	75	82								
890-5986-18	PH 13	89	94								
890-5986-19	PH 13A	88	93								
890-5986-20	PH 14	78	84								
890-5986-21	PH 14A	122	101								
890-5986-21 MS	PH 14A	114	84								
890-5986-21 MSD	PH 14A	122	89								
890-5986-22	PH 14B	135 S1+	115								
890-5986-23	PH 15	144 S1+	113								
890-5986-24	PH 15A	132 S1+	109								
890-5986-25	PH 15B	127	103								
890-5986-26	PH 16	126	99								
890-5986-27	PH 16A	124	101								
890-5986-28	PH 16B	139 S1+	110								
890-5986-29	PH 17	121	99								
890-5986-30	PH 17A	113	93								
LCS 880-71253/2-A	Lab Control Sample	82	91								
LCS 880-71254/2-A	Lab Control Sample	75	67 S1-								
LCSD 880-71253/3-A	Lab Control Sample Dup	74	80								
LCSD 880-71254/3-A	Lab Control Sample Dup	80	79								
MB 880-71253/1-A	Method Blank	102	112								
MB 880-71254/1-A	Method Blank	119	102								

Surrogate Legend

1CO = 1-Chlorooctane

OTPH = o-Terphenyl

QC Sample Results

Client: Ensolum
Project/Site: PLU 17 TWIN WELLS RANCH 702H

Job ID: 890-5986-1
SDG: 03C1558303

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-71518/5-A
Matrix: Solid
Analysis Batch: 71762

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 71518

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		01/24/24 14:18	01/28/24 17:28	1
Toluene	<0.00200	U	0.00200		mg/Kg		01/24/24 14:18	01/28/24 17:28	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		01/24/24 14:18	01/28/24 17:28	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		01/24/24 14:18	01/28/24 17:28	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		01/24/24 14:18	01/28/24 17:28	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		01/24/24 14:18	01/28/24 17:28	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*130*		*70 - 130*	*01/24/24 14:18*	*01/28/24 17:28*	*1*
1,4-Difluorobenzene (Surr)	*132*	*S1+*	*70 - 130*	*01/24/24 14:18*	*01/28/24 17:28*	*1*

Lab Sample ID: LCS 880-71518/1-A
Matrix: Solid
Analysis Batch: 71762

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 71518

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Benzene			0.100	0.09202		mg/Kg		92	70 - 130		
Toluene			0.100	0.08218		mg/Kg		82	70 - 130		
Ethylbenzene			0.100	0.08502		mg/Kg		85	70 - 130		
m-Xylene & p-Xylene			0.200	0.1692		mg/Kg		85	70 - 130		
o-Xylene			0.100	0.08738		mg/Kg		87	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*105*		*70 - 130*
1,4-Difluorobenzene (Surr)	*101*		*70 - 130*

Lab Sample ID: LCSD 880-71518/2-A
Matrix: Solid
Analysis Batch: 71762

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 71518

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene			0.100	0.09900		mg/Kg		99	70 - 130	7	35
Toluene			0.100	0.08352		mg/Kg		84	70 - 130	2	35
Ethylbenzene			0.100	0.09734		mg/Kg		97	70 - 130	14	35
m-Xylene & p-Xylene			0.200	0.1942		mg/Kg		97	70 - 130	14	35
o-Xylene			0.100	0.1001		mg/Kg		100	70 - 130	14	35

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*111*		*70 - 130*
1,4-Difluorobenzene (Surr)	*98*		*70 - 130*

Lab Sample ID: 890-5985-A-1-E MS
Matrix: Solid
Analysis Batch: 71762

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 71518

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Benzene	<0.00199	U	0.0996	0.08502		mg/Kg		85	70 - 130		
Toluene	<0.00199	U F1	0.0996	0.03703	F1	mg/Kg		37	70 - 130		

QC Sample Results

Client: Ensolum
Project/Site: PLU 17 TWIN WELLS RANCH 702H

Job ID: 890-5986-1
SDG: 03C1558303

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

Lab Sample ID: 890-5985-A-1-E MS
Matrix: Solid
Analysis Batch: 71762

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 71518

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Ethylbenzene	<0.00199	U F1	0.0996	0.04714	F1	mg/Kg		47	70 - 130
m-Xylene & p-Xylene	<0.00398	U F1	0.199	0.008289	F1	mg/Kg		4	70 - 130
o-Xylene	<0.00199	U	0.0996	0.07619		mg/Kg		76	70 - 130

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*108*		*70 - 130*
1,4-Difluorobenzene (Surr)	*98*		*70 - 130*

Lab Sample ID: 890-5985-A-1-F MSD
Matrix: Solid
Analysis Batch: 71762

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 71518

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	0.09096		mg/Kg		92	70 - 130	7	35
Toluene	<0.00199	U F1	0.0990	0.04689	F1	mg/Kg		47	70 - 130	23	35
Ethylbenzene	<0.00199	U F1	0.0990	0.04753	F1	mg/Kg		48	70 - 130	1	35
m-Xylene & p-Xylene	<0.00398	U F1	0.198	0.007162	F1	mg/Kg		4	70 - 130	15	35
o-Xylene	<0.00199	U	0.0990	0.08386		mg/Kg		84	70 - 130	10	35

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*114*		*70 - 130*
1,4-Difluorobenzene (Surr)	*107*		*70 - 130*

Lab Sample ID: MB 880-71534/5-A
Matrix: Solid
Analysis Batch: 71765

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 71534

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		01/24/24 15:28	01/29/24 11:45	1
Toluene	<0.00200	U	0.00200	mg/Kg		01/24/24 15:28	01/29/24 11:45	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		01/24/24 15:28	01/29/24 11:45	1
m-Xylene & p-Xylene	<0.00400	U	0.00400	mg/Kg		01/24/24 15:28	01/29/24 11:45	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		01/24/24 15:28	01/29/24 11:45	1
Xylenes, Total	<0.00400	U	0.00400	mg/Kg		01/24/24 15:28	01/29/24 11:45	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*59*	*S1-*	*70 - 130*	*01/24/24 15:28*	*01/29/24 11:45*	*1*
1,4-Difluorobenzene (Surr)	*104*		*70 - 130*	*01/24/24 15:28*	*01/29/24 11:45*	*1*

Lab Sample ID: MB 880-71631/5-A
Matrix: Solid
Analysis Batch: 71765

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 71631

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		01/25/24 17:57	01/30/24 01:23	1
Toluene	<0.00200	U	0.00200	mg/Kg		01/25/24 17:57	01/30/24 01:23	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		01/25/24 17:57	01/30/24 01:23	1
m-Xylene & p-Xylene	<0.00400	U	0.00400	mg/Kg		01/25/24 17:57	01/30/24 01:23	1

QC Sample Results

Client: Ensolum
Project/Site: PLU 17 TWIN WELLS RANCH 702H

Job ID: 890-5986-1
SDG: 03C1558303

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

Lab Sample ID: MB 880-71631/5-A
Matrix: Solid
Analysis Batch: 71765

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 71631

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
o-Xylene	<0.00200	U	0.00200		mg/Kg		01/25/24 17:57	01/30/24 01:23	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		01/25/24 17:57	01/30/24 01:23	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*51*	*S1-*	*70 - 130*	*01/25/24 17:57*	*01/30/24 01:23*	*1*
1,4-Difluorobenzene (Surr)	*104*		*70 - 130*	*01/25/24 17:57*	*01/30/24 01:23*	*1*

Lab Sample ID: LCS 880-71631/1-A
Matrix: Solid
Analysis Batch: 71765

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 71631

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Benzene			0.100	0.07668		mg/Kg		77	70 - 130		
Toluene			0.100	0.07757		mg/Kg		78	70 - 130		
Ethylbenzene			0.100	0.09609		mg/Kg		96	70 - 130		
m-Xylene & p-Xylene			0.200	0.2014		mg/Kg		101	70 - 130		
o-Xylene			0.100	0.09712		mg/Kg		97	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*108*		*70 - 130*
1,4-Difluorobenzene (Surr)	*98*		*70 - 130*

Lab Sample ID: LCSD 880-71631/2-A
Matrix: Solid
Analysis Batch: 71765

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 71631

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene			0.100	0.1022		mg/Kg		102	70 - 130	28	35
Toluene			0.100	0.09911		mg/Kg		99	70 - 130	24	35
Ethylbenzene			0.100	0.09579		mg/Kg		96	70 - 130	0	35
m-Xylene & p-Xylene			0.200	0.2690	*+	mg/Kg		134	70 - 130	29	35
o-Xylene			0.100	0.1194		mg/Kg		119	70 - 130	21	35

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*119*		*70 - 130*
1,4-Difluorobenzene (Surr)	*86*		*70 - 130*

Lab Sample ID: 890-5985-A-21-D MS
Matrix: Solid
Analysis Batch: 71765

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 71631

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Benzene	<0.00201	U F1	0.0996	0.05890	F1	mg/Kg		58	70 - 130		
Toluene	<0.00201	U F1	0.0996	0.08444		mg/Kg		84	70 - 130		
Ethylbenzene	<0.00201	U F1	0.0996	0.06648	F1	mg/Kg		67	70 - 130		
m-Xylene & p-Xylene	<0.00402	U *+	0.199	0.1548		mg/Kg		78	70 - 130		
o-Xylene	<0.00201	U F1	0.0996	0.07441		mg/Kg		74	70 - 130		

QC Sample Results

Client: Ensolum
Project/Site: PLU 17 TWIN WELLS RANCH 702H

Job ID: 890-5986-1
SDG: 03C1558303

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

Lab Sample ID: 890-5985-A-21-D MS
Matrix: Solid
Analysis Batch: 71765

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 71631

Surrogate	MS %Recovery	MS Qualifier	Limits
4-Bromofluorobenzene (Surr)	125		70 - 130
1,4-Difluorobenzene (Surr)	123		70 - 130

Lab Sample ID: 890-5985-A-21-E MSD
Matrix: Solid
Analysis Batch: 71765

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 71631

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	0.05135	F1	mg/Kg		51	70 - 130	14	35
Toluene	<0.00201	U F1	0.0990	0.06206	F1	mg/Kg		62	70 - 130	31	35
Ethylbenzene	<0.00201	U F1	0.0990	0.05619	F1	mg/Kg		57	70 - 130	17	35
m-Xylene & p-Xylene	<0.00402	U *+	0.198	0.1392		mg/Kg		70	70 - 130	11	35
o-Xylene	<0.00201	U F1	0.0990	0.06913	F1	mg/Kg		69	70 - 130	7	35

Surrogate	MSD %Recovery	MSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	95		70 - 130
1,4-Difluorobenzene (Surr)	88		70 - 130

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

Lab Sample ID: MB 880-71253/1-A
Matrix: Solid
Analysis Batch: 71758

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 71253

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 17:09	01/28/24 08:03	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		01/19/24 17:09	01/28/24 08:03	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		01/19/24 17:09	01/28/24 08:03	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	102		70 - 130	01/19/24 17:09	01/28/24 08:03	1
o-Terphenyl	112		70 - 130	01/19/24 17:09	01/28/24 08:03	1

Lab Sample ID: LCS 880-71253/2-A
Matrix: Solid
Analysis Batch: 71758

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 71253

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Gasoline Range Organics (GRO)-C6-C10			1000	898.0		mg/Kg		90	70 - 130		
Diesel Range Organics (Over C10-C28)			1000	833.6		mg/Kg		83	70 - 130		

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1-Chlorooctane	82		70 - 130
o-Terphenyl	91		70 - 130

QC Sample Results

Client: Ensolum
Project/Site: PLU 17 TWIN WELLS RANCH 702H

Job ID: 890-5986-1
SDG: 03C1558303

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

Lab Sample ID: LCSD 880-71253/3-A
Matrix: Solid
Analysis Batch: 71758

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 71253

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10			1000	927.5		mg/Kg		93	70 - 130	3	20
Diesel Range Organics (Over C10-C28)			1000	776.5		mg/Kg		78	70 - 130	7	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1-Chlorooctane	*74*		*70 - 130*
o-Terphenyl	*80*		*70 - 130*

Lab Sample ID: 890-5986-1 MS
Matrix: Solid
Analysis Batch: 71758

Client Sample ID: PH 07
Prep Type: Total/NA
Prep Batch: 71253

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	826.6		mg/Kg		80	70 - 130
Diesel Range Organics (Over C10-C28)	<49.6	U	1010	929.3		mg/Kg		92	70 - 130

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
1-Chlorooctane	*91*		*70 - 130*
o-Terphenyl	*82*		*70 - 130*

Lab Sample ID: 890-5986-1 MSD
Matrix: Solid
Analysis Batch: 71758

Client Sample ID: PH 07
Prep Type: Total/NA
Prep Batch: 71253

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	929.1		mg/Kg		91	70 - 130	12	20
Diesel Range Organics (Over C10-C28)	<49.6	U	1010	1011		mg/Kg		100	70 - 130	8	20

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
1-Chlorooctane	*98*		*70 - 130*
o-Terphenyl	*90*		*70 - 130*

Lab Sample ID: MB 880-71254/1-A
Matrix: Solid
Analysis Batch: 71766

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 71254

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 17:22	01/29/24 07:57	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		01/19/24 17:22	01/29/24 07:57	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		01/19/24 17:22	01/29/24 07:57	1

QC Sample Results

Client: Ensolum
Project/Site: PLU 17 TWIN WELLS RANCH 702H

Job ID: 890-5986-1
SDG: 03C1558303

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

Lab Sample ID: MB 880-71254/1-A
Matrix: Solid
Analysis Batch: 71766

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 71254

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	119		70 - 130	01/19/24 17:22	01/29/24 07:57	1
o-Terphenyl	102		70 - 130	01/19/24 17:22	01/29/24 07:57	1

Lab Sample ID: LCS 880-71254/2-A
Matrix: Solid
Analysis Batch: 71766

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 71254

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Gasoline Range Organics (GRO)-C6-C10			1000	1053		mg/Kg		105	70 - 130		
Diesel Range Organics (Over C10-C28)			1000	776.6		mg/Kg		78	70 - 130		

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1-Chlorooctane	75		70 - 130
o-Terphenyl	67	S1-	70 - 130

Lab Sample ID: LCSD 880-71254/3-A
Matrix: Solid
Analysis Batch: 71766

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 71254

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10			1000	1008		mg/Kg		101	70 - 130	4	20
Diesel Range Organics (Over C10-C28)			1000	778.1		mg/Kg		78	70 - 130	0	20

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
1-Chlorooctane	80		70 - 130
o-Terphenyl	79		70 - 130

Lab Sample ID: 890-5986-21 MS
Matrix: Solid
Analysis Batch: 71766

Client Sample ID: PH 14A
Prep Type: Total/NA
Prep Batch: 71254

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 F2	1010	1295		mg/Kg		126	70 - 130		
Diesel Range Organics (Over C10-C28)	<50.1	U	1010	1023		mg/Kg		97	70 - 130		

Surrogate	MS %Recovery	MS Qualifier	Limits
1-Chlorooctane	114		70 - 130
o-Terphenyl	84		70 - 130

QC Sample Results

Client: Ensolum
Project/Site: PLU 17 TWIN WELLS RANCH 702H

Job ID: 890-5986-1
SDG: 03C1558303

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

Lab Sample ID: 890-5986-21 MSD
Matrix: Solid
Analysis Batch: 71766

Client Sample ID: PH 14A
Prep Type: Total/NA
Prep Batch: 71254

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 F2	1010	938.9	F2	mg/Kg		90	70 - 130	32	20
Diesel Range Organics (Over C10-C28)	<50.1	U	1010	1091		mg/Kg		104	70 - 130	6	20

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
1-Chlorooctane	*122*		*70 - 130*
o-Terphenyl	*89*		*70 - 130*

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-71226/1-A
Matrix: Solid
Analysis Batch: 71387

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			01/24/24 12:16	1

Lab Sample ID: LCS 880-71226/2-A
Matrix: Solid
Analysis Batch: 71387

Client Sample ID: Lab Control Sample
Prep Type: Soluble

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride			250	238.3		mg/Kg		95	90 - 110		

Lab Sample ID: LCSD 880-71226/3-A
Matrix: Solid
Analysis Batch: 71387

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	241.1		mg/Kg		96	90 - 110	1	20

Lab Sample ID: 890-5986-4 MS
Matrix: Solid
Analysis Batch: 71387

Client Sample ID: PH 08
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride	2270		1250	3543		mg/Kg		101	90 - 110		

Lab Sample ID: 890-5986-4 MSD
Matrix: Solid
Analysis Batch: 71387

Client Sample ID: PH 08
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	2270		1250	3557		mg/Kg		103	90 - 110	0	20

QC Sample Results

Client: Ensolum
Project/Site: PLU 17 TWIN WELLS RANCH 702H

Job ID: 890-5986-1
SDG: 03C1558303

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: MB 880-71228/1-A — **Client Sample ID: Method Blank**
Matrix: Solid — **Prep Type: Soluble**
Analysis Batch: 71388

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.00	U	5.00		mg/Kg			01/24/24 11:07	1

Lab Sample ID: LCS 880-71228/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Solid — **Prep Type: Soluble**
Analysis Batch: 71388

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride			250	264.6		mg/Kg		106	90 - 110		

Lab Sample ID: LCSD 880-71228/3-A — **Client Sample ID: Lab Control Sample Dup**
Matrix: Solid — **Prep Type: Soluble**
Analysis Batch: 71388

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride			250	263.9		mg/Kg		106	90 - 110	0	20

Lab Sample ID: 890-5986-14 MS — **Client Sample ID: PH 11B**
Matrix: Solid — **Prep Type: Soluble**
Analysis Batch: 71388

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride	12.3		253	281.8		mg/Kg		107	90 - 110		

Lab Sample ID: 890-5986-14 MSD — **Client Sample ID: PH 11B**
Matrix: Solid — **Prep Type: Soluble**
Analysis Batch: 71388

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	12.3		253	281.2		mg/Kg		106	90 - 110	0	20

Lab Sample ID: 890-5986-24 MS — **Client Sample ID: PH 15A**
Matrix: Solid — **Prep Type: Soluble**
Analysis Batch: 71388

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride	2500	F1	2520	5354	F1	mg/Kg		113	90 - 110		

Lab Sample ID: 890-5986-24 MSD — **Client Sample ID: PH 15A**
Matrix: Solid — **Prep Type: Soluble**
Analysis Batch: 71388

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	2500	F1	2520	5358	F1	mg/Kg		113	90 - 110	0	20

QC Association Summary

Client: Ensolum
Project/Site: PLU 17 TWIN WELLS RANCH 702H

Job ID: 890-5986-1
SDG: 03C1558303

GC VOA

Prep Batch: 71518

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-5986-1	PH 07	Total/NA	Solid	5035	
890-5986-2	PH 07A	Total/NA	Solid	5035	
890-5986-3	PH 07B	Total/NA	Solid	5035	
890-5986-4	PH 08	Total/NA	Solid	5035	
890-5986-5	PH 08A	Total/NA	Solid	5035	
890-5986-6	PH 08B	Total/NA	Solid	5035	
890-5986-7	PH 09	Total/NA	Solid	5035	
890-5986-8	PH 09A	Total/NA	Solid	5035	
890-5986-9	PH 10	Total/NA	Solid	5035	
890-5986-10	PH 10A	Total/NA	Solid	5035	
890-5986-11	PH 10B	Total/NA	Solid	5035	
MB 880-71518/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-71518/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-71518/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
890-5985-A-1-E MS	Matrix Spike	Total/NA	Solid	5035	
890-5985-A-1-F MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	

Prep Batch: 71534

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 880-71534/5-A	Method Blank	Total/NA	Solid	5035	

Prep Batch: 71631

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-5986-12	PH 11	Total/NA	Solid	5035	
890-5986-13	PH 11A	Total/NA	Solid	5035	
890-5986-14	PH 11B	Total/NA	Solid	5035	
890-5986-15	PH 12	Total/NA	Solid	5035	
890-5986-16	PH 12A	Total/NA	Solid	5035	
890-5986-17	PH 12B	Total/NA	Solid	5035	
890-5986-18	PH 13	Total/NA	Solid	5035	
890-5986-19	PH 13A	Total/NA	Solid	5035	
890-5986-20	PH 14	Total/NA	Solid	5035	
890-5986-21	PH 14A	Total/NA	Solid	5035	
890-5986-22	PH 14B	Total/NA	Solid	5035	
890-5986-23	PH 15	Total/NA	Solid	5035	
890-5986-24	PH 15A	Total/NA	Solid	5035	
890-5986-25	PH 15B	Total/NA	Solid	5035	
890-5986-26	PH 16	Total/NA	Solid	5035	
890-5986-27	PH 16A	Total/NA	Solid	5035	
890-5986-28	PH 16B	Total/NA	Solid	5035	
890-5986-29	PH 17	Total/NA	Solid	5035	
890-5986-30	PH 17A	Total/NA	Solid	5035	
MB 880-71631/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-71631/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-71631/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
890-5985-A-21-D MS	Matrix Spike	Total/NA	Solid	5035	
890-5985-A-21-E MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	

Analysis Batch: 71762

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-5986-1	PH 07	Total/NA	Solid	8021B	71518

QC Association Summary

Client: Ensolum
Project/Site: PLU 17 TWIN WELLS RANCH 702H

Job ID: 890-5986-1
SDG: 03C1558303

GC VOA (Continued)

Analysis Batch: 71762 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-5986-2	PH 07A	Total/NA	Solid	8021B	71518
890-5986-3	PH 07B	Total/NA	Solid	8021B	71518
890-5986-4	PH 08	Total/NA	Solid	8021B	71518
890-5986-5	PH 08A	Total/NA	Solid	8021B	71518
890-5986-6	PH 08B	Total/NA	Solid	8021B	71518
890-5986-7	PH 09	Total/NA	Solid	8021B	71518
890-5986-8	PH 09A	Total/NA	Solid	8021B	71518
890-5986-9	PH 10	Total/NA	Solid	8021B	71518
890-5986-10	PH 10A	Total/NA	Solid	8021B	71518
890-5986-11	PH 10B	Total/NA	Solid	8021B	71518
MB 880-71518/5-A	Method Blank	Total/NA	Solid	8021B	71518
LCS 880-71518/1-A	Lab Control Sample	Total/NA	Solid	8021B	71518
LCSD 880-71518/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	71518
890-5985-A-1-E MS	Matrix Spike	Total/NA	Solid	8021B	71518
890-5985-A-1-F MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	71518

Analysis Batch: 71765

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-5986-12	PH 11	Total/NA	Solid	8021B	71631
890-5986-13	PH 11A	Total/NA	Solid	8021B	71631
890-5986-14	PH 11B	Total/NA	Solid	8021B	71631
890-5986-15	PH 12	Total/NA	Solid	8021B	71631
890-5986-16	PH 12A	Total/NA	Solid	8021B	71631
890-5986-17	PH 12B	Total/NA	Solid	8021B	71631
890-5986-18	PH 13	Total/NA	Solid	8021B	71631
890-5986-19	PH 13A	Total/NA	Solid	8021B	71631
890-5986-20	PH 14	Total/NA	Solid	8021B	71631
890-5986-21	PH 14A	Total/NA	Solid	8021B	71631
890-5986-22	PH 14B	Total/NA	Solid	8021B	71631
890-5986-23	PH 15	Total/NA	Solid	8021B	71631
890-5986-24	PH 15A	Total/NA	Solid	8021B	71631
890-5986-25	PH 15B	Total/NA	Solid	8021B	71631
890-5986-26	PH 16	Total/NA	Solid	8021B	71631
890-5986-27	PH 16A	Total/NA	Solid	8021B	71631
890-5986-28	PH 16B	Total/NA	Solid	8021B	71631
890-5986-29	PH 17	Total/NA	Solid	8021B	71631
890-5986-30	PH 17A	Total/NA	Solid	8021B	71631
MB 880-71534/5-A	Method Blank	Total/NA	Solid	8021B	71534
MB 880-71631/5-A	Method Blank	Total/NA	Solid	8021B	71631
LCS 880-71631/1-A	Lab Control Sample	Total/NA	Solid	8021B	71631
LCSD 880-71631/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	71631
890-5985-A-21-D MS	Matrix Spike	Total/NA	Solid	8021B	71631
890-5985-A-21-E MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	71631

Analysis Batch: 71820

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-5986-1	PH 07	Total/NA	Solid	Total BTEX	
890-5986-2	PH 07A	Total/NA	Solid	Total BTEX	
890-5986-3	PH 07B	Total/NA	Solid	Total BTEX	
890-5986-4	PH 08	Total/NA	Solid	Total BTEX	
890-5986-5	PH 08A	Total/NA	Solid	Total BTEX	

QC Association Summary

Client: Ensolum
Project/Site: PLU 17 TWIN WELLS RANCH 702H

Job ID: 890-5986-1
SDG: 03C1558303

GC VOA (Continued)

Analysis Batch: 71820 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-5986-6	PH 08B	Total/NA	Solid	Total BTEX	
890-5986-7	PH 09	Total/NA	Solid	Total BTEX	
890-5986-8	PH 09A	Total/NA	Solid	Total BTEX	
890-5986-9	PH 10	Total/NA	Solid	Total BTEX	
890-5986-10	PH 10A	Total/NA	Solid	Total BTEX	
890-5986-11	PH 10B	Total/NA	Solid	Total BTEX	
890-5986-12	PH 11	Total/NA	Solid	Total BTEX	
890-5986-13	PH 11A	Total/NA	Solid	Total BTEX	
890-5986-14	PH 11B	Total/NA	Solid	Total BTEX	
890-5986-15	PH 12	Total/NA	Solid	Total BTEX	
890-5986-16	PH 12A	Total/NA	Solid	Total BTEX	
890-5986-17	PH 12B	Total/NA	Solid	Total BTEX	
890-5986-18	PH 13	Total/NA	Solid	Total BTEX	
890-5986-19	PH 13A	Total/NA	Solid	Total BTEX	
890-5986-20	PH 14	Total/NA	Solid	Total BTEX	
890-5986-21	PH 14A	Total/NA	Solid	Total BTEX	
890-5986-22	PH 14B	Total/NA	Solid	Total BTEX	
890-5986-23	PH 15	Total/NA	Solid	Total BTEX	
890-5986-24	PH 15A	Total/NA	Solid	Total BTEX	
890-5986-25	PH 15B	Total/NA	Solid	Total BTEX	
890-5986-26	PH 16	Total/NA	Solid	Total BTEX	
890-5986-27	PH 16A	Total/NA	Solid	Total BTEX	
890-5986-28	PH 16B	Total/NA	Solid	Total BTEX	
890-5986-29	PH 17	Total/NA	Solid	Total BTEX	
890-5986-30	PH 17A	Total/NA	Solid	Total BTEX	

GC Semi VOA

Prep Batch: 71253

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-5986-1	PH 07	Total/NA	Solid	8015NM Prep	
890-5986-2	PH 07A	Total/NA	Solid	8015NM Prep	
890-5986-3	PH 07B	Total/NA	Solid	8015NM Prep	
890-5986-4	PH 08	Total/NA	Solid	8015NM Prep	
890-5986-5	PH 08A	Total/NA	Solid	8015NM Prep	
890-5986-6	PH 08B	Total/NA	Solid	8015NM Prep	
890-5986-7	PH 09	Total/NA	Solid	8015NM Prep	
890-5986-8	PH 09A	Total/NA	Solid	8015NM Prep	
890-5986-9	PH 10	Total/NA	Solid	8015NM Prep	
890-5986-10	PH 10A	Total/NA	Solid	8015NM Prep	
890-5986-11	PH 10B	Total/NA	Solid	8015NM Prep	
890-5986-12	PH 11	Total/NA	Solid	8015NM Prep	
890-5986-13	PH 11A	Total/NA	Solid	8015NM Prep	
890-5986-14	PH 11B	Total/NA	Solid	8015NM Prep	
890-5986-15	PH 12	Total/NA	Solid	8015NM Prep	
890-5986-16	PH 12A	Total/NA	Solid	8015NM Prep	
890-5986-17	PH 12B	Total/NA	Solid	8015NM Prep	
890-5986-18	PH 13	Total/NA	Solid	8015NM Prep	
890-5986-19	PH 13A	Total/NA	Solid	8015NM Prep	
890-5986-20	PH 14	Total/NA	Solid	8015NM Prep	
MB 880-71253/1-A	Method Blank	Total/NA	Solid	8015NM Prep	

QC Association Summary

Client: Ensolum
Project/Site: PLU 17 TWIN WELLS RANCH 702H

Job ID: 890-5986-1
SDG: 03C1558303

GC Semi VOA (Continued)

Prep Batch: 71253 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 880-71253/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-71253/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
890-5986-1 MS	PH 07	Total/NA	Solid	8015NM Prep	
890-5986-1 MSD	PH 07	Total/NA	Solid	8015NM Prep	

Prep Batch: 71254

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-5986-21	PH 14A	Total/NA	Solid	8015NM Prep	
890-5986-22	PH 14B	Total/NA	Solid	8015NM Prep	
890-5986-23	PH 15	Total/NA	Solid	8015NM Prep	
890-5986-24	PH 15A	Total/NA	Solid	8015NM Prep	
890-5986-25	PH 15B	Total/NA	Solid	8015NM Prep	
890-5986-26	PH 16	Total/NA	Solid	8015NM Prep	
890-5986-27	PH 16A	Total/NA	Solid	8015NM Prep	
890-5986-28	PH 16B	Total/NA	Solid	8015NM Prep	
890-5986-29	PH 17	Total/NA	Solid	8015NM Prep	
890-5986-30	PH 17A	Total/NA	Solid	8015NM Prep	
MB 880-71254/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-71254/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-71254/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
890-5986-21 MS	PH 14A	Total/NA	Solid	8015NM Prep	
890-5986-21 MSD	PH 14A	Total/NA	Solid	8015NM Prep	

Analysis Batch: 71758

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-5986-1	PH 07	Total/NA	Solid	8015B NM	71253
890-5986-2	PH 07A	Total/NA	Solid	8015B NM	71253
890-5986-3	PH 07B	Total/NA	Solid	8015B NM	71253
890-5986-4	PH 08	Total/NA	Solid	8015B NM	71253
890-5986-5	PH 08A	Total/NA	Solid	8015B NM	71253
890-5986-6	PH 08B	Total/NA	Solid	8015B NM	71253
890-5986-7	PH 09	Total/NA	Solid	8015B NM	71253
890-5986-8	PH 09A	Total/NA	Solid	8015B NM	71253
890-5986-9	PH 10	Total/NA	Solid	8015B NM	71253
890-5986-10	PH 10A	Total/NA	Solid	8015B NM	71253
890-5986-11	PH 10B	Total/NA	Solid	8015B NM	71253
890-5986-12	PH 11	Total/NA	Solid	8015B NM	71253
890-5986-13	PH 11A	Total/NA	Solid	8015B NM	71253
890-5986-14	PH 11B	Total/NA	Solid	8015B NM	71253
890-5986-15	PH 12	Total/NA	Solid	8015B NM	71253
890-5986-16	PH 12A	Total/NA	Solid	8015B NM	71253
890-5986-17	PH 12B	Total/NA	Solid	8015B NM	71253
890-5986-18	PH 13	Total/NA	Solid	8015B NM	71253
890-5986-19	PH 13A	Total/NA	Solid	8015B NM	71253
890-5986-20	PH 14	Total/NA	Solid	8015B NM	71253
MB 880-71253/1-A	Method Blank	Total/NA	Solid	8015B NM	71253
LCS 880-71253/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	71253
LCSD 880-71253/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	71253
890-5986-1 MS	PH 07	Total/NA	Solid	8015B NM	71253
890-5986-1 MSD	PH 07	Total/NA	Solid	8015B NM	71253

QC Association Summary

Client: Ensolum
Project/Site: PLU 17 TWIN WELLS RANCH 702H

Job ID: 890-5986-1
SDG: 03C1558303

GC Semi VOA

Analysis Batch: 71766

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-5986-21	PH 14A	Total/NA	Solid	8015B NM	71254
890-5986-22	PH 14B	Total/NA	Solid	8015B NM	71254
890-5986-23	PH 15	Total/NA	Solid	8015B NM	71254
890-5986-24	PH 15A	Total/NA	Solid	8015B NM	71254
890-5986-25	PH 15B	Total/NA	Solid	8015B NM	71254
890-5986-26	PH 16	Total/NA	Solid	8015B NM	71254
890-5986-27	PH 16A	Total/NA	Solid	8015B NM	71254
890-5986-28	PH 16B	Total/NA	Solid	8015B NM	71254
890-5986-29	PH 17	Total/NA	Solid	8015B NM	71254
890-5986-30	PH 17A	Total/NA	Solid	8015B NM	71254
MB 880-71254/1-A	Method Blank	Total/NA	Solid	8015B NM	71254
LCS 880-71254/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	71254
LCSD 880-71254/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	71254
890-5986-21 MS	PH 14A	Total/NA	Solid	8015B NM	71254
890-5986-21 MSD	PH 14A	Total/NA	Solid	8015B NM	71254

Analysis Batch: 71895

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-5986-1	PH 07	Total/NA	Solid	8015 NM	
890-5986-2	PH 07A	Total/NA	Solid	8015 NM	
890-5986-3	PH 07B	Total/NA	Solid	8015 NM	
890-5986-4	PH 08	Total/NA	Solid	8015 NM	
890-5986-5	PH 08A	Total/NA	Solid	8015 NM	
890-5986-6	PH 08B	Total/NA	Solid	8015 NM	
890-5986-7	PH 09	Total/NA	Solid	8015 NM	
890-5986-8	PH 09A	Total/NA	Solid	8015 NM	
890-5986-9	PH 10	Total/NA	Solid	8015 NM	
890-5986-10	PH 10A	Total/NA	Solid	8015 NM	
890-5986-11	PH 10B	Total/NA	Solid	8015 NM	
890-5986-12	PH 11	Total/NA	Solid	8015 NM	
890-5986-13	PH 11A	Total/NA	Solid	8015 NM	
890-5986-14	PH 11B	Total/NA	Solid	8015 NM	
890-5986-15	PH 12	Total/NA	Solid	8015 NM	
890-5986-16	PH 12A	Total/NA	Solid	8015 NM	
890-5986-17	PH 12B	Total/NA	Solid	8015 NM	
890-5986-18	PH 13	Total/NA	Solid	8015 NM	
890-5986-19	PH 13A	Total/NA	Solid	8015 NM	
890-5986-20	PH 14	Total/NA	Solid	8015 NM	
890-5986-21	PH 14A	Total/NA	Solid	8015 NM	
890-5986-22	PH 14B	Total/NA	Solid	8015 NM	
890-5986-23	PH 15	Total/NA	Solid	8015 NM	
890-5986-24	PH 15A	Total/NA	Solid	8015 NM	
890-5986-25	PH 15B	Total/NA	Solid	8015 NM	
890-5986-26	PH 16	Total/NA	Solid	8015 NM	
890-5986-27	PH 16A	Total/NA	Solid	8015 NM	
890-5986-28	PH 16B	Total/NA	Solid	8015 NM	
890-5986-29	PH 17	Total/NA	Solid	8015 NM	
890-5986-30	PH 17A	Total/NA	Solid	8015 NM	

QC Association Summary

Client: Ensolum
Project/Site: PLU 17 TWIN WELLS RANCH 702H

Job ID: 890-5986-1
SDG: 03C1558303

HPLC/IC

Leach Batch: 71226

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-5986-1	PH 07	Soluble	Solid	DI Leach	
890-5986-2	PH 07A	Soluble	Solid	DI Leach	
890-5986-3	PH 07B	Soluble	Solid	DI Leach	
890-5986-4	PH 08	Soluble	Solid	DI Leach	
890-5986-5	PH 08A	Soluble	Solid	DI Leach	
890-5986-6	PH 08B	Soluble	Solid	DI Leach	
890-5986-7	PH 09	Soluble	Solid	DI Leach	
890-5986-8	PH 09A	Soluble	Solid	DI Leach	
890-5986-9	PH 10	Soluble	Solid	DI Leach	
890-5986-10	PH 10A	Soluble	Solid	DI Leach	
890-5986-11	PH 10B	Soluble	Solid	DI Leach	
890-5986-12	PH 11	Soluble	Solid	DI Leach	
890-5986-13	PH 11A	Soluble	Solid	DI Leach	
MB 880-71226/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-71226/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-71226/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
890-5986-4 MS	PH 08	Soluble	Solid	DI Leach	
890-5986-4 MSD	PH 08	Soluble	Solid	DI Leach	

Leach Batch: 71228

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-5986-14	PH 11B	Soluble	Solid	DI Leach	
890-5986-15	PH 12	Soluble	Solid	DI Leach	
890-5986-16	PH 12A	Soluble	Solid	DI Leach	
890-5986-17	PH 12B	Soluble	Solid	DI Leach	
890-5986-18	PH 13	Soluble	Solid	DI Leach	
890-5986-19	PH 13A	Soluble	Solid	DI Leach	
890-5986-20	PH 14	Soluble	Solid	DI Leach	
890-5986-21	PH 14A	Soluble	Solid	DI Leach	
890-5986-22	PH 14B	Soluble	Solid	DI Leach	
890-5986-23	PH 15	Soluble	Solid	DI Leach	
890-5986-24	PH 15A	Soluble	Solid	DI Leach	
890-5986-25	PH 15B	Soluble	Solid	DI Leach	
890-5986-26	PH 16	Soluble	Solid	DI Leach	
890-5986-27	PH 16A	Soluble	Solid	DI Leach	
890-5986-28	PH 16B	Soluble	Solid	DI Leach	
890-5986-29	PH 17	Soluble	Solid	DI Leach	
890-5986-30	PH 17A	Soluble	Solid	DI Leach	
MB 880-71228/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-71228/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-71228/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
890-5986-14 MS	PH 11B	Soluble	Solid	DI Leach	
890-5986-14 MSD	PH 11B	Soluble	Solid	DI Leach	
890-5986-24 MS	PH 15A	Soluble	Solid	DI Leach	
890-5986-24 MSD	PH 15A	Soluble	Solid	DI Leach	

Analysis Batch: 71387

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-5986-1	PH 07	Soluble	Solid	300.0	71226
890-5986-2	PH 07A	Soluble	Solid	300.0	71226
890-5986-3	PH 07B	Soluble	Solid	300.0	71226

QC Association Summary

Client: Ensolum
Project/Site: PLU 17 TWIN WELLS RANCH 702H

Job ID: 890-5986-1
SDG: 03C1558303

HPLC/IC (Continued)

Analysis Batch: 71387 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-5986-4	PH 08	Soluble	Solid	300.0	71226
890-5986-5	PH 08A	Soluble	Solid	300.0	71226
890-5986-6	PH 08B	Soluble	Solid	300.0	71226
890-5986-7	PH 09	Soluble	Solid	300.0	71226
890-5986-8	PH 09A	Soluble	Solid	300.0	71226
890-5986-9	PH 10	Soluble	Solid	300.0	71226
890-5986-10	PH 10A	Soluble	Solid	300.0	71226
890-5986-11	PH 10B	Soluble	Solid	300.0	71226
890-5986-12	PH 11	Soluble	Solid	300.0	71226
890-5986-13	PH 11A	Soluble	Solid	300.0	71226
MB 880-71226/1-A	Method Blank	Soluble	Solid	300.0	71226
LCS 880-71226/2-A	Lab Control Sample	Soluble	Solid	300.0	71226
LCSD 880-71226/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	71226
890-5986-4 MS	PH 08	Soluble	Solid	300.0	71226
890-5986-4 MSD	PH 08	Soluble	Solid	300.0	71226

Analysis Batch: 71388

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-5986-14	PH 11B	Soluble	Solid	300.0	71228
890-5986-15	PH 12	Soluble	Solid	300.0	71228
890-5986-16	PH 12A	Soluble	Solid	300.0	71228
890-5986-17	PH 12B	Soluble	Solid	300.0	71228
890-5986-18	PH 13	Soluble	Solid	300.0	71228
890-5986-19	PH 13A	Soluble	Solid	300.0	71228
890-5986-20	PH 14	Soluble	Solid	300.0	71228
890-5986-21	PH 14A	Soluble	Solid	300.0	71228
890-5986-22	PH 14B	Soluble	Solid	300.0	71228
890-5986-23	PH 15	Soluble	Solid	300.0	71228
890-5986-24	PH 15A	Soluble	Solid	300.0	71228
890-5986-25	PH 15B	Soluble	Solid	300.0	71228
890-5986-26	PH 16	Soluble	Solid	300.0	71228
890-5986-27	PH 16A	Soluble	Solid	300.0	71228
890-5986-28	PH 16B	Soluble	Solid	300.0	71228
890-5986-29	PH 17	Soluble	Solid	300.0	71228
890-5986-30	PH 17A	Soluble	Solid	300.0	71228
MB 880-71228/1-A	Method Blank	Soluble	Solid	300.0	71228
LCS 880-71228/2-A	Lab Control Sample	Soluble	Solid	300.0	71228
LCSD 880-71228/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	71228
890-5986-14 MS	PH 11B	Soluble	Solid	300.0	71228
890-5986-14 MSD	PH 11B	Soluble	Solid	300.0	71228
890-5986-24 MS	PH 15A	Soluble	Solid	300.0	71228
890-5986-24 MSD	PH 15A	Soluble	Solid	300.0	71228

Lab Chronicle

Client: Ensolum
Project/Site: PLU 17 TWIN WELLS RANCH 702H

Job ID: 890-5986-1
SDG: 03C1558303

Client Sample ID: PH 07

Date Collected: 01/16/24 09:40
Date Received: 01/18/24 08:12

Lab Sample ID: 890-5986-1
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			5.02 g	5 mL	71518	01/24/24 14:18	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	71762	01/28/24 18:58	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			71820	01/28/24 18:58	SM	EET MID
Total/NA	Analysis	8015 NM		1			71895	01/28/24 10:51	SM	EET MID
Total/NA	Prep	8015NM Prep			10.09 g	10 mL	71253	01/19/24 17:09	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	71758	01/28/24 10:51	SM	EET MID
Soluble	Leach	DI Leach			5.04 g	50 mL	71226	01/19/24 14:44	SA	EET MID
Soluble	Analysis	300.0		5	50 mL	50 mL	71387	01/24/24 13:28	SMC	EET MID

Client Sample ID: PH 07A

Date Collected: 01/16/24 09:45
Date Received: 01/18/24 08:12

Lab Sample ID: 890-5986-2
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.99 g	5 mL	71518	01/24/24 14:18	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	71762	01/28/24 19:18	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			71820	01/28/24 19:18	SM	EET MID
Total/NA	Analysis	8015 NM		1			71895	01/28/24 11:59	SM	EET MID
Total/NA	Prep	8015NM Prep			10.04 g	10 mL	71253	01/19/24 17:09	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	71758	01/28/24 11:59	SM	EET MID
Soluble	Leach	DI Leach			4.99 g	50 mL	71226	01/19/24 14:44	SA	EET MID
Soluble	Analysis	300.0		5	50 mL	50 mL	71387	01/24/24 13:34	SMC	EET MID

Client Sample ID: PH 07B

Date Collected: 01/16/24 10:05
Date Received: 01/18/24 08:12

Lab Sample ID: 890-5986-3
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.98 g	5 mL	71518	01/24/24 14:18	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	71762	01/28/24 19:39	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			71820	01/28/24 19:39	SM	EET MID
Total/NA	Analysis	8015 NM		1			71895	01/28/24 12:20	SM	EET MID
Total/NA	Prep	8015NM Prep			10.09 g	10 mL	71253	01/19/24 17:09	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	71758	01/28/24 12:20	SM	EET MID
Soluble	Leach	DI Leach			5.02 g	50 mL	71226	01/19/24 14:44	SA	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	71387	01/24/24 13:39	SMC	EET MID

Client Sample ID: PH 08

Date Collected: 01/16/24 10:35
Date Received: 01/18/24 08:12

Lab Sample ID: 890-5986-4
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.96 g	5 mL	71518	01/24/24 14:18	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	71762	01/28/24 19:59	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			71820	01/28/24 19:59	SM	EET MID

Lab Chronicle

Client: Ensolum
Project/Site: PLU 17 TWIN WELLS RANCH 702H

Job ID: 890-5986-1
SDG: 03C1558303

Client Sample ID: PH 08

Date Collected: 01/16/24 10:35
Date Received: 01/18/24 08:12

Lab Sample ID: 890-5986-4

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			71895	01/28/24 12:43	SM	EET MID
Total/NA	Prep	8015NM Prep			10.08 g	10 mL	71253	01/19/24 17:09	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	71758	01/28/24 12:43	SM	EET MID
Soluble	Leach	DI Leach			5.00 g	50 mL	71226	01/19/24 14:44	SA	EET MID
Soluble	Analysis	300.0		5	50 mL	50 mL	71387	01/24/24 13:44	SMC	EET MID

Client Sample ID: PH 08A

Date Collected: 01/16/24 10:45
Date Received: 01/18/24 08:12

Lab Sample ID: 890-5986-5

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.02 g	5 mL	71518	01/24/24 14:18	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	71762	01/28/24 20:20	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			71820	01/28/24 20:20	SM	EET MID
Total/NA	Analysis	8015 NM		1			71895	01/28/24 13:05	SM	EET MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	71253	01/19/24 17:09	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	71758	01/28/24 13:05	SM	EET MID
Soluble	Leach	DI Leach			4.98 g	50 mL	71226	01/19/24 14:44	SA	EET MID
Soluble	Analysis	300.0		5	50 mL	50 mL	71387	01/24/24 13:59	SMC	EET MID

Client Sample ID: PH 08B

Date Collected: 01/16/24 11:00
Date Received: 01/18/24 08:12

Lab Sample ID: 890-5986-6

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.01 g	5 mL	71518	01/24/24 14:18	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	71762	01/28/24 20:40	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			71820	01/28/24 20:40	SM	EET MID
Total/NA	Analysis	8015 NM		1			71895	01/28/24 13:29	SM	EET MID
Total/NA	Prep	8015NM Prep			9.97 g	10 mL	71253	01/19/24 17:09	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	71758	01/28/24 13:29	SM	EET MID
Soluble	Leach	DI Leach			4.97 g	50 mL	71226	01/19/24 14:44	SA	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	71387	01/24/24 14:04	SMC	EET MID

Client Sample ID: PH 09

Date Collected: 01/17/24 15:05
Date Received: 01/18/24 08:12

Lab Sample ID: 890-5986-7

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			4.97 g	5 mL	71518	01/24/24 14:18	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	71762	01/28/24 21:00	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			71820	01/28/24 21:00	SM	EET MID
Total/NA	Analysis	8015 NM		1			71895	01/28/24 13:51	SM	EET MID
Total/NA	Prep	8015NM Prep			9.92 g	10 mL	71253	01/19/24 17:09	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	71758	01/28/24 13:51	SM	EET MID

Lab Chronicle

Client: Ensolum
Project/Site: PLU 17 TWIN WELLS RANCH 702H

Job ID: 890-5986-1
SDG: 03C1558303

Client Sample ID: PH 09

Date Collected: 01/17/24 15:05
Date Received: 01/18/24 08:12

Lab Sample ID: 890-5986-7
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			4.95 g	50 mL	71226	01/19/24 14:44	SA	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	71387	01/24/24 14:20	SMC	EET MID

Client Sample ID: PH 09A

Date Collected: 01/17/24 15:10
Date Received: 01/18/24 08:12

Lab Sample ID: 890-5986-8
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			4.96 g	5 mL	71518	01/24/24 14:18	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	71762	01/28/24 22:50	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			71820	01/28/24 22:50	SM	EET MID
Total/NA	Analysis	8015 NM		1			71895	01/28/24 14:13	SM	EET MID
Total/NA	Prep	8015NM Prep			9.90 g	10 mL	71253	01/19/24 17:09	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	71758	01/28/24 14:13	SM	EET MID
Soluble	Leach	DI Leach			4.96 g	50 mL	71226	01/19/24 14:44	SA	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	71387	01/24/24 14:25	SMC	EET MID

Client Sample ID: PH 10

Date Collected: 01/16/24 12:30
Date Received: 01/18/24 08:12

Lab Sample ID: 890-5986-9
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			5.02 g	5 mL	71518	01/24/24 14:18	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	71762	01/28/24 23:11	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			71820	01/28/24 23:11	SM	EET MID
Total/NA	Analysis	8015 NM		1			71895	01/28/24 14:35	SM	EET MID
Total/NA	Prep	8015NM Prep			10.06 g	10 mL	71253	01/19/24 17:09	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	71758	01/28/24 14:35	SM	EET MID
Soluble	Leach	DI Leach			5.02 g	50 mL	71226	01/19/24 14:44	SA	EET MID
Soluble	Analysis	300.0		5	50 mL	50 mL	71387	01/24/24 14:30	SMC	EET MID

Client Sample ID: PH 10A

Date Collected: 01/16/24 12:50
Date Received: 01/18/24 08:12

Lab Sample ID: 890-5986-10
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.03 g	5 mL	71518	01/24/24 14:18	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	71762	01/28/24 23:31	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			71820	01/28/24 23:31	SM	EET MID
Total/NA	Analysis	8015 NM		1			71895	01/28/24 14:57	SM	EET MID
Total/NA	Prep	8015NM Prep			10.03 g	10 mL	71253	01/19/24 17:09	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	71758	01/28/24 14:57	SM	EET MID
Soluble	Leach	DI Leach			5.03 g	50 mL	71226	01/19/24 14:44	SA	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	71387	01/24/24 14:35	SMC	EET MID

Lab Chronicle

Client: Ensolum
Project/Site: PLU 17 TWIN WELLS RANCH 702H

Job ID: 890-5986-1
SDG: 03C1558303

Client Sample ID: PH 10B
Date Collected: 01/16/24 13:10
Date Received: 01/18/24 08:12

Lab Sample ID: 890-5986-11
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	71518	01/24/24 14:18	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	71762	01/28/24 23:52	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			71820	01/28/24 23:52	SM	EET MID
Total/NA	Analysis	8015 NM		1			71895	01/28/24 15:41	SM	EET MID
Total/NA	Prep	8015NM Prep			10.04 g	10 mL	71253	01/19/24 17:09	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	71758	01/28/24 15:41	SM	EET MID
Soluble	Leach	DI Leach			5.01 g	50 mL	71226	01/19/24 14:44	SA	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	71387	01/24/24 14:40	SMC	EET MID

Client Sample ID: PH 11
Date Collected: 01/17/24 13:40
Date Received: 01/18/24 08:12

Lab Sample ID: 890-5986-12
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.02 g	5 mL	71631	01/25/24 17:57	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	71765	01/30/24 02:15	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			71820	01/30/24 02:15	SM	EET MID
Total/NA	Analysis	8015 NM		1			71895	01/28/24 16:02	SM	EET MID
Total/NA	Prep	8015NM Prep			10.06 g	10 mL	71253	01/19/24 17:09	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	71758	01/28/24 16:02	SM	EET MID
Soluble	Leach	DI Leach			4.99 g	50 mL	71226	01/19/24 14:44	SA	EET MID
Soluble	Analysis	300.0		5	50 mL	50 mL	71387	01/24/24 14:45	SMC	EET MID

Client Sample ID: PH 11A
Date Collected: 01/17/24 13:50
Date Received: 01/18/24 08:12

Lab Sample ID: 890-5986-13
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	71631	01/25/24 17:57	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	71765	01/30/24 02:41	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			71820	01/30/24 02:41	SM	EET MID
Total/NA	Analysis	8015 NM		1			71895	01/28/24 16:26	SM	EET MID
Total/NA	Prep	8015NM Prep			9.98 g	10 mL	71253	01/19/24 17:09	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	71758	01/28/24 16:26	SM	EET MID
Soluble	Leach	DI Leach			5.04 g	50 mL	71226	01/19/24 14:44	SA	EET MID
Soluble	Analysis	300.0		5	50 mL	50 mL	71387	01/24/24 14:51	SMC	EET MID

Client Sample ID: PH 11B
Date Collected: 01/17/24 14:00
Date Received: 01/18/24 08:12

Lab Sample ID: 890-5986-14
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.01 g	5 mL	71631	01/25/24 17:57	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	71765	01/30/24 03:07	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			71820	01/30/24 03:07	SM	EET MID

Lab Chronicle

Client: Ensolum
Project/Site: PLU 17 TWIN WELLS RANCH 702H

Job ID: 890-5986-1
SDG: 03C1558303

Client Sample ID: PH 11B
Date Collected: 01/17/24 14:00
Date Received: 01/18/24 08:12

Lab Sample ID: 890-5986-14
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			71895	01/28/24 16:46	SM	EET MID
Total/NA	Prep	8015NM Prep			9.90 g	10 mL	71253	01/19/24 17:09	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	71758	01/28/24 16:46	SM	EET MID
Soluble	Leach	DI Leach			4.95 g	50 mL	71228	01/19/24 14:53	SA	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	71388	01/24/24 11:28	SMC	EET MID

Client Sample ID: PH 12
Date Collected: 01/17/24 13:10
Date Received: 01/18/24 08:12

Lab Sample ID: 890-5986-15
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			4.97 g	5 mL	71631	01/25/24 17:57	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	71765	01/30/24 03:32	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			71820	01/30/24 03:32	SM	EET MID
Total/NA	Analysis	8015 NM		1			71895	01/28/24 17:07	SM	EET MID
Total/NA	Prep	8015NM Prep			9.90 g	10 mL	71253	01/19/24 17:09	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	71758	01/28/24 17:07	SM	EET MID
Soluble	Leach	DI Leach			4.99 g	50 mL	71228	01/19/24 14:53	SA	EET MID
Soluble	Analysis	300.0		5	50 mL	50 mL	71388	01/24/24 11:48	SMC	EET MID

Client Sample ID: PH 12A
Date Collected: 01/17/24 13:30
Date Received: 01/18/24 08:12

Lab Sample ID: 890-5986-16
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	71631	01/25/24 17:57	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	71765	01/30/24 03:58	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			71820	01/30/24 03:58	SM	EET MID
Total/NA	Analysis	8015 NM		1			71895	01/28/24 17:28	SM	EET MID
Total/NA	Prep	8015NM Prep			10.03 g	10 mL	71253	01/19/24 17:09	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	71758	01/28/24 17:28	SM	EET MID
Soluble	Leach	DI Leach			5.02 g	50 mL	71228	01/19/24 14:53	SA	EET MID
Soluble	Analysis	300.0		10	50 mL	50 mL	71388	01/24/24 14:40	SMC	EET MID

Client Sample ID: PH 12B
Date Collected: 01/17/24 13:35
Date Received: 01/18/24 08:12

Lab Sample ID: 890-5986-17
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			5.02 g	5 mL	71631	01/25/24 17:57	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	71765	01/30/24 04:24	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			71820	01/30/24 04:24	SM	EET MID
Total/NA	Analysis	8015 NM		1			71895	01/28/24 17:49	SM	EET MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	71253	01/19/24 17:09	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	71758	01/28/24 17:49	SM	EET MID

Eurofins Carlsbad

Lab Chronicle

Client: Ensolum
Project/Site: PLU 17 TWIN WELLS RANCH 702H

Job ID: 890-5986-1
SDG: 03C1558303

Client Sample ID: PH 12B

Lab Sample ID: 890-5986-17
Matrix: Solid
Date Collected: 01/17/24 13:35
Date Received: 01/18/24 08:12

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	71228	01/19/24 14:53	SA	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	71388	01/24/24 14:46	SMC	EET MID

Client Sample ID: PH 13

Lab Sample ID: 890-5986-18
Matrix: Solid
Date Collected: 01/17/24 13:00
Date Received: 01/18/24 08:12

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	71631	01/25/24 17:57	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	71765	01/30/24 04:50	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			71820	01/30/24 04:50	SM	EET MID
Total/NA	Analysis	8015 NM		1			71895	01/28/24 18:10	SM	EET MID
Total/NA	Prep	8015NM Prep			10.08 g	10 mL	71253	01/19/24 17:09	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	71758	01/28/24 18:10	SM	EET MID
Soluble	Leach	DI Leach			5.04 g	50 mL	71228	01/19/24 14:53	SA	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	71388	01/24/24 14:53	SMC	EET MID

Client Sample ID: PH 13A

Lab Sample ID: 890-5986-19
Matrix: Solid
Date Collected: 01/17/24 13:05
Date Received: 01/18/24 08:12

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	71631	01/25/24 17:57	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	71765	01/30/24 05:16	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			71820	01/30/24 05:16	SM	EET MID
Total/NA	Analysis	8015 NM		1			71895	01/28/24 18:31	SM	EET MID
Total/NA	Prep	8015NM Prep			9.97 g	10 mL	71253	01/19/24 17:09	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	71758	01/28/24 18:31	SM	EET MID
Soluble	Leach	DI Leach			4.97 g	50 mL	71228	01/19/24 14:53	SA	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	71388	01/24/24 15:14	SMC	EET MID

Client Sample ID: PH 14

Lab Sample ID: 890-5986-20
Matrix: Solid
Date Collected: 01/17/24 12:35
Date Received: 01/18/24 08:12

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	71631	01/25/24 17:57	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	71765	01/30/24 05:42	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			71820	01/30/24 05:42	SM	EET MID
Total/NA	Analysis	8015 NM		1			71895	01/28/24 18:51	SM	EET MID
Total/NA	Prep	8015NM Prep			9.92 g	10 mL	71253	01/19/24 17:09	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	71758	01/28/24 18:51	SM	EET MID
Soluble	Leach	DI Leach			4.98 g	50 mL	71228	01/19/24 14:53	SA	EET MID
Soluble	Analysis	300.0		5	50 mL	50 mL	71388	01/24/24 15:21	SMC	EET MID

Lab Chronicle

Client: Ensolum
Project/Site: PLU 17 TWIN WELLS RANCH 702H

Job ID: 890-5986-1
SDG: 03C1558303

Client Sample ID: PH 14A
Date Collected: 01/17/24 12:45
Date Received: 01/18/24 08:12

Lab Sample ID: 890-5986-21
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	71631	01/25/24 17:57	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	71765	01/30/24 07:26	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			71820	01/30/24 07:26	SM	EET MID
Total/NA	Analysis	8015 NM		1			71895	01/29/24 10:30	SM	EET MID
Total/NA	Prep	8015NM Prep			9.98 g	10 mL	71254	01/19/24 17:22	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	71766	01/29/24 10:30	SM	EET MID
Soluble	Leach	DI Leach			5.03 g	50 mL	71228	01/19/24 14:53	SA	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	71388	01/24/24 15:28	SMC	EET MID

Client Sample ID: PH 14B
Date Collected: 01/17/24 12:55
Date Received: 01/18/24 08:12

Lab Sample ID: 890-5986-22
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.02 g	5 mL	71631	01/25/24 17:57	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	71765	01/30/24 07:53	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			71820	01/30/24 07:53	SM	EET MID
Total/NA	Analysis	8015 NM		1			71895	01/29/24 11:35	SM	EET MID
Total/NA	Prep	8015NM Prep			10.03 g	10 mL	71254	01/19/24 17:22	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	71766	01/29/24 11:35	SM	EET MID
Soluble	Leach	DI Leach			5.04 g	50 mL	71228	01/19/24 14:53	SA	EET MID
Soluble	Analysis	300.0		10	50 mL	50 mL	71388	01/24/24 15:34	SMC	EET MID

Client Sample ID: PH 15
Date Collected: 01/17/24 11:30
Date Received: 01/18/24 08:12

Lab Sample ID: 890-5986-23
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	71631	01/25/24 17:57	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	71765	01/30/24 08:19	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			71820	01/30/24 08:19	SM	EET MID
Total/NA	Analysis	8015 NM		1			71895	01/29/24 11:56	SM	EET MID
Total/NA	Prep	8015NM Prep			10.07 g	10 mL	71254	01/19/24 17:22	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	71766	01/29/24 11:56	SM	EET MID
Soluble	Leach	DI Leach			4.97 g	50 mL	71228	01/19/24 14:53	SA	EET MID
Soluble	Analysis	300.0		5	50 mL	50 mL	71388	01/24/24 15:41	SMC	EET MID

Client Sample ID: PH 15A
Date Collected: 01/17/24 11:50
Date Received: 01/18/24 08:12

Lab Sample ID: 890-5986-24
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	71631	01/25/24 17:57	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	71765	01/30/24 08:45	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			71820	01/30/24 08:45	SM	EET MID

Lab Chronicle

Client: Ensolum
Project/Site: PLU 17 TWIN WELLS RANCH 702H

Job ID: 890-5986-1
SDG: 03C1558303

Client Sample ID: PH 15A
Date Collected: 01/17/24 11:50
Date Received: 01/18/24 08:12

Lab Sample ID: 890-5986-24
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			71895	01/29/24 12:18	SM	EET MID
Total/NA	Prep	8015NM Prep			10.06 g	10 mL	71254	01/19/24 17:22	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	71766	01/29/24 12:18	SM	EET MID
Soluble	Leach	DI Leach			4.96 g	50 mL	71228	01/19/24 14:53	SA	EET MID
Soluble	Analysis	300.0		5	50 mL	50 mL	71388	01/24/24 15:48	SMC	EET MID

Client Sample ID: PH 15B
Date Collected: 01/17/24 12:00
Date Received: 01/18/24 08:12

Lab Sample ID: 890-5986-25
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	71631	01/25/24 17:57	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	71765	01/30/24 09:11	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			71820	01/30/24 09:11	SM	EET MID
Total/NA	Analysis	8015 NM		1			71895	01/29/24 12:40	SM	EET MID
Total/NA	Prep	8015NM Prep			9.98 g	10 mL	71254	01/19/24 17:22	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	71766	01/29/24 12:40	SM	EET MID
Soluble	Leach	DI Leach			5.02 g	50 mL	71228	01/19/24 14:53	SA	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	71388	01/24/24 16:09	SMC	EET MID

Client Sample ID: PH 16
Date Collected: 01/17/24 12:05
Date Received: 01/18/24 08:12

Lab Sample ID: 890-5986-26
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.02 g	5 mL	71631	01/25/24 17:57	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	71765	01/30/24 09:37	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			71820	01/30/24 09:37	SM	EET MID
Total/NA	Analysis	8015 NM		1			71895	01/29/24 13:01	SM	EET MID
Total/NA	Prep	8015NM Prep			9.90 g	10 mL	71254	01/19/24 17:22	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	71766	01/29/24 13:01	SM	EET MID
Soluble	Leach	DI Leach			4.99 g	50 mL	71228	01/19/24 14:53	SA	EET MID
Soluble	Analysis	300.0		5	50 mL	50 mL	71388	01/24/24 16:16	SMC	EET MID

Client Sample ID: PH 16A
Date Collected: 01/17/24 12:25
Date Received: 01/18/24 08:12

Lab Sample ID: 890-5986-27
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	71631	01/25/24 17:57	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	71765	01/30/24 10:04	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			71820	01/30/24 10:04	SM	EET MID
Total/NA	Analysis	8015 NM		1			71895	01/29/24 13:23	SM	EET MID
Total/NA	Prep	8015NM Prep			9.90 g	10 mL	71254	01/19/24 17:22	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	71766	01/29/24 13:23	SM	EET MID

Eurofins Carlsbad

Lab Chronicle

Client: Ensolum
Project/Site: PLU 17 TWIN WELLS RANCH 702H

Job ID: 890-5986-1
SDG: 03C1558303

Client Sample ID: PH 16A
Date Collected: 01/17/24 12:25
Date Received: 01/18/24 08:12

Lab Sample ID: 890-5986-27
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			4.98 g	50 mL	71228	01/19/24 14:53	SA	EET MID
Soluble	Analysis	300.0		5	50 mL	50 mL	71388	01/24/24 16:36	SMC	EET MID

Client Sample ID: PH 16B
Date Collected: 01/17/24 12:30
Date Received: 01/18/24 08:12

Lab Sample ID: 890-5986-28
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	71631	01/25/24 17:57	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	71765	01/30/24 10:30	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			71820	01/30/24 10:30	SM	EET MID
Total/NA	Analysis	8015 NM		1			71895	01/29/24 13:45	SM	EET MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	71254	01/19/24 17:22	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	71766	01/29/24 13:45	SM	EET MID
Soluble	Leach	DI Leach			5.00 g	50 mL	71228	01/19/24 14:53	SA	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	71388	01/24/24 16:43	SMC	EET MID

Client Sample ID: PH 17
Date Collected: 01/17/24 14:25
Date Received: 01/18/24 08:12

Lab Sample ID: 890-5986-29
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	71631	01/25/24 17:57	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	71765	01/30/24 10:56	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			71820	01/30/24 10:56	SM	EET MID
Total/NA	Analysis	8015 NM		1			71895	01/29/24 14:06	SM	EET MID
Total/NA	Prep	8015NM Prep			10.08 g	10 mL	71254	01/19/24 17:22	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	71766	01/29/24 14:06	SM	EET MID
Soluble	Leach	DI Leach			4.97 g	50 mL	71228	01/19/24 14:53	SA	EET MID
Soluble	Analysis	300.0		5	50 mL	50 mL	71388	01/24/24 16:50	SMC	EET MID

Client Sample ID: PH 17A
Date Collected: 01/17/24 14:40
Date Received: 01/18/24 08:12

Lab Sample ID: 890-5986-30
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	71631	01/25/24 17:57	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	71765	01/30/24 11:22	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			71820	01/30/24 11:22	SM	EET MID
Total/NA	Analysis	8015 NM		1			71895	01/29/24 14:28	SM	EET MID
Total/NA	Prep	8015NM Prep			10.09 g	10 mL	71254	01/19/24 17:22	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	71766	01/29/24 14:28	SM	EET MID
Soluble	Leach	DI Leach			4.95 g	50 mL	71228	01/19/24 14:53	SA	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	71388	01/24/24 16:57	SMC	EET MID

Lab Chronicle

Client: Ensolum
Project/Site: PLU 17 TWIN WELLS RANCH 702H

Job ID: 890-5986-1
SDG: 03C1558303

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 17 TWIN WELLS RANCH 702H

Job ID: 890-5986-1
SDG: 03C1558303

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 17 TWIN WELLS RANCH 702H

Job ID: 890-5986-1
SDG: 03C1558303

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 17 TWIN WELLS RANCH 702H

Job ID: 890-5986-1
SDG: 03C1558303

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-5986-1	PH 07	Solid	01/16/24 09:40	01/18/24 08:12	0.5'
890-5986-2	PH 07A	Solid	01/16/24 09:45	01/18/24 08:12	1'
890-5986-3	PH 07B	Solid	01/16/24 10:05	01/18/24 08:12	6'
890-5986-4	PH 08	Solid	01/16/24 10:35	01/18/24 08:12	0.5'
890-5986-5	PH 08A	Solid	01/16/24 10:45	01/18/24 08:12	2'
890-5986-6	PH 08B	Solid	01/16/24 11:00	01/18/24 08:12	6'
890-5986-7	PH 09	Solid	01/17/24 15:05	01/18/24 08:12	0.5'
890-5986-8	PH 09A	Solid	01/17/24 15:10	01/18/24 08:12	1'
890-5986-9	PH 10	Solid	01/16/24 12:30	01/18/24 08:12	0.5'
890-5986-10	PH 10A	Solid	01/16/24 12:50	01/18/24 08:12	4'
890-5986-11	PH 10B	Solid	01/16/24 13:10	01/18/24 08:12	10'
890-5986-12	PH 11	Solid	01/17/24 13:40	01/18/24 08:12	0.5'
890-5986-13	PH 11A	Solid	01/17/24 13:50	01/18/24 08:12	2'
890-5986-14	PH 11B	Solid	01/17/24 14:00	01/18/24 08:12	4'
890-5986-15	PH 12	Solid	01/17/24 13:10	01/18/24 08:12	0.5'
890-5986-16	PH 12A	Solid	01/17/24 13:30	01/18/24 08:12	4'
890-5986-17	PH 12B	Solid	01/17/24 13:35	01/18/24 08:12	6'
890-5986-18	PH 13	Solid	01/17/24 13:00	01/18/24 08:12	0.5'
890-5986-19	PH 13A	Solid	01/17/24 13:05	01/18/24 08:12	1'0
890-5986-20	PH 14	Solid	01/17/24 12:35	01/18/24 08:12	0.5'
890-5986-21	PH 14A	Solid	01/17/24 12:45	01/18/24 08:12	2'
890-5986-22	PH 14B	Solid	01/17/24 12:55	01/18/24 08:12	4'
890-5986-23	PH 15	Solid	01/17/24 11:30	01/18/24 08:12	0.5'
890-5986-24	PH 15A	Solid	01/17/24 11:50	01/18/24 08:12	4'
890-5986-25	PH 15B	Solid	01/17/24 12:00	01/18/24 08:12	8'
890-5986-26	PH 16	Solid	01/17/24 12:05	01/18/24 08:12	0.5'
890-5986-27	PH 16A	Solid	01/17/24 12:25	01/18/24 08:12	4'
890-5986-28	PH 16B	Solid	01/17/24 12:30	01/18/24 08:12	6'
890-5986-29	PH 17	Solid	01/17/24 14:25	01/18/24 08:12	0.5'
890-5986-30	PH 17A	Solid	01/17/24 14:40	01/18/24 08:12	3'

Loc: 890
5986

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EL Paso, TX (915) 585-3443, Lubbock, TX (806) 794-1296
Hobbs, NM (575) 392-7550, Carlsbad, NM (575) 988-3199

890-5986 Chain of Custody

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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:		bbelill@ensolum.com

Work Order Comments

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

Project Name:	PLU 17 TWIN WELLS RANCH 702H	Turn Around	
Project Number:	03C1558303	☑ Routine ☐ Rush	
Project Location:	32.20756, -103.80637	Due Date:	
Sampler's Name:	Meredith Roberts	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:	TAM007
Cooler Custody Seals:	Yes No N/A	Correction Factor:	-0.2
Sample Custody Seals:	Yes No N/A	Temperature Reading:	-0.8
Total Containers:		Corrected Temperature:	-0.6

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	BTEX	Chlorides	TPH	Sample Comments
PH07	S	1/16/24	0940	0.5'	G	1	X	X	X	Incident #:
PH07A			0945	1'						NAPP2335329764
PH07B			1005	6'						
PH08			1035	0.5'						Cost Center:
PH08A			1045	2'						2203371001
PH08B		↓	1100	6'						
PH09		1/17/24	1505	0.5'						
PH09A		↓	1510	1'						mroberts@ensolum.com
PH10		1/16/24	1230	0.5'						
PH10A	↓	↓	1250	4'	↓	↓	↓	↓	↓	

Total 200.7 / 6010 200.8 / 6020: 8RCRA 13PPM Texas 11 Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag SiO_2 Na Sr Tl Sn U V Zn
Circle Method(s) and Metal(s) to be analyzed TCLP / SPLP 6010 : 8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Tl U Hg: 1631 / 245.1 / 7470 / 7471

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

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

Revised Date: 08/25/2020 Rev: 2020.2

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Work Order No: _____

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Project Manager:	Ben Belill	Bill to: (if different)	Garrett Green
Company Name:	Ensolum, LLC	Company Name:	~~Ensolum~~ XTO Energy
Address:	3122 Nat'l Parks Hwy	Address:	3104 E Greene St
City, State ZIP:	Carlsbad, NM 88220	City, State ZIP:	Carlsbad, NM 88220
Phone:	989-854-0852 Email:		bbelill@ensolum.com

Work Order Comments

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

Project Name:	PLU 17 TWIN WELLS RANCH 702H	Turn Around	
Project Number:	03C1558303	☑ Routine ☐ Rush	
Project Location:	32.20756, -103.80637	Due Date:	
Sampler's Name:	Meredith Roberts	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:	TJM007
Cooler Custody Seals:	Yes No N/A	Correction Factor:	-0.2
Sample Custody Seals:	Yes No N/A	Temperature Reading:	-0.8
Total Containers:		Corrected Temperature:	0.6

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	BTEX	Chlorides	TPH	Sample Comments
PH10B	S	1/16/24	1310	10'	G	1	X	X	X	Incident #:
PH11		1/17/24	1340	0.5'						NAPP2335329764
PH11A			1350	2'						
PH11B			1400	4'						Cost Center:
PH12			1310	0.5'						220337100i
PH12A			1330	4'						
PH12B			1335	6'						
PH13			1300	0.5'						mroberts@ensolum.com
PH13A			1305	1'						
PH14			1235	0.5'						

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
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Work Order No: _____

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Project Manager:	Ben Belill	Bill to: (if different)	Garrett Green
Company Name:	Ensolum, LLC	Company Name:	XTO Energy
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:	bbelill@ensolum.com

Work Order Comments

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

Project Name:	PLU 17 Twin Wells Ranch 702H	Turn Around	☑ Routine ☐ Rush
Project Number:	03C1558303	Due Date:	
Project Location:	32.20756, -103.80637	TAT starts the day received by the lab, if received by 4:30pm	
Sampler's Name:	Meredith Roberts		
PO #:			

SAMPLE RECEIPT			
Temp Blank:	Yes No	Wet Ice:	Yes No
Samples Received Intact:	Yes No	Thermometer ID:	TM005
Cooler Custody Seals:	Yes No N/A	Correction Factor:	-0.2
Sample Custody Seals:	Yes No N/A	Temperature Reading:	0.8
Total Containers:		Corrected Temperature:	0.6

Preservative Codes

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

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Grab/ Comp	# of Cont	Parameters: BTEX	Chlorides	TPH	Sample Comments
PH14A	S	1/17/24	1245	2'	G	1	X	X	X	Incident #:
PH14B			1255	4'						NAPP2335329764
PH15			1130	0.5'						
PH15A			1150	4'						Cost Center:
PH15B			1200	8'						220337100
PH16			1205	0.5'						
PH16A			1225	4'						
PH16B			1230	6'						mroberts@ensolum.com
PH17			1425	0.5'						
PH17A			1440	3'						

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

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

Revised Date: 08/25/2020 Rev. 2020.2

Login Sample Receipt Checklist

Client: Ensolum

Job Number: 890-5986-1
SDG Number: 03C1558303

Login Number: 5986
List Number: 1
Creator: Bruns, Shannon

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: 890-5986-1
SDG Number: 03C1558303

Login Number: 5986
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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District III
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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 321410

QUESTIONS

Operator: XTO ENERGY, INC 6401 Holiday Hill Road Midland, TX 79707	OGRID: 5380
	Action Number: 321410
	Action Type: [C-141] Site Char./Remediation Plan C-141 (C-141-v-Plan)

QUESTIONS

Prerequisites	
Incident ID (n#)	**nAPP2335329764**
Incident Name	**NAPP2335329764 PLU 17 TWIN WELLS RANCH 702H @ 0**
Incident Type	**Produced Water Release**
Incident Status	**Remediation Plan Received**

Location of Release Source	
Please answer all the questions in this group.	
Site Name	PLU 17 Twin Wells Ranch 702H
Date Release Discovered	12/11/2023
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 | Other (Specify) | Produced Water | Released: 392 BBL | Recovered: 0 BBL | Lost: 392 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)	A water transfer line supplying rig failed, releasing fluids to ground.

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QUESTIONS (continued)

Operator: XTO ENERGY, INC 6401 Holiday Hill Road Midland, TX 79707	OGRID: 5380
	Action Number: 321410
	Action Type: [C-141] Site Char./Remediation Plan C-141 (C-141-v-Plan)

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	**Yes**
Reasons why this would be considered a submission for a notification of a major release	**From paragraph A. "Major release" determine using:** **(1) an unauthorized release of a volume, excluding gases, of 25 barrels or more.**
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: Melanie Collins Title: Regulatory Analyst Email: Melanie.Collins@exxonmobil.com Date: 12/19/2023

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State of New Mexico
Energy, Minerals and Natural Resources
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QUESTIONS (continued)

Operator: XTO ENERGY, INC 6401 Holiday Hill Road Midland, TX 79707	OGRID: 5380
	Action Number: 321410
	Action Type: [C-141] Site Char./Remediation Plan C-141 (C-141-v-Plan)

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	NM OSE iWaters Database Search
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 ½ and 1 (mi.)
A spring or a private domestic fresh water well used by less than five households for domestic or stock watering purposes	Between ½ and 1 (mi.)
Any other fresh water well or spring	Between ½ and 1 (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	Yes

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)	6910
TPH (GRO+DRO+MRO) (EPA SW-846 Method 8015M)	70.8
GRO+DRO (EPA SW-846 Method 8015M)	70.8
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	05/07/2024
On what date will (or did) the final sampling or liner inspection occur	08/05/2024
On what date will (or was) the remediation complete(d)	08/05/2024
What is the estimated surface area (in square feet) that will be reclaimed	27510
What is the estimated volume (in cubic yards) that will be reclaimed	5000
What is the estimated surface area (in square feet) that will be remediated	27510
What is the estimated volume (in cubic yards) that will be remediated	5000
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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Santa Fe, NM 87505

QUESTIONS (continued)

Operator: XTO ENERGY, INC 6401 Holiday Hill Road Midland, TX 79707	OGRID: 5380
	Action Number: 321410
	Action Type: [C-141] Site Char./Remediation Plan C-141 (C-141-v-Plan)

QUESTIONS

Remediation Plan (continued)	
Please answer all the questions that apply or are indicated. This information must be provided to the appropriate district office no later than 90 days after the release discovery date.	
This remediation will (or is expected to) utilize the following processes to remediate / reduce contaminants:	
(Select all answers below that apply.)	
(Ex Situ) Excavation and **off-site** disposal (i.e. dig and haul, hydrovac, etc.)	Yes
Which OCD approved facility will be used for **off-site** disposal	HALFWAY DISPOSAL AND LANDFILL [fEEM0112334510]
OR which OCD approved well (API) will be used for **off-site** disposal	*Not answered.*
OR is the **off-site** disposal site, to be used, out-of-state	*Not answered.*
OR is the **off-site** disposal site, to be used, an NMED facility	*Not answered.*
(Ex Situ) Excavation and **on-site** remediation (i.e. On-Site Land Farms)	*Not answered.*
(In Situ) Soil Vapor Extraction	*Not answered.*
(In Situ) Chemical processing (i.e. Soil Shredding, Potassium Permanganate, etc.)	*Not answered.*
(In Situ) Biological processing (i.e. Microbes / Fertilizer, etc.)	*Not answered.*
(In Situ) Physical processing (i.e. Soil Washing, Gypsum, Disking, etc.)	*Not answered.*
Ground Water Abatement pursuant to 19.15.30 NMAC	*Not answered.*
OTHER (Non-listed remedial process)	*Not answered.*
Per Subsection B of 19.15.29.11 NMAC unless the site characterization report includes completed efforts at remediation, the report must include a proposed remediation plan in accordance with 19.15.29.12 NMAC, which includes the anticipated timelines for beginning and completing the remediation.	
I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to OCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the OCD does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In addition, OCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.	
I hereby agree and sign off to the above statement	Name: Amy Ruth Title: Coordinator SSHE Environmental Email: amy.ruth@exxonmobil.com Date: 03/07/2024
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.	

District I
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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 (continued)

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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	**304222**
Sampling date pursuant to Subparagraph (a) of Paragraph (1) of Subsection D of 19.15.29.12 NMAC	**01/18/2024**
What was the (estimated) number of samples that were to be gathered	**36**
What was the sampling surface area in square feet	**7200**

Remediation Closure Request	
Only answer the questions in this group if seeking remediation closure for this release because all remediation steps have been completed.	
Requesting a remediation closure approval with this submission	No

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CONDITIONS

Action 321410

CONDITIONS

Operator: XTO ENERGY, INC 6401 Holiday Hill Road Midland, TX 79707	OGRID: 5380
	Action Number: 321410
	Action Type: [C-141] Site Char./Remediation Plan C-141 (C-141-v-Plan)

CONDITIONS

Created By	Condition	Condition Date
michael.buchanan	he Remediation Plan is Conditionally Approved as well as the variance requesting confirmation samples every 500 square feet. All samples must be analyzed for all constituents listed in Table I of 19.15.29.12 NMAC. Floor confirmation samples should be delineated/excavated to meet closure criteria standards for site assessment/characterization/proven depth to water determination. Sidewall samples should be delineated/excavated to 600 mg/kg for chlorides and 100 mg/kg for TPH to define the edge of the release. All off pad areas must meet reclamation standards set forth in the OCD Spill Rule. The work will need to occur in 90 days after the work plan has been reviewed.	3/12/2024