

Incident ID	NAPP2304448906
District RP	
Facility ID	
Application ID	

Remediation Plan

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

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

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

- ☒ Contamination must be in areas immediately under or around production equipment where remediation could cause a major facility deconstruction.
- ☒ Extents of contamination must be fully delineated.
- ☒ Contamination does not cause an imminent risk to human health, the environment, or groundwater.

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

Printed Name: Garrett Green Title: SSHE Coordinator

Signature:  Date: 5/1/2023

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

OCD Only

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

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

Signature:  Date: 9/19/2023

District I
1625 N. French Dr., Hobbs, NM 88240
District II
811 S. First St., Artesia, NM 88210
District III
1000 Rio Brazos Road, Aztec, NM 87410
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy Minerals and Natural
Resources Department

Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, NM 87505

Form C-141
Revised August 24, 2018
Submit to appropriate OCD District office

Incident ID	NAPP2304448906
District RP	
Facility ID	
Application ID	

Release Notification

Responsible Party

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

Location of Release Source

Latitude 32.20569 Longitude -103.83013
(NAD 83 in decimal degrees to 5 decimal places)

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

Unit Letter	Section	Township	Range	County
G	24	24S	30E	Eddy

Surface Owner: ☐ State ☒ Federal ☐ Tribal ☐ Private (Name: _____)

Nature and Volume of Release

Material(s) Released (Select all that apply and attach calculations or specific justification for the volumes provided below)

<input checked="" type="checkbox"/> Crude Oil	Volume Released (bbls) 23.78	Volume Recovered (bbls) 20.00
<input type="checkbox"/> Produced Water	Volume Released (bbls)	Volume Recovered (bbls)
	Is the concentration of total dissolved solids (TDS) in the produced water >10,000 mg/l?	<input type="checkbox"/> Yes <input type="checkbox"/> No
<input type="checkbox"/> Condensate	Volume Released (bbls)	Volume Recovered (bbls)
<input type="checkbox"/> Natural Gas	Volume Released (Mcf)	Volume Recovered (Mcf)
<input type="checkbox"/> Other (describe)	Volume/Weight Released (provide units)	Volume/Weight Recovered (provide units)

Cause of Release Piping under the air eliminator on the VRT circulation pump failed, releasing fluids into containment and onto pad. All free fluids were recovered. A third-party contractor has been retained for remediation purposes.


State of New Mexico
Oil Conservation Division

Incident ID	NAPP2304448906
District RP	
Facility ID	
Application ID	

Was this a major release as defined by 19.15.29.7(A) NMAC? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If YES, for what reason(s) does the responsible party consider this a major release? N/A
If YES, was immediate notice given to the OCD? By whom? To whom? When and by what means (phone, email, etc)? N/A	

Initial Response

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

<input checked="" type="checkbox"/> The source of the release has been stopped.	
<input checked="" type="checkbox"/> The impacted area has been secured to protect human health and the environment.	
<input checked="" type="checkbox"/> Released materials have been contained via the use of berms or dikes, absorbent pads, or other containment devices.	
<input checked="" type="checkbox"/> All free liquids and recoverable materials have been removed and managed appropriately.	
If all the actions described above have <u>not</u> been undertaken, explain why: NA	
Per 19.15.29.8 B. (4) NMAC the responsible party may commence remediation immediately after discovery of a release. If remediation has begun, please attach a narrative of actions to date. If remedial efforts have been successfully completed or if the release occurred within a lined containment area (see 19.15.29.11(A)(5)(a) NMAC), please attach all information needed for closure evaluation.	
I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to OCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the OCD does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In addition, OCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.	
Printed Name: <u>Garrett Green</u>	Title: <u>SSHE Coordinator</u>
Signature: <u></u>	Date: <u>02/13/2023</u>
email: <u>garrett.green@exxonmobil.com</u>	Telephone: <u>575-200-0729</u>
<u>OCD Only</u>	
Received by: <u>Jocelyn Harimon</u>	Date: <u>02/13/2023</u>

Location:	PLU 13 DTD Battery	
Spill Date:	2/1/2023	
Area 1		
Approximate Area =	112.29	cu.ft.
VOLUME OF LEAK		
Total Crude Oil =	20.00	bbls
Total Produced Water =	0.00	bbls
Area 2		
Approximate Area =	2263.00	sq. ft.
Average Saturation (or depth) of spill =	0.75	inches
Average Porosity Factor =		
0.15		
VOLUME OF LEAK		
Total Crude Oil =	3.78	bbls
Total Produced Water =	0.00	bbls
TOTAL VOLUME OF LEAK		
Total Crude Oil =	23.78	bbls
Total Produced Water =	0.00	bbls
TOTAL VOLUME RECOVERED		
Total Crude Oil =	20.00	bbls
Total Produced Water =	0.00	bbls

Incident ID	NAPP2304448906
District RP	
Facility ID	
Application ID	

Site Assessment/Characterization

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

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

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

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

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

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

State of New Mexico
Oil Conservation Division

Page 4

Incident ID	NAPP2304448906
District RP	
Facility ID	
Application ID	

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

Printed Name: _ Garrett Green _____ Title: _SSHE Coordinator_____

Signature: _  _____ Date: _5/1/2023_____

email: _garrett.green@exxonmobil.com_____ Telephone: _575-200-0729_____

OCD Only

Received by: _Jocelyn Harimon_____ Date: _05/02/2023_____

Incident ID	NAPP2304448906
District RP	
Facility ID	
Application ID	

Remediation Plan

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

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

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

- ☒ Contamination must be in areas immediately under or around production equipment where remediation could cause a major facility deconstruction.
- ☒ Extents of contamination must be fully delineated.
- ☒ Contamination does not cause an imminent risk to human health, the environment, or groundwater.

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

Printed Name: Garrett Green Title: SSHE Coordinator

Signature:  Date: 5/1/2023

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

OCD Only

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

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

Signature: _____ Date: _____



May 1, 2023

New Mexico Oil Conservation Division

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

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

To Whom It May Concern:

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

SITE DESCRIPTION AND RELEASE SUMMARY

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

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

SITE CHARACTERIZATION AND CLOSURE CRITERIA

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

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

XTO Energy Inc
Deferral Request
PLU 13 Dog Town Draw Battery

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

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

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

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

SITE ASSESSMENT ACTIVITIES AND LABORATORY ANALYTICAL RESULTS

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

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

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

XTO Energy Inc
Deferral Request
PLU 13 Dog Town Draw Battery

DELINEATION SOIL SAMPLING AND SURFACE SCRAPING ACTIVITIES

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

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

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

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

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

DEFERRAL REQUEST

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

XTO Energy Inc
Deferral Request
PLU 13 Dog Town Draw Battery

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

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

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

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

Sincerely,
Ensolum, LLC



Benjamin J. Belill
Project Geologist



Daniel R. Moir, PG
Senior Managing Geologist

cc: Garrett Green, XTO
Shelby Pennington, XTO
BLM

Appendices:

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



FIGURES



Legend

- ▲ Release Point
- Delineation Soil Sample in Compliance with Closure Criteria
- Delineation Soil Sample with Concentrations Previously Exceeding Closure Criteria
- Release Extent/Surface Scrape Area
- Liner Containment Area



SS05@0.5'
BH05@2'

SS06@0.5'
BH06@2'

SS01@0.5'
BH01A@2'
BH01B@4'
BH01C@7'

SS04@0.5'
BH04@2'

SS02@0.5'
BH02A@2'
BH02B@4'
BH02C@7'

SS03@0.5'
BH03@2'

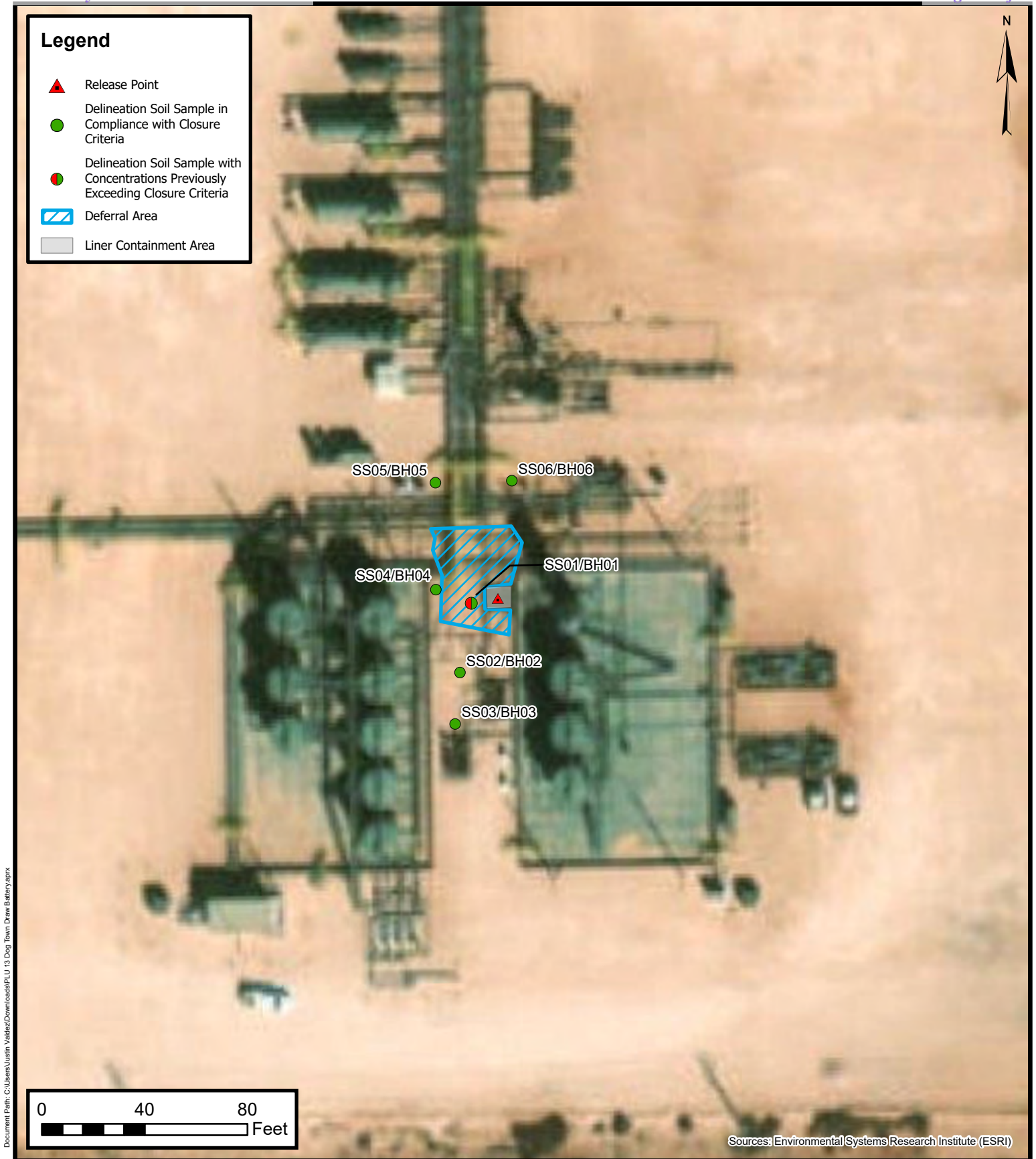
Notes:
Sample ID @ Depth Below Ground Surface
Grey text represents samples that have been excavated

0 40 80
Feet

Delineation Soil Sample Locations

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

FIGURE**2**



Deferral Area Map

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

FIGURE
3



TABLES



TABLE 1
SOIL SAMPLE ANALYTICAL RESULTS
PLU 13 Dog Town Draw Battery
XTO Energy, Inc
Eddy County, New Mexico

Sample I.D.	Sample Date	Sample Depth (feet bgs)	Benzene (mg/kg)	Total BTEX (mg/kg)	TPH GRO (mg/kg)	TPH DRO (mg/kg)	TPH ORO (mg/kg)	GRO+DRO (mg/kg)	Total TPH (mg/kg)	Chloride (mg/kg)
NMOCD Table I Closure Criteria (NMAC 19.15.29)			10	50	NE	NE	NE	1,000	2,500	20,000
Delineation Soil Samples										
SS01	03/14/2023	0.5	3.33	335	7,690	7,400	794	15,400	15,900	44.9
BH01A	03/28/2023	2	<0.495	78.0	4,020	3,030	<49.8	7,050	7,050	133
BH01B	03/28/2023	4	<0.00200	<0.00399	59.2	112	<50.0	171	171	84.2
BH01C	03/28/2023	7	<0.00201	<0.00402	<49.9	<49.9	<49.9	<49.9	<49.9	92.1
SS02	03/14/2023	0.5	2.04	311	6,600	4,640	914	11,300	12,200	84.8
BH02A	03/28/2023	2	<0.00198	<0.00396	<49.9	<49.9	<49.9	<49.9	<49.9	92.9
BH02B	03/28/2023	4	<0.00199	<0.00398	<49.9	<49.9	<49.9	<49.9	<49.9	65.2
BH02C	03/28/2023	7	<0.00199	<0.00398	<50.0	<50.0	<50.0	<50.0	<50.0	<5.04
SS03	03/14/2023	0.5	<0.00198	<0.00396	<50.0	<50.0	<50.0	<50.0	<50.0	40.8
BH03	04/20/2023	2	<0.00200	<0.00399	<49.8	<49.8	<49.8	<49.8	<49.8	144
SS04	03/14/2023	0.5	<0.00199	<0.00398	<49.9	<49.9	<49.9	<49.9	<49.9	43.2
BH04	04/20/2023	2	<0.00199	<0.00398	<49.9	<49.9	<49.9	<49.9	<49.9	136
SS05	03/14/2023	0.5	<0.00200	<0.00399	<49.9	<49.9	<49.9	<49.9	<49.9	13.0
BH05	04/20/2023	2	<0.00201	<0.00402	<50.0	<50.0	<50.0	<50.0	<50.0	162
SS06	03/14/2023	0.5	<0.00201	<0.00402	<49.8	<49.8	<49.8	<49.8	<49.8	80.9
BH06	04/20/2023	2	<0.00201	<0.00402	<49.9	<49.9	<49.9	<49.9	<49.9	270

Notes:

bgs: below ground surface

mg/kg: milligrams per kilogram

NMOCD: New Mexico Oil Conservation Division

BTEX: Benzene, Toluene, Ethylbenzene, and Xylenes

Concentrations in **bold** exceed the NMOCD Table I Closure Criteria

GRO: Gasoline Range Organics

DRO: Diesel Range Organics

ORO: Oil Range Organics

TPH: Total Petroleum Hydrocarbon

NMAC: New Mexico Administrative Code

Grey text indicates soil sample removed during surface scrape activities



APPENDIX A

Referenced Well Records



WELL RECORD & LOG

OFFICE OF THE STATE ENGINEER

www.ose.state.nm.us

1. GENERAL AND WELL LOCATION	OSE POD NO. (WELL NO.) POD1 (BH-01)		WELL TAG ID NO. n/a		OSE FILE NO(S). C-4483			
	WELL OWNER NAME(S) XTO Energy (Kyle Littrell)				PHONE (OPTIONAL)			
	WELL OWNER MAILING ADDRESS 6401 Holiday Hill Dr.				CITY Midland	STATE TX	ZIP 79707	
	WELL LOCATION (FROM GPS)	DEGREES LATITUDE 32°	MINUTES 12'	SECONDS 31.77" N	* ACCURACY REQUIRED: ONE TENTH OF A SECOND			
		LONGITUDE 104° 103°	50'	0.72" W	* DATUM REQUIRED: WGS 84			
DESCRIPTION RELATING WELL LOCATION TO STREET ADDRESS AND COMMON LANDMARKS – PLSS (SECTION, TOWNSHIP, RANGE) WHERE AVAILABLE NW NW NE Sec. 24 T24S R30E								
2. DRILLING & CASING INFORMATION	LICENSE NO. 1249		NAME OF LICENSED DRILLER Jackie D. Atkins			NAME OF WELL DRILLING COMPANY Atkins Engineering Associates, Inc.		
	DRILLING STARTED 11/24/2020	DRILLING ENDED 11/24/2020	DEPTH OF COMPLETED WELL (FT) temporary well material		BORE HOLE DEPTH (FT) 110	DEPTH WATER FIRST ENCOUNTERED (FT) n/a		
	COMPLETED WELL IS: <input type="checkbox"/> ARTESIAN <input checked="" type="checkbox"/> DRY HOLE <input type="checkbox"/> SHALLOW (UNCONFINED)					STATIC WATER LEVEL IN COMPLETED WELL (FT) n/a		
	DRILLING FLUID: <input checked="" type="checkbox"/> AIR <input type="checkbox"/> MUD ADDITIVES – SPECIFY:							
	DRILLING METHOD: <input type="checkbox"/> ROTARY <input type="checkbox"/> HAMMER <input type="checkbox"/> CABLE TOOL <input checked="" type="checkbox"/> OTHER – SPECIFY: Hollow Stem Auger							
	DEPTH (feet bgl) FROM 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 TO		BORE HOLE DIAM. (inches)	LIST ANNULAR SEAL MATERIAL AND GRAVEL PACK SIZE-RANGE BY INTERVAL	AMOUNT (cubic feet)	METHOD OF PLACEMENT		

FOR OSE INTERNAL USE

WR-20 WELL RECORD & LOG (Version 06/30/17)

FILE NO.	POD NO.	TRN NO.
LOCATION	WELL TAG ID NO.	PAGE 1 OF 2

	DEPTH (feet bgl)		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)
	FROM	TO					
4. HYDROGEOLOGIC LOG OF WELL	0	24	24	Sand, Fine-grained, poorly-graded, with caliche, Tan-Off-White	Y	✓ N	
	24	34	10	Sand, Fine-grained, poorly-graded, silty, with caliche gravel, Tan-Off-White	Y	✓ N	
	34	51	17	Sand, Fine-grained, poorly-graded, silty, with caliche gravel, Light Brown	Y	✓ N	
	51	54	3	Sand, Fine-grained, poorly-graded, silty, with caliche gravel, Light Brown-Brown	Y	✓ N	
	54	76	22	Sand, Fine-grained, poorly-graded, Brown, dry	Y	✓ N	
	76	101	25	Sand, Fine-grained, poorly-graded, Light-Brown, dry	Y	✓ N	
	101	110	9	Sand, Fine-grained, poorly-graded, with gravel, Light-Brown, dry-moist	Y	✓ N	
					Y	N	
					Y	N	
					Y	N	
					Y	N	
					Y	N	
					Y	N	
					Y	N	
					Y	N	
					Y	N	
					Y	N	
	METHOD USED TO ESTIMATE YIELD OF WATER-BEARING STRATA: <input type="checkbox"/> PUMP <input type="checkbox"/> AIR LIFT <input type="checkbox"/> BAILER <input type="checkbox"/> OTHER – SPECIFY:					TOTAL ESTIMATED WELL YIELD (gpm): 0.00	
5. TEST; RIG SUPERVISION	WELL TEST	TEST RESULTS - ATTACH A COPY OF DATA COLLECTED DURING WELL TESTING, INCLUDING DISCHARGE METHOD, START TIME, END TIME, AND A TABLE SHOWING DISCHARGE AND DRAWDOWN OVER THE TESTING PERIOD.					
	MISCELLANEOUS INFORMATION: Temporary well materials removed and the soil boring backfilled using drill cuttings from total depth to ten feet below ground surface, then hydrated bentonite chips from ten feet below ground surface to surface. Logs adapted from LTE on-site geologist.						
	PRINT NAME(S) OF DRILL RIG SUPERVISOR(S) THAT PROVIDED ONSITE SUPERVISION OF WELL CONSTRUCTION OTHER THAN LICENSEE: Shane Eldridge						
6. SIGNATURE	THE UNDERSIGNED HEREBY CERTIFIES THAT, TO THE BEST OF HIS OR HER KNOWLEDGE AND BELIEF, THE FOREGOING IS A TRUE AND CORRECT RECORD OF THE ABOVE DESCRIBED HOLE AND THAT HE OR SHE WILL FILE THIS WELL RECORD WITH THE STATE ENGINEER AND THE PERMIT HOLDER WITHIN 30 DAYS AFTER COMPLETION OF WELL DRILLING:						
				Jackie D. Atkins	12/14/20		
	SIGNATURE OF DRILLER / PRINT SIGNEE NAME				DATE		

FOR OSE INTERNAL USE		WR-20 WELL RECORD & LOG (Version 06/30/2017)	
FILE NO.	POD NO.	TRN NO.	
LOCATION	WELL TAG ID NO		PAGE 2 OF 2



APPENDIX B

Photographic Log



Photographic Log

XTO Energy, Inc

PLU 13 Dog Town Draw Battery

Incident Number NAPP2304448906

Date & Time: Tue, Mar 14, 2023 at 09:39:26 MDT
 Position: 032.205530° N / 103.630085° W ±14.2ft
 Altitude: 3458ft ±10.0ft
 Datum: WGS-84
 Azimuth/Bearing: 015° N15E 023mils True ±0.8°
 Elevation Angle: +09.4°
 Horizon Angle: +02.2°
 Zoom: 1.0X
 PLU 13 DTD, accessible release extent looking north



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

Date & Time: Tue, Mar 14, 2023 at 09:41:58 MDT
 Position: 032.205704° N / 103.630106° W ±14.0ft
 Altitude: 3459ft ±10.7ft
 Datum: WGS-84
 Azimuth/Bearing: 193° S15W 042mils True ±0.8°
 Elevation Angle: +18.7°
 Horizon Angle: +01.8°
 Zoom: 1.0X
 PLU 13 DTD, accessible release extent looking south



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

Date & Time: Tue, Mar 14, 2023 at 13:03:35 MDT
 Position: 032.205530° N / 103.630135° W ±15.5ft
 Altitude: 3458ft ±10.7ft
 Datum: WGS-84
 Azimuth/Bearing: 120° S20W 355mils True ±0.8°
 Elevation Angle: +54.2°
 Horizon Angle: +05.0°
 Zoom: 1.0X
 release point after inspection overhead view
 Mariha O Dell



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



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



Photographic Log

XTO Energy, Inc

PLU 13 Dog Town Draw Battery

Incident Number NAPP2304448906

Date & Time: Tue, Mar 28, 2023 at 13:51:35 MDT
 Position: -99.32295717°W, 41°03'33.0125"N, Eads 510
 Altitude: 3500m (11481 ft)
 Datum: WGS-84
 Azimuth/Bearing: 196° 51' 51" (azimuths true to 123)
 Elevation Angle: -17.5°
 Horizon Angle: -01.4°
 Zoom: 0.5X
 View of release extent
 Mariana O Dell



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



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



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





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





APPENDIX C


Lithologic Soil Sampling Logs


								Sample Name: BH01		Date: 03/28/2023	
								Site Name: PLU 13 Dog Town Draw Battery			
								Incident Number: nAPP2304448906			
								Job Number: 03C1558188			
LITHOLOGIC / SOIL SAMPLING LOG								Logged By: Mariaha O'Dell		Method: Hand Auger	
Coordinates: 32.205653, -103.830147								Hole Diameter: 3.5"		Total Depth: 7'	
Comments: Field screening conducted with HACH Chloride Test Strips and PID for chloride and vapor, respectively. Chloride test performed with 1:4 dilution factor of soil to distilled water. Chloride field screenings include a 40% correction factor.											
Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample ID	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithologic Descriptions			
M	<173.6	2,331	Y	SS01	0.5	0	CCHE	0-1, CALICHE, moist, light brown, unconsolidated fill, dark brown staining, moderate-high H/C odor.			
D	207	1,605	N		1	1	SP	1'-3', SAND, dry, reddish brown, poorly graded, very fine - fine grained, slight odor, no stain.			
D	<173.6	1,273	N	BH01A	2	2					
M	<173.6	552	N		3	3	SW	3'-6', SAND, moist, reddish brown, well graded, very fine-fine grained, slight odor, no stain.			
M	<173.6	125	N	BH01B	4	4					
M	<173.6	592	N		5	5					
D	<173.6	160	N		6	6	SW	6'-7', SAND, dry, reddish brown, well graded, very fine-fine grained, slight odor, no stain.			
D	<173.6	55	N	BH01C	7	7					
Total Depth @ 7' bgs.											

 ENSOLUM		Sample Name: BH02		Date: 03/28/2023				
		Site Name: PLU 13 Dog Town Draw Battery						
		Incident Number: nAPP2304448906						
		Job Number: 03C1558188						
LITHOLOGIC / SOIL SAMPLING LOG								
Coordinates: 32.205568, -103.830174			Logged By: Mariaha O'Dell		Method: Hand Auger			
			Hole Diameter: 3.5"		Total Depth: 7'			
Comments: Field screening conducted with HACH Chloride Test Strips and PID for chloride and vapor, respectively. Chloride test performed with 1:4 dilution factor of soil to distilled water. Chloride field screenings include a 40% correction factor.								
Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample ID	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithologic Descriptions
M	<173.6	2,350	Y	SS02	0.5	0	CCHE	0-1, CALICHE, moist, light brown, unconsolidated fill, dark brown staining, moderate-high H/C odor.
D	<173.6	143	N		1	1	SP	1'-2', SAND, dry, reddish brown, poorly graded, very fine - fine grained, slight odor, no stain.
D	<173.6	6	N	BH02A	2	2	SW	2'-4', SAND, moist, reddish brown, well graded, very fine-fine grained, slight odor, no stain.
M	<173.6	3.7	N	BH02B	4	4	SW	4'-7', SAND, dry, reddish brown, well graded, very fine-fine grained, slight odor, no stain.
D	<173.6	11.2	N	BH02C	7	7		
Total Depth @ 7' bgs.								

 ENSOLUM		Sample Name: BH03		Date: 04/20/2023				
		Site Name: PLU 13 Dog Town Draw Battery						
		Incident Number: nAPP2304448906						
		Job Number: 03C1558188						
LITHOLOGIC / SOIL SAMPLING LOG								
Coordinates: 32.205523, -103.830169			Logged By: Connor Whitman		Method: Hand Auger			
			Hole Diameter: 3.5"		Total Depth: 2'			
Comments: Field screening conducted with HACH Chloride Test Strips and PID for chloride and vapor, respectively. Chloride test performed with 1:4 dilution factor of soil to distilled water. Chloride field screenings include a 40% correction factor.								
Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample ID	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithologic Descriptions
M	<173.6	0.0	N	SS03	0.5	0	CCHE	0-1, CALICHE, moist, light brown, unconsolidated fill, no stain, no odor.
D	<173.6	0.0	N		1	1	SP	1'-2', SAND, dry, reddish brown, poorly graded, very fine - fine grained, slight odor, no stain.
D	<173.6	0.0	N	BH03	2	2	TD	Total depth at 2 feet bgs.
Total Depth @ 2' bgs.								

 ENSOLUM		Sample Name: BH04		Date: 04/20/2023				
		Site Name: PLU 13 Dog Town Draw Battery						
		Incident Number: nAPP2304448906						
		Job Number: 03C1558188						
LITHOLOGIC / SOIL SAMPLING LOG								
Coordinates: 32.205669, -103.830193			Logged By: Connor Whitman		Method: Hand Auger			
			Hole Diameter: 3.5"		Total Depth: 2'			
Comments: Field screening conducted with HACH Chloride Test Strips and PID for chloride and vapor, respectively. Chloride test performed with 1:4 dilution factor of soil to distilled water. Chloride field screenings include a 40% correction factor.								
Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample ID	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithologic Descriptions
M	<173.6	0.0	N	SS04	0.5	0	CCHE	0-1, CALICHE, moist, light brown, unconsolidated fill, no stain, no odor.
D	<173.6	0.0	N		1	1	SP	1'-2', SAND, dry, reddish brown, poorly graded, very fine - fine grained, slight odor, no stain.
D	<173.6	3.1	N	BH04	2	2	TD	Total depth at 2 feet bgs.
Total Depth @ 2' bgs.								

 ENSOLUM		Sample Name: BH05		Date: 04/20/2023				
		Site Name: PLU 13 Dog Town Draw Battery						
		Incident Number: nAPP2304448906						
		Job Number: 03C1558188						
LITHOLOGIC / SOIL SAMPLING LOG								
Coordinates: 32.205784, -103.830198			Logged By: Connor Whitman		Method: Hand Auger			
			Hole Diameter: 3.5"		Total Depth: 2'			
Comments: Field screening conducted with HACH Chloride Test Strips and PID for chloride and vapor, respectively. Chloride test performed with 1:4 dilution factor of soil to distilled water. Chloride field screenings include a 40% correction factor.								
Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample ID	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithologic Descriptions
M	<173.6	0.0	N	SS05	0.5	0	CCHE	0-1, CALICHE, moist, light brown, unconsolidated fill, no stain, no odor.
D	<173.6	0.5	N		1	1	SP	1'-2', SAND, dry, reddish brown, poorly graded, very fine - fine grained, slight odor, no stain.
D	<173.6	1.2	N	BH05	2	2	TD	Total depth at 2 feet bgs.
Total Depth @ 2' bgs.								

 ENSOLUM		Sample Name: BH06		Date: 04/20/2023				
		Site Name: PLU 13 Dog Town Draw Battery						
		Incident Number: nAPP2304448906						
		Job Number: 03C1558188						
LITHOLOGIC / SOIL SAMPLING LOG								
Coordinates: 32.205782, -103.830091			Logged By: Connor Whitman		Method: Hand Auger			
			Hole Diameter: 3.5"		Total Depth: 2'			
Comments: Field screening conducted with HACH Chloride Test Strips and PID for chloride and vapor, respectively. Chloride test performed with 1:4 dilution factor of soil to distilled water. Chloride field screenings include a 40% correction factor.								
Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample ID	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithologic Descriptions
M	<173.6	0.0	N	SS06	0.5	0	CCHE	0-1, CALICHE, moist, light brown, unconsolidated fill, no stain, no odor.
D	<173.6	0.6	N		1	1	SP	1'-2', SAND, dry, reddish brown, poorly graded, very fine - fine grained, slight odor, no stain.
D	<173.6	0.7	N	BH06	2	2	TD	Total depth at 2 feet bgs.
Total Depth @ 2' bgs.								



APPENDIX D

Laboratory Analytical Reports & Chain of Custody Documentation



Environment Testing

1

2

3

4

5

6

7

8

9

10

11

12

13

14

ANALYTICAL REPORT

PREPARED FOR

Attn: Ben Belill

Ensolum

601 N. Marienfeld St.

Suite 400

Midland, Texas 79701

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

JOB DESCRIPTION

PLU 13 Dogtown Draw Battery

SDG NUMBER 03C1558188

JOB NUMBER

890-4314-1

Eurofins Carlsbad
1089 N Canal St.
Carlsbad NM 88220

Eurofins Carlsbad**Job Notes**

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

Authorization

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

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

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

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

Table of Contents

Cover Page	1
Table of Contents	3
Definitions/Glossary	4
Case Narrative	5
Client Sample Results	6
Surrogate Summary	10
QC Sample Results	11
QC Association Summary	15
Lab Chronicle	17
Certification Summary	19
Method Summary	20
Sample Summary	21
Chain of Custody	22
Receipt Checklists	23

1

2

3

4

5

6

7

8

9

10

11

12

13

14

Definitions/Glossary

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

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

Qualifiers

GC VOA

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

GC Semi VOA

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

HPLC/IC

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

Glossary

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

Case Narrative

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

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

Job ID: 890-4314-1

Laboratory: Eurofins Carlsbad

Narrative	
	Job Narrative 890-4314-1

Receipt

The samples were received on 3/15/2023 11:53 AM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 1.0°C

GC VOA

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

GC Semi VOA

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

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

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

HPLC/IC

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

Client Sample Results

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

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

Client Sample ID: SS03

Lab Sample ID: 890-4314-1

Date Collected: 03/14/23 10:30

Matrix: Solid

Date Received: 03/15/23 11:53

Sample Depth: 0.5

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

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

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

Method: TAL SOP Total BTEX - Total BTEX Calculation

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

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0	mg/Kg			03/22/23 16:11	1

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

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

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

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

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

Client Sample ID: SS04

Lab Sample ID: 890-4314-2

Date Collected: 03/14/23 10:40

Matrix: Solid

Date Received: 03/15/23 11:53

Sample Depth: 0.5

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

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

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

Eurofins Carlsbad

Client Sample Results

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

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

Client Sample ID: SS04

Lab Sample ID: 890-4314-2

Date Collected: 03/14/23 10:40

Matrix: Solid

Date Received: 03/15/23 11:53

Sample Depth: 0.5

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

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

Method: TAL SOP Total BTEX - Total BTEX Calculation

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

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9	mg/Kg			03/22/23 16:11	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9	mg/Kg		03/21/23 12:04	03/22/23 00:44	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9	mg/Kg		03/21/23 12:04	03/22/23 00:44	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg		03/21/23 12:04	03/22/23 00:44	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	102		70 - 130			03/21/23 12:04	03/22/23 00:44	1
o-Terphenyl	116		70 - 130			03/21/23 12:04	03/22/23 00:44	1

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

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

Client Sample ID: SS05

Lab Sample ID: 890-4314-3

Date Collected: 03/14/23 10:45

Matrix: Solid

Date Received: 03/15/23 11:53

Sample Depth: 0.5

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

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

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

Method: TAL SOP Total BTEX - Total BTEX Calculation

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

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9	mg/Kg			03/22/23 16:11	1

Eurofins Carlsbad

Client Sample Results

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

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

Client Sample ID: SS05

Lab Sample ID: 890-4314-3

Date Collected: 03/14/23 10:45

Matrix: Solid

Date Received: 03/15/23 11:53

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	<49.9	U	49.9	mg/Kg		03/21/23 12:04	03/22/23 01:06	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9	mg/Kg		03/21/23 12:04	03/22/23 01:06	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg		03/21/23 12:04	03/22/23 01:06	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	82		70 - 130			03/21/23 12:04	03/22/23 01:06	1
o-Terphenyl	94		70 - 130			03/21/23 12:04	03/22/23 01:06	1

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

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

Client Sample ID: SS06

Lab Sample ID: 890-4314-4

Date Collected: 03/14/23 10:50

Matrix: Solid

Date Received: 03/15/23 11:53

Sample Depth: 0.5

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00201	U	0.00201	mg/Kg		03/23/23 14:58	03/25/23 02:39	1
Toluene	<0.00201	U	0.00201	mg/Kg		03/23/23 14:58	03/25/23 02:39	1
Ethylbenzene	<0.00201	U	0.00201	mg/Kg		03/23/23 14:58	03/25/23 02:39	1
m-Xylene & p-Xylene	<0.00402	U	0.00402	mg/Kg		03/23/23 14:58	03/25/23 02:39	1
o-Xylene	<0.00201	U	0.00201	mg/Kg		03/23/23 14:58	03/25/23 02:39	1
Xylenes, Total	<0.00402	U	0.00402	mg/Kg		03/23/23 14:58	03/25/23 02:39	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	116		70 - 130			03/23/23 14:58	03/25/23 02:39	1
1,4-Difluorobenzene (Surr)	103		70 - 130			03/23/23 14:58	03/25/23 02:39	1

Method: TAL SOP Total BTEX - Total BTEX Calculation

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

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

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

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.8	U	49.8	mg/Kg		03/21/23 12:04	03/22/23 01:50	1
Diesel Range Organics (Over C10-C28)	<49.8	U	49.8	mg/Kg		03/21/23 12:04	03/22/23 01:50	1
Oil Range Organics (Over C28-C36)	<49.8	U	49.8	mg/Kg		03/21/23 12:04	03/22/23 01:50	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	88		70 - 130			03/21/23 12:04	03/22/23 01:50	1
o-Terphenyl	102		70 - 130			03/21/23 12:04	03/22/23 01:50	1

Eurofins Carlsbad

Client Sample Results

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

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

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

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

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble									
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
Chloride	80.9		5.01	mg/Kg			03/25/23 15:03	1	

Surrogate Summary

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

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

Method: 8021B - Volatile Organic Compounds (GC)

Matrix: Solid

Prep Type: Total/NA

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

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

Matrix: Solid

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	1CO1 (70-130)	OTPH1 (70-130)
880-26040-A-1-B MS	Matrix Spike	101	104
880-26040-A-1-C MSD	Matrix Spike Duplicate	102	107
890-4314-1	SS03	83	97
890-4314-2	SS04	102	116
890-4314-3	SS05	82	94
890-4314-4	SS06	88	102
LCS 880-49114/2-A	Lab Control Sample	108	132 S1+
LCSD 880-49114/3-A	Lab Control Sample Dup	109	135 S1+
MB 880-49114/1-A	Method Blank	117	144 S1+
Surrogate Legend			
1CO = 1-Chlorooctane			
OTPH = o-Terphenyl			

Eurofins Carlsbad

QC Sample Results

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

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

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-49331/5-A

Matrix: Solid

Analysis Batch: 49375

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 49331

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

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

Lab Sample ID: MB 880-49337/5-A

Matrix: Solid

Analysis Batch: 49375

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 49337

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

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

Lab Sample ID: LCS 880-49337/1-A

Matrix: Solid

Analysis Batch: 49375

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 49337

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

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

Lab Sample ID: LCSD 880-49337/2-A

Matrix: Solid

Analysis Batch: 49375

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 49337

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

Eurofins Carlsbad

QC Sample Results

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

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

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

Lab Sample ID: LCSD 880-49337/2-A

Matrix: Solid

Analysis Batch: 49375

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 49337

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

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

Lab Sample ID: 890-4314-1 MS

Matrix: Solid

Analysis Batch: 49375

Client Sample ID: SS03

Prep Type: Total/NA

Prep Batch: 49337

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

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

Lab Sample ID: 890-4314-1 MSD

Matrix: Solid

Analysis Batch: 49375

Client Sample ID: SS03

Prep Type: Total/NA

Prep Batch: 49337

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

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

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

Lab Sample ID: MB 880-49114/1-A

Matrix: Solid

Analysis Batch: 49069

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 49114

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0	mg/Kg		03/21/23 12:04	03/21/23 19:58	1

Eurofins Carlsbad

QC Sample Results

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

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

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

Lab Sample ID: MB 880-49114/1-A

Matrix: Solid

Analysis Batch: 49069

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 49114

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		03/21/23 12:04	03/21/23 19:58	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		03/21/23 12:04	03/21/23 19:58	1
Surrogate	MB %Recovery	MB Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	117		70 - 130			03/21/23 12:04	03/21/23 19:58	1
o-Terphenyl	144	S1+	70 - 130			03/21/23 12:04	03/21/23 19:58	1

Lab Sample ID: LCS 880-49114/2-A

Matrix: Solid

Analysis Batch: 49069

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 49114

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Gasoline Range Organics (GRO)-C6-C10	1000	963.2		mg/Kg		96	70 - 130
Diesel Range Organics (Over C10-C28)	1000	854.6		mg/Kg		85	70 - 130
Surrogate	LCS %Recovery	LCS Qualifier	Limits				
1-Chlorooctane	108		70 - 130				
o-Terphenyl	132	S1+	70 - 130				

Lab Sample ID: LCSD 880-49114/3-A

Matrix: Solid

Analysis Batch: 49069

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 49114

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	1000	952.5		mg/Kg		95	70 - 130	1	20
Diesel Range Organics (Over C10-C28)	1000	878.0		mg/Kg		88	70 - 130	3	20
Surrogate	LCSD %Recovery	LCSD Qualifier	Limits						
1-Chlorooctane	109		70 - 130						
o-Terphenyl	135	S1+	70 - 130						

Lab Sample ID: 880-26040-A-1-B MS

Matrix: Solid

Analysis Batch: 49069

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 49114

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	997	1058		mg/Kg		106	70 - 130
Diesel Range Organics (Over C10-C28)	<50.0	U	997	1078		mg/Kg		106	70 - 130
Surrogate	MS %Recovery	MS Qualifier	Limits						
1-Chlorooctane	101		70 - 130						
o-Terphenyl	104		70 - 130						

Eurofins Carlsbad

QC Sample Results

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

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

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

Lab Sample ID: 880-26040-A-1-C MSD

Matrix: Solid

Analysis Batch: 49069

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 49114

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	998	1066		mg/Kg		107	70 - 130	1	20
Diesel Range Organics (Over C10-C28)	<50.0	U	998	1110		mg/Kg		109	70 - 130	3	20
Surrogate	MSD %Recovery	MSD Qualifier	Limits								
1-Chlorooctane	102		70 - 130								
o-Terphenyl	107		70 - 130								

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-49263/1-A

Matrix: Solid

Analysis Batch: 49472

Client Sample ID: Method Blank

Prep Type: Soluble

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.00	U	5.00	mg/Kg			03/25/23 14:27	1

Lab Sample ID: LCS 880-49263/2-A

Matrix: Solid

Analysis Batch: 49472

Client Sample ID: Lab Control Sample

Prep Type: Soluble

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

Lab Sample ID: LCSD 880-49263/3-A

Matrix: Solid

Analysis Batch: 49472

Client Sample ID: Lab Control Sample Dup

Prep Type: Soluble

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	250	249.0		mg/Kg		100	90 - 110	3	20

Lab Sample ID: 890-4314-1 MS

Matrix: Solid

Analysis Batch: 49472

Client Sample ID: SS03

Prep Type: Soluble

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

Lab Sample ID: 890-4314-1 MSD

Matrix: Solid

Analysis Batch: 49472

Client Sample ID: SS03

Prep Type: Soluble

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

Eurofins Carlsbad

QC Association Summary

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

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

GC VOA

Prep Batch: 49331

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

Prep Batch: 49337

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

Analysis Batch: 49375

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

Analysis Batch: 49495

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

GC Semi VOA

Analysis Batch: 49069

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

Prep Batch: 49114

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

Eurofins Carlsbad

QC Association Summary

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

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

GC Semi VOA (Continued)

Prep Batch: 49114 (Continued)

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

Analysis Batch: 49233

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

HPLC/IC

Leach Batch: 49263

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

Analysis Batch: 49472

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

Eurofins Carlsbad

Lab Chronicle

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

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

Client Sample ID: SS03

Lab Sample ID: 890-4314-1

Date Collected: 03/14/23 10:30

Matrix: Solid

Date Received: 03/15/23 11:53

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

Client Sample ID: SS04

Lab Sample ID: 890-4314-2

Date Collected: 03/14/23 10:40

Matrix: Solid

Date Received: 03/15/23 11:53

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.03 g	5 mL	49337	03/23/23 14:58	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	49375	03/25/23 01:58	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			49495	03/25/23 16:16	AJ	EET MID
Total/NA	Analysis	8015 NM		1			49233	03/22/23 16:11	AJ	EET MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	49114	03/21/23 12:04	AJ	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	49069	03/22/23 00:44	SM	EET MID
Soluble	Leach	DI Leach			5.04 g	50 mL	49263	03/22/23 22:04	KS	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	49472	03/27/23 16:15	SMC	EET MID

Client Sample ID: SS05

Lab Sample ID: 890-4314-3

Date Collected: 03/14/23 10:45

Matrix: Solid

Date Received: 03/15/23 11:53

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

Client Sample ID: SS06

Lab Sample ID: 890-4314-4

Date Collected: 03/14/23 10:50

Matrix: Solid

Date Received: 03/15/23 11:53

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.97 g	5 mL	49337	03/23/23 14:58	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	49375	03/25/23 02:39	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			49495	03/25/23 16:16	AJ	EET MID

Eurofins Carlsbad

Lab Chronicle

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

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

Client Sample ID: SS06

Date Collected: 03/14/23 10:50

Date Received: 03/15/23 11:53

Lab Sample ID: 890-4314-4

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8015 NM		1			49233	03/22/23 16:11	AJ	EET MID
Total/NA	Prep	8015NM Prep			10.05 g	10 mL	49114	03/21/23 12:04	AJ	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	49069	03/22/23 01:50	SM	EET MID
Soluble	Leach	DI Leach			4.99 g	50 mL	49263	03/22/23 22:04	KS	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	49472	03/25/23 15:03	SMC	EET MID

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

Accreditation/Certification Summary

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

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

Laboratory: Eurofins Midland

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

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

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

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

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14

Method Summary

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

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

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

Protocol References:

ASTM = ASTM International

EPA = US Environmental Protection Agency

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

TAL SOP = TestAmerica Laboratories, Standard Operating Procedure

Laboratory References:

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

Sample Summary

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

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

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

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14



Environment Testing
Xenco

Chain of Custody


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

Work Order No: _____

www.xenco.com Page _____ of _____

Project Manager:	Ben Belli	Bill to: (if different)	Garrett Green
Company Name:	Ensolum	Company Name:	XTO Energy
Address:	3122 National Parks Hwy	Address:	3104 E. Green St.
City, State ZIP:	Carlsbad, NM 88220	City, State ZIP:	Carlsbad, NM 88220
Phone:	303-887-2946	Email:	Garrett.Green@ExxonMobil.com

Work Order Comments Program: UST/PST <input type="checkbox"/> PRP <input type="checkbox"/> Brownfields <input type="checkbox"/> RRC <input type="checkbox"/> Superfund <input type="checkbox"/> State of Project: _____ Reporting: Level II <input type="checkbox"/> Level III <input type="checkbox"/> PST/UST <input type="checkbox"/> TRRP <input type="checkbox"/> Level IV <input type="checkbox"/> Deliverables: EDD <input type="checkbox"/> ADAPT <input type="checkbox"/> Other: _____	
--	--

Project Name:	PLU 13 Dogtown Draw Battery	Turn Around	<input checked="" type="checkbox"/> Routine <input type="checkbox"/> Rush	Pres. Code	
Project Number:	03C1558188	Due Date:			
Project Location:		TAT starts the day received by the lab, if received by 4:30pm			
Sampler's Name:	Connor Whitman				
PO #:					
SAMPLE RECEIPT Samples Received Inact: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Thermometer ID: 760007 Cooler Custody Seals: Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Correction Factor: -0.2 Sample Custody Seals: Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Temperature Reading: 1.2 Total Containers: Corrected Temperature: 1.0		ANALYSIS REQUEST  890-4314 Chain of Custody			
Sample Identification Sample Matrix: 3/14/23 Date Sampled: 1030 Time Sampled: 15 Depth: 1 G Lab/Comp: 1 # of Cont: 1 SGA 1040 1 SGA 1045 1 SGA 1050 1		Parameters CHLORIDES (EPA: 300.0) TPH (8015) BTX (8021)			
Sample Comments Incident ID: nAPP2304448906 Cost Center: 2191721001 AFE:		Preservative Codes None: NO DI Water: H ₂ O Cool: Cool MeOH: Me HCL: HC HNO ₃ : HN H ₂ SO ₄ : H ₂ NaOH: Na H ₃ PO ₄ : HP NaHSO ₄ : NABIS Na ₂ S ₂ O ₃ : NaSO ₃ Zn Acetate+NaOH: Zn NaOH+Ascorbic Acid: SAPC			

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 Ti 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 Ti 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. <i>Carth</i>	<i>Joe G</i>	3.15.23 1153			
3		4			
5		6			

Login Sample Receipt Checklist

Client: Ensolum

Job Number: 890-4314-1

SDG Number: 03C1558188

Login Number: 4314

List Number: 1

Creator: Clifton, Cloe

List Source: Eurofins Carlsbad

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

Login Sample Receipt Checklist

Client: Ensolum

Job Number: 890-4314-1

SDG Number: 03C1558188

Login Number: 4314

List Number: 2

Creator: Rodriguez, Leticia

List Source: Eurofins Midland

List Creation: 03/16/23 10:28 AM

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



Environment Testing

1

2

3

4

5

6

7

8

9

10

11

12

13

14

ANALYTICAL REPORT

PREPARED FOR

Attn: Ben Belill
Ensolum
601 N. Marienfeld St.
Suite 400
Midland, Texas 79701
Generated 4/4/2023 2:55:09 PM

JOB DESCRIPTION

PLU 13 Dogtown Battery
SDG NUMBER 03C1558188

JOB NUMBER

890-4315-1

Eurofins Carlsbad
1089 N Canal St.
Carlsbad NM 88220

Eurofins Carlsbad**Job Notes**

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

Authorization

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

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

Client: Ensolum
Project/Site: PLU 13 Dogtown Battery

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

Table of Contents

Cover Page	1
Table of Contents	3
Definitions/Glossary	4
Case Narrative	5
Client Sample Results	6
Surrogate Summary	8
QC Sample Results	9
QC Association Summary	15
Lab Chronicle	17
Certification Summary	18
Method Summary	19
Sample Summary	20
Chain of Custody	21
Receipt Checklists	22

1
2
3
4
5
6
7
8
9
10
11
12
13
14

Definitions/Glossary

Client: Ensolum
Project/Site: PLU 13 Dogtown Battery

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

Qualifiers

GC VOA

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

GC Semi VOA

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

HPLC/IC

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

Glossary

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

Case Narrative

Client: Ensolum
Project/Site: PLU 13 Dogtown Battery

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

Job ID: 890-4315-1**Laboratory: Eurofins Carlsbad****Narrative****Job Narrative
890-4315-1****Receipt**

The samples were received on 3/15/2023 11:53 AM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 1.0°C

Receipt Exceptions

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

GC VOA

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

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

GC Semi VOA

Method 8015MOD_NM: The surrogate recovery for the blank associated with preparation batch 880-48884 and analytical batch 880-48908 was outside the upper control limits.

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

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

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

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

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

HPLC/IC

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

Client Sample Results

Client: Ensolum
Project/Site: PLU 13 Dogtown Battery

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

Client Sample ID: SS01

Lab Sample ID: 890-4315-1

Date Collected: 03/14/23 10:05

Matrix: Solid

Date Received: 03/15/23 11:53

Sample Depth: 0.5

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

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

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

Method: TAL SOP Total BTEX - Total BTEX Calculation

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

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

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

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

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

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

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

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

Client Sample ID: SS02

Lab Sample ID: 890-4315-2

Date Collected: 03/14/23 10:10

Matrix: Solid

Date Received: 03/15/23 11:53

Sample Depth: 0.5

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

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

Eurofins Carlsbad

Client Sample Results

Client: Ensolum
Project/Site: PLU 13 Dogtown Battery

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

Client Sample ID: SS02

Lab Sample ID: 890-4315-2

Date Collected: 03/14/23 10:10

Matrix: Solid

Date Received: 03/15/23 11:53

Sample Depth: 0.5

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

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

Method: SW846 8015 NM - Diesel Range Organics (DRO) (GC)									
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
Total TPH	12200		250	mg/Kg			03/28/23 09:09	1	

Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC)									
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
Gasoline Range Organics (GRO)-C6-C10	6600		49.9	mg/Kg		03/18/23 09:50	03/19/23 19:27	1	
Diesel Range Organics (Over C10-C28)	4640		250	mg/Kg		03/24/23 16:55	03/27/23 19:18	5	
Oil Range Organics (Over C28-C36)	914		49.9	mg/Kg		03/18/23 09:50	03/19/23 19:27	1	

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

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble									
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
Chloride	84.8		4.96	mg/Kg			03/25/23 15:22	1	

Eurofins Carlsbad

Surrogate Summary

Client: Ensolum
Project/Site: PLU 13 Dogtown Battery

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

Method: 8021B - Volatile Organic Compounds (GC)

Matrix: Solid

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	BFB1 (70-130)	DFBZ1 (70-130)
890-4308-A-5-D MS	Matrix Spike	110	92
890-4308-A-5-E MSD	Matrix Spike Duplicate	108	89
890-4315-1	SS01	153 S1+	100
890-4315-2	SS02	138 S1+	98
LCS 880-49552/1-A	Lab Control Sample	102	91
LCSD 880-49552/2-A	Lab Control Sample Dup	111	91
MB 880-49230/5-A	Method Blank	104	83
MB 880-49552/5-A	Method Blank	101	81
Surrogate Legend			
BFB = 4-Bromofluorobenzene (Surr)			
DFBZ = 1,4-Difluorobenzene (Surr)			

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

Matrix: Solid

Prep Type: Total/NA

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

QC Sample Results

Client: Ensolum
Project/Site: PLU 13 Dogtown Battery

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

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-49230/5-A

Matrix: Solid

Analysis Batch: 49529

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 49230

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

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

Lab Sample ID: MB 880-49552/5-A

Matrix: Solid

Analysis Batch: 49529

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 49552

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

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

Lab Sample ID: LCS 880-49552/1-A

Matrix: Solid

Analysis Batch: 49529

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 49552

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

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

Lab Sample ID: LCSD 880-49552/2-A

Matrix: Solid

Analysis Batch: 49529

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 49552

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

Eurofins Carlsbad

QC Sample Results

Client: Ensolum
Project/Site: PLU 13 Dogtown Battery

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

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

Lab Sample ID: LCSD 880-49552/2-A

Matrix: Solid

Analysis Batch: 49529

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 49552

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

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

Lab Sample ID: 890-4308-A-5-D MS

Matrix: Solid

Analysis Batch: 49529

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 49552

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

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

Lab Sample ID: 890-4308-A-5-E MSD

Matrix: Solid

Analysis Batch: 49529

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 49552

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

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

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

Lab Sample ID: MB 880-48884/1-A

Matrix: Solid

Analysis Batch: 48908

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 48884

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0	mg/Kg		03/18/23 09:50	03/19/23 08:52	1

Eurofins Carlsbad

QC Sample Results

Client: Ensolum
Project/Site: PLU 13 Dogtown Battery

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

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

Lab Sample ID: MB 880-48884/1-A

Matrix: Solid

Analysis Batch: 48908

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 48884

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		03/18/23 09:50	03/19/23 08:52	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		03/18/23 09:50	03/19/23 08:52	1
Surrogate	MB %Recovery	MB Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	119		70 - 130			03/18/23 09:50	03/19/23 08:52	1
o-Terphenyl	138	S1+	70 - 130			03/18/23 09:50	03/19/23 08:52	1

Lab Sample ID: LCS 880-48884/2-A

Matrix: Solid

Analysis Batch: 48908

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 48884

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Gasoline Range Organics (GRO)-C6-C10	1000	1075		mg/Kg		107	70 - 130
Diesel Range Organics (Over C10-C28)	1000	1126		mg/Kg		113	70 - 130
Surrogate	LCS %Recovery	LCS Qualifier	Limits				
1-Chlorooctane	143	S1+	70 - 130				
o-Terphenyl	172	S1+	70 - 130				

Lab Sample ID: LCSD 880-48884/3-A

Matrix: Solid

Analysis Batch: 48908

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 48884

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	1000	1003		mg/Kg		100	70 - 130	7	20
Diesel Range Organics (Over C10-C28)	1000	1352	*+	mg/Kg		135	70 - 130	18	20
Surrogate	LCSD %Recovery	LCSD Qualifier	Limits						
1-Chlorooctane	170	S1+	70 - 130						
o-Terphenyl	196	S1+	70 - 130						

Lab Sample ID: 890-4308-A-41-B MS

Matrix: Solid

Analysis Batch: 48908

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 48884

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	998	897.9		mg/Kg		88	70 - 130
Diesel Range Organics (Over C10-C28)	<49.9	U *+	998	950.3		mg/Kg		93	70 - 130
Surrogate	MS %Recovery	MS Qualifier	Limits						
1-Chlorooctane	97		70 - 130						
o-Terphenyl	101		70 - 130						

Eurofins Carlsbad

QC Sample Results

Client: Ensolum
Project/Site: PLU 13 Dogtown Battery

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

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

Lab Sample ID: 890-4308-A-41-C MSD

Matrix: Solid

Analysis Batch: 48908

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 48884

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	999	1048		mg/Kg		103	70 - 130	15	20
Diesel Range Organics (Over C10-C28)	<49.9	U *	999	1099		mg/Kg		108	70 - 130	15	20
Surrogate	MSD %Recovery	MSD Qualifier	Limits								
1-Chlorooctane	114		70 - 130								
o-Terphenyl	116		70 - 130								

Lab Sample ID: MB 880-49457/1-A

Matrix: Solid

Analysis Batch: 49559

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 49457

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0	mg/Kg		03/24/23 16:55	03/27/23 08:47	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		03/24/23 16:55	03/27/23 08:47	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		03/24/23 16:55	03/27/23 08:47	1
Surrogate	MB %Recovery	MB Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	120		70 - 130			03/24/23 16:55	03/27/23 08:47	1
o-Terphenyl	118		70 - 130			03/24/23 16:55	03/27/23 08:47	1

Lab Sample ID: LCS 880-49457/2-A

Matrix: Solid

Analysis Batch: 49559

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 49457

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Gasoline Range Organics (GRO)-C6-C10	1000	1022		mg/Kg		102	70 - 130		
Diesel Range Organics (Over C10-C28)	1000	876.8		mg/Kg		88	70 - 130		
Surrogate	LCS %Recovery	LCS Qualifier	Limits						
1-Chlorooctane	93		70 - 130						
o-Terphenyl	83		70 - 130						

Lab Sample ID: LCSD 880-49457/3-A

Matrix: Solid

Analysis Batch: 49559

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 49457

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

Eurofins Carlsbad

QC Sample Results

Client: Ensolum
Project/Site: PLU 13 Dogtown Battery

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

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

Lab Sample ID: LCSD 880-49457/3-A

Matrix: Solid

Analysis Batch: 49559

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 49457

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

Lab Sample ID: 890-4361-A-1-B MS

Matrix: Solid

Analysis Batch: 49559

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 49457

	Sample	Sample	Spike	MS	MS				%Rec	
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	997	1038		mg/Kg		100	70 - 130	
Diesel Range Organics (Over C10-C28)	<50.0	U	997	721.8		mg/Kg		70	70 - 130	
Surrogate	%Recovery	Qualifier	Limits							
1-Chlorooctane	108		70 - 130							
o-Terphenyl	87		70 - 130							

Lab Sample ID: 890-4361-A-1-C MSD

Matrix: Solid

Analysis Batch: 49559

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 49457

	Sample	Sample	Spike	MSD	MSD				%Rec		RPD	
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit	
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	998	1062		mg/Kg		102	70 - 130	2	20	
Diesel Range Organics (Over C10-C28)	<50.0	U	998	727.0		mg/Kg		70	70 - 130	1	20	
Surrogate	%Recovery	Qualifier	Limits									
1-Chlorooctane	108		70 - 130									
o-Terphenyl	87		70 - 130									

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-49263/1-A

Matrix: Solid

Analysis Batch: 49472

Client Sample ID: Method Blank

Prep Type: Soluble

	MB	MB								
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac		
Chloride	<5.00	U	5.00	mg/Kg			03/25/23 14:27	1		

Lab Sample ID: LCS 880-49263/2-A

Matrix: Solid

Analysis Batch: 49472

Client Sample ID: Lab Control Sample

Prep Type: Soluble

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

Eurofins Carlsbad

QC Sample Results

Client: Ensolum
Project/Site: PLU 13 Dogtown Battery

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

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: LCSD 880-49263/3-A				Client Sample ID: Lab Control Sample Dup							
Matrix: Solid				Prep Type: Soluble							
Analysis Batch: 49472											
Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride			250	249.0		mg/Kg		100	90 - 110	3	20

Lab Sample ID: 890-4314-A-1-C MS				Client Sample ID: Matrix Spike							
Matrix: Solid				Prep Type: Soluble							
Analysis Batch: 49472											
Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride	40.8		250	273.9		mg/Kg		93	90 - 110		

Lab Sample ID: 890-4314-A-1-D MSD				Client Sample ID: Matrix Spike Duplicate							
Matrix: Solid				Prep Type: Soluble							
Analysis Batch: 49472											
Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	40.8		250	281.3		mg/Kg		96	90 - 110	3	20

QC Association Summary

Client: Ensolum
Project/Site: PLU 13 Dogtown Battery

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

GC VOA

Prep Batch: 49230

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

Analysis Batch: 49529

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

Prep Batch: 49552

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

Analysis Batch: 49602

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

GC Semi VOA

Prep Batch: 48884

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

Analysis Batch: 48908

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

Eurofins Carlsbad

QC Association Summary

Client: Ensolum
Project/Site: PLU 13 Dogtown Battery

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

GC Semi VOA

Prep Batch: 49457

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

Analysis Batch: 49559

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

Analysis Batch: 49695

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

HPLC/IC

Leach Batch: 49263

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

Analysis Batch: 49472

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

Eurofins Carlsbad

Lab Chronicle

Client: Ensolum
Project/Site: PLU 13 Dogtown Battery

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

Client Sample ID: SS01

Lab Sample ID: 890-4315-1

Date Collected: 03/14/23 10:05

Matrix: Solid

Date Received: 03/15/23 11:53

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

Client Sample ID: SS02

Lab Sample ID: 890-4315-2

Date Collected: 03/14/23 10:10

Matrix: Solid

Date Received: 03/15/23 11:53

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

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

Accreditation/Certification Summary

Client: Ensolum
Project/Site: PLU 13 Dogtown Battery

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

Laboratory: Eurofins Midland

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

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

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

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

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14

Method Summary

Client: Ensolum
Project/Site: PLU 13 Dogtown Battery

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

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

Protocol References:

ASTM = ASTM International

EPA = US Environmental Protection Agency

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

TAL SOP = TestAmerica Laboratories, Standard Operating Procedure

Laboratory References:

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

Sample Summary

Client: Ensolum
Project/Site: PLU 13 Dogtown Battery

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

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

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14



Environment Testing
Xenco

Chain of Custody

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

Work Order No: _____

www.xenco.com Page _____ of _____

Project Manager:	Ben Bellill	Bill to: (if different)	Garrett Green
Company Name:	Ensolum	Company Name:	XTO Energy
Address:	3122 National Parks Hwy	Address:	3104 E. Green St.
City, State ZIP:	Carlsbad, NM 88220	City, State ZIP:	Carlsbad, NM 88220
Phone:	303-887-2946	Email:	Garrett.Green@ExxonMobil.com

Work Order Comments Program: UST/PST <input type="checkbox"/> PRP <input type="checkbox"/> Brownfields <input type="checkbox"/> RRC <input type="checkbox"/> Superfund <input type="checkbox"/> State of Project: Reporting: Level I <input type="checkbox"/> Level II <input type="checkbox"/> Level III <input type="checkbox"/> PST/UST <input type="checkbox"/> TRRP <input type="checkbox"/> Level IV <input type="checkbox"/> Deliverables: EDD <input type="checkbox"/> ADAPT <input type="checkbox"/> Other: _____	
---	--

Project Name:	PLU 13 Dogtown Draw Battery	Turn Around	<input checked="" type="checkbox"/> Routine <input type="checkbox"/> Rush	Pres. Code	
Project Number:	03C1558188	Due Date:			
Project Location:	Connor Whitman	TAT starts the day received by the lab. If received by 4:30pm			
Sampler's Name:	Connor Whitman				
PO #:					
SAMPLE RECEIPT		Temp Blank:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Well Ice:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Samples Received Intact:	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Thermometer ID:	7110057		
Cooler Custody Seals:	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Correction Factor:	-8.0		
Sample Custody Seals:	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Temperature Reading:	1.2		
Total Containers:		Corrected Temperature:	1.0		
Parameters					
CHLORIDES (EPA: 300.0)					
TPH (8015)					
BTX (8021)					
ANALYSIS REQUEST					
Preservative Codes					
None: NO DI Water: H ₂ O					
Cool: Cool MeOH: Me					
HCL: HC HNO ₃ : HN					
H ₂ SO ₄ : H ₂ NaOH: Na					
H ₃ PO ₄ : HP					
NaHSO ₄ : NABIS					
Na ₂ S ₂ O ₃ : NaSO ₃					
Zn Acetate+NaOH: Zn					
NaOH+Ascorbic Acid: SACP					



890-4315 Chain of Custody

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Grab/Comp	# of Cont	ANALYSIS REQUEST	Preservative Codes
5501		3/14/23	1005	.5	G	1		
5502		3/14/23	1010	.5	G	1		
							Incident ID:	nAPP2304448906
							Cost Center:	2191721001
							A/E:	
							Sample Comments	

Total 200.7 / 6010 200.8 / 6020:

8RCRA 13PPM Texas 11 Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag SiO₂ Na Sr Ti 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 Ti 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 <i>Carit</i>	<i>Carit</i>	3.15.23 1153			
3					
5					

Login Sample Receipt Checklist

Client: Ensolum

Job Number: 890-4315-1

SDG Number: 03C1558188

Login Number: 4315

List Number: 1

Creator: Clifton, Cloe

List Source: Eurofins Carlsbad

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

Login Sample Receipt Checklist

Client: Ensolum

Job Number: 890-4315-1

SDG Number: 03C1558188

Login Number: 4315

List Number: 2

Creator: Rodriguez, Leticia

List Source: Eurofins Midland

List Creation: 03/16/23 10:28 AM

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



Environment Testing

1

2

3

4

5

6

7

8

9

10

11

12

13

14

ANALYTICAL REPORT

PREPARED FOR

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

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

JOB DESCRIPTION

PLU 13 DTD Battery
SDG NUMBER 03C1558188

JOB NUMBER

890-4428-1

Eurofins Carlsbad
1089 N Canal St.
Carlsbad NM 88220

Eurofins Carlsbad**Job Notes**

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

Authorization

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

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

Client: Ensolum
Project/Site: PLU 13 DTD Battery

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

Table of Contents

Cover Page	1
Table of Contents	3
Definitions/Glossary	4
Case Narrative	5
Client Sample Results	6
Surrogate Summary	11
QC Sample Results	12
QC Association Summary	18
Lab Chronicle	21
Certification Summary	23
Method Summary	24
Sample Summary	25
Chain of Custody	26
Receipt Checklists	29

1
2
3
4
5
6
7
8
9
10
11
12
13
14

Definitions/Glossary

Client: Ensolum
Project/Site: PLU 13 DTD Battery

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

Qualifiers

GC VOA

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

GC Semi VOA

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

HPLC/IC

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

Glossary

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

Case Narrative

Client: Ensolum
Project/Site: PLU 13 DTD Battery

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

Job ID: 890-4428-1**Laboratory: Eurofins Carlsbad****Narrative****Job Narrative
890-4428-1****Receipt**

The samples were received on 3/28/2023 3:40 PM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 2.0°C

GC VOA

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

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

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

GC Semi VOA

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

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

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

HPLC/IC

Method 300_ORGFM_28D: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 880-50418 and analytical batch 880-50614 were outside control limits for one or more analytes, see QC Sample Results for detail. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery is within acceptance limits. BH01A (890-4428-1), BH01B (890-4428-2), BH01C (890-4428-3), BH02A (890-4428-4), BH02B (890-4428-5), BH02C (890-4428-6), (880-26530-A-11-B), (880-26530-A-11-C MS) and (880-26530-A-11-D MSD)

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

Client Sample Results

Client: Ensolum
Project/Site: PLU 13 DTD Battery

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

Client Sample ID: BH01A

Lab Sample ID: 890-4428-1

Date Collected: 03/28/23 11:00

Matrix: Solid

Date Received: 03/28/23 15:40

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

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

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

Method: TAL SOP Total BTEX - Total BTEX Calculation

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

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

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

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

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

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

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

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

Client Sample ID: BH01B

Lab Sample ID: 890-4428-2

Date Collected: 03/28/23 11:10

Matrix: Solid

Date Received: 03/28/23 15:40

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

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

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

Eurofins Carlsbad

Client Sample Results

Client: Ensolum
Project/Site: PLU 13 DTD Battery

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

Client Sample ID: BH01B

Lab Sample ID: 890-4428-2

Date Collected: 03/28/23 11:10

Matrix: Solid

Date Received: 03/28/23 15:40

Method: TAL SOP Total BTEX - Total BTEX Calculation

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

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

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

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	59.2		50.0	mg/Kg		03/31/23 14:28	04/02/23 03:35	1
Diesel Range Organics (Over C10-C28)	112		50.0	mg/Kg		03/31/23 14:28	04/02/23 03:35	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		03/31/23 14:28	04/02/23 03:35	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	99		70 - 130			03/31/23 14:28	04/02/23 03:35	1
o-Terphenyl	97		70 - 130			03/31/23 14:28	04/02/23 03:35	1

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

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

Client Sample ID: BH01C

Lab Sample ID: 890-4428-3

Date Collected: 03/28/23 12:15

Matrix: Solid

Date Received: 03/28/23 15:40

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00201	U	0.00201	mg/Kg		04/05/23 16:50	04/07/23 02:46	1
Toluene	<0.00201	U	0.00201	mg/Kg		04/05/23 16:50	04/07/23 02:46	1
Ethylbenzene	<0.00201	U	0.00201	mg/Kg		04/05/23 16:50	04/07/23 02:46	1
m-Xylene & p-Xylene	<0.00402	U	0.00402	mg/Kg		04/05/23 16:50	04/07/23 02:46	1
o-Xylene	<0.00201	U	0.00201	mg/Kg		04/05/23 16:50	04/07/23 02:46	1
Xylenes, Total	<0.00402	U	0.00402	mg/Kg		04/05/23 16:50	04/07/23 02:46	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	97		70 - 130			04/05/23 16:50	04/07/23 02:46	1
1,4-Difluorobenzene (Surr)	104		70 - 130			04/05/23 16:50	04/07/23 02:46	1

Method: TAL SOP Total BTEX - Total BTEX Calculation

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

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

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

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

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

Eurofins Carlsbad

Client Sample Results

Client: Ensolum
Project/Site: PLU 13 DTD Battery

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

Client Sample ID: BH01C

Lab Sample ID: 890-4428-3

Date Collected: 03/28/23 12:15

Matrix: Solid

Date Received: 03/28/23 15:40

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Oil Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg		03/31/23 14:28	04/02/23 03:55	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	101		70 - 130			03/31/23 14:28	04/02/23 03:55	1
o-Terphenyl	96		70 - 130			03/31/23 14:28	04/02/23 03:55	1

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

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

Client Sample ID: BH02A

Lab Sample ID: 890-4428-4

Date Collected: 03/28/23 11:55

Matrix: Solid

Date Received: 03/28/23 15:40

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00198	U	0.00198	mg/Kg		04/05/23 16:50	04/07/23 03:06	1
Toluene	0.00291		0.00198	mg/Kg		04/05/23 16:50	04/07/23 03:06	1
Ethylbenzene	<0.00198	U	0.00198	mg/Kg		04/05/23 16:50	04/07/23 03:06	1
m-Xylene & p-Xylene	<0.00396	U	0.00396	mg/Kg		04/05/23 16:50	04/07/23 03:06	1
o-Xylene	<0.00198	U	0.00198	mg/Kg		04/05/23 16:50	04/07/23 03:06	1
Xylenes, Total	<0.00396	U	0.00396	mg/Kg		04/05/23 16:50	04/07/23 03:06	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	103		70 - 130			04/05/23 16:50	04/07/23 03:06	1
1,4-Difluorobenzene (Surr)	92		70 - 130			04/05/23 16:50	04/07/23 03:06	1

Method: TAL SOP Total BTEX - Total BTEX Calculation

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

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

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

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9	mg/Kg		03/31/23 14:28	04/02/23 04:15	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9	mg/Kg		03/31/23 14:28	04/02/23 04:15	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg		03/31/23 14:28	04/02/23 04:15	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	107		70 - 130			03/31/23 14:28	04/02/23 04:15	1
o-Terphenyl	102		70 - 130			03/31/23 14:28	04/02/23 04:15	1

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

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

Eurofins Carlsbad

Client Sample Results

Client: Ensolum
Project/Site: PLU 13 DTD Battery

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

Client Sample ID: BH02B

Lab Sample ID: 890-4428-5

Date Collected: 03/28/23 13:20

Matrix: Solid

Date Received: 03/28/23 15:40

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

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

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

Method: TAL SOP Total BTEX - Total BTEX Calculation

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

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

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

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

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

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

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

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

Client Sample ID: BH02C

Lab Sample ID: 890-4428-6

Date Collected: 03/28/23 13:25

Matrix: Solid

Date Received: 03/28/23 15:40

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

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

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

Eurofins Carlsbad

Client Sample Results

Client: Ensolum
Project/Site: PLU 13 DTD Battery

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

Client Sample ID: BH02C

Lab Sample ID: 890-4428-6

Date Collected: 03/28/23 13:25

Matrix: Solid

Date Received: 03/28/23 15:40

Method: TAL SOP Total BTEX - Total BTEX Calculation

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

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

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

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0	mg/Kg		03/31/23 14:28	04/02/23 04:56	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		03/31/23 14:28	04/02/23 04:56	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		03/31/23 14:28	04/02/23 04:56	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	104		70 - 130			03/31/23 14:28	04/02/23 04:56	1
o-Terphenyl	96		70 - 130			03/31/23 14:28	04/02/23 04:56	1

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.04	U	5.04	mg/Kg			04/07/23 05:10	1

Surrogate Summary

Client: Ensolum
Project/Site: PLU 13 DTD Battery

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

Method: 8021B - Volatile Organic Compounds (GC)

Matrix: Solid

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	BFB1 (70-130)	DFBZ1 (70-130)
880-26925-A-1-D MS	Matrix Spike	96	122
880-26925-A-1-E MSD	Matrix Spike Duplicate	116	104
890-4428-1	BH01A	154 S1+	120
890-4428-2	BH01B	97	105
890-4428-2 MS	BH01B	100	108
890-4428-2 MSD	BH01B	98	108
890-4428-3	BH01C	97	104
890-4428-4	BH02A	103	92
890-4428-5	BH02B	99	107
890-4428-6	BH02C	103	107
LCS 880-50431/1-A	Lab Control Sample	96	110
LCS 880-50536/1-A	Lab Control Sample	96	110
LCSD 880-50431/2-A	Lab Control Sample Dup	100	112
LCSD 880-50536/2-A	Lab Control Sample Dup	100	112
MB 880-50431/5-A	Method Blank	90	97
MB 880-50512/8	Method Blank	92	99
MB 880-50536/5-B	Method Blank	80	96
Surrogate Legend			
BFB = 4-Bromofluorobenzene (Surr)			
DFBZ = 1,4-Difluorobenzene (Surr)			

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

Matrix: Solid

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	1CO1 (70-130)	OTPH1 (70-130)
880-26510-A-4-B MS	Matrix Spike	113	94
880-26510-A-4-C MSD	Matrix Spike Duplicate	113	97
890-4428-1	BH01A	146 S1+	101
890-4428-2	BH01B	99	97
890-4428-3	BH01C	101	96
890-4428-4	BH02A	107	102
890-4428-5	BH02B	113	101
890-4428-6	BH02C	104	96
LCS 880-50046/2-A	Lab Control Sample	138 S1+	132 S1+
LCSD 880-50046/3-A	Lab Control Sample Dup	124	117
MB 880-50046/1-A	Method Blank	113	113
Surrogate Legend			
1CO = 1-Chlorooctane			
OTPH = o-Terphenyl			

Eurofins Carlsbad

QC Sample Results

Client: Ensolum
Project/Site: PLU 13 DTD Battery

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

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-50431/5-A

Matrix: Solid

Analysis Batch: 50512

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 50431

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		04/05/23 16:50	04/07/23 01:57	1
Toluene	<0.00200	U	0.00200	mg/Kg		04/05/23 16:50	04/07/23 01:57	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		04/05/23 16:50	04/07/23 01:57	1
m-Xylene & p-Xylene	<0.00400	U	0.00400	mg/Kg		04/05/23 16:50	04/07/23 01:57	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		04/05/23 16:50	04/07/23 01:57	1
Xylenes, Total	<0.00400	U	0.00400	mg/Kg		04/05/23 16:50	04/07/23 01:57	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	90		70 - 130	04/05/23 16:50	04/07/23 01:57	1
1,4-Difluorobenzene (Surr)	97		70 - 130	04/05/23 16:50	04/07/23 01:57	1

Lab Sample ID: LCS 880-50431/1-A

Matrix: Solid

Analysis Batch: 50512

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 50431

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	0.100	0.1002		mg/Kg		100	70 - 130
Toluene	0.100	0.09691		mg/Kg		97	70 - 130
Ethylbenzene	0.100	0.08430		mg/Kg		84	70 - 130
m-Xylene & p-Xylene	0.200	0.1660		mg/Kg		83	70 - 130
o-Xylene	0.100	0.08517		mg/Kg		85	70 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene (Surr)	96		70 - 130
1,4-Difluorobenzene (Surr)	110		70 - 130

Lab Sample ID: LCSD 880-50431/2-A

Matrix: Solid

Analysis Batch: 50512

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 50431

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	0.100	0.1022		mg/Kg		102	70 - 130	2	35
Toluene	0.100	0.1007		mg/Kg		101	70 - 130	4	35
Ethylbenzene	0.100	0.08698		mg/Kg		87	70 - 130	3	35
m-Xylene & p-Xylene	0.200	0.1715		mg/Kg		86	70 - 130	3	35
o-Xylene	0.100	0.08833		mg/Kg		88	70 - 130	4	35

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	100		70 - 130
1,4-Difluorobenzene (Surr)	112		70 - 130

Lab Sample ID: 890-4428-2 MS

Matrix: Solid

Analysis Batch: 50512

Client Sample ID: BH01B

Prep Type: Total/NA

Prep Batch: 50431

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	<0.00200	U	0.0996	0.1061		mg/Kg		106	70 - 130
Toluene	<0.00200	U	0.0996	0.1027		mg/Kg		102	70 - 130

Eurofins Carlsbad

QC Sample Results

Client: Ensolum
Project/Site: PLU 13 DTD Battery

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

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

Lab Sample ID: 890-4428-2 MS

Matrix: Solid

Analysis Batch: 50512

Client Sample ID: BH01B

Prep Type: Total/NA

Prep Batch: 50431

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Ethylbenzene	<0.00200	U	0.0996	0.08929		mg/Kg		90	70 - 130
m-Xylene & p-Xylene	<0.00399	U	0.199	0.1758		mg/Kg		87	70 - 130
o-Xylene	<0.00200	U	0.0996	0.08952		mg/Kg		89	70 - 130

Surrogate	MS %Recovery	MS Qualifier	MS Limits
4-Bromofluorobenzene (Surr)	100		70 - 130
1,4-Difluorobenzene (Surr)	108		70 - 130

Lab Sample ID: 890-4428-2 MSD

Matrix: Solid

Analysis Batch: 50512

Client Sample ID: BH01B

Prep Type: Total/NA

Prep Batch: 50431

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	<0.00200	U	0.0990	0.1055		mg/Kg		106	70 - 130	1	35
Toluene	<0.00200	U	0.0990	0.1020		mg/Kg		102	70 - 130	1	35
Ethylbenzene	<0.00200	U	0.0990	0.08913		mg/Kg		90	70 - 130	0	35
m-Xylene & p-Xylene	<0.00399	U	0.198	0.1759		mg/Kg		88	70 - 130	0	35
o-Xylene	<0.00200	U	0.0990	0.08888		mg/Kg		89	70 - 130	1	35

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

Lab Sample ID: MB 880-50512/8

Matrix: Solid

Analysis Batch: 50512

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg			04/06/23 14:21	1
Toluene	<0.00200	U	0.00200	mg/Kg			04/06/23 14:21	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg			04/06/23 14:21	1
m-Xylene & p-Xylene	<0.00400	U	0.00400	mg/Kg			04/06/23 14:21	1
o-Xylene	<0.00200	U	0.00200	mg/Kg			04/06/23 14:21	1
Xylenes, Total	<0.00400	U	0.00400	mg/Kg			04/06/23 14:21	1

Surrogate	MB %Recovery	MB Qualifier	MB Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	92		70 - 130		04/06/23 14:21	1
1,4-Difluorobenzene (Surr)	99		70 - 130		04/06/23 14:21	1

Lab Sample ID: MB 880-50536/5-B

Matrix: Solid

Analysis Batch: 50769

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 50536

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		04/10/23 09:30	04/10/23 11:54	1
Toluene	<0.00200	U	0.00200	mg/Kg		04/10/23 09:30	04/10/23 11:54	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		04/10/23 09:30	04/10/23 11:54	1
m-Xylene & p-Xylene	<0.00400	U	0.00400	mg/Kg		04/10/23 09:30	04/10/23 11:54	1

Eurofins Carlsbad

QC Sample Results

Client: Ensolum
Project/Site: PLU 13 DTD Battery

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

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

Lab Sample ID: MB 880-50536/5-B

Matrix: Solid

Analysis Batch: 50769

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 50536

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
o-Xylene	<0.00200	U	0.00200	mg/Kg		04/10/23 09:30	04/10/23 11:54	1
Xylenes, Total	<0.00400	U	0.00400	mg/Kg		04/10/23 09:30	04/10/23 11:54	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	80		70 - 130	04/10/23 09:30	04/10/23 11:54	1
1,4-Difluorobenzene (Surr)	96		70 - 130	04/10/23 09:30	04/10/23 11:54	1

Lab Sample ID: LCS 880-50536/1-A

Matrix: Solid

Analysis Batch: 50769

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 50536

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	0.100	0.1031		mg/Kg		103	70 - 130
Toluene	0.100	0.09177		mg/Kg		92	70 - 130
Ethylbenzene	0.100	0.08629		mg/Kg		86	70 - 130
m-Xylene & p-Xylene	0.200	0.1808		mg/Kg		90	70 - 130
o-Xylene	0.100	0.09129		mg/Kg		91	70 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene (Surr)	96		70 - 130
1,4-Difluorobenzene (Surr)	110		70 - 130

Lab Sample ID: LCSD 880-50536/2-A

Matrix: Solid

Analysis Batch: 50769

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 50536

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	0.100	0.1183		mg/Kg		118	70 - 130	14	35
Toluene	0.100	0.1095		mg/Kg		110	70 - 130	18	35
Ethylbenzene	0.100	0.09842		mg/Kg		98	70 - 130	13	35
m-Xylene & p-Xylene	0.200	0.2032		mg/Kg		102	70 - 130	12	35
o-Xylene	0.100	0.1017		mg/Kg		102	70 - 130	11	35

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	100		70 - 130
1,4-Difluorobenzene (Surr)	112		70 - 130

Lab Sample ID: 880-26925-A-1-D MS

Matrix: Solid

Analysis Batch: 50769

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 50536

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	<0.00199	U F2 F1	0.0998	0.04997	F1	mg/Kg		50	70 - 130
Toluene	<0.00199	U F2 F1	0.0998	0.02828	F1	mg/Kg		27	70 - 130
Ethylbenzene	<0.00199	U F2 F1	0.0998	0.01813	F1	mg/Kg		17	70 - 130
m-Xylene & p-Xylene	0.00405	F2 F1	0.200	0.03772	F1	mg/Kg		17	70 - 130
o-Xylene	<0.00199	U F2 F1	0.0998	0.01924	F1	mg/Kg		17	70 - 130

Eurofins Carlsbad

QC Sample Results

Client: Ensolum
Project/Site: PLU 13 DTD Battery

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

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

Lab Sample ID: 880-26925-A-1-D MS

Matrix: Solid

Analysis Batch: 50769

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 50536

	MS	MS	
Surrogate	%Recovery	Qualifier	Limits
4-Bromofluorobenzene (Surr)	96		70 - 130
1,4-Difluorobenzene (Surr)	122		70 - 130

Lab Sample ID: 880-26925-A-1-E MSD

Matrix: Solid

Analysis Batch: 50769

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 50536

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	<0.00199	U F2 F1	0.0990	0.07394	F2	mg/Kg		75	70 - 130	39	35
Toluene	<0.00199	U F2 F1	0.0990	0.05099	F2 F1	mg/Kg		50	70 - 130	57	35
Ethylbenzene	<0.00199	U F2 F1	0.0990	0.03511	F2 F1	mg/Kg		34	70 - 130	64	35
m-Xylene & p-Xylene	0.00405	F2 F1	0.198	0.07537	F2 F1	mg/Kg		36	70 - 130	67	35
o-Xylene	<0.00199	U F2 F1	0.0990	0.04842	F2 F1	mg/Kg		47	70 - 130	86	35

	MSD	MSD	
Surrogate	%Recovery	Qualifier	Limits
4-Bromofluorobenzene (Surr)	116		70 - 130
1,4-Difluorobenzene (Surr)	104		70 - 130

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

Lab Sample ID: MB 880-50046/1-A

Matrix: Solid

Analysis Batch: 50074

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 50046

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0	mg/Kg		03/31/23 14:28	04/01/23 20:26	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		03/31/23 14:28	04/01/23 20:26	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		03/31/23 14:28	04/01/23 20:26	1

	MB	MB		Prepared	Analyzed	Dil Fac
Surrogate	%Recovery	Qualifier	Limits			
1-Chlorooctane	113		70 - 130	03/31/23 14:28	04/01/23 20:26	1
o-Terphenyl	113		70 - 130	03/31/23 14:28	04/01/23 20:26	1

Lab Sample ID: LCS 880-50046/2-A

Matrix: Solid

Analysis Batch: 50074

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 50046

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Gasoline Range Organics (GRO)-C6-C10	1000	999.3		mg/Kg		100	70 - 130
Diesel Range Organics (Over C10-C28)	1000	980.9		mg/Kg		98	70 - 130

	LCS	LCS	
Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane	138	S1+	70 - 130
o-Terphenyl	132	S1+	70 - 130

Eurofins Carlsbad

QC Sample Results

Client: Ensolum
Project/Site: PLU 13 DTD Battery

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

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

Lab Sample ID: LCSD 880-50046/3-A

Matrix: Solid

Analysis Batch: 50074

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 50046

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	1000	978.3		mg/Kg		98	70 - 130	2	20
Diesel Range Organics (Over C10-C28)	1000	865.0		mg/Kg		87	70 - 130	13	20
Surrogate	LCSD %Recovery	LCSD Qualifier	Limits						
1-Chlorooctane	124		70 - 130						
o-Terphenyl	117		70 - 130						

Lab Sample ID: 880-26510-A-4-B MS

Matrix: Solid

Analysis Batch: 50074

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 50046

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	999	1131		mg/Kg		109	70 - 130		
Diesel Range Organics (Over C10-C28)	130		999	890.2		mg/Kg		76	70 - 130		
Surrogate	MS %Recovery	MS Qualifier	Limits								
1-Chlorooctane	113		70 - 130								
o-Terphenyl	94		70 - 130								

Lab Sample ID: 880-26510-A-4-C MSD

Matrix: Solid

Analysis Batch: 50074

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 50046

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	999	1131		mg/Kg		109	70 - 130	0	20
Diesel Range Organics (Over C10-C28)	130		999	904.9		mg/Kg		78	70 - 130	2	20
Surrogate	MSD %Recovery	MSD Qualifier	Limits								
1-Chlorooctane	113		70 - 130								
o-Terphenyl	97		70 - 130								

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-50418/1-A

Matrix: Solid

Analysis Batch: 50614

Client Sample ID: Method Blank

Prep Type: Soluble

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.00	U	5.00	mg/Kg			04/07/23 02:46	1

Eurofins Carlsbad

QC Sample Results

Client: Ensolum
Project/Site: PLU 13 DTD Battery

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

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: LCS 880-50418/2-A

Matrix: Solid

Analysis Batch: 50614

Client Sample ID: Lab Control Sample

Prep Type: Soluble

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	250	249.7		mg/Kg		100	90 - 110

Lab Sample ID: LCSD 880-50418/3-A

Matrix: Solid

Analysis Batch: 50614

Client Sample ID: Lab Control Sample Dup

Prep Type: Soluble

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

Lab Sample ID: 880-26530-A-11-C MS

Matrix: Solid

Analysis Batch: 50614

Client Sample ID: Matrix Spike

Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	348	F1	250	525.3	F1	mg/Kg		71	90 - 110

Lab Sample ID: 880-26530-A-11-D MSD

Matrix: Solid

Analysis Batch: 50614

Client Sample ID: Matrix Spike Duplicate

Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	348	F1	250	524.9	F1	mg/Kg		71	90 - 110	0	20

QC Association Summary

Client: Ensolum
Project/Site: PLU 13 DTD Battery

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

GC VOA

Prep Batch: 50431

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4428-2	BH01B	Total/NA	Solid	5035	
890-4428-3	BH01C	Total/NA	Solid	5035	
890-4428-4	BH02A	Total/NA	Solid	5035	
890-4428-5	BH02B	Total/NA	Solid	5035	
890-4428-6	BH02C	Total/NA	Solid	5035	
MB 880-50431/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-50431/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-50431/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
890-4428-2 MS	BH01B	Total/NA	Solid	5035	
890-4428-2 MSD	BH01B	Total/NA	Solid	5035	

Analysis Batch: 50512

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4428-2	BH01B	Total/NA	Solid	8021B	50431
890-4428-3	BH01C	Total/NA	Solid	8021B	50431
890-4428-4	BH02A	Total/NA	Solid	8021B	50431
890-4428-5	BH02B	Total/NA	Solid	8021B	50431
890-4428-6	BH02C	Total/NA	Solid	8021B	50431
MB 880-50431/5-A	Method Blank	Total/NA	Solid	8021B	50431
MB 880-50512/8	Method Blank	Total/NA	Solid	8021B	
LCS 880-50431/1-A	Lab Control Sample	Total/NA	Solid	8021B	50431
LCSD 880-50431/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	50431
890-4428-2 MS	BH01B	Total/NA	Solid	8021B	50431
890-4428-2 MSD	BH01B	Total/NA	Solid	8021B	50431

Prep Batch: 50536

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4428-1	BH01A	Total/NA	Solid	5035	
MB 880-50536/5-B	Method Blank	Total/NA	Solid	5035	
LCS 880-50536/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-50536/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
880-26925-A-1-D MS	Matrix Spike	Total/NA	Solid	5035	
880-26925-A-1-E MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	

Analysis Batch: 50643

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4428-1	BH01A	Total/NA	Solid	Total BTEX	
890-4428-2	BH01B	Total/NA	Solid	Total BTEX	
890-4428-3	BH01C	Total/NA	Solid	Total BTEX	
890-4428-4	BH02A	Total/NA	Solid	Total BTEX	
890-4428-5	BH02B	Total/NA	Solid	Total BTEX	
890-4428-6	BH02C	Total/NA	Solid	Total BTEX	

Analysis Batch: 50769

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4428-1	BH01A	Total/NA	Solid	8021B	50536
MB 880-50536/5-B	Method Blank	Total/NA	Solid	8021B	50536
LCS 880-50536/1-A	Lab Control Sample	Total/NA	Solid	8021B	50536
LCSD 880-50536/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	50536
880-26925-A-1-D MS	Matrix Spike	Total/NA	Solid	8021B	50536
880-26925-A-1-E MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	50536

Eurofins Carlsbad

QC Association Summary

Client: Ensolum
Project/Site: PLU 13 DTD Battery

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

GC Semi VOA

Prep Batch: 50046

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4428-1	BH01A	Total/NA	Solid	8015NM Prep	
890-4428-2	BH01B	Total/NA	Solid	8015NM Prep	
890-4428-3	BH01C	Total/NA	Solid	8015NM Prep	
890-4428-4	BH02A	Total/NA	Solid	8015NM Prep	
890-4428-5	BH02B	Total/NA	Solid	8015NM Prep	
890-4428-6	BH02C	Total/NA	Solid	8015NM Prep	
MB 880-50046/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-50046/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-50046/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
880-26510-A-4-B MS	Matrix Spike	Total/NA	Solid	8015NM Prep	
880-26510-A-4-C MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	

Analysis Batch: 50074

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4428-1	BH01A	Total/NA	Solid	8015B NM	50046
890-4428-2	BH01B	Total/NA	Solid	8015B NM	50046
890-4428-3	BH01C	Total/NA	Solid	8015B NM	50046
890-4428-4	BH02A	Total/NA	Solid	8015B NM	50046
890-4428-5	BH02B	Total/NA	Solid	8015B NM	50046
890-4428-6	BH02C	Total/NA	Solid	8015B NM	50046
MB 880-50046/1-A	Method Blank	Total/NA	Solid	8015B NM	50046
LCS 880-50046/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	50046
LCSD 880-50046/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	50046
880-26510-A-4-B MS	Matrix Spike	Total/NA	Solid	8015B NM	50046
880-26510-A-4-C MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	50046

Analysis Batch: 50157

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4428-1	BH01A	Total/NA	Solid	8015 NM	
890-4428-2	BH01B	Total/NA	Solid	8015 NM	
890-4428-3	BH01C	Total/NA	Solid	8015 NM	
890-4428-4	BH02A	Total/NA	Solid	8015 NM	
890-4428-5	BH02B	Total/NA	Solid	8015 NM	
890-4428-6	BH02C	Total/NA	Solid	8015 NM	

HPLC/IC

Leach Batch: 50418

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4428-1	BH01A	Soluble	Solid	DI Leach	
890-4428-2	BH01B	Soluble	Solid	DI Leach	
890-4428-3	BH01C	Soluble	Solid	DI Leach	
890-4428-4	BH02A	Soluble	Solid	DI Leach	
890-4428-5	BH02B	Soluble	Solid	DI Leach	
890-4428-6	BH02C	Soluble	Solid	DI Leach	
MB 880-50418/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-50418/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-50418/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
880-26530-A-11-C MS	Matrix Spike	Soluble	Solid	DI Leach	
880-26530-A-11-D MSD	Matrix Spike Duplicate	Soluble	Solid	DI Leach	

Eurofins Carlsbad

QC Association Summary

Client: Ensolum
Project/Site: PLU 13 DTD Battery

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

HPLC/IC

Analysis Batch: 50614

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4428-1	BH01A	Soluble	Solid	300.0	50418
890-4428-2	BH01B	Soluble	Solid	300.0	50418
890-4428-3	BH01C	Soluble	Solid	300.0	50418
890-4428-4	BH02A	Soluble	Solid	300.0	50418
890-4428-5	BH02B	Soluble	Solid	300.0	50418
890-4428-6	BH02C	Soluble	Solid	300.0	50418
MB 880-50418/1-A	Method Blank	Soluble	Solid	300.0	50418
LCS 880-50418/2-A	Lab Control Sample	Soluble	Solid	300.0	50418
LCSD 880-50418/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	50418
880-26530-A-11-C MS	Matrix Spike	Soluble	Solid	300.0	50418
880-26530-A-11-D MSD	Matrix Spike Duplicate	Soluble	Solid	300.0	50418

Lab Chronicle

Client: Ensolum
Project/Site: PLU 13 DTD Battery

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

Client Sample ID: BH01A**Lab Sample ID: 890-4428-1****Date Collected: 03/28/23 11:00****Matrix: Solid****Date Received: 03/28/23 15:40**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.05 g	5 mL	50536	04/10/23 09:30	MNR	EET MID
Total/NA	Analysis	8021B		250	5 mL	5 mL	50769	04/10/23 14:39	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			50643	04/10/23 17:51	SM	EET MID
Total/NA	Analysis	8015 NM		1			50157	04/03/23 10:23	SM	EET MID
Total/NA	Prep	8015NM Prep			10.031 g	10 mL	50046	03/31/23 14:28	AJ	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	50074	04/02/23 03:14	SM	EET MID
Soluble	Leach	DI Leach			5.01 g	50 mL	50418	04/05/23 14:50	KS	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	50614	04/07/23 04:46	SMC	EET MID

Client Sample ID: BH01B**Lab Sample ID: 890-4428-2****Date Collected: 03/28/23 11:10****Matrix: Solid****Date Received: 03/28/23 15:40**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.01 g	5 mL	50431	04/05/23 16:50	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	50512	04/07/23 02:25	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			50643	04/07/23 18:40	SM	EET MID
Total/NA	Analysis	8015 NM		1			50157	04/03/23 10:23	SM	EET MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	50046	03/31/23 14:28	AJ	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	50074	04/02/23 03:35	SM	EET MID
Soluble	Leach	DI Leach			5.02 g	50 mL	50418	04/05/23 14:50	KS	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	50614	04/07/23 04:51	SMC	EET MID

Client Sample ID: BH01C**Lab Sample ID: 890-4428-3****Date Collected: 03/28/23 12:15****Matrix: Solid****Date Received: 03/28/23 15:40**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.98 g	5 mL	50431	04/05/23 16:50	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	50512	04/07/23 02:46	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			50643	04/07/23 18:40	SM	EET MID
Total/NA	Analysis	8015 NM		1			50157	04/03/23 10:23	SM	EET MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	50046	03/31/23 14:28	AJ	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	50074	04/02/23 03:55	SM	EET MID
Soluble	Leach	DI Leach			4.98 g	50 mL	50418	04/05/23 14:50	KS	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	50614	04/07/23 04:56	SMC	EET MID

Client Sample ID: BH02A**Lab Sample ID: 890-4428-4****Date Collected: 03/28/23 11:55****Matrix: Solid****Date Received: 03/28/23 15:40**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.05 g	5 mL	50431	04/05/23 16:50	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	50512	04/07/23 03:06	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			50643	04/07/23 18:40	SM	EET MID

Eurofins Carlsbad

Lab Chronicle

Client: Ensolum
Project/Site: PLU 13 DTD Battery

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

Client Sample ID: BH02A

Lab Sample ID: 890-4428-4

Date Collected: 03/28/23 11:55

Matrix: Solid

Date Received: 03/28/23 15:40

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8015 NM		1			50157	04/03/23 10:23	SM	EET MID
Total/NA	Prep	8015NM Prep			10.03 g	10 mL	50046	03/31/23 14:28	AJ	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	50074	04/02/23 04:15	SM	EET MID
Soluble	Leach	DI Leach			5.05 g	50 mL	50418	04/05/23 14:50	KS	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	50614	04/07/23 05:01	SMC	EET MID

Client Sample ID: BH02B

Lab Sample ID: 890-4428-5

Date Collected: 03/28/23 13:20

Matrix: Solid

Date Received: 03/28/23 15:40

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.02 g	5 mL	50431	04/05/23 16:50	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	50512	04/07/23 03:27	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			50643	04/07/23 18:40	SM	EET MID
Total/NA	Analysis	8015 NM		1			50157	04/03/23 10:23	SM	EET MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	50046	03/31/23 14:28	AJ	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	50074	04/02/23 04:36	SM	EET MID
Soluble	Leach	DI Leach			5.03 g	50 mL	50418	04/05/23 14:50	KS	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	50614	04/07/23 05:06	SMC	EET MID

Client Sample ID: BH02C

Lab Sample ID: 890-4428-6

Date Collected: 03/28/23 13:25

Matrix: Solid

Date Received: 03/28/23 15:40

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.03 g	5 mL	50431	04/05/23 16:50	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	50512	04/07/23 03:47	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			50643	04/07/23 18:40	SM	EET MID
Total/NA	Analysis	8015 NM		1			50157	04/03/23 10:23	SM	EET MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	50046	03/31/23 14:28	AJ	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	50074	04/02/23 04:56	SM	EET MID
Soluble	Leach	DI Leach			4.96 g	50 mL	50418	04/05/23 14:50	KS	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	50614	04/07/23 05:10	SMC	EET MID

Laboratory References:

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

Eurofins Carlsbad

Accreditation/Certification Summary

Client: Ensolum
Project/Site: PLU 13 DTD Battery

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

Laboratory: Eurofins Midland

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

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

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

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

Method Summary

Client: Ensolum
Project/Site: PLU 13 DTD Battery

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

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

Protocol References:

ASTM = ASTM International

EPA = US Environmental Protection Agency

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

TAL SOP = TestAmerica Laboratories, Standard Operating Procedure

Laboratory References:

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

Sample Summary

Client: Ensolum
Project/Site: PLU 13 DTD Battery

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

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
890-4428-1	BH01A	Solid	03/28/23 11:00	03/28/23 15:40
890-4428-2	BH01B	Solid	03/28/23 11:10	03/28/23 15:40
890-4428-3	BH01C	Solid	03/28/23 12:15	03/28/23 15:40
890-4428-4	BH02A	Solid	03/28/23 11:55	03/28/23 15:40
890-4428-5	BH02B	Solid	03/28/23 13:20	03/28/23 15:40
890-4428-6	BH02C	Solid	03/28/23 13:25	03/28/23 15:40

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14



Environment Testing
Xenco

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

Chain of Custody

Wk



890-4428 Chain of Custody

www.xenco.com Page 1 of 1

Project Manager:	Ben Belli	Bill to: (if different)	Garrett Green
Company Name:	ENSOLUM, LLC	Company Name:	XTO ENERGY
Address:	3122 National Park Hwy	Address:	3104 E. Greene St
City, State ZIP:	Carlsbad	City, State ZIP:	Carlsbad, NM 88220
Phone:	9703194304	Email:	Garrett.Green@xencomobile.com

Work Order Comments	
Program:	UST/PST <input type="checkbox"/> PRP <input type="checkbox"/> Brownfields <input type="checkbox"/> RRC <input type="checkbox"/> Superfund <input type="checkbox"/>
State of Project:	
Reporting:	Level II <input type="checkbox"/> Level III <input type="checkbox"/> PST/UST <input type="checkbox"/> TRRP <input type="checkbox"/> Level IV <input type="checkbox"/>
Deliverables:	EDD <input type="checkbox"/> ADAPT <input type="checkbox"/> Other:

Project Name:	PLU 13 DTD Battery	Turn Around	Pres Code	ANALYSIS REQUEST	Preservative Codes
Project Number:	03C1558288	<input checked="" type="checkbox"/> Routine <input type="checkbox"/> Rush			None: NO DI Water: H ₂ O
Project Location:	32.20509, -103.8303	Due Date:	15 days		Cool: Cool MeOH: Me
Sampler's Name:	Manana CIDe11	TAT starts the day received by the lab, if received by 4:30pm			HCL: HC HNO: HN
PO #:					H ₂ SO ₄ : H ₂ NaOH: Na
SAMPLE RECEIPT	Temp Blank: <input checked="" type="radio"/> Yes <input checked="" type="radio"/> No	Wet Ice: <input checked="" type="radio"/> Yes <input type="radio"/> No			H ₃ PO ₄ : HP
Samples Received Intact:	<input checked="" type="radio"/> Yes <input type="radio"/> No	Thermometer ID:	11111111		NaHSO ₄ : NABIS
Cooler Custody Seals:	<input checked="" type="radio"/> Yes <input type="radio"/> No	Correction Factor:	-0.2		Na ₂ S ₂ O ₅ : NASO ₃
Sample Custody Seals:	<input checked="" type="radio"/> Yes <input type="radio"/> No	Temperature Reading:	2.8		Zn Acetate+NaOH: Zn
Total Containers:		Corrected Temperature:	2.0		NaOH+Ascorbic Acid: SAPC

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Grab/Comp	# of Cont	Parameters	Sample Comments
BH01A	S	03/28/23	11:00	2'	G	1	Chlorides	INCIDENT #:
BH01B			11:10	4'			BTEX	NAPP2304448900
BH01C			12:15	7'			TPH	
BH02A			11:55	2'				COST CENTER:
BH02B			13:20	4'				2191721001
BH02C			13:25	7'				
								Ben Belli:
								bbelli@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 Ti 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 Ti 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. <i>M. O'Brien</i>	<i>Ben Belli</i>	3.28.23 1540			
3.					
5.					



Environment Testing
Xenco

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

Chain of Custody

W/



890-4428 Chain of Custody

www.xenco.com Page 1 of 1

Project Manager:	Ben Belli	Bill to: (if different)	Garrett Green
Company Name:	Ensolum, LLC	Company Name:	XTO Energy
Address:	3122 National Parks Hwy	Address:	3104 E. Greene St
City, State ZIP:	Carlsbad	City, State ZIP:	Carlsbad, NM 88220
Phone:	9703194364	Email:	Garrett.Green@xencomobile.com

Program:	UST/PT <input type="checkbox"/> PRP <input type="checkbox"/> Brownfields <input type="checkbox"/> RRC <input type="checkbox"/> Superfund <input type="checkbox"/>
State of Project:	
Reporting:	Level II <input type="checkbox"/> Level III <input type="checkbox"/> PST/UST <input type="checkbox"/> TRRP <input type="checkbox"/> Level IV <input type="checkbox"/>
Deliverables:	EDD <input type="checkbox"/> ADAPT <input type="checkbox"/> Other: <input type="checkbox"/>

Project Name:	PLY 13 DTD Battery	Turn Around	<input checked="" type="checkbox"/> Routine <input type="checkbox"/> Rush	Pis. Code	
Project Number:	03C15581288				
Project Location:	32205 W. - 105 83013	Due Date:	5 days		
Sampler's Name:	Manahua O'Dell	TAT starts the day received by the lab, if received by 4:30pm			
P.O. #:					
SAMPLE RECEIPT		Temp Blank:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Wet Ice:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Samples Received Intact:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Thermometer ID:	1000003		
Cooler Custody Seals:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Correction Factor:	-0.2		
Sample Custody Seals:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Temperature Reading:	2.8		
Total Containers:		Corrected Temperature:	2.0		
		Parameters			
		Chlorides			
		BTEX			
		TPH			

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Grab/Comp	# of Cont	ANALYSIS REQUEST	Preservative Codes	Sample Comments
BH01A	S	03/28/23	11:00	2'	G	1		None: NO DI Water: H ₂ O	Incident #: NAPP2304448900
BH01B			11:10	4'				Cool: Cool MeOH: Me	
BH01C			12:15	7'				HCL: HCl HNO: 3: HN	
BH02A			11:55	2'				H ₂ SO: 4: H ₂	Cost Center: 2191721001
BH02B			13:20	4'				H ₃ PO: 4: HP	
BH02C			13:25	7'				NaHSO: 4: NABIS	Ben Belli: bbelli@ensolum.com
								Na ₂ S ₂ O: 3: NaSO	
								Zn Acetate+NaOH: Zn	
								NaOH+Ascorbic Acid: SAPC	

Total 2007 / 6010	2008 / 6020:	8RCRA 13PPM Texas 11	AI Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag SiO ₂ Na Sr Ti 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 Ti 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
Manahua O'Dell	Ben Belli	3.28.23 1540			

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14

4/10/2023

Login Sample Receipt Checklist

Client: Ensolum

Job Number: 890-4428-1

SDG Number: 03C1558188

Login Number: 4428

List Number: 1

Creator: Kramer, Jessica

List Source: Eurofins Carlsbad

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

Login Sample Receipt Checklist

Client: Ensolum

Job Number: 890-4428-1

SDG Number: 03C1558188

Login Number: 4428

List Number: 2

Creator: Kramer, Jessica

List Source: Eurofins Midland

List Creation: 03/30/23 01:53 PM

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



Environment Testing

1

2

3

4

5

6

7

8

9

10

11

12

13

14

ANALYTICAL REPORT

PREPARED FOR

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

Generated 5/1/2023 8:45:56 AM Revision 1

JOB DESCRIPTION

PLU 13 Dog Town Draw Battery
SDG NUMBER 03C1558188

JOB NUMBER

890-4559-1

Eurofins Carlsbad
1089 N Canal St.
Carlsbad NM 88220

Eurofins Carlsbad

Job Notes

This report may not be reproduced except in full, and with written approval from the laboratory. The results relate only to the samples tested. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

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

Authorization



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

Generated
5/1/2023 8:45:56 AM
Revision 1

Client: Ensolum
Project/Site: PLU 13 Dog Town Draw Battery

Laboratory Job ID: 890-4559-1
SDG: 03C1558188

Table of Contents

Cover Page	1
Table of Contents	3
Definitions/Glossary	4
Case Narrative	5
Client Sample Results	7
Surrogate Summary	11
QC Sample Results	12
QC Association Summary	18
Lab Chronicle	21
Certification Summary	23
Method Summary	24
Sample Summary	25
Chain of Custody	26
Receipt Checklists	27

1
2
3
4
5
6
7
8
9
10
11
12
13
14

Definitions/Glossary

Client: Ensolum
Project/Site: PLU 13 Dog Town Draw Battery

Job ID: 890-4559-1
SDG: 03C1558188

Qualifiers

GC VOA

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

GC Semi VOA

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

HPLC/IC

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

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	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

Eurofins Carlsbad

Case Narrative

Client: Ensolum
Project/Site: PLU 13 Dog Town Draw Battery

Job ID: 890-4559-1
SDG: 03C1558188

Job ID: 890-4559-1**Laboratory: Eurofins Carlsbad****Narrative****Job Narrative
890-4559-1**REVISION

The report being provided is a revision of the original report sent on 4/27/2023. The report (revision 1) is being revised due to Per client email, requesting TPH re run on sample #4.

Receipt

The samples were received on 4/21/2023 8:15 AM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 1.0°C

Receipt Exceptions

The following samples > were received and analyzed from an unpreserved bulk soil jar: BH03 (890-4559-1), BH04 (890-4559-2), BH05 (890-4559-3) and BH06 (890-4559-4).

GC VOA

Method 8021B: Surrogate recovery for the following samples were outside control limits: BH04 (890-4559-2) and BH06 (890-4559-4). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

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

GC Semi VOA

Method 8015MOD_NM: The surrogate recovery for the blank associated with preparation batch 880-51848 and analytical batch 880-51824 was outside the upper control limits.

Method 8015MOD_NM: Surrogate recovery for the following sample was outside control limits: (LCSD 880-51848/3-A). Evidence of matrix interferences is not obvious.

Method 8015MOD_NM: Surrogate recovery for the following sample was outside control limits: (890-4554-A-11-B). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

Method 8015MOD_NM: Surrogate recovery for the following samples were outside control limits: BH03 (890-4559-1), BH04 (890-4559-2) and BH05 (890-4559-3). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

Method 8015MOD_NM: Surrogate recovery for the following sample was outside control limits: (CCV 880-51824/5). Evidence of matrix interferences is not obvious.

Method 8015MOD_NM: Surrogate recovery for the following sample was outside control limits: (CCV 880-51824/31). Evidence of matrix interferences is not obvious.

Method 8015MOD_NM: The matrix spike / matrix spike duplicate (MS/MSD) precision for preparation batch 880-51848 and analytical batch 880-51824 was outside control limits. Sample non-homogeneity is suspected.

Method 8015MOD_NM: The continuing calibration verification (CCV) associated with batch 880-51824 recovered above the upper control limit for Gasoline Range Organics (GRO)-C6-C10. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported. The associated sample is impacted: (CCV 880-51824/5).

Method 8015MOD_NM: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 880-52181 and analytical batch 880-52159 were outside control limits for one or more analytes, see QC Sample Results for detail. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery is within acceptance limits.

Case Narrative

Client: Ensolum
Project/Site: PLU 13 Dog Town Draw Battery

Job ID: 890-4559-1
SDG: 03C1558188

Job ID: 890-4559-1 (Continued)

Laboratory: Eurofins Carlsbad (Continued)

Method 8015MOD_NM: Surrogate recovery for the following samples were outside control limits: BH06 (890-4559-4), (LCS 880-52181/2-A), (LCSD 880-52181/3-A), (880-27710-A-1-F), (880-27710-A-1-G MS) and (880-27710-A-1-H MSD). Evidence of matrix interferences is not obvious.

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

HPLC/IC

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

Client Sample Results

Client: Ensolum
Project/Site: PLU 13 Dog Town Draw Battery

Job ID: 890-4559-1
SDG: 03C1558188

Client Sample ID: BH03

Lab Sample ID: 890-4559-1

Date Collected: 04/20/23 09:55

Matrix: Solid

Date Received: 04/21/23 08:15

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		04/24/23 11:53	04/24/23 23:34	1
Toluene	<0.00200	U	0.00200	mg/Kg		04/24/23 11:53	04/24/23 23:34	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		04/24/23 11:53	04/24/23 23:34	1
m-Xylene & p-Xylene	<0.00399	U	0.00399	mg/Kg		04/24/23 11:53	04/24/23 23:34	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		04/24/23 11:53	04/24/23 23:34	1
Xylenes, Total	<0.00399	U	0.00399	mg/Kg		04/24/23 11:53	04/24/23 23:34	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	109		70 - 130	04/24/23 11:53	04/24/23 23:34	1
1,4-Difluorobenzene (Surr)	85		70 - 130	04/24/23 11:53	04/24/23 23:34	1

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00399	U	0.00399	mg/Kg			04/25/23 10:30	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.8	U	49.8	mg/Kg			04/25/23 10:20	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.8	U	49.8	mg/Kg		04/24/23 12:29	04/24/23 18:28	1
Diesel Range Organics (Over C10-C28)	<49.8	U	49.8	mg/Kg		04/24/23 12:29	04/24/23 18:28	1
Oil Range Organics (Over C28-C36)	<49.8	U	49.8	mg/Kg		04/24/23 12:29	04/24/23 18:28	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	120		70 - 130	04/24/23 12:29	04/24/23 18:28	1
o-Terphenyl	145	S1+	70 - 130	04/24/23 12:29	04/24/23 18:28	1

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	144		5.04	mg/Kg			04/27/23 15:35	1

Client Sample ID: BH04

Lab Sample ID: 890-4559-2

Date Collected: 04/20/23 10:20

Matrix: Solid

Date Received: 04/21/23 08:15

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		04/24/23 11:53	04/24/23 23:54	1
Toluene	<0.00199	U	0.00199	mg/Kg		04/24/23 11:53	04/24/23 23:54	1
Ethylbenzene	<0.00199	U	0.00199	mg/Kg		04/24/23 11:53	04/24/23 23:54	1
m-Xylene & p-Xylene	<0.00398	U	0.00398	mg/Kg		04/24/23 11:53	04/24/23 23:54	1
o-Xylene	<0.00199	U	0.00199	mg/Kg		04/24/23 11:53	04/24/23 23:54	1
Xylenes, Total	<0.00398	U	0.00398	mg/Kg		04/24/23 11:53	04/24/23 23:54	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	146	S1+	70 - 130	04/24/23 11:53	04/24/23 23:54	1

Eurofins Carlsbad

Client Sample Results

Client: Ensolum
Project/Site: PLU 13 Dog Town Draw Battery

Job ID: 890-4559-1
SDG: 03C1558188

Client Sample ID: BH04

Lab Sample ID: 890-4559-2

Date Collected: 04/20/23 10:20

Matrix: Solid

Date Received: 04/21/23 08:15

Sample Depth: 2

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

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,4-Difluorobenzene (Surr)	106		70 - 130	04/24/23 11:53	04/24/23 23:54	1

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398	mg/Kg			04/25/23 10:30	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9	mg/Kg			04/25/23 10:20	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9	mg/Kg		04/24/23 12:29	04/24/23 18:50	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9	mg/Kg		04/24/23 12:29	04/24/23 18:50	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg		04/24/23 12:29	04/24/23 18:50	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	135	S1+	70 - 130			04/24/23 12:29	04/24/23 18:50	1
o-Terphenyl	161	S1+	70 - 130			04/24/23 12:29	04/24/23 18:50	1

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	136		5.00	mg/Kg			04/27/23 15:40	1

Client Sample ID: BH05

Lab Sample ID: 890-4559-3

Date Collected: 04/20/23 13:50

Matrix: Solid

Date Received: 04/21/23 08:15

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		04/24/23 11:53	04/25/23 00:15	1
Toluene	<0.00201	U	0.00201	mg/Kg		04/24/23 11:53	04/25/23 00:15	1
Ethylbenzene	<0.00201	U	0.00201	mg/Kg		04/24/23 11:53	04/25/23 00:15	1
m-Xylene & p-Xylene	<0.00402	U	0.00402	mg/Kg		04/24/23 11:53	04/25/23 00:15	1
o-Xylene	<0.00201	U	0.00201	mg/Kg		04/24/23 11:53	04/25/23 00:15	1
Xylenes, Total	<0.00402	U	0.00402	mg/Kg		04/24/23 11:53	04/25/23 00:15	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	115		70 - 130	04/24/23 11:53	04/25/23 00:15	1
1,4-Difluorobenzene (Surr)	72		70 - 130	04/24/23 11:53	04/25/23 00:15	1

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00402	U	0.00402	mg/Kg			04/25/23 10:30	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0	mg/Kg			04/25/23 10:20	1

Eurofins Carlsbad

Client Sample Results

Client: Ensolum
Project/Site: PLU 13 Dog Town Draw Battery

Job ID: 890-4559-1
SDG: 03C1558188

Client Sample ID: BH05

Date Collected: 04/20/23 13:50

Date Received: 04/21/23 08:15

Sample Depth: 2

Lab Sample ID: 890-4559-3

Matrix: Solid

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0	mg/Kg		04/24/23 12:29	04/24/23 19:11	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		04/24/23 12:29	04/24/23 19:11	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		04/24/23 12:29	04/24/23 19:11	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	130		70 - 130			04/24/23 12:29	04/24/23 19:11	1
o-Terphenyl	158	S1+	70 - 130			04/24/23 12:29	04/24/23 19:11	1

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	162		5.05	mg/Kg			04/27/23 15:45	1

Client Sample ID: BH06

Date Collected: 04/20/23 13:15

Date Received: 04/21/23 08:15

Sample Depth: 2

Lab Sample ID: 890-4559-4

Matrix: Solid

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00201	U	0.00201	mg/Kg		04/24/23 11:53	04/25/23 00:35	1
Toluene	<0.00201	U	0.00201	mg/Kg		04/24/23 11:53	04/25/23 00:35	1
Ethylbenzene	<0.00201	U	0.00201	mg/Kg		04/24/23 11:53	04/25/23 00:35	1
m-Xylene & p-Xylene	<0.00402	U	0.00402	mg/Kg		04/24/23 11:53	04/25/23 00:35	1
o-Xylene	<0.00201	U	0.00201	mg/Kg		04/24/23 11:53	04/25/23 00:35	1
Xylenes, Total	<0.00402	U	0.00402	mg/Kg		04/24/23 11:53	04/25/23 00:35	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	117		70 - 130			04/24/23 11:53	04/25/23 00:35	1
1,4-Difluorobenzene (Surr)	64	S1-	70 - 130			04/24/23 11:53	04/25/23 00:35	1

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00402	U	0.00402	mg/Kg			04/25/23 10:30	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9	mg/Kg			04/25/23 10:20	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U *	49.9	mg/Kg		04/28/23 09:48	04/28/23 15:05	1
Diesel Range Organics (Over C10-C28)	<49.9	U *	49.9	mg/Kg		04/28/23 09:48	04/28/23 15:05	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg		04/28/23 09:48	04/28/23 15:05	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	73		70 - 130			04/28/23 09:48	04/28/23 15:05	1
o-Terphenyl	55	S1-	70 - 130			04/28/23 09:48	04/28/23 15:05	1

Eurofins Carlsbad

Client Sample Results

Client: Ensolum
Project/Site: PLU 13 Dog Town Draw Battery

Job ID: 890-4559-1
SDG: 03C1558188

Client Sample ID: BH06
Date Collected: 04/20/23 13:15
Date Received: 04/21/23 08:15
Sample Depth: 2

Lab Sample ID: 890-4559-4
Matrix: Solid

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble									
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
Chloride	270		5.02	mg/Kg			04/27/23 15:49	1	

Surrogate Summary

Client: Ensolum
Project/Site: PLU 13 Dog Town Draw Battery

Job ID: 890-4559-1
SDG: 03C1558188

Method: 8021B - Volatile Organic Compounds (GC)

Matrix: Solid

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	BFB1 (70-130)	DFBZ1 (70-130)
890-4559-1	BH03	109	85
890-4559-1 MS	BH03	122	110
890-4559-1 MSD	BH03	109	110
890-4559-2	BH04	146 S1+	106
890-4559-3	BH05	115	72
890-4559-4	BH06	117	64 S1-
LCS 880-51842/1-A	Lab Control Sample	114	87
LCSD 880-51842/2-A	Lab Control Sample Dup	117	109
MB 880-51796/5-A	Method Blank	74	82
MB 880-51842/5-A	Method Blank	76	80
Surrogate Legend			
BFB = 4-Bromofluorobenzene (Surr)			
DFBZ = 1,4-Difluorobenzene (Surr)			

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

Matrix: Solid

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	1CO1 (70-130)	OTPH1 (70-130)
880-27710-A-1-G MS	Matrix Spike	71	51 S1-
880-27710-A-1-H MSD	Matrix Spike Duplicate	68 S1-	48 S1-
890-4554-A-11-C MS	Matrix Spike	91	103
890-4554-A-11-D MSD	Matrix Spike Duplicate	109	117
890-4559-1	BH03	120	145 S1+
890-4559-2	BH04	135 S1+	161 S1+
890-4559-3	BH05	130	158 S1+
890-4559-4	BH06	73	55 S1-
LCS 880-51848/2-A	Lab Control Sample	106	130
LCS 880-52181/2-A	Lab Control Sample	70	53 S1-
LCSD 880-51848/3-A	Lab Control Sample Dup	124	150 S1+
LCSD 880-52181/3-A	Lab Control Sample Dup	72	53 S1-
MB 880-51848/1-A	Method Blank	119	154 S1+
MB 880-52181/1-A	Method Blank	67 S1-	67 S1-
Surrogate Legend			
1CO = 1-Chlorooctane			
OTPH = o-Terphenyl			

Eurofins Carlsbad

QC Sample Results

Client: Ensolum
Project/Site: PLU 13 Dog Town Draw Battery

Job ID: 890-4559-1
SDG: 03C1558188

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-51796/5-A

Matrix: Solid

Analysis Batch: 51793

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 51796

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		04/24/23 08:38	04/24/23 11:49	1
Toluene	<0.00200	U	0.00200	mg/Kg		04/24/23 08:38	04/24/23 11:49	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		04/24/23 08:38	04/24/23 11:49	1
m-Xylene & p-Xylene	<0.00400	U	0.00400	mg/Kg		04/24/23 08:38	04/24/23 11:49	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		04/24/23 08:38	04/24/23 11:49	1
Xylenes, Total	<0.00400	U	0.00400	mg/Kg		04/24/23 08:38	04/24/23 11:49	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	74		70 - 130	04/24/23 08:38	04/24/23 11:49	1
1,4-Difluorobenzene (Surr)	82		70 - 130	04/24/23 08:38	04/24/23 11:49	1

Lab Sample ID: MB 880-51842/5-A

Matrix: Solid

Analysis Batch: 51793

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 51842

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		04/24/23 11:53	04/24/23 23:12	1
Toluene	<0.00200	U	0.00200	mg/Kg		04/24/23 11:53	04/24/23 23:12	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		04/24/23 11:53	04/24/23 23:12	1
m-Xylene & p-Xylene	<0.00400	U	0.00400	mg/Kg		04/24/23 11:53	04/24/23 23:12	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		04/24/23 11:53	04/24/23 23:12	1
Xylenes, Total	<0.00400	U	0.00400	mg/Kg		04/24/23 11:53	04/24/23 23:12	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	76		70 - 130	04/24/23 11:53	04/24/23 23:12	1
1,4-Difluorobenzene (Surr)	80		70 - 130	04/24/23 11:53	04/24/23 23:12	1

Lab Sample ID: LCS 880-51842/1-A

Matrix: Solid

Analysis Batch: 51793

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 51842

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	0.100	0.07865		mg/Kg		79	70 - 130
Toluene	0.100	0.08718		mg/Kg		87	70 - 130
Ethylbenzene	0.100	0.08717		mg/Kg		87	70 - 130
m-Xylene & p-Xylene	0.200	0.1841		mg/Kg		92	70 - 130
o-Xylene	0.100	0.09410		mg/Kg		94	70 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene (Surr)	114		70 - 130
1,4-Difluorobenzene (Surr)	87		70 - 130

Lab Sample ID: LCSD 880-51842/2-A

Matrix: Solid

Analysis Batch: 51793

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 51842

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	Limit
Benzene	0.100	0.08353		mg/Kg		84	70 - 130	6	35

Eurofins Carlsbad

QC Sample Results

Client: Ensolum
Project/Site: PLU 13 Dog Town Draw Battery

Job ID: 890-4559-1
SDG: 03C1558188

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

Lab Sample ID: LCSD 880-51842/2-A

Matrix: Solid

Analysis Batch: 51793

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 51842

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Toluene	0.100	0.09106		mg/Kg		91	70 - 130	4	35
Ethylbenzene	0.100	0.08957		mg/Kg		90	70 - 130	3	35
m-Xylene & p-Xylene	0.200	0.1885		mg/Kg		94	70 - 130	2	35
o-Xylene	0.100	0.09665		mg/Kg		97	70 - 130	3	35

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	117		70 - 130
1,4-Difluorobenzene (Surr)	109		70 - 130

Lab Sample ID: 890-4559-1 MS

Matrix: Solid

Analysis Batch: 51793

Client Sample ID: BH03

Prep Type: Total/NA

Prep Batch: 51842

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	<0.00200	U	0.0990	0.07712		mg/Kg		78	70 - 130
Toluene	<0.00200	U	0.0990	0.07818		mg/Kg		79	70 - 130
Ethylbenzene	<0.00200	U	0.0990	0.08385		mg/Kg		85	70 - 130
m-Xylene & p-Xylene	<0.00399	U	0.198	0.1760		mg/Kg		89	70 - 130
o-Xylene	<0.00200	U	0.0990	0.08930		mg/Kg		90	70 - 130

Surrogate	MS %Recovery	MS Qualifier	Limits
4-Bromofluorobenzene (Surr)	122		70 - 130
1,4-Difluorobenzene (Surr)	110		70 - 130

Lab Sample ID: 890-4559-1 MSD

Matrix: Solid

Analysis Batch: 51793

Client Sample ID: BH03

Prep Type: Total/NA

Prep Batch: 51842

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	<0.00200	U	0.101	0.08184		mg/Kg		81	70 - 130	6	35
Toluene	<0.00200	U	0.101	0.07949		mg/Kg		79	70 - 130	2	35
Ethylbenzene	<0.00200	U	0.101	0.07477		mg/Kg		74	70 - 130	11	35
m-Xylene & p-Xylene	<0.00399	U	0.202	0.1522		mg/Kg		75	70 - 130	15	35
o-Xylene	<0.00200	U	0.101	0.07719		mg/Kg		77	70 - 130	15	35

Surrogate	MSD %Recovery	MSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	109		70 - 130
1,4-Difluorobenzene (Surr)	110		70 - 130

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

Lab Sample ID: MB 880-51848/1-A

Matrix: Solid

Analysis Batch: 51824

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 51848

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0	mg/Kg		04/24/23 12:29	04/24/23 15:31	1

Eurofins Carlsbad

QC Sample Results

Client: Ensolum
Project/Site: PLU 13 Dog Town Draw Battery

Job ID: 890-4559-1
SDG: 03C1558188

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

Lab Sample ID: MB 880-51848/1-A

Matrix: Solid

Analysis Batch: 51824

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 51848

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		04/24/23 12:29	04/24/23 15:31	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		04/24/23 12:29	04/24/23 15:31	1
Surrogate	MB %Recovery	MB Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	119		70 - 130			04/24/23 12:29	04/24/23 15:31	1
o-Terphenyl	154	S1+	70 - 130			04/24/23 12:29	04/24/23 15:31	1

Lab Sample ID: LCS 880-51848/2-A

Matrix: Solid

Analysis Batch: 51824

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 51848

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Gasoline Range Organics (GRO)-C6-C10	1000	969.9		mg/Kg		97	70 - 130
Diesel Range Organics (Over C10-C28)	1000	911.5		mg/Kg		91	70 - 130
Surrogate	LCS %Recovery	LCS Qualifier	Limits				
1-Chlorooctane	106		70 - 130				
o-Terphenyl	130		70 - 130				

Lab Sample ID: LCSD 880-51848/3-A

Matrix: Solid

Analysis Batch: 51824

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 51848

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	1000	1095		mg/Kg		109	70 - 130	12	20
Diesel Range Organics (Over C10-C28)	1000	1052		mg/Kg		105	70 - 130	14	20
Surrogate	LCSD %Recovery	LCSD Qualifier	Limits						
1-Chlorooctane	124		70 - 130						
o-Terphenyl	150	S1+	70 - 130						

Lab Sample ID: 890-4554-A-11-C MS

Matrix: Solid

Analysis Batch: 51824

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 51848

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Gasoline Range Organics (GRO)-C6-C10	<50.0	U F2	997	913.0		mg/Kg		92	70 - 130
Diesel Range Organics (Over C10-C28)	<50.0	U	997	1056		mg/Kg		106	70 - 130
Surrogate	MS %Recovery	MS Qualifier	Limits						
1-Chlorooctane	91		70 - 130						
o-Terphenyl	103		70 - 130						

Eurofins Carlsbad

QC Sample Results

Client: Ensolum
Project/Site: PLU 13 Dog Town Draw Battery

Job ID: 890-4559-1
SDG: 03C1558188

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

Lab Sample ID: 890-4554-A-11-D MSD

Matrix: Solid

Analysis Batch: 51824

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 51848

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	<50.0	U F2	998	1200	F2	mg/Kg		120	70 - 130	27	20
Diesel Range Organics (Over C10-C28)	<50.0	U	998	1231		mg/Kg		123	70 - 130	15	20
Surrogate	MSD %Recovery	MSD Qualifier	Limits								
1-Chlorooctane	109		70 - 130								
o-Terphenyl	117		70 - 130								

Lab Sample ID: MB 880-52181/1-A

Matrix: Solid

Analysis Batch: 52159

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 52181

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0	mg/Kg		04/28/23 09:48	04/28/23 09:19	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		04/28/23 09:48	04/28/23 09:19	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		04/28/23 09:48	04/28/23 09:19	1
Surrogate	MB %Recovery	MB Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	67	S1-	70 - 130			04/28/23 09:48	04/28/23 09:19	1
o-Terphenyl	67	S1-	70 - 130			04/28/23 09:48	04/28/23 09:19	1

Lab Sample ID: LCS 880-52181/2-A

Matrix: Solid

Analysis Batch: 52159

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 52181

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Gasoline Range Organics (GRO)-C6-C10	1000	895.1		mg/Kg		90	70 - 130		
Diesel Range Organics (Over C10-C28)	1000	811.1		mg/Kg		81	70 - 130		
Surrogate	LCS %Recovery	LCS Qualifier	Limits						
1-Chlorooctane	70		70 - 130						
o-Terphenyl	53	S1-	70 - 130						

Lab Sample ID: LCSD 880-52181/3-A

Matrix: Solid

Analysis Batch: 52159

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 52181

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	1000	903.2		mg/Kg		90	70 - 130	1	20
Diesel Range Organics (Over C10-C28)	1000	845.3		mg/Kg		85	70 - 130	4	20

Eurofins Carlsbad

QC Sample Results

Client: Ensolum
Project/Site: PLU 13 Dog Town Draw Battery

Job ID: 890-4559-1
SDG: 03C1558188

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

Lab Sample ID: LCSD 880-52181/3-A

Matrix: Solid

Analysis Batch: 52159

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 52181

	LCSD	LCSD	
Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane	72		70 - 130
o-Terphenyl	53	S1-	70 - 130

Lab Sample ID: 880-27710-A-1-G MS

Matrix: Solid

Analysis Batch: 52159

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 52181

Analyte	Sample	Sample	Spike	MS	MS	Unit	D	%Rec	%Rec		
	Result	Qualifier	Added	Result	Qualifier			Limits	Limits		
Gasoline Range Organics (GRO)-C6-C10	<49.9	U *- F1	999	655.2	F1	mg/Kg		66	70 - 130		
Diesel Range Organics (Over C10-C28)	<49.9	U *- F1	999	519.9	F1	mg/Kg		52	70 - 130		
Surrogate	MS %Recovery	MS Qualifier	Limits								
1-Chlorooctane	71		70 - 130								
o-Terphenyl	51	S1-	70 - 130								

Lab Sample ID: 880-27710-A-1-H MSD

Matrix: Solid

Analysis Batch: 52159

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 52181

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	<49.9	U *- F1	997	628.7	F1	mg/Kg		63	70 - 130	4	20
Diesel Range Organics (Over C10-C28)	<49.9	U *- F1	997	492.8	F1	mg/Kg		49	70 - 130	5	20
			</								

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-51907/1-A

Matrix: Solid

Analysis Batch: 52121

Client Sample ID: Method Blank

Prep Type: Soluble

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.00	U	5.00	mg/Kg			04/27/23 14:42	1

Lab Sample ID: LCS 880-51907/2-A

Matrix: Solid

Analysis Batch: 52121

Client Sample ID: Lab Control Sample

Prep Type: Soluble

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	250	273.1		mg/Kg		109	90 - 110

Eurofins Carlsbad

QC Sample Results

Client: Ensolum
Project/Site: PLU 13 Dog Town Draw Battery

Job ID: 890-4559-1
SDG: 03C1558188

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: LCSD 880-51907/3-A

Matrix: Solid

Analysis Batch: 52121

Client Sample ID: Lab Control Sample Dup

Prep Type: Soluble

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride			250	262.9		mg/Kg		105	90 - 110	4	20

Lab Sample ID: 890-4556-A-1-C MS

Matrix: Solid

Analysis Batch: 52121

Client Sample ID: Matrix Spike

Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride	423		253	688.2		mg/Kg		105	90 - 110		

Lab Sample ID: 890-4556-A-1-D MSD

Matrix: Solid

Analysis Batch: 52121

Client Sample ID: Matrix Spike Duplicate

Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	423		253	690.2		mg/Kg		106	90 - 110	0	20

QC Association Summary

Client: Ensolum
Project/Site: PLU 13 Dog Town Draw Battery

Job ID: 890-4559-1
SDG: 03C1558188

GC VOA

Analysis Batch: 51793

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4559-1	BH03	Total/NA	Solid	8021B	51842
890-4559-2	BH04	Total/NA	Solid	8021B	51842
890-4559-3	BH05	Total/NA	Solid	8021B	51842
890-4559-4	BH06	Total/NA	Solid	8021B	51842
MB 880-51796/5-A	Method Blank	Total/NA	Solid	8021B	51796
MB 880-51842/5-A	Method Blank	Total/NA	Solid	8021B	51842
LCS 880-51842/1-A	Lab Control Sample	Total/NA	Solid	8021B	51842
LCSD 880-51842/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	51842
890-4559-1 MS	BH03	Total/NA	Solid	8021B	51842
890-4559-1 MSD	BH03	Total/NA	Solid	8021B	51842

Prep Batch: 51796

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 880-51796/5-A	Method Blank	Total/NA	Solid	5035	

Prep Batch: 51842

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4559-1	BH03	Total/NA	Solid	5035	
890-4559-2	BH04	Total/NA	Solid	5035	
890-4559-3	BH05	Total/NA	Solid	5035	
890-4559-4	BH06	Total/NA	Solid	5035	
MB 880-51842/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-51842/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-51842/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
890-4559-1 MS	BH03	Total/NA	Solid	5035	
890-4559-1 MSD	BH03	Total/NA	Solid	5035	

Analysis Batch: 51938

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4559-1	BH03	Total/NA	Solid	Total BTEX	
890-4559-2	BH04	Total/NA	Solid	Total BTEX	
890-4559-3	BH05	Total/NA	Solid	Total BTEX	
890-4559-4	BH06	Total/NA	Solid	Total BTEX	

GC Semi VOA

Analysis Batch: 51824

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4559-1	BH03	Total/NA	Solid	8015B NM	51848
890-4559-2	BH04	Total/NA	Solid	8015B NM	51848
890-4559-3	BH05	Total/NA	Solid	8015B NM	51848
MB 880-51848/1-A	Method Blank	Total/NA	Solid	8015B NM	51848
LCS 880-51848/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	51848
LCSD 880-51848/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	51848
890-4554-A-11-C MS	Matrix Spike	Total/NA	Solid	8015B NM	51848
890-4554-A-11-D MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	51848

Prep Batch: 51848

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4559-1	BH03	Total/NA	Solid	8015NM Prep	
890-4559-2	BH04	Total/NA	Solid	8015NM Prep	

Eurofins Carlsbad

QC Association Summary

Client: Ensolum
Project/Site: PLU 13 Dog Town Draw Battery

Job ID: 890-4559-1
SDG: 03C1558188

GC Semi VOA (Continued)

Prep Batch: 51848 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4559-3	BH05	Total/NA	Solid	8015NM Prep	
MB 880-51848/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-51848/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-51848/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
890-4554-A-11-C MS	Matrix Spike	Total/NA	Solid	8015NM Prep	
890-4554-A-11-D MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	

Analysis Batch: 51936

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4559-1	BH03	Total/NA	Solid	8015 NM	
890-4559-2	BH04	Total/NA	Solid	8015 NM	
890-4559-3	BH05	Total/NA	Solid	8015 NM	
890-4559-4	BH06	Total/NA	Solid	8015 NM	

Analysis Batch: 52159

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4559-4	BH06	Total/NA	Solid	8015B NM	52181
MB 880-52181/1-A	Method Blank	Total/NA	Solid	8015B NM	52181
LCS 880-52181/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	52181
LCSD 880-52181/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	52181
880-27710-A-1-G MS	Matrix Spike	Total/NA	Solid	8015B NM	52181
880-27710-A-1-H MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	52181

Prep Batch: 52181

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4559-4	BH06	Total/NA	Solid	8015NM Prep	
MB 880-52181/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-52181/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-52181/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
880-27710-A-1-G MS	Matrix Spike	Total/NA	Solid	8015NM Prep	
880-27710-A-1-H MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	

HPLC/IC

Leach Batch: 51907

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4559-1	BH03	Soluble	Solid	DI Leach	
890-4559-2	BH04	Soluble	Solid	DI Leach	
890-4559-3	BH05	Soluble	Solid	DI Leach	
890-4559-4	BH06	Soluble	Solid	DI Leach	
MB 880-51907/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-51907/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-51907/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
890-4556-A-1-C MS	Matrix Spike	Soluble	Solid	DI Leach	
890-4556-A-1-D MSD	Matrix Spike Duplicate	Soluble	Solid	DI Leach	

Analysis Batch: 52121

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4559-1	BH03	Soluble	Solid	300.0	51907
890-4559-2	BH04	Soluble	Solid	300.0	51907
890-4559-3	BH05	Soluble	Solid	300.0	51907

Eurofins Carlsbad

QC Association Summary

Client: Ensolum
Project/Site: PLU 13 Dog Town Draw Battery

Job ID: 890-4559-1
SDG: 03C1558188

HPLC/IC (Continued)

Analysis Batch: 52121 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4559-4	BH06	Soluble	Solid	300.0	51907
MB 880-51907/1-A	Method Blank	Soluble	Solid	300.0	51907
LCS 880-51907/2-A	Lab Control Sample	Soluble	Solid	300.0	51907
LCSD 880-51907/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	51907
890-4556-A-1-C MS	Matrix Spike	Soluble	Solid	300.0	51907
890-4556-A-1-D MSD	Matrix Spike Duplicate	Soluble	Solid	300.0	51907

Lab Chronicle

Client: Ensolum
Project/Site: PLU 13 Dog Town Draw Battery

Job ID: 890-4559-1
SDG: 03C1558188

Client Sample ID: BH03

Lab Sample ID: 890-4559-1

Date Collected: 04/20/23 09:55

Matrix: Solid

Date Received: 04/21/23 08:15

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.01 g	5 mL	51842	04/24/23 11:53	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	51793	04/24/23 23:34	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			51938	04/25/23 10:30	SM	EET MID
Total/NA	Analysis	8015 NM		1			51936	04/25/23 10:20	SM	EET MID
Total/NA	Prep	8015NM Prep			10.04 g	10 mL	51848	04/24/23 12:29	AJ	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	51824	04/24/23 18:28	SM	EET MID
Soluble	Leach	DI Leach			4.96 g	50 mL	51907	04/25/23 07:45	KS	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	52121	04/27/23 15:35	SMC	EET MID

Client Sample ID: BH04

Lab Sample ID: 890-4559-2

Date Collected: 04/20/23 10:20

Matrix: Solid

Date Received: 04/21/23 08:15

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.03 g	5 mL	51842	04/24/23 11:53	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	51793	04/24/23 23:54	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			51938	04/25/23 10:30	SM	EET MID
Total/NA	Analysis	8015 NM		1			51936	04/25/23 10:20	SM	EET MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	51848	04/24/23 12:29	AJ	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	51824	04/24/23 18:50	SM	EET MID
Soluble	Leach	DI Leach			5 g	50 mL	51907	04/25/23 07:45	KS	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	52121	04/27/23 15:40	SMC	EET MID

Client Sample ID: BH05

Lab Sample ID: 890-4559-3

Date Collected: 04/20/23 13:50

Matrix: Solid

Date Received: 04/21/23 08:15

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.97 g	5 mL	51842	04/24/23 11:53	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	51793	04/25/23 00:15	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			51938	04/25/23 10:30	SM	EET MID
Total/NA	Analysis	8015 NM		1			51936	04/25/23 10:20	SM	EET MID
Total/NA	Prep	8015NM Prep			10.00 g	10 mL	51848	04/24/23 12:29	AJ	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	51824	04/24/23 19:11	SM	EET MID
Soluble	Leach	DI Leach			4.95 g	50 mL	51907	04/25/23 07:45	KS	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	52121	04/27/23 15:45	SMC	EET MID

Client Sample ID: BH06

Lab Sample ID: 890-4559-4

Date Collected: 04/20/23 13:15

Matrix: Solid

Date Received: 04/21/23 08:15

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.98 g	5 mL	51842	04/24/23 11:53	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	51793	04/25/23 00:35	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			51938	04/25/23 10:30	SM	EET MID

Eurofins Carlsbad

Lab Chronicle

Client: Ensolum
Project/Site: PLU 13 Dog Town Draw Battery

Job ID: 890-4559-1
SDG: 03C1558188

Client Sample ID: BH06

Date Collected: 04/20/23 13:15

Date Received: 04/21/23 08:15

Lab Sample ID: 890-4559-4

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8015 NM		1			51936	04/25/23 10:20	SM	EET MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	52181	04/28/23 09:48	AM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	52159	04/28/23 15:05	AJ	EET MID
Soluble	Leach	DI Leach			4.98 g	50 mL	51907	04/25/23 07:45	KS	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	52121	04/27/23 15:49	SMC	EET MID

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

Accreditation/Certification Summary

Client: Ensolum
Project/Site: PLU 13 Dog Town Draw Battery

Job ID: 890-4559-1
SDG: 03C1558188

Laboratory: Eurofins Midland

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

Authority	Program	Identification Number	Expiration Date
Texas	NELAP	T104704400-22-25	06-30-23
The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.			
Analysis Method	Prep Method	Matrix	Analyte
8015 NM		Solid	Total TPH
Total BTEX		Solid	Total BTEX

Method Summary

Client: Ensolum
Project/Site: PLU 13 Dog Town Draw Battery

Job ID: 890-4559-1
SDG: 03C1558188

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

Protocol References:

ASTM = ASTM International

EPA = US Environmental Protection Agency

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

TAL SOP = TestAmerica Laboratories, Standard Operating Procedure

Laboratory References:

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

Sample Summary

Client: Ensolum
Project/Site: PLU 13 Dog Town Draw Battery

Job ID: 890-4559-1
SDG: 03C1558188

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-4559-1	BH03	Solid	04/20/23 09:55	04/21/23 08:15	2
890-4559-2	BH04	Solid	04/20/23 10:20	04/21/23 08:15	2
890-4559-3	BH05	Solid	04/20/23 13:50	04/21/23 08:15	2
890-4559-4	BH06	Solid	04/20/23 13:15	04/21/23 08:15	2

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14



Chain of Custody

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


Work Order No: _____

www.xenco.com Page 1 of 1

Project Manager:	Ben Belill	Bill to: (if different)	Garrett Green
Company Name:	Ensolum	Company Name:	XTO Energy
Address:	3122 National Parks Hwy	Address:	3104 E. Green St.
City, State ZIP:	Carlsbad, NM 88220	City, State ZIP:	Carlsbad, NM 88220
Phone:	303-887-2946	Email:	Garrett.Green@ExxonMobil.com



www.xenoo.com Page 1 of 1

Work Order Comments
Program: UST/PST <input type="checkbox"/> PRP <input type="checkbox"/> Brownfields <input type="checkbox"/> RRC <input type="checkbox"/> Superfund <input type="checkbox"/>
State of Project:
Reporting: Level II <input type="checkbox"/> Level III <input type="checkbox"/> PST/UST <input type="checkbox"/> TRRP <input type="checkbox"/> Level IV <input type="checkbox"/>
Deliverables: EDD <input type="checkbox"/> ADaPT <input type="checkbox"/> Other:

Project Name:		PLU 13 Dog Town Draw Battery		Turn Around		ANALYSIS REQUEST										Preservative Codes						
Project Number:		03C1558188		<input type="checkbox"/> Routine <input checked="" type="checkbox"/> Rush		Pres. Code										None: NO DI Water: H ₂ O						
Project Location:				Due Date: 3 Day		 890-4559 Chain of Custody										Cool: Cool MeOH: Me						
Sampler's Name:		Connor Whitman		TAT starts the day received by the lab, if received by 4:30pm												HCL: HC HNO ₃ : HN						
PO #:																H ₂ SO ₄ : H ₂ NaOH: Na						
SAMPLE RECEIPT		Temp Blank:		Yes No		Wet Ice:		Yes No		Parameters CHLORIDES (EPA: 3000.0) TPH (8015) BTEX (8021)										H ₃ PO ₄ : HP		
Samples Received Intact:		Yes No		Thermometer ID: TMM007																NaHSO ₄ : NABIS		
Cooler Custody Seals:		Yes No N/A		Correction Factor: -0.2																Na ₂ S ₂ O ₃ : NaSO ₃		
Sample Custody Seals:		Yes No N/A		Temperature Reading: 1.2																Zn Acetate+NaOH: Zn		
Total Containers:				Corrected Temperature: 1.0																NaOH+Ascorbic Acid: SAPC		
Sample Identification		Matrix	Date Sampled	Time Sampled	Depth	Grab/Comp	# of Cont											Sample Comments				
BH03		S	4/20/23	9:55	2	G	1	/	/	/											Incident ID:	
BH04		I		10:20	2	G	1	/	/	/											nAPP2304448906	
BH05		I		1:50	2	G	1	/	/	/											Cost Center:	
BH06		I		1:15	2	G	1	/	/	/											2191721001	
												AFE:										

Total 200.7 / 6010	200.8 / 6020:	8RCRA	13PPM	Texas 11	Al	Sb	As	Ba	Be	B	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	K	Se	Ag	SiO ₂	Na	Sr	Ti	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	Ti	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 \$65.00 will be applied to each project and a charge of \$5 for each sample submitted to Eurofins Xenco, but not analyzed. These terms will be enforced unless previously negotiated.

Relinquished by: (Signature)		Received by: (Signature)		Date/Time	Relinquished by: (Signature)		Received by: (Signature)		Date/Time
1				4.21.23 8:15	2				
3					4				
5					6				

Login Sample Receipt Checklist

Client: Ensolum

Job Number: 890-4559-1

SDG Number: 03C1558188

Login Number: 4559

List Number: 1

Creator: Clifton, Cloe

List Source: Eurofins Carlsbad

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

Login Sample Receipt Checklist

Client: Ensolum

Job Number: 890-4559-1

SDG Number: 03C1558188

Login Number: 4559**List Number: 2****Creator: Rodriguez, Leticia****List Source: Eurofins Midland****List Creation: 04/24/23 09:11 AM**

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



APPENDIX E

NMOCD Notifications

Ben Belill

From: Green, Garrett J <garrett.green@exxonmobil.com>
Sent: Thursday, March 23, 2023 9:48 AM
To: Enviro, OCD, EMNRD; Bratcher, Michael, EMNRD; Harimon, Jocelyn, EMNRD; Hamlet, Robert, EMNRD
Cc: Ben Belill; DelawareSpills /SM
Subject: XTO - 48 Hour Liner Inspection Notification - PLU 13 Dog Town Draw Battery / nAPP2304448906

[**EXTERNAL EMAIL**]

Good Morning,

This is sent as a 48-hour notification, XTO is scheduled to inspect the following lined containments listed below on Tuesday, March 28, 2023. Please call us with any questions or concerns.

Site: PLU 13 Dog Town Draw Battery
Incident Number: nAPP2304448906
Time: 10:00 am MST
GPS Coordinates: (32.20569,-103.83013)

Thank you,

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

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

Ben Belill

From: Green, Garrett J <garrett.green@exxonmobil.com>
Sent: Thursday, March 23, 2023 9:51 AM
To: Enviro, OCD, EMNRD; Bratcher, Michael, EMNRD; Harimon, Jocelyn, EMNRD; Hamlet, Robert, EMNRD
Cc: Ben Belill; DelawareSpills /SM
Subject: XTO - Sampling Notification (Week of 3/27/23 - 3/31/23)

[**EXTERNAL EMAIL**]

All,

XTO plans to complete final sampling activities at the sites listed below for the week of Mar 27, 2023.

Tuesday, Mar 28, 2023

- PLU 13 Dog Town Draw Battery / nAPP2304448906
- Nash 53 SWD / NAB1918643207, NRM2022758966, NAPP2102934064, NAPP2100847227, and NAPP2100838523

Wednesday, Mar 29, 2023

- PLU Pierce Canyon 12 Battery / nAPP2306152871
- PLU 13 Dog Town Draw Battery / nAPP2304448906

Thursday, Mar 30, 2023

- PLU Pierce Canyon 12 Battery / nAPP2306152871
- BEU 149 / NAB1814128371
- PLU 15 TWR Battery / nAPP2305833429

Friday, Mar 31, 2023

- PLU 15 TWR Battery / nAPP2305833429
- JRU 21 SWD / nAB1834656162

Thank you,

Garrett Green

Environmental Coordinator

Delaware Business Unit

(575) 200-0729

Garrett.Green@ExxonMobil.com

XTO Energy, Inc.

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

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

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

CONDITIONS

Action 212728

CONDITIONS

Operator: XTO ENERGY, INC 6401 Holiday Hill Road Midland, TX 79707	OGRID: 5380
	Action Number: 212728
	Action Type: [C-141] Release Corrective Action (C-141)

CONDITIONS

Created By	Condition	Condition Date
rhamlet	XTO's deferral requests to complete final remediation during any future major construction/alteration or final plugging/abandonment, whichever occurs first. Ensolum and XTO do not believe deferment will result in imminent risk to human health, the environment, or groundwater. The area requested for deferral is the impacted soil in and around active production equipment and active pipelines in between two lined tank battery containments shown on Figure 3 of the report, which include sample area (SS01/BH01). The area has been delineated and documented in the report. At this time, OCD approves this request. The Deferral Request and C-141 will be accepted for record and marked accordingly. The release will remain open in OCD database files and reflect an open environmental issue.	9/19/2023