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	NAPP2200746777
District RP	
Facility ID	
Application ID	

Release Notification

Responsible Party

Responsible Party XTO Energy	OGRID 5380
Contact Name Shelby Pennington	Contact Telephone 281-723-9353
Contact email shelby.g.pennington@exxonmobil.com	Incident # *(assigned by OCD)*
Contact mailing address 6401 Holiday Hill Rd Bldg 5, Midland, Texas, 79707	

Location of Release Source

Latitude 32.57039 Longitude -103.85194
(NAD 83 in decimal degrees to 5 decimal places)

Site Name Big Eddy Unit DI 30	Site Type Central Tank Battery
Date Release Discovered 12/24/2021	API# *(if applicable)*

Unit Letter	Section	Township	Range	County
I	15	20S	31E	Eddy

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

Nature and Volume of Release

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

☒ Crude Oil	Volume Released (bbls) 4.22	Volume Recovered (bbls) 2.75
☒ Produced Water	Volume Released (bbls) 4.22	Volume Recovered (bbls) 2.75
	Is the concentration of total dissolved solids (TDS) in the produced water >10,000 mg/l?	☐ Yes ☒ No
☐ Condensate	Volume Released (bbls)	Volume Recovered (bbls)
☐ Natural Gas	Volume Released (Mcf)	Volume Recovered (Mcf)
☐ Other (describe)	Volume/Weight Released (provide units)	Volume/Weight Recovered (provide units)
Cause of Release	Corrsion caused a buried 8" flow line to release fluids on location. A vacuum truck was dispatched to recover standing fluids. A third-party contractor has been retained for remediation activities.	

State of New Mexico
Oil Conservation Division

Incident ID	NAPP2200746777
District RP	
Facility ID	
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Was this a major release as defined by 19.15.29.7(A) NMAC? ☐ Yes ☒ No	If YES, for what reason(s) does the responsible party consider this a major release? N/A
If YES, was immediate notice given to the OCD? By whom? To whom? When and by what means (phone, email, etc)? N/A	

Initial Response

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

- ☒ The source of the release has been stopped.
- ☒ The impacted area has been secured to protect human health and the environment.
- ☒ Released materials have been contained via the use of berms or dikes, absorbent pads, or other containment devices.
- ☒ All free liquids and recoverable materials have been removed and managed appropriately.

If all the actions described above have not been undertaken, explain why:

NA

Per 19.15.29.8 B. (4) NMAC the responsible party may commence remediation immediately after discovery of a release. If remediation has begun, please attach a narrative of actions to date. If remedial efforts have been successfully completed or if the release occurred within a lined containment area (see 19.15.29.11(A)(5)(a) NMAC), please attach all information needed for closure evaluation.

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

Printed Name: Adrian Baker Title: SSHE Coordinator

Signature: Adrian Baker Date: 1/7/21

email: adrian.baker@exxonmobil.com Telephone: 432-236-3808

OCD Only

Received by: Ramona Marcus Date: 1/10/2022

Incident ID	NAPP2200746777
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?	< 50 (ft bgs)
Did this release impact groundwater or surface water?	☐ Yes ☒ No
Are the lateral extents of the release within 300 feet of a continuously flowing watercourse or any other significant watercourse?	☐ Yes ☒ No
Are the lateral extents of the release within 200 feet of any lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark)?	☐ Yes ☒ No
Are the lateral extents of the release within 300 feet of an occupied permanent residence, school, hospital, institution, or church?	☐ Yes ☒ No
Are the lateral extents of the release within 500 horizontal feet of a spring or a private domestic fresh water well used by less than five households for domestic or stock watering purposes?	☐ Yes ☒ No
Are the lateral extents of the release within 1000 feet of any other fresh water well or spring?	☐ Yes ☒ No
Are the lateral extents of the release within incorporated municipal boundaries or within a defined municipal fresh water well field?	☐ Yes ☒ No
Are the lateral extents of the release within 300 feet of a wetland?	☐ Yes ☒ No
Are the lateral extents of the release overlying a subsurface mine?	☐ Yes ☒ No
Are the lateral extents of the release overlying an unstable area such as karst geology?	☐ Yes ☒ No
Are the lateral extents of the release within a 100-year floodplain?	☐ Yes ☒ No
Did the release impact areas **not** on an exploration, development, production, or storage site?	☐ Yes ☒ No

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

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

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

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

Form C-141
Page 4

State of New Mexico
Oil Conservation Division

Incident ID	NAPP2200746777
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: Adrian Baker Title: Environmental Coordinator

Signature: Adrian Baker Date: 05/23/2022

email: adrian.baker@exxonmobil.com Telephone: 432-236-3808

OCD Only

Received by: _____ Date: _____

Form C-141
Page 5

State of New Mexico
Oil Conservation Division

Incident ID	NAPP2200746777
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: Adrian Baker Title: Environmental Coordinator

Signature: Adrian Baker Date: 05/23/2022

email: adrian.baker@exxonmobil.com Telephone: 432-236-3808

OCD Only

Received by: _____ Date: _____

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

Signature: Jennifer Nobui Date: 08/23/2022

State of New Mexico
Oil Conservation Division

Incident ID	NAPP2200746777
District RP	
Facility ID	
Application ID	

Remediation Plan

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- ☐ 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)

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Printed Name: Adrian Baker Title: Environmental Coordinator

Signature: Scott Sun Date: 12/21/2022

email: adrian.baker@exxonmobil.com Telephone: 432-236-3808

OCD Only

Received by: _____ Date: _____

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

Signature: Jennifer Nobui Date: 01/18/2023

ENSOLUM

December 21, 2022

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

Re: Deferral Request
Big Eddy Unit DI 30
Incident Number NAPP2200746777
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 excavation and soil sampling activities performed at the Big Eddy Unit DI 30 (Site). The purpose of the excavation and soil sampling activities, conducted in accordance with an approved Remediation Work Plan (*Work Plan*), was to address impacts to soil resulting from a release of crude oil and produced water at the Site. XTO is submitting this *Deferral Request*, describing excavation activities that have occurred and requesting deferral of final remediation for Incident Number NAPP2200746777 until the Site is reconstructed, and/or the well pad is abandoned.

SITE DESCRIPTION AND RELEASE SUMMARY

The Site is located in Unit I, Section 15, Township 20 South, Range 31 East, in Eddy County, New Mexico (32.57039°N, 103.85194°W; Figure 1) and is associated with oil and gas exploration and production operations on Federal Land managed by the Bureau of Land Management (BLM).

On December 24, 2021, corrosion caused a buried flow line to release approximately 4.22 barrels (bbls) of crude oil and 4.22 bbls of produced water onto the well pad. A vacuum truck was immediately dispatched to the Site to recover the free-standing fluids; approximately 2.75 bbls of crude oil and 2.75 bbls produced water were recovered. XTO reported the release to the NMOCD on a Release Notification Form C-141 (Form C-141) on January 7, 2022. The release was assigned Incident Number NAPP2200746777.

During initial response activities, impacted soil was removed by XTO operations while exposing the pipeline for repairs. Ensolum conducted sampling in the excavated area and presented the results in the *Work Plan* submitted to the New Mexico Oil Conservation Division (NMOCD) on May 23, 2022. The *Work Plan* proposed additional delineation sampling and continued excavation of impacted soil. The *Work Plan* was approved by the NMOCD on August 23, 2022.

SITE CHARACTERIZATION AND CLOSURE CRITERIA

As documented in the approved *Work Plan*, the following NMOCD Table I Closure Criteria (Closure Criteria) apply:

- Benzene: 10 milligrams per kilogram (mg/kg)

- Benzene, toluene, ethylbenzene, and total xylenes (BTEX): 50 mg/kg
- Total petroleum hydrocarbons (TPH): 100 mg/kg
- Chloride: 600 mg/kg

DELINEATION AND EXCAVATION SOIL SAMPLING ACTIVITIES

Between November 10, 2022, and November 14, 2022, Ensolum returned to the Site to oversee delineation and excavation activities. Six potholes (PH01 through PH06) were advanced by use of heavy equipment to assess the lateral and vertical extent of the release. Some pothole locations from the approved *Work Plan* were deviated due to presence of active pipelines and production equipment. PH01 was advanced to 6 feet bgs to vertically delineate impacted soil present on the floor of the existing excavation. The remaining potholes were advanced as lateral delineation points. Depths of samples ranged from 2 feet to 6 feet below ground surface (bgs). Samples were field screened for volatile organic compounds (VOCs) and chloride utilizing a calibrated photoionization detector (PID) and Hach® chloride QuanTab® test strips, respectively. The potholes and delineation soil sample locations are depicted on Figure 2. A photographic log including delineation and excavation activities can be found in Appendix A. Field screening results and observations for the potholes were logged on lithologic/soil sampling logs, which are included in Appendix B.

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

Additional soil was removed from the southern area of the existing excavation by use of heavy equipment. To direct excavation activities, Ensolum personnel screened soil as described above. Following removal of soil, Ensolum personnel collected 5-point composite soil samples representing up to 200 square feet from the floor and sidewalls of the new excavation. The 5-point composite samples were collected by placing five equivalent aliquots of soil into a 1-gallon, resealable plastic bag and homogenizing the samples by thoroughly mixing. The excavation soil samples were handled, and analyzed following the same procedures as described above. The excavation extent and excavation soil sample locations are presented on Figure 3. Impacted soil previously identified in the area of original excavation soil samples FS01 and FS14 was removed from the floor of the excavation, and FS01A and FS14A were collected from 5.5 feet bgs. Impacted soil previously identified in the southern sidewall by confirmation samples SW01 and SW02 was removed, extending the excavation to the south. Confirmation samples FS17 and FS18 were collected on the new excavation floor, and samples SW07 and SW08 were collected on the new southern sidewall.

The final excavation extent measured approximately 863 square feet. A total of approximately 165 cubic yards of impacted soil was removed during the excavation activities. The impacted soil was transported and disposed of at the R360 Landfill Disposal Facility in Hobbs, New Mexico. After completion of confirmation sampling, the excavation areas were secured with fencing.

LABORATORY ANALYTICAL RESULTS

Laboratory analytical results for delineation soil samples PH05 collected at 0.5 feet and 2 feet bgs indicated chloride concentrations exceeded the Closure Criteria, but vertical delineation was achieved with samples collected at 5 and 6 feet bgs. Lateral delineation samples collected from Potholes PH01 through PH04, and PH06 did not contain concentrations of COCs exceeding Closure Criteria. Final confirmation samples collected from the sidewalls and floor of the newly excavated area met Closure Criteria for COCs. The laboratory analytical results are summarized on the attached Table 1 and the complete laboratory analytical reports are included in Appendix C. All sampling notifications to NMOCD are included in Appendix D.

DEFERRAL REQUEST

Additional work was conducted at the Site as prescribed in the *Work Plan*. Newly collected discrete samples completed vertical and lateral delineation of the release and additional excavation was conducted in the southern portion of the release area to remove as much impacted soil as possible. All results from confirmation samples collected from the new excavation were in compliance with Closure Criteria.

Impacted soil remains in the northern portion of the release extent where multiple buried pipelines exist in a pipeline corridor. The impacted soil contains chloride concentrations ranging from 2,140 to 8,730 mg/kg and TPH concentrations ranging from 236 to 2,170 mg/kg. These concentrations were identified in previously samples FS02 through FS05 and SW03, collected from the original excavation where the top 5 feet of soil was removed from above the pipelines. XTO is requesting deferral of final remediation in this area since excavation of the soil would require major facility deconstruction within the pipeline corridor. Vertical delineation of the residual impacted soil is defined by the delineation soil sample PH01 collected from 6 feet bgs. Lateral delineation of residual impacted soil is defined by soil samples collected from PH02, and PH04 through PH06, as well as clean sidewall samples to the south and west of the new excavation (Figure 4). Since the original excavation was extended to a depth of 5 feet bgs and the deferral area is vertically defined by PH01 collected at 6 feet bgs, the impacted soil is approximately 1-foot thick and covers a 320-square foot area. The deferral area includes an estimated total of approximately 12 cubic yards of TPH and chloride impacted soil remaining in place.

XTO has made every effort to remove all impacted soil, including five feet of soil above the pipelines. Complete lateral and vertical delineation of impacted soil remaining in place has been documented. XTO does not believe deferment of the remaining 12 cubic yards of soil will result in imminent risk to human health, the environment, or groundwater and the impacted soil remaining in place is limited in areal and vertical extent. As such, XTO requests deferral of final remediation for Incident Number NAPP2200746777 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

Ashley L. Ager, M.S., P.G.
Program Director

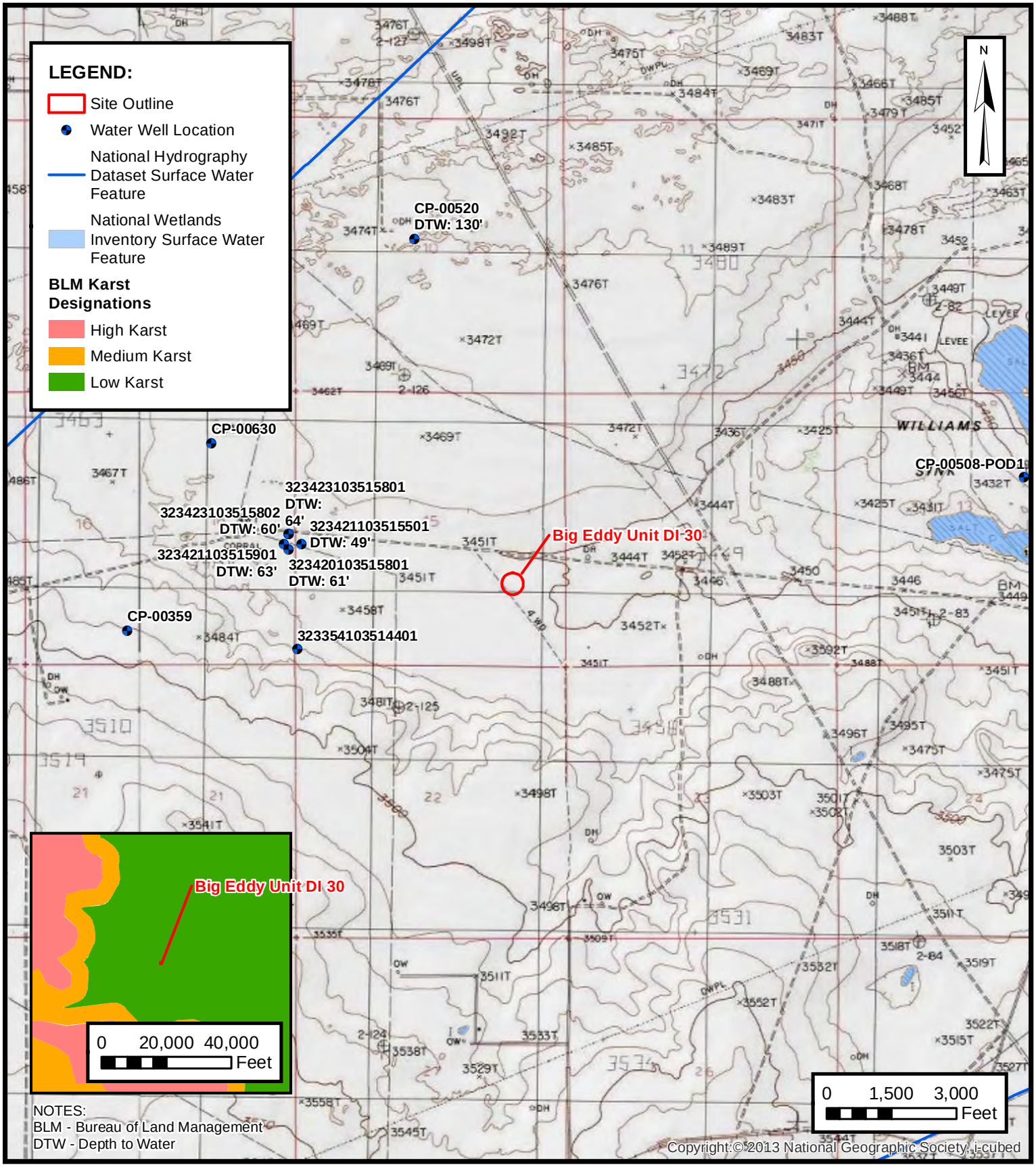
cc: Garrett Green, XTO
Shelby Pennington, XTO
Bureau of Land Management

Appendices:

Figure 1	Site Receptor Map
Figure 2	Delineation Soil Sample Locations
Figure 3	Excavation Soil Sample Locations
Figure 4	Deferral Area
Table 1	Soil Sample Analytical Results
Appendix A	Photographic Log
Appendix B	Lithologic Soil Sampling Logs
Appendix C	Laboratory Analytical Reports & Chain-of-Custody Documentation
Appendix D	NMOCD Notifications

ENSOLUM

FIGURES

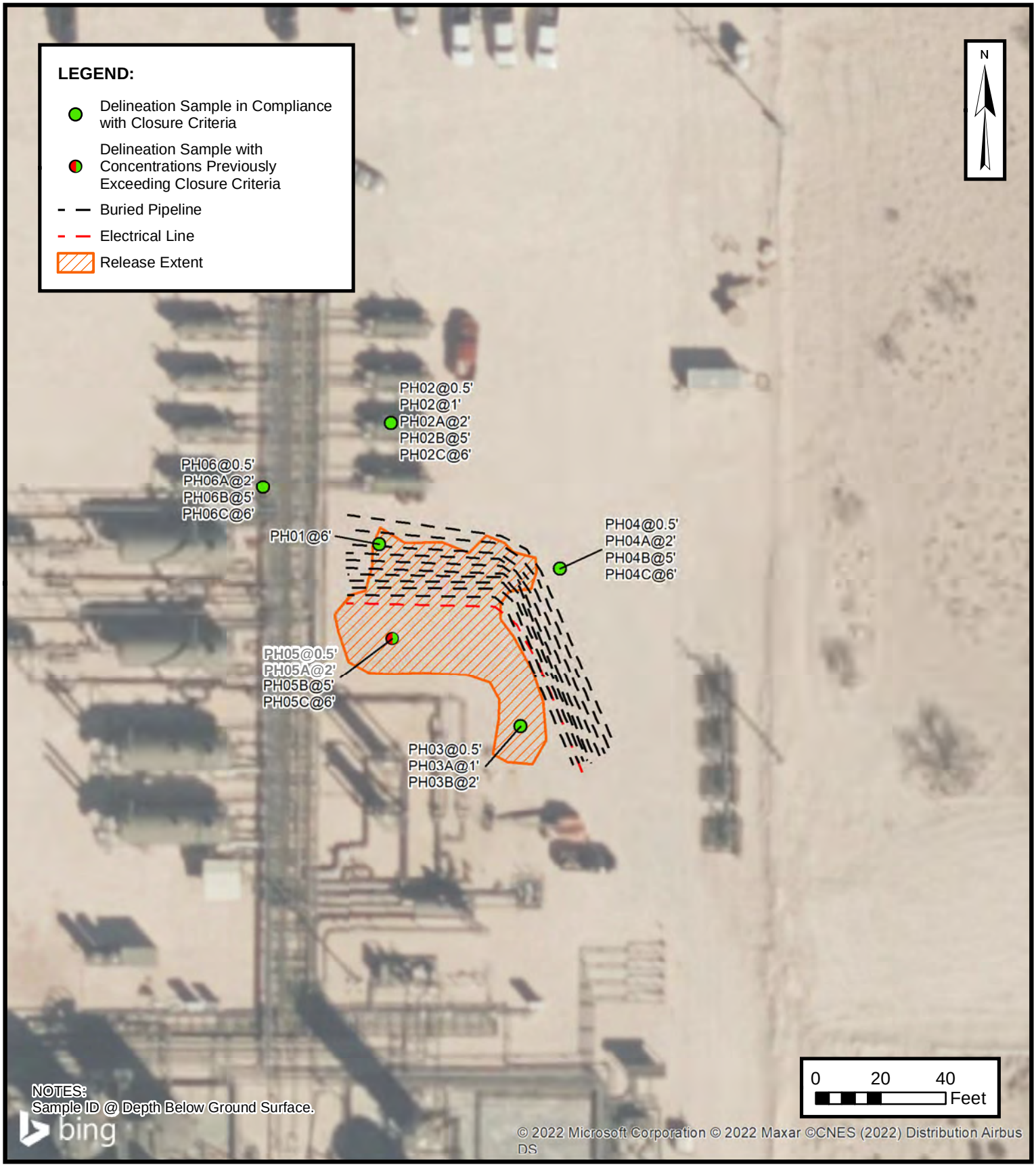


ENSOLUM
Environmental & Hydrogeologic Consultants

SITE RECEPTOR MAP

XTO ENERGY, INC
BIG EDDY UNIT DI 30
NAPP2200746777
Unit I, Sec 15, T20S, R31E
Eddy County, New Mexico

FIGURE
1



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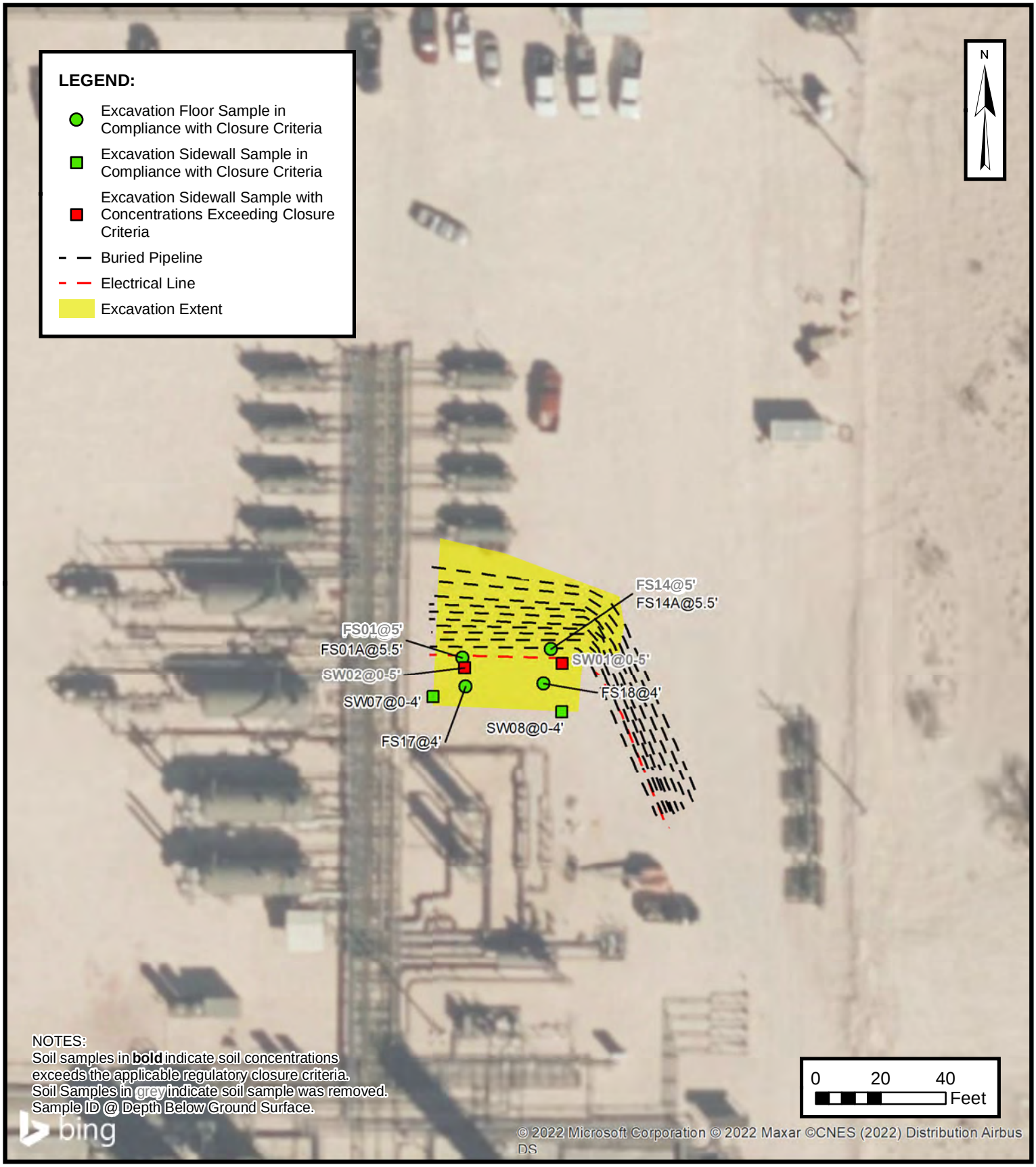
Environmental, Engineering and Hydrogeologic Consultants

DELINEATION SOIL SAMPLE LOCATIONS

XTO ENERGY, INC
BEU DI 30 BATTERY
NAPP2200746777
Unit I, Sec 15, T20S, R31E
Eddy County, New Mexico

FIGURE
2



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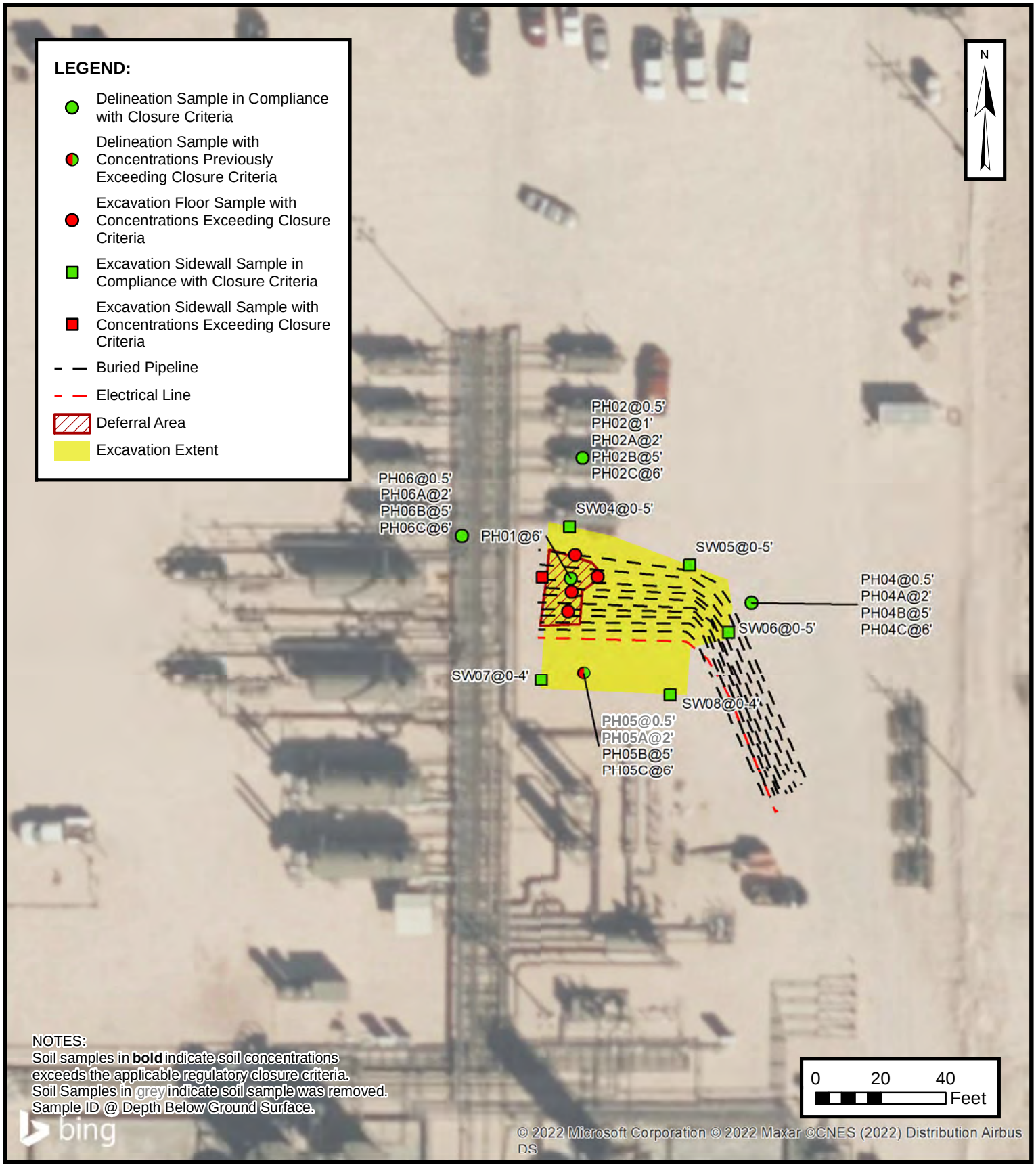
Environmental, Engineering and Hydrogeologic Consultants

EXCAVATION SOIL SAMPLE LOCATIONS

XTO ENERGY, INC
BEU DI 30 BATTERY
NAPP2200746777
Unit I, Sec 15, T20S, R31E
Eddy County, New Mexico

FIGURE

3



ENSOLUM
Environmental, Engineering and Hydrogeologic Consultants

DEFERRAL MAP

XTO ENERGY, INC
BEU DI 30 BATTERY
NAPP2200746777
Unit I, Sec 15, T20S, R31E
Eddy County, New Mexico

FIGURE
4

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TABLES

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TABLE 1
SOIL SAMPLE ANALYTICAL RESULTS
Big Eddy Unit DI 30
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	NE	100	600
Delineation Soil Samples										
PH01	11/11/2022	6	<0.00199	<0.00398	<50.0	<50.0	<50.0	<50.0	<50.0	178
PH02	11/11/2022	0.5	<0.00199	<0.00398	<50.0	<50.0	<50.0	<50.0	<50.0	426
PH02	11/11/2022	1	<0.00199	<0.00398	<50.0	<50.0	<50.0	<50.0	<50.0	49.2
PH02A	11/11/2022	2	<0.00200	<0.00399	<50.0	<50.0	<50.0	<50.0	<50.0	17.3
PH02B	11/11/2022	5	<0.00200	<0.00402	<49.8	<49.8	<49.8	<49.8	<49.8	199
PH02C	11/11/2022	6	<0.00199	<0.00401	<50.0	<50.0	<50.0	<50.0	<50.0	218
PH03	11/11/2022	0.5	0.113	0.162	<49.9	<49.9	<49.9	<49.9	<49.9	47.2
PH03A	11/11/2022	1	<0.00201	<0.00402	<50.0	<50.0	<50.0	<50.0	<50.0	119
PH03B	11/11/2022	2	<0.00199	<0.00398	<49.9	<49.9	<49.9	<49.9	<49.9	256
PH04	11/11/2022	0.5	<0.00201	<0.00402	<49.9	<49.9	<49.9	<49.9	<49.9	44.9
PH04A	11/11/2022	2	<0.00199	<0.00398	<49.9	<49.9	<49.9	<49.9	<49.9	37.1
PH04B	11/11/2022	5	<0.00199	<0.00398	<50.0	<50.0	<50.0	<50.0	<50.0	120
PH04C	11/11/2022	6	<0.00201	<0.00402	<50.0	<50.0	<50.0	<50.0	<50.0	81.1
~~PH05~~	~~11/11/2022~~	~~0.5~~	~~<0.00200~~	~~<0.00399~~	~~<50.0~~	~~<50.0~~	~~<50.0~~	~~<50.0~~	~~<50.0~~	~~**9,870**~~
~~PH05A~~	~~11/11/2022~~	~~2~~	~~<0.00201~~	~~<0.00402~~	~~<49.9~~	~~<49.9~~	~~<49.9~~	~~<49.9~~	~~<49.9~~	~~**3,170**~~
PH05B	11/11/2022	5	<0.00199	<0.00398	<49.9	<49.9	<49.9	<49.9	<49.9	51.5
PH05C	11/11/2022	6	<0.00199	<0.00398	<50.0	<50.0	<50.0	<50.0	<50.0	63.9
PH06	11/14/2022	0.5	<0.00198	<0.00397	<49.9	<49.9	<49.9	<49.9	<49.9	145
PH06A	11/14/2022	2	<0.00200	<0.00400	<49.9	<49.9	<49.9	<49.9	<49.9	15.2
PH06B	11/14/2022	5	<0.00200	<0.00401	<50.0	<50.0	<50.0	<50.0	<50.0	20.7
PH06C	11/14/2022	6	<0.00199	<0.00398	<49.9	<49.9	<49.9	<49.9	<49.9	28.0
Excavation Floor Soil Samples										
~~FS01~~	~~03/23/2022~~	~~5~~	~~<0.00201~~	~~0.021~~	~~104~~	~~2,620~~	~~<49.8~~	~~2,720~~	~~**2,720**~~	~~**4,420**~~
FS01A	11/14/2022	5.5	<0.00202	<0.00404	<50.0	<50.0	<50.0	<50.0	<50.0	41.8
FS02	03/23/2022	5	<0.00199	0.017	68.5	2,100	<50.0	2,170	**2,170**	**8,730**
FS03	03/23/2022	5	<0.00200	0.00506	<49.8	381	<49.8	381	**381**	**5,570**
FS04	03/23/2022	5	<0.00198	<0.00396	<50.0	810	<50.0	810	**810**	**9,530**
FS05	03/23/2022	5	<0.00200	<0.00399	<50.0	236	<50.0	236	**236**	**2,140**
FS06	03/23/2022	5	<0.00200	<0.00399	<49.8	<49.8	<49.8	<49.8	<49.8	339
FS07	03/23/2022	5	<0.00198	<0.00397	<50.0	<50.0	<50.0	<50.0	<50.0	267
FS08	03/23/2022	5	<0.00200	<0.00399	<49.9	<49.9	<49.9	<49.9	<49.9	287

ENSOLUM

TABLE 1
SOIL SAMPLE ANALYTICAL RESULTS
Big Eddy Unit DI 30
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	NE	100	600
FS09	03/23/2022	5	<0.00199	<0.00398	<50.0	<50.0	<50.0	<50.0	<50.0	201
FS10	03/23/2022	5	<0.00198	<0.00397	<49.9	<49.9	<49.9	<49.9	<49.9	176
FS11	03/23/2022	5	<0.00199	<0.00398	<50.0	<50.0	<50.0	<50.0	<50.0	134
FS12	03/23/2022	5	<0.00200	0.0662	<50.0	<50.0	<50.0	<50.0	<50.0	413
FS13	03/23/2022	5	<0.00199	<0.00398	<49.9	<49.9	<49.9	<49.9	<49.9	352
~~FS14~~	~~03/23/2022~~	~~5~~	~~<0.00202~~	~~<0.00403~~	~~<49.9~~	~~197~~	~~<49.9~~	~~197~~	~~**197**~~	~~**7,720**~~
FS14A	11/14/2022	5.5	<0.00202	<0.00403	<49.9	<49.9	<49.9	<49.9	<49.9	104
FS17	11/14/2022	4	<0.00199	<0.00398	<49.9	<49.9	<49.9	<49.9	<49.9	35.8
FS18	11/14/2022	4	<0.00198	<0.00397	<50.0	<50.0	<50.0	<50.0	<50.0	43.1
Excavation Sidewall Soil Samples										
~~SW01~~	~~03/23/2022~~	~~0 - 5~~	~~<0.00200~~	~~0.0148~~	~~<50.0~~	~~90.8~~	~~<50.0~~	~~90.8~~	~~90.8~~	~~**2,120**~~
~~SW02~~	~~03/23/2022~~	~~0 - 5~~	~~<0.00201~~	~~0.0368~~	~~56.9~~	~~1,060~~	~~<50.0~~	~~1,120~~	~~**1,120**~~	~~**13,700**~~
SW03	03/23/2022	0 - 5	<0.00200	0.00558	<49.8	515	<49.8	515	**515**	**6,970**
SW04	03/23/2022	0 - 5	<0.00202	<0.00403	<49.9	<49.9	<49.9	<49.9	<49.9	101
SW05	03/23/2022	0 - 5	<0.00200	<0.00399	<49.8	<49.8	<49.8	<49.8	<49.8	95
SW06	03/23/2022	0 - 5	<0.00202	<0.00403	<49.9	72.0	<49.9	72.0	72.0	284
SW07	11/14/2022	0-4	<0.00201	<0.00402	<50.0	<50.0	<50.0	<50.0	<50.0	43.8
SW08	11/14/2022	0-4	<0.00201	<0.00402	<50.0	<50.0	<50.0	<50.0	<50.0	91.6

Notes:

bgs: below ground surface

mg/kg: milligrams per kilogram

NMOCD: New Mexico Oil Conservation Division

BTEX: Benzene, Toluene, Ethylbenzene, and Xylenes

Concentrations in **bold** exceed the NMOCD Table 1 Closure Criteria or reclamation standard where applicable.

GRO: Gasoline Range Organics

DRO: Diesel Range Organics

ORO: Oil Range Organics

TPH: Total Petroleum Hydrocarbon

NMAC: New Mexico Administrative Code

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

ENSOLUM

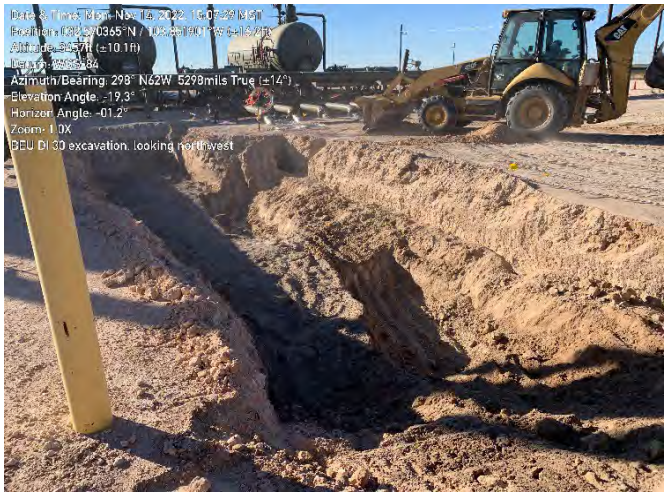
APPENDIX A

Photographic Log

ENSOLUM

Photographic Log
XTO Energy, Inc
Big Eddy Unit DI 30
NAPP2200746777

Photograph 1 Date: 11-10-2022
Description: Delineation activities, PH01
View: Northwest



Photograph 2 Date: 11-14-2022
Description: Excavation activities
View: Northwest

Photograph 3 Date: 11-14-2022
Description: Excavation activities
View: East

Photograph 4 Date: 11-14-2022
Description: Final excavation extent
View: Northeast

ENSOLUM

APPENDIX B

Lithologic Soil Sampling Logs

ENSOLUM

	Sample Name: PH01	Date: 11/10/2022
	Site Name: BEU DI 30 Battery	
	Incident Number: NAPP2200746777	
	Job Number: 03E1558032	
LITHOLOGIC / SOIL SAMPLING LOG	Logged By: Connor Whitman	Method: Hydro-vac truck
Coordinates: 32.57039,-103.85194	Hole Diameter: 10"	Total Depth: 6' bgs

Comments: Field screening conducted with HACH Chloride Test Strips and PID for chloride and vapor, respectively. Chloride test performed with 1:4 dilution factor of soil to distilled water. No correction factors included.

Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample ID	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithologic Descriptions
						1 2 3 4 5	CCHE (fill)	0-5.5', CALICHE, tan-light brown, dry, unconsolidated fill, no stain, no odor.
Dry	224	0.0	N	PH01	6	6	SP	5.5'-6', SAND, dry, tan, poorly graded, very fine grained, no stain, no odor.

ENSOLUM

	Sample Name: PH02	Date: 11/11/2022
	Site Name: BEU DI 30 Battery	
	Incident Number: NAPP2200746777	
	Job Number: 03E1558032	
LITHOLOGIC / SOIL SAMPLING LOG	Logged By: Connor Whitman	Method: Backhoe
Coordinates: 32.57039,-103.85194	Hole Diameter: NA	Total Depth: 6' bgs

Comments: Field screening conducted with HACH Chloride Test Strips and PID for chloride and vapor, respectively. Chloride test performed with 1:4 dilution factor of soil to distilled water. No correction factors included.

Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample ID	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithologic Descriptions
Dry	436	0.1	N	PH02	0.5	0.5	CCHE (fill)	0-1', CALICHE, tan-light brown, dry, unconsolidated fill, no stain, no odor.
Dry	540	0.0	N	PH02A	1	1	SP	1'-4', SAND, dry, brown-light brown, poorly graded, very fine grained, no stain, no odor.
Dry	<168	0.0	N	PH02B	2	2		
Dry	<168	0.0	N			3		
Dry	<168	0.0	N			4	CCHE	4'-6', CALICHE, tan-light brown, moderately consolidated, some poorly grated fine grained sand.
Dry	<168	0.0	N	PH02C	5	5		
Dry	<168	0.1	N	PH02D	6	6		

ENSOLUM

	Sample Name: PH03	Date: 11/11/2022
	Site Name: BEU DI 30 Battery	
	Incident Number: NAPP2200746777	
	Job Number: 03E1558032	
LITHOLOGIC / SOIL SAMPLING LOG	Logged By: Connor Whitman	Method: Backhoe
Coordinates: 32.57039,-103.85194	Hole Diameter: NA	Total Depth: 2' bgs

Comments: Field screening conducted with HACH Chloride Test Strips and PID for chloride and vapor, respectively. Chloride test performed with 1:4 dilution factor of soil to distilled water. No correction factors included.

Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample ID	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithologic Descriptions
Dry	<168	0.3	N	PH03	0.5	0.5	CCHE (fill)	0-1', CALICHE, tan-light brown, dry, unconsolidated fill, no stain, no odor.
Dry	<168	0.1	N	PH03A	1	1	SP	1'-2', SAND, dry, brown-light brown, poorly graded, very fine grained, no stain, no odor.
Dry	224	0.1	N	PH03B	2	2		

ENSOLUM

	Sample Name: PH04	Date: 11/11/2022
	Site Name: BEU DI 30 Battery	
	Incident Number: NAPP2200746777	
	Job Number: 03E1558032	
LITHOLOGIC / SOIL SAMPLING LOG	Logged By: Connor Whitman	Method: Backhoe
Coordinates: 32.57039,-103.85194	Hole Diameter: NA	Total Depth: 6' bgs

Comments: Field screening conducted with HACH Chloride Test Strips and PID for chloride and vapor, respectively. Chloride test performed with 1:4 dilution factor of soil to distilled water. No correction factors included.

Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample ID	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithologic Descriptions
Dry	<168	0.3	N	PH04	0.5	0.5	CCHE (fill)	0-1', CALICHE, tan-light brown, dry, unconsolidated fill, no stain, no odor.
Dry	<168	0.3	N			1	SP	1'-4', SAND, dry, brown-light brown, poorly graded, very fine grained, no stain, no odor.
Dry	<168	0.0	N	PH04A	2	2		
Dry	<168	0.3	N			3		
Dry	224	0.4	N			4	CCHE	4'-6', CALICHE, tan-light brown, moderately consolidated, some poorly grated fine grained sand.
Dry	<168	0.4	N	PH04B	5	5		
Dry	<168	0.4	N	PH04C	6	6		

ENSOLUM

	Sample Name: PH05	Date: 11/11/2022
	Site Name: BEU DI 30 Battery	
	Incident Number: NAPP2200746777	
	Job Number: 03E1558032	
LITHOLOGIC / SOIL SAMPLING LOG	Logged By: Connor Whitman	Method: Backhoe
Coordinates: 32.57039,-103.85194	Hole Diameter: NA	Total Depth: 6' bgs

Comments: Field screening conducted with HACH Chloride Test Strips and PID for chloride and vapor, respectively. Chloride test performed with 1:4 dilution factor of soil to distilled water. No correction factors included.

Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample ID	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithologic Descriptions
Dry	11,748	0.0	N	PH05	0.5	0.5	CCHE (fill)	0-1', CALICHE, tan-light brown, dry, unconsolidated fill, no stain, no odor.
Dry	5,756	0.0	N			1	SP	1'-4', SAND, dry, brown-light brown, poorly graded, very fine grained, no stain, no odor.
Dry	4,452	0.1	N	PH05A	2	2		
Dry	1,036	0.1	N			3		
Dry	<168	0.0	N			4	CCHE	4'-6', CALICHE, tan-light brown, moderately consolidated, some poorly grated fine grained sand.
Dry	<168	0.0	N	PH05B	5	5		
Dry	<168	0.0	N	PH05C	6	6		

ENSOLUM

	Sample Name: PH06	Date: 11/14/2022
	Site Name: BEU DI 30 Battery	
	Incident Number: NAPP2200746777	
	Job Number: 03E1558032	
LITHOLOGIC / SOIL SAMPLING LOG	Logged By: Connor Whitman	Method: Backhoe
Coordinates: 32.57039,-103.85194	Hole Diameter: NA	Total Depth: 6' bgs

Comments: Field screening conducted with HACH Chloride Test Strips and PID for chloride and vapor, respectively. Chloride test performed with 1:4 dilution factor of soil to distilled water. No correction factors included.

Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample ID	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithologic Descriptions
Dry	<168	0.0	N	PH06	0.5	0.5	CCHE (fill)	0-1', CALICHE, tan-light brown, dry, unconsolidated fill, no stain, no odor.
Dry	<168	0.0	N			1	SP	1'-4', SAND, dry, brown-light brown, poorly graded, very fine grained, no stain, no odor.
Dry	<168	0.1	N	PH06A	2	2		
Dry	<168	0.0	N			3		
Dry	<168	0.0	N			4	CCHE	4'-6', CALICHE, tan-light brown, moderately consolidated, some poorly grated fine grained sand.
Dry	<168	0.0	N	PH06B	5	5		
Dry	<168	0.0	N	PH06C	6	6		

ENSOLUM

APPENDIX C

Laboratory Analytical Reports & Chain of Custody Documentation

eurofins | Environment Testing

ANALYTICAL REPORT

PREPARED FOR

Attn: Ben Belill
Ensolum
705 W. Wadley
Suite 210
Midland Texas 79701

Generated 11/21/2022 5:23:30 PM

JOB DESCRIPTION

BEU DI 30 Battery
SDG NUMBER 03E1558032

JOB NUMBER

890-3433-1

Eurofins Carlsbad
1089 N Canal St.
Carlsbad NM 88220

my EOL

Client: Ensolum
Project/Site: BEU DI 30 Battery

Laboratory Job ID: 890-3433-1
SDG: 03E1558032

Table of Contents

Definitions/Glossary

Client: Ensolum
Project/Site: BEU DI 30 Battery

Job ID: 890-3433-1
SDG: 03E1558032

Qualifiers

GC VOA

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

GC Semi VOA

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

HPLC/IC

Qualifier	Qualifier Description
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: BEU DI 30 Battery

Job ID: 890-3433-1
SDG: 03E1558032

Job ID: 890-3433-1

Laboratory: Eurofins Carlsbad

Narrative

Job Narrative
890-3433-1

Receipt
The sample was received on 11/11/2022 10:04 AM. Unless otherwise noted below, the sample arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 5.4°C

Receipt Exceptions
The following sample was received and analyzed from an unpreserved bulk soil jar: PH01 (890-3433-1).

GC VOA
Method 8021B: The surrogate recovery for the blank associated with preparation batch 880-39922 and analytical batch 880-39930 was outside the upper control limits.

Method 8021B: The surrogate recovery for the blank associated with preparation batch 880-39696 and analytical batch 880-39930 was outside the upper control limits.

Method 8021B: The method blank for preparation batch 880-39922 and analytical batch 880-39930 contained m-Xylene & p-Xylene above the method detection limit. This target analyte concentration was less than the reporting limit (RL); therefore, re-extraction and/or re-analysis of samples was not performed.

Method 8021B: The matrix spike (MS) recoveries for preparation batch 880-39696 and analytical batch 880-39930 were outside control limits. Non-homogeneity is suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.

Method 8021B: LCS biased low. Since only an acceptable LCS or LCSD is required per the method, the data has been qualified and reported.(LCS 880-39696/1-A)

Method 8021B: The method blank for preparation batch 880-39696 and analytical batch 880-39930 contained m-Xylene & p-Xylene above the method detection limit. This target analyte concentration was less than the reporting limit (RL); therefore, re-extraction and/or re-analysis of samples was not performed.

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

GC Semi VOA
Method 8015MOD_NM: Surrogate recovery for the following sample was outside control limits: (890-3433-A-1-D MS). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

Method 8015MOD_NM: The method blank for preparation batch 880-39620 and analytical batch 880-39567 contained Gasoline Range Organics (GRO)-C6-C10 above the method detection limit. This target analyte concentration was less than the reporting limit (RL); therefore, re-extraction and/or re-analysis of samples was not performed.

Method 8015MOD_NM: The matrix spike / matrix spike duplicate (MS/MSD) recoveries and precision for preparation batch 880-39620 and analytical batch 880-39567 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample / laboratory sample control duplicate (LCS/LCSD) precision was within acceptance limits.

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

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: BEU DI 30 Battery

Job ID: 890-3433-1
SDG: 03E1558032

Client Sample ID: PH01

Date Collected: 11/11/22 09:40
Date Received: 11/11/22 10:04
Sample Depth: 6'

Lab Sample ID: 890-3433-1

Matrix: Solid

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U *- *1	0.00199		mg/Kg		11/16/22 10:35	11/19/22 16:12	1
Toluene	<0.00199	U *- *1	0.00199		mg/Kg		11/16/22 10:35	11/19/22 16:12	1
Ethylbenzene	<0.00199	U *- *1	0.00199		mg/Kg		11/16/22 10:35	11/19/22 16:12	1
m-Xylene & p-Xylene	<0.00398	U *- *1	0.00398		mg/Kg		11/16/22 10:35	11/19/22 16:12	1
o-Xylene	<0.00199	U *- *1	0.00199		mg/Kg		11/16/22 10:35	11/19/22 16:12	1
Xylenes, Total	<0.00398	U *- *1	0.00398		mg/Kg		11/16/22 10:35	11/19/22 16:12	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*86*		*70 - 130*	*11/16/22 10:35*	*11/19/22 16:12*	*1*
1,4-Difluorobenzene (Surr)	*90*		*70 - 130*	*11/16/22 10:35*	*11/19/22 16:12*	*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			11/21/22 18:12	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			11/16/22 09:14	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 F2	50.0		mg/Kg		11/15/22 13:35	11/15/22 20:56	1
Diesel Range Organics (Over C10-C28)	<50.0	U F1	50.0		mg/Kg		11/15/22 13:35	11/15/22 20:56	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		11/15/22 13:35	11/15/22 20:56	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*86*		*70 - 130*	*11/15/22 13:35*	*11/15/22 20:56*	*1*
o-Terphenyl	*83*		*70 - 130*	*11/15/22 13:35*	*11/15/22 20:56*	*1*

Method: MCAWW 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**178**		5.02		mg/Kg			11/16/22 02:34	1

Surrogate Summary

Client: Ensolum
Project/Site: BEU DI 30 Battery

Job ID: 890-3433-1
SDG: 03E1558032

Method: 8021B - Volatile Organic Compounds (GC)

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

		Percent Surrogate Recovery (Acceptance Limits)	
		BFB1	DFBZ1
Lab Sample ID	Client Sample ID	(70-130)	(70-130)
890-3426-A-41-E MS	Matrix Spike	97	103
890-3426-A-41-F MSD	Matrix Spike Duplicate	116	103
890-3433-1	PH01	86	90
LCS 880-39696/1-A	Lab Control Sample	92	88
LCSD 880-39696/2-A	Lab Control Sample Dup	121	101
MB 880-39696/5-A	Method Blank	66 S1-	89
MB 880-39922/5-A	Method Blank	63 S1-	94

Surrogate Legend

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

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

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

		Percent Surrogate Recovery (Acceptance Limits)	
		1CO1	OTPH1
Lab Sample ID	Client Sample ID	(70-130)	(70-130)
890-3433-1	PH01	86	83
890-3433-1 MS	PH01	76	65 S1-
890-3433-1 MSD	PH01	89	77
LCS 880-39620/2-A	Lab Control Sample	86	84
LCSD 880-39620/3-A	Lab Control Sample Dup	89	85
MB 880-39620/1-A	Method Blank	94	92

Surrogate Legend

1CO = 1-Chlorooctane
OTPH = o-Terphenyl

QC Sample Results

Client: Ensolum
Project/Site: BEU DI 30 Battery

Job ID: 890-3433-1
SDG: 03E1558032

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-39696/5-A
Matrix: Solid
Analysis Batch: 39930

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 39696

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		11/16/22 10:35	11/19/22 06:32	1
Toluene	<0.00200	U	0.00200		mg/Kg		11/16/22 10:35	11/19/22 06:32	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		11/16/22 10:35	11/19/22 06:32	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		11/16/22 10:35	11/19/22 06:32	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		11/16/22 10:35	11/19/22 06:32	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		11/16/22 10:35	11/19/22 06:32	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*66*	*S1-*	*70 - 130*	*11/16/22 10:35*	*11/19/22 06:32*	*1*
1,4-Difluorobenzene (Surr)	*89*		*70 - 130*	*11/16/22 10:35*	*11/19/22 06:32*	*1*

Lab Sample ID: LCS 880-39696/1-A
Matrix: Solid
Analysis Batch: 39930

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 39696

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Benzene			0.100	0.02233	*-	mg/Kg		22	70 - 130		
Toluene			0.100	0.02593	*-	mg/Kg		26	70 - 130		
Ethylbenzene			0.100	0.02451	*-	mg/Kg		25	70 - 130		
m-Xylene & p-Xylene			0.200	0.05600	*-	mg/Kg		28	70 - 130		
o-Xylene			0.100	0.03046	*-	mg/Kg		30	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*92*		*70 - 130*
1,4-Difluorobenzene (Surr)	*88*		*70 - 130*

Lab Sample ID: LCSD 880-39696/2-A
Matrix: Solid
Analysis Batch: 39930

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 39696

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene			0.100	0.1046	*1	mg/Kg		105	70 - 130	130	35
Toluene			0.100	0.09291	*1	mg/Kg		93	70 - 130	113	35
Ethylbenzene			0.100	0.09366	*1	mg/Kg		94	70 - 130	117	35
m-Xylene & p-Xylene			0.200	0.2040	*1	mg/Kg		102	70 - 130	114	35
o-Xylene			0.100	0.09928	*1	mg/Kg		99	70 - 130	106	35

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*121*		*70 - 130*
1,4-Difluorobenzene (Surr)	*101*		*70 - 130*

Lab Sample ID: 890-3426-A-41-E MS
Matrix: Solid
Analysis Batch: 39930

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 39696

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Benzene	<0.00201	U *- *1	0.0996	0.07063		mg/Kg		71	70 - 130		
Toluene	<0.00201	U *- *1	0.0996	0.07216		mg/Kg		72	70 - 130		

QC Sample Results

Client: Ensolum
Project/Site: BEU DI 30 Battery

Job ID: 890-3433-1
SDG: 03E1558032

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

Lab Sample ID: 890-3426-A-41-E MS — **Client Sample ID: Matrix Spike**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 39930 — **Prep Batch: 39696**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Ethylbenzene	<0.00201	U *- *1 F1	0.0996	0.06604	F1	mg/Kg		66	70 - 130
m-Xylene & p-Xylene	<0.00402	U *- *1	0.199	0.1432		mg/Kg		71	70 - 130
o-Xylene	<0.00201	U *- *1 F1	0.0996	0.06777	F1	mg/Kg		68	70 - 130

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*97*		*70 - 130*
1,4-Difluorobenzene (Surr)	*103*		*70 - 130*

Lab Sample ID: 890-3426-A-41-F MSD — **Client Sample ID: Matrix Spike Duplicate**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 39930 — **Prep Batch: 39696**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	<0.00201	U *- *1	0.0990	0.08846		mg/Kg		89	70 - 130	22	35
Toluene	<0.00201	U *- *1	0.0990	0.08772		mg/Kg		89	70 - 130	19	35
Ethylbenzene	<0.00201	U *- *1 F1	0.0990	0.08185		mg/Kg		83	70 - 130	21	35
m-Xylene & p-Xylene	<0.00402	U *- *1	0.198	0.1804		mg/Kg		90	70 - 130	23	35
o-Xylene	<0.00201	U *- *1 F1	0.0990	0.08452		mg/Kg		85	70 - 130	22	35

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*116*		*70 - 130*
1,4-Difluorobenzene (Surr)	*103*		*70 - 130*

Lab Sample ID: MB 880-39922/5-A — **Client Sample ID: Method Blank**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 39930 — **Prep Batch: 39922**

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		11/18/22 12:17	11/18/22 17:10	1
Toluene	<0.00200	U	0.00200	mg/Kg		11/18/22 12:17	11/18/22 17:10	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		11/18/22 12:17	11/18/22 17:10	1
m-Xylene & p-Xylene	<0.00400	U	0.00400	mg/Kg		11/18/22 12:17	11/18/22 17:10	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		11/18/22 12:17	11/18/22 17:10	1
Xylenes, Total	<0.00400	U	0.00400	mg/Kg		11/18/22 12:17	11/18/22 17:10	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*63*	*S1-*	*70 - 130*	*11/18/22 12:17*	*11/18/22 17:10*	*1*
1,4-Difluorobenzene (Surr)	*94*		*70 - 130*	*11/18/22 12:17*	*11/18/22 17:10*	*1*

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

Lab Sample ID: MB 880-39620/1-A — **Client Sample ID: Method Blank**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 39567 — **Prep Batch: 39620**

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		11/15/22 13:35	11/15/22 19:54	1

QC Sample Results

Client: Ensolum
Project/Site: BEU DI 30 Battery

Job ID: 890-3433-1
SDG: 03E1558032

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

Lab Sample ID: MB 880-39620/1-A
Matrix: Solid
Analysis Batch: 39567

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 39620

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		11/15/22 13:35	11/15/22 19:54	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		11/15/22 13:35	11/15/22 19:54	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*94*		*70 - 130*	*11/15/22 13:35*	*11/15/22 19:54*	*1*
o-Terphenyl	*92*		*70 - 130*	*11/15/22 13:35*	*11/15/22 19:54*	*1*

Lab Sample ID: LCS 880-39620/2-A
Matrix: Solid
Analysis Batch: 39567

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 39620

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Gasoline Range Organics (GRO)-C6-C10			1000	953.5		mg/Kg		95	70 - 130		
Diesel Range Organics (Over C10-C28)			1000	838.5		mg/Kg		84	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1-Chlorooctane	*86*		*70 - 130*
o-Terphenyl	*84*		*70 - 130*

Lab Sample ID: LCSD 880-39620/3-A
Matrix: Solid
Analysis Batch: 39567

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 39620

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10			1000	1012		mg/Kg		101	70 - 130	6	20
Diesel Range Organics (Over C10-C28)			1000	888.8		mg/Kg		89	70 - 130	6	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1-Chlorooctane	*89*		*70 - 130*
o-Terphenyl	*85*		*70 - 130*

Lab Sample ID: 890-3433-1 MS
Matrix: Solid
Analysis Batch: 39567

Client Sample ID: PH01
Prep Type: Total/NA
Prep Batch: 39620

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	984.7		mg/Kg		95	70 - 130		
Diesel Range Organics (Over C10-C28)	<50.0	U F1	997	641.4	F1	mg/Kg		64	70 - 130		

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
1-Chlorooctane	*76*		*70 - 130*
o-Terphenyl	*65*	*S1-*	*70 - 130*

QC Sample Results

Client: Ensolum
Project/Site: BEU DI 30 Battery

Job ID: 890-3433-1
SDG: 03E1558032

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

Lab Sample ID: 890-3433-1 MSD — **Client Sample ID: PH01**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 39567 — **Prep Batch: 39620**

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	999	1231	F2	mg/Kg		119	70 - 130	22	20
Diesel Range Organics (Over C10-C28)	<50.0	U F1	999	773.2		mg/Kg		77	70 - 130	19	20

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
1-Chlorooctane	*89*		*70 - 130*
o-Terphenyl	*77*		*70 - 130*

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-39449/1-A — **Client Sample ID: Method Blank**
Matrix: Solid — **Prep Type: Soluble**
Analysis Batch: 39642

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.00	U	5.00		mg/Kg			11/16/22 01:26	1

Lab Sample ID: LCS 880-39449/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Solid — **Prep Type: Soluble**
Analysis Batch: 39642

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride			250	274.3		mg/Kg		110	90 - 110		

Lab Sample ID: LCSD 880-39449/3-A — **Client Sample ID: Lab Control Sample Dup**
Matrix: Solid — **Prep Type: Soluble**
Analysis Batch: 39642

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride			250	274.5		mg/Kg		110	90 - 110	0	20

Lab Sample ID: 890-3432-A-1-B MS — **Client Sample ID: Matrix Spike**
Matrix: Solid — **Prep Type: Soluble**
Analysis Batch: 39642

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride	207		249	451.3		mg/Kg		98	90 - 110		

Lab Sample ID: 890-3432-A-1-C MSD — **Client Sample ID: Matrix Spike Duplicate**
Matrix: Solid — **Prep Type: Soluble**
Analysis Batch: 39642

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	207		249	467.6		mg/Kg		105	90 - 110	4	20

QC Association Summary

Client: Ensolum
Project/Site: BEU DI 30 Battery

Job ID: 890-3433-1
SDG: 03E1558032

GC VOA

Prep Batch: 39696

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3433-1	PH01	Total/NA	Solid	5035	
MB 880-39696/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-39696/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-39696/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
890-3426-A-41-E MS	Matrix Spike	Total/NA	Solid	5035	
890-3426-A-41-F MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	

Prep Batch: 39922

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 880-39922/5-A	Method Blank	Total/NA	Solid	5035	

Analysis Batch: 39930

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3433-1	PH01	Total/NA	Solid	8021B	39696
MB 880-39696/5-A	Method Blank	Total/NA	Solid	8021B	39696
MB 880-39922/5-A	Method Blank	Total/NA	Solid	8021B	39922
LCS 880-39696/1-A	Lab Control Sample	Total/NA	Solid	8021B	39696
LCSD 880-39696/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	39696
890-3426-A-41-E MS	Matrix Spike	Total/NA	Solid	8021B	39696
890-3426-A-41-F MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	39696

Analysis Batch: 40141

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3433-1	PH01	Total/NA	Solid	Total BTEX	

GC Semi VOA

Analysis Batch: 39567

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3433-1	PH01	Total/NA	Solid	8015B NM	39620
MB 880-39620/1-A	Method Blank	Total/NA	Solid	8015B NM	39620
LCS 880-39620/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	39620
LCSD 880-39620/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	39620
890-3433-1 MS	PH01	Total/NA	Solid	8015B NM	39620
890-3433-1 MSD	PH01	Total/NA	Solid	8015B NM	39620

Prep Batch: 39620

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3433-1	PH01	Total/NA	Solid	8015NM Prep	
MB 880-39620/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-39620/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-39620/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
890-3433-1 MS	PH01	Total/NA	Solid	8015NM Prep	
890-3433-1 MSD	PH01	Total/NA	Solid	8015NM Prep	

Analysis Batch: 39669

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3433-1	PH01	Total/NA	Solid	8015 NM	

QC Association Summary

Client: Ensolum
Project/Site: BEU DI 30 Battery

Job ID: 890-3433-1
SDG: 03E1558032

HPLC/IC

Leach Batch: 39449

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3433-1	PH01	Soluble	Solid	DI Leach	
MB 880-39449/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-39449/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-39449/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
890-3432-A-1-B MS	Matrix Spike	Soluble	Solid	DI Leach	
890-3432-A-1-C MSD	Matrix Spike Duplicate	Soluble	Solid	DI Leach	

Analysis Batch: 39642

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3433-1	PH01	Soluble	Solid	300.0	39449
MB 880-39449/1-A	Method Blank	Soluble	Solid	300.0	39449
LCS 880-39449/2-A	Lab Control Sample	Soluble	Solid	300.0	39449
LCSD 880-39449/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	39449
890-3432-A-1-B MS	Matrix Spike	Soluble	Solid	300.0	39449
890-3432-A-1-C MSD	Matrix Spike Duplicate	Soluble	Solid	300.0	39449

Lab Chronicle

Client: Ensolum
Project/Site: BEU DI 30 Battery

Job ID: 890-3433-1
SDG: 03E1558032

Client Sample ID: PH01

Date Collected: 11/11/22 09:40
Date Received: 11/11/22 10:04

Lab Sample ID: 890-3433-1

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.02 g	5 mL	39696	11/16/22 10:35	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	39930	11/19/22 16:12	SM	EET MID
Total/NA	Analysis	Total BTEX		1			40141	11/21/22 18:12	SM	EET MID
Total/NA	Analysis	8015 NM		1			39669	11/16/22 09:14	SM	EET MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	39620	11/15/22 13:35	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	39567	11/15/22 20:56	AJ	EET MID
Soluble	Leach	DI Leach			4.98 g	50 mL	39449	11/14/22 11:43	KS	EET MID
Soluble	Analysis	300.0		1			39642	11/16/22 02:34	CH	EET MID

Laboratory References:

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

Accreditation/Certification Summary

Client: Ensolum
Project/Site: BEU DI 30 Battery

Job ID: 890-3433-1
SDG: 03E1558032

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	T104704400-22-24	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: BEU DI 30 Battery

Job ID: 890-3433-1
SDG: 03E1558032

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	MCAWW	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

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

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

TAL SOP = TestAmerica Laboratories, Standard Operating Procedure

Laboratory References:

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

Sample Summary

Client: Ensolum
Project/Site: BEU DI 30 Battery

Job ID: 890-3433-1
SDG: 03E1558032

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-3433-1	PH01	Solid	11/11/22 09:40	11/11/22 10:04	6'

eurofins | Environment Testing Xenco

Chain of Custody

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

Work Order No: _____

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

Work Order Comments

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

Project Name:	BEU DI 30 Battery	Turn Around	☐ Routine ☐ Rush
Project Number:	03E1558032	Due Date:	
Project Location:		TAT starts the day received by the lab, if received by 4:30pm	
Sampler's Name:	Connor Whitman		
PO #:			

SAMPLE RECEIPT			
Temp Blank:	Yes (No)	Wet Ice:	(Yes) No
Samples Received Intact:	(Yes) No	Thermometer ID:	IR#7
Cooler Custody Seals:	Yes No (N/A)	Correction Factor:	-0.2
Sample Custody Seals:	Yes No (N/A)	Temperature Reading:	5.4
Total Containers:		Corrected Temperature:	5.1

ANALYSIS REQUEST

Preservative Codes

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

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Grab/ Comp	# of Cont	Pres. Code	CHLORIDES (EPA: 300.0)	TPH (8015)	BTEX (8021)
PH01	S	10/11/22	9:40	6'	G	1		X	X	X

890-3433 Chain of Custody

Sample Comments

Incident ID: NAPP2200746777
Cost Center: 2096141001
AFE:

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

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

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
1		11/11/22 1000	2		
3			4		
5			6		

Revised Date: 08/25/2020 Rev. 2020.2

Login Sample Receipt Checklist

Client: Ensolum

Job Number: 890-3433-1
SDG Number: 03E1558032

Login Number: 3433
List Number: 1
Creator: Stutzman, Amanda

List Source: Eurofins Carlsbad

Question	Answer	Comment
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	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: 890-3433-1
SDG Number: 03E1558032

Login Number: 3433
List Number: 2
Creator: Rodriguez, Leticia

List Source: Eurofins Midland
List Creation: 11/14/22 08:39 AM

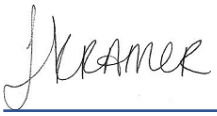
Question	Answer	Comment
The cooler's custody seal, if present, is intact.	N/A	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature 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	

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



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Authorized for release by
Jessica Kramer, Project Manager
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(432)704-5440

eurofins | Environment Testing

ANALYTICAL REPORT

PREPARED FOR

Attn: Ben Belill
Ensolum
705 W. Wadley
Suite 210
Midland, Texas 79701

Generated 11/30/2022 10:08:13 AM

JOB DESCRIPTION

BEU DI 30 BATTERY
SDG NUMBER 03E1558032

JOB NUMBER

890-3443-1

Eurofins Carlsbad
1089 N Canal St.
Carlsbad NM 88220

See page two for job notes and contact information.

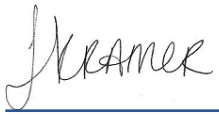
my EOL

Eurofins Carlsbad

Job Notes

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

Authorization



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Authorized for release by
Jessica Kramer, Project Manager
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Client: Ensolum
Project/Site: BEU DI 30 BATTERY

Laboratory Job ID: 890-3443-1
SDG: 03E1558032

Table of Contents

Definitions/Glossary

Client: Ensolum
Project/Site: BEU DI 30 BATTERY

Job ID: 890-3443-1
SDG: 03E1558032

Qualifiers

GC VOA

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

GC Semi VOA

Qualifier	Qualifier Description
F2	MS/MSD RPD exceeds control limits
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: BEU DI 30 BATTERY

Job ID: 890-3443-1
SDG: 03E1558032

Job ID: 890-3443-1

Laboratory: Eurofins Carlsbad

Narrative

Job Narrative
890-3443-1

Receipt
The samples were received on 11/14/2022 8:13 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 5.4°C

Receipt Exceptions
The following samples were received and analyzed from an unpreserved bulk soil jar: PH03 (890-3443-1), PH03A (890-3443-2) and PH03B (890-3443-3).

GC VOA
Method 8021B: Surrogate recovery for the following samples were outside control limits: (880-21516-A-48-C MS) and (880-21516-A-48-D MSD). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

Method 8021B: Surrogate recovery for the following samples were outside control limits: (LCS 880-39849/1-A) and (LCSD 880-39849/2-A). Evidence of matrix interferences is not obvious.

Method 8021B: Surrogate recovery for the following samples were outside control limits: PH03 (890-3443-1), PH03A (890-3443-2) and PH03B (890-3443-3). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

Method 8021B: The laboratory control sample (LCS) associated with preparation batch 880-39849 and analytical batch 880-40172 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 8021B: The method blank for preparation batch 880-39849 and analytical batch 880-40172 contained m-Xylene & p-Xylene above the method detection limit. This target analyte concentration was less than the reporting limit (RL); therefore, re-extraction and/or re-analysis of samples was not performed.

Method 8021B: Reanalysis of the following sample(s) was performed outside of the analytical holding time.PH03 (890-3443-1).

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 matrix spike / matrix spike duplicate (MS/MSD) precision for preparation batch 880-39730 and analytical batch 880-39984 was outside control limits. Sample non-homogeneity is suspected.

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

HPLC/IC
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: BEU DI 30 BATTERY

Job ID: 890-3443-1
SDG: 03E1558032

Client Sample ID: PH03

Date Collected: 11/11/22 01:30
Date Received: 11/14/22 08:13
Sample Depth: 0.5

Lab Sample ID: 890-3443-1

Matrix: Solid

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**0.113**	**H**	0.0399		mg/Kg		11/28/22 14:35	11/29/22 18:57	20
Toluene	**0.0492**	**H**	0.0399		mg/Kg		11/28/22 14:35	11/29/22 18:57	20
Ethylbenzene	<0.0399	U H	0.0399		mg/Kg		11/28/22 14:35	11/29/22 18:57	20
m-Xylene & p-Xylene	<0.0798	U H	0.0798		mg/Kg		11/28/22 14:35	11/29/22 18:57	20
o-Xylene	<0.0399	U H	0.0399		mg/Kg		11/28/22 14:35	11/29/22 18:57	20
Xylenes, Total	<0.0798	U H	0.0798		mg/Kg		11/28/22 14:35	11/29/22 18:57	20

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*124*		*70 - 130*	*11/28/22 14:35*	*11/29/22 18:57*	*20*
1,4-Difluorobenzene (Surr)	*107*		*70 - 130*	*11/28/22 14:35*	*11/29/22 18:57*	*20*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	**0.162**		0.0798		mg/Kg			11/23/22 14:01	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			11/21/22 10:39	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9		mg/Kg		11/16/22 13:49	11/20/22 17:31	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		11/16/22 13:49	11/20/22 17:31	1
OII Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		11/16/22 13:49	11/20/22 17:31	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*100*		*70 - 130*	*11/16/22 13:49*	*11/20/22 17:31*	*1*
o-Terphenyl	*96*		*70 - 130*	*11/16/22 13:49*	*11/20/22 17:31*	*1*

Method: MCAWW 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**47.2**		4.96		mg/Kg			11/18/22 02:58	1

Client Sample ID: PH03A

Date Collected: 11/11/22 01:35
Date Received: 11/14/22 08:13
Sample Depth: 1

Lab Sample ID: 890-3443-2

Matrix: Solid

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00201	U	0.00201		mg/Kg		11/17/22 15:36	11/22/22 19:29	1
Toluene	<0.00201	U	0.00201		mg/Kg		11/17/22 15:36	11/22/22 19:29	1
Ethylbenzene	<0.00201	U	0.00201		mg/Kg		11/17/22 15:36	11/22/22 19:29	1
m-Xylene & p-Xylene	<0.00402	U *+	0.00402		mg/Kg		11/17/22 15:36	11/22/22 19:29	1
o-Xylene	**0.00338**		0.00201		mg/Kg		11/17/22 15:36	11/22/22 19:29	1
Xylenes, Total	<0.00402	U	0.00402		mg/Kg		11/17/22 15:36	11/22/22 19:29	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*153*	*S1+*	*70 - 130*	*11/17/22 15:36*	*11/22/22 19:29*	*1*

Client Sample Results

Client: Ensolum
Project/Site: BEU DI 30 BATTERY

Job ID: 890-3443-1
SDG: 03E1558032

Client Sample ID: PH03A

Date Collected: 11/11/22 01:35
Date Received: 11/14/22 08:13
Sample Depth: 1

Lab Sample ID: 890-3443-2

Matrix: Solid

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

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,4-Difluorobenzene (Surr)	*77*		*70 - 130*	*11/17/22 15:36*	*11/22/22 19:29*	*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			11/23/22 14:01	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			11/21/22 10:39	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		11/16/22 13:49	11/20/22 17:52	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		11/16/22 13:49	11/20/22 17:52	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		11/16/22 13:49	11/20/22 17:52	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*113*		*70 - 130*	*11/16/22 13:49*	*11/20/22 17:52*	*1*
o-Terphenyl	*104*		*70 - 130*	*11/16/22 13:49*	*11/20/22 17:52*	*1*

Method: MCAWW 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**119**		5.00		mg/Kg			11/18/22 03:05	1

Client Sample ID: PH03B

Date Collected: 11/11/22 01:40
Date Received: 11/14/22 08:13
Sample Depth: 2

Lab Sample ID: 890-3443-3

Matrix: Solid

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199		mg/Kg		11/17/22 15:36	11/22/22 19:55	1
Toluene	<0.00199	U	0.00199		mg/Kg		11/17/22 15:36	11/22/22 19:55	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		11/17/22 15:36	11/22/22 19:55	1
m-Xylene & p-Xylene	<0.00398	U *+	0.00398		mg/Kg		11/17/22 15:36	11/22/22 19:55	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		11/17/22 15:36	11/22/22 19:55	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		11/17/22 15:36	11/22/22 19:55	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*183*	*S1+*	*70 - 130*	*11/17/22 15:36*	*11/22/22 19:55*	*1*
1,4-Difluorobenzene (Surr)	*90*		*70 - 130*	*11/17/22 15:36*	*11/22/22 19:55*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398		mg/Kg			11/23/22 14:01	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			11/21/22 10:39	1

Client Sample Results

Client: Ensolum
Project/Site: BEU DI 30 BATTERY

Job ID: 890-3443-1
SDG: 03E1558032

Client Sample ID: PH03B

Date Collected: 11/11/22 01:40
Date Received: 11/14/22 08:13
Sample Depth: 2

Lab Sample ID: 890-3443-3

Matrix: Solid

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9		mg/Kg		11/16/22 13:49	11/20/22 18:14	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		11/16/22 13:49	11/20/22 18:14	1
OII Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		11/16/22 13:49	11/20/22 18:14	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*99*		*70 - 130*	*11/16/22 13:49*	*11/20/22 18:14*	*1*
o-Terphenyl	*93*		*70 - 130*	*11/16/22 13:49*	*11/20/22 18:14*	*1*

Method: MCAWW 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**256**		4.96		mg/Kg			11/18/22 03:12	1

Surrogate Summary

Client: Ensolum
Project/Site: BEU DI 30 BATTERY

Job ID: 890-3443-1
SDG: 03E1558032

Method: 8021B - Volatile Organic Compounds (GC)

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

		Percent Surrogate Recovery (Acceptance Limits)											
		BFB1	DFBZ1										
Lab Sample ID	Client Sample ID	(70-130)	(70-130)										
880-21516-A-48-C MS	Matrix Spike	162 S1+	89										
880-21516-A-48-D MSD	Matrix Spike Duplicate	144 S1+	96										
890-3443-1	PH03	124	107										
890-3443-2	PH03A	153 S1+	77										
890-3443-3	PH03B	183 S1+	90										
890-3537-A-1-C MS	Matrix Spike	97	118										
890-3537-A-1-D MSD	Matrix Spike Duplicate	93	114										
LCS 880-39849/1-A	Lab Control Sample	148 S1+	80										
LCS 880-40471/1-A	Lab Control Sample	106	109										
LCSD 880-39849/2-A	Lab Control Sample Dup	164 S1+	89										
LCSD 880-40471/2-A	Lab Control Sample Dup	93	113										
MB 880-39849/5-A	Method Blank	94	77										
MB 880-40471/5-A	Method Blank	82	104										

Surrogate Legend

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

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

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

		Percent Surrogate Recovery (Acceptance Limits)											
		1CO1	OTPH1										
Lab Sample ID	Client Sample ID	(70-130)	(70-130)										
880-21514-A-1-E MS	Matrix Spike	90	74										
880-21514-A-1-F MSD	Matrix Spike Duplicate	90	86										
890-3443-1	PH03	100	96										
890-3443-2	PH03A	113	104										
890-3443-3	PH03B	99	93										
LCS 880-39730/2-A	Lab Control Sample	104	109										
LCSD 880-39730/3-A	Lab Control Sample Dup	97	105										
MB 880-39730/1-A	Method Blank	102	104										

Surrogate Legend

1CO = 1-Chlorooctane
OTPH = o-Terphenyl

QC Sample Results

Client: Ensolum
Project/Site: BEU DI 30 BATTERY

Job ID: 890-3443-1
SDG: 03E1558032

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-39849/5-A
Matrix: Solid
Analysis Batch: 40172

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 39849

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		11/17/22 15:36	11/22/22 15:10	1
Toluene	<0.00200	U	0.00200		mg/Kg		11/17/22 15:36	11/22/22 15:10	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		11/17/22 15:36	11/22/22 15:10	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		11/17/22 15:36	11/22/22 15:10	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		11/17/22 15:36	11/22/22 15:10	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		11/17/22 15:36	11/22/22 15:10	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*94*		*70 - 130*	*11/17/22 15:36*	*11/22/22 15:10*	*1*
1,4-Difluorobenzene (Surr)	*77*		*70 - 130*	*11/17/22 15:36*	*11/22/22 15:10*	*1*

Lab Sample ID: LCS 880-39849/1-A
Matrix: Solid
Analysis Batch: 40172

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 39849

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Benzene			0.100	0.08837		mg/Kg		88	70 - 130		
Toluene			0.100	0.09998		mg/Kg		100	70 - 130		
Ethylbenzene			0.100	0.09562		mg/Kg		96	70 - 130		
m-Xylene & p-Xylene			0.200	0.2105		mg/Kg		105	70 - 130		
o-Xylene			0.100	0.09927		mg/Kg		99	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*148*	*S1+*	*70 - 130*
1,4-Difluorobenzene (Surr)	*80*		*70 - 130*

Lab Sample ID: LCSD 880-39849/2-A
Matrix: Solid
Analysis Batch: 40172

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 39849

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene			0.100	0.1073		mg/Kg		107	70 - 130	19	35
Toluene			0.100	0.1202		mg/Kg		120	70 - 130	18	35
Ethylbenzene			0.100	0.1212		mg/Kg		121	70 - 130	24	35
m-Xylene & p-Xylene			0.200	0.2650	*+	mg/Kg		132	70 - 130	23	35
o-Xylene			0.100	0.1252		mg/Kg		125	70 - 130	23	35

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*164*	*S1+*	*70 - 130*
1,4-Difluorobenzene (Surr)	*89*		*70 - 130*

Lab Sample ID: 880-21516-A-48-C MS
Matrix: Solid
Analysis Batch: 40172

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 39849

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Benzene	<0.00200	U	0.0996	0.1088		mg/Kg		109	70 - 130		
Toluene	<0.00200	U	0.0996	0.1189		mg/Kg		119	70 - 130		

QC Sample Results

Client: Ensolum
Project/Site: BEU DI 30 BATTERY

Job ID: 890-3443-1
SDG: 03E1558032

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

Lab Sample ID: 880-21516-A-48-C MS
Matrix: Solid
Analysis Batch: 40172

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 39849

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Ethylbenzene	<0.00200	U	0.0996	0.1168		mg/Kg		117	70 - 130
m-Xylene & p-Xylene	<0.00399	U *+	0.199	0.2563		mg/Kg		128	70 - 130
o-Xylene	<0.00200	U	0.0996	0.1168		mg/Kg		117	70 - 130

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*162*	*S1+*	*70 - 130*
1,4-Difluorobenzene (Surr)	*89*		*70 - 130*

Lab Sample ID: 880-21516-A-48-D MSD
Matrix: Solid
Analysis Batch: 40172

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 39849

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	<0.00200	U	0.0994	0.09611		mg/Kg		97	70 - 130	12	35
Toluene	<0.00200	U	0.0994	0.1090		mg/Kg		110	70 - 130	9	35
Ethylbenzene	<0.00200	U	0.0994	0.09895		mg/Kg		100	70 - 130	17	35
m-Xylene & p-Xylene	<0.00399	U *+	0.199	0.2187		mg/Kg		109	70 - 130	16	35
o-Xylene	<0.00200	U	0.0994	0.09877		mg/Kg		99	70 - 130	17	35

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*144*	*S1+*	*70 - 130*
1,4-Difluorobenzene (Surr)	*96*		*70 - 130*

Lab Sample ID: MB 880-40471/5-A
Matrix: Solid
Analysis Batch: 40540

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 40471

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		11/28/22 14:35	11/29/22 10:48	1
Toluene	<0.00200	U	0.00200	mg/Kg		11/28/22 14:35	11/29/22 10:48	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		11/28/22 14:35	11/29/22 10:48	1
m-Xylene & p-Xylene	<0.00400	U	0.00400	mg/Kg		11/28/22 14:35	11/29/22 10:48	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		11/28/22 14:35	11/29/22 10:48	1
Xylenes, Total	<0.00400	U	0.00400	mg/Kg		11/28/22 14:35	11/29/22 10:48	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*82*		*70 - 130*	*11/28/22 14:35*	*11/29/22 10:48*	*1*
1,4-Difluorobenzene (Surr)	*104*		*70 - 130*	*11/28/22 14:35*	*11/29/22 10:48*	*1*

Lab Sample ID: LCS 880-40471/1-A
Matrix: Solid
Analysis Batch: 40540

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 40471

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	0.100	0.1088		mg/Kg		109	70 - 130
Toluene	0.100	0.1011		mg/Kg		101	70 - 130
Ethylbenzene	0.100	0.1035		mg/Kg		103	70 - 130
m-Xylene & p-Xylene	0.200	0.2150		mg/Kg		108	70 - 130

QC Sample Results

Client: Ensolum
Project/Site: BEU DI 30 BATTERY

Job ID: 890-3443-1
SDG: 03E1558032

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

Lab Sample ID: LCS 880-40471/1-A
Matrix: Solid
Analysis Batch: 40540

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 40471

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
o-Xylene			0.100	0.1054		mg/Kg		105	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*106*		*70 - 130*
1,4-Difluorobenzene (Surr)	*109*		*70 - 130*

Lab Sample ID: LCSD 880-40471/2-A
Matrix: Solid
Analysis Batch: 40540

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 40471

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene			0.100	0.1068		mg/Kg		107	70 - 130	2	35
Toluene			0.100	0.09285		mg/Kg		93	70 - 130	8	35
Ethylbenzene			0.100	0.08914		mg/Kg		89	70 - 130	15	35
m-Xylene & p-Xylene			0.200	0.1804		mg/Kg		90	70 - 130	18	35
o-Xylene			0.100	0.08869		mg/Kg		89	70 - 130	17	35

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*93*		*70 - 130*
1,4-Difluorobenzene (Surr)	*113*		*70 - 130*

Lab Sample ID: 890-3537-A-1-C MS
Matrix: Solid
Analysis Batch: 40540

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 40471

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Benzene	<0.00201	U	0.0996	0.1093		mg/Kg		110	70 - 130		
Toluene	<0.00201	U	0.0996	0.09247		mg/Kg		93	70 - 130		
Ethylbenzene	<0.00201	U	0.0996	0.08852		mg/Kg		89	70 - 130		
m-Xylene & p-Xylene	<0.00402	U	0.199	0.1775		mg/Kg		89	70 - 130		
o-Xylene	<0.00201	U	0.0996	0.08683		mg/Kg		87	70 - 130		

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*97*		*70 - 130*
1,4-Difluorobenzene (Surr)	*118*		*70 - 130*

Lab Sample ID: 890-3537-A-1-D MSD
Matrix: Solid
Analysis Batch: 40540

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 40471

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	<0.00201	U	0.0994	0.09554		mg/Kg		96	70 - 130	13	35
Toluene	<0.00201	U	0.0994	0.08081		mg/Kg		81	70 - 130	13	35
Ethylbenzene	<0.00201	U	0.0994	0.07589		mg/Kg		76	70 - 130	15	35
m-Xylene & p-Xylene	<0.00402	U	0.199	0.1519		mg/Kg		76	70 - 130	16	35
o-Xylene	<0.00201	U	0.0994	0.07410		mg/Kg		75	70 - 130	16	35

QC Sample Results

Client: Ensolum
Project/Site: BEU DI 30 BATTERY

Job ID: 890-3443-1
SDG: 03E1558032

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

Lab Sample ID: 890-3537-A-1-D MSD
Matrix: Solid
Analysis Batch: 40540

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 40471

Surrogate	MSD %Recovery	MSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	93		70 - 130
1,4-Difluorobenzene (Surr)	114		70 - 130

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

Lab Sample ID: MB 880-39730/1-A
Matrix: Solid
Analysis Batch: 39984

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 39730

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		11/16/22 13:49	11/20/22 08:00	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		11/16/22 13:49	11/20/22 08:00	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		11/16/22 13:49	11/20/22 08:00	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	102		70 - 130	11/16/22 13:49	11/20/22 08:00	1
o-Terphenyl	104		70 - 130	11/16/22 13:49	11/20/22 08:00	1

Lab Sample ID: LCS 880-39730/2-A
Matrix: Solid
Analysis Batch: 39984

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 39730

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Gasoline Range Organics (GRO)-C6-C10			1000	1002		mg/Kg		100	70 - 130		
Diesel Range Organics (Over C10-C28)			1000	1045		mg/Kg		105	70 - 130		

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1-Chlorooctane	104		70 - 130
o-Terphenyl	109		70 - 130

Lab Sample ID: LCSD 880-39730/3-A
Matrix: Solid
Analysis Batch: 39984

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 39730

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10			1000	868.0		mg/Kg		87	70 - 130	14	20
Diesel Range Organics (Over C10-C28)			1000	1001		mg/Kg		100	70 - 130	4	20

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
1-Chlorooctane	97		70 - 130
o-Terphenyl	105		70 - 130

QC Sample Results

Client: Ensolum
Project/Site: BEU DI 30 BATTERY

Job ID: 890-3443-1
SDG: 03E1558032

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

Lab Sample ID: 880-21514-A-1-E MS — **Client Sample ID: Matrix Spike**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 39984 — **Prep Batch: 39730**

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	998	699.0		mg/Kg		70	70 - 130
Diesel Range Organics (Over C10-C28)	<50.0	U	998	857.8		mg/Kg		86	70 - 130

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
1-Chlorooctane	*90*		*70 - 130*
o-Terphenyl	*74*		*70 - 130*

Lab Sample ID: 880-21514-A-1-F MSD — **Client Sample ID: Matrix Spike Duplicate**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 39984 — **Prep Batch: 39730**

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	997	934.7	F2	mg/Kg		94	70 - 130	29	20
Diesel Range Organics (Over C10-C28)	<50.0	U	997	1008		mg/Kg		101	70 - 130	16	20

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
1-Chlorooctane	*90*		*70 - 130*
o-Terphenyl	*86*		*70 - 130*

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-39692/1-A — **Client Sample ID: Method Blank**
Matrix: Solid — **Prep Type: Soluble**
Analysis Batch: 39819

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.00	U	5.00		mg/Kg			11/17/22 23:45	1

Lab Sample ID: LCS 880-39692/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Solid — **Prep Type: Soluble**
Analysis Batch: 39819

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride			250	255.6		mg/Kg		102	90 - 110

Lab Sample ID: LCSD 880-39692/3-A — **Client Sample ID: Lab Control Sample Dup**
Matrix: Solid — **Prep Type: Soluble**
Analysis Batch: 39819

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride			250	247.4		mg/Kg		99	90 - 110	3	20

QC Sample Results

Client: Ensolum
Project/Site: BEU DI 30 BATTERY

Job ID: 890-3443-1
SDG: 03E1558032

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: 880-21468-A-2-B MS
Matrix: Solid
Analysis Batch: 39819

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	19.0		251	286.7		mg/Kg		107	90 - 110

Lab Sample ID: 880-21468-A-2-C MSD
Matrix: Solid
Analysis Batch: 39819

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	19.0		251	273.0		mg/Kg		101	90 - 110	5	20

QC Association Summary

Client: Ensolum
Project/Site: BEU DI 30 BATTERY

Job ID: 890-3443-1
SDG: 03E1558032

GC VOA

Prep Batch: 39849

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3443-2	PH03A	Total/NA	Solid	5035	
890-3443-3	PH03B	Total/NA	Solid	5035	
MB 880-39849/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-39849/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-39849/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
880-21516-A-48-C MS	Matrix Spike	Total/NA	Solid	5035	
880-21516-A-48-D MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	

Analysis Batch: 40172

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3443-2	PH03A	Total/NA	Solid	8021B	39849
890-3443-3	PH03B	Total/NA	Solid	8021B	39849
MB 880-39849/5-A	Method Blank	Total/NA	Solid	8021B	39849
LCS 880-39849/1-A	Lab Control Sample	Total/NA	Solid	8021B	39849
LCSD 880-39849/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	39849
880-21516-A-48-C MS	Matrix Spike	Total/NA	Solid	8021B	39849
880-21516-A-48-D MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	39849

Analysis Batch: 40338

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3443-1	PH03	Total/NA	Solid	Total BTEX	
890-3443-2	PH03A	Total/NA	Solid	Total BTEX	
890-3443-3	PH03B	Total/NA	Solid	Total BTEX	

Prep Batch: 40471

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3443-1	PH03	Total/NA	Solid	5035	
MB 880-40471/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-40471/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-40471/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
890-3537-A-1-C MS	Matrix Spike	Total/NA	Solid	5035	
890-3537-A-1-D MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	

Analysis Batch: 40540

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3443-1	PH03	Total/NA	Solid	8021B	40471
MB 880-40471/5-A	Method Blank	Total/NA	Solid	8021B	40471
LCS 880-40471/1-A	Lab Control Sample	Total/NA	Solid	8021B	40471
LCSD 880-40471/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	40471
890-3537-A-1-C MS	Matrix Spike	Total/NA	Solid	8021B	40471
890-3537-A-1-D MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	40471

GC Semi VOA

Prep Batch: 39730

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3443-1	PH03	Total/NA	Solid	8015NM Prep	
890-3443-2	PH03A	Total/NA	Solid	8015NM Prep	
890-3443-3	PH03B	Total/NA	Solid	8015NM Prep	
MB 880-39730/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-39730/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	

QC Association Summary

Client: Ensolum
Project/Site: BEU DI 30 BATTERY

Job ID: 890-3443-1
SDG: 03E1558032

GC Semi VOA (Continued)

Prep Batch: 39730 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCSD 880-39730/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
880-21514-A-1-E MS	Matrix Spike	Total/NA	Solid	8015NM Prep	
880-21514-A-1-F MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	

Analysis Batch: 39984

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3443-1	PH03	Total/NA	Solid	8015B NM	39730
890-3443-2	PH03A	Total/NA	Solid	8015B NM	39730
890-3443-3	PH03B	Total/NA	Solid	8015B NM	39730
MB 880-39730/1-A	Method Blank	Total/NA	Solid	8015B NM	39730
LCS 880-39730/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	39730
LCSD 880-39730/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	39730
880-21514-A-1-E MS	Matrix Spike	Total/NA	Solid	8015B NM	39730
880-21514-A-1-F MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	39730

Analysis Batch: 40086

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3443-1	PH03	Total/NA	Solid	8015 NM	
890-3443-2	PH03A	Total/NA	Solid	8015 NM	
890-3443-3	PH03B	Total/NA	Solid	8015 NM	

HPLC/IC

Leach Batch: 39692

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3443-1	PH03	Soluble	Solid	DI Leach	
890-3443-2	PH03A	Soluble	Solid	DI Leach	
890-3443-3	PH03B	Soluble	Solid	DI Leach	
MB 880-39692/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-39692/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-39692/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
880-21468-A-2-B MS	Matrix Spike	Soluble	Solid	DI Leach	
880-21468-A-2-C MSD	Matrix Spike Duplicate	Soluble	Solid	DI Leach	

Analysis Batch: 39819

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3443-1	PH03	Soluble	Solid	300.0	39692
890-3443-2	PH03A	Soluble	Solid	300.0	39692
890-3443-3	PH03B	Soluble	Solid	300.0	39692
MB 880-39692/1-A	Method Blank	Soluble	Solid	300.0	39692
LCS 880-39692/2-A	Lab Control Sample	Soluble	Solid	300.0	39692
LCSD 880-39692/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	39692
880-21468-A-2-B MS	Matrix Spike	Soluble	Solid	300.0	39692
880-21468-A-2-C MSD	Matrix Spike Duplicate	Soluble	Solid	300.0	39692

Lab Chronicle

Client: Ensolum
Project/Site: BEU DI 30 BATTERY

Job ID: 890-3443-1
SDG: 03E1558032

Client Sample ID: PH03

Date Collected: 11/11/22 01:30
Date Received: 11/14/22 08:13

Lab Sample ID: 890-3443-1
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.01 g	5 mL	40471	11/28/22 14:35	MNR	EET MID
Total/NA	Analysis	8021B		20	5 mL	5 mL	40540	11/29/22 18:57	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			40338	11/23/22 14:01	SM	EET MID
Total/NA	Analysis	8015 NM		1			40086	11/21/22 10:39	SM	EET MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	39730	11/16/22 13:49	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	39984	11/20/22 17:31	SM	EET MID
Soluble	Leach	DI Leach			5.04 g	50 mL	39692	11/16/22 10:18	KS	EET MID
Soluble	Analysis	300.0		1			39819	11/18/22 02:58	CH	EET MID

Client Sample ID: PH03A

Date Collected: 11/11/22 01:35
Date Received: 11/14/22 08:13

Lab Sample ID: 890-3443-2
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.97 g	5 mL	39849	11/17/22 15:36	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	40172	11/22/22 19:29	SM	EET MID
Total/NA	Analysis	Total BTEX		1			40338	11/23/22 14:01	SM	EET MID
Total/NA	Analysis	8015 NM		1			40086	11/21/22 10:39	SM	EET MID
Total/NA	Prep	8015NM Prep			10.00 g	10 mL	39730	11/16/22 13:49	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	39984	11/20/22 17:52	SM	EET MID
Soluble	Leach	DI Leach			5 g	50 mL	39692	11/16/22 10:18	KS	EET MID
Soluble	Analysis	300.0		1			39819	11/18/22 03:05	CH	EET MID

Client Sample ID: PH03B

Date Collected: 11/11/22 01:40
Date Received: 11/14/22 08:13

Lab Sample ID: 890-3443-3
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.02 g	5 mL	39849	11/17/22 15:36	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	40172	11/22/22 19:55	SM	EET MID
Total/NA	Analysis	Total BTEX		1			40338	11/23/22 14:01	SM	EET MID
Total/NA	Analysis	8015 NM		1			40086	11/21/22 10:39	SM	EET MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	39730	11/16/22 13:49	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	39984	11/20/22 18:14	SM	EET MID
Soluble	Leach	DI Leach			5.04 g	50 mL	39692	11/16/22 10:18	KS	EET MID
Soluble	Analysis	300.0		1			39819	11/18/22 03:12	CH	EET MID

Laboratory References:

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

Accreditation/Certification Summary

Client: Ensolum
Project/Site: BEU DI 30 BATTERY

Job ID: 890-3443-1
SDG: 03E1558032

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	T104704400-22-24	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: BEU DI 30 BATTERY

Job ID: 890-3443-1
SDG: 03E1558032

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	MCAWW	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

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

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

TAL SOP = TestAmerica Laboratories, Standard Operating Procedure

Laboratory References:

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

Sample Summary

Client: Ensolum
Project/Site: BEU DI 30 BATTERY

Job ID: 890-3443-1
SDG: 03E1558032

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-3443-1	PH03	Solid	11/11/22 01:30	11/14/22 08:13	0.5
890-3443-2	PH03A	Solid	11/11/22 01:35	11/14/22 08:13	1
890-3443-3	PH03B	Solid	11/11/22 01:40	11/14/22 08:13	2

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Chain of Custody

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

Work Order No: _____

www.xenco.com Page 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

Work Order Comments

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

Project Name:	BEU DI 30 Battery	Turn Around	☑ Routine ☐ Rush
Project Number:	03E1558032	Due Date:	
Project Location:		TAT starts the day received by the lab, if received by 4:30pm	
Sampler's Name:	Connor Whitman		
PO #:			

SAMPLE RECEIPT				
Temp Blank:	Yes (No)	Wet Ice:	(Yes) No	
Samples Received Intact:	(Yes) No	Thermometer ID:	Thm007	
Cooler Custody Seals:	Yes No (N/A)	Correction Factor:	-0.2	
Sample Custody Seals:	Yes No (N/A)	Temperature Reading:	5.6	
Total Containers:		Corrected Temperature:	5.4	

ANALYSIS REQUEST

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Grab/ Comp	# of Cont	CHLORIDES (EPA: 300.0)	TPH (8015)	BTEX (8021)
PH03	S	11/11/22	1:30	0.5'	G	1	✓	✓	✓
PH03A	S		1:35	1'	G	1	✓	✓	✓
PH03B	S		1:40	2'	G	1	✓	✓	✓

CW

890-3443 Chain of Custody

Preservative Codes

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

Sample Comments

Incident ID:
NAPP2200746777
Cost Center:
2096141001
AFE:

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

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

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

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
1		11-14-22813	2		
3			4		
5			6		

Revised Date: 08/25/2020 Rev. 2020.2

Login Sample Receipt Checklist

Client: Ensolum

Job Number: 890-3443-1
SDG Number: 03E1558032

Login Number: 3443
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: 890-3443-1
SDG Number: 03E1558032

Login Number: 3443
List Number: 2
Creator: Rodriguez, Leticia

List Source: Eurofins Midland
List Creation: 11/15/22 11:14 AM

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

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ANALYTICAL REPORT

PREPARED FOR

Attn: Ben Belill
Ensolum
705 W. Wadley
Suite 210
Midland Texas 79701

Generated 11/21/2022 10:08:01 AM

JOB DESCRIPTION

BEU DI 30 BATTERY
SDG NUMBER 03E1558032

JOB NUMBER

890-3445-1

Eurofins Carlsbad
1089 N Canal St.
Carlsbad NM 88220

Client: Ensolum
Project/Site: BEU DI 30 BATTERY

Laboratory Job ID: 890-3445-1
SDG: 03E1558032

Table of Contents

Definitions/Glossary

Client: Ensolum
Project/Site: BEU DI 30 BATTERY

Job ID: 890-3445-1
SDG: 03E1558032

Qualifiers

GC VOA

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

GC Semi VOA

Qualifier	Qualifier Description
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: BEU DI 30 BATTERY

Job ID: 890-3445-1
SDG: 03E1558032

Job ID: 890-3445-1

Laboratory: Eurofins Carlsbad

Narrative

Job Narrative
890-3445-1

Receipt
The sample was received on 11/14/2022 8:13 AM. Unless otherwise noted below, the sample arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 5.4°C

Receipt Exceptions
The following sample was received and analyzed from an unpreserved bulk soil jar: PH02 (890-3445-1).

GC VOA
Method 8021B: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 880-39517 and analytical batch 880-39576 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.

Method 8021B: Surrogate recovery for the following sample was outside control limits: PH02 (890-3445-1). 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.

GC Semi VOA
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: BEU DI 30 BATTERY

Job ID: 890-3445-1
SDG: 03E1558032

Client Sample ID: PH02

Date Collected: 11/11/22 02:40
Date Received: 11/14/22 08:13
Sample Depth: 1

Lab Sample ID: 890-3445-1

Matrix: Solid

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199		mg/Kg		11/15/22 12:33	11/15/22 14:31	1
Toluene	<0.00199	U	0.00199		mg/Kg		11/15/22 12:33	11/15/22 14:31	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		11/15/22 12:33	11/15/22 14:31	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		11/15/22 12:33	11/15/22 14:31	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		11/15/22 12:33	11/15/22 14:31	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		11/15/22 12:33	11/15/22 14:31	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*58*	*S1-*	*70 - 130*	*11/15/22 12:33*	*11/15/22 14:31*	*1*
1,4-Difluorobenzene (Surr)	*72*		*70 - 130*	*11/15/22 12:33*	*11/15/22 14:31*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398		mg/Kg			11/15/22 16:33	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			11/21/22 10:28	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		11/17/22 10:08	11/20/22 04:16	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		11/17/22 10:08	11/20/22 04:16	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		11/17/22 10:08	11/20/22 04:16	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*89*		*70 - 130*	*11/17/22 10:08*	*11/20/22 04:16*	*1*
o-Terphenyl	*88*		*70 - 130*	*11/17/22 10:08*	*11/20/22 04:16*	*1*

Method: MCAWW 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**49.2**		5.02		mg/Kg			11/19/22 16:17	1

Surrogate Summary

Client: Ensolum
Project/Site: BEU DI 30 BATTERY

Job ID: 890-3445-1
SDG: 03E1558032

Method: 8021B - Volatile Organic Compounds (GC)

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

		Percent Surrogate Recovery (Acceptance Limits)											
		BFB1	DFBZ1										
Lab Sample ID	Client Sample ID	(70-130)	(70-130)										
890-3420-A-101-C MS	Matrix Spike	90	105										
890-3420-A-101-D MSD	Matrix Spike Duplicate	87	102										
890-3445-1	PH02	58 S1-	72										
LCS 880-39517/1-A	Lab Control Sample	87	105										
LCSD 880-39517/2-A	Lab Control Sample Dup	89	104										
MB 880-39517/5-A	Method Blank	99	103										

Surrogate Legend

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

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

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

		Percent Surrogate Recovery (Acceptance Limits)											
		1CO1	OTPH1										
Lab Sample ID	Client Sample ID	(70-130)	(70-130)										
890-3445-1	PH02	89	88										
890-3461-A-25-B MS	Matrix Spike	103	86										
890-3461-A-25-C MSD	Matrix Spike Duplicate	102	87										
LCS 880-39787/2-A	Lab Control Sample	95	99										
LCSD 880-39787/3-A	Lab Control Sample Dup	87	94										
MB 880-39787/1-A	Method Blank	96	92										

Surrogate Legend

1CO = 1-Chlorooctane
OTPH = o-Terphenyl

QC Sample Results

Client: Ensolum
Project/Site: BEU DI 30 BATTERY

Job ID: 890-3445-1
SDG: 03E1558032

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-39517/5-A
Matrix: Solid
Analysis Batch: 39576

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 39517

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		11/14/22 14:31	11/15/22 10:40	1
Toluene	<0.00200	U	0.00200		mg/Kg		11/14/22 14:31	11/15/22 10:40	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		11/14/22 14:31	11/15/22 10:40	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		11/14/22 14:31	11/15/22 10:40	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		11/14/22 14:31	11/15/22 10:40	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		11/14/22 14:31	11/15/22 10:40	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*99*		*70 - 130*	*11/14/22 14:31*	*11/15/22 10:40*	*1*
1,4-Difluorobenzene (Surr)	*103*		*70 - 130*	*11/14/22 14:31*	*11/15/22 10:40*	*1*

Lab Sample ID: LCS 880-39517/1-A
Matrix: Solid
Analysis Batch: 39576

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 39517

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Benzene			0.100	0.08531		mg/Kg		85	70 - 130		
Toluene			0.100	0.08499		mg/Kg		85	70 - 130		
Ethylbenzene			0.100	0.08145		mg/Kg		81	70 - 130		
m-Xylene & p-Xylene			0.200	0.1590		mg/Kg		80	70 - 130		
o-Xylene			0.100	0.08947		mg/Kg		89	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*87*		*70 - 130*
1,4-Difluorobenzene (Surr)	*105*		*70 - 130*

Lab Sample ID: LCSD 880-39517/2-A
Matrix: Solid
Analysis Batch: 39576

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 39517

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene			0.100	0.09442		mg/Kg		94	70 - 130	10	35
Toluene			0.100	0.09389		mg/Kg		94	70 - 130	10	35
Ethylbenzene			0.100	0.09123		mg/Kg		91	70 - 130	11	35
m-Xylene & p-Xylene			0.200	0.1754		mg/Kg		88	70 - 130	10	35
o-Xylene			0.100	0.09876		mg/Kg		99	70 - 130	10	35

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*89*		*70 - 130*
1,4-Difluorobenzene (Surr)	*104*		*70 - 130*

Lab Sample ID: 890-3420-A-101-C MS
Matrix: Solid
Analysis Batch: 39576

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 39517

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Benzene	<0.00201	U	0.0996	0.07702		mg/Kg		77	70 - 130		
Toluene	<0.00201	U F1	0.0996	0.06844	F1	mg/Kg		69	70 - 130		

QC Sample Results

Client: Ensolum
Project/Site: BEU DI 30 BATTERY

Job ID: 890-3445-1
SDG: 03E1558032

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

Lab Sample ID: 890-3420-A-101-C MS
Matrix: Solid
Analysis Batch: 39576

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 39517

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Ethylbenzene	<0.00201	U F1	0.0996	0.05364	F1	mg/Kg		54	70 - 130
m-Xylene & p-Xylene	<0.00402	U F1	0.199	0.1042	F1	mg/Kg		52	70 - 130
o-Xylene	<0.00201	U F1	0.0996	0.05936	F1	mg/Kg		60	70 - 130

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*90*		*70 - 130*
1,4-Difluorobenzene (Surr)	*105*		*70 - 130*

Lab Sample ID: 890-3420-A-101-D MSD
Matrix: Solid
Analysis Batch: 39576

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 39517

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	<0.00201	U	0.0994	0.08047		mg/Kg		81	70 - 130	4	35
Toluene	<0.00201	U F1	0.0994	0.07076		mg/Kg		71	70 - 130	3	35
Ethylbenzene	<0.00201	U F1	0.0994	0.05579	F1	mg/Kg		56	70 - 130	4	35
m-Xylene & p-Xylene	<0.00402	U F1	0.199	0.1072	F1	mg/Kg		54	70 - 130	3	35
o-Xylene	<0.00201	U F1	0.0994	0.06104	F1	mg/Kg		61	70 - 130	3	35

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*87*		*70 - 130*
1,4-Difluorobenzene (Surr)	*102*		*70 - 130*

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

Lab Sample ID: MB 880-39787/1-A
Matrix: Solid
Analysis Batch: 39956

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 39787

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		11/17/22 10:08	11/19/22 20:22	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		11/17/22 10:08	11/19/22 20:22	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		11/17/22 10:08	11/19/22 20:22	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*96*		*70 - 130*	*11/17/22 10:08*	*11/19/22 20:22*	*1*
o-Terphenyl	*92*		*70 - 130*	*11/17/22 10:08*	*11/19/22 20:22*	*1*

Lab Sample ID: LCS 880-39787/2-A
Matrix: Solid
Analysis Batch: 39956

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 39787

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Gasoline Range Organics (GRO)-C6-C10			1000	988.3		mg/Kg		99	70 - 130
Diesel Range Organics (Over C10-C28)			1000	999.1		mg/Kg		100	70 - 130

Eurofins Carlsbad

QC Sample Results

Client: Ensolum
Project/Site: BEU DI 30 BATTERY

Job ID: 890-3445-1
SDG: 03E1558032

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

Lab Sample ID: LCS 880-39787/2-A
Matrix: Solid
Analysis Batch: 39956

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 39787

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1-Chlorooctane	95		70 - 130
o-Terphenyl	99		70 - 130

Lab Sample ID: LCSD 880-39787/3-A
Matrix: Solid
Analysis Batch: 39956

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 39787

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10			1000	1002		mg/Kg		100	70 - 130	1	20
Diesel Range Organics (Over C10-C28)			1000	947.6		mg/Kg		95	70 - 130	5	20

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
1-Chlorooctane	87		70 - 130
o-Terphenyl	94		70 - 130

Lab Sample ID: 890-3461-A-25-B MS
Matrix: Solid
Analysis Batch: 39956

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 39787

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	998	833.8		mg/Kg		84	70 - 130
Diesel Range Organics (Over C10-C28)	<50.0	U	998	1015		mg/Kg		99	70 - 130

Surrogate	MS %Recovery	MS Qualifier	Limits
1-Chlorooctane	103		70 - 130
o-Terphenyl	86		70 - 130

Lab Sample ID: 890-3461-A-25-C MSD
Matrix: Solid
Analysis Batch: 39956

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 39787

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	997	869.2		mg/Kg		87	70 - 130	4	20
Diesel Range Organics (Over C10-C28)	<50.0	U	997	1035		mg/Kg		102	70 - 130	2	20

Surrogate	MSD %Recovery	MSD Qualifier	Limits
1-Chlorooctane	102		70 - 130
o-Terphenyl	87		70 - 130

QC Sample Results

Client: Ensolum
Project/Site: BEU DI 30 BATTERY

Job ID: 890-3445-1
SDG: 03E1558032

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-39710/1-A
Matrix: Solid
Analysis Batch: 39996

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			11/19/22 14:23	1

Lab Sample ID: LCS 880-39710/2-A
Matrix: Solid
Analysis Batch: 39996

Client Sample ID: Lab Control Sample
Prep Type: Soluble

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride			250	259.5		mg/Kg		104	90 - 110		

Lab Sample ID: LCSD 880-39710/3-A
Matrix: Solid
Analysis Batch: 39996

Client Sample ID: Lab Control Sample Dup
Prep Type: Soluble

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride			250	256.0		mg/Kg		102	90 - 110	1	20

Lab Sample ID: 890-3450-A-4-B MS
Matrix: Solid
Analysis Batch: 39996

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	218		249	445.1		mg/Kg		91	90 - 110		

Lab Sample ID: 890-3450-A-4-C MSD
Matrix: Solid
Analysis Batch: 39996

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	218		249	447.9		mg/Kg		93	90 - 110	1	20

QC Association Summary

Client: Ensolum
Project/Site: BEU DI 30 BATTERY

Job ID: 890-3445-1
SDG: 03E1558032

GC VOA

Prep Batch: 39517

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3445-1	PH02	Total/NA	Solid	5035	
MB 880-39517/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-39517/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-39517/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
890-3420-A-101-C MS	Matrix Spike	Total/NA	Solid	5035	
890-3420-A-101-D MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	

Analysis Batch: 39576

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3445-1	PH02	Total/NA	Solid	8021B	39517
MB 880-39517/5-A	Method Blank	Total/NA	Solid	8021B	39517
LCS 880-39517/1-A	Lab Control Sample	Total/NA	Solid	8021B	39517
LCSD 880-39517/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	39517
890-3420-A-101-C MS	Matrix Spike	Total/NA	Solid	8021B	39517
890-3420-A-101-D MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	39517

Analysis Batch: 39647

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3445-1	PH02	Total/NA	Solid	Total BTEX	

GC Semi VOA

Prep Batch: 39787

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3445-1	PH02	Total/NA	Solid	8015NM Prep	
MB 880-39787/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-39787/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-39787/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
890-3461-A-25-B MS	Matrix Spike	Total/NA	Solid	8015NM Prep	
890-3461-A-25-C MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	

Analysis Batch: 39956

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3445-1	PH02	Total/NA	Solid	8015B NM	39787
MB 880-39787/1-A	Method Blank	Total/NA	Solid	8015B NM	39787
LCS 880-39787/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	39787
LCSD 880-39787/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	39787
890-3461-A-25-B MS	Matrix Spike	Total/NA	Solid	8015B NM	39787
890-3461-A-25-C MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	39787

Analysis Batch: 40084

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3445-1	PH02	Total/NA	Solid	8015 NM	

HPLC/IC

Leach Batch: 39710

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3445-1	PH02	Soluble	Solid	DI Leach	
MB 880-39710/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-39710/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-39710/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	

QC Association Summary

Client: Ensolum
Project/Site: BEU DI 30 BATTERY

Job ID: 890-3445-1
SDG: 03E1558032

HPLC/IC (Continued)

Leach Batch: 39710 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3450-A-4-B MS	Matrix Spike	Soluble	Solid	DI Leach	
890-3450-A-4-C MSD	Matrix Spike Duplicate	Soluble	Solid	DI Leach	

Analysis Batch: 39996

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3445-1	PH02	Soluble	Solid	300.0	39710
MB 880-39710/1-A	Method Blank	Soluble	Solid	300.0	39710
LCS 880-39710/2-A	Lab Control Sample	Soluble	Solid	300.0	39710
LCSD 880-39710/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	39710
890-3450-A-4-B MS	Matrix Spike	Soluble	Solid	300.0	39710
890-3450-A-4-C MSD	Matrix Spike Duplicate	Soluble	Solid	300.0	39710

Lab Chronicle

Client: Ensolum
Project/Site: BEU DI 30 BATTERY

Job ID: 890-3445-1
SDG: 03E1558032

Client Sample ID: PH02
Date Collected: 11/11/22 02:40
Date Received: 11/14/22 08:13

Lab Sample ID: 890-3445-1
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.02 g	5 mL	39517	11/15/22 12:33	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	39576	11/15/22 14:31	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			39647	11/15/22 16:33	AJ	EET MID
Total/NA	Analysis	8015 NM		1			40084	11/21/22 10:28	SM	EET MID
Total/NA	Prep	8015NM Prep			10.00 g	10 mL	39787	11/17/22 10:08	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	39956	11/20/22 04:16	SM	EET MID
Soluble	Leach	DI Leach			4.98 g	50 mL	39710	11/16/22 10:47	KS	EET MID
Soluble	Analysis	300.0		1			39996	11/19/22 16:17	CH	EET MID

Laboratory References:

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

Accreditation/Certification Summary

Client: Ensolum
Project/Site: BEU DI 30 BATTERY

Job ID: 890-3445-1
SDG: 03E1558032

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	T104704400-22-24	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: BEU DI 30 BATTERY

Job ID: 890-3445-1
SDG: 03E1558032

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	MCAWW	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

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

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

TAL SOP = TestAmerica Laboratories, Standard Operating Procedure

Laboratory References:

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

Sample Summary

Client: Ensolum
Project/Site: BEU DI 30 BATTERY

Job ID: 890-3445-1
SDG: 03E1558032

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-3445-1	PH02	Solid	11/11/22 02:40	11/14/22 08:13	1

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Chain of Custody

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

Work Order No: _____

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

Work Order Comments

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

Project Name:	BEU DI 30 Battery	Turn Around	☐ Routine ☒ Rush
Project Number:	03E1558032	Due Date:	1 Day
Project Location:		TAT starts the day received by the lab, if received by 4:30pm	
Sampler's Name:	Connor Whitman		
PO #:			

SAMPLE RECEIPT				
Temp Blank:	Yes (No)	Wet Ice:	(Yes) No	
Samples Received Intact:	(Yes) No	Thermometer ID:	TNM007	
Cooler Custody Seals:	Yes No (N/A)	Correction Factor:	-0.2	
Sample Custody Seals:	Yes No (N/A)	Temperature Reading:	5.6	
Total Containers:		Corrected Temperature:	5.4	

ANALYSIS REQUEST

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Grab/ Comp	# of Cont	Pres. Code	CHLORIDES (EPA: 300.0)	TPH (8015)	BTEX (8021)
PH02	S	11/11/22	9:40	1'	G	1		/	/	/

890-3445 Chain of Custody

Preservative Codes

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

Sample Comments

Incident ID:
NAPP2200746777
Cost Center:
2096141001
AFE:

Total 200.7 / 6010 200.8 / 6020: 8RCRA 13PPM Texas 11 Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag SiO_2 Na Sr Tl Sn U V Zn
Circle Method(s) and Metal(s) to be analyzed **TCLP / SPLP 6010**: 8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Tl U Hg: 1631 / 245.1 / 7470 / 7471

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

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
1		11.14.22 813	4		
3			6		
5					

Revised Date: 08/25/2020 Rev. 2020.2

Login Sample Receipt Checklist

Client: Ensolum

Job Number: 890-3445-1
SDG Number: 03E1558032

Login Number: 3445
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: 890-3445-1
SDG Number: 03E1558032

Login Number: 3445
List Number: 2
Creator: Rodriguez, Leticia

List Source: Eurofins Midland
List Creation: 11/15/22 11:14 AM

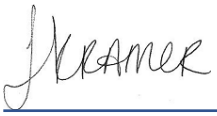
Question	Answer	Comment
The cooler's custody seal, if present, is intact.	N/A	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature 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	

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



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

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ANALYTICAL REPORT

PREPARED FOR

Attn: Ben Belill
Ensolum
705 W. Wadley
Suite 210
Midland Texas 79701

Generated 11/23/2022 1:45:11 PM

JOB DESCRIPTION

BEU DI 30 BATTERY
SDG NUMBER 03E1558032

JOB NUMBER

890-3450-1

Eurofins Carlsbad
1089 N Canal St.
Carlsbad NM 88220

my EOL

Client: Ensolum
Project/Site: BEU DI 30 BATTERY

Laboratory Job ID: 890-3450-1
SDG: 03E1558032

Table of Contents

Eurofins Carlsbad
11/23/2022

Definitions/Glossary

Client: Ensolum
Project/Site: BEU DI 30 BATTERY

Job ID: 890-3450-1
SDG: 03E1558032

Qualifiers

GC 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.

GC Semi VOA

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

HPLC/IC

Qualifier	Qualifier Description
4	MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable.
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: BEU DI 30 BATTERY

Job ID: 890-3450-1
SDG: 03E1558032

Job ID: 890-3450-1

Laboratory: Eurofins Carlsbad

Narrative

Job Narrative
890-3450-1

Receipt
The samples were received on 11/14/2022 8:13 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 5.4°C

Receipt Exceptions
The following samples were received and analyzed from an unpreserved bulk soil jar: PH02 (890-3450-1), PH02A (890-3450-2), PH02B (890-3450-3), PH02C (890-3450-4), PH04 (890-3450-5), PH04A (890-3450-6), PH04B (890-3450-7), PH04C (890-3450-8), PH05 (890-3450-9), PH05A (890-3450-10), PH05B (890-3450-11) and PH05C (890-3450-12).

GC VOA
Method 8021B: Surrogate recovery for the following sample was outside control limits: (LCSD 880-39851/2-A). Evidence of matrix interferences is not obvious.

Method 8021B: Surrogate recovery for the following samples were outside control limits: (880-21514-A-1-G MS) and (880-21514-A-1-H MSD). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

Method 8021B: Surrogate recovery for the following samples were outside control limits: PH05B (890-3450-11) and PH05C (890-3450-12). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

Method 8021B: Surrogate recovery for the following samples were outside control limits: (880-21516-A-48-C MS) and (880-21516-A-48-D MSD). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

Method 8021B: Surrogate recovery for the following samples were outside control limits: (LCS 880-39849/1-A) and (LCSD 880-39849/2-A). Evidence of matrix interferences is not obvious.

Method 8021B: Surrogate recovery for the following samples were outside control limits: PH02 (890-3450-1), PH02A (890-3450-2), PH02B (890-3450-3), PH02C (890-3450-4), PH04 (890-3450-5), PH04A (890-3450-6), PH04B (890-3450-7), PH04C (890-3450-8), PH05 (890-3450-9) and PH05A (890-3450-10). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

Method 8021B: The laboratory control sample (LCS) associated with preparation batch 880-39849 and analytical batch 880-40172 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 8021B: The method blank for preparation batch 880-39849 and analytical batch 880-40172 contained m-Xylene & p-Xylene above the method detection limit. This target analyte concentration was less than the reporting limit (RL); therefore, re-extraction and/or re-analysis of samples was not performed.

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

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

HPLC/IC
Method 300_ORGFM_28D: The matrix spike / matrix spike duplicate (MS/MSD) recoveries and precision for preparation batch 880-39709 and analytical batch 880-40017 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample / laboratory sample control duplicate (LCS/LCSD) precision was within acceptance limits.

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

Case Narrative

Client: Ensolum
Project/Site: BEU DI 30 BATTERY

Job ID: 890-3450-1
SDG: 03E1558032

Job ID: 890-3450-1 (Continued)

Laboratory: Eurofins Carlsbad (Continued)

Client Sample Results

Client: Ensolum
Project/Site: BEU DI 30 BATTERY

Job ID: 890-3450-1
SDG: 03E1558032

Client Sample ID: PH02

Date Collected: 11/11/22 09:35
Date Received: 11/14/22 08:13
Sample Depth: 0.5

Lab Sample ID: 890-3450-1
Matrix: Solid

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199		mg/Kg		11/17/22 15:36	11/22/22 21:40	1
Toluene	<0.00199	U	0.00199		mg/Kg		11/17/22 15:36	11/22/22 21:40	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		11/17/22 15:36	11/22/22 21:40	1
m-Xylene & p-Xylene	<0.00398	U *+	0.00398		mg/Kg		11/17/22 15:36	11/22/22 21:40	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		11/17/22 15:36	11/22/22 21:40	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		11/17/22 15:36	11/22/22 21:40	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*156*	*S1+*	*70 - 130*	*11/17/22 15:36*	*11/22/22 21:40*	*1*
1,4-Difluorobenzene (Surr)	*82*		*70 - 130*	*11/17/22 15:36*	*11/22/22 21:40*	*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			11/23/22 14:01	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			11/21/22 10:45	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		11/17/22 08:58	11/18/22 20:54	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		11/17/22 08:58	11/18/22 20:54	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		11/17/22 08:58	11/18/22 20:54	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*90*		*70 - 130*	*11/17/22 08:58*	*11/18/22 20:54*	*1*
o-Terphenyl	*99*		*70 - 130*	*11/17/22 08:58*	*11/18/22 20:54*	*1*

Method: MCAWW 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**426**		5.00		mg/Kg			11/20/22 19:32	1

Client Sample ID: PH02A

Date Collected: 11/11/22 09:05
Date Received: 11/14/22 08:13
Sample Depth: 2

Lab Sample ID: 890-3450-2
Matrix: Solid

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		11/17/22 15:36	11/22/22 22:06	1
Toluene	<0.00200	U	0.00200		mg/Kg		11/17/22 15:36	11/22/22 22:06	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		11/17/22 15:36	11/22/22 22:06	1
m-Xylene & p-Xylene	<0.00399	U *+	0.00399		mg/Kg		11/17/22 15:36	11/22/22 22:06	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		11/17/22 15:36	11/22/22 22:06	1
Xylenes, Total	<0.00399	U	0.00399		mg/Kg		11/17/22 15:36	11/22/22 22:06	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*178*	*S1+*	*70 - 130*	*11/17/22 15:36*	*11/22/22 22:06*	*1*

Eurofins Carlsbad

Client Sample Results

Client: Ensolum
Project/Site: BEU DI 30 BATTERY

Job ID: 890-3450-1
SDG: 03E1558032

Client Sample ID: PH02A

Lab Sample ID: 890-3450-2
Matrix: Solid
Date Collected: 11/11/22 09:05
Date Received: 11/14/22 08:13
Sample Depth: 2

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

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,4-Difluorobenzene (Surr)	*86*		*70 - 130*	*11/17/22 15:36*	*11/22/22 22:06*	*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			11/23/22 14:01	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			11/21/22 10:45	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		11/17/22 08:58	11/18/22 21:59	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		11/17/22 08:58	11/18/22 21:59	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		11/17/22 08:58	11/18/22 21:59	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*109*		*70 - 130*	*11/17/22 08:58*	*11/18/22 21:59*	*1*
o-Terphenyl	*118*		*70 - 130*	*11/17/22 08:58*	*11/18/22 21:59*	*1*

Method: MCAWW 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**17.3**		4.97	mg/Kg			11/20/22 19:38	1

Client Sample ID: PH02B

Lab Sample ID: 890-3450-3
Matrix: Solid
Date Collected: 11/11/22 10:00
Date Received: 11/14/22 08:13
Sample Depth: 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		11/17/22 15:36	11/22/22 22:32	1
Toluene	<0.00201	U	0.00201	mg/Kg		11/17/22 15:36	11/22/22 22:32	1
Ethylbenzene	<0.00201	U	0.00201	mg/Kg		11/17/22 15:36	11/22/22 22:32	1
m-Xylene & p-Xylene	<0.00402	U *+	0.00402	mg/Kg		11/17/22 15:36	11/22/22 22:32	1
o-Xylene	<0.00201	U	0.00201	mg/Kg		11/17/22 15:36	11/22/22 22:32	1
Xylenes, Total	<0.00402	U	0.00402	mg/Kg		11/17/22 15:36	11/22/22 22:32	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*159*	*S1+*	*70 - 130*	*11/17/22 15:36*	*11/22/22 22:32*	*1*
1,4-Difluorobenzene (Surr)	*84*		*70 - 130*	*11/17/22 15:36*	*11/22/22 22:32*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00402	U	0.00402	mg/Kg			11/23/22 14:01	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			11/21/22 10:45	1

Client Sample Results

Client: Ensolum
Project/Site: BEU DI 30 BATTERY

Job ID: 890-3450-1
SDG: 03E1558032

Client Sample ID: PH02B

Lab Sample ID: 890-3450-3
Matrix: Solid
Date Collected: 11/11/22 10:00
Date Received: 11/14/22 08:13
Sample Depth: 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	<49.8	U	49.8		mg/Kg		11/17/22 08:58	11/18/22 22:21	1
Diesel Range Organics (Over C10-C28)	<49.8	U	49.8		mg/Kg		11/17/22 08:58	11/18/22 22:21	1
OII Range Organics (Over C28-C36)	<49.8	U	49.8		mg/Kg		11/17/22 08:58	11/18/22 22:21	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*111*		*70 - 130*	*11/17/22 08:58*	*11/18/22 22:21*	*1*
o-Terphenyl	*121*		*70 - 130*	*11/17/22 08:58*	*11/18/22 22:21*	*1*

Method: MCAWW 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**199**		4.96		mg/Kg			11/20/22 19:43	1

Client Sample ID: PH02C

Lab Sample ID: 890-3450-4
Matrix: Solid
Date Collected: 11/11/22 10:05
Date Received: 11/14/22 08:13
Sample Depth: 6

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		11/17/22 15:36	11/22/22 22:58	1
Toluene	<0.00200	U	0.00200		mg/Kg		11/17/22 15:36	11/22/22 22:58	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		11/17/22 15:36	11/22/22 22:58	1
m-Xylene & p-Xylene	<0.00401	U *+	0.00401		mg/Kg		11/17/22 15:36	11/22/22 22:58	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		11/17/22 15:36	11/22/22 22:58	1
Xylenes, Total	<0.00401	U	0.00401		mg/Kg		11/17/22 15:36	11/22/22 22:58	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*161*	*S1+*	*70 - 130*	*11/17/22 15:36*	*11/22/22 22:58*	*1*
1,4-Difluorobenzene (Surr)	*76*		*70 - 130*	*11/17/22 15:36*	*11/22/22 22:58*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00401	U	0.00401		mg/Kg			11/23/22 14:01	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			11/21/22 10:45	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		11/17/22 08:58	11/18/22 22:43	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		11/17/22 08:58	11/18/22 22:43	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		11/17/22 08:58	11/18/22 22:43	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*114*		*70 - 130*	*11/17/22 08:58*	*11/18/22 22:43*	*1*
o-Terphenyl	*125*		*70 - 130*	*11/17/22 08:58*	*11/18/22 22:43*	*1*

Client Sample Results

Client: Ensolum
Project/Site: BEU DI 30 BATTERY

Job ID: 890-3450-1
SDG: 03E1558032

Client Sample ID: PH02C

Lab Sample ID: 890-3450-4
Matrix: Solid
Date Collected: 11/11/22 10:05
Date Received: 11/14/22 08:13
Sample Depth: 6

Method: MCAWW 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	218		4.97		mg/Kg			11/19/22 14:41	1

Client Sample ID: PH04

Lab Sample ID: 890-3450-5
Matrix: Solid
Date Collected: 11/11/22 10:45
Date Received: 11/14/22 08:13
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		11/17/22 15:36	11/22/22 23:24	1
Toluene	<0.00201	U	0.00201		mg/Kg		11/17/22 15:36	11/22/22 23:24	1
Ethylbenzene	<0.00201	U	0.00201		mg/Kg		11/17/22 15:36	11/22/22 23:24	1
m-Xylene & p-Xylene	<0.00402	U *+	0.00402		mg/Kg		11/17/22 15:36	11/22/22 23:24	1
o-Xylene	<0.00201	U	0.00201		mg/Kg		11/17/22 15:36	11/22/22 23:24	1
Xylenes, Total	<0.00402	U	0.00402		mg/Kg		11/17/22 15:36	11/22/22 23:24	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*152*	*S1+*	*70 - 130*	*11/17/22 15:36*	*11/22/22 23:24*	*1*
1,4-Difluorobenzene (Surr)	*73*		*70 - 130*	*11/17/22 15:36*	*11/22/22 23:24*	*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			11/23/22 14:01	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			11/21/22 10:45	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		11/17/22 08:58	11/18/22 23:05	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		11/17/22 08:58	11/18/22 23:05	1
OII Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		11/17/22 08:58	11/18/22 23:05	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*94*		*70 - 130*	*11/17/22 08:58*	*11/18/22 23:05*	*1*
o-Terphenyl	*103*		*70 - 130*	*11/17/22 08:58*	*11/18/22 23:05*	*1*

Method: MCAWW 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	44.9		4.96		mg/Kg			11/19/22 14:57	1

Client Sample Results

Client: Ensolum
Project/Site: BEU DI 30 BATTERY

Job ID: 890-3450-1
SDG: 03E1558032

Client Sample ID: PH04A

Lab Sample ID: 890-3450-6
Matrix: Solid
Date Collected: 11/11/22 13:05
Date Received: 11/14/22 08:13
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		11/17/22 15:36	11/22/22 23:50	1
Toluene	<0.00199	U	0.00199		mg/Kg		11/17/22 15:36	11/22/22 23:50	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		11/17/22 15:36	11/22/22 23:50	1
m-Xylene & p-Xylene	<0.00398	U *+	0.00398		mg/Kg		11/17/22 15:36	11/22/22 23:50	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		11/17/22 15:36	11/22/22 23:50	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		11/17/22 15:36	11/22/22 23:50	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*165*	*S1+*	*70 - 130*	*11/17/22 15:36*	*11/22/22 23:50*	*1*
1,4-Difluorobenzene (Surr)	*75*		*70 - 130*	*11/17/22 15:36*	*11/22/22 23:50*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398		mg/Kg			11/23/22 14:01	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			11/21/22 10:45	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		11/17/22 08:58	11/18/22 23:27	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		11/17/22 08:58	11/18/22 23:27	1
OII Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		11/17/22 08:58	11/18/22 23:27	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*109*		*70 - 130*	*11/17/22 08:58*	*11/18/22 23:27*	*1*
o-Terphenyl	*120*		*70 - 130*	*11/17/22 08:58*	*11/18/22 23:27*	*1*

Method: MCAWW 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**37.1**		5.00		mg/Kg			11/19/22 15:03	1

Client Sample ID: PH04B

Lab Sample ID: 890-3450-7
Matrix: Solid
Date Collected: 11/11/22 13:20
Date Received: 11/14/22 08:13
Sample Depth: 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		11/17/22 15:36	11/23/22 00:16	1
Toluene	<0.00199	U	0.00199		mg/Kg		11/17/22 15:36	11/23/22 00:16	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		11/17/22 15:36	11/23/22 00:16	1
m-Xylene & p-Xylene	<0.00398	U *+	0.00398		mg/Kg		11/17/22 15:36	11/23/22 00:16	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		11/17/22 15:36	11/23/22 00:16	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		11/17/22 15:36	11/23/22 00:16	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*168*	*S1+*	*70 - 130*	*11/17/22 15:36*	*11/23/22 00:16*	*1*

Eurofins Carlsbad

Client Sample Results

Client: Ensolum
Project/Site: BEU DI 30 BATTERY

Job ID: 890-3450-1
SDG: 03E1558032

Client Sample ID: PH04B

Lab Sample ID: 890-3450-7
Matrix: Solid
Date Collected: 11/11/22 13:20
Date Received: 11/14/22 08:13
Sample Depth: 5

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

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,4-Difluorobenzene (Surr)	*76*		*70 - 130*	*11/17/22 15:36*	*11/23/22 00:16*	*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			11/23/22 14:01	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			11/21/22 10:45	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		11/17/22 08:58	11/18/22 23:49	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		11/17/22 08:58	11/18/22 23:49	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		11/17/22 08:58	11/18/22 23:49	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*89*		*70 - 130*	*11/17/22 08:58*	*11/18/22 23:49*	*1*
o-Terphenyl	*100*		*70 - 130*	*11/17/22 08:58*	*11/18/22 23:49*	*1*

Method: MCAWW 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**120**		5.03	mg/Kg			11/19/22 15:09	1

Client Sample ID: PH04C

Lab Sample ID: 890-3450-8
Matrix: Solid
Date Collected: 11/11/22 13:25
Date Received: 11/14/22 08:13
Sample Depth: 6

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		11/17/22 15:36	11/23/22 00:43	1
Toluene	<0.00201	U	0.00201	mg/Kg		11/17/22 15:36	11/23/22 00:43	1
Ethylbenzene	<0.00201	U	0.00201	mg/Kg		11/17/22 15:36	11/23/22 00:43	1
m-Xylene & p-Xylene	<0.00402	U *+	0.00402	mg/Kg		11/17/22 15:36	11/23/22 00:43	1
o-Xylene	<0.00201	U	0.00201	mg/Kg		11/17/22 15:36	11/23/22 00:43	1
Xylenes, Total	<0.00402	U	0.00402	mg/Kg		11/17/22 15:36	11/23/22 00:43	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*173*	*S1+*	*70 - 130*	*11/17/22 15:36*	*11/23/22 00:43*	*1*
1,4-Difluorobenzene (Surr)	*84*		*70 - 130*	*11/17/22 15:36*	*11/23/22 00:43*	*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			11/23/22 14:01	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			11/21/22 10:45	1

Client Sample Results

Client: Ensolum
Project/Site: BEU DI 30 BATTERY

Job ID: 890-3450-1
SDG: 03E1558032

Client Sample ID: PH04C

Lab Sample ID: 890-3450-8
Matrix: Solid
Date Collected: 11/11/22 13:25
Date Received: 11/14/22 08:13
Sample Depth: 6

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		11/17/22 08:58	11/19/22 00:10	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		11/17/22 08:58	11/19/22 00:10	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		11/17/22 08:58	11/19/22 00:10	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*99*		*70 - 130*	*11/17/22 08:58*	*11/19/22 00:10*	*1*
o-Terphenyl	*105*		*70 - 130*	*11/17/22 08:58*	*11/19/22 00:10*	*1*

Method: MCAWW 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**81.1**		5.05		mg/Kg			11/19/22 15:14	1

Client Sample ID: PH05

Lab Sample ID: 890-3450-9
Matrix: Solid
Date Collected: 11/11/22 13:50
Date Received: 11/14/22 08:13
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		11/17/22 15:36	11/23/22 01:09	1
Toluene	<0.00200	U	0.00200		mg/Kg		11/17/22 15:36	11/23/22 01:09	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		11/17/22 15:36	11/23/22 01:09	1
m-Xylene & p-Xylene	<0.00399	U *+	0.00399		mg/Kg		11/17/22 15:36	11/23/22 01:09	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		11/17/22 15:36	11/23/22 01:09	1
Xylenes, Total	<0.00399	U	0.00399		mg/Kg		11/17/22 15:36	11/23/22 01:09	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*168*	*S1+*	*70 - 130*	*11/17/22 15:36*	*11/23/22 01:09*	*1*
1,4-Difluorobenzene (Surr)	*77*		*70 - 130*	*11/17/22 15:36*	*11/23/22 01:09*	*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			11/23/22 14:01	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			11/21/22 10:45	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		11/17/22 08:58	11/19/22 00:32	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		11/17/22 08:58	11/19/22 00:32	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		11/17/22 08:58	11/19/22 00:32	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*96*		*70 - 130*	*11/17/22 08:58*	*11/19/22 00:32*	*1*
o-Terphenyl	*107*		*70 - 130*	*11/17/22 08:58*	*11/19/22 00:32*	*1*

Client Sample Results

Client: Ensolum
Project/Site: BEU DI 30 BATTERY

Job ID: 890-3450-1
SDG: 03E1558032

Client Sample ID: PH05

Lab Sample ID: 890-3450-9
Matrix: Solid
Date Collected: 11/11/22 13:50
Date Received: 11/14/22 08:13
Sample Depth: 0.5

Method: MCAWW 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	9870		100		mg/Kg			11/19/22 15:31	20

Client Sample ID: PH05A

Lab Sample ID: 890-3450-10
Matrix: Solid
Date Collected: 11/11/22 14:00
Date Received: 11/14/22 08:13
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		11/17/22 15:36	11/23/22 01:35	1
Toluene	<0.00201	U	0.00201		mg/Kg		11/17/22 15:36	11/23/22 01:35	1
Ethylbenzene	<0.00201	U	0.00201		mg/Kg		11/17/22 15:36	11/23/22 01:35	1
m-Xylene & p-Xylene	<0.00402	U *+	0.00402		mg/Kg		11/17/22 15:36	11/23/22 01:35	1
o-Xylene	<0.00201	U	0.00201		mg/Kg		11/17/22 15:36	11/23/22 01:35	1
Xylenes, Total	<0.00402	U	0.00402		mg/Kg		11/17/22 15:36	11/23/22 01:35	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*171*	*S1+*	*70 - 130*	*11/17/22 15:36*	*11/23/22 01:35*	*1*
1,4-Difluorobenzene (Surr)	*75*		*70 - 130*	*11/17/22 15:36*	*11/23/22 01:35*	*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			11/23/22 14:01	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			11/21/22 10:45	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		11/17/22 08:58	11/19/22 00:54	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		11/17/22 08:58	11/19/22 00:54	1
OII Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		11/17/22 08:58	11/19/22 00:54	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*95*		*70 - 130*	*11/17/22 08:58*	*11/19/22 00:54*	*1*
o-Terphenyl	*105*		*70 - 130*	*11/17/22 08:58*	*11/19/22 00:54*	*1*

Method: MCAWW 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	3170		24.9		mg/Kg			11/19/22 15:37	5

Client Sample Results

Client: Ensolum
Project/Site: BEU DI 30 BATTERY

Job ID: 890-3450-1
SDG: 03E1558032

Client Sample ID: PH05B

Lab Sample ID: 890-3450-11
Matrix: Solid
Date Collected: 11/11/22 14:15
Date Received: 11/14/22 08:13
Sample Depth: 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		11/17/22 16:04	11/22/22 10:23	1
Toluene	<0.00199	U	0.00199		mg/Kg		11/17/22 16:04	11/22/22 10:23	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		11/17/22 16:04	11/22/22 10:23	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		11/17/22 16:04	11/22/22 10:23	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		11/17/22 16:04	11/22/22 10:23	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		11/17/22 16:04	11/22/22 10:23	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*158*	*S1+*	*70 - 130*	*11/17/22 16:04*	*11/22/22 10:23*	*1*
1,4-Difluorobenzene (Surr)	*84*		*70 - 130*	*11/17/22 16:04*	*11/22/22 10:23*	*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			11/22/22 16:26	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			11/21/22 10:45	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		11/17/22 08:58	11/19/22 01:37	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		11/17/22 08:58	11/19/22 01:37	1
OII Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		11/17/22 08:58	11/19/22 01:37	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*97*		*70 - 130*	*11/17/22 08:58*	*11/19/22 01:37*	*1*
o-Terphenyl	*108*		*70 - 130*	*11/17/22 08:58*	*11/19/22 01:37*	*1*

Method: MCAWW 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**51.5**		4.97		mg/Kg			11/19/22 15:43	1

Client Sample ID: PH05C

Lab Sample ID: 890-3450-12
Matrix: Solid
Date Collected: 11/11/22 14:20
Date Received: 11/14/22 08:13
Sample Depth: 6

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199		mg/Kg		11/17/22 16:04	11/22/22 10:49	1
Toluene	<0.00199	U	0.00199		mg/Kg		11/17/22 16:04	11/22/22 10:49	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		11/17/22 16:04	11/22/22 10:49	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		11/17/22 16:04	11/22/22 10:49	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		11/17/22 16:04	11/22/22 10:49	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		11/17/22 16:04	11/22/22 10:49	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*146*	*S1+*	*70 - 130*	*11/17/22 16:04*	*11/22/22 10:49*	*1*

Client Sample Results

Client: Ensolum
Project/Site: BEU DI 30 BATTERY

Job ID: 890-3450-1
SDG: 03E1558032

Client Sample ID: PH05C
Date Collected: 11/11/22 14:20
Date Received: 11/14/22 08:13
Sample Depth: 6

Lab Sample ID: 890-3450-12
Matrix: Solid

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

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,4-Difluorobenzene (Surr)	*81*		*70 - 130*	*11/17/22 16:04*	*11/22/22 10:49*	*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			11/22/22 16:26	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			11/21/22 10:45	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		11/17/22 08:58	11/19/22 01:59	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		11/17/22 08:58	11/19/22 01:59	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		11/17/22 08:58	11/19/22 01:59	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*102*		*70 - 130*	*11/17/22 08:58*	*11/19/22 01:59*	*1*
o-Terphenyl	*111*		*70 - 130*	*11/17/22 08:58*	*11/19/22 01:59*	*1*

Method: MCAWW 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**63.9**		5.01		mg/Kg			11/19/22 15:48	1

Surrogate Summary

Client: Ensolum
Project/Site: BEU DI 30 BATTERY

Job ID: 890-3450-1
SDG: 03E1558032

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)
880-21514-A-1-G MS	Matrix Spike	135 S1+	84
880-21514-A-1-H MSD	Matrix Spike Duplicate	134 S1+	90
880-21516-A-48-C MS	Matrix Spike	162 S1+	89
880-21516-A-48-D MSD	Matrix Spike Duplicate	144 S1+	96
890-3450-1	PH02	156 S1+	82
890-3450-2	PH02A	178 S1+	86
890-3450-3	PH02B	159 S1+	84
890-3450-4	PH02C	161 S1+	76
890-3450-5	PH04	152 S1+	73
890-3450-6	PH04A	165 S1+	75
890-3450-7	PH04B	168 S1+	76
890-3450-8	PH04C	173 S1+	84
890-3450-9	PH05	168 S1+	77
890-3450-10	PH05A	171 S1+	75
890-3450-11	PH05B	158 S1+	84
890-3450-12	PH05C	146 S1+	81
LCS 880-39849/1-A	Lab Control Sample	148 S1+	80
LCS 880-39851/1-A	Lab Control Sample	124	85
LCSD 880-39849/2-A	Lab Control Sample Dup	164 S1+	89
LCSD 880-39851/2-A	Lab Control Sample Dup	131 S1+	95
MB 880-39849/5-A	Method Blank	94	77
MB 880-39851/5-A	Method Blank	84	86
MB 880-39852/5-A	Method Blank	81	89

Surrogate Legend

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

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

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

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	1CO1 (70-130)	OTPH1 (70-130)
890-3450-1	PH02	90	99
890-3450-1 MS	PH02	89	87
890-3450-1 MSD	PH02	89	87
890-3450-2	PH02A	109	118
890-3450-3	PH02B	111	121
890-3450-4	PH02C	114	125
890-3450-5	PH04	94	103
890-3450-6	PH04A	109	120
890-3450-7	PH04B	89	100
890-3450-8	PH04C	99	105
890-3450-9	PH05	96	107
890-3450-10	PH05A	95	105
890-3450-11	PH05B	97	108
890-3450-12	PH05C	102	111
LCS 880-39777/2-A	Lab Control Sample	96	107
LCSD 880-39777/3-A	Lab Control Sample Dup	99	110

Surrogate Summary

Client: Ensolum Job ID: 890-3450-1
Project/Site: BEU DI 30 BATTERY SDG: 03E1558032

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

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

		Percent Surrogate Recovery (Acceptance Limits)									
		1CO1	OTPH1								
Lab Sample ID	Client Sample ID	(70-130)	(70-130)								
MB 880-39777/1-A	Method Blank	98	110								

Surrogate Legend

1CO = 1-Chlorooctane

OTPH = o-Terphenyl

QC Sample Results

Client: Ensolum
Project/Site: BEU DI 30 BATTERY

Job ID: 890-3450-1
SDG: 03E1558032

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-39849/5-A
Matrix: Solid
Analysis Batch: 40172

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 39849

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		11/17/22 15:36	11/22/22 15:10	1
Toluene	<0.00200	U	0.00200		mg/Kg		11/17/22 15:36	11/22/22 15:10	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		11/17/22 15:36	11/22/22 15:10	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		11/17/22 15:36	11/22/22 15:10	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		11/17/22 15:36	11/22/22 15:10	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		11/17/22 15:36	11/22/22 15:10	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*94*		*70 - 130*	*11/17/22 15:36*	*11/22/22 15:10*	*1*
1,4-Difluorobenzene (Surr)	*77*		*70 - 130*	*11/17/22 15:36*	*11/22/22 15:10*	*1*

Lab Sample ID: LCS 880-39849/1-A
Matrix: Solid
Analysis Batch: 40172

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 39849

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Benzene			0.100	0.08837		mg/Kg		88	70 - 130		
Toluene			0.100	0.09998		mg/Kg		100	70 - 130		
Ethylbenzene			0.100	0.09562		mg/Kg		96	70 - 130		
m-Xylene & p-Xylene			0.200	0.2105		mg/Kg		105	70 - 130		
o-Xylene			0.100	0.09927		mg/Kg		99	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*148*	*S1+*	*70 - 130*
1,4-Difluorobenzene (Surr)	*80*		*70 - 130*

Lab Sample ID: LCSD 880-39849/2-A
Matrix: Solid
Analysis Batch: 40172

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 39849

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene			0.100	0.1073		mg/Kg		107	70 - 130	19	35
Toluene			0.100	0.1202		mg/Kg		120	70 - 130	18	35
Ethylbenzene			0.100	0.1212		mg/Kg		121	70 - 130	24	35
m-Xylene & p-Xylene			0.200	0.2650	*+	mg/Kg		132	70 - 130	23	35
o-Xylene			0.100	0.1252		mg/Kg		125	70 - 130	23	35

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*164*	*S1+*	*70 - 130*
1,4-Difluorobenzene (Surr)	*89*		*70 - 130*

Lab Sample ID: 880-21516-A-48-C MS
Matrix: Solid
Analysis Batch: 40172

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 39849

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Benzene	<0.00200	U	0.0996	0.1088		mg/Kg		109	70 - 130		
Toluene	<0.00200	U	0.0996	0.1189		mg/Kg		119	70 - 130		

QC Sample Results

Client: Ensolum
Project/Site: BEU DI 30 BATTERY

Job ID: 890-3450-1
SDG: 03E1558032

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

Lab Sample ID: 880-21516-A-48-C MS — **Client Sample ID: Matrix Spike**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 40172 — **Prep Batch: 39849**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Ethylbenzene	<0.00200	U	0.0996	0.1168		mg/Kg		117	70 - 130
m-Xylene & p-Xylene	<0.00399	U *+	0.199	0.2563		mg/Kg		128	70 - 130
o-Xylene	<0.00200	U	0.0996	0.1168		mg/Kg		117	70 - 130

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*162*	*S1+*	*70 - 130*
1,4-Difluorobenzene (Surr)	*89*		*70 - 130*

Lab Sample ID: 880-21516-A-48-D MSD — **Client Sample ID: Matrix Spike Duplicate**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 40172 — **Prep Batch: 39849**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	<0.00200	U	0.0994	0.09611		mg/Kg		97	70 - 130	12	35
Toluene	<0.00200	U	0.0994	0.1090		mg/Kg		110	70 - 130	9	35
Ethylbenzene	<0.00200	U	0.0994	0.09895		mg/Kg		100	70 - 130	17	35
m-Xylene & p-Xylene	<0.00399	U *+	0.199	0.2187		mg/Kg		109	70 - 130	16	35
o-Xylene	<0.00200	U	0.0994	0.09877		mg/Kg		99	70 - 130	17	35

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*144*	*S1+*	*70 - 130*
1,4-Difluorobenzene (Surr)	*96*		*70 - 130*

Lab Sample ID: MB 880-39851/5-A — **Client Sample ID: Method Blank**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 40034 — **Prep Batch: 39851**

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		11/17/22 16:04	11/22/22 01:39	1
Toluene	<0.00200	U	0.00200	mg/Kg		11/17/22 16:04	11/22/22 01:39	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		11/17/22 16:04	11/22/22 01:39	1
m-Xylene & p-Xylene	<0.00400	U	0.00400	mg/Kg		11/17/22 16:04	11/22/22 01:39	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		11/17/22 16:04	11/22/22 01:39	1
Xylenes, Total	<0.00400	U	0.00400	mg/Kg		11/17/22 16:04	11/22/22 01:39	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*84*		*70 - 130*	*11/17/22 16:04*	*11/22/22 01:39*	*1*
1,4-Difluorobenzene (Surr)	*86*		*70 - 130*	*11/17/22 16:04*	*11/22/22 01:39*	*1*

Lab Sample ID: LCS 880-39851/1-A — **Client Sample ID: Lab Control Sample**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 40034 — **Prep Batch: 39851**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	0.100	0.07952		mg/Kg		80	70 - 130
Toluene	0.100	0.08743		mg/Kg		87	70 - 130
Ethylbenzene	0.100	0.08238		mg/Kg		82	70 - 130
m-Xylene & p-Xylene	0.200	0.1818		mg/Kg		91	70 - 130

QC Sample Results

Client: Ensolum
Project/Site: BEU DI 30 BATTERY

Job ID: 890-3450-1
SDG: 03E1558032

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

Lab Sample ID: LCS 880-39851/1-A
Matrix: Solid
Analysis Batch: 40034

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 39851

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
o-Xylene			0.100	0.08734		mg/Kg		87	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*124*		*70 - 130*
1,4-Difluorobenzene (Surr)	*85*		*70 - 130*

Lab Sample ID: LCSD 880-39851/2-A
Matrix: Solid
Analysis Batch: 40034

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 39851

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene			0.100	0.08920		mg/Kg		89	70 - 130	11	35
Toluene			0.100	0.09501		mg/Kg		95	70 - 130	8	35
Ethylbenzene			0.100	0.08643		mg/Kg		86	70 - 130	5	35
m-Xylene & p-Xylene			0.200	0.1928		mg/Kg		96	70 - 130	6	35
o-Xylene			0.100	0.09388		mg/Kg		94	70 - 130	7	35

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*131*	*S1+*	*70 - 130*
1,4-Difluorobenzene (Surr)	*95*		*70 - 130*

Lab Sample ID: 880-21514-A-1-G MS
Matrix: Solid
Analysis Batch: 40034

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 39851

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Benzene	<0.00199	U	0.0996	0.08119		mg/Kg		82	70 - 130		
Toluene	<0.00199	U	0.0996	0.09085		mg/Kg		91	70 - 130		
Ethylbenzene	<0.00199	U	0.0996	0.08672		mg/Kg		87	70 - 130		
m-Xylene & p-Xylene	<0.00398	U	0.199	0.1893		mg/Kg		95	70 - 130		
o-Xylene	<0.00199	U	0.0996	0.08757		mg/Kg		88	70 - 130		

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*135*	*S1+*	*70 - 130*
1,4-Difluorobenzene (Surr)	*84*		*70 - 130*

Lab Sample ID: 880-21514-A-1-H MSD
Matrix: Solid
Analysis Batch: 40034

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 39851

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	<0.00199	U	0.100	0.07531		mg/Kg		75	70 - 130	8	35
Toluene	<0.00199	U	0.100	0.08477		mg/Kg		84	70 - 130	7	35
Ethylbenzene	<0.00199	U	0.100	0.08045		mg/Kg		80	70 - 130	8	35
m-Xylene & p-Xylene	<0.00398	U	0.201	0.1756		mg/Kg		87	70 - 130	8	35
o-Xylene	<0.00199	U	0.100	0.08288		mg/Kg		83	70 - 130	6	35

QC Sample Results

Client: Ensolum
Project/Site: BEU DI 30 BATTERY

Job ID: 890-3450-1
SDG: 03E1558032

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

Lab Sample ID: 880-21514-A-1-H MSD
Matrix: Solid
Analysis Batch: 40034

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 39851

Surrogate	MSD %Recovery	MSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	134	S1+	70 - 130
1,4-Difluorobenzene (Surr)	90		70 - 130

Lab Sample ID: MB 880-39852/5-A
Matrix: Solid
Analysis Batch: 40034

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 39852

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		11/17/22 16:07	11/21/22 12:20	1
Toluene	<0.00200	U	0.00200		mg/Kg		11/17/22 16:07	11/21/22 12:20	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		11/17/22 16:07	11/21/22 12:20	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		11/17/22 16:07	11/21/22 12:20	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		11/17/22 16:07	11/21/22 12:20	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		11/17/22 16:07	11/21/22 12:20	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	81		70 - 130	11/17/22 16:07	11/21/22 12:20	1
1,4-Difluorobenzene (Surr)	89		70 - 130	11/17/22 16:07	11/21/22 12:20	1

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

Lab Sample ID: MB 880-39777/1-A
Matrix: Solid
Analysis Batch: 39876

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 39777

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		11/17/22 08:58	11/18/22 19:50	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		11/17/22 08:58	11/18/22 19:50	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		11/17/22 08:58	11/18/22 19:50	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	98		70 - 130	11/17/22 08:58	11/18/22 19:50	1
o-Terphenyl	110		70 - 130	11/17/22 08:58	11/18/22 19:50	1

Lab Sample ID: LCS 880-39777/2-A
Matrix: Solid
Analysis Batch: 39876

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 39777

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Gasoline Range Organics (GRO)-C6-C10			1000	854.3		mg/Kg		85	70 - 130		
Diesel Range Organics (Over C10-C28)			1000	977.8		mg/Kg		98	70 - 130		

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1-Chlorooctane	96		70 - 130
o-Terphenyl	107		70 - 130

QC Sample Results

Client: Ensolum
Project/Site: BEU DI 30 BATTERY

Job ID: 890-3450-1
SDG: 03E1558032

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

Lab Sample ID: LCSD 880-39777/3-A
Matrix: Solid
Analysis Batch: 39876

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 39777

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10			1000	1009		mg/Kg		101	70 - 130	17	20
Diesel Range Organics (Over C10-C28)			1000	1035		mg/Kg		103	70 - 130	6	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1-Chlorooctane	*99*		*70 - 130*
o-Terphenyl	*110*		*70 - 130*

Lab Sample ID: 890-3450-1 MS
Matrix: Solid
Analysis Batch: 39876

Client Sample ID: PH02
Prep Type: Total/NA
Prep Batch: 39777

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	998	955.2		mg/Kg		94	70 - 130
Diesel Range Organics (Over C10-C28)	<50.0	U	998	1084		mg/Kg		109	70 - 130

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
1-Chlorooctane	*89*		*70 - 130*
o-Terphenyl	*87*		*70 - 130*

Lab Sample ID: 890-3450-1 MSD
Matrix: Solid
Analysis Batch: 39876

Client Sample ID: PH02
Prep Type: Total/NA
Prep Batch: 39777

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	997	983.4		mg/Kg		97	70 - 130	3	20
Diesel Range Organics (Over C10-C28)	<50.0	U	997	1099		mg/Kg		110	70 - 130	1	20

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
1-Chlorooctane	*89*		*70 - 130*
o-Terphenyl	*87*		*70 - 130*

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-39710/1-A
Matrix: Solid
Analysis Batch: 39996

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			11/19/22 14:23	1

QC Sample Results

Client: Ensolum
Project/Site: BEU DI 30 BATTERY

Job ID: 890-3450-1
SDG: 03E1558032

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: LCS 880-39710/2-A
Matrix: Solid
Analysis Batch: 39996

Client Sample ID: Lab Control Sample
Prep Type: Soluble

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride			250	259.5		mg/Kg		104	90 - 110		

Lab Sample ID: LCSD 880-39710/3-A
Matrix: Solid
Analysis Batch: 39996

Client Sample ID: Lab Control Sample Dup
Prep Type: Soluble

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride			250	256.0		mg/Kg		102	90 - 110	1	20

Lab Sample ID: 890-3450-4 MS
Matrix: Solid
Analysis Batch: 39996

Client Sample ID: PH02C
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride	218		249	445.1		mg/Kg		91	90 - 110		

Lab Sample ID: 890-3450-4 MSD
Matrix: Solid
Analysis Batch: 39996

Client Sample ID: PH02C
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	218		249	447.9		mg/Kg		93	90 - 110	1	20

Lab Sample ID: MB 880-39709/1-A
Matrix: Solid
Analysis Batch: 40017

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			11/20/22 16:54	1

Lab Sample ID: LCS 880-39709/2-A
Matrix: Solid
Analysis Batch: 40017

Client Sample ID: Lab Control Sample
Prep Type: Soluble

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride			250	255.7		mg/Kg		102	90 - 110		

Lab Sample ID: LCSD 880-39709/3-A
Matrix: Solid
Analysis Batch: 40017

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	255.9		mg/Kg		102	90 - 110	0	20

Lab Sample ID: 890-3448-A-1-C MS
Matrix: Solid
Analysis Batch: 40017

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	1210		252	1415	4	mg/Kg		83	90 - 110		

QC Sample Results

Client: Ensolum
Project/Site: BEU DI 30 BATTERY

Job ID: 890-3450-1
SDG: 03E1558032

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: 890-3448-A-1-D MSD
Matrix: Solid
Analysis Batch: 40017

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	1210		252	1415	4	mg/Kg		83	90 - 110	0	20

QC Association Summary

Client: Ensolum
Project/Site: BEU DI 30 BATTERY

Job ID: 890-3450-1
SDG: 03E1558032

GC VOA

Prep Batch: 39849

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3450-1	PH02	Total/NA	Solid	5035	
890-3450-2	PH02A	Total/NA	Solid	5035	
890-3450-3	PH02B	Total/NA	Solid	5035	
890-3450-4	PH02C	Total/NA	Solid	5035	
890-3450-5	PH04	Total/NA	Solid	5035	
890-3450-6	PH04A	Total/NA	Solid	5035	
890-3450-7	PH04B	Total/NA	Solid	5035	
890-3450-8	PH04C	Total/NA	Solid	5035	
890-3450-9	PH05	Total/NA	Solid	5035	
890-3450-10	PH05A	Total/NA	Solid	5035	
MB 880-39849/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-39849/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-39849/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
880-21516-A-48-C MS	Matrix Spike	Total/NA	Solid	5035	
880-21516-A-48-D MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	

Prep Batch: 39851

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3450-11	PH05B	Total/NA	Solid	5035	
890-3450-12	PH05C	Total/NA	Solid	5035	
MB 880-39851/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-39851/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-39851/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
880-21514-A-1-G MS	Matrix Spike	Total/NA	Solid	5035	
880-21514-A-1-H MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	

Prep Batch: 39852

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 880-39852/5-A	Method Blank	Total/NA	Solid	5035	

Analysis Batch: 40034

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3450-11	PH05B	Total/NA	Solid	8021B	39851
890-3450-12	PH05C	Total/NA	Solid	8021B	39851
MB 880-39851/5-A	Method Blank	Total/NA	Solid	8021B	39851
MB 880-39852/5-A	Method Blank	Total/NA	Solid	8021B	39852
LCS 880-39851/1-A	Lab Control Sample	Total/NA	Solid	8021B	39851
LCSD 880-39851/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	39851
880-21514-A-1-G MS	Matrix Spike	Total/NA	Solid	8021B	39851
880-21514-A-1-H MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	39851

Analysis Batch: 40172

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3450-1	PH02	Total/NA	Solid	8021B	39849
890-3450-2	PH02A	Total/NA	Solid	8021B	39849
890-3450-3	PH02B	Total/NA	Solid	8021B	39849
890-3450-4	PH02C	Total/NA	Solid	8021B	39849
890-3450-5	PH04	Total/NA	Solid	8021B	39849
890-3450-6	PH04A	Total/NA	Solid	8021B	39849
890-3450-7	PH04B	Total/NA	Solid	8021B	39849
890-3450-8	PH04C	Total/NA	Solid	8021B	39849

QC Association Summary

Client: Ensolum
Project/Site: BEU DI 30 BATTERY

Job ID: 890-3450-1
SDG: 03E1558032

GC VOA (Continued)

Analysis Batch: 40172 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3450-9	PH05	Total/NA	Solid	8021B	39849
890-3450-10	PH05A	Total/NA	Solid	8021B	39849
MB 880-39849/5-A	Method Blank	Total/NA	Solid	8021B	39849
LCS 880-39849/1-A	Lab Control Sample	Total/NA	Solid	8021B	39849
LCSD 880-39849/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	39849
880-21516-A-48-C MS	Matrix Spike	Total/NA	Solid	8021B	39849
880-21516-A-48-D MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	39849

Analysis Batch: 40245

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3450-1	PH02	Total/NA	Solid	Total BTEX	
890-3450-2	PH02A	Total/NA	Solid	Total BTEX	
890-3450-3	PH02B	Total/NA	Solid	Total BTEX	
890-3450-4	PH02C	Total/NA	Solid	Total BTEX	
890-3450-5	PH04	Total/NA	Solid	Total BTEX	
890-3450-6	PH04A	Total/NA	Solid	Total BTEX	
890-3450-7	PH04B	Total/NA	Solid	Total BTEX	
890-3450-8	PH04C	Total/NA	Solid	Total BTEX	
890-3450-9	PH05	Total/NA	Solid	Total BTEX	
890-3450-10	PH05A	Total/NA	Solid	Total BTEX	
890-3450-11	PH05B	Total/NA	Solid	Total BTEX	
890-3450-12	PH05C	Total/NA	Solid	Total BTEX	

GC Semi VOA

Prep Batch: 39777

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3450-1	PH02	Total/NA	Solid	8015NM Prep	
890-3450-2	PH02A	Total/NA	Solid	8015NM Prep	
890-3450-3	PH02B	Total/NA	Solid	8015NM Prep	
890-3450-4	PH02C	Total/NA	Solid	8015NM Prep	
890-3450-5	PH04	Total/NA	Solid	8015NM Prep	
890-3450-6	PH04A	Total/NA	Solid	8015NM Prep	
890-3450-7	PH04B	Total/NA	Solid	8015NM Prep	
890-3450-8	PH04C	Total/NA	Solid	8015NM Prep	
890-3450-9	PH05	Total/NA	Solid	8015NM Prep	
890-3450-10	PH05A	Total/NA	Solid	8015NM Prep	
890-3450-11	PH05B	Total/NA	Solid	8015NM Prep	
890-3450-12	PH05C	Total/NA	Solid	8015NM Prep	
MB 880-39777/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-39777/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-39777/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
890-3450-1 MS	PH02	Total/NA	Solid	8015NM Prep	
890-3450-1 MSD	PH02	Total/NA	Solid	8015NM Prep	

Analysis Batch: 39876

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3450-1	PH02	Total/NA	Solid	8015B NM	39777
890-3450-2	PH02A	Total/NA	Solid	8015B NM	39777
890-3450-3	PH02B	Total/NA	Solid	8015B NM	39777
890-3450-4	PH02C	Total/NA	Solid	8015B NM	39777

QC Association Summary

Client: Ensolum
Project/Site: BEU DI 30 BATTERY

Job ID: 890-3450-1
SDG: 03E1558032

GC Semi VOA (Continued)

Analysis Batch: 39876 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3450-5	PH04	Total/NA	Solid	8015B NM	39777
890-3450-6	PH04A	Total/NA	Solid	8015B NM	39777
890-3450-7	PH04B	Total/NA	Solid	8015B NM	39777
890-3450-8	PH04C	Total/NA	Solid	8015B NM	39777
890-3450-9	PH05	Total/NA	Solid	8015B NM	39777
890-3450-10	PH05A	Total/NA	Solid	8015B NM	39777
890-3450-11	PH05B	Total/NA	Solid	8015B NM	39777
890-3450-12	PH05C	Total/NA	Solid	8015B NM	39777
MB 880-39777/1-A	Method Blank	Total/NA	Solid	8015B NM	39777
LCS 880-39777/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	39777
LCSD 880-39777/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	39777
890-3450-1 MS	PH02	Total/NA	Solid	8015B NM	39777
890-3450-1 MSD	PH02	Total/NA	Solid	8015B NM	39777

Analysis Batch: 40091

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3450-1	PH02	Total/NA	Solid	8015 NM	
890-3450-2	PH02A	Total/NA	Solid	8015 NM	
890-3450-3	PH02B	Total/NA	Solid	8015 NM	
890-3450-4	PH02C	Total/NA	Solid	8015 NM	
890-3450-5	PH04	Total/NA	Solid	8015 NM	
890-3450-6	PH04A	Total/NA	Solid	8015 NM	
890-3450-7	PH04B	Total/NA	Solid	8015 NM	
890-3450-8	PH04C	Total/NA	Solid	8015 NM	
890-3450-9	PH05	Total/NA	Solid	8015 NM	
890-3450-10	PH05A	Total/NA	Solid	8015 NM	
890-3450-11	PH05B	Total/NA	Solid	8015 NM	
890-3450-12	PH05C	Total/NA	Solid	8015 NM	

HPLC/IC

Leach Batch: 39709

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3450-1	PH02	Soluble	Solid	DI Leach	
890-3450-2	PH02A	Soluble	Solid	DI Leach	
890-3450-3	PH02B	Soluble	Solid	DI Leach	
MB 880-39709/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-39709/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-39709/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
890-3448-A-1-C MS	Matrix Spike	Soluble	Solid	DI Leach	
890-3448-A-1-D MSD	Matrix Spike Duplicate	Soluble	Solid	DI Leach	

Leach Batch: 39710

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3450-4	PH02C	Soluble	Solid	DI Leach	
890-3450-5	PH04	Soluble	Solid	DI Leach	
890-3450-6	PH04A	Soluble	Solid	DI Leach	
890-3450-7	PH04B	Soluble	Solid	DI Leach	
890-3450-8	PH04C	Soluble	Solid	DI Leach	
890-3450-9	PH05	Soluble	Solid	DI Leach	
890-3450-10	PH05A	Soluble	Solid	DI Leach	

QC Association Summary

Client: Ensolum
Project/Site: BEU DI 30 BATTERY

Job ID: 890-3450-1
SDG: 03E1558032

HPLC/IC (Continued)

Leach Batch: 39710 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3450-11	PH05B	Soluble	Solid	DI Leach	
890-3450-12	PH05C	Soluble	Solid	DI Leach	
MB 880-39710/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-39710/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-39710/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
890-3450-4 MS	PH02C	Soluble	Solid	DI Leach	
890-3450-4 MSD	PH02C	Soluble	Solid	DI Leach	

Analysis Batch: 39996

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3450-4	PH02C	Soluble	Solid	300.0	39710
890-3450-5	PH04	Soluble	Solid	300.0	39710
890-3450-6	PH04A	Soluble	Solid	300.0	39710
890-3450-7	PH04B	Soluble	Solid	300.0	39710
890-3450-8	PH04C	Soluble	Solid	300.0	39710
890-3450-9	PH05	Soluble	Solid	300.0	39710
890-3450-10	PH05A	Soluble	Solid	300.0	39710
890-3450-11	PH05B	Soluble	Solid	300.0	39710
890-3450-12	PH05C	Soluble	Solid	300.0	39710
MB 880-39710/1-A	Method Blank	Soluble	Solid	300.0	39710
LCS 880-39710/2-A	Lab Control Sample	Soluble	Solid	300.0	39710
LCSD 880-39710/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	39710
890-3450-4 MS	PH02C	Soluble	Solid	300.0	39710
890-3450-4 MSD	PH02C	Soluble	Solid	300.0	39710

Analysis Batch: 40017

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3450-1	PH02	Soluble	Solid	300.0	39709
890-3450-2	PH02A	Soluble	Solid	300.0	39709
890-3450-3	PH02B	Soluble	Solid	300.0	39709
MB 880-39709/1-A	Method Blank	Soluble	Solid	300.0	39709
LCS 880-39709/2-A	Lab Control Sample	Soluble	Solid	300.0	39709
LCSD 880-39709/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	39709
890-3448-A-1-C MS	Matrix Spike	Soluble	Solid	300.0	39709
890-3448-A-1-D MSD	Matrix Spike Duplicate	Soluble	Solid	300.0	39709

Lab Chronicle

Client: Ensolum
Project/Site: BEU DI 30 BATTERY

Job ID: 890-3450-1
SDG: 03E1558032

Client Sample ID: PH02

Date Collected: 11/11/22 09:35
Date Received: 11/14/22 08:13

Lab Sample ID: 890-3450-1
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.03 g	5 mL	39849	11/17/22 15:36	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	40172	11/22/22 21:40	SM	EET MID
Total/NA	Analysis	Total BTEX		1			40245	11/23/22 14:01	SM	EET MID
Total/NA	Analysis	8015 NM		1			40091	11/21/22 10:45	SM	EET MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	39777	11/17/22 08:58	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	39876	11/18/22 20:54	SM	EET MID
Soluble	Leach	DI Leach			5 g	50 mL	39709	11/16/22 10:46	KS	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	40017	11/20/22 19:32	CH	EET MID

Client Sample ID: PH02A

Date Collected: 11/11/22 09:05
Date Received: 11/14/22 08:13

Lab Sample ID: 890-3450-2
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.01 g	5 mL	39849	11/17/22 15:36	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	40172	11/22/22 22:06	SM	EET MID
Total/NA	Analysis	Total BTEX		1			40245	11/23/22 14:01	SM	EET MID
Total/NA	Analysis	8015 NM		1			40091	11/21/22 10:45	SM	EET MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	39777	11/17/22 08:58	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	39876	11/18/22 21:59	SM	EET MID
Soluble	Leach	DI Leach			5.03 g	50 mL	39709	11/16/22 10:46	KS	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	40017	11/20/22 19:38	CH	EET MID

Client Sample ID: PH02B

Date Collected: 11/11/22 10:00
Date Received: 11/14/22 08:13

Lab Sample ID: 890-3450-3
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.97 g	5 mL	39849	11/17/22 15:36	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	40172	11/22/22 22:32	SM	EET MID
Total/NA	Analysis	Total BTEX		1			40245	11/23/22 14:01	SM	EET MID
Total/NA	Analysis	8015 NM		1			40091	11/21/22 10:45	SM	EET MID
Total/NA	Prep	8015NM Prep			10.04 g	10 mL	39777	11/17/22 08:58	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	39876	11/18/22 22:21	SM	EET MID
Soluble	Leach	DI Leach			5.04 g	50 mL	39709	11/16/22 10:46	KS	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	40017	11/20/22 19:43	CH	EET MID

Client Sample ID: PH02C

Date Collected: 11/11/22 10:05
Date Received: 11/14/22 08:13

Lab Sample ID: 890-3450-4
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.99 g	5 mL	39849	11/17/22 15:36	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	40172	11/22/22 22:58	SM	EET MID
Total/NA	Analysis	Total BTEX		1			40245	11/23/22 14:01	SM	EET MID

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Lab Chronicle

Client: Ensolum
Project/Site: BEU DI 30 BATTERY

Job ID: 890-3450-1
SDG: 03E1558032

Client Sample ID: PH02C
Date Collected: 11/11/22 10:05
Date Received: 11/14/22 08:13

Lab Sample ID: 890-3450-4
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			40091	11/21/22 10:45	SM	EET MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	39777	11/17/22 08:58	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	39876	11/18/22 22:43	SM	EET MID
Soluble	Leach	DI Leach			5.03 g	50 mL	39710	11/16/22 10:47	KS	EET MID
Soluble	Analysis	300.0		1			39996	11/19/22 14:41	CH	EET MID

Client Sample ID: PH04
Date Collected: 11/11/22 10:45
Date Received: 11/14/22 08:13

Lab Sample ID: 890-3450-5
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.98 g	5 mL	39849	11/17/22 15:36	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	40172	11/22/22 23:24	SM	EET MID
Total/NA	Analysis	Total BTEX		1			40245	11/23/22 14:01	SM	EET MID
Total/NA	Analysis	8015 NM		1			40091	11/21/22 10:45	SM	EET MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	39777	11/17/22 08:58	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	39876	11/18/22 23:05	SM	EET MID
Soluble	Leach	DI Leach			5.04 g	50 mL	39710	11/16/22 10:47	KS	EET MID
Soluble	Analysis	300.0		1			39996	11/19/22 14:57	CH	EET MID

Client Sample ID: PH04A
Date Collected: 11/11/22 13:05
Date Received: 11/14/22 08:13

Lab Sample ID: 890-3450-6
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.02 g	5 mL	39849	11/17/22 15:36	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	40172	11/22/22 23:50	SM	EET MID
Total/NA	Analysis	Total BTEX		1			40245	11/23/22 14:01	SM	EET MID
Total/NA	Analysis	8015 NM		1			40091	11/21/22 10:45	SM	EET MID
Total/NA	Prep	8015NM Prep			10.03 g	10 mL	39777	11/17/22 08:58	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	39876	11/18/22 23:27	SM	EET MID
Soluble	Leach	DI Leach			5 g	50 mL	39710	11/16/22 10:47	KS	EET MID
Soluble	Analysis	300.0		1			39996	11/19/22 15:03	CH	EET MID

Client Sample ID: PH04B
Date Collected: 11/11/22 13:20
Date Received: 11/14/22 08:13

Lab Sample ID: 890-3450-7
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.03 g	5 mL	39849	11/17/22 15:36	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	40172	11/23/22 00:16	SM	EET MID
Total/NA	Analysis	Total BTEX		1			40245	11/23/22 14:01	SM	EET MID
Total/NA	Analysis	8015 NM		1			40091	11/21/22 10:45	SM	EET MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	39777	11/17/22 08:58	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	39876	11/18/22 23:49	SM	EET MID

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Lab Chronicle

Client: Ensolum
Project/Site: BEU DI 30 BATTERY

Job ID: 890-3450-1
SDG: 03E1558032

Client Sample ID: PH04B
Date Collected: 11/11/22 13:20
Date Received: 11/14/22 08:13

Lab Sample ID: 890-3450-7
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			4.97 g	50 mL	39710	11/16/22 10:47	KS	EET MID
Soluble	Analysis	300.0		1			39996	11/19/22 15:09	CH	EET MID

Client Sample ID: PH04C
Date Collected: 11/11/22 13:25
Date Received: 11/14/22 08:13

Lab Sample ID: 890-3450-8
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.98 g	5 mL	39849	11/17/22 15:36	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	40172	11/23/22 00:43	SM	EET MID
Total/NA	Analysis	Total BTEX		1			40245	11/23/22 14:01	SM	EET MID
Total/NA	Analysis	8015 NM		1			40091	11/21/22 10:45	SM	EET MID
Total/NA	Prep	8015NM Prep			10.00 g	10 mL	39777	11/17/22 08:58	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	39876	11/19/22 00:10	SM	EET MID
Soluble	Leach	DI Leach			4.95 g	50 mL	39710	11/16/22 10:47	KS	EET MID
Soluble	Analysis	300.0		1			39996	11/19/22 15:14	CH	EET MID

Client Sample ID: PH05
Date Collected: 11/11/22 13:50
Date Received: 11/14/22 08:13

Lab Sample ID: 890-3450-9
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.01 g	5 mL	39849	11/17/22 15:36	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	40172	11/23/22 01:09	SM	EET MID
Total/NA	Analysis	Total BTEX		1			40245	11/23/22 14:01	SM	EET MID
Total/NA	Analysis	8015 NM		1			40091	11/21/22 10:45	SM	EET MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	39777	11/17/22 08:58	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	39876	11/19/22 00:32	SM	EET MID
Soluble	Leach	DI Leach			4.98 g	50 mL	39710	11/16/22 10:47	KS	EET MID
Soluble	Analysis	300.0		20			39996	11/19/22 15:31	CH	EET MID

Client Sample ID: PH05A
Date Collected: 11/11/22 14:00
Date Received: 11/14/22 08:13

Lab Sample ID: 890-3450-10
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.97 g	5 mL	39849	11/17/22 15:36	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	40172	11/23/22 01:35	SM	EET MID
Total/NA	Analysis	Total BTEX		1			40245	11/23/22 14:01	SM	EET MID
Total/NA	Analysis	8015 NM		1			40091	11/21/22 10:45	SM	EET MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	39777	11/17/22 08:58	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	39876	11/19/22 00:54	SM	EET MID
Soluble	Leach	DI Leach			5.02 g	50 mL	39710	11/16/22 10:47	KS	EET MID
Soluble	Analysis	300.0		5			39996	11/19/22 15:37	CH	EET MID

Lab Chronicle

Client: Ensolum
Project/Site: BEU DI 30 BATTERY

Job ID: 890-3450-1
SDG: 03E1558032

Client Sample ID: PH05B

Date Collected: 11/11/22 14:15
Date Received: 11/14/22 08:13

Lab Sample ID: 890-3450-11
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.02 g	5 mL	39851	11/17/22 16:04	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	40034	11/22/22 10:23	SM	EET MID
Total/NA	Analysis	Total BTEX		1			40245	11/22/22 16:26	SM	EET MID
Total/NA	Analysis	8015 NM		1			40091	11/21/22 10:45	SM	EET MID
Total/NA	Prep	8015NM Prep			10.03 g	10 mL	39777	11/17/22 08:58	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	39876	11/19/22 01:37	SM	EET MID
Soluble	Leach	DI Leach			5.03 g	50 mL	39710	11/16/22 10:47	KS	EET MID
Soluble	Analysis	300.0		1			39996	11/19/22 15:43	CH	EET MID

Client Sample ID: PH05C

Date Collected: 11/11/22 14:20
Date Received: 11/14/22 08:13

Lab Sample ID: 890-3450-12
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.03 g	5 mL	39851	11/17/22 16:04	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	40034	11/22/22 10:49	SM	EET MID
Total/NA	Analysis	Total BTEX		1			40245	11/22/22 16:26	SM	EET MID
Total/NA	Analysis	8015 NM		1			40091	11/21/22 10:45	SM	EET MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	39777	11/17/22 08:58	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	39876	11/19/22 01:59	SM	EET MID
Soluble	Leach	DI Leach			4.99 g	50 mL	39710	11/16/22 10:47	KS	EET MID
Soluble	Analysis	300.0		1			39996	11/19/22 15:48	CH	EET MID

Laboratory References:

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

Accreditation/Certification Summary

Client: Ensolum
Project/Site: BEU DI 30 BATTERY

Job ID: 890-3450-1
SDG: 03E1558032

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	T104704400-22-24	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: BEU DI 30 BATTERY

Job ID: 890-3450-1
SDG: 03E1558032

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	MCAWW	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

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

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

TAL SOP = TestAmerica Laboratories, Standard Operating Procedure

Laboratory References:

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

Sample Summary

Client: Ensolum
Project/Site: BEU DI 30 BATTERY

Job ID: 890-3450-1
SDG: 03E1558032

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-3450-1	PH02	Solid	11/11/22 09:35	11/14/22 08:13	0.5
890-3450-2	PH02A	Solid	11/11/22 09:05	11/14/22 08:13	2
890-3450-3	PH02B	Solid	11/11/22 10:00	11/14/22 08:13	5
890-3450-4	PH02C	Solid	11/11/22 10:05	11/14/22 08:13	6
890-3450-5	PH04	Solid	11/11/22 10:45	11/14/22 08:13	0.5
890-3450-6	PH04A	Solid	11/11/22 13:05	11/14/22 08:13	2
890-3450-7	PH04B	Solid	11/11/22 13:20	11/14/22 08:13	5
890-3450-8	PH04C	Solid	11/11/22 13:25	11/14/22 08:13	6
890-3450-9	PH05	Solid	11/11/22 13:50	11/14/22 08:13	0.5
890-3450-10	PH05A	Solid	11/11/22 14:00	11/14/22 08:13	2
890-3450-11	PH05B	Solid	11/11/22 14:15	11/14/22 08:13	5
890-3450-12	PH05C	Solid	11/11/22 14:20	11/14/22 08:13	6

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Chain of Custody

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

Work Order No: _____

www.xenco.com Page 1 of 2

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

Work Order Comments

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

Project Name:	BEU DI 30 Battery	Turn Around	☑ Routine ☐ Rush
Project Number:	03E1558032	Due Date:	
Project Location:		TAT starts the day received by the lab, if received by 4:30pm	
Sampler's Name:	Connor Whitman		
PO #:			

SAMPLE RECEIPT			
Temp Blank:	Yes (No)	Wet Ice:	(Yes) No
Samples Received Intact:	(Yes) No	Thermometer ID:	TNM007
Cooler Custody Seals:	Yes No (N/A)	Correction Factor:	-0.2
Sample Custody Seals:	Yes No (N/A)	Temperature Reading:	5.6
Total Containers:		Corrected Temperature:	5.4

ANALYSIS REQUEST

Parameters: CHLORIDES (EPA: 300.0); TPH (8015); BTEX (8021)

890-3450 Chain of Custody

Preservative Codes

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

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Grab/ Comp	# of Cont
PH02	S	11/11/22	9:35	0.5'	G	1
PH02A			2:45	2'		1
PH02B			10:00	5'		1
PH02C			10:05	6'		1
PH04			10:45	0.5'		1
PH04A			1:05	2'		1
PH04B			1:20	5'		1
PH04C			1:25	6'		1
PH05			1:50	2.5'		1
PH05A			2:00	2'		1

Sample Comments

Incident ID:
NAPP2200746777
Cost Center:
2096141001
AFE:

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

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

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

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
1		11-14-22 8	2 3		
3			4		
5			6		

Revised Date: 08/25/2020 Rev. 2020.2

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Chain of Custody

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

Work Order No: _____

www.xenco.com Page 2 of 2

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

Work Order Comments

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

Project Name:	BEU DI 30 Battery	Turn Around	☒ Routine ☐ Rush
Project Number:	03E1558032	Due Date:	
Project Location:		TAT starts the day received by the lab, if received by 4:30pm	
Sampler's Name:	Connor Whitman		
PO #:			

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

ANALYSIS REQUEST

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Grab/ Comp	# of Cont	Pres. Code	CHLORIDES (EPA: 300.0)	TPH (8015)	BTEX (8021)
PH05B	S	11/11/22	2:15	5'	G	1		/	/	/
PH05C	S	11/11/22	2:20	0'	G	1		/	/	/

Preservative Codes

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

Sample Comments

Incident ID:
NAPP2200746777
Cost Center:
2096141001
AFE:

Total 200.7 / 6010 200.8 / 6020: 8RCRA 13PPM Texas 11 Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag SiO_2 Na Sr Tl Sn U V Zn
Circle Method(s) and Metal(s) to be analyzed **TCLP / SPLP 6010**: 8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Tl U Hg: 1631 / 245.1 / 7470 / 7471

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

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
1		11.14.22	2		
3			4		
5			6		

Revised Date: 08/25/2020 Rev. 2020.2

Login Sample Receipt Checklist

Client: Ensolum

Job Number: 890-3450-1
SDG Number: 03E1558032

Login Number: 3450
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: 890-3450-1
SDG Number: 03E1558032

Login Number: 3450
List Number: 2
Creator: Rodriguez, Leticia

List Source: Eurofins Midland
List Creation: 11/15/22 11:14 AM

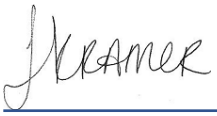
Question	Answer	Comment
The cooler's custody seal, if present, is intact.	N/A	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature 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	

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



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

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ANALYTICAL REPORT

PREPARED FOR

Attn: Ben Belill
Ensolum
705 W. Wadley
Suite 210
Midland, Texas 79701

Generated 11/28/2022 4:25:25 PM

JOB DESCRIPTION

BEU DI 30 Battery
SDG NUMBER 03E1558032

JOB NUMBER

890-3476-1

Eurofins Carlsbad
1089 N Canal St.
Carlsbad NM 88220

See page two for job notes and contact information.

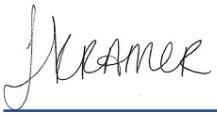
my EOL

Eurofins Carlsbad

Job Notes

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

Authorization



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11/28/2022 4:25:25 PM

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

Client: Ensolum
Project/Site: BEU DI 30 Battery

Laboratory Job ID: 890-3476-1
SDG: 03E1558032

Table of Contents

Definitions/Glossary

Client: Ensolum
Project/Site: BEU DI 30 Battery

Job ID: 890-3476-1
SDG: 03E1558032

Qualifiers

GC VOA

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

GC Semi VOA

Qualifier	Qualifier Description
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: BEU DI 30 Battery

Job ID: 890-3476-1
SDG: 03E1558032

Job ID: 890-3476-1

Laboratory: Eurofins Carlsbad

Narrative

Job Narrative
890-3476-1

Receipt
The samples were received on 11/15/2022 1:31 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 5.6°C

Receipt Exceptions
The following samples were received and analyzed from an unpreserved bulk soil jar: PH06 (890-3476-1), PH06A (890-3476-2), PH06B (890-3476-3) and PH06C (890-3476-4).

GC VOA
Method 8021B: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 880-40226 and analytical batch 880-40266 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.

Method 8021B: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 880-40226 and analytical batch 880-40266 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.

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

GC Semi VOA
Method 8015MOD_NM: The surrogate recovery for the blank associated with preparation batch 880-39929 and analytical batch 880-40028 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: BEU DI 30 Battery

Job ID: 890-3476-1
SDG: 03E1558032

Client Sample ID: PH06

Date Collected: 11/14/22 08:55
Date Received: 11/15/22 13:31
Sample Depth: 0.5'

Lab Sample ID: 890-3476-1
Matrix: Solid

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00198	U	0.00198		mg/Kg		11/22/22 15:18	11/24/22 17:45	1
Toluene	<0.00198	U	0.00198		mg/Kg		11/22/22 15:18	11/24/22 17:45	1
Ethylbenzene	<0.00198	U	0.00198		mg/Kg		11/22/22 15:18	11/24/22 17:45	1
m-Xylene & p-Xylene	<0.00397	U	0.00397		mg/Kg		11/22/22 15:18	11/24/22 17:45	1
o-Xylene	<0.00198	U	0.00198		mg/Kg		11/22/22 15:18	11/24/22 17:45	1
Xylenes, Total	<0.00397	U	0.00397		mg/Kg		11/22/22 15:18	11/24/22 17:45	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*78*		*70 - 130*	*11/22/22 15:18*	*11/24/22 17:45*	*1*
1,4-Difluorobenzene (Surr)	*103*		*70 - 130*	*11/22/22 15:18*	*11/24/22 17:45*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00397	U	0.00397		mg/Kg			11/28/22 15:35	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			11/22/22 10:43	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9		mg/Kg		11/18/22 13:39	11/21/22 23:49	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		11/18/22 13:39	11/21/22 23:49	1
OII Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		11/18/22 13:39	11/21/22 23:49	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*118*		*70 - 130*	*11/18/22 13:39*	*11/21/22 23:49*	*1*
o-Terphenyl	*116*		*70 - 130*	*11/18/22 13:39*	*11/21/22 23:49*	*1*

Method: MCAWW 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**145**		5.05		mg/Kg			11/22/22 02:50	1

Client Sample ID: PH06A

Date Collected: 11/14/22 09:05
Date Received: 11/15/22 13:31
Sample Depth: 2'

Lab Sample ID: 890-3476-2
Matrix: Solid

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		11/22/22 15:18	11/24/22 18:06	1
Toluene	<0.00200	U	0.00200		mg/Kg		11/22/22 15:18	11/24/22 18:06	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		11/22/22 15:18	11/24/22 18:06	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		11/22/22 15:18	11/24/22 18:06	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		11/22/22 15:18	11/24/22 18:06	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		11/22/22 15:18	11/24/22 18:06	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*80*		*70 - 130*	*11/22/22 15:18*	*11/24/22 18:06*	*1*

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Client Sample Results

Client: Ensolum
Project/Site: BEU DI 30 Battery

Job ID: 890-3476-1
SDG: 03E1558032

Client Sample ID: PH06A

Lab Sample ID: 890-3476-2
Matrix: Solid
Date Collected: 11/14/22 09:05
Date Received: 11/15/22 13:31
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*	*11/22/22 15:18*	*11/24/22 18:06*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00400	U	0.00400	mg/Kg			11/28/22 15:35	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			11/22/22 10:43	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9	mg/Kg		11/18/22 13:39	11/22/22 00:10	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9	mg/Kg		11/18/22 13:39	11/22/22 00:10	1
OII Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg		11/18/22 13:39	11/22/22 00:10	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	*115*		*70 - 130*	*11/18/22 13:39*	*11/22/22 00:10*	*1*
o-Terphenyl	*109*		*70 - 130*	*11/18/22 13:39*	*11/22/22 00:10*	*1*

Method: MCAWW 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**15.2**		5.02	mg/Kg			11/22/22 03:11	1

Client Sample ID: PH06B

Lab Sample ID: 890-3476-3
Matrix: Solid
Date Collected: 11/14/22 09:20
Date Received: 11/15/22 13:31
Sample Depth: 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		11/22/22 15:18	11/24/22 18:26	1
Toluene	<0.00200	U	0.00200	mg/Kg		11/22/22 15:18	11/24/22 18:26	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		11/22/22 15:18	11/24/22 18:26	1
m-Xylene & p-Xylene	<0.00401	U	0.00401	mg/Kg		11/22/22 15:18	11/24/22 18:26	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		11/22/22 15:18	11/24/22 18:26	1
Xylenes, Total	<0.00401	U	0.00401	mg/Kg		11/22/22 15:18	11/24/22 18:26	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	*80*		*70 - 130*	*11/22/22 15:18*	*11/24/22 18:26*	*1*
1,4-Difluorobenzene (Surr)	*107*		*70 - 130*	*11/22/22 15:18*	*11/24/22 18:26*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00401	U	0.00401	mg/Kg			11/28/22 15:35	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			11/22/22 10:43	1

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Client Sample Results

Client: Ensolum
Project/Site: BEU DI 30 Battery

Job ID: 890-3476-1
SDG: 03E1558032

Client Sample ID: PH06B

Lab Sample ID: 890-3476-3
Matrix: Solid
Date Collected: 11/14/22 09:20
Date Received: 11/15/22 13:31
Sample Depth: 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	<50.0	U	50.0		mg/Kg		11/18/22 13:39	11/22/22 00:32	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		11/18/22 13:39	11/22/22 00:32	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		11/18/22 13:39	11/22/22 00:32	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*125*		*70 - 130*	*11/18/22 13:39*	*11/22/22 00:32*	*1*
o-Terphenyl	*113*		*70 - 130*	*11/18/22 13:39*	*11/22/22 00:32*	*1*

Method: MCAWW 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**20.7**		4.97		mg/Kg			11/22/22 03:18	1

Client Sample ID: PH06C

Lab Sample ID: 890-3476-4
Matrix: Solid
Date Collected: 11/14/22 09:25
Date Received: 11/15/22 13:31
Sample Depth: 6'

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199		mg/Kg		11/22/22 15:18	11/24/22 18:47	1
Toluene	<0.00199	U	0.00199		mg/Kg		11/22/22 15:18	11/24/22 18:47	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		11/22/22 15:18	11/24/22 18:47	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		11/22/22 15:18	11/24/22 18:47	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		11/22/22 15:18	11/24/22 18:47	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		11/22/22 15:18	11/24/22 18:47	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*82*		*70 - 130*	*11/22/22 15:18*	*11/24/22 18:47*	*1*
1,4-Difluorobenzene (Surr)	*115*		*70 - 130*	*11/22/22 15:18*	*11/24/22 18:47*	*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			11/28/22 15:35	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			11/22/22 10:43	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9		mg/Kg		11/18/22 13:39	11/22/22 00:53	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		11/18/22 13:39	11/22/22 00:53	1
OII Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		11/18/22 13:39	11/22/22 00:53	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*101*		*70 - 130*	*11/18/22 13:39*	*11/22/22 00:53*	*1*
o-Terphenyl	*98*		*70 - 130*	*11/18/22 13:39*	*11/22/22 00:53*	*1*

Client Sample Results

Client: Ensolum
Project/Site: BEU DI 30 Battery

Job ID: 890-3476-1
SDG: 03E1558032

Client Sample ID: PH06C

Date Collected: 11/14/22 09:25
Date Received: 11/15/22 13:31
Sample Depth: 6'

Lab Sample ID: 890-3476-4

Matrix: Solid

Method: MCAWW 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	28.0		5.01		mg/Kg			11/22/22 03:25	1

Surrogate Summary

Client: Ensolum
Project/Site: BEU DI 30 Battery

Job ID: 890-3476-1
SDG: 03E1558032

Method: 8021B - Volatile Organic Compounds (GC)

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

		Percent Surrogate Recovery (Acceptance Limits)	
		BFB1	DFBZ1
Lab Sample ID	Client Sample ID	(70-130)	(70-130)
890-3466-A-1-C MS	Matrix Spike	97	104
890-3466-A-1-D MSD	Matrix Spike Duplicate	97	105
890-3476-1	PH06	78	103
890-3476-2	PH06A	80	106
890-3476-3	PH06B	80	107
890-3476-4	PH06C	82	115
LCS 880-40226/1-A	Lab Control Sample	91	107
LCSD 880-40226/2-A	Lab Control Sample Dup	90	102
MB 880-39927/5-A	Method Blank	77	102
MB 880-40226/5-A	Method Blank	77	103

Surrogate Legend

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

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

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

		Percent Surrogate Recovery (Acceptance Limits)	
		1CO1	OTPH1
Lab Sample ID	Client Sample ID	(70-130)	(70-130)
890-3472-A-1-C MS	Matrix Spike	94	83
890-3472-A-1-D MSD	Matrix Spike Duplicate	112	84
890-3476-1	PH06	118	116
890-3476-2	PH06A	115	109
890-3476-3	PH06B	125	113
890-3476-4	PH06C	101	98
LCS 880-39929/2-A	Lab Control Sample	119	108
LCSD 880-39929/3-A	Lab Control Sample Dup	109	99
MB 880-39929/1-A	Method Blank	133 S1+	140 S1+

Surrogate Legend

1CO = 1-Chlorooctane
OTPH = o-Terphenyl

QC Sample Results

Client: Ensolum
Project/Site: BEU DI 30 Battery

Job ID: 890-3476-1
SDG: 03E1558032

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-39927/5-A
Matrix: Solid
Analysis Batch: 40266

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 39927

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		11/18/22 12:52	11/24/22 00:48	1
Toluene	<0.00200	U	0.00200		mg/Kg		11/18/22 12:52	11/24/22 00:48	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		11/18/22 12:52	11/24/22 00:48	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		11/18/22 12:52	11/24/22 00:48	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		11/18/22 12:52	11/24/22 00:48	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		11/18/22 12:52	11/24/22 00:48	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*77*		*70 - 130*	*11/18/22 12:52*	*11/24/22 00:48*	*1*
1,4-Difluorobenzene (Surr)	*102*		*70 - 130*	*11/18/22 12:52*	*11/24/22 00:48*	*1*

Lab Sample ID: MB 880-40226/5-A
Matrix: Solid
Analysis Batch: 40266

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 40226

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		11/22/22 15:18	11/24/22 12:23	1
Toluene	<0.00200	U	0.00200		mg/Kg		11/22/22 15:18	11/24/22 12:23	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		11/22/22 15:18	11/24/22 12:23	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		11/22/22 15:18	11/24/22 12:23	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		11/22/22 15:18	11/24/22 12:23	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		11/22/22 15:18	11/24/22 12:23	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*77*		*70 - 130*	*11/22/22 15:18*	*11/24/22 12:23*	*1*
1,4-Difluorobenzene (Surr)	*103*		*70 - 130*	*11/22/22 15:18*	*11/24/22 12:23*	*1*

Lab Sample ID: LCS 880-40226/1-A
Matrix: Solid
Analysis Batch: 40266

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 40226

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Benzene			0.100	0.08641		mg/Kg		86	70 - 130		
Toluene			0.100	0.09417		mg/Kg		94	70 - 130		
Ethylbenzene			0.100	0.09022		mg/Kg		90	70 - 130		
m-Xylene & p-Xylene			0.200	0.1641		mg/Kg		82	70 - 130		
o-Xylene			0.100	0.08127		mg/Kg		81	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*91*		*70 - 130*
1,4-Difluorobenzene (Surr)	*107*		*70 - 130*

Lab Sample ID: LCSD 880-40226/2-A
Matrix: Solid
Analysis Batch: 40266

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 40226

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene			0.100	0.09015		mg/Kg		90	70 - 130	4	35

QC Sample Results

Client: Ensolum
Project/Site: BEU DI 30 Battery

Job ID: 890-3476-1
SDG: 03E1558032

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

Lab Sample ID: LCSD 880-40226/2-A
Matrix: Solid
Analysis Batch: 40266

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 40226

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Toluene			0.100	0.09944		mg/Kg		99	70 - 130	5	35
Ethylbenzene			0.100	0.09342		mg/Kg		93	70 - 130	3	35
m-Xylene & p-Xylene			0.200	0.1688		mg/Kg		84	70 - 130	3	35
o-Xylene			0.100	0.08416		mg/Kg		84	70 - 130	3	35

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*90*		*70 - 130*
1,4-Difluorobenzene (Surr)	*102*		*70 - 130*

Lab Sample ID: 890-3466-A-1-C MS
Matrix: Solid
Analysis Batch: 40266

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 40226

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	<0.00202	U	0.101	0.07375		mg/Kg		73	70 - 130
Toluene	<0.00202	U F1	0.101	0.06939	F1	mg/Kg		69	70 - 130
Ethylbenzene	<0.00202	U F1	0.101	0.06488	F1	mg/Kg		64	70 - 130
m-Xylene & p-Xylene	<0.00403	U F1	0.202	0.1175	F1	mg/Kg		58	70 - 130
o-Xylene	<0.00202	U F1	0.101	0.06822	F1	mg/Kg		67	70 - 130

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*97*		*70 - 130*
1,4-Difluorobenzene (Surr)	*104*		*70 - 130*

Lab Sample ID: 890-3466-A-1-D MSD
Matrix: Solid
Analysis Batch: 40266

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 40226

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	<0.00202	U	0.0994	0.07664		mg/Kg		77	70 - 130	4	35
Toluene	<0.00202	U F1	0.0994	0.06568	F1	mg/Kg		66	70 - 130	5	35
Ethylbenzene	<0.00202	U F1	0.0994	0.06133	F1	mg/Kg		62	70 - 130	6	35
m-Xylene & p-Xylene	<0.00403	U F1	0.199	0.1139	F1	mg/Kg		57	70 - 130	3	35
o-Xylene	<0.00202	U F1	0.0994	0.07168		mg/Kg		72	70 - 130	5	35

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*97*		*70 - 130*
1,4-Difluorobenzene (Surr)	*105*		*70 - 130*

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

Lab Sample ID: MB 880-39929/1-A
Matrix: Solid
Analysis Batch: 40028

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 39929

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		11/18/22 13:39	11/21/22 20:36	1

QC Sample Results

Client: Ensolum
Project/Site: BEU DI 30 Battery

Job ID: 890-3476-1
SDG: 03E1558032

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

Lab Sample ID: MB 880-39929/1-A
Matrix: Solid
Analysis Batch: 40028

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 39929

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		11/18/22 13:39	11/21/22 20:36	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		11/18/22 13:39	11/21/22 20:36	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*133*	*S1+*	*70 - 130*	*11/18/22 13:39*	*11/21/22 20:36*	*1*
o-Terphenyl	*140*	*S1+*	*70 - 130*	*11/18/22 13:39*	*11/21/22 20:36*	*1*

Lab Sample ID: LCS 880-39929/2-A
Matrix: Solid
Analysis Batch: 40028

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 39929

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Gasoline Range Organics (GRO)-C6-C10			1000	1006		mg/Kg		101	70 - 130		
Diesel Range Organics (Over C10-C28)			1000	998.1		mg/Kg		100	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1-Chlorooctane	*119*		*70 - 130*
o-Terphenyl	*108*		*70 - 130*

Lab Sample ID: LCSD 880-39929/3-A
Matrix: Solid
Analysis Batch: 40028

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 39929

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10			1000	976.6		mg/Kg		98	70 - 130	3	20
Diesel Range Organics (Over C10-C28)			1000	907.0		mg/Kg		91	70 - 130	10	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1-Chlorooctane	*109*		*70 - 130*
o-Terphenyl	*99*		*70 - 130*

Lab Sample ID: 890-3472-A-1-C MS
Matrix: Solid
Analysis Batch: 40028

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 39929

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	999	996.2		mg/Kg		98	70 - 130		
Diesel Range Organics (Over C10-C28)	<50.0	U	999	1106		mg/Kg		111	70 - 130		

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
1-Chlorooctane	*94*		*70 - 130*
o-Terphenyl	*83*		*70 - 130*

QC Sample Results

Client: Ensolum
Project/Site: BEU DI 30 Battery

Job ID: 890-3476-1
SDG: 03E1558032

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

Lab Sample ID: 890-3472-A-1-D MSD — **Client Sample ID: Matrix Spike Duplicate**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 40028 — **Prep Batch: 39929**

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	997	1056		mg/Kg		104	70 - 130	6	20
Diesel Range Organics (Over C10-C28)	<50.0	U	997	1133		mg/Kg		114	70 - 130	2	20

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
1-Chlorooctane	*112*		*70 - 130*
o-Terphenyl	*84*		*70 - 130*

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-39832/1-A — **Client Sample ID: Method Blank**
Matrix: Solid — **Prep Type: Soluble**
Analysis Batch: 40153

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.00	U	5.00		mg/Kg			11/22/22 01:46	1

Lab Sample ID: LCS 880-39832/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Solid — **Prep Type: Soluble**
Analysis Batch: 40153

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride			250	245.8		mg/Kg		98	90 - 110		

Lab Sample ID: LCSD 880-39832/3-A — **Client Sample ID: Lab Control Sample Dup**
Matrix: Solid — **Prep Type: Soluble**
Analysis Batch: 40153

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride			250	241.8		mg/Kg		97	90 - 110	2	20

Lab Sample ID: 890-3477-A-3-D MS — **Client Sample ID: Matrix Spike**
Matrix: Solid — **Prep Type: Soluble**
Analysis Batch: 40153

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride	35.8		253	295.1		mg/Kg		103	90 - 110		

Lab Sample ID: 890-3477-A-3-E MSD — **Client Sample ID: Matrix Spike Duplicate**
Matrix: Solid — **Prep Type: Soluble**
Analysis Batch: 40153

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	35.8		253	286.6		mg/Kg		99	90 - 110	3	20

QC Association Summary

Client: Ensolum
Project/Site: BEU DI 30 Battery

Job ID: 890-3476-1
SDG: 03E1558032

GC VOA

Prep Batch: 39927

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 880-39927/5-A	Method Blank	Total/NA	Solid	5035	

Prep Batch: 40226

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3476-1	PH06	Total/NA	Solid	5035	
890-3476-2	PH06A	Total/NA	Solid	5035	
890-3476-3	PH06B	Total/NA	Solid	5035	
890-3476-4	PH06C	Total/NA	Solid	5035	
MB 880-40226/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-40226/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-40226/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
890-3466-A-1-C MS	Matrix Spike	Total/NA	Solid	5035	
890-3466-A-1-D MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	

Analysis Batch: 40266

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3476-1	PH06	Total/NA	Solid	8021B	40226
890-3476-2	PH06A	Total/NA	Solid	8021B	40226
890-3476-3	PH06B	Total/NA	Solid	8021B	40226
890-3476-4	PH06C	Total/NA	Solid	8021B	40226
MB 880-39927/5-A	Method Blank	Total/NA	Solid	8021B	39927
MB 880-40226/5-A	Method Blank	Total/NA	Solid	8021B	40226
LCS 880-40226/1-A	Lab Control Sample	Total/NA	Solid	8021B	40226
LCSD 880-40226/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	40226
890-3466-A-1-C MS	Matrix Spike	Total/NA	Solid	8021B	40226
890-3466-A-1-D MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	40226

Analysis Batch: 40493

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3476-1	PH06	Total/NA	Solid	Total BTEX	
890-3476-2	PH06A	Total/NA	Solid	Total BTEX	
890-3476-3	PH06B	Total/NA	Solid	Total BTEX	
890-3476-4	PH06C	Total/NA	Solid	Total BTEX	

GC Semi VOA

Prep Batch: 39929

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3476-1	PH06	Total/NA	Solid	8015NM Prep	
890-3476-2	PH06A	Total/NA	Solid	8015NM Prep	
890-3476-3	PH06B	Total/NA	Solid	8015NM Prep	
890-3476-4	PH06C	Total/NA	Solid	8015NM Prep	
MB 880-39929/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-39929/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-39929/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
890-3472-A-1-C MS	Matrix Spike	Total/NA	Solid	8015NM Prep	
890-3472-A-1-D MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	

Analysis Batch: 40028

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3476-1	PH06	Total/NA	Solid	8015B NM	39929

QC Association Summary

Client: Ensolum
Project/Site: BEU DI 30 Battery

Job ID: 890-3476-1
SDG: 03E1558032

GC Semi VOA (Continued)

Analysis Batch: 40028 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3476-2	PH06A	Total/NA	Solid	8015B NM	39929
890-3476-3	PH06B	Total/NA	Solid	8015B NM	39929
890-3476-4	PH06C	Total/NA	Solid	8015B NM	39929
MB 880-39929/1-A	Method Blank	Total/NA	Solid	8015B NM	39929
LCS 880-39929/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	39929
LCSD 880-39929/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	39929
890-3472-A-1-C MS	Matrix Spike	Total/NA	Solid	8015B NM	39929
890-3472-A-1-D MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	39929

Analysis Batch: 40202

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3476-1	PH06	Total/NA	Solid	8015 NM	
890-3476-2	PH06A	Total/NA	Solid	8015 NM	
890-3476-3	PH06B	Total/NA	Solid	8015 NM	
890-3476-4	PH06C	Total/NA	Solid	8015 NM	

HPLC/IC

Leach Batch: 39832

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3476-1	PH06	Soluble	Solid	DI Leach	
890-3476-2	PH06A	Soluble	Solid	DI Leach	
890-3476-3	PH06B	Soluble	Solid	DI Leach	
890-3476-4	PH06C	Soluble	Solid	DI Leach	
MB 880-39832/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-39832/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-39832/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
890-3477-A-3-D MS	Matrix Spike	Soluble	Solid	DI Leach	
890-3477-A-3-E MSD	Matrix Spike Duplicate	Soluble	Solid	DI Leach	

Analysis Batch: 40153

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3476-1	PH06	Soluble	Solid	300.0	39832
890-3476-2	PH06A	Soluble	Solid	300.0	39832
890-3476-3	PH06B	Soluble	Solid	300.0	39832
890-3476-4	PH06C	Soluble	Solid	300.0	39832
MB 880-39832/1-A	Method Blank	Soluble	Solid	300.0	39832
LCS 880-39832/2-A	Lab Control Sample	Soluble	Solid	300.0	39832
LCSD 880-39832/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	39832
890-3477-A-3-D MS	Matrix Spike	Soluble	Solid	300.0	39832
890-3477-A-3-E MSD	Matrix Spike Duplicate	Soluble	Solid	300.0	39832

Lab Chronicle

Client: Ensolum
Project/Site: BEU DI 30 Battery

Job ID: 890-3476-1
SDG: 03E1558032

Client Sample ID: PH06

Date Collected: 11/14/22 08:55
Date Received: 11/15/22 13:31

Lab Sample ID: 890-3476-1
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.04 g	5 mL	40226	11/22/22 15:18	EL	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	40266	11/24/22 17:45	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			40493	11/28/22 15:35	AJ	EET MID
Total/NA	Analysis	8015 NM		1			40202	11/22/22 10:43	SM	EET MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	39929	11/18/22 13:39	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	40028	11/21/22 23:49	SM	EET MID
Soluble	Leach	DI Leach			4.95 g	50 mL	39832	11/17/22 14:46	CH	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	40153	11/22/22 02:50	CH	EET MID

Client Sample ID: PH06A

Date Collected: 11/14/22 09:05
Date Received: 11/15/22 13:31

Lab Sample ID: 890-3476-2
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.00 g	5 mL	40226	11/22/22 15:18	EL	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	40266	11/24/22 18:06	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			40493	11/28/22 15:35	AJ	EET MID
Total/NA	Analysis	8015 NM		1			40202	11/22/22 10:43	SM	EET MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	39929	11/18/22 13:39	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	40028	11/22/22 00:10	SM	EET MID
Soluble	Leach	DI Leach			4.98 g	50 mL	39832	11/17/22 14:46	CH	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	40153	11/22/22 03:11	CH	EET MID

Client Sample ID: PH06B

Date Collected: 11/14/22 09:20
Date Received: 11/15/22 13:31

Lab Sample ID: 890-3476-3
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.99 g	5 mL	40226	11/22/22 15:18	EL	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	40266	11/24/22 18:26	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			40493	11/28/22 15:35	AJ	EET MID
Total/NA	Analysis	8015 NM		1			40202	11/22/22 10:43	SM	EET MID
Total/NA	Prep	8015NM Prep			10.00 g	10 mL	39929	11/18/22 13:39	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	40028	11/22/22 00:32	SM	EET MID
Soluble	Leach	DI Leach			5.03 g	50 mL	39832	11/17/22 14:46	CH	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	40153	11/22/22 03:18	CH	EET MID

Client Sample ID: PH06C

Date Collected: 11/14/22 09:25
Date Received: 11/15/22 13:31

Lab Sample ID: 890-3476-4
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.02 g	5 mL	40226	11/22/22 15:18	EL	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	40266	11/24/22 18:47	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			40493	11/28/22 15:35	AJ	EET MID

Lab Chronicle

Client: Ensolum
Project/Site: BEU DI 30 Battery

Job ID: 890-3476-1
SDG: 03E1558032

Client Sample ID: PH06C

Date Collected: 11/14/22 09:25
Date Received: 11/15/22 13:31

Lab Sample ID: 890-3476-4

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			40202	11/22/22 10:43	SM	EET MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	39929	11/18/22 13:39	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	40028	11/22/22 00:53	SM	EET MID
Soluble	Leach	DI Leach			4.99 g	50 mL	39832	11/17/22 14:46	CH	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	40153	11/22/22 03:25	CH	EET MID

Laboratory References:

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

Accreditation/Certification Summary

Client: Ensolum
Project/Site: BEU DI 30 Battery

Job ID: 890-3476-1
SDG: 03E1558032

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	T104704400-22-24	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: BEU DI 30 Battery

Job ID: 890-3476-1
SDG: 03E1558032

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	MCAWW	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

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

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

TAL SOP = TestAmerica Laboratories, Standard Operating Procedure

Laboratory References:

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

Sample Summary

Client: Ensolum
Project/Site: BEU DI 30 Battery

Job ID: 890-3476-1
SDG: 03E1558032

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-3476-1	PH06	Solid	11/14/22 08:55	11/15/22 13:31	0.5'
890-3476-2	PH06A	Solid	11/14/22 09:05	11/15/22 13:31	2'
890-3476-3	PH06B	Solid	11/14/22 09:20	11/15/22 13:31	5'
890-3476-4	PH06C	Solid	11/14/22 09:25	11/15/22 13:31	6'

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Chain of Custody

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

Work Order No: _____

www.xenco.com Page 1 of 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

Work Order Comments

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

Project Name:	BEU DI 30 Battery	Turn Around	☑ Routine ☐ Rush
Project Number:	03E1558032	Due Date:	5 day
Project Location:		TAT starts the day received by the lab, if received by 4:30pm	
Sampler's Name:	Connor Whitman		
PO #:			

SAMPLE RECEIPT			
Temp Blank:	Yes (No)	Wet Ice:	(Yes) No
Samples Received Intact:	(Yes) No	Thermometer ID:	TNM007
Cooler Custody Seals:	Yes No (N/A)	Correction Factor:	-0.2
Sample Custody Seals:	Yes No (N/A)	Temperature Reading:	5.8
Total Containers:		Corrected Temperature:	5.4

ANALYSIS REQUEST

Preservative Codes

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

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Grab/ Comp	# of Cont	Pres. Code	CHLORIDES (EPA: 300.0)	TPH (8015)	BTEX (8021)
PH06	S	11/14/22	8:55	0.5'	G	1				
PH06A	S		9:05	2'	G	1				
PH06B	S		9:20	5'	G	1				
PH06C	S		9:25	6"	G	1				

890-3476 Chain of Custody

Sample Comments

Incident ID:
NAPP2200746777
Cost Center:
2096141001
AFE:

Total 200.7 / 6010 200.8 / 6020: 8RCRA 13PPM Texas 11 Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag SiO_2 Na Sr Tl Sn U V Zn
Circle Method(s) and Metal(s) to be analyzed TCLP / SPLP 6010: 8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Tl U Hg: 1631 / 245.1 / 7470 / 7471

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

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
1		11-15-22 1331	2		
3			4		
5			6		

Revised Date: 08/25/2020 Rev. 2020.2

Login Sample Receipt Checklist

Client: Ensolum

Job Number: 890-3476-1
SDG Number: 03E1558032

Login Number: 3476
List Number: 1
Creator: Stutzman, Amanda

List Source: Eurofins Carlsbad

Question	Answer	Comment
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	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: 890-3476-1
SDG Number: 03E1558032

Login Number: 3476
List Number: 2
Creator: Rodriguez, Leticia

List Source: Eurofins Midland
List Creation: 11/17/22 02:07 PM

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

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ANALYTICAL REPORT

PREPARED FOR

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

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JOB DESCRIPTION

BEU DI 30 Battery
SDG NUMBER 03E1558032

JOB NUMBER

890-3477-1

Eurofins Carlsbad
1089 N Canal St.
Carlsbad NM 88220

See page two for job notes and contact information.

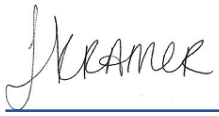
my EOL

Eurofins Carlsbad

Job Notes

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

Authorization



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Revision 2

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

Client: Ensolum
Project/Site: BEU DI 30 Battery

Laboratory Job ID: 890-3477-1
SDG: 03E1558032

Table of Contents

Definitions/Glossary

Client: Ensolum
Project/Site: BEU DI 30 Battery

Job ID: 890-3477-1
SDG: 03E1558032

Qualifiers

GC VOA

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

GC Semi VOA

Qualifier	Qualifier Description
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: BEU DI 30 Battery

Job ID: 890-3477-1
SDG: 03E1558032

Job ID: 890-3477-1

Laboratory: Eurofins Carlsbad

Narrative

Job Narrative
890-3477-1

Comments
No additional comments.

Report revision history
Revision 1 - 11/29/2022 - Reason - Per client email, requesting sample ID correction to match COC. PH01A corrected to FS01A

Receipt
The samples were received on 11/15/2022 1:31 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 was 5.6º C.

Receipt Exceptions

The following samples were received and analyzed from an unpreserved bulk soil jar: FS01A (890-3477-1), FS14A (890-3477-2), FS17 (890-3477-3) and FS18 (890-3477-4).

GC VOA
Method 8021B: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 880-40226 and analytical batch 880-40266 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.

Method 8021B: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 880-40226 and analytical batch 880-40266 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.

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

GC Semi VOA
Method 8015B NM: The surrogate recovery for the blank associated with preparation batch 880-39929 and analytical batch 880-40028 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.

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

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

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

Client Sample Results

Client: Ensolum
Project/Site: BEU DI 30 Battery

Job ID: 890-3477-1
SDG: 03E1558032

Client Sample ID: FS01A
Date Collected: 11/14/22 12:35
Date Received: 11/15/22 13:31
Sample Depth: 5.5'

Lab Sample ID: 890-3477-1
Matrix: Solid

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00202	U	0.00202		mg/Kg		11/22/22 15:18	11/24/22 19:07	1
Toluene	<0.00202	U	0.00202		mg/Kg		11/22/22 15:18	11/24/22 19:07	1
Ethylbenzene	<0.00202	U	0.00202		mg/Kg		11/22/22 15:18	11/24/22 19:07	1
m-Xylene & p-Xylene	<0.00404	U	0.00404		mg/Kg		11/22/22 15:18	11/24/22 19:07	1
o-Xylene	<0.00202	U	0.00202		mg/Kg		11/22/22 15:18	11/24/22 19:07	1
Xylenes, Total	<0.00404	U	0.00404		mg/Kg		11/22/22 15:18	11/24/22 19:07	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*84*		*70 - 130*	*11/22/22 15:18*	*11/24/22 19:07*	*1*
1,4-Difluorobenzene (Surr)	*116*		*70 - 130*	*11/22/22 15:18*	*11/24/22 19:07*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00404	U	0.00404		mg/Kg			11/28/22 15:35	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			11/22/22 10:43	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		11/18/22 13:39	11/22/22 01:15	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		11/18/22 13:39	11/22/22 01:15	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		11/18/22 13:39	11/22/22 01:15	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*129*		*70 - 130*	*11/18/22 13:39*	*11/22/22 01:15*	*1*
o-Terphenyl	*119*		*70 - 130*	*11/18/22 13:39*	*11/22/22 01:15*	*1*

Method: MCAWW 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**41.8**		4.98		mg/Kg			11/22/22 03:33	1

Client Sample ID: FS14A
Date Collected: 11/14/22 12:30
Date Received: 11/15/22 13:31
Sample Depth: 5.5'

Lab Sample ID: 890-3477-2
Matrix: Solid

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00202	U	0.00202		mg/Kg		11/22/22 15:18	11/24/22 19:28	1
Toluene	<0.00202	U	0.00202		mg/Kg		11/22/22 15:18	11/24/22 19:28	1
Ethylbenzene	<0.00202	U	0.00202		mg/Kg		11/22/22 15:18	11/24/22 19:28	1
m-Xylene & p-Xylene	<0.00403	U	0.00403		mg/Kg		11/22/22 15:18	11/24/22 19:28	1
o-Xylene	<0.00202	U	0.00202		mg/Kg		11/22/22 15:18	11/24/22 19:28	1
Xylenes, Total	<0.00403	U	0.00403		mg/Kg		11/22/22 15:18	11/24/22 19:28	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*85*		*70 - 130*	*11/22/22 15:18*	*11/24/22 19:28*	*1*

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Client Sample Results

Client: Ensolum
Project/Site: BEU DI 30 Battery

Job ID: 890-3477-1
SDG: 03E1558032

Client Sample ID: FS14A
Date Collected: 11/14/22 12:30
Date Received: 11/15/22 13:31
Sample Depth: 5.5'

Lab Sample ID: 890-3477-2
Matrix: Solid

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

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,4-Difluorobenzene (Surr)	*116*		*70 - 130*	*11/22/22 15:18*	*11/24/22 19:28*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00403	U	0.00403	mg/Kg			11/28/22 15:35	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			11/22/22 10:43	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9	mg/Kg		11/18/22 13:39	11/22/22 01:37	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9	mg/Kg		11/18/22 13:39	11/22/22 01:37	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg		11/18/22 13:39	11/22/22 01:37	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*102*		*70 - 130*	*11/18/22 13:39*	*11/22/22 01:37*	*1*
o-Terphenyl	*98*		*70 - 130*	*11/18/22 13:39*	*11/22/22 01:37*	*1*

Method: MCAWW 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**104**		5.00	mg/Kg			11/22/22 03:40	1

Client Sample ID: FS17
Date Collected: 11/14/22 12:40
Date Received: 11/15/22 13:31
Sample Depth: 4'

Lab Sample ID: 890-3477-3
Matrix: Solid

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199	mg/Kg		11/22/22 15:18	11/24/22 19:48	1
Toluene	<0.00199	U	0.00199	mg/Kg		11/22/22 15:18	11/24/22 19:48	1
Ethylbenzene	<0.00199	U	0.00199	mg/Kg		11/22/22 15:18	11/24/22 19:48	1
m-Xylene & p-Xylene	<0.00398	U	0.00398	mg/Kg		11/22/22 15:18	11/24/22 19:48	1
o-Xylene	<0.00199	U	0.00199	mg/Kg		11/22/22 15:18	11/24/22 19:48	1
Xylenes, Total	<0.00398	U	0.00398	mg/Kg		11/22/22 15:18	11/24/22 19:48	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*87*		*70 - 130*	*11/22/22 15:18*	*11/24/22 19:48*	*1*
1,4-Difluorobenzene (Surr)	*108*		*70 - 130*	*11/22/22 15:18*	*11/24/22 19:48*	*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			11/28/22 15:35	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			11/22/22 10:43	1

Client Sample Results

Client: Ensolum
Project/Site: BEU DI 30 Battery

Job ID: 890-3477-1
SDG: 03E1558032

Client Sample ID: FS17
Date Collected: 11/14/22 12:40
Date Received: 11/15/22 13:31
Sample Depth: 4'

Lab Sample ID: 890-3477-3
Matrix: Solid

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9		mg/Kg		11/18/22 13:39	11/22/22 02:20	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		11/18/22 13:39	11/22/22 02:20	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		11/18/22 13:39	11/22/22 02:20	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*120*		*70 - 130*	*11/18/22 13:39*	*11/22/22 02:20*	*1*
o-Terphenyl	*113*		*70 - 130*	*11/18/22 13:39*	*11/22/22 02:20*	*1*

Method: MCAWW 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**35.8**		5.05		mg/Kg			11/22/22 03:47	1

Client Sample ID: FS18
Date Collected: 11/14/22 12:45
Date Received: 11/15/22 13:31
Sample Depth: 4'

Lab Sample ID: 890-3477-4
Matrix: Solid

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00198	U	0.00198		mg/Kg		11/22/22 15:18	11/24/22 20:08	1
Toluene	<0.00198	U	0.00198		mg/Kg		11/22/22 15:18	11/24/22 20:08	1
Ethylbenzene	<0.00198	U	0.00198		mg/Kg		11/22/22 15:18	11/24/22 20:08	1
m-Xylene & p-Xylene	<0.00397	U	0.00397		mg/Kg		11/22/22 15:18	11/24/22 20:08	1
o-Xylene	<0.00198	U	0.00198		mg/Kg		11/22/22 15:18	11/24/22 20:08	1
Xylenes, Total	<0.00397	U	0.00397		mg/Kg		11/22/22 15:18	11/24/22 20:08	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*79*		*70 - 130*	*11/22/22 15:18*	*11/24/22 20:08*	*1*
1,4-Difluorobenzene (Surr)	*108*		*70 - 130*	*11/22/22 15:18*	*11/24/22 20:08*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00397	U	0.00397		mg/Kg			11/28/22 15:35	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			11/22/22 10:43	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		11/18/22 13:39	11/22/22 02:41	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		11/18/22 13:39	11/22/22 02:41	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		11/18/22 13:39	11/22/22 02:41	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*111*		*70 - 130*	*11/18/22 13:39*	*11/22/22 02:41*	*1*
o-Terphenyl	*104*		*70 - 130*	*11/18/22 13:39*	*11/22/22 02:41*	*1*

Client Sample Results

Client: Ensolum
Project/Site: BEU DI 30 Battery

Job ID: 890-3477-1
SDG: 03E1558032

Client Sample ID: FS18

Date Collected: 11/14/22 12:45
Date Received: 11/15/22 13:31
Sample Depth: 4'

Lab Sample ID: 890-3477-4

Matrix: Solid

Method: MCAWW 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	43.1		4.98		mg/Kg			11/22/22 04:08	1

Surrogate Summary

Client: Ensolum
Project/Site: BEU DI 30 Battery

Job ID: 890-3477-1
SDG: 03E1558032

Method: 8021B - Volatile Organic Compounds (GC)

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

		Percent Surrogate Recovery (Acceptance Limits)	
		BFB1	DFBZ1
Lab Sample ID	Client Sample ID	(70-130)	(70-130)
890-3466-A-1-C MS	Matrix Spike	97	104
890-3466-A-1-D MSD	Matrix Spike Duplicate	97	105
890-3477-1	FS01A	84	116
890-3477-2	FS14A	85	116
890-3477-3	FS17	87	108
890-3477-4	FS18	79	108
LCS 880-40226/1-A	Lab Control Sample	91	107
LCSD 880-40226/2-A	Lab Control Sample Dup	90	102
MB 880-39927/5-A	Method Blank	77	102
MB 880-40226/5-A	Method Blank	77	103

Surrogate Legend

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

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

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

		Percent Surrogate Recovery (Acceptance Limits)	
		1CO1	OTPH1
Lab Sample ID	Client Sample ID	(70-130)	(70-130)
890-3472-A-1-C MS	Matrix Spike	94	83
890-3472-A-1-D MSD	Matrix Spike Duplicate	112	84
890-3477-1	FS01A	129	119
890-3477-2	FS14A	102	98
890-3477-3	FS17	120	113
890-3477-4	FS18	111	104
LCS 880-39929/2-A	Lab Control Sample	119	108
LCSD 880-39929/3-A	Lab Control Sample Dup	109	99
MB 880-39929/1-A	Method Blank	133 S1+	140 S1+

Surrogate Legend

1CO = 1-Chlorooctane
OTPH = o-Terphenyl

QC Sample Results

Client: Ensolum
Project/Site: BEU DI 30 Battery

Job ID: 890-3477-1
SDG: 03E1558032

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-39927/5-A
Matrix: Solid
Analysis Batch: 40266

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 39927

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		11/18/22 12:52	11/24/22 00:48	1
Toluene	<0.00200	U	0.00200		mg/Kg		11/18/22 12:52	11/24/22 00:48	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		11/18/22 12:52	11/24/22 00:48	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		11/18/22 12:52	11/24/22 00:48	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		11/18/22 12:52	11/24/22 00:48	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		11/18/22 12:52	11/24/22 00:48	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*77*		*70 - 130*	*11/18/22 12:52*	*11/24/22 00:48*	*1*
1,4-Difluorobenzene (Surr)	*102*		*70 - 130*	*11/18/22 12:52*	*11/24/22 00:48*	*1*

Lab Sample ID: MB 880-40226/5-A
Matrix: Solid
Analysis Batch: 40266

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 40226

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		11/22/22 15:18	11/24/22 12:23	1
Toluene	<0.00200	U	0.00200		mg/Kg		11/22/22 15:18	11/24/22 12:23	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		11/22/22 15:18	11/24/22 12:23	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		11/22/22 15:18	11/24/22 12:23	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		11/22/22 15:18	11/24/22 12:23	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		11/22/22 15:18	11/24/22 12:23	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*77*		*70 - 130*	*11/22/22 15:18*	*11/24/22 12:23*	*1*
1,4-Difluorobenzene (Surr)	*103*		*70 - 130*	*11/22/22 15:18*	*11/24/22 12:23*	*1*

Lab Sample ID: LCS 880-40226/1-A
Matrix: Solid
Analysis Batch: 40266

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 40226

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Benzene			0.100	0.08641		mg/Kg		86	70 - 130		
Toluene			0.100	0.09417		mg/Kg		94	70 - 130		
Ethylbenzene			0.100	0.09022		mg/Kg		90	70 - 130		
m-Xylene & p-Xylene			0.200	0.1641		mg/Kg		82	70 - 130		
o-Xylene			0.100	0.08127		mg/Kg		81	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*91*		*70 - 130*
1,4-Difluorobenzene (Surr)	*107*		*70 - 130*

Lab Sample ID: LCSD 880-40226/2-A
Matrix: Solid
Analysis Batch: 40266

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 40226

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene			0.100	0.09015		mg/Kg		90	70 - 130	4	35

QC Sample Results

Client: Ensolum
Project/Site: BEU DI 30 Battery

Job ID: 890-3477-1
SDG: 03E1558032

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

Lab Sample ID: LCSD 880-40226/2-A — **Client Sample ID: Lab Control Sample Dup**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 40266 — **Prep Batch: 40226**

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Toluene			0.100	0.09944		mg/Kg		99	70 - 130	5	35
Ethylbenzene			0.100	0.09342		mg/Kg		93	70 - 130	3	35
m-Xylene & p-Xylene			0.200	0.1688		mg/Kg		84	70 - 130	3	35
o-Xylene			0.100	0.08416		mg/Kg		84	70 - 130	3	35

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*90*		*70 - 130*
1,4-Difluorobenzene (Surr)	*102*		*70 - 130*

Lab Sample ID: 890-3466-A-1-C MS — **Client Sample ID: Matrix Spike**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 40266 — **Prep Batch: 40226**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	<0.00202	U	0.101	0.07375		mg/Kg		73	70 - 130
Toluene	<0.00202	U F1	0.101	0.06939	F1	mg/Kg		69	70 - 130
Ethylbenzene	<0.00202	U F1	0.101	0.06488	F1	mg/Kg		64	70 - 130
m-Xylene & p-Xylene	<0.00403	U F1	0.202	0.1175	F1	mg/Kg		58	70 - 130
o-Xylene	<0.00202	U F1	0.101	0.06822	F1	mg/Kg		67	70 - 130

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*97*		*70 - 130*
1,4-Difluorobenzene (Surr)	*104*		*70 - 130*

Lab Sample ID: 890-3466-A-1-D MSD — **Client Sample ID: Matrix Spike Duplicate**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 40266 — **Prep Batch: 40226**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	<0.00202	U	0.0994	0.07664		mg/Kg		77	70 - 130	4	35
Toluene	<0.00202	U F1	0.0994	0.06568	F1	mg/Kg		66	70 - 130	5	35
Ethylbenzene	<0.00202	U F1	0.0994	0.06133	F1	mg/Kg		62	70 - 130	6	35
m-Xylene & p-Xylene	<0.00403	U F1	0.199	0.1139	F1	mg/Kg		57	70 - 130	3	35
o-Xylene	<0.00202	U F1	0.0994	0.07168		mg/Kg		72	70 - 130	5	35

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*97*		*70 - 130*
1,4-Difluorobenzene (Surr)	*105*		*70 - 130*

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

Lab Sample ID: MB 880-39929/1-A — **Client Sample ID: Method Blank**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 40028 — **Prep Batch: 39929**

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		11/18/22 13:39	11/21/22 20:36	1

QC Sample Results

Client: Ensolum
Project/Site: BEU DI 30 Battery

Job ID: 890-3477-1
SDG: 03E1558032

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

Lab Sample ID: MB 880-39929/1-A
Matrix: Solid
Analysis Batch: 40028

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 39929

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		11/18/22 13:39	11/21/22 20:36	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		11/18/22 13:39	11/21/22 20:36	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*133*	*S1+*	*70 - 130*	*11/18/22 13:39*	*11/21/22 20:36*	*1*
o-Terphenyl	*140*	*S1+*	*70 - 130*	*11/18/22 13:39*	*11/21/22 20:36*	*1*

Lab Sample ID: LCS 880-39929/2-A
Matrix: Solid
Analysis Batch: 40028

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 39929

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Gasoline Range Organics (GRO)-C6-C10			1000	1006		mg/Kg		101	70 - 130		
Diesel Range Organics (Over C10-C28)			1000	998.1		mg/Kg		100	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1-Chlorooctane	*119*		*70 - 130*
o-Terphenyl	*108*		*70 - 130*

Lab Sample ID: LCSD 880-39929/3-A
Matrix: Solid
Analysis Batch: 40028

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 39929

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10			1000	976.6		mg/Kg		98	70 - 130	3	20
Diesel Range Organics (Over C10-C28)			1000	907.0		mg/Kg		91	70 - 130	10	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1-Chlorooctane	*109*		*70 - 130*
o-Terphenyl	*99*		*70 - 130*

Lab Sample ID: 890-3472-A-1-C MS
Matrix: Solid
Analysis Batch: 40028

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 39929

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	999	996.2		mg/Kg		98	70 - 130		
Diesel Range Organics (Over C10-C28)	<50.0	U	999	1106		mg/Kg		111	70 - 130		

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
1-Chlorooctane	*94*		*70 - 130*
o-Terphenyl	*83*		*70 - 130*

QC Sample Results

Client: Ensolum
Project/Site: BEU DI 30 Battery

Job ID: 890-3477-1
SDG: 03E1558032

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

Lab Sample ID: 890-3472-A-1-D MSD — **Client Sample ID: Matrix Spike Duplicate**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 40028 — **Prep Batch: 39929**

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	997	1056		mg/Kg		104	70 - 130	6	20
Diesel Range Organics (Over C10-C28)	<50.0	U	997	1133		mg/Kg		114	70 - 130	2	20

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
1-Chlorooctane	*112*		*70 - 130*
o-Terphenyl	*84*		*70 - 130*

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-39832/1-A — **Client Sample ID: Method Blank**
Matrix: Solid — **Prep Type: Soluble**
Analysis Batch: 40153

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.00	U	5.00		mg/Kg			11/22/22 01:46	1

Lab Sample ID: LCS 880-39832/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Solid — **Prep Type: Soluble**
Analysis Batch: 40153

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride			250	245.8		mg/Kg		98	90 - 110		

Lab Sample ID: LCSD 880-39832/3-A — **Client Sample ID: Lab Control Sample Dup**
Matrix: Solid — **Prep Type: Soluble**
Analysis Batch: 40153

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride			250	241.8		mg/Kg		97	90 - 110	2	20

Lab Sample ID: 890-3477-3 MS — **Client Sample ID: FS17**
Matrix: Solid — **Prep Type: Soluble**
Analysis Batch: 40153

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride	35.8		253	295.1		mg/Kg		103	90 - 110		

Lab Sample ID: 890-3477-3 MSD — **Client Sample ID: FS17**
Matrix: Solid — **Prep Type: Soluble**
Analysis Batch: 40153

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	35.8		253	286.6		mg/Kg		99	90 - 110	3	20

QC Association Summary

Client: Ensolum
Project/Site: BEU DI 30 Battery

Job ID: 890-3477-1
SDG: 03E1558032

GC VOA

Prep Batch: 39927

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 880-39927/5-A	Method Blank	Total/NA	Solid	5035	

Prep Batch: 40226

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3477-1	FS01A	Total/NA	Solid	5035	
890-3477-2	FS14A	Total/NA	Solid	5035	
890-3477-3	FS17	Total/NA	Solid	5035	
890-3477-4	FS18	Total/NA	Solid	5035	
MB 880-40226/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-40226/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-40226/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
890-3466-A-1-C MS	Matrix Spike	Total/NA	Solid	5035	
890-3466-A-1-D MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	

Analysis Batch: 40266

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3477-1	FS01A	Total/NA	Solid	8021B	40226
890-3477-2	FS14A	Total/NA	Solid	8021B	40226
890-3477-3	FS17	Total/NA	Solid	8021B	40226
890-3477-4	FS18	Total/NA	Solid	8021B	40226
MB 880-39927/5-A	Method Blank	Total/NA	Solid	8021B	39927
MB 880-40226/5-A	Method Blank	Total/NA	Solid	8021B	40226
LCS 880-40226/1-A	Lab Control Sample	Total/NA	Solid	8021B	40226
LCSD 880-40226/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	40226
890-3466-A-1-C MS	Matrix Spike	Total/NA	Solid	8021B	40226
890-3466-A-1-D MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	40226

Analysis Batch: 40494

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3477-1	FS01A	Total/NA	Solid	Total BTEX	
890-3477-2	FS14A	Total/NA	Solid	Total BTEX	
890-3477-3	FS17	Total/NA	Solid	Total BTEX	
890-3477-4	FS18	Total/NA	Solid	Total BTEX	

GC Semi VOA

Prep Batch: 39929

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3477-1	FS01A	Total/NA	Solid	8015NM Prep	
890-3477-2	FS14A	Total/NA	Solid	8015NM Prep	
890-3477-3	FS17	Total/NA	Solid	8015NM Prep	
890-3477-4	FS18	Total/NA	Solid	8015NM Prep	
MB 880-39929/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-39929/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-39929/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
890-3472-A-1-C MS	Matrix Spike	Total/NA	Solid	8015NM Prep	
890-3472-A-1-D MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	

Analysis Batch: 40028

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3477-1	FS01A	Total/NA	Solid	8015B NM	39929

QC Association Summary

Client: Ensolum
Project/Site: BEU DI 30 Battery

Job ID: 890-3477-1
SDG: 03E1558032

GC Semi VOA (Continued)

Analysis Batch: 40028 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3477-2	FS14A	Total/NA	Solid	8015B NM	39929
890-3477-3	FS17	Total/NA	Solid	8015B NM	39929
890-3477-4	FS18	Total/NA	Solid	8015B NM	39929
MB 880-39929/1-A	Method Blank	Total/NA	Solid	8015B NM	39929
LCS 880-39929/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	39929
LCSD 880-39929/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	39929
890-3472-A-1-C MS	Matrix Spike	Total/NA	Solid	8015B NM	39929
890-3472-A-1-D MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	39929

Analysis Batch: 40203

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3477-1	FS01A	Total/NA	Solid	8015 NM	
890-3477-2	FS14A	Total/NA	Solid	8015 NM	
890-3477-3	FS17	Total/NA	Solid	8015 NM	
890-3477-4	FS18	Total/NA	Solid	8015 NM	

HPLC/IC

Leach Batch: 39832

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3477-1	FS01A	Soluble	Solid	DI Leach	
890-3477-2	FS14A	Soluble	Solid	DI Leach	
890-3477-3	FS17	Soluble	Solid	DI Leach	
890-3477-4	FS18	Soluble	Solid	DI Leach	
MB 880-39832/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-39832/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-39832/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
890-3477-3 MS	FS17	Soluble	Solid	DI Leach	
890-3477-3 MSD	FS17	Soluble	Solid	DI Leach	

Analysis Batch: 40153

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3477-1	FS01A	Soluble	Solid	300.0	39832
890-3477-2	FS14A	Soluble	Solid	300.0	39832
890-3477-3	FS17	Soluble	Solid	300.0	39832
890-3477-4	FS18	Soluble	Solid	300.0	39832
MB 880-39832/1-A	Method Blank	Soluble	Solid	300.0	39832
LCS 880-39832/2-A	Lab Control Sample	Soluble	Solid	300.0	39832
LCSD 880-39832/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	39832
890-3477-3 MS	FS17	Soluble	Solid	300.0	39832
890-3477-3 MSD	FS17	Soluble	Solid	300.0	39832

Lab Chronicle

Client: Ensolum
Project/Site: BEU DI 30 Battery

Job ID: 890-3477-1
SDG: 03E1558032

Client Sample ID: FS01A
Date Collected: 11/14/22 12:35
Date Received: 11/15/22 13:31

Lab Sample ID: 890-3477-1
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.95 g	5 mL	40226	11/22/22 15:18	EL	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	40266	11/24/22 19:07	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			40494	11/28/22 15:35	AJ	EET MID
Total/NA	Analysis	8015 NM		1			40203	11/22/22 10:43	SM	EET MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	39929	11/18/22 13:39	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	40028	11/22/22 01:15	SM	EET MID
Soluble	Leach	DI Leach			5.02 g	50 mL	39832	11/17/22 14:46	CH	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	40153	11/22/22 03:33	CH	EET MID

Client Sample ID: FS14A
Date Collected: 11/14/22 12:30
Date Received: 11/15/22 13:31

Lab Sample ID: 890-3477-2
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.96 g	5 mL	40226	11/22/22 15:18	EL	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	40266	11/24/22 19:28	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			40494	11/28/22 15:35	AJ	EET MID
Total/NA	Analysis	8015 NM		1			40203	11/22/22 10:43	SM	EET MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	39929	11/18/22 13:39	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	40028	11/22/22 01:37	SM	EET MID
Soluble	Leach	DI Leach			5 g	50 mL	39832	11/17/22 14:46	CH	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	40153	11/22/22 03:40	CH	EET MID

Client Sample ID: FS17
Date Collected: 11/14/22 12:40
Date Received: 11/15/22 13:31

Lab Sample ID: 890-3477-3
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.03 g	5 mL	40226	11/22/22 15:18	EL	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	40266	11/24/22 19:48	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			40494	11/28/22 15:35	AJ	EET MID
Total/NA	Analysis	8015 NM		1			40203	11/22/22 10:43	SM	EET MID
Total/NA	Prep	8015NM Prep			10.03 g	10 mL	39929	11/18/22 13:39	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	40028	11/22/22 02:20	SM	EET MID
Soluble	Leach	DI Leach			4.95 g	50 mL	39832	11/17/22 14:46	CH	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	40153	11/22/22 03:47	CH	EET MID

Client Sample ID: FS18
Date Collected: 11/14/22 12:45
Date Received: 11/15/22 13:31

Lab Sample ID: 890-3477-4
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.04 g	5 mL	40226	11/22/22 15:18	EL	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	40266	11/24/22 20:08	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			40494	11/28/22 15:35	AJ	EET MID

Eurofins Carlsbad

Lab Chronicle

Client: Ensolum
Project/Site: BEU DI 30 Battery

Job ID: 890-3477-1
SDG: 03E1558032

Client Sample ID: FS18
Date Collected: 11/14/22 12:45
Date Received: 11/15/22 13:31

Lab Sample ID: 890-3477-4
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			40203	11/22/22 10:43	SM	EET MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	39929	11/18/22 13:39	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	40028	11/22/22 02:41	SM	EET MID
Soluble	Leach	DI Leach			5.02 g	50 mL	39832	11/17/22 14:46	CH	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	40153	11/22/22 04:08	CH	EET MID

Laboratory References:

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

Accreditation/Certification Summary

Client: Ensolum
Project/Site: BEU DI 30 Battery

Job ID: 890-3477-1
SDG: 03E1558032

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	T104704400-22-24	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: BEU DI 30 Battery

Job ID: 890-3477-1
SDG: 03E1558032

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	MCAWW	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
MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions.
SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.
TAL SOP = TestAmerica Laboratories, Standard Operating Procedure

Laboratory References:

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

Sample Summary

Client: Ensolum
Project/Site: BEU DI 30 Battery

Job ID: 890-3477-1
SDG: 03E1558032

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-3477-1	FS01A	Solid	11/14/22 12:35	11/15/22 13:31	5.5'
890-3477-2	FS14A	Solid	11/14/22 12:30	11/15/22 13:31	5.5'
890-3477-3	FS17	Solid	11/14/22 12:40	11/15/22 13:31	4'
890-3477-4	FS18	Solid	11/14/22 12:45	11/15/22 13:31	4'

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Chain of Custody

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

Work Order No: _____

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

Work Order Comments

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

Project Name:	BEU DI 30 Battery	Turn Around	☒ Routine ☐ Rush
Project Number:	03E1558032	Due Date:	5 day
Project Location:		TAT starts the day received by the lab, if received by 4:30pm	
Sampler's Name:	Connor Whitman		
PO #:			

SAMPLE RECEIPT				
Temp Blank:	(Yes) No	Wet Ice:	(Yes) No	
Samples Received Intact:	(Yes) No	Thermometer ID:	IR#007	
Cooler Custody Seals:	Yes No (N/A)	Correction Factor:	-0.2	
Sample Custody Seals:	Yes No (N/A)	Temperature Reading:	5.8	
Total Containers:		Corrected Temperature:	5.6	

ANALYSIS REQUEST

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Grab/ Comp	# of Cont	Pres. Code	CHLORIDES (EPA: 300.0)	TPH (8015)	BTEX (8021)
FS01A	S	11/14/22	12:35	5.5'	C	1		✓	✓	✓
FS14A	S	"	12:30	5.5'	C	1		✓	✓	✓
FS17	S	"	12:40	4'	C	1		✓	✓	✓
FS18	S	"	12:45	4'	C	1		✓	✓	✓

CV

890-3477 Chain of Custody

Preservative Codes

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

Sample Comments

Incident ID:
NAPP2200746777
Cost Center:
2096141001
AFE:

Total 200.7 / 6010 200.8 / 6020: 8RCRA 13PPM Texas 11 Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag SiO_2 Na Sr Tl Sn U V Zn
Circle Method(s) and Metal(s) to be analyzed **TCLP / SPLP 6010**: 8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Tl U Hg: 1631 / 245.1 / 7470 / 7471

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

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
1		111522 1331	2		
3			4		
5			6		

Revised Date: 08/25/2020 Rev 2020.2

Login Sample Receipt Checklist

Client: Ensolum

Job Number: 890-3477-1
SDG Number: 03E1558032

Login Number: 3477
List Number: 1
Creator: Stutzman, Amanda

List Source: Eurofins Carlsbad

Question	Answer	Comment
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	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: 890-3477-1
SDG Number: 03E1558032

Login Number: 3477
List Number: 2
Creator: Rodriguez, Leticia

List Source: Eurofins Midland
List Creation: 11/17/22 02:07 PM

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

eurofins | Environment Testing

ANALYTICAL REPORT

PREPARED FOR

Attn: Ben Belill
Ensolum
705 W. Wadley
Suite 210
Midland, Texas 79701

Generated 11/28/2022 4:26:14 PM

JOB DESCRIPTION

BEU DI 30 Battery
SDG NUMBER 03E1558032

JOB NUMBER

890-3478-1

Eurofins Carlsbad
1089 N Canal St.
Carlsbad NM 88220

See page two for job notes and contact information.

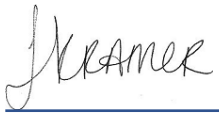
my EOL

Eurofins Carlsbad

Job Notes

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
11/28/2022 4:26:14 PM

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

Client: Ensolum
Project/Site: BEU DI 30 Battery

Laboratory Job ID: 890-3478-1
SDG: 03E1558032

Table of Contents

Definitions/Glossary

Client: Ensolum
Project/Site: BEU DI 30 Battery

Job ID: 890-3478-1
SDG: 03E1558032

Qualifiers

GC VOA

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

GC Semi VOA

Qualifier	Qualifier Description
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: BEU DI 30 Battery

Job ID: 890-3478-1
SDG: 03E1558032

Job ID: 890-3478-1

Laboratory: Eurofins Carlsbad

Narrative

Job Narrative
890-3478-1

Receipt
The samples were received on 11/15/2022 1:31 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 5.6°C

Receipt Exceptions
The following samples were received and analyzed from an unpreserved bulk soil jar: SW07 (890-3478-1) and SW08 (890-3478-2).

GC VOA
Method 8021B: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 880-40226 and analytical batch 880-40266 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.

Method 8021B: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 880-40226 and analytical batch 880-40266 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.

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

GC Semi VOA
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: BEU DI 30 Battery

Job ID: 890-3478-1
SDG: 03E1558032

Client Sample ID: SW07

Date Collected: 11/14/22 12:50
Date Received: 11/15/22 13:31
Sample Depth: 0-4'

Lab Sample ID: 890-3478-1
Matrix: Solid

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00201	U	0.00201		mg/Kg		11/22/22 15:18	11/24/22 20:29	1
Toluene	<0.00201	U	0.00201		mg/Kg		11/22/22 15:18	11/24/22 20:29	1
Ethylbenzene	<0.00201	U	0.00201		mg/Kg		11/22/22 15:18	11/24/22 20:29	1
m-Xylene & p-Xylene	<0.00402	U	0.00402		mg/Kg		11/22/22 15:18	11/24/22 20:29	1
o-Xylene	<0.00201	U	0.00201		mg/Kg		11/22/22 15:18	11/24/22 20:29	1
Xylenes, Total	<0.00402	U	0.00402		mg/Kg		11/22/22 15:18	11/24/22 20:29	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*93*		*70 - 130*	*11/22/22 15:18*	*11/24/22 20:29*	*1*
1,4-Difluorobenzene (Surr)	*111*		*70 - 130*	*11/22/22 15:18*	*11/24/22 20:29*	*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			11/28/22 15:35	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			11/21/22 10:39	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		11/18/22 13:35	11/21/22 03:54	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		11/18/22 13:35	11/21/22 03:54	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		11/18/22 13:35	11/21/22 03:54	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*120*		*70 - 130*	*11/18/22 13:35*	*11/21/22 03:54*	*1*
o-Terphenyl	*116*		*70 - 130*	*11/18/22 13:35*	*11/21/22 03:54*	*1*

Method: MCAWW 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**43.8**		4.99		mg/Kg			11/22/22 04:16	1

Client Sample ID: SW08

Date Collected: 11/14/22 12:55
Date Received: 11/15/22 13:31
Sample Depth: 0-4'

Lab Sample ID: 890-3478-2
Matrix: Solid

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00201	U	0.00201		mg/Kg		11/22/22 15:18	11/24/22 20:49	1
Toluene	<0.00201	U	0.00201		mg/Kg		11/22/22 15:18	11/24/22 20:49	1
Ethylbenzene	<0.00201	U	0.00201		mg/Kg		11/22/22 15:18	11/24/22 20:49	1
m-Xylene & p-Xylene	<0.00402	U	0.00402		mg/Kg		11/22/22 15:18	11/24/22 20:49	1
o-Xylene	<0.00201	U	0.00201		mg/Kg		11/22/22 15:18	11/24/22 20:49	1
Xylenes, Total	<0.00402	U	0.00402		mg/Kg		11/22/22 15:18	11/24/22 20:49	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*91*		*70 - 130*	*11/22/22 15:18*	*11/24/22 20:49*	*1*

Eurofins Carlsbad

Client Sample Results

Client: Ensolum
Project/Site: BEU DI 30 Battery

Job ID: 890-3478-1
SDG: 03E1558032

Client Sample ID: SW08

Date Collected: 11/14/22 12:55
Date Received: 11/15/22 13:31
Sample Depth: 0-4'

Lab Sample ID: 890-3478-2

Matrix: Solid

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

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,4-Difluorobenzene (Surr)	*108*		*70 - 130*	*11/22/22 15:18*	*11/24/22 20:49*	*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			11/28/22 15:35	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			11/21/22 10:39	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		11/18/22 13:35	11/21/22 04:16	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		11/18/22 13:35	11/21/22 04:16	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		11/18/22 13:35	11/21/22 04:16	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*101*		*70 - 130*	*11/18/22 13:35*	*11/21/22 04:16*	*1*
o-Terphenyl	*97*		*70 - 130*	*11/18/22 13:35*	*11/21/22 04:16*	*1*

Method: MCAWW 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**91.6**		5.00		mg/Kg			11/21/22 02:19	1

Surrogate Summary

Client: Ensolum
Project/Site: BEU DI 30 Battery

Job ID: 890-3478-1
SDG: 03E1558032

Method: 8021B - Volatile Organic Compounds (GC)

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

		Percent Surrogate Recovery (Acceptance Limits)											
		BFB1	DFBZ1										
Lab Sample ID	Client Sample ID	(70-130)	(70-130)										
890-3466-A-1-C MS	Matrix Spike	97	104										
890-3466-A-1-D MSD	Matrix Spike Duplicate	97	105										
890-3478-1	SW07	93	111										
890-3478-2	SW08	91	108										
LCS 880-40226/1-A	Lab Control Sample	91	107										
LCSD 880-40226/2-A	Lab Control Sample Dup	90	102										
MB 880-39927/5-A	Method Blank	77	102										
MB 880-40226/5-A	Method Blank	77	103										

Surrogate Legend

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

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

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

		Percent Surrogate Recovery (Acceptance Limits)											
		1CO1	OTPH1										
Lab Sample ID	Client Sample ID	(70-130)	(70-130)										
890-3478-1	SW07	120	116										
890-3478-2	SW08	101	97										
890-3497-A-1-F MS	Matrix Spike	98	78										
890-3497-A-1-G MSD	Matrix Spike Duplicate	102	82										
LCS 880-39928/2-A	Lab Control Sample	100	104										
LCSD 880-39928/3-A	Lab Control Sample Dup	98	102										
MB 880-39928/1-A	Method Blank	127	123										

Surrogate Legend

1CO = 1-Chlorooctane
OTPH = o-Terphenyl

QC Sample Results

Client: Ensolum
Project/Site: BEU DI 30 Battery

Job ID: 890-3478-1
SDG: 03E1558032

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-39927/5-A
Matrix: Solid
Analysis Batch: 40266

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 39927

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		11/18/22 12:52	11/24/22 00:48	1
Toluene	<0.00200	U	0.00200		mg/Kg		11/18/22 12:52	11/24/22 00:48	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		11/18/22 12:52	11/24/22 00:48	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		11/18/22 12:52	11/24/22 00:48	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		11/18/22 12:52	11/24/22 00:48	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		11/18/22 12:52	11/24/22 00:48	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*77*		*70 - 130*	*11/18/22 12:52*	*11/24/22 00:48*	*1*
1,4-Difluorobenzene (Surr)	*102*		*70 - 130*	*11/18/22 12:52*	*11/24/22 00:48*	*1*

Lab Sample ID: MB 880-40226/5-A
Matrix: Solid
Analysis Batch: 40266

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 40226

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		11/22/22 15:18	11/24/22 12:23	1
Toluene	<0.00200	U	0.00200		mg/Kg		11/22/22 15:18	11/24/22 12:23	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		11/22/22 15:18	11/24/22 12:23	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		11/22/22 15:18	11/24/22 12:23	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		11/22/22 15:18	11/24/22 12:23	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		11/22/22 15:18	11/24/22 12:23	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*77*		*70 - 130*	*11/22/22 15:18*	*11/24/22 12:23*	*1*
1,4-Difluorobenzene (Surr)	*103*		*70 - 130*	*11/22/22 15:18*	*11/24/22 12:23*	*1*

Lab Sample ID: LCS 880-40226/1-A
Matrix: Solid
Analysis Batch: 40266

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 40226

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Benzene			0.100	0.08641		mg/Kg		86	70 - 130		
Toluene			0.100	0.09417		mg/Kg		94	70 - 130		
Ethylbenzene			0.100	0.09022		mg/Kg		90	70 - 130		
m-Xylene & p-Xylene			0.200	0.1641		mg/Kg		82	70 - 130		
o-Xylene			0.100	0.08127		mg/Kg		81	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*91*		*70 - 130*
1,4-Difluorobenzene (Surr)	*107*		*70 - 130*

Lab Sample ID: LCSD 880-40226/2-A
Matrix: Solid
Analysis Batch: 40266

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 40226

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene			0.100	0.09015		mg/Kg		90	70 - 130	4	35

QC Sample Results

Client: Ensolum
Project/Site: BEU DI 30 Battery

Job ID: 890-3478-1
SDG: 03E1558032

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

Lab Sample ID: LCSD 880-40226/2-A
Matrix: Solid
Analysis Batch: 40266

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 40226

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Toluene			0.100	0.09944		mg/Kg		99	70 - 130	5	35
Ethylbenzene			0.100	0.09342		mg/Kg		93	70 - 130	3	35
m-Xylene & p-Xylene			0.200	0.1688		mg/Kg		84	70 - 130	3	35
o-Xylene			0.100	0.08416		mg/Kg		84	70 - 130	3	35

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*90*		*70 - 130*
1,4-Difluorobenzene (Surr)	*102*		*70 - 130*

Lab Sample ID: 890-3466-A-1-C MS
Matrix: Solid
Analysis Batch: 40266

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 40226

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	<0.00202	U	0.101	0.07375		mg/Kg		73	70 - 130
Toluene	<0.00202	U F1	0.101	0.06939	F1	mg/Kg		69	70 - 130
Ethylbenzene	<0.00202	U F1	0.101	0.06488	F1	mg/Kg		64	70 - 130
m-Xylene & p-Xylene	<0.00403	U F1	0.202	0.1175	F1	mg/Kg		58	70 - 130
o-Xylene	<0.00202	U F1	0.101	0.06822	F1	mg/Kg		67	70 - 130

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*97*		*70 - 130*
1,4-Difluorobenzene (Surr)	*104*		*70 - 130*

Lab Sample ID: 890-3466-A-1-D MSD
Matrix: Solid
Analysis Batch: 40266

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 40226

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	<0.00202	U	0.0994	0.07664		mg/Kg		77	70 - 130	4	35
Toluene	<0.00202	U F1	0.0994	0.06568	F1	mg/Kg		66	70 - 130	5	35
Ethylbenzene	<0.00202	U F1	0.0994	0.06133	F1	mg/Kg		62	70 - 130	6	35
m-Xylene & p-Xylene	<0.00403	U F1	0.199	0.1139	F1	mg/Kg		57	70 - 130	3	35
o-Xylene	<0.00202	U F1	0.0994	0.07168		mg/Kg		72	70 - 130	5	35

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*97*		*70 - 130*
1,4-Difluorobenzene (Surr)	*105*		*70 - 130*

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

Lab Sample ID: MB 880-39928/1-A
Matrix: Solid
Analysis Batch: 39984

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 39928

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		11/18/22 13:35	11/20/22 19:18	1

QC Sample Results

Client: Ensolum
Project/Site: BEU DI 30 Battery

Job ID: 890-3478-1
SDG: 03E1558032

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

Lab Sample ID: MB 880-39928/1-A
Matrix: Solid
Analysis Batch: 39984

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 39928

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		11/18/22 13:35	11/20/22 19:18	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		11/18/22 13:35	11/20/22 19:18	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*127*		*70 - 130*	*11/18/22 13:35*	*11/20/22 19:18*	*1*
o-Terphenyl	*123*		*70 - 130*	*11/18/22 13:35*	*11/20/22 19:18*	*1*

Lab Sample ID: LCS 880-39928/2-A
Matrix: Solid
Analysis Batch: 39984

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 39928

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Gasoline Range Organics (GRO)-C6-C10			1000	965.5		mg/Kg		97	70 - 130		
Diesel Range Organics (Over C10-C28)			1000	983.4		mg/Kg		98	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1-Chlorooctane	*100*		*70 - 130*
o-Terphenyl	*104*		*70 - 130*

Lab Sample ID: LCSD 880-39928/3-A
Matrix: Solid
Analysis Batch: 39984

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 39928

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10			1000	891.4		mg/Kg		89	70 - 130	8	20
Diesel Range Organics (Over C10-C28)			1000	967.7		mg/Kg		97	70 - 130	2	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1-Chlorooctane	*98*		*70 - 130*
o-Terphenyl	*102*		*70 - 130*

Lab Sample ID: 890-3497-A-1-F MS
Matrix: Solid
Analysis Batch: 39984

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 39928

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	999	772.0		mg/Kg		77	70 - 130		
Diesel Range Organics (Over C10-C28)	<50.0	U	999	919.1		mg/Kg		92	70 - 130		

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
1-Chlorooctane	*98*		*70 - 130*
o-Terphenyl	*78*		*70 - 130*

QC Sample Results

Client: Ensolum
Project/Site: BEU DI 30 Battery

Job ID: 890-3478-1
SDG: 03E1558032

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

Lab Sample ID: 890-3497-A-1-G MSD — **Client Sample ID: Matrix Spike Duplicate**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 39984 — **Prep Batch: 39928**

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	997	782.2		mg/Kg		78	70 - 130	1	20
Diesel Range Organics (Over C10-C28)	<50.0	U	997	975.9		mg/Kg		98	70 - 130	6	20

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
1-Chlorooctane	*102*		*70 - 130*
o-Terphenyl	*82*		*70 - 130*

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-39828/1-A — **Client Sample ID: Method Blank**
Matrix: Solid — **Prep Type: Soluble**
Analysis Batch: 40019

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.00	U	5.00		mg/Kg			11/20/22 23:30	1

Lab Sample ID: LCS 880-39828/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Solid — **Prep Type: Soluble**
Analysis Batch: 40019

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride			250	259.0		mg/Kg		104	90 - 110		

Lab Sample ID: LCSD 880-39828/3-A — **Client Sample ID: Lab Control Sample Dup**
Matrix: Solid — **Prep Type: Soluble**
Analysis Batch: 40019

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride			250	258.9		mg/Kg		104	90 - 110	0	20

Lab Sample ID: 890-3461-A-29-C MS — **Client Sample ID: Matrix Spike**
Matrix: Solid — **Prep Type: Soluble**
Analysis Batch: 40019

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride	14.6		252	284.2		mg/Kg		107	90 - 110		

Lab Sample ID: 890-3461-A-29-D MSD — **Client Sample ID: Matrix Spike Duplicate**
Matrix: Solid — **Prep Type: Soluble**
Analysis Batch: 40019

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	14.6		252	284.6		mg/Kg		107	90 - 110	0	20

QC Sample Results

Client: Ensolum
Project/Site: BEU DI 30 Battery

Job ID: 890-3478-1
SDG: 03E1558032

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: MB 880-39832/1-A
Matrix: Solid
Analysis Batch: 40153

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			11/22/22 01:46	1

Lab Sample ID: LCS 880-39832/2-A
Matrix: Solid
Analysis Batch: 40153

Client Sample ID: Lab Control Sample
Prep Type: Soluble

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride			250	245.8		mg/Kg		98	90 - 110		

Lab Sample ID: LCSD 880-39832/3-A
Matrix: Solid
Analysis Batch: 40153

Client Sample ID: Lab Control Sample Dup
Prep Type: Soluble

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride			250	241.8		mg/Kg		97	90 - 110	2	20

Lab Sample ID: 890-3477-A-3-D MS
Matrix: Solid
Analysis Batch: 40153

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	35.8		253	295.1		mg/Kg		103	90 - 110		

Lab Sample ID: 890-3477-A-3-E MSD
Matrix: Solid
Analysis Batch: 40153

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	35.8		253	286.6		mg/Kg		99	90 - 110	3	20

QC Association Summary

Client: Ensolum
Project/Site: BEU DI 30 Battery

Job ID: 890-3478-1
SDG: 03E1558032

GC VOA

Prep Batch: 39927

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 880-39927/5-A	Method Blank	Total/NA	Solid	5035	

Prep Batch: 40226

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3478-1	SW07	Total/NA	Solid	5035	
890-3478-2	SW08	Total/NA	Solid	5035	
MB 880-40226/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-40226/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-40226/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
890-3466-A-1-C MS	Matrix Spike	Total/NA	Solid	5035	
890-3466-A-1-D MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	

Analysis Batch: 40266

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3478-1	SW07	Total/NA	Solid	8021B	40226
890-3478-2	SW08	Total/NA	Solid	8021B	40226
MB 880-39927/5-A	Method Blank	Total/NA	Solid	8021B	39927
MB 880-40226/5-A	Method Blank	Total/NA	Solid	8021B	40226
LCS 880-40226/1-A	Lab Control Sample	Total/NA	Solid	8021B	40226
LCSD 880-40226/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	40226
890-3466-A-1-C MS	Matrix Spike	Total/NA	Solid	8021B	40226
890-3466-A-1-D MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	40226

Analysis Batch: 40495

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3478-1	SW07	Total/NA	Solid	Total BTEX	
890-3478-2	SW08	Total/NA	Solid	Total BTEX	

GC Semi VOA

Prep Batch: 39928

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3478-1	SW07	Total/NA	Solid	8015NM Prep	
890-3478-2	SW08	Total/NA	Solid	8015NM Prep	
MB 880-39928/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-39928/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-39928/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
890-3497-A-1-F MS	Matrix Spike	Total/NA	Solid	8015NM Prep	
890-3497-A-1-G MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	

Analysis Batch: 39984

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3478-1	SW07	Total/NA	Solid	8015B NM	39928
890-3478-2	SW08	Total/NA	Solid	8015B NM	39928
MB 880-39928/1-A	Method Blank	Total/NA	Solid	8015B NM	39928
LCS 880-39928/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	39928
LCSD 880-39928/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	39928
890-3497-A-1-F MS	Matrix Spike	Total/NA	Solid	8015B NM	39928
890-3497-A-1-G MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	39928

QC Association Summary

Client: Ensolum
Project/Site: BEU DI 30 Battery

Job ID: 890-3478-1
SDG: 03E1558032

GC Semi VOA

Analysis Batch: 40089

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3478-1	SW07	Total/NA	Solid	8015 NM	
890-3478-2	SW08	Total/NA	Solid	8015 NM	

HPLC/IC

Leach Batch: 39828

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3478-2	SW08	Soluble	Solid	DI Leach	
MB 880-39828/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-39828/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-39828/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
890-3461-A-29-C MS	Matrix Spike	Soluble	Solid	DI Leach	
890-3461-A-29-D MSD	Matrix Spike Duplicate	Soluble	Solid	DI Leach	

Leach Batch: 39832

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3478-1	SW07	Soluble	Solid	DI Leach	
MB 880-39832/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-39832/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-39832/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
890-3477-A-3-D MS	Matrix Spike	Soluble	Solid	DI Leach	
890-3477-A-3-E MSD	Matrix Spike Duplicate	Soluble	Solid	DI Leach	

Analysis Batch: 40019

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3478-2	SW08	Soluble	Solid	300.0	39828
MB 880-39828/1-A	Method Blank	Soluble	Solid	300.0	39828
LCS 880-39828/2-A	Lab Control Sample	Soluble	Solid	300.0	39828
LCSD 880-39828/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	39828
890-3461-A-29-C MS	Matrix Spike	Soluble	Solid	300.0	39828
890-3461-A-29-D MSD	Matrix Spike Duplicate	Soluble	Solid	300.0	39828

Analysis Batch: 40153

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3478-1	SW07	Soluble	Solid	300.0	39832
MB 880-39832/1-A	Method Blank	Soluble	Solid	300.0	39832
LCS 880-39832/2-A	Lab Control Sample	Soluble	Solid	300.0	39832
LCSD 880-39832/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	39832
890-3477-A-3-D MS	Matrix Spike	Soluble	Solid	300.0	39832
890-3477-A-3-E MSD	Matrix Spike Duplicate	Soluble	Solid	300.0	39832

Lab Chronicle

Client: Ensolum
Project/Site: BEU DI 30 Battery

Job ID: 890-3478-1
SDG: 03E1558032

Client Sample ID: SW07

Lab Sample ID: 890-3478-1

Date Collected: 11/14/22 12:50
Matrix: Solid
Date Received: 11/15/22 13:31

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	40226	11/22/22 15:18	EL	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	40266	11/24/22 20:29	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			40495	11/28/22 15:35	AJ	EET MID
Total/NA	Analysis	8015 NM		1			40089	11/21/22 10:39	SM	EET MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	39928	11/18/22 13:35	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	39984	11/21/22 03:54	SM	EET MID
Soluble	Leach	DI Leach			5.01 g	50 mL	39832	11/17/22 14:46	CH	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	40153	11/22/22 04:16	CH	EET MID

Client Sample ID: SW08

Lab Sample ID: 890-3478-2

Date Collected: 11/14/22 12:55
Matrix: Solid
Date Received: 11/15/22 13:31

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	40226	11/22/22 15:18	EL	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	40266	11/24/22 20:49	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			40495	11/28/22 15:35	AJ	EET MID
Total/NA	Analysis	8015 NM		1			40089	11/21/22 10:39	SM	EET MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	39928	11/18/22 13:35	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	39984	11/21/22 04:16	SM	EET MID
Soluble	Leach	DI Leach			5 g	50 mL	39828	11/17/22 14:29	CH	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	40019	11/21/22 02:19	CH	EET MID

Laboratory References:

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

Accreditation/Certification Summary

Client: Ensolum
Project/Site: BEU DI 30 Battery

Job ID: 890-3478-1
SDG: 03E1558032

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	T104704400-22-24	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: BEU DI 30 Battery

Job ID: 890-3478-1
SDG: 03E1558032

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	MCAWW	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

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

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

TAL SOP = TestAmerica Laboratories, Standard Operating Procedure

Laboratory References:

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

Sample Summary

Client: Ensolum
Project/Site: BEU DI 30 Battery

Job ID: 890-3478-1
SDG: 03E1558032

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-3478-1	SW07	Solid	11/14/22 12:50	11/15/22 13:31	0-4'
890-3478-2	SW08	Solid	11/14/22 12:55	11/15/22 13:31	0-4'

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Chain of Custody

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

Work Order No: _____

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

Work Order Comments

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

Project Name:	BEU DI 30 Battery	Turn Around	☑ Routine ☐ Rush
Project Number:	03E1558032	Due Date:	5 day
Project Location:		TAT starts the day received by the lab, if received by 4:30pm	
Sampler's Name:	Connor Whitman		
PO #:			

SAMPLE RECEIPT			
Temp Blank:	Yes (No)	Wet Ice:	Yes No
Samples Received Intact:	(Yes) No	Thermometer ID:	IR007
Cooler Custody Seals:	Yes No (N/A)	Correction Factor:	-0.2
Sample Custody Seals:	Yes No (N/A)	Temperature Reading:	5.8
Total Containers:		Corrected Temperature:	5.6

ANALYSIS REQUEST

Preservative Codes

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

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Grab/ Comp	# of Cont	Pres. Code	Parameters: CHLORIDES (EPA: 300.0)	TPH (8015)	BTEX (8021)
SW07	S	11/14/22	12:50	0-4'	C	1		✓	✓	✓
SW08	S	11/14/22	12:55	0-4'	C	1		✓	✓	✓

890-3478 Chain of Custody

Sample Comments

Incident ID:
NAPP2200746777
Cost Center:
2096141001
AFE:

C-V

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

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

	Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
1	Connor Whitman	Cloe Clay	11.15.22 1339			
3				4		
5				6		

Revised Date: 08/25/2020 Rev. 2020.2

Login Sample Receipt Checklist

Client: Ensolum

Job Number: 890-3478-1
SDG Number: 03E1558032

Login Number: 3478
List Number: 1
Creator: Stutzman, Amanda

List Source: Eurofins Carlsbad

Question	Answer	Comment
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	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: 890-3478-1
SDG Number: 03E1558032

Login Number: 3478
List Number: 2
Creator: Rodriguez, Leticia

List Source: Eurofins Midland
List Creation: 11/17/22 02:07 PM

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

eurofins | Environment Testing America

ANALYTICAL REPORT

Eurofins Carlsbad
1089 N Canal St.
Carlsbad, NM 88220
Tel: (575)988-3199

Laboratory Job ID: 890-2142-1
Laboratory SDG: 31403236.022.0129 TASK16.02
Client Project/Site: BEU DI 30

For:
WSP USA Inc.
2777 N. Stemmons Freeway
Suite 1600
Dallas, Texas 75207

Attn: Kalei Jennings

JKramer

Authorized for release by:
4/8/2022 10:09:07 AM

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

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

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

Table of Contents

Definitions/Glossary

Client: WSP USA Inc. Job ID: 890-2142-1
Project/Site: BEU DI 30 SDG: 31403236.022.0129 TASK16.02

Qualifiers

GC VOA

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

GC Semi VOA

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

HPLC/IC

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

Glossary

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

Case Narrative

Client: WSP USA Inc.
Project/Site: BEU DI 30

Job ID: 890-2142-1
SDG: 31403236.022.0129 TASK16.02

Job ID: 890-2142-1

Laboratory: Eurofins Carlsbad

Narrative

Job Narrative
890-2142-1

Receipt
The samples were received on 3/28/2022 2:48 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 3.0°C

GC VOA
Method 8021B: The laboratory control sample (LCS) associated with preparation batch 880-22509 and analytical batch 880-22605 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 8021B: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 880-22563 and analytical batch 880-22719 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.

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

GC Semi VOA
Method 8015MOD_NM: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 880-22591 and analytical batch 880-22514 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.

Method 8015MOD_NM: Surrogate recovery for the following sample was outside control limits: (MB 880-22521/1-A). 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
Method 300_ORGFM_28D: The matrix spike / matrix spike duplicate (MS/MSD) recoveries and precision for preparation batch 880-22997 and analytical batch 880-23131 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample / laboratory sample control duplicate (LCS/LCSD) precision was within acceptance limits.

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

Client Sample Results

Client: WSP USA Inc.
Project/Site: BEU DI 30

Job ID: 890-2142-1
SDG: 31403236.022.0129 TASK16.02

Client Sample ID: FS01

Lab Sample ID: 890-2142-1
Matrix: Solid
Date Collected: 03/23/22 08:50
Date Received: 03/28/22 14:48
Sample Depth: 5

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00201	U F1	0.00201		mg/Kg		03/29/22 12:01	04/01/22 03:00	1
Toluene	<0.00201	U F1	0.00201		mg/Kg		03/29/22 12:01	04/01/22 03:00	1
Ethylbenzene	<0.00201	U F1	0.00201		mg/Kg		03/29/22 12:01	04/01/22 03:00	1
m-Xylene & p-Xylene	**0.00649**	**F1**	0.00402		mg/Kg		03/29/22 12:01	04/01/22 03:00	1
o-Xylene	**0.0145**	**F1**	0.00201		mg/Kg		03/29/22 12:01	04/01/22 03:00	1
Xylenes, Total	**0.0210**	**F1**	0.00402		mg/Kg		03/29/22 12:01	04/01/22 03:00	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*107*		*70 - 130*	*03/29/22 12:01*	*04/01/22 03:00*	*1*
1,4-Difluorobenzene (Surr)	*97*		*70 - 130*	*03/29/22 12:01*	*04/01/22 03:00*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	**0.0210**		0.00402		mg/Kg			03/31/22 10:09	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	**2720**		49.8		mg/Kg			03/30/22 10:27	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	**104**	**F1**	49.8		mg/Kg		03/29/22 17:09	03/29/22 20:35	1
Diesel Range Organics (Over C10-C28)	**2620**	**F1**	49.8		mg/Kg		03/29/22 17:09	03/29/22 20:35	1
Oil Range Organics (Over C28-C36)	<49.8	U	49.8		mg/Kg		03/29/22 17:09	03/29/22 20:35	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*113*		*70 - 130*	*03/29/22 17:09*	*03/29/22 20:35*	*1*
o-Terphenyl	*115*		*70 - 130*	*03/29/22 17:09*	*03/29/22 20:35*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**4420**		49.9		mg/Kg			04/02/22 22:11	10

Client Sample ID: FS02

Lab Sample ID: 890-2142-2
Matrix: Solid
Date Collected: 03/23/22 08:55
Date Received: 03/28/22 14:48
Sample Depth: 5

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199		mg/Kg		03/29/22 12:01	04/01/22 03:21	1
Toluene	<0.00199	U	0.00199		mg/Kg		03/29/22 12:01	04/01/22 03:21	1
Ethylbenzene	**0.00321**		0.00199		mg/Kg		03/29/22 12:01	04/01/22 03:21	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		03/29/22 12:01	04/01/22 03:21	1
o-Xylene	**0.0138**		0.00199		mg/Kg		03/29/22 12:01	04/01/22 03:21	1
Xylenes, Total	**0.0138**		0.00398		mg/Kg		03/29/22 12:01	04/01/22 03:21	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*113*		*70 - 130*	*03/29/22 12:01*	*04/01/22 03:21*	*1*

Client Sample Results

Client: WSP USA Inc.
Project/Site: BEU DI 30

Job ID: 890-2142-1
SDG: 31403236.022.0129 TASK16.02

Client Sample ID: FS02

Lab Sample ID: 890-2142-2
Matrix: Solid
Date Collected: 03/23/22 08:55
Date Received: 03/28/22 14:48
Sample Depth: 5

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

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,4-Difluorobenzene (Surr)	*82*		*70 - 130*	*03/29/22 12:01*	*04/01/22 03:21*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	**0.0170**		0.00398	mg/Kg			03/31/22 10:09	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	**2170**		50.0	mg/Kg			03/30/22 10:27	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	**68.5**		50.0	mg/Kg		03/29/22 17:09	03/29/22 21:38	1
Diesel Range Organics (Over C10-C28)	**2100**		50.0	mg/Kg		03/29/22 17:09	03/29/22 21:38	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		03/29/22 17:09	03/29/22 21:38	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	*111*		*70 - 130*	*03/29/22 17:09*	*03/29/22 21:38*	*1*
o-Terphenyl	*115*		*70 - 130*	*03/29/22 17:09*	*03/29/22 21:38*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**8730**		99.6	mg/Kg			04/02/22 22:20	20

Client Sample ID: FS03

Lab Sample ID: 890-2142-3
Matrix: Solid
Date Collected: 03/23/22 09:00
Date Received: 03/28/22 14:48
Sample Depth: 5

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		03/29/22 12:01	04/01/22 03:42	1
Toluene	<0.00200	U	0.00200	mg/Kg		03/29/22 12:01	04/01/22 03:42	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		03/29/22 12:01	04/01/22 03:42	1
m-Xylene & p-Xylene	<0.00400	U	0.00400	mg/Kg		03/29/22 12:01	04/01/22 03:42	1
o-Xylene	**0.00506**		0.00200	mg/Kg		03/29/22 12:01	04/01/22 03:42	1
Xylenes, Total	**0.00506**		0.00400	mg/Kg		03/29/22 12:01	04/01/22 03:42	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	*119*		*70 - 130*	*03/29/22 12:01*	*04/01/22 03:42*	*1*
1,4-Difluorobenzene (Surr)	*85*		*70 - 130*	*03/29/22 12:01*	*04/01/22 03:42*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	**0.00506**		0.00400	mg/Kg			03/31/22 10:09	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	**381**		49.8	mg/Kg			03/30/22 10:27	1

Client Sample Results

Client: WSP USA Inc.
Project/Site: BEU DI 30

Job ID: 890-2142-1
SDG: 31403236.022.0129 TASK16.02

Client Sample ID: FS03

Lab Sample ID: 890-2142-3
Matrix: Solid
Date Collected: 03/23/22 09:00
Date Received: 03/28/22 14:48
Sample Depth: 5

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.8	U	49.8		mg/Kg		03/29/22 17:09	03/29/22 21:59	1
Diesel Range Organics (Over C10-C28)	**381**		49.8		mg/Kg		03/29/22 17:09	03/29/22 21:59	1
Oil Range Organics (Over C28-C36)	<49.8	U	49.8		mg/Kg		03/29/22 17:09	03/29/22 21:59	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*110*		*70 - 130*	*03/29/22 17:09*	*03/29/22 21:59*	*1*
o-Terphenyl	*124*		*70 - 130*	*03/29/22 17:09*	*03/29/22 21:59*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**5570**		50.0		mg/Kg			04/02/22 22:47	10

Client Sample ID: FS04

Lab Sample ID: 890-2142-4
Matrix: Solid
Date Collected: 03/23/22 09:05
Date Received: 03/28/22 14:48
Sample Depth: 5

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00198	U	0.00198		mg/Kg		03/29/22 12:01	04/01/22 04:02	1
Toluene	<0.00198	U	0.00198		mg/Kg		03/29/22 12:01	04/01/22 04:02	1
Ethylbenzene	<0.00198	U	0.00198		mg/Kg		03/29/22 12:01	04/01/22 04:02	1
m-Xylene & p-Xylene	<0.00396	U	0.00396		mg/Kg		03/29/22 12:01	04/01/22 04:02	1
o-Xylene	<0.00198	U	0.00198		mg/Kg		03/29/22 12:01	04/01/22 04:02	1
Xylenes, Total	<0.00396	U	0.00396		mg/Kg		03/29/22 12:01	04/01/22 04:02	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*116*		*70 - 130*	*03/29/22 12:01*	*04/01/22 04:02*	*1*
1,4-Difluorobenzene (Surr)	*100*		*70 - 130*	*03/29/22 12:01*	*04/01/22 04:02*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00396	U	0.00396		mg/Kg			03/31/22 10:09	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	**810**		50.0		mg/Kg			03/30/22 10:27	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		03/29/22 17:09	03/29/22 22:20	1
Diesel Range Organics (Over C10-C28)	**810**		50.0		mg/Kg		03/29/22 17:09	03/29/22 22:20	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		03/29/22 17:09	03/29/22 22:20	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*112*		*70 - 130*	*03/29/22 17:09*	*03/29/22 22:20*	*1*
o-Terphenyl	*128*		*70 - 130*	*03/29/22 17:09*	*03/29/22 22:20*	*1*

Client Sample Results

Client: WSP USA Inc.
Project/Site: BEU DI 30

Job ID: 890-2142-1
SDG: 31403236.022.0129 TASK16.02

Client Sample ID: FS04

Lab Sample ID: 890-2142-4
Matrix: Solid
Date Collected: 03/23/22 09:05
Date Received: 03/28/22 14:48
Sample Depth: 5

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**9530**		99.0		mg/Kg			04/02/22 22:56	20

Client Sample ID: FS05

Lab Sample ID: 890-2142-5
Matrix: Solid
Date Collected: 03/23/22 09:20
Date Received: 03/28/22 14:48
Sample Depth: 5

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		03/29/22 12:01	04/01/22 04:23	1
Toluene	<0.00200	U	0.00200		mg/Kg		03/29/22 12:01	04/01/22 04:23	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		03/29/22 12:01	04/01/22 04:23	1
m-Xylene & p-Xylene	<0.00399	U	0.00399		mg/Kg		03/29/22 12:01	04/01/22 04:23	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		03/29/22 12:01	04/01/22 04:23	1
Xylenes, Total	<0.00399	U	0.00399		mg/Kg		03/29/22 12:01	04/01/22 04:23	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*140*	*S1+*	*70 - 130*	*03/29/22 12:01*	*04/01/22 04:23*	*1*
1,4-Difluorobenzene (Surr)	*91*		*70 - 130*	*03/29/22 12:01*	*04/01/22 04:23*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00399	U	0.00399		mg/Kg			03/31/22 10:09	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	**236**		50.0		mg/Kg			03/30/22 10:27	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		03/29/22 17:09	03/29/22 22:40	1
Diesel Range Organics (Over C10-C28)	**236**		50.0		mg/Kg		03/29/22 17:09	03/29/22 22:40	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		03/29/22 17:09	03/29/22 22:40	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*109*		*70 - 130*	*03/29/22 17:09*	*03/29/22 22:40*	*1*
o-Terphenyl	*119*		*70 - 130*	*03/29/22 17:09*	*03/29/22 22:40*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**2140**		25.2		mg/Kg			04/02/22 23:22	5

Client Sample Results

Client: WSP USA Inc.
Project/Site: BEU DI 30

Job ID: 890-2142-1
SDG: 31403236.022.0129 TASK16.02

Client Sample ID: FS06

Lab Sample ID: 890-2142-6
Matrix: Solid
Date Collected: 03/23/22 09:25
Date Received: 03/28/22 14:48
Sample Depth: 5

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		03/29/22 12:01	04/01/22 04:44	1
Toluene	<0.00200	U	0.00200		mg/Kg		03/29/22 12:01	04/01/22 04:44	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		03/29/22 12:01	04/01/22 04:44	1
m-Xylene & p-Xylene	<0.00399	U	0.00399		mg/Kg		03/29/22 12:01	04/01/22 04:44	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		03/29/22 12:01	04/01/22 04:44	1
Xylenes, Total	<0.00399	U	0.00399		mg/Kg		03/29/22 12:01	04/01/22 04:44	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*108*		*70 - 130*	*03/29/22 12:01*	*04/01/22 04:44*	*1*
1,4-Difluorobenzene (Surr)	*102*		*70 - 130*	*03/29/22 12:01*	*04/01/22 04:44*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00399	U	0.00399		mg/Kg			03/31/22 10:09	1

Method: 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			03/30/22 10:27	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.8	U	49.8		mg/Kg		03/29/22 17:09	03/29/22 23:01	1
Diesel Range Organics (Over C10-C28)	<49.8	U	49.8		mg/Kg		03/29/22 17:09	03/29/22 23:01	1
OII Range Organics (Over C28-C36)	<49.8	U	49.8		mg/Kg		03/29/22 17:09	03/29/22 23:01	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*109*		*70 - 130*	*03/29/22 17:09*	*03/29/22 23:01*	*1*
o-Terphenyl	*121*		*70 - 130*	*03/29/22 17:09*	*03/29/22 23:01*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**339**		4.99		mg/Kg			04/02/22 23:31	1

Client Sample ID: FS07

Lab Sample ID: 890-2142-7
Matrix: Solid
Date Collected: 03/23/22 09:40
Date Received: 03/28/22 14:48
Sample Depth: 5

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00198	U	0.00198		mg/Kg		03/29/22 12:01	04/01/22 05:04	1
Toluene	<0.00198	U	0.00198		mg/Kg		03/29/22 12:01	04/01/22 05:04	1
Ethylbenzene	<0.00198	U	0.00198		mg/Kg		03/29/22 12:01	04/01/22 05:04	1
m-Xylene & p-Xylene	<0.00397	U	0.00397		mg/Kg		03/29/22 12:01	04/01/22 05:04	1
o-Xylene	<0.00198	U	0.00198		mg/Kg		03/29/22 12:01	04/01/22 05:04	1
Xylenes, Total	<0.00397	U	0.00397		mg/Kg		03/29/22 12:01	04/01/22 05:04	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*114*		*70 - 130*	*03/29/22 12:01*	*04/01/22 05:04*	*1*

Client Sample Results

Client: WSP USA Inc.
Project/Site: BEU DI 30

Job ID: 890-2142-1
SDG: 31403236.022.0129 TASK16.02

Client Sample ID: FS07

Lab Sample ID: 890-2142-7
Matrix: Solid
Date Collected: 03/23/22 09:40
Date Received: 03/28/22 14:48
Sample Depth: 5

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

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,4-Difluorobenzene (Surr)	*102*		*70 - 130*	*03/29/22 12:01*	*04/01/22 05:04*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00397	U	0.00397	mg/Kg			03/31/22 10:09	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0	mg/Kg			03/30/22 10:27	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0	mg/Kg		03/29/22 17:09	03/29/22 23:22	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		03/29/22 17:09	03/29/22 23:22	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		03/29/22 17:09	03/29/22 23:22	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*106*		*70 - 130*	*03/29/22 17:09*	*03/29/22 23:22*	*1*
o-Terphenyl	*121*		*70 - 130*	*03/29/22 17:09*	*03/29/22 23:22*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**267**		5.01	mg/Kg			04/02/22 23:40	1

Client Sample ID: FS08

Lab Sample ID: 890-2142-8
Matrix: Solid
Date Collected: 03/23/22 09:45
Date Received: 03/28/22 14:48
Sample Depth: 5

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		03/29/22 12:01	04/01/22 05:25	1
Toluene	<0.00200	U	0.00200	mg/Kg		03/29/22 12:01	04/01/22 05:25	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		03/29/22 12:01	04/01/22 05:25	1
m-Xylene & p-Xylene	<0.00399	U	0.00399	mg/Kg		03/29/22 12:01	04/01/22 05:25	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		03/29/22 12:01	04/01/22 05:25	1
Xylenes, Total	<0.00399	U	0.00399	mg/Kg		03/29/22 12:01	04/01/22 05:25	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*112*		*70 - 130*	*03/29/22 12:01*	*04/01/22 05:25*	*1*
1,4-Difluorobenzene (Surr)	*104*		*70 - 130*	*03/29/22 12:01*	*04/01/22 05:25*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00399	U	0.00399	mg/Kg			03/31/22 10:09	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9	mg/Kg			03/30/22 10:27	1

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Client Sample Results

Client: WSP USA Inc. Job ID: 890-2142-1
Project/Site: BEU DI 30 SDG: 31403236.022.0129 TASK16.02

Client Sample ID: FS08 Lab Sample ID: 890-2142-8

Date Collected: 03/23/22 09:45 **Matrix: Solid**
Date Received: 03/28/22 14:48
Sample Depth: 5

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9		mg/Kg		03/29/22 17:09	03/29/22 23:43	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		03/29/22 17:09	03/29/22 23:43	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		03/29/22 17:09	03/29/22 23:43	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*107*		*70 - 130*	*03/29/22 17:09*	*03/29/22 23:43*	*1*
o-Terphenyl	*122*		*70 - 130*	*03/29/22 17:09*	*03/29/22 23:43*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**287**		4.95		mg/Kg			04/02/22 23:49	1

Client Sample ID: FS09 Lab Sample ID: 890-2142-9

Date Collected: 03/23/22 10:20 **Matrix: Solid**
Date Received: 03/28/22 14:48
Sample Depth: 5

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199		mg/Kg		03/29/22 12:01	04/01/22 05:46	1
Toluene	<0.00199	U	0.00199		mg/Kg		03/29/22 12:01	04/01/22 05:46	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		03/29/22 12:01	04/01/22 05:46	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		03/29/22 12:01	04/01/22 05:46	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		03/29/22 12:01	04/01/22 05:46	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		03/29/22 12:01	04/01/22 05:46	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*117*		*70 - 130*	*03/29/22 12:01*	*04/01/22 05:46*	*1*
1,4-Difluorobenzene (Surr)	*103*		*70 - 130*	*03/29/22 12:01*	*04/01/22 05:46*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398		mg/Kg			03/31/22 10:09	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0		mg/Kg			03/30/22 10:27	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		03/29/22 17:09	03/30/22 00:04	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		03/29/22 17:09	03/30/22 00:04	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		03/29/22 17:09	03/30/22 00:04	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*105*		*70 - 130*	*03/29/22 17:09*	*03/30/22 00:04*	*1*
o-Terphenyl	*114*		*70 - 130*	*03/29/22 17:09*	*03/30/22 00:04*	*1*

Client Sample Results

Client: WSP USA Inc.
Project/Site: BEU DI 30

Job ID: 890-2142-1
SDG: 31403236.022.0129 TASK16.02

Client Sample ID: FS09

Lab Sample ID: 890-2142-9
Matrix: Solid
Date Collected: 03/23/22 10:20
Date Received: 03/28/22 14:48
Sample Depth: 5

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	201		4.95		mg/Kg			04/02/22 23:58	1

Client Sample ID: FS10

Lab Sample ID: 890-2142-10
Matrix: Solid
Date Collected: 03/23/22 10:25
Date Received: 03/28/22 14:48
Sample Depth: 5

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00198	U	0.00198		mg/Kg		03/29/22 12:01	04/01/22 06:07	1
Toluene	<0.00198	U	0.00198		mg/Kg		03/29/22 12:01	04/01/22 06:07	1
Ethylbenzene	<0.00198	U	0.00198		mg/Kg		03/29/22 12:01	04/01/22 06:07	1
m-Xylene & p-Xylene	<0.00397	U	0.00397		mg/Kg		03/29/22 12:01	04/01/22 06:07	1
o-Xylene	<0.00198	U	0.00198		mg/Kg		03/29/22 12:01	04/01/22 06:07	1
Xylenes, Total	<0.00397	U	0.00397		mg/Kg		03/29/22 12:01	04/01/22 06:07	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*111*		*70 - 130*	*03/29/22 12:01*	*04/01/22 06:07*	*1*
1,4-Difluorobenzene (Surr)	*102*		*70 - 130*	*03/29/22 12:01*	*04/01/22 06:07*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00397	U	0.00397		mg/Kg			03/31/22 10:09	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9		mg/Kg			03/30/22 10:27	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9		mg/Kg		03/29/22 17:09	03/30/22 00:24	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		03/29/22 17:09	03/30/22 00:24	1
OII Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		03/29/22 17:09	03/30/22 00:24	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*106*		*70 - 130*	*03/29/22 17:09*	*03/30/22 00:24*	*1*
o-Terphenyl	*119*		*70 - 130*	*03/29/22 17:09*	*03/30/22 00:24*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	176		4.96		mg/Kg			04/03/22 00:07	1

Client Sample Results

Client: WSP USA Inc.
Project/Site: BEU DI 30

Job ID: 890-2142-1
SDG: 31403236.022.0129 TASK16.02

Client Sample ID: FS11

Lab Sample ID: 890-2142-11
Matrix: Solid
Date Collected: 03/23/22 10:30
Date Received: 03/28/22 14:48
Sample Depth: 5

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199		mg/Kg		03/29/22 12:01	04/01/22 07:31	1
Toluene	<0.00199	U	0.00199		mg/Kg		03/29/22 12:01	04/01/22 07:31	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		03/29/22 12:01	04/01/22 07:31	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		03/29/22 12:01	04/01/22 07:31	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		03/29/22 12:01	04/01/22 07:31	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		03/29/22 12:01	04/01/22 07:31	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*112*		*70 - 130*	*03/29/22 12:01*	*04/01/22 07:31*	*1*
1,4-Difluorobenzene (Surr)	*102*		*70 - 130*	*03/29/22 12:01*	*04/01/22 07:31*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398		mg/Kg			03/31/22 10:09	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0		mg/Kg			03/30/22 10:27	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		03/29/22 17:09	03/30/22 01:06	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		03/29/22 17:09	03/30/22 01:06	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		03/29/22 17:09	03/30/22 01:06	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*108*		*70 - 130*	*03/29/22 17:09*	*03/30/22 01:06*	*1*
o-Terphenyl	*123*		*70 - 130*	*03/29/22 17:09*	*03/30/22 01:06*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**134**		5.04		mg/Kg			04/03/22 00:15	1

Client Sample ID: FS12

Lab Sample ID: 890-2142-12
Matrix: Solid
Date Collected: 03/23/22 10:35
Date Received: 03/28/22 14:48
Sample Depth: 5

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		03/29/22 12:01	04/01/22 08:14	1
Toluene	**0.00365**		0.00200		mg/Kg		03/29/22 12:01	04/01/22 08:14	1
Ethylbenzene	**0.0122**		0.00200		mg/Kg		03/29/22 12:01	04/01/22 08:14	1
m-Xylene & p-Xylene	**0.0125**		0.00400		mg/Kg		03/29/22 12:01	04/01/22 08:14	1
o-Xylene	**0.0378**		0.00200		mg/Kg		03/29/22 12:01	04/01/22 08:14	1
Xylenes, Total	**0.0503**		0.00400		mg/Kg		03/29/22 12:01	04/01/22 08:14	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*118*		*70 - 130*	*03/29/22 12:01*	*04/01/22 08:14*	*1*

Client Sample Results

Client: WSP USA Inc.
Project/Site: BEU DI 30

Job ID: 890-2142-1
SDG: 31403236.022.0129 TASK16.02

Client Sample ID: FS12

Lab Sample ID: 890-2142-12
Matrix: Solid
Date Collected: 03/23/22 10:35
Date Received: 03/28/22 14:48
Sample Depth: 5

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

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,4-Difluorobenzene (Surr)	*94*		*70 - 130*	*03/29/22 12:01*	*04/01/22 08:14*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	**0.0662**		0.00400		mg/Kg			03/31/22 10:09	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0		mg/Kg			03/30/22 10:27	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		03/29/22 17:09	03/30/22 01:26	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		03/29/22 17:09	03/30/22 01:26	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		03/29/22 17:09	03/30/22 01:26	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	*106*		*70 - 130*	*03/29/22 17:09*	*03/30/22 01:26*	*1*
o-Terphenyl	*114*		*70 - 130*	*03/29/22 17:09*	*03/30/22 01:26*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**413**	**F1**	4.96		mg/Kg			04/08/22 04:49	1

Client Sample ID: FS13

Lab Sample ID: 890-2142-13
Matrix: Solid
Date Collected: 03/23/22 10:45
Date Received: 03/28/22 14:48
Sample Depth: 5

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199		mg/Kg		03/29/22 12:01	04/01/22 08:35	1
Toluene	<0.00199	U	0.00199		mg/Kg		03/29/22 12:01	04/01/22 08:35	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		03/29/22 12:01	04/01/22 08:35	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		03/29/22 12:01	04/01/22 08:35	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		03/29/22 12:01	04/01/22 08:35	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		03/29/22 12:01	04/01/22 08:35	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	*118*		*70 - 130*	*03/29/22 12:01*	*04/01/22 08:35*	*1*
1,4-Difluorobenzene (Surr)	*100*		*70 - 130*	*03/29/22 12:01*	*04/01/22 08:35*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398		mg/Kg			03/31/22 10:09	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9		mg/Kg			03/30/22 10:27	1

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Client Sample Results

Client: WSP USA Inc.
Project/Site: BEU DI 30

Job ID: 890-2142-1
SDG: 31403236.022.0129 TASK16.02

Client Sample ID: FS13

Lab Sample ID: 890-2142-13
Matrix: Solid
Date Collected: 03/23/22 10:45
Date Received: 03/28/22 14:48
Sample Depth: 5

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9		mg/Kg		03/29/22 17:09	03/30/22 01:47	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		03/29/22 17:09	03/30/22 01:47	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		03/29/22 17:09	03/30/22 01:47	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*108*		*70 - 130*	*03/29/22 17:09*	*03/30/22 01:47*	*1*
o-Terphenyl	*119*		*70 - 130*	*03/29/22 17:09*	*03/30/22 01:47*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**352**		5.00		mg/Kg			04/08/22 05:06	1

Client Sample ID: FS14

Lab Sample ID: 890-2142-14
Matrix: Solid
Date Collected: 03/23/22 10:50
Date Received: 03/28/22 14:48
Sample Depth: 5

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00202	U	0.00202		mg/Kg		03/29/22 12:01	04/01/22 08:56	1
Toluene	<0.00202	U	0.00202		mg/Kg		03/29/22 12:01	04/01/22 08:56	1
Ethylbenzene	<0.00202	U	0.00202		mg/Kg		03/29/22 12:01	04/01/22 08:56	1
m-Xylene & p-Xylene	<0.00403	U	0.00403		mg/Kg		03/29/22 12:01	04/01/22 08:56	1
o-Xylene	<0.00202	U	0.00202		mg/Kg		03/29/22 12:01	04/01/22 08:56	1
Xylenes, Total	<0.00403	U	0.00403		mg/Kg		03/29/22 12:01	04/01/22 08:56	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*106*		*70 - 130*	*03/29/22 12:01*	*04/01/22 08:56*	*1*
1,4-Difluorobenzene (Surr)	*102*		*70 - 130*	*03/29/22 12:01*	*04/01/22 08:56*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00403	U	0.00403		mg/Kg			03/31/22 10:09	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	**197**		49.9		mg/Kg			03/30/22 10:27	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9		mg/Kg		03/29/22 17:09	03/30/22 02:07	1
Diesel Range Organics (Over C10-C28)	**197**		49.9		mg/Kg		03/29/22 17:09	03/30/22 02:07	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		03/29/22 17:09	03/30/22 02:07	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*108*		*70 - 130*	*03/29/22 17:09*	*03/30/22 02:07*	*1*
o-Terphenyl	*120*		*70 - 130*	*03/29/22 17:09*	*03/30/22 02:07*	*1*

Client Sample Results

Client: WSP USA Inc.
Project/Site: BEU DI 30

Job ID: 890-2142-1
SDG: 31403236.022.0129 TASK16.02

Client Sample ID: FS14

Lab Sample ID: 890-2142-14
Matrix: Solid
Date Collected: 03/23/22 10:50
Date Received: 03/28/22 14:48
Sample Depth: 5

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	7720		49.9		mg/Kg			04/08/22 05:12	10

Client Sample ID: FS15

Lab Sample ID: 890-2142-15
Matrix: Solid
Date Collected: 03/23/22 10:55
Date Received: 03/28/22 14:48
Sample Depth: 5

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199		mg/Kg		03/29/22 12:01	04/01/22 09:16	1
Toluene	<0.00199	U	0.00199		mg/Kg		03/29/22 12:01	04/01/22 09:16	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		03/29/22 12:01	04/01/22 09:16	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		03/29/22 12:01	04/01/22 09:16	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		03/29/22 12:01	04/01/22 09:16	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		03/29/22 12:01	04/01/22 09:16	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*114*		*70 - 130*	*03/29/22 12:01*	*04/01/22 09:16*	*1*
1,4-Difluorobenzene (Surr)	*107*		*70 - 130*	*03/29/22 12:01*	*04/01/22 09:16*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398		mg/Kg			03/31/22 10:09	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0		mg/Kg			03/30/22 10:27	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		03/29/22 17:09	03/30/22 02:28	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		03/29/22 17:09	03/30/22 02:28	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		03/29/22 17:09	03/30/22 02:28	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*105*		*70 - 130*	*03/29/22 17:09*	*03/30/22 02:28*	*1*
o-Terphenyl	*121*		*70 - 130*	*03/29/22 17:09*	*03/30/22 02:28*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	266		4.96		mg/Kg			04/08/22 05:17	1

Client Sample Results

Client: WSP USA Inc.
Project/Site: BEU DI 30

Job ID: 890-2142-1
SDG: 31403236.022.0129 TASK16.02

Client Sample ID: FS16

Lab Sample ID: 890-2142-16
Matrix: Solid
Date Collected: 03/23/22 11:05
Date Received: 03/28/22 14:48
Sample Depth: 5

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		03/29/22 12:01	04/01/22 09:37	1
Toluene	<0.00200	U	0.00200		mg/Kg		03/29/22 12:01	04/01/22 09:37	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		03/29/22 12:01	04/01/22 09:37	1
m-Xylene & p-Xylene	<0.00399	U	0.00399		mg/Kg		03/29/22 12:01	04/01/22 09:37	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		03/29/22 12:01	04/01/22 09:37	1
Xylenes, Total	<0.00399	U	0.00399		mg/Kg		03/29/22 12:01	04/01/22 09:37	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*113*		*70 - 130*	*03/29/22 12:01*	*04/01/22 09:37*	*1*
1,4-Difluorobenzene (Surr)	*104*		*70 - 130*	*03/29/22 12:01*	*04/01/22 09:37*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00399	U	0.00399		mg/Kg			03/31/22 10:09	1

Method: 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			03/30/22 10:27	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.8	U	49.8		mg/Kg		03/29/22 17:09	03/30/22 02:48	1
Diesel Range Organics (Over C10-C28)	<49.8	U	49.8		mg/Kg		03/29/22 17:09	03/30/22 02:48	1
Oil Range Organics (Over C28-C36)	<49.8	U	49.8		mg/Kg		03/29/22 17:09	03/30/22 02:48	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*110*		*70 - 130*	*03/29/22 17:09*	*03/30/22 02:48*	*1*
o-Terphenyl	*125*		*70 - 130*	*03/29/22 17:09*	*03/30/22 02:48*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**123**		5.04		mg/Kg			04/08/22 05:23	1

Client Sample ID: SW01

Lab Sample ID: 890-2142-17
Matrix: Solid
Date Collected: 03/23/22 11:50
Date Received: 03/28/22 14:48
Sample Depth: 0 - 5

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		03/29/22 12:01	04/01/22 09:58	1
Toluene	<0.00200	U	0.00200		mg/Kg		03/29/22 12:01	04/01/22 09:58	1
Ethylbenzene	**0.00255**		0.00200		mg/Kg		03/29/22 12:01	04/01/22 09:58	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		03/29/22 12:01	04/01/22 09:58	1
o-Xylene	**0.0122**		0.00200		mg/Kg		03/29/22 12:01	04/01/22 09:58	1
Xylenes, Total	**0.0122**		0.00400		mg/Kg		03/29/22 12:01	04/01/22 09:58	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*104*		*70 - 130*	*03/29/22 12:01*	*04/01/22 09:58*	*1*

Client Sample Results

Client: WSP USA Inc.
Project/Site: BEU DI 30

Job ID: 890-2142-1
SDG: 31403236.022.0129 TASK16.02

Client Sample ID: SW01

Lab Sample ID: 890-2142-17
Matrix: Solid

Date Collected: 03/23/22 11:50
Date Received: 03/28/22 14:48
Sample Depth: 0 - 5

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

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,4-Difluorobenzene (Surr)	*102*		*70 - 130*	*03/29/22 12:01*	*04/01/22 09:58*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	**0.0148**		0.00400	mg/Kg			03/31/22 10:09	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	**90.8**		50.0	mg/Kg			03/30/22 10:27	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0	mg/Kg		03/29/22 17:09	03/30/22 03:08	1
Diesel Range Organics (Over C10-C28)	**90.8**		50.0	mg/Kg		03/29/22 17:09	03/30/22 03:08	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		03/29/22 17:09	03/30/22 03:08	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	*110*		*70 - 130*	*03/29/22 17:09*	*03/30/22 03:08*	*1*
o-Terphenyl	*122*		*70 - 130*	*03/29/22 17:09*	*03/30/22 03:08*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**2120**		25.0	mg/Kg			04/08/22 05:40	5

Client Sample ID: SW02

Lab Sample ID: 890-2142-18
Matrix: Solid

Date Collected: 03/23/22 11:55
Date Received: 03/28/22 14:48
Sample Depth: 0 - 5

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00201	U	0.00201	mg/Kg		03/29/22 12:01	04/01/22 10:19	1
Toluene	<0.00201	U	0.00201	mg/Kg		03/29/22 12:01	04/01/22 10:19	1
Ethylbenzene	**0.00843**		0.00201	mg/Kg		03/29/22 12:01	04/01/22 10:19	1
m-Xylene & p-Xylene	**0.0111**		0.00402	mg/Kg		03/29/22 12:01	04/01/22 10:19	1
o-Xylene	**0.0173**		0.00201	mg/Kg		03/29/22 12:01	04/01/22 10:19	1
Xylenes, Total	**0.0284**		0.00402	mg/Kg		03/29/22 12:01	04/01/22 10:19	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	*127*		*70 - 130*	*03/29/22 12:01*	*04/01/22 10:19*	*1*
1,4-Difluorobenzene (Surr)	*111*		*70 - 130*	*03/29/22 12:01*	*04/01/22 10:19*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	**0.0368**		0.00402	mg/Kg			03/31/22 10:09	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	**1120**		50.0	mg/Kg			03/30/22 10:27	1

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Client Sample Results

Client: WSP USA Inc.
Project/Site: BEU DI 30

Job ID: 890-2142-1
SDG: 31403236.022.0129 TASK16.02

Client Sample ID: SW02

Lab Sample ID: 890-2142-18
Matrix: Solid
Date Collected: 03/23/22 11:55
Date Received: 03/28/22 14:48
Sample Depth: 0 - 5

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	**56.9**		50.0		mg/Kg		03/29/22 17:09	03/30/22 03:29	1
Diesel Range Organics (Over C10-C28)	**1060**		50.0		mg/Kg		03/29/22 17:09	03/30/22 03:29	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		03/29/22 17:09	03/30/22 03:29	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*102*		*70 - 130*	*03/29/22 17:09*	*03/30/22 03:29*	*1*
o-Terphenyl	*113*		*70 - 130*	*03/29/22 17:09*	*03/30/22 03:29*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**13700**		99.0		mg/Kg			04/08/22 05:46	20

Client Sample ID: SW03

Lab Sample ID: 890-2142-19
Matrix: Solid
Date Collected: 03/23/22 12:05
Date Received: 03/28/22 14:48
Sample Depth: 0 - 5

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		03/29/22 12:01	04/01/22 10:39	1
Toluene	<0.00200	U	0.00200		mg/Kg		03/29/22 12:01	04/01/22 10:39	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		03/29/22 12:01	04/01/22 10:39	1
m-Xylene & p-Xylene	<0.00401	U	0.00401		mg/Kg		03/29/22 12:01	04/01/22 10:39	1
o-Xylene	**0.00558**		0.00200		mg/Kg		03/29/22 12:01	04/01/22 10:39	1
Xylenes, Total	**0.00558**		0.00401		mg/Kg		03/29/22 12:01	04/01/22 10:39	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*112*		*70 - 130*	*03/29/22 12:01*	*04/01/22 10:39*	*1*
1,4-Difluorobenzene (Surr)	*105*		*70 - 130*	*03/29/22 12:01*	*04/01/22 10:39*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	**0.00558**		0.00401		mg/Kg			03/31/22 10:09	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	**515**		49.8		mg/Kg			03/30/22 10:27	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.8	U	49.8		mg/Kg		03/29/22 17:09	03/30/22 03:49	1
Diesel Range Organics (Over C10-C28)	**515**		49.8		mg/Kg		03/29/22 17:09	03/30/22 03:49	1
Oil Range Organics (Over C28-C36)	<49.8	U	49.8		mg/Kg		03/29/22 17:09	03/30/22 03:49	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*107*		*70 - 130*	*03/29/22 17:09*	*03/30/22 03:49*	*1*
o-Terphenyl	*120*		*70 - 130*	*03/29/22 17:09*	*03/30/22 03:49*	*1*

Client Sample Results

Client: WSP USA Inc.
Project/Site: BEU DI 30

Job ID: 890-2142-1
SDG: 31403236.022.0129 TASK16.02

Client Sample ID: SW03

Lab Sample ID: 890-2142-19
Matrix: Solid
Date Collected: 03/23/22 12:05
Date Received: 03/28/22 14:48
Sample Depth: 0 - 5

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**6970**		49.8		mg/Kg			04/08/22 05:51	10

Client Sample ID: SW04

Lab Sample ID: 890-2142-20
Matrix: Solid
Date Collected: 03/23/22 12:10
Date Received: 03/28/22 14:48
Sample Depth: 0 - 5

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00202	U	0.00202		mg/Kg		03/29/22 12:01	04/01/22 11:00	1
Toluene	<0.00202	U	0.00202		mg/Kg		03/29/22 12:01	04/01/22 11:00	1
Ethylbenzene	<0.00202	U	0.00202		mg/Kg		03/29/22 12:01	04/01/22 11:00	1
m-Xylene & p-Xylene	<0.00403	U	0.00403		mg/Kg		03/29/22 12:01	04/01/22 11:00	1
o-Xylene	**0.00341**		0.00202		mg/Kg		03/29/22 12:01	04/01/22 11:00	1
Xylenes, Total	<0.00403	U	0.00403		mg/Kg		03/29/22 12:01	04/01/22 11:00	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*115*		*70 - 130*	*03/29/22 12:01*	*04/01/22 11:00*	*1*
1,4-Difluorobenzene (Surr)	*105*		*70 - 130*	*03/29/22 12:01*	*04/01/22 11:00*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00403	U	0.00403		mg/Kg			03/31/22 10:09	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9		mg/Kg			03/30/22 10:27	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9		mg/Kg		03/29/22 17:09	03/30/22 04:10	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		03/29/22 17:09	03/30/22 04:10	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		03/29/22 17:09	03/30/22 04:10	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*104*		*70 - 130*	*03/29/22 17:09*	*03/30/22 04:10*	*1*
o-Terphenyl	*114*		*70 - 130*	*03/29/22 17:09*	*03/30/22 04:10*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**101**		4.99		mg/Kg			04/08/22 05:57	1

Client Sample Results

Client: WSP USA Inc.
Project/Site: BEU DI 30

Job ID: 890-2142-1
SDG: 31403236.022.0129 TASK16.02

Client Sample ID: SW05

Date Collected: 03/23/22 12:15
Date Received: 03/28/22 14:48
Sample Depth: 0 - 5

Lab Sample ID: 890-2142-21

Matrix: Solid

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U *+	0.00200		mg/Kg		03/30/22 07:30	03/30/22 18:59	1
Toluene	<0.00200	U	0.00200		mg/Kg		03/30/22 07:30	03/30/22 18:59	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		03/30/22 07:30	03/30/22 18:59	1
m-Xylene & p-Xylene	<0.00399	U	0.00399		mg/Kg		03/30/22 07:30	03/30/22 18:59	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		03/30/22 07:30	03/30/22 18:59	1
Xylenes, Total	<0.00399	U	0.00399		mg/Kg		03/30/22 07:30	03/30/22 18:59	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*110*		*70 - 130*	*03/30/22 07:30*	*03/30/22 18:59*	*1*
1,4-Difluorobenzene (Surr)	*90*		*70 - 130*	*03/30/22 07:30*	*03/30/22 18:59*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00399	U	0.00399		mg/Kg			03/31/22 10:09	1

Method: 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			03/30/22 10:27	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.8	U	49.8		mg/Kg		03/29/22 08:56	03/29/22 18:30	1
Diesel Range Organics (Over C10-C28)	<49.8	U	49.8		mg/Kg		03/29/22 08:56	03/29/22 18:30	1
Oil Range Organics (Over C28-C36)	<49.8	U	49.8		mg/Kg		03/29/22 08:56	03/29/22 18:30	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*107*		*70 - 130*	*03/29/22 08:56*	*03/29/22 18:30*	*1*
o-Terphenyl	*120*		*70 - 130*	*03/29/22 08:56*	*03/29/22 18:30*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**94.5**		4.97		mg/Kg			04/08/22 06:02	1

Client Sample ID: SW06

Date Collected: 03/23/22 12:20
Date Received: 03/28/22 14:48
Sample Depth: 0 - 5

Lab Sample ID: 890-2142-22

Matrix: Solid

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00202	U *+	0.00202		mg/Kg		03/30/22 07:30	03/30/22 19:25	1
Toluene	<0.00202	U	0.00202		mg/Kg		03/30/22 07:30	03/30/22 19:25	1
Ethylbenzene	<0.00202	U	0.00202		mg/Kg		03/30/22 07:30	03/30/22 19:25	1
m-Xylene & p-Xylene	<0.00403	U	0.00403		mg/Kg		03/30/22 07:30	03/30/22 19:25	1
o-Xylene	<0.00202	U	0.00202		mg/Kg		03/30/22 07:30	03/30/22 19:25	1
Xylenes, Total	<0.00403	U	0.00403		mg/Kg		03/30/22 07:30	03/30/22 19:25	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*75*		*70 - 130*	*03/30/22 07:30*	*03/30/22 19:25*	*1*

Client Sample Results

Client: WSP USA Inc.
Project/Site: BEU DI 30

Job ID: 890-2142-1
SDG: 31403236.022.0129 TASK16.02

Client Sample ID: SW06

Date Collected: 03/23/22 12:20
Date Received: 03/28/22 14:48
Sample Depth: 0 - 5

Lab Sample ID: 890-2142-22

Matrix: Solid

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

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,4-Difluorobenzene (Surr)	*100*		*70 - 130*	*03/30/22 07:30*	*03/30/22 19:25*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00403	U	0.00403		mg/Kg			03/31/22 10:09	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	**72.0**		49.9		mg/Kg			03/30/22 10:27	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9		mg/Kg		03/29/22 08:56	03/29/22 18:50	1
Diesel Range Organics (Over C10-C28)	**72.0**		49.9		mg/Kg		03/29/22 08:56	03/29/22 18:50	1
OII Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		03/29/22 08:56	03/29/22 18:50	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*106*		*70 - 130*	*03/29/22 08:56*	*03/29/22 18:50*	*1*
o-Terphenyl	*121*		*70 - 130*	*03/29/22 08:56*	*03/29/22 18:50*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**284**		4.98		mg/Kg			04/08/22 06:08	1

Surrogate Summary

Client: WSP USA Inc.
Project/Site: BEU DI 30

Job ID: 890-2142-1
SDG: 31403236.022.0129 TASK16.02

Method: 8021B - Volatile Organic Compounds (GC)

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

		Percent Surrogate Recovery (Acceptance Limits)	
		BFB1	DFBZ1
Lab Sample ID	Client Sample ID	(70-130)	(70-130)
890-2142-1	FS01	107	97
890-2142-1 MS	FS01	117	98
890-2142-1 MSD	FS01	116	99
890-2142-2	FS02	113	82
890-2142-3	FS03	119	85
890-2142-4	FS04	116	100
890-2142-5	FS05	140 S1+	91
890-2142-6	FS06	108	102
890-2142-7	FS07	114	102
890-2142-8	FS08	112	104
890-2142-9	FS09	117	103
890-2142-10	FS10	111	102
890-2142-11	FS11	112	102
890-2142-12	FS12	118	94
890-2142-13	FS13	118	100
890-2142-14	FS14	106	102
890-2142-15	FS15	114	107
890-2142-16	FS16	113	104
890-2142-17	SW01	104	102
890-2142-18	SW02	127	111
890-2142-19	SW03	112	105
890-2142-20	SW04	115	105
890-2142-21	SW05	110	90
890-2142-22	SW06	75	100
890-2143-A-21-E MS	Matrix Spike	108	100
890-2143-A-21-F MSD	Matrix Spike Duplicate	107	101
LCS 880-22509/1-A	Lab Control Sample	104	106
LCS 880-22563/1-A	Lab Control Sample	102	103
LCSD 880-22509/2-A	Lab Control Sample Dup	110	105
LCSD 880-22563/2-A	Lab Control Sample Dup	104	105
MB 880-22509/5-A	Method Blank	69 S1-	90
MB 880-22563/5-A	Method Blank	123	97
MB 880-22658/5-A	Method Blank	118	100

Surrogate Legend

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

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

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

		Percent Surrogate Recovery (Acceptance Limits)	
		1CO1	OTPH1
Lab Sample ID	Client Sample ID	(70-130)	(70-130)
880-12957-A-1-E MS	Matrix Spike	113	117
880-12957-A-1-F MSD	Matrix Spike Duplicate	111	116
890-2142-1	FS01	113	115
890-2142-1 MS	FS01	121	123
890-2142-1 MSD	FS01	121	125
890-2142-2	FS02	111	115

Surrogate Summary

Client: WSP USA Inc. Job ID: 890-2142-1
Project/Site: BEU DI 30 SDG: 31403236.022.0129 TASK16.02

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

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

		Percent Surrogate Recovery (Acceptance Limits)											
Lab Sample ID	Client Sample ID	1CO1 (70-130)	OTPH1 (70-130)										
890-2142-3	FS03	110	124										
890-2142-4	FS04	112	128										
890-2142-5	FS05	109	119										
890-2142-6	FS06	109	121										
890-2142-7	FS07	106	121										
890-2142-8	FS08	107	122										
890-2142-9	FS09	105	114										
890-2142-10	FS10	106	119										
890-2142-11	FS11	108	123										
890-2142-12	FS12	106	114										
890-2142-13	FS13	108	119										
890-2142-14	FS14	108	120										
890-2142-15	FS15	105	121										
890-2142-16	FS16	110	125										
890-2142-17	SW01	110	122										
890-2142-18	SW02	102	113										
890-2142-19	SW03	107	120										
890-2142-20	SW04	104	114										
890-2142-21	SW05	107	120										
890-2142-22	SW06	106	121										

Surrogate Legend

1CO = 1-Chlorooctane

OTPH = o-Terphenyl

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	1CO2 (70-130)	OTPH2 (70-130)										
LCS 880-22521/2-A	Lab Control Sample	111	125										
LCS 880-22591/2-A	Lab Control Sample	106	119										
LCSD 880-22521/3-A	Lab Control Sample Dup	115	127										
LCSD 880-22591/3-A	Lab Control Sample Dup	104	119										
MB 880-22521/1-A	Method Blank	123	141 S1+										
MB 880-22591/1-A	Method Blank	119	135 S1+										

Surrogate Legend

1CO = 1-Chlorooctane

OTPH = o-Terphenyl

QC Sample Results

Client: WSP USA Inc.
Project/Site: BEU DI 30

Job ID: 890-2142-1
SDG: 31403236.022.0129 TASK16.02

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-22509/5-A
Matrix: Solid
Analysis Batch: 22605

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 22509

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		03/30/22 07:30	03/30/22 16:18	1
Toluene	<0.00200	U	0.00200		mg/Kg		03/30/22 07:30	03/30/22 16:18	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		03/30/22 07:30	03/30/22 16:18	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		03/30/22 07:30	03/30/22 16:18	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		03/30/22 07:30	03/30/22 16:18	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		03/30/22 07:30	03/30/22 16:18	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*69*	*S1-*	*70 - 130*	*03/30/22 07:30*	*03/30/22 16:18*	*1*
1,4-Difluorobenzene (Surr)	*90*		*70 - 130*	*03/30/22 07:30*	*03/30/22 16:18*	*1*

Lab Sample ID: LCS 880-22509/1-A
Matrix: Solid
Analysis Batch: 22605

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 22509

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Benzene			0.100	0.1274		mg/Kg		127	70 - 130		
Toluene			0.100	0.1136		mg/Kg		114	70 - 130		
Ethylbenzene			0.100	0.1029		mg/Kg		103	70 - 130		
m-Xylene & p-Xylene			0.200	0.2096		mg/Kg		105	70 - 130		
o-Xylene			0.100	0.1059		mg/Kg		106	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*104*		*70 - 130*
1,4-Difluorobenzene (Surr)	*106*		*70 - 130*

Lab Sample ID: LCSD 880-22509/2-A
Matrix: Solid
Analysis Batch: 22605

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 22509

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene			0.100	0.1347	*+	mg/Kg		135	70 - 130	6	35
Toluene			0.100	0.1207		mg/Kg		121	70 - 130	6	35
Ethylbenzene			0.100	0.1119		mg/Kg		112	70 - 130	8	35
m-Xylene & p-Xylene			0.200	0.2287		mg/Kg		114	70 - 130	9	35
o-Xylene			0.100	0.1174		mg/Kg		117	70 - 130	10	35

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*110*		*70 - 130*
1,4-Difluorobenzene (Surr)	*105*		*70 - 130*

Lab Sample ID: 890-2143-A-21-E MS
Matrix: Solid
Analysis Batch: 22605

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 22509

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Benzene	<0.00200	U *+	0.100	0.1253		mg/Kg		125	70 - 130		
Toluene	<0.00200	U	0.100	0.1113		mg/Kg		111	70 - 130		

QC Sample Results

Client: WSP USA Inc.
Project/Site: BEU DI 30

Job ID: 890-2142-1
SDG: 31403236.022.0129 TASK16.02

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

Lab Sample ID: 890-2143-A-21-E MS — **Client Sample ID: Matrix Spike**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 22605 — **Prep Batch: 22509**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Ethylbenzene	<0.00200	U	0.100	0.1011		mg/Kg		101	70 - 130
m-Xylene & p-Xylene	<0.00401	U	0.201	0.2034		mg/Kg		101	70 - 130
o-Xylene	<0.00200	U	0.100	0.1022		mg/Kg		102	70 - 130

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

Lab Sample ID: 890-2143-A-21-F MSD — **Client Sample ID: Matrix Spike Duplicate**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 22605 — **Prep Batch: 22509**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	<0.00200	U *+	0.0998	0.1078		mg/Kg		108	70 - 130	15	35
Toluene	<0.00200	U	0.0998	0.1014		mg/Kg		102	70 - 130	9	35
Ethylbenzene	<0.00200	U	0.0998	0.09084		mg/Kg		91	70 - 130	11	35
m-Xylene & p-Xylene	<0.00401	U	0.200	0.1846		mg/Kg		93	70 - 130	10	35
o-Xylene	<0.00200	U	0.0998	0.09307		mg/Kg		93	70 - 130	9	35

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*107*		*70 - 130*
1,4-Difluorobenzene (Surr)	*101*		*70 - 130*

Lab Sample ID: MB 880-22563/5-A — **Client Sample ID: Method Blank**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 22719 — **Prep Batch: 22563**

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		03/29/22 12:01	04/01/22 02:38	1
Toluene	<0.00200	U	0.00200		mg/Kg		03/29/22 12:01	04/01/22 02:38	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		03/29/22 12:01	04/01/22 02:38	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		03/29/22 12:01	04/01/22 02:38	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		03/29/22 12:01	04/01/22 02:38	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		03/29/22 12:01	04/01/22 02:38	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*123*		*70 - 130*	*03/29/22 12:01*	*04/01/22 02:38*	*1*
1,4-Difluorobenzene (Surr)	*97*		*70 - 130*	*03/29/22 12:01*	*04/01/22 02:38*	*1*

Lab Sample ID: LCS 880-22563/1-A — **Client Sample ID: Lab Control Sample**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 22719 — **Prep Batch: 22563**

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene			0.100	0.09544		mg/Kg		95	70 - 130
Toluene			0.100	0.08131		mg/Kg		81	70 - 130
Ethylbenzene			0.100	0.08626		mg/Kg		86	70 - 130
m-Xylene & p-Xylene			0.200	0.1827		mg/Kg		91	70 - 130

Eurofins Carlsbad

QC Sample Results

Client: WSP USA Inc.
Project/Site: BEU DI 30

Job ID: 890-2142-1
SDG: 31403236.022.0129 TASK16.02

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

Lab Sample ID: LCS 880-22563/1-A
Matrix: Solid
Analysis Batch: 22719

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 22563

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
o-Xylene			0.100	0.09205		mg/Kg		92	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*102*		*70 - 130*
1,4-Difluorobenzene (Surr)	*103*		*70 - 130*

Lab Sample ID: LCSD 880-22563/2-A
Matrix: Solid
Analysis Batch: 22719

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 22563

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene			0.100	0.1028		mg/Kg		103	70 - 130	7	35
Toluene			0.100	0.08528		mg/Kg		85	70 - 130	5	35
Ethylbenzene			0.100	0.09027		mg/Kg		90	70 - 130	5	35
m-Xylene & p-Xylene			0.200	0.1903		mg/Kg		95	70 - 130	4	35
o-Xylene			0.100	0.09677		mg/Kg		97	70 - 130	5	35

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*104*		*70 - 130*
1,4-Difluorobenzene (Surr)	*105*		*70 - 130*

Lab Sample ID: 890-2142-1 MS
Matrix: Solid
Analysis Batch: 22719

Client Sample ID: FS01
Prep Type: Total/NA
Prep Batch: 22563

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Benzene	<0.00201	U F1	0.0990	0.04900	F1	mg/Kg		49	70 - 130		
Toluene	<0.00201	U F1	0.0990	0.03062	F1	mg/Kg		30	70 - 130		
Ethylbenzene	<0.00201	U F1	0.0990	0.03386	F1	mg/Kg		34	70 - 130		
m-Xylene & p-Xylene	0.00649	F1	0.198	0.03570	F1	mg/Kg		15	70 - 130		
o-Xylene	0.0145	F1	0.0990	0.05066	F1	mg/Kg		37	70 - 130		

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*117*		*70 - 130*
1,4-Difluorobenzene (Surr)	*98*		*70 - 130*

Lab Sample ID: 890-2142-1 MSD
Matrix: Solid
Analysis Batch: 22719

Client Sample ID: FS01
Prep Type: Total/NA
Prep Batch: 22563

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	<0.00201	U F1	0.0996	0.05088	F1	mg/Kg		51	70 - 130	4	35
Toluene	<0.00201	U F1	0.0996	0.03068	F1	mg/Kg		30	70 - 130	0	35
Ethylbenzene	<0.00201	U F1	0.0996	0.03662	F1	mg/Kg		36	70 - 130	8	35
m-Xylene & p-Xylene	0.00649	F1	0.199	0.02654	F1	mg/Kg		10	70 - 130	29	35
o-Xylene	0.0145	F1	0.0996	0.05454	F1	mg/Kg		40	70 - 130	7	35

QC Sample Results

Client: WSP USA Inc.
Project/Site: BEU DI 30

Job ID: 890-2142-1
SDG: 31403236.022.0129 TASK16.02

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

Lab Sample ID: 890-2142-1 MSD
Matrix: Solid
Analysis Batch: 22719

Client Sample ID: FS01
Prep Type: Total/NA
Prep Batch: 22563

Surrogate	MSD %Recovery	MSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	116		70 - 130
1,4-Difluorobenzene (Surr)	99		70 - 130

Lab Sample ID: MB 880-22658/5-A
Matrix: Solid
Analysis Batch: 22719

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 22658

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		03/31/22 12:00	03/31/22 15:35	1
Toluene	<0.00200	U	0.00200		mg/Kg		03/31/22 12:00	03/31/22 15:35	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		03/31/22 12:00	03/31/22 15:35	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		03/31/22 12:00	03/31/22 15:35	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		03/31/22 12:00	03/31/22 15:35	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		03/31/22 12:00	03/31/22 15:35	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	118		70 - 130	03/31/22 12:00	03/31/22 15:35	1
1,4-Difluorobenzene (Surr)	100		70 - 130	03/31/22 12:00	03/31/22 15:35	1

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

Lab Sample ID: MB 880-22521/1-A
Matrix: Solid
Analysis Batch: 22514

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 22521

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		03/29/22 08:56	03/29/22 11:53	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		03/29/22 08:56	03/29/22 11:53	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		03/29/22 08:56	03/29/22 11:53	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	123		70 - 130	03/29/22 08:56	03/29/22 11:53	1
o-Terphenyl	141	S1+	70 - 130	03/29/22 08:56	03/29/22 11:53	1

Lab Sample ID: LCS 880-22521/2-A
Matrix: Solid
Analysis Batch: 22514

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 22521

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Gasoline Range Organics (GRO)-C6-C10			1000	942.8		mg/Kg		94	70 - 130		
Diesel Range Organics (Over C10-C28)			1000	1012		mg/Kg		101	70 - 130		

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1-Chlorooctane	111		70 - 130
o-Terphenyl	125		70 - 130

QC Sample Results

Client: WSP USA Inc.
Project/Site: BEU DI 30

Job ID: 890-2142-1
SDG: 31403236.022.0129 TASK16.02

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

Lab Sample ID: LCSD 880-22521/3-A
Matrix: Solid
Analysis Batch: 22514

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 22521

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10			1000	916.3		mg/Kg		92	70 - 130	3	20
Diesel Range Organics (Over C10-C28)			1000	1036		mg/Kg		104	70 - 130	2	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1-Chlorooctane	*115*		*70 - 130*
o-Terphenyl	*127*		*70 - 130*

Lab Sample ID: 880-12957-A-1-E MS
Matrix: Solid
Analysis Batch: 22514

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 22521

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	999	1259		mg/Kg		123	70 - 130
Diesel Range Organics (Over C10-C28)	<49.9	U	999	810.8		mg/Kg		79	70 - 130

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
1-Chlorooctane	*113*		*70 - 130*
o-Terphenyl	*117*		*70 - 130*

Lab Sample ID: 880-12957-A-1-F MSD
Matrix: Solid
Analysis Batch: 22514

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 22521

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	1279		mg/Kg		125	70 - 130	2	20
Diesel Range Organics (Over C10-C28)	<49.9	U	999	807.0		mg/Kg		78	70 - 130	0	20

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
1-Chlorooctane	*111*		*70 - 130*
o-Terphenyl	*116*		*70 - 130*

Lab Sample ID: MB 880-22591/1-A
Matrix: Solid
Analysis Batch: 22514

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 22591

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		03/29/22 17:09	03/29/22 19:32	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		03/29/22 17:09	03/29/22 19:32	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		03/29/22 17:09	03/29/22 19:32	1

QC Sample Results

Client: WSP USA Inc.
Project/Site: BEU DI 30

Job ID: 890-2142-1
SDG: 31403236.022.0129 TASK16.02

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

Lab Sample ID: MB 880-22591/1-A
Matrix: Solid
Analysis Batch: 22514

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 22591

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	119		70 - 130	03/29/22 17:09	03/29/22 19:32	1
o-Terphenyl	135	S1+	70 - 130	03/29/22 17:09	03/29/22 19:32	1

Lab Sample ID: LCS 880-22591/2-A
Matrix: Solid
Analysis Batch: 22514

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 22591

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Gasoline Range Organics (GRO)-C6-C10			1000	872.8		mg/Kg		87	70 - 130		
Diesel Range Organics (Over C10-C28)			1000	972.0		mg/Kg		97	70 - 130		

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1-Chlorooctane	106		70 - 130
o-Terphenyl	119		70 - 130

Lab Sample ID: LCSD 880-22591/3-A
Matrix: Solid
Analysis Batch: 22514

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 22591

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10			1000	832.0		mg/Kg		83	70 - 130	5	20
Diesel Range Organics (Over C10-C28)			1000	954.9		mg/Kg		95	70 - 130	2	20

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
1-Chlorooctane	104		70 - 130
o-Terphenyl	119		70 - 130

Lab Sample ID: 890-2142-1 MS
Matrix: Solid
Analysis Batch: 22514

Client Sample ID: FS01
Prep Type: Total/NA
Prep Batch: 22591

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Gasoline Range Organics (GRO)-C6-C10	104	F1	998	1391		mg/Kg		129	70 - 130		
Diesel Range Organics (Over C10-C28)	2620	F1	998	3339		mg/Kg		72	70 - 130		

Surrogate	MS %Recovery	MS Qualifier	Limits
1-Chlorooctane	121		70 - 130
o-Terphenyl	123		70 - 130

QC Sample Results

Client: WSP USA Inc.
Project/Site: BEU DI 30

Job ID: 890-2142-1
SDG: 31403236.022.0129 TASK16.02

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

Lab Sample ID: 890-2142-1 MSD — **Client Sample ID: FS01**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 22514 — **Prep Batch: 22591**

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	104	F1	998	1408	F1	mg/Kg		131	70 - 130	1	20
Diesel Range Organics (Over C10-C28)	2620	F1	998	3261	F1	mg/Kg		64	70 - 130	2	20

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
1-Chlorooctane	*121*		*70 - 130*
o-Terphenyl	*125*		*70 - 130*

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-22795/1-A — **Client Sample ID: Method Blank**
Matrix: Solid — **Prep Type: Soluble**
Analysis Batch: 22867

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.00	U	5.00		mg/Kg			04/02/22 19:50	1

Lab Sample ID: LCS 880-22795/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Solid — **Prep Type: Soluble**
Analysis Batch: 22867

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride			250	256.9		mg/Kg		103	90 - 110		

Lab Sample ID: LCSD 880-22795/3-A — **Client Sample ID: Lab Control Sample Dup**
Matrix: Solid — **Prep Type: Soluble**
Analysis Batch: 22867

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride			250	257.5		mg/Kg		103	90 - 110	0	20

Lab Sample ID: 890-2142-2 MS — **Client Sample ID: FS02**
Matrix: Solid — **Prep Type: Soluble**
Analysis Batch: 22867

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride	8730		4980	13710		mg/Kg		100	90 - 110		

Lab Sample ID: 890-2142-2 MSD — **Client Sample ID: FS02**
Matrix: Solid — **Prep Type: Soluble**
Analysis Batch: 22867

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	8730		4980	13950		mg/Kg		105	90 - 110	2	20

QC Sample Results

Client: WSP USA Inc.
Project/Site: BEU DI 30

Job ID: 890-2142-1
SDG: 31403236.022.0129 TASK16.02

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: MB 880-22997/1-A
Matrix: Solid
Analysis Batch: 23131

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			04/08/22 04:33	1

Lab Sample ID: LCS 880-22997/2-A
Matrix: Solid
Analysis Batch: 23131

Client Sample ID: Lab Control Sample
Prep Type: Soluble

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride			250	250.2		mg/Kg		100	90 - 110		

Lab Sample ID: LCSD 880-22997/3-A
Matrix: Solid
Analysis Batch: 23131

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	244.6		mg/Kg		98	90 - 110	2	20

Lab Sample ID: 890-2142-12 MS
Matrix: Solid
Analysis Batch: 23131

Client Sample ID: FS12
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride	413	F1	248	619.0	F1	mg/Kg		83	90 - 110		

Lab Sample ID: 890-2142-12 MSD
Matrix: Solid
Analysis Batch: 23131

Client Sample ID: FS12
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	413	F1	248	627.7	F1	mg/Kg		87	90 - 110	1	20

Lab Sample ID: 890-2142-22 MS
Matrix: Solid
Analysis Batch: 23131

Client Sample ID: SW06
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride	284		249	515.7		mg/Kg		93	90 - 110		

Lab Sample ID: 890-2142-22 MSD
Matrix: Solid
Analysis Batch: 23131

Client Sample ID: SW06
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	284		249	518.1		mg/Kg		94	90 - 110	0	20

QC Association Summary

Client: WSP USA Inc.
Project/Site: BEU DI 30

Job ID: 890-2142-1
SDG: 31403236.022.0129 TASK16.02

GC VOA

Prep Batch: 22509

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2142-21	SW05	Total/NA	Solid	5035	
890-2142-22	SW06	Total/NA	Solid	5035	
MB 880-22509/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-22509/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-22509/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
890-2143-A-21-E MS	Matrix Spike	Total/NA	Solid	5035	
890-2143-A-21-F MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	

Prep Batch: 22563

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2142-1	FS01	Total/NA	Solid	5035	
890-2142-2	FS02	Total/NA	Solid	5035	
890-2142-3	FS03	Total/NA	Solid	5035	
890-2142-4	FS04	Total/NA	Solid	5035	
890-2142-5	FS05	Total/NA	Solid	5035	
890-2142-6	FS06	Total/NA	Solid	5035	
890-2142-7	FS07	Total/NA	Solid	5035	
890-2142-8	FS08	Total/NA	Solid	5035	
890-2142-9	FS09	Total/NA	Solid	5035	
890-2142-10	FS10	Total/NA	Solid	5035	
890-2142-11	FS11	Total/NA	Solid	5035	
890-2142-12	FS12	Total/NA	Solid	5035	
890-2142-13	FS13	Total/NA	Solid	5035	
890-2142-14	FS14	Total/NA	Solid	5035	
890-2142-15	FS15	Total/NA	Solid	5035	
890-2142-16	FS16	Total/NA	Solid	5035	
890-2142-17	SW01	Total/NA	Solid	5035	
890-2142-18	SW02	Total/NA	Solid	5035	
890-2142-19	SW03	Total/NA	Solid	5035	
890-2142-20	SW04	Total/NA	Solid	5035	
MB 880-22563/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-22563/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-22563/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
890-2142-1 MS	FS01	Total/NA	Solid	5035	
890-2142-1 MSD	FS01	Total/NA	Solid	5035	

Analysis Batch: 22605

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2142-21	SW05	Total/NA	Solid	8021B	22509
890-2142-22	SW06	Total/NA	Solid	8021B	22509
MB 880-22509/5-A	Method Blank	Total/NA	Solid	8021B	22509
LCS 880-22509/1-A	Lab Control Sample	Total/NA	Solid	8021B	22509
LCSD 880-22509/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	22509
890-2143-A-21-E MS	Matrix Spike	Total/NA	Solid	8021B	22509
890-2143-A-21-F MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	22509

Prep Batch: 22658

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 880-22658/5-A	Method Blank	Total/NA	Solid	5035	

QC Association Summary

Client: WSP USA Inc.
Project/Site: BEU DI 30

Job ID: 890-2142-1
SDG: 31403236.022.0129 TASK16.02

GC VOA

Analysis Batch: 22717

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2142-1	FS01	Total/NA	Solid	Total BTEX	
890-2142-2	FS02	Total/NA	Solid	Total BTEX	
890-2142-3	FS03	Total/NA	Solid	Total BTEX	
890-2142-4	FS04	Total/NA	Solid	Total BTEX	
890-2142-5	FS05	Total/NA	Solid	Total BTEX	
890-2142-6	FS06	Total/NA	Solid	Total BTEX	
890-2142-7	FS07	Total/NA	Solid	Total BTEX	
890-2142-8	FS08	Total/NA	Solid	Total BTEX	
890-2142-9	FS09	Total/NA	Solid	Total BTEX	
890-2142-10	FS10	Total/NA	Solid	Total BTEX	
890-2142-11	FS11	Total/NA	Solid	Total BTEX	
890-2142-12	FS12	Total/NA	Solid	Total BTEX	
890-2142-13	FS13	Total/NA	Solid	Total BTEX	
890-2142-14	FS14	Total/NA	Solid	Total BTEX	
890-2142-15	FS15	Total/NA	Solid	Total BTEX	
890-2142-16	FS16	Total/NA	Solid	Total BTEX	
890-2142-17	SW01	Total/NA	Solid	Total BTEX	
890-2142-18	SW02	Total/NA	Solid	Total BTEX	
890-2142-19	SW03	Total/NA	Solid	Total BTEX	
890-2142-20	SW04	Total/NA	Solid	Total BTEX	
890-2142-21	SW05	Total/NA	Solid	Total BTEX	
890-2142-22	SW06	Total/NA	Solid	Total BTEX	

Analysis Batch: 22719

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2142-1	FS01	Total/NA	Solid	8021B	22563
890-2142-2	FS02	Total/NA	Solid	8021B	22563
890-2142-3	FS03	Total/NA	Solid	8021B	22563
890-2142-4	FS04	Total/NA	Solid	8021B	22563
890-2142-5	FS05	Total/NA	Solid	8021B	22563
890-2142-6	FS06	Total/NA	Solid	8021B	22563
890-2142-7	FS07	Total/NA	Solid	8021B	22563
890-2142-8	FS08	Total/NA	Solid	8021B	22563
890-2142-9	FS09	Total/NA	Solid	8021B	22563
890-2142-10	FS10	Total/NA	Solid	8021B	22563
890-2142-11	FS11	Total/NA	Solid	8021B	22563
890-2142-12	FS12	Total/NA	Solid	8021B	22563
890-2142-13	FS13	Total/NA	Solid	8021B	22563
890-2142-14	FS14	Total/NA	Solid	8021B	22563
890-2142-15	FS15	Total/NA	Solid	8021B	22563
890-2142-16	FS16	Total/NA	Solid	8021B	22563
890-2142-17	SW01	Total/NA	Solid	8021B	22563
890-2142-18	SW02	Total/NA	Solid	8021B	22563
890-2142-19	SW03	Total/NA	Solid	8021B	22563
890-2142-20	SW04	Total/NA	Solid	8021B	22563
MB 880-22563/5-A	Method Blank	Total/NA	Solid	8021B	22563
MB 880-22658/5-A	Method Blank	Total/NA	Solid	8021B	22658
LCS 880-22563/1-A	Lab Control Sample	Total/NA	Solid	8021B	22563
LCSD 880-22563/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	22563
890-2142-1 MS	FS01	Total/NA	Solid	8021B	22563
890-2142-1 MSD	FS01	Total/NA	Solid	8021B	22563

QC Association Summary

Client: WSP USA Inc.
Project/Site: BEU DI 30

Job ID: 890-2142-1
SDG: 31403236.022.0129 TASK16.02

GC Semi VOA

Analysis Batch: 22514

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2142-1	FS01	Total/NA	Solid	8015B NM	22591
890-2142-2	FS02	Total/NA	Solid	8015B NM	22591
890-2142-3	FS03	Total/NA	Solid	8015B NM	22591
890-2142-4	FS04	Total/NA	Solid	8015B NM	22591
890-2142-5	FS05	Total/NA	Solid	8015B NM	22591
890-2142-6	FS06	Total/NA	Solid	8015B NM	22591
890-2142-7	FS07	Total/NA	Solid	8015B NM	22591
890-2142-8	FS08	Total/NA	Solid	8015B NM	22591
890-2142-9	FS09	Total/NA	Solid	8015B NM	22591
890-2142-10	FS10	Total/NA	Solid	8015B NM	22591
890-2142-11	FS11	Total/NA	Solid	8015B NM	22591
890-2142-12	FS12	Total/NA	Solid	8015B NM	22591
890-2142-13	FS13	Total/NA	Solid	8015B NM	22591
890-2142-14	FS14	Total/NA	Solid	8015B NM	22591
890-2142-15	FS15	Total/NA	Solid	8015B NM	22591
890-2142-16	FS16	Total/NA	Solid	8015B NM	22591
890-2142-17	SW01	Total/NA	Solid	8015B NM	22591
890-2142-18	SW02	Total/NA	Solid	8015B NM	22591
890-2142-19	SW03	Total/NA	Solid	8015B NM	22591
890-2142-20	SW04	Total/NA	Solid	8015B NM	22591
890-2142-21	SW05	Total/NA	Solid	8015B NM	22521
890-2142-22	SW06	Total/NA	Solid	8015B NM	22521
MB 880-22521/1-A	Method Blank	Total/NA	Solid	8015B NM	22521
MB 880-22591/1-A	Method Blank	Total/NA	Solid	8015B NM	22591
LCS 880-22521/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	22521
LCS 880-22591/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	22591
LCSD 880-22521/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	22521
LCSD 880-22591/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	22591
880-12957-A-1-E MS	Matrix Spike	Total/NA	Solid	8015B NM	22521
880-12957-A-1-F MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	22521
890-2142-1 MS	FS01	Total/NA	Solid	8015B NM	22591
890-2142-1 MSD	FS01	Total/NA	Solid	8015B NM	22591

Prep Batch: 22521

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2142-21	SW05	Total/NA	Solid	8015NM Prep	
890-2142-22	SW06	Total/NA	Solid	8015NM Prep	
MB 880-22521/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-22521/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-22521/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
880-12957-A-1-E MS	Matrix Spike	Total/NA	Solid	8015NM Prep	
880-12957-A-1-F MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	

Prep Batch: 22591

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2142-1	FS01	Total/NA	Solid	8015NM Prep	
890-2142-2	FS02	Total/NA	Solid	8015NM Prep	
890-2142-3	FS03	Total/NA	Solid	8015NM Prep	
890-2142-4	FS04	Total/NA	Solid	8015NM Prep	
890-2142-5	FS05	Total/NA	Solid	8015NM Prep	
890-2142-6	FS06	Total/NA	Solid	8015NM Prep	

QC Association Summary

Client: WSP USA Inc.
Project/Site: BEU DI 30

Job ID: 890-2142-1
SDG: 31403236.022.0129 TASK16.02

GC Semi VOA (Continued)

Prep Batch: 22591 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2142-7	FS07	Total/NA	Solid	8015NM Prep	
890-2142-8	FS08	Total/NA	Solid	8015NM Prep	
890-2142-9	FS09	Total/NA	Solid	8015NM Prep	
890-2142-10	FS10	Total/NA	Solid	8015NM Prep	
890-2142-11	FS11	Total/NA	Solid	8015NM Prep	
890-2142-12	FS12	Total/NA	Solid	8015NM Prep	
890-2142-13	FS13	Total/NA	Solid	8015NM Prep	
890-2142-14	FS14	Total/NA	Solid	8015NM Prep	
890-2142-15	FS15	Total/NA	Solid	8015NM Prep	
890-2142-16	FS16	Total/NA	Solid	8015NM Prep	
890-2142-17	SW01	Total/NA	Solid	8015NM Prep	
890-2142-18	SW02	Total/NA	Solid	8015NM Prep	
890-2142-19	SW03	Total/NA	Solid	8015NM Prep	
890-2142-20	SW04	Total/NA	Solid	8015NM Prep	
MB 880-22591/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-22591/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-22591/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
890-2142-1 MS	FS01	Total/NA	Solid	8015NM Prep	
890-2142-1 MSD	FS01	Total/NA	Solid	8015NM Prep	

Analysis Batch: 22626

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2142-1	FS01	Total/NA	Solid	8015 NM	
890-2142-2	FS02	Total/NA	Solid	8015 NM	
890-2142-3	FS03	Total/NA	Solid	8015 NM	
890-2142-4	FS04	Total/NA	Solid	8015 NM	
890-2142-5	FS05	Total/NA	Solid	8015 NM	
890-2142-6	FS06	Total/NA	Solid	8015 NM	
890-2142-7	FS07	Total/NA	Solid	8015 NM	
890-2142-8	FS08	Total/NA	Solid	8015 NM	
890-2142-9	FS09	Total/NA	Solid	8015 NM	
890-2142-10	FS10	Total/NA	Solid	8015 NM	
890-2142-11	FS11	Total/NA	Solid	8015 NM	
890-2142-12	FS12	Total/NA	Solid	8015 NM	
890-2142-13	FS13	Total/NA	Solid	8015 NM	
890-2142-14	FS14	Total/NA	Solid	8015 NM	
890-2142-15	FS15	Total/NA	Solid	8015 NM	
890-2142-16	FS16	Total/NA	Solid	8015 NM	
890-2142-17	SW01	Total/NA	Solid	8015 NM	
890-2142-18	SW02	Total/NA	Solid	8015 NM	
890-2142-19	SW03	Total/NA	Solid	8015 NM	
890-2142-20	SW04	Total/NA	Solid	8015 NM	
890-2142-21	SW05	Total/NA	Solid	8015 NM	
890-2142-22	SW06	Total/NA	Solid	8015 NM	

HPLC/IC

Leach Batch: 22795

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2142-1	FS01	Soluble	Solid	DI Leach	
890-2142-2	FS02	Soluble	Solid	DI Leach	

QC Association Summary

Client: WSP USA Inc.
Project/Site: BEU DI 30

Job ID: 890-2142-1
SDG: 31403236.022.0129 TASK16.02

HPLC/IC (Continued)

Leach Batch: 22795 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2142-3	FS03	Soluble	Solid	DI Leach	
890-2142-4	FS04	Soluble	Solid	DI Leach	
890-2142-5	FS05	Soluble	Solid	DI Leach	
890-2142-6	FS06	Soluble	Solid	DI Leach	
890-2142-7	FS07	Soluble	Solid	DI Leach	
890-2142-8	FS08	Soluble	Solid	DI Leach	
890-2142-9	FS09	Soluble	Solid	DI Leach	
890-2142-10	FS10	Soluble	Solid	DI Leach	
890-2142-11	FS11	Soluble	Solid	DI Leach	
MB 880-22795/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-22795/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-22795/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
890-2142-2 MS	FS02	Soluble	Solid	DI Leach	
890-2142-2 MSD	FS02	Soluble	Solid	DI Leach	

Analysis Batch: 22867

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2142-1	FS01	Soluble	Solid	300.0	22795
890-2142-2	FS02	Soluble	Solid	300.0	22795
890-2142-3	FS03	Soluble	Solid	300.0	22795
890-2142-4	FS04	Soluble	Solid	300.0	22795
890-2142-5	FS05	Soluble	Solid	300.0	22795
890-2142-6	FS06	Soluble	Solid	300.0	22795
890-2142-7	FS07	Soluble	Solid	300.0	22795
890-2142-8	FS08	Soluble	Solid	300.0	22795
890-2142-9	FS09	Soluble	Solid	300.0	22795
890-2142-10	FS10	Soluble	Solid	300.0	22795
890-2142-11	FS11	Soluble	Solid	300.0	22795
MB 880-22795/1-A	Method Blank	Soluble	Solid	300.0	22795
LCS 880-22795/2-A	Lab Control Sample	Soluble	Solid	300.0	22795
LCSD 880-22795/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	22795
890-2142-2 MS	FS02	Soluble	Solid	300.0	22795
890-2142-2 MSD	FS02	Soluble	Solid	300.0	22795

Leach Batch: 22997

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2142-12	FS12	Soluble	Solid	DI Leach	
890-2142-13	FS13	Soluble	Solid	DI Leach	
890-2142-14	FS14	Soluble	Solid	DI Leach	
890-2142-15	FS15	Soluble	Solid	DI Leach	
890-2142-16	FS16	Soluble	Solid	DI Leach	
890-2142-17	SW01	Soluble	Solid	DI Leach	
890-2142-18	SW02	Soluble	Solid	DI Leach	
890-2142-19	SW03	Soluble	Solid	DI Leach	
890-2142-20	SW04	Soluble	Solid	DI Leach	
890-2142-21	SW05	Soluble	Solid	DI Leach	
890-2142-22	SW06	Soluble	Solid	DI Leach	
MB 880-22997/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-22997/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-22997/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
890-2142-12 MS	FS12	Soluble	Solid	DI Leach	

QC Association Summary

Client: WSP USA Inc. Job ID: 890-2142-1
Project/Site: BEU DI 30 SDG: 31403236.022.0129 TASK16.02

HPLC/IC (Continued)

Leach Batch: 22997 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2142-12 MSD	FS12	Soluble	Solid	DI Leach	
890-2142-22 MS	SW06	Soluble	Solid	DI Leach	
890-2142-22 MSD	SW06	Soluble	Solid	DI Leach	

Analysis Batch: 23131

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2142-12	FS12	Soluble	Solid	300.0	22997
890-2142-13	FS13	Soluble	Solid	300.0	22997
890-2142-14	FS14	Soluble	Solid	300.0	22997
890-2142-15	FS15	Soluble	Solid	300.0	22997
890-2142-16	FS16	Soluble	Solid	300.0	22997
890-2142-17	SW01	Soluble	Solid	300.0	22997
890-2142-18	SW02	Soluble	Solid	300.0	22997
890-2142-19	SW03	Soluble	Solid	300.0	22997
890-2142-20	SW04	Soluble	Solid	300.0	22997
890-2142-21	SW05	Soluble	Solid	300.0	22997
890-2142-22	SW06	Soluble	Solid	300.0	22997
MB 880-22997/1-A	Method Blank	Soluble	Solid	300.0	22997
LCS 880-22997/2-A	Lab Control Sample	Soluble	Solid	300.0	22997
LCSD 880-22997/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	22997
890-2142-12 MS	FS12	Soluble	Solid	300.0	22997
890-2142-12 MSD	FS12	Soluble	Solid	300.0	22997
890-2142-22 MS	SW06	Soluble	Solid	300.0	22997
890-2142-22 MSD	SW06	Soluble	Solid	300.0	22997

Lab Chronicle

Client: WSP USA Inc.
Project/Site: BEU DI 30

Job ID: 890-2142-1
SDG: 31403236.022.0129 TASK16.02

Client Sample ID: FS01
Date Collected: 03/23/22 08:50
Date Received: 03/28/22 14:48

Lab Sample ID: 890-2142-1
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			22563	03/29/22 12:01	KL	XEN MID
Total/NA	Analysis	8021B		1	22719	04/01/22 03:00	KL	XEN MID
Total/NA	Analysis	Total BTEX		1	22717	03/31/22 10:09	AJ	XEN MID
Total/NA	Analysis	8015 NM		1	22626	03/30/22 10:27	AJ	XEN MID
Total/NA	Prep	8015NM Prep			22591	03/29/22 17:09	AM	XEN MID
Total/NA	Analysis	8015B NM		1	22514	03/29/22 20:35	AJ	XEN MID
Soluble	Leach	DI Leach			22795	04/01/22 11:44	CH	XEN MID
Soluble	Analysis	300.0		10	22867	04/02/22 22:11	CH	XEN MID

Client Sample ID: FS02
Date Collected: 03/23/22 08:55
Date Received: 03/28/22 14:48

Lab Sample ID: 890-2142-2
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			22563	03/29/22 12:01	KL	XEN MID
Total/NA	Analysis	8021B		1	22719	04/01/22 03:21	KL	XEN MID
Total/NA	Analysis	Total BTEX		1	22717	03/31/22 10:09	AJ	XEN MID
Total/NA	Analysis	8015 NM		1	22626	03/30/22 10:27	AJ	XEN MID
Total/NA	Prep	8015NM Prep			22591	03/29/22 17:09	AM	XEN MID
Total/NA	Analysis	8015B NM		1	22514	03/29/22 21:38	AJ	XEN MID
Soluble	Leach	DI Leach			22795	04/01/22 11:44	CH	XEN MID
Soluble	Analysis	300.0		20	22867	04/02/22 22:20	CH	XEN MID

Client Sample ID: FS03
Date Collected: 03/23/22 09:00
Date Received: 03/28/22 14:48

Lab Sample ID: 890-2142-3
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			22563	03/29/22 12:01	KL	XEN MID
Total/NA	Analysis	8021B		1	22719	04/01/22 03:42	KL	XEN MID
Total/NA	Analysis	Total BTEX		1	22717	03/31/22 10:09	AJ	XEN MID
Total/NA	Analysis	8015 NM		1	22626	03/30/22 10:27	AJ	XEN MID
Total/NA	Prep	8015NM Prep			22591	03/29/22 17:09	AM	XEN MID
Total/NA	Analysis	8015B NM		1	22514	03/29/22 21:59	AJ	XEN MID
Soluble	Leach	DI Leach			22795	04/01/22 11:44	CH	XEN MID
Soluble	Analysis	300.0		10	22867	04/02/22 22:47	CH	XEN MID

Client Sample ID: FS04
Date Collected: 03/23/22 09:05
Date Received: 03/28/22 14:48

Lab Sample ID: 890-2142-4
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			22563	03/29/22 12:01	KL	XEN MID
Total/NA	Analysis	8021B		1	22719	04/01/22 04:02	KL	XEN MID
Total/NA	Analysis	Total BTEX		1	22717	03/31/22 10:09	AJ	XEN MID

Lab Chronicle

Client: WSP USA Inc. Job ID: 890-2142-1
Project/Site: BEU DI 30 SDG: 31403236.022.0129 TASK16.02

Client Sample ID: FS04 Lab Sample ID: 890-2142-4

Date Collected: 03/23/22 09:05 **Matrix: Solid**
Date Received: 03/28/22 14:48

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8015 NM		1	22626	03/30/22 10:27	AJ	XEN MID
Total/NA	Prep	8015NM Prep			22591	03/29/22 17:09	AM	XEN MID
Total/NA	Analysis	8015B NM		1	22514	03/29/22 22:20	AJ	XEN MID
Soluble	Leach	DI Leach			22795	04/01/22 11:44	CH	XEN MID
Soluble	Analysis	300.0		20	22867	04/02/22 22:56	CH	XEN MID

Client Sample ID: FS05 Lab Sample ID: 890-2142-5

Date Collected: 03/23/22 09:20 **Matrix: Solid**
Date Received: 03/28/22 14:48

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			22563	03/29/22 12:01	KL	XEN MID
Total/NA	Analysis	8021B		1	22719	04/01/22 04:23	KL	XEN MID
Total/NA	Analysis	Total BTEX		1	22717	03/31/22 10:09	AJ	XEN MID
Total/NA	Analysis	8015 NM		1	22626	03/30/22 10:27	AJ	XEN MID
Total/NA	Prep	8015NM Prep			22591	03/29/22 17:09	AM	XEN MID
Total/NA	Analysis	8015B NM		1	22514	03/29/22 22:40	AJ	XEN MID
Soluble	Leach	DI Leach			22795	04/01/22 11:44	CH	XEN MID
Soluble	Analysis	300.0		5	22867	04/02/22 23:22	CH	XEN MID

Client Sample ID: FS06 Lab Sample ID: 890-2142-6

Date Collected: 03/23/22 09:25 **Matrix: Solid**
Date Received: 03/28/22 14:48

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			22563	03/29/22 12:01	KL	XEN MID
Total/NA	Analysis	8021B		1	22719	04/01/22 04:44	KL	XEN MID
Total/NA	Analysis	Total BTEX		1	22717	03/31/22 10:09	AJ	XEN MID
Total/NA	Analysis	8015 NM		1	22626	03/30/22 10:27	AJ	XEN MID
Total/NA	Prep	8015NM Prep			22591	03/29/22 17:09	AM	XEN MID
Total/NA	Analysis	8015B NM		1	22514	03/29/22 23:01	AJ	XEN MID
Soluble	Leach	DI Leach			22795	04/01/22 11:44	CH	XEN MID
Soluble	Analysis	300.0		1	22867	04/02/22 23:31	CH	XEN MID

Client Sample ID: FS07 Lab Sample ID: 890-2142-7

Date Collected: 03/23/22 09:40 **Matrix: Solid**
Date Received: 03/28/22 14:48

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			22563	03/29/22 12:01	KL	XEN MID
Total/NA	Analysis	8021B		1	22719	04/01/22 05:04	KL	XEN MID
Total/NA	Analysis	Total BTEX		1	22717	03/31/22 10:09	AJ	XEN MID
Total/NA	Analysis	8015 NM		1	22626	03/30/22 10:27	AJ	XEN MID
Total/NA	Prep	8015NM Prep			22591	03/29/22 17:09	AM	XEN MID
Total/NA	Analysis	8015B NM		1	22514	03/29/22 23:22	AJ	XEN MID

Lab Chronicle

Client: WSP USA Inc. Job ID: 890-2142-1
Project/Site: BEU DI 30 SDG: 31403236.022.0129 TASK16.02

Client Sample ID: FS07 Lab Sample ID: 890-2142-7

Date Collected: 03/23/22 09:40 **Matrix: Solid**
Date Received: 03/28/22 14:48

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			22795	04/01/22 11:44	CH	XEN MID
Soluble	Analysis	300.0		1	22867	04/02/22 23:40	CH	XEN MID

Client Sample ID: FS08 Lab Sample ID: 890-2142-8

Date Collected: 03/23/22 09:45 **Matrix: Solid**
Date Received: 03/28/22 14:48

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			22563	03/29/22 12:01	KL	XEN MID
Total/NA	Analysis	8021B		1	22719	04/01/22 05:25	KL	XEN MID
Total/NA	Analysis	Total BTEX		1	22717	03/31/22 10:09	AJ	XEN MID
Total/NA	Analysis	8015 NM		1	22626	03/30/22 10:27	AJ	XEN MID
Total/NA	Prep	8015NM Prep			22591	03/29/22 17:09	AM	XEN MID
Total/NA	Analysis	8015B NM		1	22514	03/29/22 23:43	AJ	XEN MID
Soluble	Leach	DI Leach			22795	04/01/22 11:44	CH	XEN MID
Soluble	Analysis	300.0		1	22867	04/02/22 23:49	CH	XEN MID

Client Sample ID: FS09 Lab Sample ID: 890-2142-9

Date Collected: 03/23/22 10:20 **Matrix: Solid**
Date Received: 03/28/22 14:48

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			22563	03/29/22 12:01	KL	XEN MID
Total/NA	Analysis	8021B		1	22719	04/01/22 05:46	KL	XEN MID
Total/NA	Analysis	Total BTEX		1	22717	03/31/22 10:09	AJ	XEN MID
Total/NA	Analysis	8015 NM		1	22626	03/30/22 10:27	AJ	XEN MID
Total/NA	Prep	8015NM Prep			22591	03/29/22 17:09	AM	XEN MID
Total/NA	Analysis	8015B NM		1	22514	03/30/22 00:04	AJ	XEN MID
Soluble	Leach	DI Leach			22795	04/01/22 11:44	CH	XEN MID
Soluble	Analysis	300.0		1	22867	04/02/22 23:58	CH	XEN MID

Client Sample ID: FS10 Lab Sample ID: 890-2142-10

Date Collected: 03/23/22 10:25 **Matrix: Solid**
Date Received: 03/28/22 14:48

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			22563	03/29/22 12:01	KL	XEN MID
Total/NA	Analysis	8021B		1	22719	04/01/22 06:07	KL	XEN MID
Total/NA	Analysis	Total BTEX		1	22717	03/31/22 10:09	AJ	XEN MID
Total/NA	Analysis	8015 NM		1	22626	03/30/22 10:27	AJ	XEN MID
Total/NA	Prep	8015NM Prep			22591	03/29/22 17:09	AM	XEN MID
Total/NA	Analysis	8015B NM		1	22514	03/30/22 00:24	AJ	XEN MID
Soluble	Leach	DI Leach			22795	04/01/22 11:44	CH	XEN MID
Soluble	Analysis	300.0		1	22867	04/03/22 00:07	CH	XEN MID

Lab Chronicle

Client: WSP USA Inc.
Project/Site: BEU DI 30

Job ID: 890-2142-1
SDG: 31403236.022.0129 TASK16.02

Client Sample ID: FS11
Date Collected: 03/23/22 10:30
Date Received: 03/28/22 14:48

Lab Sample ID: 890-2142-11
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			22563	03/29/22 12:01	KL	XEN MID
Total/NA	Analysis	8021B		1	22719	04/01/22 07:31	KL	XEN MID
Total/NA	Analysis	Total BTEX		1	22717	03/31/22 10:09	AJ	XEN MID
Total/NA	Analysis	8015 NM		1	22626	03/30/22 10:27	AJ	XEN MID
Total/NA	Prep	8015NM Prep			22591	03/29/22 17:09	AM	XEN MID
Total/NA	Analysis	8015B NM		1	22514	03/30/22 01:06	AJ	XEN MID
Soluble	Leach	DI Leach			22795	04/01/22 11:44	CH	XEN MID
Soluble	Analysis	300.0		1	22867	04/03/22 00:15	CH	XEN MID

Client Sample ID: FS12
Date Collected: 03/23/22 10:35
Date Received: 03/28/22 14:48

Lab Sample ID: 890-2142-12
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			22563	03/29/22 12:01	KL	XEN MID
Total/NA	Analysis	8021B		1	22719	04/01/22 08:14	KL	XEN MID
Total/NA	Analysis	Total BTEX		1	22717	03/31/22 10:09	AJ	XEN MID
Total/NA	Analysis	8015 NM		1	22626	03/30/22 10:27	AJ	XEN MID
Total/NA	Prep	8015NM Prep			22591	03/29/22 17:09	AM	XEN MID
Total/NA	Analysis	8015B NM		1	22514	03/30/22 01:26	AJ	XEN MID
Soluble	Leach	DI Leach			22997	04/05/22 09:20	CH	XEN MID
Soluble	Analysis	300.0		1	23131	04/08/22 04:49	CH	XEN MID

Client Sample ID: FS13
Date Collected: 03/23/22 10:45
Date Received: 03/28/22 14:48

Lab Sample ID: 890-2142-13
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			22563	03/29/22 12:01	KL	XEN MID
Total/NA	Analysis	8021B		1	22719	04/01/22 08:35	KL	XEN MID
Total/NA	Analysis	Total BTEX		1	22717	03/31/22 10:09	AJ	XEN MID
Total/NA	Analysis	8015 NM		1	22626	03/30/22 10:27	AJ	XEN MID
Total/NA	Prep	8015NM Prep			22591	03/29/22 17:09	AM	XEN MID
Total/NA	Analysis	8015B NM		1	22514	03/30/22 01:47	AJ	XEN MID
Soluble	Leach	DI Leach			22997	04/05/22 09:20	CH	XEN MID
Soluble	Analysis	300.0		1	23131	04/08/22 05:06	CH	XEN MID

Client Sample ID: FS14
Date Collected: 03/23/22 10:50
Date Received: 03/28/22 14:48

Lab Sample ID: 890-2142-14
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			22563	03/29/22 12:01	KL	XEN MID
Total/NA	Analysis	8021B		1	22719	04/01/22 08:56	KL	XEN MID
Total/NA	Analysis	Total BTEX		1	22717	03/31/22 10:09	AJ	XEN MID

Lab Chronicle

Client: WSP USA Inc. Job ID: 890-2142-1
Project/Site: BEU DI 30 SDG: 31403236.022.0129 TASK16.02

Client Sample ID: FS14 Lab Sample ID: 890-2142-14

Date Collected: 03/23/22 10:50 **Matrix: Solid**
Date Received: 03/28/22 14:48

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8015 NM		1	22626	03/30/22 10:27	AJ	XEN MID
Total/NA	Prep	8015NM Prep			22591	03/29/22 17:09	AM	XEN MID
Total/NA	Analysis	8015B NM		1	22514	03/30/22 02:07	AJ	XEN MID
Soluble	Leach	DI Leach			22997	04/05/22 09:20	CH	XEN MID
Soluble	Analysis	300.0		10	23131	04/08/22 05:12	CH	XEN MID

Client Sample ID: FS15 Lab Sample ID: 890-2142-15

Date Collected: 03/23/22 10:55 **Matrix: Solid**
Date Received: 03/28/22 14:48

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			22563	03/29/22 12:01	KL	XEN MID
Total/NA	Analysis	8021B		1	22719	04/01/22 09:16	KL	XEN MID
Total/NA	Analysis	Total BTEX		1	22717	03/31/22 10:09	AJ	XEN MID
Total/NA	Analysis	8015 NM		1	22626	03/30/22 10:27	AJ	XEN MID
Total/NA	Prep	8015NM Prep			22591	03/29/22 17:09	AM	XEN MID
Total/NA	Analysis	8015B NM		1	22514	03/30/22 02:28	AJ	XEN MID
Soluble	Leach	DI Leach			22997	04/05/22 09:20	CH	XEN MID
Soluble	Analysis	300.0		1	23131	04/08/22 05:17	CH	XEN MID

Client Sample ID: FS16 Lab Sample ID: 890-2142-16

Date Collected: 03/23/22 11:05 **Matrix: Solid**
Date Received: 03/28/22 14:48

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			22563	03/29/22 12:01	KL	XEN MID
Total/NA	Analysis	8021B		1	22719	04/01/22 09:37	KL	XEN MID
Total/NA	Analysis	Total BTEX		1	22717	03/31/22 10:09	AJ	XEN MID
Total/NA	Analysis	8015 NM		1	22626	03/30/22 10:27	AJ	XEN MID
Total/NA	Prep	8015NM Prep			22591	03/29/22 17:09	AM	XEN MID
Total/NA	Analysis	8015B NM		1	22514	03/30/22 02:48	AJ	XEN MID
Soluble	Leach	DI Leach			22997	04/05/22 09:20	CH	XEN MID
Soluble	Analysis	300.0		1	23131	04/08/22 05:23	CH	XEN MID

Client Sample ID: SW01 Lab Sample ID: 890-2142-17

Date Collected: 03/23/22 11:50 **Matrix: Solid**
Date Received: 03/28/22 14:48

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			22563	03/29/22 12:01	KL	XEN MID
Total/NA	Analysis	8021B		1	22719	04/01/22 09:58	KL	XEN MID
Total/NA	Analysis	Total BTEX		1	22717	03/31/22 10:09	AJ	XEN MID
Total/NA	Analysis	8015 NM		1	22626	03/30/22 10:27	AJ	XEN MID
Total/NA	Prep	8015NM Prep			22591	03/29/22 17:09	AM	XEN MID
Total/NA	Analysis	8015B NM		1	22514	03/30/22 03:08	AJ	XEN MID

Lab Chronicle

Client: WSP USA Inc. Job ID: 890-2142-1
Project/Site: BEU DI 30 SDG: 31403236.022.0129 TASK16.02

Client Sample ID: SW01 Lab Sample ID: 890-2142-17

Date Collected: 03/23/22 11:50 **Matrix: Solid**
Date Received: 03/28/22 14:48

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			22997	04/05/22 09:20	CH	XEN MID
Soluble	Analysis	300.0		5	23131	04/08/22 05:40	CH	XEN MID

Client Sample ID: SW02 Lab Sample ID: 890-2142-18

Date Collected: 03/23/22 11:55 **Matrix: Solid**
Date Received: 03/28/22 14:48

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			22563	03/29/22 12:01	KL	XEN MID
Total/NA	Analysis	8021B		1	22719	04/01/22 10:19	KL	XEN MID
Total/NA	Analysis	Total BTEX		1	22717	03/31/22 10:09	AJ	XEN MID
Total/NA	Analysis	8015 NM		1	22626	03/30/22 10:27	AJ	XEN MID
Total/NA	Prep	8015NM Prep			22591	03/29/22 17:09	AM	XEN MID
Total/NA	Analysis	8015B NM		1	22514	03/30/22 03:29	AJ	XEN MID
Soluble	Leach	DI Leach			22997	04/05/22 09:20	CH	XEN MID
Soluble	Analysis	300.0		20	23131	04/08/22 05:46	CH	XEN MID

Client Sample ID: SW03 Lab Sample ID: 890-2142-19

Date Collected: 03/23/22 12:05 **Matrix: Solid**
Date Received: 03/28/22 14:48

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			22563	03/29/22 12:01	KL	XEN MID
Total/NA	Analysis	8021B		1	22719	04/01/22 10:39	KL	XEN MID
Total/NA	Analysis	Total BTEX		1	22717	03/31/22 10:09	AJ	XEN MID
Total/NA	Analysis	8015 NM		1	22626	03/30/22 10:27	AJ	XEN MID
Total/NA	Prep	8015NM Prep			22591	03/29/22 17:09	AM	XEN MID
Total/NA	Analysis	8015B NM		1	22514	03/30/22 03:49	AJ	XEN MID
Soluble	Leach	DI Leach			22997	04/05/22 09:20	CH	XEN MID
Soluble	Analysis	300.0		10	23131	04/08/22 05:51	CH	XEN MID

Client Sample ID: SW04 Lab Sample ID: 890-2142-20

Date Collected: 03/23/22 12:10 **Matrix: Solid**
Date Received: 03/28/22 14:48

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			22563	03/29/22 12:01	KL	XEN MID
Total/NA	Analysis	8021B		1	22719	04/01/22 11:00	KL	XEN MID
Total/NA	Analysis	Total BTEX		1	22717	03/31/22 10:09	AJ	XEN MID
Total/NA	Analysis	8015 NM		1	22626	03/30/22 10:27	AJ	XEN MID
Total/NA	Prep	8015NM Prep			22591	03/29/22 17:09	AM	XEN MID
Total/NA	Analysis	8015B NM		1	22514	03/30/22 04:10	AJ	XEN MID
Soluble	Leach	DI Leach			22997	04/05/22 09:20	CH	XEN MID
Soluble	Analysis	300.0		1	23131	04/08/22 05:57	CH	XEN MID

Lab Chronicle

Client: WSP USA Inc.
Project/Site: BEU DI 30

Job ID: 890-2142-1
SDG: 31403236.022.0129 TASK16.02

Client Sample ID: SW05

Lab Sample ID: 890-2142-21

Date Collected: 03/23/22 12:15
Matrix: Solid
Date Received: 03/28/22 14:48

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			22509	03/30/22 07:30	KL	XEN MID
Total/NA	Analysis	8021B		1	22605	03/30/22 18:59	MR	XEN MID
Total/NA	Analysis	Total BTEX		1	22717	03/31/22 10:09	AJ	XEN MID
Total/NA	Analysis	8015 NM		1	22626	03/30/22 10:27	AJ	XEN MID
Total/NA	Prep	8015NM Prep			22521	03/29/22 08:56	AM	XEN MID
Total/NA	Analysis	8015B NM		1	22514	03/29/22 18:30	AJ	XEN MID
Soluble	Leach	DI Leach			22997	04/05/22 09:20	CH	XEN MID
Soluble	Analysis	300.0		1	23131	04/08/22 06:02	CH	XEN MID

Client Sample ID: SW06

Lab Sample ID: 890-2142-22

Date Collected: 03/23/22 12:20
Matrix: Solid
Date Received: 03/28/22 14:48

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			22509	03/30/22 07:30	KL	XEN MID
Total/NA	Analysis	8021B		1	22605	03/30/22 19:25	MR	XEN MID
Total/NA	Analysis	Total BTEX		1	22717	03/31/22 10:09	AJ	XEN MID
Total/NA	Analysis	8015 NM		1	22626	03/30/22 10:27	AJ	XEN MID
Total/NA	Prep	8015NM Prep			22521	03/29/22 08:56	AM	XEN MID
Total/NA	Analysis	8015B NM		1	22514	03/29/22 18:50	AJ	XEN MID
Soluble	Leach	DI Leach			22997	04/05/22 09:20	CH	XEN MID
Soluble	Analysis	300.0		1	23131	04/08/22 06:08	CH	XEN MID

Laboratory References:

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

Accreditation/Certification Summary

Client: WSP USA Inc. Job ID: 890-2142-1
Project/Site: BEU DI 30 SDG: 31403236.022.0129 TASK16.02

Laboratory: Eurofins Midland

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

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

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

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

Method Summary

Client: WSP USA Inc. Job ID: 890-2142-1
Project/Site: BEU DI 30 SDG: 31403236.022.0129 TASK16.02

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

Protocol References:

ASTM = ASTM International

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

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

TAL SOP = TestAmerica Laboratories, Standard Operating Procedure

Laboratory References:

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

Sample Summary

Client: WSP USA Inc.
Project/Site: BEU DI 30

Job ID: 890-2142-1
SDG: 31403236.022.0129 TASK16.02

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-2142-1	FS01	Solid	03/23/22 08:50	03/28/22 14:48	5
890-2142-2	FS02	Solid	03/23/22 08:55	03/28/22 14:48	5
890-2142-3	FS03	Solid	03/23/22 09:00	03/28/22 14:48	5
890-2142-4	FS04	Solid	03/23/22 09:05	03/28/22 14:48	5
890-2142-5	FS05	Solid	03/23/22 09:20	03/28/22 14:48	5
890-2142-6	FS06	Solid	03/23/22 09:25	03/28/22 14:48	5
890-2142-7	FS07	Solid	03/23/22 09:40	03/28/22 14:48	5
890-2142-8	FS08	Solid	03/23/22 09:45	03/28/22 14:48	5
890-2142-9	FS09	Solid	03/23/22 10:20	03/28/22 14:48	5
890-2142-10	FS10	Solid	03/23/22 10:25	03/28/22 14:48	5
890-2142-11	FS11	Solid	03/23/22 10:30	03/28/22 14:48	5
890-2142-12	FS12	Solid	03/23/22 10:35	03/28/22 14:48	5
890-2142-13	FS13	Solid	03/23/22 10:45	03/28/22 14:48	5
890-2142-14	FS14	Solid	03/23/22 10:50	03/28/22 14:48	5
890-2142-15	FS15	Solid	03/23/22 10:55	03/28/22 14:48	5
890-2142-16	FS16	Solid	03/23/22 11:05	03/28/22 14:48	5
890-2142-17	SW01	Solid	03/23/22 11:50	03/28/22 14:48	0 - 5
890-2142-18	SW02	Solid	03/23/22 11:55	03/28/22 14:48	0 - 5
890-2142-19	SW03	Solid	03/23/22 12:05	03/28/22 14:48	0 - 5
890-2142-20	SW04	Solid	03/23/22 12:10	03/28/22 14:48	0 - 5
890-2142-21	SW05	Solid	03/23/22 12:15	03/28/22 14:48	0 - 5
890-2142-22	SW06	Solid	03/23/22 12:20	03/28/22 14:48	0 - 5

Chain of Custody

Work Order No: _____

XENCO LABORATORIES

Houston,TX (281) 240-4200 Dallas,TX (214) 902-0300 San Antonio,TX (210) 509-3334
Midland,TX (432-704-5440) EL Paso,TX (915)585-3443 Lubbock,TX (806)794-1296
Hobbs,NM (575-392-7550) Phoenix,AZ (480-355-0900) Atlanta,GA (770-449-8800) Tampa,FL (813-620-2000)
www.xenco.com

Project Manager:	Kalei Jennings	Bill to: (if different)	Adrian Baker
Company Name:	WSP USA	Company Name:	XTO Energy
Address:	3300 North A Street	Address:	3104 E Green Street
City, State ZIP:	Midland, Texas 79705	City, State ZIP:	Carlsbad, NM 88220
Phone:	432 704 5178	Email:	Kalei.Jennings@wsp.com, Adrian.Baker@exxonmobil.com,

Work Order Comments

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

Project Name:	BEU DI 30	Turn Around	
Project Number:	31403236.022.0129, Task 16.02	Routine	✓
P.O. Number:	NAPP 2200746777	Rush:	
Sampler's Name:	Mercy Rotich	Due Date:	

SAMPLE RECEIPT				
Temp Blank:	Yes No	Wet Ice:	Yes No	
Temperature (°C):	3.2 / 3.0	Thermometer ID		
Received Intact:	Yes No	1-NM-067		
Cooler Custody Seals:	Yes No N/A	Correction Factor:	-0.2	
Sample Custody Seals:	Yes No N/A	Total Containers:		

ANALYSIS REQUEST

890-2142 Chain of Custody

Work Order Notes

API:30-015-47145
CC:2096141001

TAT starts the day recevied by the lab, if received by 4:30pm

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number of Containers	TPH (EPA 8015)	BTEX (EPA 0=8021)	Chloride (EPA 300.0)	Sample Comments
FS01	S	03/23/22	8:50	5'	1	X	X	X	Discrete
FS02	S	03/23/22	8:55	5'	1	X	X	X	Discrete
FS03	S	03/23/22	9:00	5'	1	X	X	X	Discrete
FS04	S	03/23/22	9:05	5'	1	X	X	X	Discrete
FS05	S	03/23/22	9:20	5'	1	X	X	X	Discrete
FS06	S	03/23/22	9:25	5'	1	X	X	X	Discrete
FS07	S	03/23/22	9:40	5'	1	X	X	X	Discrete
FS08	S	03/23/22	9:45	5'	1	X	X	X	Discrete
FS09	S	03/23/22	10:20	5'	1	X	X	X	Discrete
FS10	S	03/23/22	10:25	5'	1	X	X	X	Discrete

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 Tl Sn U V Zn

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

	Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
1			3/28/22 2:48	2		
3				4		
5				6		

Revised Date 051418 Rev. 2018.1

Chain of Custody

Work Order No: _____

XENCO LABORATORIES

Houston,TX (281) 240-4200 Dallas,TX (214) 902-0300 San Antonio,TX (210) 509-3334
Midland,TX (432-704-5440) EL Paso,TX (915)585-3443 Lubbock,TX (806)794-1296
Hobbs,NM (575-392-7550) Phoenix,AZ (480-355-0900) Atlanta,GA (770-449-8800) Tampa,FL (813-620-2000)
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4/8/2022

Project Manager:	Kalei Jennings	Bill to: (if different)	Adrian Baker
Company Name:	WSP USA	Company Name:	XTO Energy
Address:	3300 North A Street	Address:	3104 E Green Street
City, State ZIP:	Midland, Texas 79705	City, State ZIP:	Carlsbad, NM 88220
Phone:	432 704 5178	Email:	Kalei.Jennings@wsp.com, Adrian.Baker@exxonmobil.com.

Work Order Comments

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

Project Name:	BEU DI 30	Turn Around	
Project Number:	31403236.022.0129, Task 16.02	Routine	✓
P.O. Number:	NAPP 2200746777	Rush:	
Sampler's Name:	Mercy Rotich	Due Date:	

SAMPLE RECEIPT				
Temp Blank:	(Yes) No	Wet Ice:	(Yes) No	
Temperature (°C):	3.2 / 3.0	Thermometer ID		
Received Intact:	(Yes) No	T-NM-007		
Cooler Custody Seals:	Yes No (N/A)	Correction Factor:	-0.2	
Sample Custody Seals:	Yes No (N/A)	Total Containers:		

Work Order Notes

API:30-015-47145
CC:2096141001

TAT starts the day recevied by the lab, if received by 4:30pm

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number of Containers	TPH (EPA 8015)	BTEX (EPA 0=8021)	Chloride (EPA 300.0)	Sample Comments
FS11	S	03/23/22	10:30	5'	1	X	X	X	Discrete
FS12	S	03/23/22	10:35	5'	1	X	X	X	Discrete
FS13	S	03/23/22	10:45	5'	1	X	X	X	Discrete
FS14	S	03/23/22	10:50	5'	1	X	X	X	Discrete
FS15	S	03/23/22	10:55	5'	1	X	X	X	Discrete
FS16	S	03/23/22	11:05	5'	1	X	X	X	Discrete
SW01	S	03/23/22	11:50	0-5'	1	X	X	X	Discrete
SW02	S	03/23/22	11:55	0-5'	1	X	X	X	Discrete
SW03	S	03/23/22	12:05	0-5'	1	X	X	X	Discrete
SW04	S	03/23/22	12:10	0-5'	1	X	X	X	Discrete

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 Tl Sn U V Zn

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

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
1		3/28/22 2:48	2		
3			4		
5			6		

Revised Date 051418 Rev. 2018 1

Chain of Custody

Work Order No: _____

XENCO LABORATORIES
Houston,TX (281) 240-4200 Dallas,TX (214) 902-0300 San Antonio,TX (210) 509-3334
Midland,TX (432-704-5440) EL Paso,TX (915)585-3443 Lubbock,TX (806)794-1296
Hobbs,NM (575-392-7550) Phoenix,AZ (480-355-0900) Atlanta,GA (770-449-8800) Tampa,FL (813-620-2000)
www.xenco.com

Project Manager:	Kalei Jennings	Bill to: (if different)	Adrian Baker
Company Name:	WSP USA	Company Name:	XTO Energy
Address:	3300 North A Street	Address:	3104 E Green Street
City, State ZIP:	Midland, Texas 79705	City, State ZIP:	Carlsbad, NM 88220
Phone:	432 704 5178	Email:	Kalei.Jennings@wsp.com, Adrian.Baker@exxonmobil.com.

Work Order Comments

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

Project Name:	BEU DI 30	Turn Around	
Project Number:	31403236.022.0129, Task 16.02	Routine	✓
P.O. Number:	NAPP 2200746777	Rush:	
Sampler's Name:	Mercy Rotich	Due Date:	

SAMPLE RECEIPT			
Temp Blank:	Yes No	Wet Ice:	Yes No
Temperature (°C):		Thermometer ID	
Received Intact:	Yes No		
Cooler Custody Seals:	Yes No N/A	Correction Factor:	
Sample Custody Seals:	Yes No N/A	Total Containers:	

ANALYSIS REQUEST

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number of Containers	TPH (EPA 8015)	BTEX (EPA 0=8021)	Chloride (EPA 300.0)
SW05	S	03/23/22	12:15	0-5'	1	X	X	X
SW06	S	03/23/22	12:20	0-5'	1	X	X	X

Work Order Notes

API:30-015-47145
CC:2096141001

TAT starts the day recevied by the lab, if received by 4:30pm

Sample Comments

Discrete
Discrete

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

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
1		3/28/22 2:48	2		
3			4		
5			6		

Revised Date 051418 Rev. 2018.1

Login Sample Receipt Checklist

Client: WSP USA Inc.

Job Number: 890-2142-1
SDG Number: 31403236.022.0129 TASK16.02

Login Number: 2142
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.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	

Login Sample Receipt Checklist

Client: WSP USA Inc.

Job Number: 890-2142-1
SDG Number: 31403236.022.0129 TASK16.02

Login Number: 2142
List Number: 2
Creator: Lowe, Katie

List Source: Eurofins Midland
List Creation: 03/29/22 01:12 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").	True	

ENSOLUM

APPENDIX D

NMOCD Notifications

From: Green, Garrett J
To: ocd.enviro@emnrd.nm.gov; Bratcher, Michael, EMNRD; Hamlet, Robert, EMNRD; Harimon, Jocelyn, EMNRD
Cc: DelawareSpills /SM; Tacoma Morrissey
Subject: XTO - Sampling Notification (Week of 11/14/22 - 11/18/22)
Date: Thursday, November 10, 2022 6:40:06 PM

[**EXTERNAL EMAIL**]

All,

XTO plans to complete final sampling activities at the following sites the week of Nov 14, 2022.

Monday
- BEU DI 30 Battery/ NAPP2200746777

Tuesday
- BEU DI 30 Battery/ NAPP2200746777
- PLU 89 / NRM1932350962

Wednesday
- BEU DI 30 Battery/ NAPP2200746777
- PLU 89 / NRM1932350962

Thursday
- PLU 293 Flow Line/ NAPP2126045826
- Big Sinks 2-24-30 Battery/ NAB1913729531

Friday
- Big Sinks 2-24-30 Battery/ NAB1913729531

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

Collins, Melanie

From: Collins, Melanie
Sent: Tuesday, March 22, 2022 9:52 AM
To: ocd.enviro@state.nm.us; mike.bratcher@state.nm.us
Cc: Cole, Aimee; Morrissey, Tacoma; Jennings, Kalei; DelawareSpills /SM
Subject: XTO-Extension Request - BEU DI 30 Battery (Incident Number NAPP2200746777)

All,

BEU DI 30 Battery (Incident Number NAPP2200746777)

XTO is requesting an extension of the current March 24, 2022 deadline for submitting a remediation work plan or closure report required in 19.15.29.12.B.(1) NMAC for the BEU DI 30 Battery (Incident Number NAPP2200746777). The release was discovered on December 24, 2021 and remediation activities are ongoing. Based on the most recent laboratory analytical results, additional remediation is required. In order to complete the remediation activities and submit a remediation work plan or closure report, XTO requests a 60-day extension of the deadline until May 23, 2022.

Thank you,

Melanie Collins
SSHE Technician
XTO ENERGY
An **ExxonMobil** Subsidiary
6401 Holiday Hill Rd, Bldg 5
Midland, TX 79707
432-218-3709

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 169460

CONDITIONS

Operator: XTO ENERGY, INC 6401 Holiday Hill Road Midland, TX 79707	OGRID: 5380
	Action Number: 169460
	Action Type: [C-141] Release Corrective Action (C-141)

CONDITIONS

Created By	Condition	Condition Date
jnobui	Deferral Request Approved. 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. The OCD will not close a release, where contaminants are left in place, due to close proximity to equipment. The incident will only be closed after all contaminated soil has been remediated to meet OCD Spill Rule Standards.	1/18/2023