Form C-141
Page 6

State of New Mexico
Oil Conservation Division

Incident ID	NAPP2211651017
District RP	
Facility ID	
Application ID	

Closure

The responsible party must attach information demonstrating they have complied with all applicable closure requirements and any conditions or directives of the OCD. This demonstration should be in the form of a comprehensive report (electronic submittals in .pdf format are preferred) including a scaled site map, sampling diagrams, relevant field notes, photographs of any excavation prior to backfilling, laboratory data including chain of custody documents of final sampling, and a narrative of the remedial activities. Refer to 19.15.29.12 NMAC.

Closure Report Attachment Checklist: *Each of the following items must be included in the closure report.*

☒ A scaled site and sampling diagram as described in 19.15.29.11 NMAC

☒ Photographs of the remediated site prior to backfill or photos of the liner integrity if applicable (Note: appropriate OCD District office must be notified 2 days prior to liner inspection)

☒ Laboratory analyses of final sampling (Note: appropriate ODC District office must be notified 2 days prior to final sampling)

☒ Description of remediation activities

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to OCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the OCD does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In addition, OCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations. The responsible party acknowledges they must substantially restore, reclaim, and re-vegetate the impacted surface area to the conditions that existed prior to the release or their final land use in accordance with 19.15.29.13 NMAC including notification to the OCD when reclamation and re-vegetation are complete.

Printed Name: _Garrett Green_____ Title: _Environmental Coordinator_____

Signature: ____Garrett Green_____ Date: __09/21/2022_____

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

OCD Only

Received by: Jocelyn Harimon Date: 09/22/2022

Closure approval by the OCD does not relieve the responsible party of liability should their operations have failed to adequately investigate and remediate contamination that poses a threat to groundwater, surface water, human health, or the environment nor does not relieve the responsible party of compliance with any other federal, state, or local laws and/or regulations.

Closure Approved by: Robert Hamlet Date: 12/13/2022

Printed Name: Robert Hamlet Title: Environmental Specialist - Advanced

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	NAPP2211651017
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Release Notification

Responsible Party

Responsible Party XTO Energy	OGRID 5380
Contact Name Adrian Baker	Contact Telephone 432-236-3808
Contact email adrian.baker@exxonmobil.com	Incident # *(assigned by OCD)*
Contact mailing address 6401 Holiday Hill Rd Bldg 5, Midland, Texas, 79707	

Location of Release Source

Latitude 32.10923 Longitude -103.88871
(NAD 83 in decimal degrees to 5 decimal places)

Site Name PLU 21 Brushy Draw 123H	Site Type Production Well
Date Release Discovered 04/15/2022	API# *(if applicable)*

Unit Letter	Section	Township	Range	County
N	21	25S	30E	Eddy

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

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)	Volume Recovered (bbls)
☐ Produced Water	Volume Released (bbls)	Volume Recovered (bbls)
	Is the concentration of total dissolved solids (TDS) in the produced water >10,000 mg/l?	☐ Yes ☐ No
☐ Condensate	Volume Released (bbls)	Volume Recovered (bbls)
☐ Natural Gas	Volume Released (Mcf)	Volume Recovered (Mcf)
☒ Other (describe) Produced Water w/FR	Volume/Weight Released (provide units) 10.00 BBLS	Volume/Weight Recovered (provide units) 2.00 BBLS

Cause of Release: Communication loss with blender during frac operations caused a release of fluids both to containment and pad. All free fluids were recovered. A third-party contractor has been retained for remediation purposes.

State of New Mexico
Oil Conservation Division

Incident ID	NAPP2211651017
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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

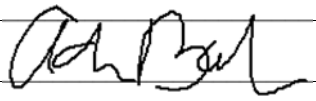
The responsible party must undertake the following actions immediately unless they could create a safety hazard that would result in injury

- ☒ 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: 
Date: 4/26/22
email: adrian.baker@exxonmobil.com
Telephone: 432-236-3808

OCD Only

Received by: Jocelyn Harimon
Date: 04/26/2022

Location:	PLU 21 Brushy Draw 123H	
Spill Date:	4/15/2022	

Area 1		
Approximate Area =	11.23	sq. ft.
VOLUME OF LEAK		
Total Crude Oil =	0.00	bbls
Total Produced Water =	2.00	bbls

Area 2		
Approximate Area =	4490.00	sq. ft.
Average Saturation (or depth) of spill =	4.00	inches

Average Porosity Factor =	0.03	

VOLUME OF LEAK		
Total Crude Oil =	0.00	bbls
Total Produced Water =	8.00	bbls

TOTAL VOLUME OF LEAK		
Total Crude Oil =	**0.00**	**bbls**
Total Produced Water =	**10.00**	**bbls**
TOTAL VOLUME RECOVERED		
Total Crude Oil =	**0.00**	**bbls**
Total Produced Water =	**2.00**	**bbls**

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

Operator: XTO ENERGY, INC 6401 Holiday Hill Road Midland, TX 79707	OGRID: 5380
	Action Number: 101682
	Action Type: [C-141] Release Corrective Action (C-141)

CONDITIONS

Created By	Condition	Condition Date
jharimon	None	4/26/2022

State of New Mexico
Oil Conservation Division

Incident ID	NAPP2211651017
District RP	
Facility ID	
Application ID	

Site Assessment/Characterization

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

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

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

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

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

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

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Page 4

State of New Mexico
Oil Conservation Division

Incident ID	NAPP2211651017
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Printed Name: _Garrett Green_____ Title: _Environmental Coordinator_____

Signature:_  _____ Date: ____09/21/2022_____

email: _garrett.green@exxonmobil.com_____ Telephone: ____575-200-0729_____

OCD Only

Received by: ____Jocelyn Harimon_____ Date: __09/22/2022____

State of New Mexico
Oil Conservation Division

Incident ID	NAPP2211651017
District RP	
Facility ID	
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Closure

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Closure Report Attachment Checklist: *Each of the following items must be included in the closure report.*

☒ A scaled site and sampling diagram as described in 19.15.29.11 NMAC

☒ Photographs of the remediated site prior to backfill or photos of the liner integrity if applicable (Note: appropriate OCD District office must be notified 2 days prior to liner inspection)

☒ Laboratory analyses of final sampling (Note: appropriate ODC District office must be notified 2 days prior to final sampling)

☒ Description of remediation activities

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to OCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the OCD does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In addition, OCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations. The responsible party acknowledges they must substantially restore, reclaim, and re-vegetate the impacted surface area to the conditions that existed prior to the release or their final land use in accordance with 19.15.29.13 NMAC including notification to the OCD when reclamation and re-vegetation are complete.

Printed Name: _Garrett Green_____ Title: _Environmental Coordinator_____

Signature: ____ _____ Date: __09/21/2022_____

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

OCD Only

Received by: Jocelyn Harimon Date: 09/22/2022

Closure approval by the OCD does not relieve the responsible party of liability should their operations have failed to adequately investigate and remediate contamination that poses a threat to groundwater, surface water, human health, or the environment nor does not relieve the responsible party of compliance with any other federal, state, or local laws and/or regulations.

Closure Approved by: _____ Date: _____

Printed Name: _____ Title: _____

ENSOLUM

September 21, 2022

District II
New Mexico Oil Conservation Division
811 South First Street
Artesia, New Mexico 88210

Re: Closure Request
PLU 21 Brushy Draw 104H, 123H, and 124H
Incident Numbers NAPP2209736479, NAPP2211151438, and NAPP2211651017
Eddy County, New Mexico

To Whom It May Concern:

Ensolum, LLC (Ensolum), on behalf of XTO Energy, Inc. (XTO), has prepared this Closure Request to document site assessment, excavation, and soil sampling activities at the PLU 21 Brushy Draw 104H, 123H, and 124H (Site). The purpose of the site assessment, excavation, and soil sampling activities was to address impacts to soil resulting from three separate releases of produced water with friction reducer onto the well pad. Based on field observations, field screening activities, and soil sample laboratory analytical results, XTO is submitting this Closure Request, describing remediation that has occurred and requesting closure for the following Incident Numbers NAPP2209736479, NAPP2211151438, and NAPP2211651017.

SITE DESCRIPTION AND RELEASE SUMMARY

The Site is located in Unit N, Section 21, Township 25 South, Range 30 East, in Eddy County, New Mexico (32.10934° N, 103.88918° W) and is associated with oil and gas exploration and production operations on Private Land.

Incident Number NAPP2209736479

On March 25, 2022, during hydraulic fracturing operations, the packing on two pumps and a hose failed resulting in the release of approximately 45.0 barrels (bbls) of produced water, treated with friction reducer, into a temporary containment and onto the Site pad. Approximately 40.0 bbls of released fluids were recovered. XTO reported the release to the New Mexico Oil Conservation Division (NMOCD) via email on March 25, 2022 and submitted a Release Notification Form C-141 (Form C-141) on April 7, 2022. The release was assigned Incident Number NAPP2209736479.

Incident Number NAPP2211151438

On April 8, 2022, during hydraulic fracturing operations, a blender failed resulting in the release of approximately 15.0 bbls of produced water, treated with friction reducer, into a temporary containment and onto the Site pad. Approximately 12.0 bbls of released fluids were recovered. XTO reported the

release to the NMOCD on a Form C-141 on April 21, 2022. The release was assigned Incident Number NAPP2211151438.

Incident Number NAPP2211651017

On April 15, 2022, during hydraulic fracturing operations, communication loss with a blender resulted in the release of approximately 10.0 bbls of produced water, treated with friction reducer, into a temporary containment and onto the Site pad. Approximately 2.0 bbls of released fluids were recovered. XTO reported the release to the NMOCD on a Form C-141 on April 26, 2022. The release was assigned Incident Number NAPP2211651017.

Produced water is recycled through filtering and separation, then mixed in a blender with friction reducer and used as hydraulic fracturing fluid during the well completion process. The three release areas overlapped and were addressed concurrently. The temporary liners were removed prior to beginning Site assessment activities. As such, liner inspections could not be completed. The release extent (combined) was identified based on information provided on the Form C-141 and visual observations.

SITE CHARACTERIZATION AND CLOSURE CRITERIA

The Site was characterized according to Table 1, Closure Criteria for Soils Impacted by a Release, of Title 19, Chapter 15, Part 29, Section 12 (19.15.29.12) of the New Mexico Administrative Code (NMAC). Results from the characterization desktop review are presented on page 3 of the Form C-141, Site Assessment/Characterization. Potential site receptors are identified on Figure 1.

Depth to groundwater at the Site is estimated to be greater than 100 feet below ground surface (bgs) based on the nearest groundwater well data. The closest permitted groundwater well with depth to groundwater data is United States Geological Survey (USGS) well 320628103533001, located approximately 0.18 miles southwest of the Site. The groundwater well has a reported depth to groundwater of 264 feet bgs and a total depth of 288 feet bgs. Ground surface elevation at the groundwater well location is 3,207 feet above mean sea level (amsl), which is approximately 28 feet lower in elevation than the Site. The referenced well records are included in Appendix A.

The closest continuously flowing or significant watercourse to the Site is an intermittent dry wash, located approximately 186 feet southeast of the Site. The Site is greater than 200 feet from a lakebed, sinkhole, or playa lake and greater than 300 feet from an occupied residence, school, hospital, institution, church, or wetland. The Site is not greater than 1,000 feet to a freshwater well or spring and is not within a 100-year floodplain or overlying a subsurface mine. The Site is not underlain by unstable geology (low potential karst designation area).

Based on the proximity of the nearby intermittent dry wash and water well, the following NMOCD Table 1 Closure Criteria (Closure Criteria) apply:

- Benzene: 10 milligrams per kilogram (mg/kg)
- Benzene, toluene, ethylbenzene, and total xylenes (BTEX): 50 mg/kg
- Total petroleum hydrocarbons (TPH): 100 mg/kg
- Chloride: 600 mg/kg

SITE ASSESSMENT ACTIVITIES

On June 17, 2022, Ensolum personnel visited the Site to evaluate the release extent based on information provided on the Form C-141s and visual observations. Four preliminary soil samples (SS01 through SS04) were collected within and around (SS04) the release extent at a depth of approximately 0.5 feet bgs to assess surficial soil within the release extent. The preliminary soil samples were field screened for volatile aromatic hydrocarbons and chloride utilizing a calibrated photoionization detector (PID) and Hach® chloride QuanTab® test strips, respectively. The release extent and preliminary soil sample locations were mapped utilizing a handheld Global Positioning System (GPS) unit and are depicted on Figure 2. Photographic documentation is included in Appendix B.

The soil samples were placed directly into pre-cleaned glass jars, labeled with the location, date, time, sampler name, method of analysis, and immediately placed on ice. The soil samples were transported at or below 4 degrees Celsius (°C) under strict chain-of-custody procedures to Eurofins Laboratories (Eurofins) in Carlsbad, New Mexico, for analysis of BTEX following United States Environmental Protection Agency (EPA) Method 8021B; TPH-gasoline range organics (GRO), TPH-(diesel range organics (DRO), and TPH-oil range organics (ORO) following EPA Method 8015M/D; and chloride following EPA Method 300.0.

Laboratory analytical results for preliminary soil samples SS01 through SS04 indicated TPH and chloride concentrations exceeded the Closure Criteria. Based on visible staining within the release extent, elevated field screening results, and laboratory analytical results for the preliminary soil samples, excavation and delineation activities appeared warranted.

DELINEATION AND EXCAVATION SOIL SAMPLING ACTIVITIES

Between August 31, 2022 and September 2, 2022, Ensolum personnel were at the Site to oversee delineation and excavation activities. Delineation samples from potholes PH01 through PH04 were advanced via trackhoe in the vicinity of the four preliminary soil sample locations, respectively, that were collected within the release extent to assess the vertical extent of the release; depths ranged from 1-foot to 2 feet bgs. Soil from the delineation samples was only field screened for volatile aromatic hydrocarbons and chloride; soil samples for laboratory analysis were not collected or submitted since excavation activites were to proceed delineation activites. Field screening results and observations for the potholes were logged on lithologic/soil sampling logs, which are included in Appendix C. The potholes and delineation soil sample locations are depicted on Figure 2.

Impacted soil was excavated from the release extent as indicated by visible staining, field screening activities for potholes PH01 through PH04, and laboratory analytical results of preliminary soil samples SS01 through SS04. Excavation activities were performed using a trackhoe, backhoe and transport vehicles. To direct excavation activities, Ensolum personnel screened soil for volatile aromatic hydrocarbons and chloride. Following removal of impacted soil, Ensolum personnel collected 5-point composite soil samples representing no more than 200 square feet from the sidewalls and floor of the excavation. The 5-point composite samples were collected by placing five equivalent aliquots of soil into a 1-gallon, resealable plastic bag and homogenizing the samples by thoroughly mixing. Composite soil samples FS01 through FS28 were collected from the floor of the excavation at depths ranging from 2 feet to 3 feet bgs. Composite soil samples SW01 through SW04 were collected from the sidewall of the excavation at depths ranging from ground surface to 3 feet bgs. The excavation soil samples were collected, handled, and analyzed following the same procedures as described above. The excavation extent and excavation soil sample locations are presented on Figure 3.

The final excavation extent measured approximately 5,600 square feet. A total of approximately 440 cubic yards of impacted soil was removed during the excavation activities. The impacted soil was

transported and properly disposed of at the R360 Facility in Hobbs, New Mexico. After completion of confirmation sampling, the excavation area was secured with fencing.

LABORATORY ANALYTICAL RESULTS

Laboratory analytical results for the excavation floor soil samples FS01 through FS28 and sidewall soil samples SW01 through SW04 indicated benzene, BTEX, TPH, and chloride concentrations were compliant with the Closure Criteria. Laboratory analytical results for excavation floor soil sample FS18 at 2 feet bgs initially indicated minimal concentrations of TPH exceeded the Site Closure Criteria. On September 15, 2022, Ensolum personnel returned to the Site to re-collect composite soil sample FS18, in which the subsequent laboratory analytical results were compliant with the Site Closure Criteria. Laboratory analytical results are summarized in Table 1 and the complete laboratory analytical reports are included as Appendix D.

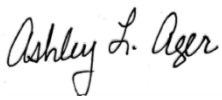
CLOSURE REQUEST

Site assessment and excavation activities were conducted at the Site to address the March 25, 2022, April 8, 2022, and April 15, 2022, releases of produced water treated with friction reducer. Laboratory analytical results for the excavation soil samples, collected from the final excavation extent, indicated benzene, BTEX, TPH, and chloride concentrations were compliant with the Site Closure Criteria. Based on the soil sample analytical results, no further remediation appears required at this time. XTO will backfill the excavation with material purchased locally and recontour the Site to match pre-existing site conditions. Notifications to NMOCD regarding sampling events are included in Appendix E. The Safety Data Sheet (SDS) for friction reducer is provided in Appendix F.

Excavation of impacted soil has mitigated impacts at this Site and depth to groundwater has been estimated to be greater than 100 feet bgs. XTO believes these remedial actions are protective of human health, the environment, and groundwater. As such, XTO respectfully requests closure for Incident Numbers NAPP2209736479, NAPP2211151438 and NAPP2211651017.

If you have any questions or comments, please contact Ms. Ashley Ager at (970) 946-1093 or aager@ensolum.com.

Sincerely,
Ensolum, LLC



Benjamin J. Belill
Project Geologist

Ashley L. Ager, M.S., PG
Program Director

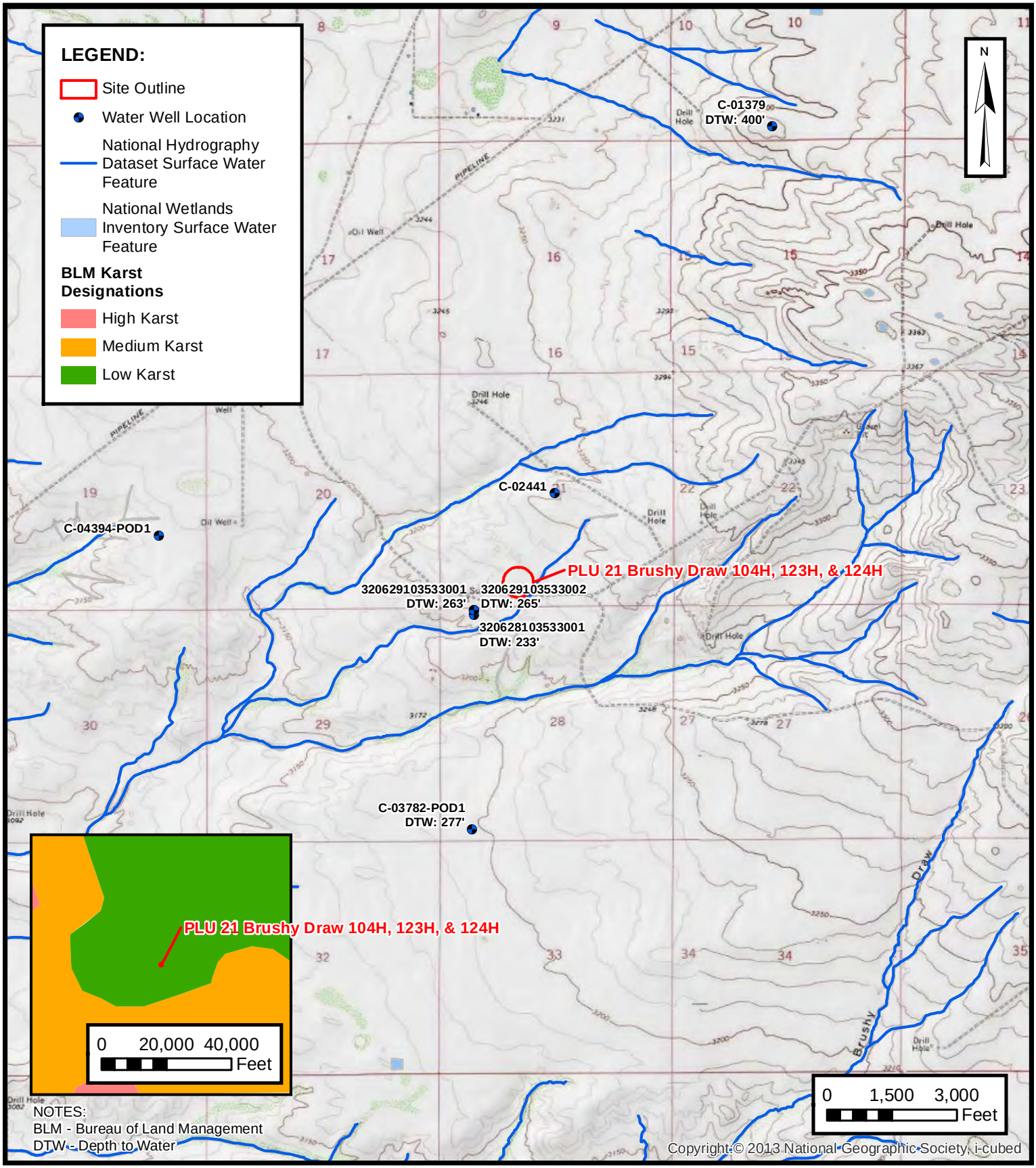
cc: Garrett Green, XTO
Shelby Pennington, XTO

Appendices:

Figure 1 Site Receptor Map
Figure 2 Delineation Soil Sample Locations

ENSOLUM

FIGURES



ENSOLUM
Environmental, Engineering and Hydrogeologic Consultants

SITE RECEPTOR MAP

XTO ENERGY, INC
PLU 21 BRUSHY DRAW 104H, 123H & 124H
nAPP2209736479, nAPP2211651017, nAPP2211151438
Unit N, Sec 21, T25S, R30E
Eddy County, New Mexico

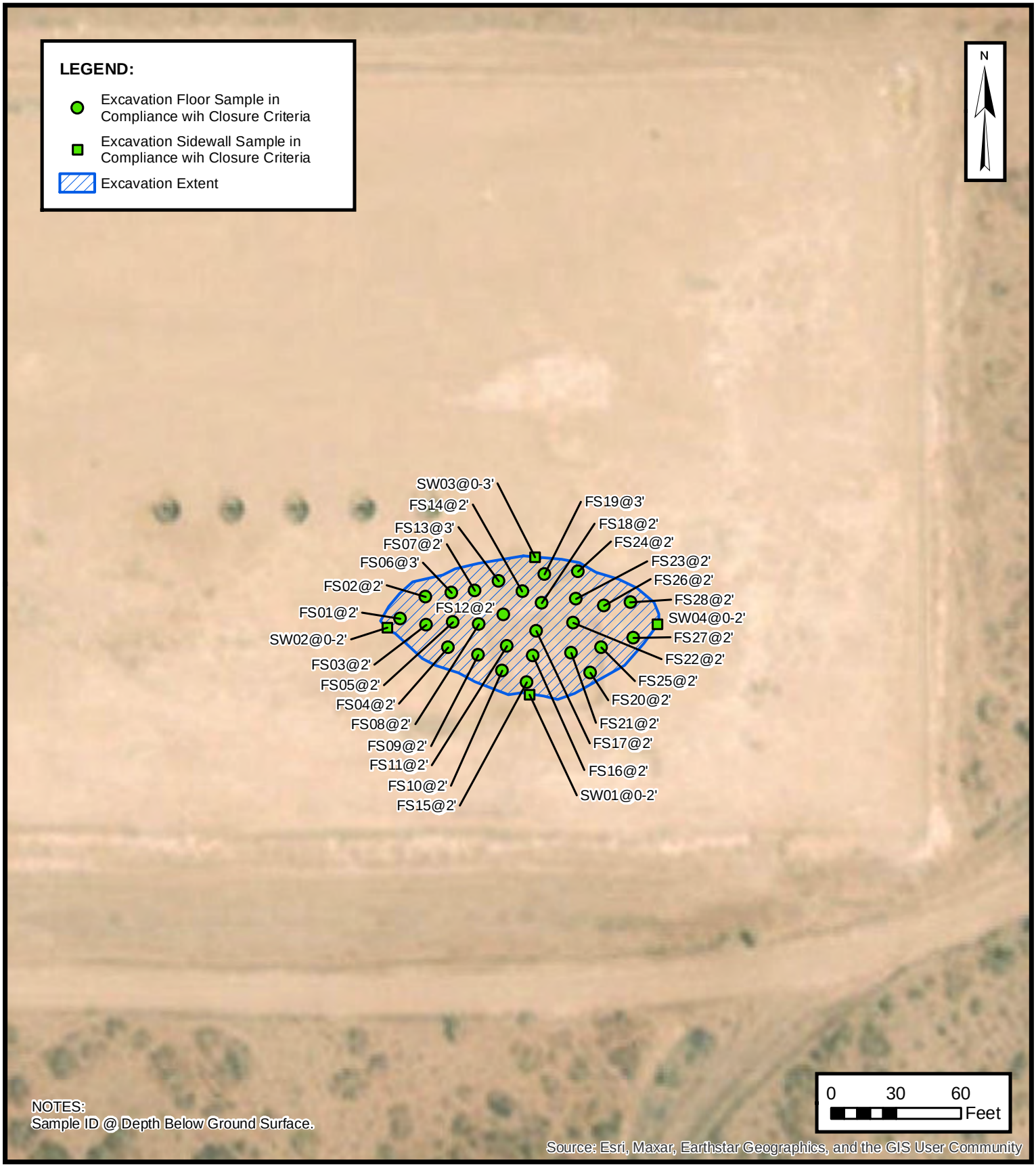
FIGURE
1

ENSOLUM
Environmental, Engineering and Hydrogeologic Consultants

DELINEATION SOIL SAMPLE LOCATIONS

XTO ENERGY, INC
PLU 21 BRUSHY DRAW 104H, 123H, & 124H
nAPP2209736479, nAPP2211651017, nAPP2211151438
Unit N, Sec 21, T25S, R30E
Eddy County, New Mexico

FIGURE
2



ENSOLUM
Environmental, Engineering and Hydrogeologic Consultants

EXCAVATION SOIL SAMPLE LOCATIONS

XTO ENERGY, INC
PLU 21 BRUSHY DRAW 104H, 123H & 124H
nAPP2209736479, nAPP2211651017, nAPP2211151438
Unit N, Sec 21, T25S, R30E
Eddy County, New Mexico

FIGURE
3

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TABLES

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TABLE 1
SOIL SAMPLE ANALYTICAL RESULTS
PLU 21 Brushy Draw 104H, 123H, & 124H
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 1 Closure Criteria (NMAC 19.15.29)			10	50	NE	NE	NE	NE	100	600
Delineation Soil Samples										
SS01	*06/17/2022*	*0.5*	*<0.00199*	*<0.00398*	*125*	*7,380*	*<49.9*	*7,505*	***7,510***	***41,500***
PH01	*08/31/2022*	*2*	*<0.00200*	*<0.00399*	*<50.0*	*<50.0*	*<50.0*	*<50.0*	*<50.0*	*259*
SS02	*06/17/2022*	*0.5*	*<0.00199*	*<0.00398*	*<49.9*	*3,910*	*1,160*	*3,910*	***5,070***	***16,900***
PH02	*08/31/2022*	*2*	*<0.00198*	*<0.00396*	*<49.9*	*<49.9*	*<49.9*	*<49.9*	*<49.9*	*51.7*
SS03	*06/17/2022*	*0.5*	*<0.00200*	*<0.00399*	*279*	*7,120*	*4,390*	*7,399*	***11,800***	***31,300***
PH03	*08/31/2022*	*2*	*<0.00200*	*<0.00401*	*<50.0*	*<50.0*	*<50.0*	*<50.0*	*<50.0*	*541*
SS04	*06/17/2022*	*0.5*	*<0.00199*	*<0.00398*	*<50.0*	*115*	*177*	*115*	***292***	***12,600***
PH04	*08/31/2022*	*2*	*<0.00202*	*<0.00403*	*<49.9*	*<49.9*	*<49.9*	*<49.9*	*<49.9*	***644***
Confirmation Soil Samples										
FS01	09/01/2022	2	<0.00199	<0.00398	<50.0	<50.0	<50.0	<50.0	<50.0	219
FS02	09/01/2022	2	<0.00198	<0.00397	<49.9	<49.9	<49.9	<49.9	<49.9	328
FS03	09/01/2022	2	<0.00201	<0.00402	<50.0	<50.0	<50.0	<50.0	<50.0	103
FS04	09/01/2022	2	<0.00202	<0.00403	55.9	<49.8	<49.8	55.9	55.9	333
FS05	09/01/2022	2	<0.00199	<0.00398	<49.8	<49.8	<49.8	<49.8	<49.8	329
FS06	09/02/2022	3	<0.00201	<0.00402	<50.0	<50.0	<50.0	<50.0	<50.0	430
FS07	09/02/2022	3	<0.00201	<0.00402	<49.8	<49.8	<49.8	<49.8	<49.8	369
FS08	09/01/2022	2	<0.00201	<0.00402	<49.9	<49.9	<49.9	<49.9	<49.9	354
FS09	09/01/2022	2	<0.00200	<0.00400	<50.0	<50.0	<50.0	<50.0	<50.0	56.7
FS10	09/01/2022	2	<0.00201	<0.00402	<49.9	<49.9	<49.9	<49.9	<49.9	92.3
FS11	09/01/2022	2	<0.00199	<0.00398	<49.9	<49.9	<49.9	<49.9	<49.9	181
FS12	09/01/2022	2	<0.00198	<0.00397	<50.0	<50.0	<50.0	<50.0	<50.0	238
FS13	09/02/2022	3	<0.00200	<0.00401	<49.8	<49.8	<49.8	<49.8	<49.8	392
FS14	09/02/2022	3	<0.00201	<0.00402	<49.9	<49.9	<49.9	<49.9	<49.9	369
FS15	09/02/2022	2	<0.00199	<0.00398	<50.0	<50.0	<50.0	<50.0	<50.0	249
FS16	09/02/2022	2	<0.00200	<0.00399	<49.9	<49.9	<49.9	<49.9	<49.9	283
FS17	09/02/2022	2	<0.00199	<0.00398	<49.9	<49.9	<49.9	<49.9	<49.9	119
FS18	*09/02/2022*	*2*	*<0.00200*	*<0.00399*	*<50.0*	*175*	*<50.0*	*175*	***175***	*167*
FS18	09/15/2022	2	<0.00200	<0.00399	<49.9	<49.9	<49.9	<49.9	<49.9	237
FS19	09/02/2022	3	<0.00198	<0.00397	<49.9	<49.9	<49.9	<49.9	<49.9	99.9
FS20	09/02/2022	2	0.00336	0.00812	<49.9	<49.9	<49.9	<49.9	<49.9	52.5
FS21	09/02/2022	2	<0.00199	<0.00398	<50.0	<50.0	<50.0	<50.0	<50.0	178
FS22	09/02/2022	2	<0.00201	<0.00402	<49.9	<49.9	<49.9	<49.9	<49.9	46.4

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TABLE 1
SOIL SAMPLE ANALYTICAL RESULTS
PLU 21 Brushy Draw 104H, 123H, & 124H
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 1 Closure Criteria (NMAC 19.15.29)			10	50	NE	NE	NE	NE	100	600
FS23	09/02/2022	2	<0.00202	<0.00403	<49.9	<49.9	<49.9	<49.9	<49.9	35.2
FS24	09/02/2022	2	<0.00200	<0.00399	<50.0	<50.0	<50.0	<50.0	<50.0	24.7
FS25	09/02/2022	2	<0.00199	<0.00398	<49.9	<49.9	<49.9	<49.9	<49.9	40.9
FS26	09/02/2022	2	<0.00199	<0.00398	<50.0	<50.0	<50.0	<50.0	<50.0	399
FS27	09/02/2022	2	<0.00200	<0.00401	<49.9	<49.9	<49.9	<49.9	<49.9	528
FS28	09/02/2022	2	<0.00199	<0.00398	<49.9	<49.9	<49.9	<49.9	<49.9	497
SW01	09/02/2022	0-2	<0.00198	<0.00397	<49.9	<49.9	<49.9	<49.9	<49.9	390
SW02	09/02/2022	0-2	<0.00199	<0.00398	<49.9	<49.9	<49.9	<49.9	<49.9	533
SW03	09/02/2022	0-3	<0.00202	<0.00403	<50.0	<50.0	<50.0	<50.0	<50.0	210
SW04	09/02/2022	0-2	<0.00200	<0.00399	<49.9	<49.9	<49.9	<49.9	<49.9	119

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.
Grey text indicate soil sample removed during excavation activities or re-sampled

GRO: Gasoline Range Organics
DRO: Diesel Range Organics
ORO: Oil Range Organics
TPH: Total Petroleum Hydrocarbon

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APPENDIX A

Referenced Well Records

Click to hideNews Bulletins

- Explore the *NEW* USGS National Water Dashboard interactive map to access real-time water data from over 13,500 stations nationwide.
- Attention current WaterAlert users: NextGen WaterAlert is replacing Legacy WaterAlert. You must take action before 9/30/2022 to retain your alerts. Read more.
- Full News

Groundwater levels for the Nation

Important: Next Generation Monitoring Location Page

Search Results -- 1 sites found

Agency code = usgs
site_no list =
- 320628103533001

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

USGS 320628103533001 25S.30E.21.333424

Eddy County, New Mexico
Latitude 32°06'28", Longitude 103°53'30" NAD27
Land-surface elevation 3,207 feet above NAVD88
The depth of the well is 288 feet below land surface.
This well is completed in the Pecos River Basin alluvial aquifer (N100PCSRVR) national aquifer.
This well is completed in the Alluvium, Bolson Deposits and Other Surface Deposits (110AVMB) local aquifer.

Output formats

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

Date	Time	? Water-level date-time accuracy	? Parameter code	Water level, feet below land surface	Water level, feet above specific vertical datum	Referenced vertical datum	? Status	? Method of measurement	? Measuring agency	? Source measu
1958-08-21		D	62610		2972.36	NGVD29	1	Z		
1958-08-21		D	62611		2974.00	NAVD88	1	Z		
1958-08-21		D	72019	233.00			1	Z		
1959-02-05		D	62610		2939.26	NGVD29	P	Z		
1959-02-05		D	62611		2940.90	NAVD88	P	Z		
1959-02-05		D	72019	266.10			P	Z		
1983-02-01		D	62610		2945.48	NGVD29	1	Z		
1983-02-01		D	62611		2947.12	NAVD88	1	Z		
1983-02-01		D	72019	259.88			1	Z		
1998-01-28		D	62610		2940.76	NGVD29	1	S		
1998-01-28		D	62611		2942.40	NAVD88	1	S		
1998-01-28		D	72019	264.60			1	S		

Explanation

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

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APPENDIX B

Photographic Log

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Photographic Log
XTO Energy, Inc.
PLU 21 Brushy Draw 104H, 123H, & 124H
Incident Numbers: NAPP2209736479, NAPP2211651017, NAPP2211151438

Photograph 1 Date: June 17, 2022
Description: Site Assessment Activities

Photograph 2 Date: August 31, 2022
Description: Delineation Activities

Photograph 3 Date: September 2, 2022
Description: Excavation Activities

Photograph 4 Date: September 2, 2022
Description: Excavation Activities

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APPENDIX C

Lithologic Soil Sampling Logs

ENSOLUM
Environmental, Engineering and Hydrogeologic Consultants

	Sample Name: PH01	Date: 8/31/2022
	Site Name: PLU 21 BD 104H, 123H, 124H	
	Incident Number: Multiple	
	Job Number: 03E1558048	
LITHOLOGIC / SOIL SAMPLING LOG	Logged By: KP	Method: Trackhoe
Coordinates: 32.109326, -103.88892	Hole Diameter: N/A	Total Depth: 2'

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

Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample ID	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithologic Descriptions
						0	CCHE (fill)	0-0.5', CALICHE w/ fine sand, moist, tan, some small sub-round gravel, brown stain, light H/C odor, fill.
M	2,552	1.0	Y	SS01	0.5		SP	0.5'-2', SAND, moist, brown, poorly graded, fine grain, trace silt, no stain, no odor.
M	6,076	0.2	N		1	1		
M	280	0.2	N	PH01	2	2		
							TD	Total Depth at 2 feet bgs.

ENSOLUM
Environmental, Engineering and Hydrogeologic Consultants

	Sample Name: PH02	Date: 8/31/2022
	Site Name: PLU 21 BD 104H, 123H, 124H	
	Incident Number: Multiple	
	Job Number: 03E1558048	
LITHOLOGIC / SOIL SAMPLING LOG	Logged By: KP	Method: Trackhoe
Coordinates: 32.109326, -103.88892	Hole Diameter: N/A	Total Depth: 2'

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

Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample ID	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithologic Descriptions
						0	CCHE (fill)	0-0.5', CALICHE w/ fine sand, moist, tan, some small sub-round gravel, brown stain, light H/C odor, fill.
M	4,340	8.9	Y	SS02	0.5		SP	0.5'-2', SAND, moist, brown, poorly graded, fine grain, trace silt, no stain, no odor.
M	3,516	0.2	N		1	1		
M	<112	0.2	N	PH02	2	2		
							TD	Total Depth at 2 feet bgs.

ENSOLUM
Environmental, Engineering and Hydrogeologic Consultants

	Sample Name: PH03	Date: 8/31/2022
	Site Name: PLU 21 BD 104H, 123H, 124H	
	Incident Number: Multiple	
	Job Number: 03E1558048	
LITHOLOGIC / SOIL SAMPLING LOG	Logged By: KP	Method: Trackhoe
Coordinates: 32.109326, -103.88892	Hole Diameter: N/A	Total Depth: 2'

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

Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample ID	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithologic Descriptions
						0	CCHE (fill)	0-0.5', CALICHE w/ fine sand, moist, tan, some small sub-round gravel, brown stain, light H/C odor, fill.
M	1,892	3.8	Y	SS03	0.5		SP	0.5'-2', SAND, moist, brown, poorly graded, fine grain, trace silt, no stain, no odor.
M	4,429	0.2	N		1	1		
M	520	0.2	N	PH03	2	2		
							TD	Total Depth at 2 feet bgs.

ENSOLUM
Environmental, Engineering and Hydrogeologic Consultants

	Sample Name: PH04	Date: 8/31/2022
	Site Name: PLU 21 BD 104H, 123H, 124H	
	Incident Number: Multiple	
	Job Number: 03E1558048	
LITHOLOGIC / SOIL SAMPLING LOG	Logged By: KP	Method: Trackhoe
Coordinates: 32.109326, -103.88892	Hole Diameter: N/A	Total Depth: 2'

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

Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample ID	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithologic Descriptions
						0	CCHE (fill)	0-0.5', CALICHE w/ fine sand, moist, tan, some small sub-round gravel, brown stain, light H/C odor, fill.
M	3,712	3.5	Y	SS04	0.5		SP	0.5'-2', SAND, moist, brown, poorly graded, fine grain, trace silt, no stain, no odor.
M	2,111	0.2	N		1	1		
M	520	0.2	N	PH04	2	2		
							TD	Total Depth at 2 feet bgs.

ENSOLUM

APPENDIX D

Laboratory Analytical Reports & Chain of Custody Documentation

eurofins | Environment Testing America

ANALYTICAL REPORT

Eurofins Carlsbad
1089 N Canal St.
Carlsbad, NM 88220
Tel: (575)988-3199

Laboratory Job ID: 890-2427-1
Laboratory Sample Delivery Group: 03E1558053
Client Project/Site: PLU 21 BD 104H, 123H, 124H
Revision: 1

For:
Ensolum
705 W. Wadley
Suite 210
Midland, Texas 79701

Attn: Ben Belill

Jkramer

Authorized for release by:
9/13/2022 11:50:01 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.

Client: Ensolum
Project/Site: PLU 21 BD 104H, 123H, 124H

Laboratory Job ID: 890-2427-1
SDG: 03E1558053

Table of Contents

Definitions/Glossary

Client: Ensolum
Project/Site: PLU 21 BD 104H, 123H, 124H

Job ID: 890-2427-1
SDG: 03E1558053

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

GC Semi VOA

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

HPLC/IC

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

Glossary

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

Case Narrative

Client: Ensolum
Project/Site: PLU 21 BD 104H, 123H, 124H

Job ID: 890-2427-1
SDG: 03E1558053

Job ID: 890-2427-1

Laboratory: Eurofins Carlsbad

Narrative

Job Narrative
890-2427-1

REVISION

The report being provided is a revision of the original report sent on 6/24/2022. The report (revision 1) is being revised due to Per client email, requesting sample ID change.

Report revision history

Receipt
The sample was received on 6/17/2022 4:33 PM. 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 14.0°C

GC VOA
Method 8021B: The laboratory control sample (LCS) for preparation batch 880-28063 and analytical batch 880-28005 recovered outside control limits for the following analytes: o-Xylene. These analytes were biased high in the LCS and were not detected in the associated samples; therefore, the data have been reported.

Method 8021B: The matrix spike / matrix spike duplicate (MS/MSD) precision for preparation batch 880-28063 and analytical batch 880-28005 was outside control limits. Sample matrix interference is suspected.

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: SS01 (890-2427-1). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

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

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

Client Sample Results

Client: Ensolum
Project/Site: PLU 21 BD 104H, 123H, 124H

Job ID: 890-2427-1
SDG: 03E1558053

Client Sample ID: SS01
Date Collected: 06/17/22 12:35
Date Received: 06/17/22 16:33
Sample Depth: 0.5'

Lab Sample ID: 890-2427-1
Matrix: Solid

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199		mg/Kg		06/21/22 14:42	06/21/22 23:51	1
Toluene	<0.00199	U	0.00199		mg/Kg		06/21/22 14:42	06/21/22 23:51	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		06/21/22 14:42	06/21/22 23:51	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		06/21/22 14:42	06/21/22 23:51	1
o-Xylene	<0.00199	U *+	0.00199		mg/Kg		06/21/22 14:42	06/21/22 23:51	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		06/21/22 14:42	06/21/22 23:51	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*117*		*70 - 130*	*06/21/22 14:42*	*06/21/22 23:51*	*1*
1,4-Difluorobenzene (Surr)	*105*		*70 - 130*	*06/21/22 14:42*	*06/21/22 23:51*	*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			06/22/22 12:17	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	**7510**		49.9		mg/Kg			06/22/22 11:20	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	**125**		49.9		mg/Kg		06/22/22 14:48	06/22/22 22:17	1
Diesel Range Organics (Over C10-C28)	**7380**		49.9		mg/Kg		06/22/22 14:48	06/22/22 22:17	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		06/22/22 14:48	06/22/22 22:17	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*132*	*S1+*	*70 - 130*	*06/22/22 14:48*	*06/22/22 22:17*	*1*
o-Terphenyl	*115*		*70 - 130*	*06/22/22 14:48*	*06/22/22 22:17*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**41500**		250		mg/Kg			06/24/22 13:40	50

Surrogate Summary

Client: Ensolum
Project/Site: PLU 21 BD 104H, 123H, 124H

Job ID: 890-2427-1
SDG: 03E1558053

Method: 8021B - Volatile Organic Compounds (GC)

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

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	BFB1 (70-130)	DFBZ1 (70-130)
890-2426-A-1-C MS	Matrix Spike	110	99
890-2426-A-1-D MSD	Matrix Spike Duplicate	91	93
890-2427-1	SS01	117	105
LCS 880-28063/1-A	Lab Control Sample	121	100
LCSD 880-28063/2-A	Lab Control Sample Dup	110	104
MB 880-27967/5-A	Method Blank	93	110
MB 880-28063/5-A	Method Blank	95	107

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)
890-2427-1	SS01	132 S1+	115

Surrogate Legend

1CO = 1-Chlorooctane
OTPH = o-Terphenyl

QC Sample Results

Client: Ensolum
Project/Site: PLU 21 BD 104H, 123H, 124H

Job ID: 890-2427-1
SDG: 03E1558053

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-27967/5-A
Matrix: Solid
Analysis Batch: 28005

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 27967

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		06/20/22 15:20	06/21/22 12:25	1
Toluene	<0.00200	U	0.00200		mg/Kg		06/20/22 15:20	06/21/22 12:25	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		06/20/22 15:20	06/21/22 12:25	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		06/20/22 15:20	06/21/22 12:25	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		06/20/22 15:20	06/21/22 12:25	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		06/20/22 15:20	06/21/22 12:25	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*93*		*70 - 130*	*06/20/22 15:20*	*06/21/22 12:25*	*1*
1,4-Difluorobenzene (Surr)	*110*		*70 - 130*	*06/20/22 15:20*	*06/21/22 12:25*	*1*

Lab Sample ID: MB 880-28063/5-A
Matrix: Solid
Analysis Batch: 28005

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 28063

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		06/21/22 14:42	06/21/22 23:09	1
Toluene	<0.00200	U	0.00200		mg/Kg		06/21/22 14:42	06/21/22 23:09	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		06/21/22 14:42	06/21/22 23:09	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		06/21/22 14:42	06/21/22 23:09	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		06/21/22 14:42	06/21/22 23:09	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		06/21/22 14:42	06/21/22 23:09	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*95*		*70 - 130*	*06/21/22 14:42*	*06/21/22 23:09*	*1*
1,4-Difluorobenzene (Surr)	*107*		*70 - 130*	*06/21/22 14:42*	*06/21/22 23:09*	*1*

Lab Sample ID: LCS 880-28063/1-A
Matrix: Solid
Analysis Batch: 28005

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 28063

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Benzene			0.100	0.09845		mg/Kg		98	70 - 130		
Toluene			0.100	0.1157		mg/Kg		116	70 - 130		
Ethylbenzene			0.100	0.1118		mg/Kg		112	70 - 130		
m-Xylene & p-Xylene			0.200	0.2330		mg/Kg		117	70 - 130		
o-Xylene			0.100	0.1311	*+	mg/Kg		131	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*121*		*70 - 130*
1,4-Difluorobenzene (Surr)	*100*		*70 - 130*

Lab Sample ID: LCSD 880-28063/2-A
Matrix: Solid
Analysis Batch: 28005

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 28063

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene			0.100	0.1045		mg/Kg		105	70 - 130	6	35

QC Sample Results

Client: Ensolum
Project/Site: PLU 21 BD 104H, 123H, 124H

Job ID: 890-2427-1
SDG: 03E1558053

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

Lab Sample ID: LCSD 880-28063/2-A — **Client Sample ID: Lab Control Sample Dup**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 28005 — **Prep Batch: 28063**

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Toluene			0.100	0.1127		mg/Kg		113	70 - 130	3	35
Ethylbenzene			0.100	0.1015		mg/Kg		102	70 - 130	10	35
m-Xylene & p-Xylene			0.200	0.2046		mg/Kg		102	70 - 130	13	35
o-Xylene			0.100	0.1150		mg/Kg		115	70 - 130	13	35

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*110*		*70 - 130*
1,4-Difluorobenzene (Surr)	*104*		*70 - 130*

Lab Sample ID: 890-2426-A-1-C MS — **Client Sample ID: Matrix Spike**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 28005 — **Prep Batch: 28063**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	<0.00199	U F1	0.100	0.07404		mg/Kg		74	70 - 130
Toluene	<0.00199	U F1	0.100	0.07758		mg/Kg		77	70 - 130
Ethylbenzene	<0.00199	U F1	0.100	0.06116	F1	mg/Kg		61	70 - 130
m-Xylene & p-Xylene	<0.00398	U F1	0.200	0.1209	F1	mg/Kg		60	70 - 130
o-Xylene	<0.00199	U F1 *+	0.100	0.06788	F1	mg/Kg		68	70 - 130

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*110*		*70 - 130*
1,4-Difluorobenzene (Surr)	*99*		*70 - 130*

Lab Sample ID: 890-2426-A-1-D MSD — **Client Sample ID: Matrix Spike Duplicate**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 28005 — **Prep Batch: 28063**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	<0.00199	U F1	0.100	0.06494	F1	mg/Kg		65	70 - 130	13	35
Toluene	<0.00199	U F1	0.100	0.06696	F1	mg/Kg		67	70 - 130	15	35
Ethylbenzene	<0.00199	U F1	0.100	0.04899	F1	mg/Kg		49	70 - 130	22	35
m-Xylene & p-Xylene	<0.00398	U F1	0.201	0.09419	F1	mg/Kg		47	70 - 130	25	35
o-Xylene	<0.00199	U F1 *+	0.100	0.05296	F1	mg/Kg		53	70 - 130	25	35

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*91*		*70 - 130*
1,4-Difluorobenzene (Surr)	*93*		*70 - 130*

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-27963/1-A — **Client Sample ID: Method Blank**
Matrix: Solid — **Prep Type: Soluble**
Analysis Batch: 28185

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.00	U	5.00	mg/Kg			06/24/22 11:13	1

QC Sample Results

Client: Ensolum
Project/Site: PLU 21 BD 104H, 123H, 124H

Job ID: 890-2427-1
SDG: 03E1558053

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: LCS 880-27963/2-A
Matrix: Solid
Analysis Batch: 28185

Client Sample ID: Lab Control Sample
Prep Type: Soluble

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride			250	272.5		mg/Kg		109	90 - 110		

Lab Sample ID: LCSD 880-27963/3-A
Matrix: Solid
Analysis Batch: 28185

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	274.8		mg/Kg		110	90 - 110	1	20

Lab Sample ID: 890-2428-A-1-G MS
Matrix: Solid
Analysis Batch: 28185

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	31300		12600	44610		mg/Kg		105	90 - 110		

Lab Sample ID: 890-2428-A-1-H MSD
Matrix: Solid
Analysis Batch: 28185

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	31300		12600	44560		mg/Kg		105	90 - 110	0	20

QC Association Summary

Client: Ensolum
Project/Site: PLU 21 BD 104H, 123H, 124H

Job ID: 890-2427-1
SDG: 03E1558053

GC VOA

Prep Batch: 27967

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 880-27967/5-A	Method Blank	Total/NA	Solid	5035	

Analysis Batch: 28005

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2427-1	SS01	Total/NA	Solid	8021B	28063
MB 880-27967/5-A	Method Blank	Total/NA	Solid	8021B	27967
MB 880-28063/5-A	Method Blank	Total/NA	Solid	8021B	28063
LCS 880-28063/1-A	Lab Control Sample	Total/NA	Solid	8021B	28063
LCSD 880-28063/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	28063
890-2426-A-1-C MS	Matrix Spike	Total/NA	Solid	8021B	28063
890-2426-A-1-D MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	28063

Prep Batch: 28063

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2427-1	SS01	Total/NA	Solid	5035	
MB 880-28063/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-28063/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-28063/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
890-2426-A-1-C MS	Matrix Spike	Total/NA	Solid	5035	
890-2426-A-1-D MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	

Analysis Batch: 28144

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2427-1	SS01	Total/NA	Solid	Total BTEX	

GC Semi VOA

Analysis Batch: 28088

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2427-1	SS01	Total/NA	Solid	8015B NM	28163

Analysis Batch: 28132

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2427-1	SS01	Total/NA	Solid	8015 NM	

Prep Batch: 28163

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2427-1	SS01	Total/NA	Solid	8015NM Prep	

HPLC/IC

Leach Batch: 27963

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2427-1	SS01	Soluble	Solid	DI Leach	
MB 880-27963/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-27963/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-27963/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
890-2428-A-1-G MS	Matrix Spike	Soluble	Solid	DI Leach	
890-2428-A-1-H MSD	Matrix Spike Duplicate	Soluble	Solid	DI Leach	

QC Association Summary

Client: Ensolum
Project/Site: PLU 21 BD 104H, 123H, 124H

Job ID: 890-2427-1
SDG: 03E1558053

HPLC/IC

Analysis Batch: 28185

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2427-1	SS01	Soluble	Solid	300.0	27963
MB 880-27963/1-A	Method Blank	Soluble	Solid	300.0	27963
LCS 880-27963/2-A	Lab Control Sample	Soluble	Solid	300.0	27963
LCSD 880-27963/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	27963
890-2428-A-1-G MS	Matrix Spike	Soluble	Solid	300.0	27963
890-2428-A-1-H MSD	Matrix Spike Duplicate	Soluble	Solid	300.0	27963

Lab Chronicle

Client: Ensolum
Project/Site: PLU 21 BD 104H, 123H, 124H

Job ID: 890-2427-1
SDG: 03E1558053

Client Sample ID: SS01
Date Collected: 06/17/22 12:35
Date Received: 06/17/22 16:33

Lab Sample ID: 890-2427-1
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	28063	06/21/22 14:42	MR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	28005	06/21/22 23:51	MR	EET MID
Total/NA	Analysis	Total BTEX		1			28144	06/22/22 12:17	SM	EET MID
Total/NA	Analysis	8015 NM		1			28132	06/22/22 11:20	SM	EET MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	28163	06/22/22 14:48	DM	EET MID
Total/NA	Analysis	8015B NM		1			28088	06/22/22 22:17	AJ	EET MID
Soluble	Leach	DI Leach			5 g	50 mL	27963	06/21/22 12:47	SMC	EET MID
Soluble	Analysis	300.0		50			28185	06/24/22 13:40	SMC	EET MID

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

Accreditation/Certification Summary

Client: Ensolum
Project/Site: PLU 21 BD 104H, 123H, 124H

Job ID: 890-2427-1
SDG: 03E1558053

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	06-30-22

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: Ensolum
Project/Site: PLU 21 BD 104H, 123H, 124H

Job ID: 890-2427-1
SDG: 03E1558053

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: PLU 21 BD 104H, 123H, 124H

Job ID: 890-2427-1
SDG: 03E1558053

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-2427-1	SS01	Solid	06/17/22 12:35	06/17/22 16:33	0.5'

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Chain of Custody

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

Work Order No: _____

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Project Manager:	Ben Belill	Bill to: (if different)	Garrett Green
Company Name:	Ensolum, LLC	Company Name:	XTO Energy, Inc.
Address:	3122 National parks Hwy	Address:	3104 E. Green Street
City, State ZIP:	Carlsbad, NM 88220	City, State ZIP:	Carlsbad, NM 88220
Phone:	9898540852	Email:	bbelill@ensolum.com

Work Order Comments

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

Project Name:	PLU 21 BD 104H, 123H, & 124H	Turn Around	☑ Routine ☐ Rush
Project Number:	03E1558053	Due Date:	
Project Location:	EDDY COUNTY, NM	TAT starts the day received by the lab, if received by 4:30pm	
Sampler's Name:	Grey Patese		
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:	14.2
Total Containers:		Corrected Temperature:	14.0

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Grab/ Comp	# of Cont	Pres. Code	CHLORIDES (EPA: 300.0)	TPH (8015)	BTEX (8021
SS04	S	6/17/2022	12:35	0.5'	Grab/	1		X	X	X

Parameters

Preservative Codes

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

Sample Comments

Cost Centers: 1666351001, 1666401001, 166601001

Incident Numbers: NAPP2209736479, NAPP2210942764, NAPP2211651017, NAPP2211151438

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	Grey Patese	Amanda Short	6/17/22 1633			
3				4		
5				6		

Revised Date: 08/25/2020 Rev. 2020.2

Login Sample Receipt Checklist

Client: Ensolum

Job Number: 890-2427-1
SDG Number: 03E1558053

Login Number: 2427
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.	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: Ensolum

Job Number: 890-2427-1
SDG Number: 03E1558053

Login Number: 2427
List Number: 2
Creator: Rodriguez, Leticia

List Source: Eurofins Midland
List Creation: 06/21/22 11:48 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

Eurofins Carlsbad
1089 N Canal St.
Carlsbad, NM 88220
Tel: (575)988-3199

Laboratory Job ID: 890-2428-1
Laboratory Sample Delivery Group: 03E1558053
Client Project/Site: PLU 21 BD 104H,123H, 124H
Revision: 1

For:
Ensolum
705 W. Wadley
Suite 210
Midland, Texas 79701

Attn: Ben Belill

JKramer

Authorized for release by:
9/13/2022 11:55:27 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.

Client: Ensolum
Project/Site: PLU 21 BD 104H,123H, 124H

Laboratory Job ID: 890-2428-1
SDG: 03E1558053

Table of Contents

Definitions/Glossary

Client: Ensolum
Project/Site: PLU 21 BD 104H,123H, 124H

Job ID: 890-2428-1
SDG: 03E1558053

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

HPLC/IC

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

Glossary

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

Case Narrative

Client: Ensolum
Project/Site: PLU 21 BD 104H,123H, 124H

Job ID: 890-2428-1
SDG: 03E1558053

Job ID: 890-2428-1

Laboratory: Eurofins Carlsbad

Narrative

Job Narrative
890-2428-1

REVISION

The report being provided is a revision of the original report sent on 6/24/2022. The report (revision 1) is being revised due to Per client email, requesting sample ID change.

Report revision history

Receipt
The sample was received on 6/17/2022 4:33 PM. 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 14.0°C

GC VOA
Method 8021B: The laboratory control sample (LCS) for preparation batch 880-28063 and analytical batch 880-28005 recovered outside control limits for the following analytes: o-Xylene. These analytes were biased high in the LCS and were not detected in the associated samples; therefore, the data have been reported.

Method 8021B: The matrix spike / matrix spike duplicate (MS/MSD) precision for preparation batch 880-28063 and analytical batch 880-28005 was outside control limits. Sample matrix interference is suspected.

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: PLU 21 BD 104H,123H, 124H

Job ID: 890-2428-1
SDG: 03E1558053

Client Sample ID: SS03

Date Collected: 06/17/22 12:47
Date Received: 06/17/22 16:33
Sample Depth: 0.5'

Lab Sample ID: 890-2428-1

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		06/21/22 14:42	06/22/22 00:12	1
Toluene	<0.00200	U	0.00200		mg/Kg		06/21/22 14:42	06/22/22 00:12	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		06/21/22 14:42	06/22/22 00:12	1
m-Xylene & p-Xylene	<0.00399	U	0.00399		mg/Kg		06/21/22 14:42	06/22/22 00:12	1
o-Xylene	<0.00200	U *+	0.00200		mg/Kg		06/21/22 14:42	06/22/22 00:12	1
Xylenes, Total	<0.00399	U	0.00399		mg/Kg		06/21/22 14:42	06/22/22 00:12	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*86*		*70 - 130*	*06/21/22 14:42*	*06/22/22 00:12*	*1*
1,4-Difluorobenzene (Surr)	*96*		*70 - 130*	*06/21/22 14:42*	*06/22/22 00:12*	*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			06/22/22 12:17	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	**11800**		250		mg/Kg			06/22/22 11:20	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	**279**		250		mg/Kg		06/21/22 11:35	06/22/22 05:32	5
Diesel Range Organics (Over C10-C28)	**7120**		250		mg/Kg		06/21/22 11:35	06/22/22 05:32	5
Oil Range Organics (Over C28-C36)	**4390**		250		mg/Kg		06/21/22 11:35	06/22/22 05:32	5

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*112*		*70 - 130*	*06/21/22 11:35*	*06/22/22 05:32*	*5*
o-Terphenyl	*106*		*70 - 130*	*06/21/22 11:35*	*06/22/22 05:32*	*5*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**31300**		252		mg/Kg			06/24/22 13:49	50

Surrogate Summary

Client: Ensolum
Project/Site: PLU 21 BD 104H,123H, 124H

Job ID: 890-2428-1
SDG: 03E1558053

Method: 8021B - Volatile Organic Compounds (GC)

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

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	BFB1 (70-130)	DFBZ1 (70-130)
890-2426-A-1-C MS	Matrix Spike	110	99
890-2426-A-1-D MSD	Matrix Spike Duplicate	91	93
890-2428-1	SS03	86	96
LCS 880-28063/1-A	Lab Control Sample	121	100
LCSD 880-28063/2-A	Lab Control Sample Dup	110	104
MB 880-27967/5-A	Method Blank	93	110
MB 880-28063/5-A	Method Blank	95	107

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)
890-2428-1	SS03	112	106

Surrogate Legend

1CO = 1-Chlorooctane
OTPH = o-Terphenyl

QC Sample Results

Client: Ensolum
Project/Site: PLU 21 BD 104H,123H, 124H

Job ID: 890-2428-1
SDG: 03E1558053

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-27967/5-A
Matrix: Solid
Analysis Batch: 28005

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 27967

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		06/20/22 15:20	06/21/22 12:25	1
Toluene	<0.00200	U	0.00200		mg/Kg		06/20/22 15:20	06/21/22 12:25	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		06/20/22 15:20	06/21/22 12:25	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		06/20/22 15:20	06/21/22 12:25	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		06/20/22 15:20	06/21/22 12:25	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		06/20/22 15:20	06/21/22 12:25	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*93*		*70 - 130*	*06/20/22 15:20*	*06/21/22 12:25*	*1*
1,4-Difluorobenzene (Surr)	*110*		*70 - 130*	*06/20/22 15:20*	*06/21/22 12:25*	*1*

Lab Sample ID: MB 880-28063/5-A
Matrix: Solid
Analysis Batch: 28005

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 28063

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		06/21/22 14:42	06/21/22 23:09	1
Toluene	<0.00200	U	0.00200		mg/Kg		06/21/22 14:42	06/21/22 23:09	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		06/21/22 14:42	06/21/22 23:09	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		06/21/22 14:42	06/21/22 23:09	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		06/21/22 14:42	06/21/22 23:09	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		06/21/22 14:42	06/21/22 23:09	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*95*		*70 - 130*	*06/21/22 14:42*	*06/21/22 23:09*	*1*
1,4-Difluorobenzene (Surr)	*107*		*70 - 130*	*06/21/22 14:42*	*06/21/22 23:09*	*1*

Lab Sample ID: LCS 880-28063/1-A
Matrix: Solid
Analysis Batch: 28005

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 28063

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Benzene			0.100	0.09845		mg/Kg		98	70 - 130		
Toluene			0.100	0.1157		mg/Kg		116	70 - 130		
Ethylbenzene			0.100	0.1118		mg/Kg		112	70 - 130		
m-Xylene & p-Xylene			0.200	0.2330		mg/Kg		117	70 - 130		
o-Xylene			0.100	0.1311	*+	mg/Kg		131	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*121*		*70 - 130*
1,4-Difluorobenzene (Surr)	*100*		*70 - 130*

Lab Sample ID: LCSD 880-28063/2-A
Matrix: Solid
Analysis Batch: 28005

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 28063

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene			0.100	0.1045		mg/Kg		105	70 - 130	6	35

QC Sample Results

Client: Ensolum
Project/Site: PLU 21 BD 104H,123H, 124H

Job ID: 890-2428-1
SDG: 03E1558053

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

Lab Sample ID: LCSD 880-28063/2-A — **Client Sample ID: Lab Control Sample Dup**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 28005 — **Prep Batch: 28063**

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Toluene			0.100	0.1127		mg/Kg		113	70 - 130	3	35
Ethylbenzene			0.100	0.1015		mg/Kg		102	70 - 130	10	35
m-Xylene & p-Xylene			0.200	0.2046		mg/Kg		102	70 - 130	13	35
o-Xylene			0.100	0.1150		mg/Kg		115	70 - 130	13	35

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*110*		*70 - 130*
1,4-Difluorobenzene (Surr)	*104*		*70 - 130*

Lab Sample ID: 890-2426-A-1-C MS — **Client Sample ID: Matrix Spike**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 28005 — **Prep Batch: 28063**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	<0.00199	U F1	0.100	0.07404		mg/Kg		74	70 - 130
Toluene	<0.00199	U F1	0.100	0.07758		mg/Kg		77	70 - 130
Ethylbenzene	<0.00199	U F1	0.100	0.06116	F1	mg/Kg		61	70 - 130
m-Xylene & p-Xylene	<0.00398	U F1	0.200	0.1209	F1	mg/Kg		60	70 - 130
o-Xylene	<0.00199	U F1 *+	0.100	0.06788	F1	mg/Kg		68	70 - 130

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*110*		*70 - 130*
1,4-Difluorobenzene (Surr)	*99*		*70 - 130*

Lab Sample ID: 890-2426-A-1-D MSD — **Client Sample ID: Matrix Spike Duplicate**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 28005 — **Prep Batch: 28063**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	<0.00199	U F1	0.100	0.06494	F1	mg/Kg		65	70 - 130	13	35
Toluene	<0.00199	U F1	0.100	0.06696	F1	mg/Kg		67	70 - 130	15	35
Ethylbenzene	<0.00199	U F1	0.100	0.04899	F1	mg/Kg		49	70 - 130	22	35
m-Xylene & p-Xylene	<0.00398	U F1	0.201	0.09419	F1	mg/Kg		47	70 - 130	25	35
o-Xylene	<0.00199	U F1 *+	0.100	0.05296	F1	mg/Kg		53	70 - 130	25	35

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*91*		*70 - 130*
1,4-Difluorobenzene (Surr)	*93*		*70 - 130*

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-27963/1-A — **Client Sample ID: Method Blank**
Matrix: Solid — **Prep Type: Soluble**
Analysis Batch: 28185

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.00	U	5.00		mg/Kg			06/24/22 11:13	1

QC Sample Results

Client: Ensolum
Project/Site: PLU 21 BD 104H,123H, 124H

Job ID: 890-2428-1
SDG: 03E1558053

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: LCS 880-27963/2-A
Matrix: Solid
Analysis Batch: 28185

Client Sample ID: Lab Control Sample
Prep Type: Soluble

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride			250	272.5		mg/Kg		109	90 - 110		

Lab Sample ID: LCSD 880-27963/3-A
Matrix: Solid
Analysis Batch: 28185

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	274.8		mg/Kg		110	90 - 110	1	20

Lab Sample ID: 890-2428-1 MS
Matrix: Solid
Analysis Batch: 28185

Client Sample ID: SS03
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride	31300		12600	44610		mg/Kg		105	90 - 110		

Lab Sample ID: 890-2428-1 MSD
Matrix: Solid
Analysis Batch: 28185

Client Sample ID: SS03
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	31300		12600	44560		mg/Kg		105	90 - 110	0	20

QC Association Summary

Client: Ensolum
Project/Site: PLU 21 BD 104H,123H, 124H

Job ID: 890-2428-1
SDG: 03E1558053

GC VOA

Prep Batch: 27967

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 880-27967/5-A	Method Blank	Total/NA	Solid	5035	

Analysis Batch: 28005

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2428-1	SS03	Total/NA	Solid	8021B	28063
MB 880-27967/5-A	Method Blank	Total/NA	Solid	8021B	27967
MB 880-28063/5-A	Method Blank	Total/NA	Solid	8021B	28063
LCS 880-28063/1-A	Lab Control Sample	Total/NA	Solid	8021B	28063
LCSD 880-28063/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	28063
890-2426-A-1-C MS	Matrix Spike	Total/NA	Solid	8021B	28063
890-2426-A-1-D MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	28063

Prep Batch: 28063

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2428-1	SS03	Total/NA	Solid	5035	
MB 880-28063/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-28063/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-28063/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
890-2426-A-1-C MS	Matrix Spike	Total/NA	Solid	5035	
890-2426-A-1-D MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	

Analysis Batch: 28145

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2428-1	SS03	Total/NA	Solid	Total BTEX	

GC Semi VOA

Analysis Batch: 27998

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2428-1	SS03	Total/NA	Solid	8015B NM	28045

Prep Batch: 28045

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2428-1	SS03	Total/NA	Solid	8015NM Prep	

Analysis Batch: 28133

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2428-1	SS03	Total/NA	Solid	8015 NM	

HPLC/IC

Leach Batch: 27963

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2428-1	SS03	Soluble	Solid	DI Leach	
MB 880-27963/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-27963/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-27963/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
890-2428-1 MS	SS03	Soluble	Solid	DI Leach	
890-2428-1 MSD	SS03	Soluble	Solid	DI Leach	

QC Association Summary

Client: Ensolum
Project/Site: PLU 21 BD 104H,123H, 124H

Job ID: 890-2428-1
SDG: 03E1558053

HPLC/IC

Analysis Batch: 28185

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2428-1	SS03	Soluble	Solid	300.0	27963
MB 880-27963/1-A	Method Blank	Soluble	Solid	300.0	27963
LCS 880-27963/2-A	Lab Control Sample	Soluble	Solid	300.0	27963
LCSD 880-27963/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	27963
890-2428-1 MS	SS03	Soluble	Solid	300.0	27963
890-2428-1 MSD	SS03	Soluble	Solid	300.0	27963

Lab Chronicle

Client: Ensolum
Project/Site: PLU 21 BD 104H,123H, 124H

Job ID: 890-2428-1
SDG: 03E1558053

Client Sample ID: SS03

Date Collected: 06/17/22 12:47
Date Received: 06/17/22 16:33

Lab Sample ID: 890-2428-1

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	28063	06/21/22 14:42	MR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	28005	06/22/22 00:12	MR	EET MID
Total/NA	Analysis	Total BTEX		1			28145	06/22/22 12:17	SM	EET MID
Total/NA	Analysis	8015 NM		1			28133	06/22/22 11:20	SM	EET MID
Total/NA	Prep	8015NM Prep			10.00 g	10 mL	28045	06/21/22 11:35	DM	EET MID
Total/NA	Analysis	8015B NM		5			27998	06/22/22 05:32	SM	EET MID
Soluble	Leach	DI Leach			4.96 g	50 mL	27963	06/21/22 12:47	SMC	EET MID
Soluble	Analysis	300.0		50			28185	06/24/22 13:49	SMC	EET MID

Laboratory References:

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

Accreditation/Certification Summary

Client: Ensolum
Project/Site: PLU 21 BD 104H,123H, 124H

Job ID: 890-2428-1
SDG: 03E1558053

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	06-30-22

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: Ensolum
Project/Site: PLU 21 BD 104H,123H, 124H

Job ID: 890-2428-1
SDG: 03E1558053

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: PLU 21 BD 104H,123H, 124H

Job ID: 890-2428-1
SDG: 03E1558053

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-2428-1	SS03	Solid	06/17/22 12:47	06/17/22 16:33	0.5'

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Chain of Custody

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

Work Order No: _____

www.xenco.com Page ___1__ of ___1___

Project Manager:	Ben Belill	Bill to: (if different)	Garrett Green
Company Name:	Ensolum, LLC	Company Name:	XTO Energy, Inc.
Address:	3122 National parks Hwy	Address:	3104 E. Green Street
City, State ZIP:	Carlsbad, NM 88220	City, State ZIP:	Carlsbad, NM 88220
Phone:	9898540852	Email:	bbelill@ensolum.com

Work Order Comments

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

Project Name:	PLU 21 BD 104H, 123H, & 124H	Turn Around	
Project Number:	03E1558053	☑ Routine ☐ Rush	
Project Location:	EDDY COUNTY, NM	Due Date:	
Sampler's Name:	Greg Pulese	TAT starts the day received by the lab, if received by 4:30pm	
PO #:			

SAMPLE RECEIPT	Temp Blank: (Yes) No	Wet Ice: (Yes) No	
Samples Received Intact:	(Yes) No	Thermometer ID:	TNM027
Cooler Custody Seals:	Yes No (N/A)	Correction Factor:	-0.2
Sample Custody Seals:	Yes No (N/A)	Temperature Reading:	14.2
Total Containers:		Corrected Temperature:	14.0

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Grab/ Comp	# of Cont	Pres. Code	CHLORIDES (EPA: 300.0)	TPH (8015)	BTEX (8021)
SS06	S	6/17/2022	12:47	0.5'	Grab/	1		X	X	X

Parameters

ANALYSIS REQUEST

890-2428 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

Cost Centers: 1666351001, 1666401001, 166601001

Incident Numbers: NAPP2209736479, NAPP2210942764, NAPP2211651017, NAPP2211151438

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	Gregory Pulese	Amanda Stuft	6/17/22 1633			
3				4		
5				6		

Revised Date: 08/25/2020 Rev. 2020.2

Login Sample Receipt Checklist

Client: Ensolum

Job Number: 890-2428-1
SDG Number: 03E1558053

Login Number: 2428
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.	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: Ensolum

Job Number: 890-2428-1
SDG Number: 03E1558053

Login Number: 2428
List Number: 2
Creator: Rodriguez, Leticia

List Source: Eurofins Midland
List Creation: 06/21/22 10:52 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

Eurofins Carlsbad
1089 N Canal St.
Carlsbad, NM 88220
Tel: (575)988-3199

Laboratory Job ID: 890-2429-1
Laboratory Sample Delivery Group: 03E1558053
Client Project/Site: PLU 21 BD 104H, 123H, & 124H
Revision: 1

For:
Ensolum
705 W. Wadley
Suite 210
Midland, Texas 79701

Attn: Ben Belill

Jkramer

Authorized for release by:
9/13/2022 11:59:32 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.

Client: Ensolum
Project/Site: PLU 21 BD 104H, 123H, & 124H

Laboratory Job ID: 890-2429-1
SDG: 03E1558053

Table of Contents

Definitions/Glossary

Client: Ensolum
Project/Site: PLU 21 BD 104H, 123H, & 124H

Job ID: 890-2429-1
SDG: 03E1558053

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.
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: PLU 21 BD 104H, 123H, & 124H

Job ID: 890-2429-1
SDG: 03E1558053

Job ID: 890-2429-1

Laboratory: Eurofins Carlsbad

Narrative

Job Narrative
890-2429-1

REVISION

The report being provided is a revision of the original report sent on 6/24/2022. The report (revision 1) is being revised due to Per client email, requesting sample ID change.

Report revision history

Receipt
The sample was received on 6/17/2022 4:33 PM. 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 14.0°C

GC VOA
Method 8021B: The laboratory control sample (LCS) for preparation batch 880-28063 and analytical batch 880-28005 recovered outside control limits for the following analytes: o-Xylene. These analytes were biased high in the LCS and were not detected in the associated samples; therefore, the data have been reported.

Method 8021B: The matrix spike / matrix spike duplicate (MS/MSD) precision for preparation batch 880-28063 and analytical batch 880-28005 was outside control limits. Sample matrix interference is suspected.

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: PLU 21 BD 104H, 123H, & 124H

Job ID: 890-2429-1
SDG: 03E1558053

Client Sample ID: SS04

Date Collected: 06/17/22 12:55
Date Received: 06/17/22 16:33
Sample Depth: 0.5'

Lab Sample ID: 890-2429-1

Matrix: Solid

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199		mg/Kg		06/21/22 14:42	06/22/22 00:33	1
Toluene	<0.00199	U	0.00199		mg/Kg		06/21/22 14:42	06/22/22 00:33	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		06/21/22 14:42	06/22/22 00:33	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		06/21/22 14:42	06/22/22 00:33	1
o-Xylene	<0.00199	U *+	0.00199		mg/Kg		06/21/22 14:42	06/22/22 00:33	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		06/21/22 14:42	06/22/22 00:33	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*96*		*70 - 130*	*06/21/22 14:42*	*06/22/22 00:33*	*1*
1,4-Difluorobenzene (Surr)	*101*		*70 - 130*	*06/21/22 14:42*	*06/22/22 00:33*	*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			06/22/22 12:17	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	**292**		50.0		mg/Kg			06/22/22 11:20	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		06/21/22 11:35	06/22/22 03:48	1
Diesel Range Organics (Over C10-C28)	**115**		50.0		mg/Kg		06/21/22 11:35	06/22/22 03:48	1
Oil Range Organics (Over C28-C36)	**177**		50.0		mg/Kg		06/21/22 11:35	06/22/22 03:48	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*91*		*70 - 130*	*06/21/22 11:35*	*06/22/22 03:48*	*1*
o-Terphenyl	*99*		*70 - 130*	*06/21/22 11:35*	*06/22/22 03:48*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**12600**		100		mg/Kg			06/24/22 14:17	20

Surrogate Summary

Client: Ensolum
Project/Site: PLU 21 BD 104H, 123H, & 124H

Job ID: 890-2429-1
SDG: 03E1558053

Method: 8021B - Volatile Organic Compounds (GC)

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

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	BFB1 (70-130)	DFBZ1 (70-130)
890-2426-A-1-C MS	Matrix Spike	110	99
890-2426-A-1-D MSD	Matrix Spike Duplicate	91	93
890-2429-1	SS04	96	101
LCS 880-28063/1-A	Lab Control Sample	121	100
LCSD 880-28063/2-A	Lab Control Sample Dup	110	104
MB 880-27967/5-A	Method Blank	93	110
MB 880-28063/5-A	Method Blank	95	107

Surrogate Legend

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

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

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

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	1CO1 (70-130)	OTPH1 (70-130)
880-16078-A-21-B MS	Matrix Spike	82	79
880-16078-A-21-C MSD	Matrix Spike Duplicate	86	82
890-2429-1	SS04	91	99
LCS 880-28045/2-A	Lab Control Sample	104	110
LCSD 880-28045/3-A	Lab Control Sample Dup	104	113
MB 880-28045/1-A	Method Blank	102	119

Surrogate Legend

1CO = 1-Chlorooctane
OTPH = o-Terphenyl

QC Sample Results

Client: Ensolum
Project/Site: PLU 21 BD 104H, 123H, & 124H

Job ID: 890-2429-1
SDG: 03E1558053

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-27967/5-A
Matrix: Solid
Analysis Batch: 28005

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 27967

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		06/20/22 15:20	06/21/22 12:25	1
Toluene	<0.00200	U	0.00200		mg/Kg		06/20/22 15:20	06/21/22 12:25	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		06/20/22 15:20	06/21/22 12:25	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		06/20/22 15:20	06/21/22 12:25	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		06/20/22 15:20	06/21/22 12:25	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		06/20/22 15:20	06/21/22 12:25	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*93*		*70 - 130*	*06/20/22 15:20*	*06/21/22 12:25*	*1*
1,4-Difluorobenzene (Surr)	*110*		*70 - 130*	*06/20/22 15:20*	*06/21/22 12:25*	*1*

Lab Sample ID: MB 880-28063/5-A
Matrix: Solid
Analysis Batch: 28005

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 28063

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		06/21/22 14:42	06/21/22 23:09	1
Toluene	<0.00200	U	0.00200		mg/Kg		06/21/22 14:42	06/21/22 23:09	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		06/21/22 14:42	06/21/22 23:09	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		06/21/22 14:42	06/21/22 23:09	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		06/21/22 14:42	06/21/22 23:09	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		06/21/22 14:42	06/21/22 23:09	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*95*		*70 - 130*	*06/21/22 14:42*	*06/21/22 23:09*	*1*
1,4-Difluorobenzene (Surr)	*107*		*70 - 130*	*06/21/22 14:42*	*06/21/22 23:09*	*1*

Lab Sample ID: LCS 880-28063/1-A
Matrix: Solid
Analysis Batch: 28005

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 28063

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Benzene			0.100	0.09845		mg/Kg		98	70 - 130		
Toluene			0.100	0.1157		mg/Kg		116	70 - 130		
Ethylbenzene			0.100	0.1118		mg/Kg		112	70 - 130		
m-Xylene & p-Xylene			0.200	0.2330		mg/Kg		117	70 - 130		
o-Xylene			0.100	0.1311	*+	mg/Kg		131	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*121*		*70 - 130*
1,4-Difluorobenzene (Surr)	*100*		*70 - 130*

Lab Sample ID: LCSD 880-28063/2-A
Matrix: Solid
Analysis Batch: 28005

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 28063

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene			0.100	0.1045		mg/Kg		105	70 - 130	6	35

QC Sample Results

Client: Ensolum
Project/Site: PLU 21 BD 104H, 123H, & 124H

Job ID: 890-2429-1
SDG: 03E1558053

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

Lab Sample ID: LCSD 880-28063/2-A — **Client Sample ID: Lab Control Sample Dup**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 28005 — **Prep Batch: 28063**

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Toluene			0.100	0.1127		mg/Kg		113	70 - 130	3	35
Ethylbenzene			0.100	0.1015		mg/Kg		102	70 - 130	10	35
m-Xylene & p-Xylene			0.200	0.2046		mg/Kg		102	70 - 130	13	35
o-Xylene			0.100	0.1150		mg/Kg		115	70 - 130	13	35

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*110*		*70 - 130*
1,4-Difluorobenzene (Surr)	*104*		*70 - 130*

Lab Sample ID: 890-2426-A-1-C MS — **Client Sample ID: Matrix Spike**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 28005 — **Prep Batch: 28063**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	<0.00199	U F1	0.100	0.07404		mg/Kg		74	70 - 130
Toluene	<0.00199	U F1	0.100	0.07758		mg/Kg		77	70 - 130
Ethylbenzene	<0.00199	U F1	0.100	0.06116	F1	mg/Kg		61	70 - 130
m-Xylene & p-Xylene	<0.00398	U F1	0.200	0.1209	F1	mg/Kg		60	70 - 130
o-Xylene	<0.00199	U F1 *+	0.100	0.06788	F1	mg/Kg		68	70 - 130

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*110*		*70 - 130*
1,4-Difluorobenzene (Surr)	*99*		*70 - 130*

Lab Sample ID: 890-2426-A-1-D MSD — **Client Sample ID: Matrix Spike Duplicate**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 28005 — **Prep Batch: 28063**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	<0.00199	U F1	0.100	0.06494	F1	mg/Kg		65	70 - 130	13	35
Toluene	<0.00199	U F1	0.100	0.06696	F1	mg/Kg		67	70 - 130	15	35
Ethylbenzene	<0.00199	U F1	0.100	0.04899	F1	mg/Kg		49	70 - 130	22	35
m-Xylene & p-Xylene	<0.00398	U F1	0.201	0.09419	F1	mg/Kg		47	70 - 130	25	35
o-Xylene	<0.00199	U F1 *+	0.100	0.05296	F1	mg/Kg		53	70 - 130	25	35

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*91*		*70 - 130*
1,4-Difluorobenzene (Surr)	*93*		*70 - 130*

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

Lab Sample ID: MB 880-28045/1-A — **Client Sample ID: Method Blank**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 27998 — **Prep Batch: 28045**

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		06/21/22 11:35	06/21/22 21:37	1

QC Sample Results

Client: Ensolum
Project/Site: PLU 21 BD 104H, 123H, & 124H

Job ID: 890-2429-1
SDG: 03E1558053

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

Lab Sample ID: MB 880-28045/1-A
Matrix: Solid
Analysis Batch: 27998

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 28045

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		06/21/22 11:35	06/21/22 21:37	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		06/21/22 11:35	06/21/22 21:37	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*102*		*70 - 130*	*06/21/22 11:35*	*06/21/22 21:37*	*1*
o-Terphenyl	*119*		*70 - 130*	*06/21/22 11:35*	*06/21/22 21:37*	*1*

Lab Sample ID: LCS 880-28045/2-A
Matrix: Solid
Analysis Batch: 27998

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 28045

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Gasoline Range Organics (GRO)-C6-C10			1000	992.5		mg/Kg		99	70 - 130		
Diesel Range Organics (Over C10-C28)			1000	1042		mg/Kg		104	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1-Chlorooctane	*104*		*70 - 130*
o-Terphenyl	*110*		*70 - 130*

Lab Sample ID: LCSD 880-28045/3-A
Matrix: Solid
Analysis Batch: 27998

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 28045

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10			1000	1036		mg/Kg		104	70 - 130	4	20
Diesel Range Organics (Over C10-C28)			1000	1061		mg/Kg		106	70 - 130	2	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1-Chlorooctane	*104*		*70 - 130*
o-Terphenyl	*113*		*70 - 130*

Lab Sample ID: 880-16078-A-21-B MS
Matrix: Solid
Analysis Batch: 27998

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 28045

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	998	905.3		mg/Kg		87	70 - 130		
Diesel Range Organics (Over C10-C28)	<49.9	U	998	799.1		mg/Kg		80	70 - 130		

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
1-Chlorooctane	*82*		*70 - 130*
o-Terphenyl	*79*		*70 - 130*

QC Sample Results

Client: Ensolum
Project/Site: PLU 21 BD 104H, 123H, & 124H

Job ID: 890-2429-1
SDG: 03E1558053

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

Lab Sample ID: 880-16078-A-21-C MSD
Matrix: Solid
Analysis Batch: 27998

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 28045

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	933.1		mg/Kg		89	70 - 130	3	20
Diesel Range Organics (Over C10-C28)	<49.9	U	999	845.4		mg/Kg		85	70 - 130	6	20

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
1-Chlorooctane	*86*		*70 - 130*
o-Terphenyl	*82*		*70 - 130*

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-27963/1-A
Matrix: Solid
Analysis Batch: 28185

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			06/24/22 11:13	1

Lab Sample ID: LCS 880-27963/2-A
Matrix: Solid
Analysis Batch: 28185

Client Sample ID: Lab Control Sample
Prep Type: Soluble

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride			250	272.5		mg/Kg		109	90 - 110		

Lab Sample ID: LCSD 880-27963/3-A
Matrix: Solid
Analysis Batch: 28185

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	274.8		mg/Kg		110	90 - 110	1	20

Lab Sample ID: 890-2428-A-1-G MS
Matrix: Solid
Analysis Batch: 28185

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	31300		12600	44610		mg/Kg		105	90 - 110		

Lab Sample ID: 890-2428-A-1-H MSD
Matrix: Solid
Analysis Batch: 28185

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	31300		12600	44560		mg/Kg		105	90 - 110	0	20

QC Association Summary

Client: Ensolum
Project/Site: PLU 21 BD 104H, 123H, & 124H

Job ID: 890-2429-1
SDG: 03E1558053

GC VOA

Prep Batch: 27967

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 880-27967/5-A	Method Blank	Total/NA	Solid	5035	

Analysis Batch: 28005

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2429-1	SS04	Total/NA	Solid	8021B	28063
MB 880-27967/5-A	Method Blank	Total/NA	Solid	8021B	27967
MB 880-28063/5-A	Method Blank	Total/NA	Solid	8021B	28063
LCS 880-28063/1-A	Lab Control Sample	Total/NA	Solid	8021B	28063
LCSD 880-28063/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	28063
890-2426-A-1-C MS	Matrix Spike	Total/NA	Solid	8021B	28063
890-2426-A-1-D MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	28063

Prep Batch: 28063

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2429-1	SS04	Total/NA	Solid	5035	
MB 880-28063/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-28063/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-28063/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
890-2426-A-1-C MS	Matrix Spike	Total/NA	Solid	5035	
890-2426-A-1-D MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	

Analysis Batch: 28146

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2429-1	SS04	Total/NA	Solid	Total BTEX	

GC Semi VOA

Analysis Batch: 27998

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2429-1	SS04	Total/NA	Solid	8015B NM	28045
MB 880-28045/1-A	Method Blank	Total/NA	Solid	8015B NM	28045
LCS 880-28045/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	28045
LCSD 880-28045/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	28045
880-16078-A-21-B MS	Matrix Spike	Total/NA	Solid	8015B NM	28045
880-16078-A-21-C MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	28045

Prep Batch: 28045

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2429-1	SS04	Total/NA	Solid	8015NM Prep	
MB 880-28045/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-28045/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-28045/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
880-16078-A-21-B MS	Matrix Spike	Total/NA	Solid	8015NM Prep	
880-16078-A-21-C MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	

Analysis Batch: 28128

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2429-1	SS04	Total/NA	Solid	8015 NM	

QC Association Summary

Client: Ensolum
Project/Site: PLU 21 BD 104H, 123H, & 124H

Job ID: 890-2429-1
SDG: 03E1558053

HPLC/IC

Leach Batch: 27963

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2429-1	SS04	Soluble	Solid	DI Leach	
MB 880-27963/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-27963/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-27963/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
890-2428-A-1-G MS	Matrix Spike	Soluble	Solid	DI Leach	
890-2428-A-1-H MSD	Matrix Spike Duplicate	Soluble	Solid	DI Leach	

Analysis Batch: 28185

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2429-1	SS04	Soluble	Solid	300.0	27963
MB 880-27963/1-A	Method Blank	Soluble	Solid	300.0	27963
LCS 880-27963/2-A	Lab Control Sample	Soluble	Solid	300.0	27963
LCSD 880-27963/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	27963
890-2428-A-1-G MS	Matrix Spike	Soluble	Solid	300.0	27963
890-2428-A-1-H MSD	Matrix Spike Duplicate	Soluble	Solid	300.0	27963

Lab Chronicle

Client: Ensolum
Project/Site: PLU 21 BD 104H, 123H, & 124H

Job ID: 890-2429-1
SDG: 03E1558053

Client Sample ID: SS04

Date Collected: 06/17/22 12:55
Date Received: 06/17/22 16:33

Lab Sample ID: 890-2429-1

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	28063	06/21/22 14:42	MR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	28005	06/22/22 00:33	MR	EET MID
Total/NA	Analysis	Total BTEX		1			28146	06/22/22 12:17	SM	EET MID
Total/NA	Analysis	8015 NM		1			28128	06/22/22 11:20	SM	EET MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	28045	06/21/22 11:35	DM	EET MID
Total/NA	Analysis	8015B NM		1			27998	06/22/22 03:48	SM	EET MID
Soluble	Leach	DI Leach			5 g	50 mL	27963	06/21/22 12:47	SMC	EET MID
Soluble	Analysis	300.0		20			28185	06/24/22 14:17	SMC	EET MID

Laboratory References:

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

Accreditation/Certification Summary

Client: Ensolum
Project/Site: PLU 21 BD 104H, 123H, & 124H

Job ID: 890-2429-1
SDG: 03E1558053

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	06-30-22

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: Ensolum
Project/Site: PLU 21 BD 104H, 123H, & 124H

Job ID: 890-2429-1
SDG: 03E1558053

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: PLU 21 BD 104H, 123H, & 124H

Job ID: 890-2429-1
SDG: 03E1558053

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-2429-1	SS04	Solid	06/17/22 12:55	06/17/22 16:33	0.5'

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

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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, LLC	Company Name:	XTO Energy, Inc.
Address:	3122 National parks Hwy	Address:	3104 E. Green Street
City, State ZIP:	Carlsbad, NM 88220	City, State ZIP:	Carlsbad, NM 88220
Phone:	9898540852	Email:	bbelill@ensolum.com

Work Order Comments

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

Project Name:	PLU 21 BD 104H, 123H, & 124H	Turn Around	
Project Number:	03E1558053	☑ Routine	☐ Rush
Project Location:	EDDY COUNTY, NM	Due Date:	
Sampler's Name:	Grey Palese	TAT starts the day received by the lab, if received by 4:30pm	
PO #:			

SAMPLE RECEIPT	Temp Blank:	Yes (No)	Wet Ice:	(Yes) No
Samples Received Intact:	(Yes) No		Thermometer ID:	TMM007
Cooler Custody Seals:	Yes No (N/A)		Correction Factor:	-0.2
Sample Custody Seals:	Yes No (N/A)		Temperature Reading:	14.2
Total Containers:			Corrected Temperature:	14.0

ANALYSIS REQUEST — Pres. Code; Parameters

890-2429 Chain of Custody

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Grab/ Comp	# of Cont	CHLORIDES (EPA: 300.0)	TPH (8015)	BTEX (8021	Sample Comments
SS07	S	6/17/2022	12:55	0.5'	Grab/	1	X	X	X	Cost Centers: 1666351001, 1666401001, 166601001
										Incident Numbers: NAPP2209736479, NAPP2210942764, NAPP2211651017, NAPP2211151438

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	

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 Greg Palese	Amanda Stuft	6/17/22 1633	2		
3			4		
5			6		

Revised Date 08/25/2020 Rev. 2020.2

Login Sample Receipt Checklist

Client: Ensolum

Job Number: 890-2429-1
SDG Number: 03E1558053

Login Number: 2429
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.	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: Ensolum

Job Number: 890-2429-1
SDG Number: 03E1558053

Login Number: 2429
List Number: 2
Creator: Rodriguez, Leticia

List Source: Eurofins Midland
List Creation: 06/21/22 10:52 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

Eurofins Carlsbad
1089 N Canal St.
Carlsbad, NM 88220
Tel: (575)988-3199

Laboratory Job ID: 890-2431-1
Laboratory Sample Delivery Group: 03E1558053
Client Project/Site: PLU 21 BD 104H, 123H, 124H
Revision: 1

For:
Ensolum
705 W. Wadley
Suite 210
Midland, Texas 79701

Attn: Ben Belill

JKramer

Authorized for release by:
9/13/2022 11:53:05 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.

Client: Ensolum
Project/Site: PLU 21 BD 104H, 123H, 124H

Laboratory Job ID: 890-2431-1
SDG: 03E1558053

Table of Contents

Definitions/Glossary

Client: Ensolum
Project/Site: PLU 21 BD 104H, 123H, 124H

Job ID: 890-2431-1
SDG: 03E1558053

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.
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: PLU 21 BD 104H, 123H, 124H

Job ID: 890-2431-1
SDG: 03E1558053

Job ID: 890-2431-1

Laboratory: Eurofins Carlsbad

Narrative

Job Narrative
890-2431-1

REVISION

The report being provided is a revision of the original report sent on 6/24/2022. The report (revision 1) is being revised due to Per client email, requesting sample ID change.

Report revision history

Receipt
The sample was received on 6/17/2022 4:33 PM. 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 14.0°C

GC VOA
Method 8021B: The laboratory control sample (LCS) for preparation batch 880-28063 and analytical batch 880-28005 recovered outside control limits for the following analytes: o-Xylene. These analytes were biased high in the LCS and were not detected in the associated samples; therefore, the data have been reported.

Method 8021B: The matrix spike / matrix spike duplicate (MS/MSD) precision for preparation batch 880-28063 and analytical batch 880-28005 was outside control limits. Sample matrix interference is suspected.

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: PLU 21 BD 104H, 123H, 124H

Job ID: 890-2431-1
SDG: 03E1558053

Client Sample ID: SS02

Date Collected: 06/17/22 12:41
Date Received: 06/17/22 16:33
Sample Depth: 0.5

Lab Sample ID: 890-2431-1

Matrix: Solid

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199		mg/Kg		06/21/22 14:42	06/22/22 01:14	1
Toluene	<0.00199	U	0.00199		mg/Kg		06/21/22 14:42	06/22/22 01:14	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		06/21/22 14:42	06/22/22 01:14	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		06/21/22 14:42	06/22/22 01:14	1
o-Xylene	<0.00199	U *+	0.00199		mg/Kg		06/21/22 14:42	06/22/22 01:14	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		06/21/22 14:42	06/22/22 01:14	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*91*		*70 - 130*	*06/21/22 14:42*	*06/22/22 01:14*	*1*
1,4-Difluorobenzene (Surr)	*103*		*70 - 130*	*06/21/22 14:42*	*06/22/22 01:14*	*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			06/22/22 12:17	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	**5070**		49.9		mg/Kg			06/22/22 11:20	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		06/21/22 11:35	06/22/22 04:09	1
Diesel Range Organics (Over C10-C28)	**3910**		49.9		mg/Kg		06/21/22 11:35	06/22/22 04:09	1
Oil Range Organics (Over C28-C36)	**1160**		49.9		mg/Kg		06/21/22 11:35	06/22/22 04:09	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*97*		*70 - 130*	*06/21/22 11:35*	*06/22/22 04:09*	*1*
o-Terphenyl	*113*		*70 - 130*	*06/21/22 11:35*	*06/22/22 04:09*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**16900**		100		mg/Kg			06/24/22 14:54	20

Surrogate Summary

Client: Ensolum
Project/Site: PLU 21 BD 104H, 123H, 124H

Job ID: 890-2431-1
SDG: 03E1558053

Method: 8021B - Volatile Organic Compounds (GC)

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

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	BFB1 (70-130)	DFBZ1 (70-130)
890-2426-A-1-C MS	Matrix Spike	110	99
890-2426-A-1-D MSD	Matrix Spike Duplicate	91	93
890-2431-1	SS02	91	103
LCS 880-28063/1-A	Lab Control Sample	121	100
LCSD 880-28063/2-A	Lab Control Sample Dup	110	104
MB 880-27967/5-A	Method Blank	93	110
MB 880-28063/5-A	Method Blank	95	107

Surrogate Legend

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

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

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

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	1CO1 (70-130)	OTPH1 (70-130)
880-16078-A-21-B MS	Matrix Spike	82	79
880-16078-A-21-C MSD	Matrix Spike Duplicate	86	82
890-2431-1	SS02	97	113
LCS 880-28045/2-A	Lab Control Sample	104	110
LCSD 880-28045/3-A	Lab Control Sample Dup	104	113
MB 880-28045/1-A	Method Blank	102	119

Surrogate Legend

1CO = 1-Chlorooctane
OTPH = o-Terphenyl

QC Sample Results

Client: Ensolum
Project/Site: PLU 21 BD 104H, 123H, 124H

Job ID: 890-2431-1
SDG: 03E1558053

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-27967/5-A
Matrix: Solid
Analysis Batch: 28005

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 27967

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		06/20/22 15:20	06/21/22 12:25	1
Toluene	<0.00200	U	0.00200		mg/Kg		06/20/22 15:20	06/21/22 12:25	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		06/20/22 15:20	06/21/22 12:25	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		06/20/22 15:20	06/21/22 12:25	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		06/20/22 15:20	06/21/22 12:25	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		06/20/22 15:20	06/21/22 12:25	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*93*		*70 - 130*	*06/20/22 15:20*	*06/21/22 12:25*	*1*
1,4-Difluorobenzene (Surr)	*110*		*70 - 130*	*06/20/22 15:20*	*06/21/22 12:25*	*1*

Lab Sample ID: MB 880-28063/5-A
Matrix: Solid
Analysis Batch: 28005

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 28063

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		06/21/22 14:42	06/21/22 23:09	1
Toluene	<0.00200	U	0.00200		mg/Kg		06/21/22 14:42	06/21/22 23:09	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		06/21/22 14:42	06/21/22 23:09	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		06/21/22 14:42	06/21/22 23:09	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		06/21/22 14:42	06/21/22 23:09	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		06/21/22 14:42	06/21/22 23:09	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*95*		*70 - 130*	*06/21/22 14:42*	*06/21/22 23:09*	*1*
1,4-Difluorobenzene (Surr)	*107*		*70 - 130*	*06/21/22 14:42*	*06/21/22 23:09*	*1*

Lab Sample ID: LCS 880-28063/1-A
Matrix: Solid
Analysis Batch: 28005

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 28063

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Benzene			0.100	0.09845		mg/Kg		98	70 - 130		
Toluene			0.100	0.1157		mg/Kg		116	70 - 130		
Ethylbenzene			0.100	0.1118		mg/Kg		112	70 - 130		
m-Xylene & p-Xylene			0.200	0.2330		mg/Kg		117	70 - 130		
o-Xylene			0.100	0.1311	*+	mg/Kg		131	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*121*		*70 - 130*
1,4-Difluorobenzene (Surr)	*100*		*70 - 130*

Lab Sample ID: LCSD 880-28063/2-A
Matrix: Solid
Analysis Batch: 28005

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 28063

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene			0.100	0.1045		mg/Kg		105	70 - 130	6	35

QC Sample Results

Client: Ensolum
Project/Site: PLU 21 BD 104H, 123H, 124H

Job ID: 890-2431-1
SDG: 03E1558053

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

Lab Sample ID: LCSD 880-28063/2-A — **Client Sample ID: Lab Control Sample Dup**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 28005 — **Prep Batch: 28063**

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Toluene			0.100	0.1127		mg/Kg		113	70 - 130	3	35
Ethylbenzene			0.100	0.1015		mg/Kg		102	70 - 130	10	35
m-Xylene & p-Xylene			0.200	0.2046		mg/Kg		102	70 - 130	13	35
o-Xylene			0.100	0.1150		mg/Kg		115	70 - 130	13	35

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*110*		*70 - 130*
1,4-Difluorobenzene (Surr)	*104*		*70 - 130*

Lab Sample ID: 890-2426-A-1-C MS — **Client Sample ID: Matrix Spike**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 28005 — **Prep Batch: 28063**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	<0.00199	U F1	0.100	0.07404		mg/Kg		74	70 - 130
Toluene	<0.00199	U F1	0.100	0.07758		mg/Kg		77	70 - 130
Ethylbenzene	<0.00199	U F1	0.100	0.06116	F1	mg/Kg		61	70 - 130
m-Xylene & p-Xylene	<0.00398	U F1	0.200	0.1209	F1	mg/Kg		60	70 - 130
o-Xylene	<0.00199	U F1 *+	0.100	0.06788	F1	mg/Kg		68	70 - 130

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*110*		*70 - 130*
1,4-Difluorobenzene (Surr)	*99*		*70 - 130*

Lab Sample ID: 890-2426-A-1-D MSD — **Client Sample ID: Matrix Spike Duplicate**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 28005 — **Prep Batch: 28063**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	<0.00199	U F1	0.100	0.06494	F1	mg/Kg		65	70 - 130	13	35
Toluene	<0.00199	U F1	0.100	0.06696	F1	mg/Kg		67	70 - 130	15	35
Ethylbenzene	<0.00199	U F1	0.100	0.04899	F1	mg/Kg		49	70 - 130	22	35
m-Xylene & p-Xylene	<0.00398	U F1	0.201	0.09419	F1	mg/Kg		47	70 - 130	25	35
o-Xylene	<0.00199	U F1 *+	0.100	0.05296	F1	mg/Kg		53	70 - 130	25	35

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*91*		*70 - 130*
1,4-Difluorobenzene (Surr)	*93*		*70 - 130*

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

Lab Sample ID: MB 880-28045/1-A — **Client Sample ID: Method Blank**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 27998 — **Prep Batch: 28045**

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		06/21/22 11:35	06/21/22 21:37	1

QC Sample Results

Client: Ensolum
Project/Site: PLU 21 BD 104H, 123H, 124H

Job ID: 890-2431-1
SDG: 03E1558053

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

Lab Sample ID: MB 880-28045/1-A
Matrix: Solid
Analysis Batch: 27998

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 28045

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		06/21/22 11:35	06/21/22 21:37	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		06/21/22 11:35	06/21/22 21:37	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*102*		*70 - 130*	*06/21/22 11:35*	*06/21/22 21:37*	*1*
o-Terphenyl	*119*		*70 - 130*	*06/21/22 11:35*	*06/21/22 21:37*	*1*

Lab Sample ID: LCS 880-28045/2-A
Matrix: Solid
Analysis Batch: 27998

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 28045

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Gasoline Range Organics (GRO)-C6-C10			1000	992.5		mg/Kg		99	70 - 130		
Diesel Range Organics (Over C10-C28)			1000	1042		mg/Kg		104	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1-Chlorooctane	*104*		*70 - 130*
o-Terphenyl	*110*		*70 - 130*

Lab Sample ID: LCSD 880-28045/3-A
Matrix: Solid
Analysis Batch: 27998

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 28045

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10			1000	1036		mg/Kg		104	70 - 130	4	20
Diesel Range Organics (Over C10-C28)			1000	1061		mg/Kg		106	70 - 130	2	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1-Chlorooctane	*104*		*70 - 130*
o-Terphenyl	*113*		*70 - 130*

Lab Sample ID: 880-16078-A-21-B MS
Matrix: Solid
Analysis Batch: 27998

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 28045

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	998	905.3		mg/Kg		87	70 - 130		
Diesel Range Organics (Over C10-C28)	<49.9	U	998	799.1		mg/Kg		80	70 - 130		

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
1-Chlorooctane	*82*		*70 - 130*
o-Terphenyl	*79*		*70 - 130*

QC Sample Results

Client: Ensolum
Project/Site: PLU 21 BD 104H, 123H, 124H

Job ID: 890-2431-1
SDG: 03E1558053

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

Lab Sample ID: 880-16078-A-21-C MSD
Matrix: Solid
Analysis Batch: 27998

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 28045

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	933.1		mg/Kg		89	70 - 130	3	20
Diesel Range Organics (Over C10-C28)	<49.9	U	999	845.4		mg/Kg		85	70 - 130	6	20

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
1-Chlorooctane	*86*		*70 - 130*
o-Terphenyl	*82*		*70 - 130*

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-27963/1-A
Matrix: Solid
Analysis Batch: 28185

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			06/24/22 11:13	1

Lab Sample ID: LCS 880-27963/2-A
Matrix: Solid
Analysis Batch: 28185

Client Sample ID: Lab Control Sample
Prep Type: Soluble

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride			250	272.5		mg/Kg		109	90 - 110		

Lab Sample ID: LCSD 880-27963/3-A
Matrix: Solid
Analysis Batch: 28185

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	274.8		mg/Kg		110	90 - 110	1	20

Lab Sample ID: 890-2428-A-1-G MS
Matrix: Solid
Analysis Batch: 28185

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	31300		12600	44610		mg/Kg		105	90 - 110		

Lab Sample ID: 890-2428-A-1-H MSD
Matrix: Solid
Analysis Batch: 28185

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	31300		12600	44560		mg/Kg		105	90 - 110	0	20

QC Association Summary

Client: Ensolum
Project/Site: PLU 21 BD 104H, 123H, 124H

Job ID: 890-2431-1
SDG: 03E1558053

GC VOA

Prep Batch: 27967

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 880-27967/5-A	Method Blank	Total/NA	Solid	5035	

Analysis Batch: 28005

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2431-1	SS02	Total/NA	Solid	8021B	28063
MB 880-27967/5-A	Method Blank	Total/NA	Solid	8021B	27967
MB 880-28063/5-A	Method Blank	Total/NA	Solid	8021B	28063
LCS 880-28063/1-A	Lab Control Sample	Total/NA	Solid	8021B	28063
LCSD 880-28063/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	28063
890-2426-A-1-C MS	Matrix Spike	Total/NA	Solid	8021B	28063
890-2426-A-1-D MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	28063

Prep Batch: 28063

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2431-1	SS02	Total/NA	Solid	5035	
MB 880-28063/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-28063/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-28063/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
890-2426-A-1-C MS	Matrix Spike	Total/NA	Solid	5035	
890-2426-A-1-D MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	

Analysis Batch: 28148

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2431-1	SS02	Total/NA	Solid	Total BTEX	

GC Semi VOA

Analysis Batch: 27998

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2431-1	SS02	Total/NA	Solid	8015B NM	28045
MB 880-28045/1-A	Method Blank	Total/NA	Solid	8015B NM	28045
LCS 880-28045/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	28045
LCSD 880-28045/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	28045
880-16078-A-21-B MS	Matrix Spike	Total/NA	Solid	8015B NM	28045
880-16078-A-21-C MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	28045

Prep Batch: 28045

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2431-1	SS02	Total/NA	Solid	8015NM Prep	
MB 880-28045/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-28045/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-28045/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
880-16078-A-21-B MS	Matrix Spike	Total/NA	Solid	8015NM Prep	
880-16078-A-21-C MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	

Analysis Batch: 28129

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2431-1	SS02	Total/NA	Solid	8015 NM	

QC Association Summary

Client: Ensolum
Project/Site: PLU 21 BD 104H, 123H, 124H

Job ID: 890-2431-1
SDG: 03E1558053

HPLC/IC

Leach Batch: 27963

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2431-1	SS02	Soluble	Solid	DI Leach	
MB 880-27963/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-27963/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-27963/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
890-2428-A-1-G MS	Matrix Spike	Soluble	Solid	DI Leach	
890-2428-A-1-H MSD	Matrix Spike Duplicate	Soluble	Solid	DI Leach	

Analysis Batch: 28185

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2431-1	SS02	Soluble	Solid	300.0	27963
MB 880-27963/1-A	Method Blank	Soluble	Solid	300.0	27963
LCS 880-27963/2-A	Lab Control Sample	Soluble	Solid	300.0	27963
LCSD 880-27963/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	27963
890-2428-A-1-G MS	Matrix Spike	Soluble	Solid	300.0	27963
890-2428-A-1-H MSD	Matrix Spike Duplicate	Soluble	Solid	300.0	27963

Lab Chronicle

Client: Ensolum
Project/Site: PLU 21 BD 104H, 123H, 124H

Job ID: 890-2431-1
SDG: 03E1558053

Client Sample ID: SS02
Date Collected: 06/17/22 12:41
Date Received: 06/17/22 16:33

Lab Sample ID: 890-2431-1
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	28063	06/21/22 14:42	MR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	28005	06/22/22 01:14	MR	EET MID
Total/NA	Analysis	Total BTEX		1			28148	06/22/22 12:17	SM	EET MID
Total/NA	Analysis	8015 NM		1			28129	06/22/22 11:20	SM	EET MID
Total/NA	Prep	8015NM Prep			10.03 g	10 mL	28045	06/21/22 11:35	DM	EET MID
Total/NA	Analysis	8015B NM		1			27998	06/22/22 04:09	SM	EET MID
Soluble	Leach	DI Leach			5 g	50 mL	27963	06/21/22 12:47	SMC	EET MID
Soluble	Analysis	300.0		20			28185	06/24/22 14:54	SMC	EET MID

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

Accreditation/Certification Summary

Client: Ensolum
Project/Site: PLU 21 BD 104H, 123H, 124H

Job ID: 890-2431-1
SDG: 03E1558053

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	06-30-22

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: Ensolum
Project/Site: PLU 21 BD 104H, 123H, 124H

Job ID: 890-2431-1
SDG: 03E1558053

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: PLU 21 BD 104H, 123H, 124H

Job ID: 890-2431-1
SDG: 03E1558053

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-2431-1	SS02	Solid	06/17/22 12:41	06/17/22 16:33	0.5

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Chain of Custody

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

Work Order No: _____

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Project Manager:	Ben Belill	Bill to: (if different)	Garrett Green
Company Name:	Ensolum, LLC	Company Name:	XTO Energy, Inc.
Address:	3122 National parks Hwy	Address:	3104 E. Green Street
City, State ZIP:	Carlsbad, NM 88220	City, State ZIP:	Carlsbad, NM 88220
Phone:	9898540852	Email:	bbelill@ensolum.com

Work Order Comments

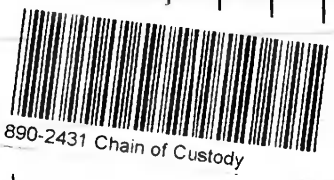
Program: UST/PST ☐ PRP ☐ Brownfields ☐ RRC ☐ Superfund ☐
State of Project:
Reporting: Level II ☐ Level III ☐ PST/UST ☐ TRRP ☐ Level IV ☐
Deliverables: EDD ☐ ADaPT ☐ Other:

Project Name:	PLU 21 BD 104H, 123H, & 124H	Turn Around	☑ Routine ☐ Rush
Project Number:	03E1558053	Due Date:	
Project Location:	EDDY COUNTY, NM	TAT starts the day received by the lab, if received by 4:30pm	
Sampler's Name:	Greg Palese		
PO #:			

SAMPLE RECEIPT			
Temp Blank:	Yes (No)	Wet Ice:	(Yes) No
Samples Received Intact:	(Yes) No	Thermometer ID:	TNM 007
Cooler Custody Seals:	Yes No (N/A)	Correction Factor:	-0.2
Sample Custody Seals:	Yes No (N/A)	Temperature Reading:	14.2
Total Containers:		Corrected Temperature:	14.0

ANALYSIS REQUEST

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Grab/ Comp	# of Cont	Pres. Code	CHLORIDES (EPA: 300.0)	TPH (8015)	BTEX (8021
SS05	S	6/17/2022	12:41	0.5'	Grab/	1		X	X	X



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

Cost Centers: 1666351001, 1666401001, 166601001

Incident Numbers: NAPP2209736479, NAPP2210942764, NAPP2211651017, NAPP2211151438

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	Greg Palese	Amanda Stuft	6/17/22 1639			
3				4		
5				6		

Revised Date: 08/25/2020 Rev. 2020.2

Login Sample Receipt Checklist

Client: Ensolum

Job Number: 890-2431-1
SDG Number: 03E1558053

Login Number: 2431
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.	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: Ensolum

Job Number: 890-2431-1
SDG Number: 03E1558053

Login Number: 2431
List Number: 2
Creator: Rodriguez, Leticia

List Source: Eurofins Midland
List Creation: 06/21/22 10:52 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

Eurofins Carlsbad
1089 N Canal St.
Carlsbad, NM 88220
Tel: (575)988-3199

Laboratory Job ID: 890-2874-1
Laboratory Sample Delivery Group: 03E1558048
Client Project/Site: PLU 21 BD 104H 123H 124H

For:
Ensolum
705 W. Wadley
Suite 210
Midland, Texas 79701

Attn: Ben Belill

JKramer

Authorized for release by:
9/12/2022 9:24:17 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.

Client: Ensolum
Project/Site: PLU 21 BD 104H 123H 124H

Laboratory Job ID: 890-2874-1
SDG: 03E1558048

Table of Contents

Definitions/Glossary

Client: Ensolum
Project/Site: PLU 21 BD 104H 123H 124H

Job ID: 890-2874-1
SDG: 03E1558048

Qualifiers

GC VOA

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

GC Semi VOA

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

HPLC/IC

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

Glossary

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

Case Narrative

Client: Ensolum
Project/Site: PLU 21 BD 104H 123H 124H

Job ID: 890-2874-1
SDG: 03E1558048

Job ID: 890-2874-1

Laboratory: Eurofins Carlsbad

Narrative

Job Narrative
890-2874-1

Receipt
The samples were received on 9/1/2022 9:21 AM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 1.4°C

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

GC Semi VOA
Method 8015MOD_NM: Surrogate recovery for the following samples were outside control limits: (LCS 880-33652/2-A) and (LCSD 880-33652/3-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
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Client Sample Results

Client: Ensolum
Project/Site: PLU 21 BD 104H 123H 124H

Job ID: 890-2874-1
SDG: 03E1558048

Client Sample ID: PH01

Lab Sample ID: 890-2874-1
Matrix: Solid
Date Collected: 08/31/22 09:05
Date Received: 09/01/22 09:21
Sample Depth: 2

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		09/09/22 12:42	09/10/22 21:13	1
Toluene	<0.00200	U	0.00200		mg/Kg		09/09/22 12:42	09/10/22 21:13	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		09/09/22 12:42	09/10/22 21:13	1
m-Xylene & p-Xylene	<0.00399	U	0.00399		mg/Kg		09/09/22 12:42	09/10/22 21:13	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		09/09/22 12:42	09/10/22 21:13	1
Xylenes, Total	<0.00399	U	0.00399		mg/Kg		09/09/22 12:42	09/10/22 21:13	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*68*	*S1-*	*70 - 130*	*09/09/22 12:42*	*09/10/22 21:13*	*1*
1,4-Difluorobenzene (Surr)	*99*		*70 - 130*	*09/09/22 12:42*	*09/10/22 21:13*	*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			09/12/22 10:05	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			09/06/22 12:59	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		09/02/22 13:37	09/03/22 03:07	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		09/02/22 13:37	09/03/22 03:07	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		09/02/22 13:37	09/03/22 03:07	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*125*		*70 - 130*	*09/02/22 13:37*	*09/03/22 03:07*	*1*
o-Terphenyl	*125*		*70 - 130*	*09/02/22 13:37*	*09/03/22 03:07*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**259**		4.98		mg/Kg			09/09/22 03:25	1

Client Sample ID: PH02

Lab Sample ID: 890-2874-2
Matrix: Solid
Date Collected: 08/31/22 09:20
Date Received: 09/01/22 09:21
Sample Depth: 2

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00198	U	0.00198		mg/Kg		09/09/22 12:42	09/10/22 21:39	1
Toluene	<0.00198	U	0.00198		mg/Kg		09/09/22 12:42	09/10/22 21:39	1
Ethylbenzene	<0.00198	U	0.00198		mg/Kg		09/09/22 12:42	09/10/22 21:39	1
m-Xylene & p-Xylene	<0.00396	U	0.00396		mg/Kg		09/09/22 12:42	09/10/22 21:39	1
o-Xylene	<0.00198	U	0.00198		mg/Kg		09/09/22 12:42	09/10/22 21:39	1
Xylenes, Total	<0.00396	U	0.00396		mg/Kg		09/09/22 12:42	09/10/22 21:39	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*64*	*S1-*	*70 - 130*	*09/09/22 12:42*	*09/10/22 21:39*	*1*

Client Sample Results

Client: Ensolum
Project/Site: PLU 21 BD 104H 123H 124H

Job ID: 890-2874-1
SDG: 03E1558048

Client Sample ID: PH02

Lab Sample ID: 890-2874-2
Matrix: Solid
Date Collected: 08/31/22 09:20
Date Received: 09/01/22 09:21
Sample Depth: 2

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

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,4-Difluorobenzene (Surr)	*102*		*70 - 130*	*09/09/22 12:42*	*09/10/22 21:39*	*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			09/12/22 10:05	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			09/06/22 12:59	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		09/02/22 13:37	09/03/22 03:29	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9	mg/Kg		09/02/22 13:37	09/03/22 03:29	1
OII Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg		09/02/22 13:37	09/03/22 03:29	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*127*		*70 - 130*	*09/02/22 13:37*	*09/03/22 03:29*	*1*
o-Terphenyl	*124*		*70 - 130*	*09/02/22 13:37*	*09/03/22 03:29*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**51.7**		5.00	mg/Kg			09/09/22 03:30	1

Client Sample ID: PH03

Lab Sample ID: 890-2874-3
Matrix: Solid
Date Collected: 08/31/22 09:30
Date Received: 09/01/22 09:21
Sample Depth: 2

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		09/09/22 12:42	09/10/22 22:05	1
Toluene	<0.00200	U	0.00200	mg/Kg		09/09/22 12:42	09/10/22 22:05	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		09/09/22 12:42	09/10/22 22:05	1
m-Xylene & p-Xylene	<0.00401	U	0.00401	mg/Kg		09/09/22 12:42	09/10/22 22:05	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		09/09/22 12:42	09/10/22 22:05	1
Xylenes, Total	<0.00401	U	0.00401	mg/Kg		09/09/22 12:42	09/10/22 22:05	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*91*		*70 - 130*	*09/09/22 12:42*	*09/10/22 22:05*	*1*
1,4-Difluorobenzene (Surr)	*103*		*70 - 130*	*09/09/22 12:42*	*09/10/22 22:05*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00401	U	0.00401	mg/Kg			09/12/22 10:05	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			09/06/22 12:59	1

Eurofins Carlsbad

Client Sample Results

Client: Ensolum
Project/Site: PLU 21 BD 104H 123H 124H

Job ID: 890-2874-1
SDG: 03E1558048

Client Sample ID: PH03

Date Collected: 08/31/22 09:30
Date Received: 09/01/22 09:21
Sample Depth: 2

Lab Sample ID: 890-2874-3
Matrix: Solid

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		09/02/22 13:37	09/03/22 03:50	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		09/02/22 13:37	09/03/22 03:50	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		09/02/22 13:37	09/03/22 03:50	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*121*		*70 - 130*	*09/02/22 13:37*	*09/03/22 03:50*	*1*
o-Terphenyl	*119*		*70 - 130*	*09/02/22 13:37*	*09/03/22 03:50*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**541**		5.02		mg/Kg			09/09/22 03:35	1

Client Sample ID: PH04

Date Collected: 08/31/22 09:40
Date Received: 09/01/22 09:21
Sample Depth: 2

Lab Sample ID: 890-2874-4
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		09/09/22 12:42	09/10/22 22:30	1
Toluene	<0.00202	U	0.00202		mg/Kg		09/09/22 12:42	09/10/22 22:30	1
Ethylbenzene	<0.00202	U	0.00202		mg/Kg		09/09/22 12:42	09/10/22 22:30	1
m-Xylene & p-Xylene	<0.00403	U	0.00403		mg/Kg		09/09/22 12:42	09/10/22 22:30	1
o-Xylene	<0.00202	U	0.00202		mg/Kg		09/09/22 12:42	09/10/22 22:30	1
Xylenes, Total	<0.00403	U	0.00403		mg/Kg		09/09/22 12:42	09/10/22 22:30	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*92*		*70 - 130*	*09/09/22 12:42*	*09/10/22 22:30*	*1*
1,4-Difluorobenzene (Surr)	*105*		*70 - 130*	*09/09/22 12:42*	*09/10/22 22:30*	*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			09/12/22 10:05	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			09/06/22 12:59	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		09/02/22 13:37	09/03/22 04:12	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		09/02/22 13:37	09/03/22 04:12	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		09/02/22 13:37	09/03/22 04:12	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*105*		*70 - 130*	*09/02/22 13:37*	*09/03/22 04:12*	*1*
o-Terphenyl	*104*		*70 - 130*	*09/02/22 13:37*	*09/03/22 04:12*	*1*

Client Sample Results

Client: Ensolum
Project/Site: PLU 21 BD 104H 123H 124H

Job ID: 890-2874-1
SDG: 03E1558048

Client Sample ID: PH04
Date Collected: 08/31/22 09:40
Date Received: 09/01/22 09:21
Sample Depth: 2

Lab Sample ID: 890-2874-4
Matrix: Solid

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	644		5.01		mg/Kg			09/09/22 03:49	1

Surrogate Summary

Client: Ensolum
Project/Site: PLU 21 BD 104H 123H 124H

Job ID: 890-2874-1
SDG: 03E1558048

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)
890-2873-A-1-C MS	Matrix Spike	93	98
890-2873-A-1-D MSD	Matrix Spike Duplicate	85	101
890-2874-1	PH01	68 S1-	99
890-2874-2	PH02	64 S1-	102
890-2874-3	PH03	91	103
890-2874-4	PH04	92	105
LCS 880-34108/1-A	Lab Control Sample	89	102
LCSD 880-34108/2-A	Lab Control Sample Dup	92	102
MB 880-34108/5-A	Method Blank	62 S1-	91

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)
880-18785-A-1-E MS	Matrix Spike	90	78
880-18785-A-1-F MSD	Matrix Spike Duplicate	90	77
890-2874-1	PH01	125	125
890-2874-2	PH02	127	124
890-2874-3	PH03	121	119
890-2874-4	PH04	105	104
LCS 880-33652/2-A	Lab Control Sample	141 S1+	144 S1+
LCSD 880-33652/3-A	Lab Control Sample Dup	144 S1+	146 S1+
MB 880-33652/1-A	Method Blank	110	115

Surrogate Legend

1CO = 1-Chlorooctane
OTPH = o-Terphenyl

QC Sample Results

Client: Ensolum
Project/Site: PLU 21 BD 104H 123H 124H

Job ID: 890-2874-1
SDG: 03E1558048

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-34108/5-A
Matrix: Solid
Analysis Batch: 34150

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 34108

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		09/09/22 12:42	09/10/22 18:08	1
Toluene	<0.00200	U	0.00200		mg/Kg		09/09/22 12:42	09/10/22 18:08	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		09/09/22 12:42	09/10/22 18:08	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		09/09/22 12:42	09/10/22 18:08	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		09/09/22 12:42	09/10/22 18:08	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		09/09/22 12:42	09/10/22 18:08	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*62*	*S1-*	*70 - 130*	*09/09/22 12:42*	*09/10/22 18:08*	*1*
1,4-Difluorobenzene (Surr)	*91*		*70 - 130*	*09/09/22 12:42*	*09/10/22 18:08*	*1*

Lab Sample ID: LCS 880-34108/1-A
Matrix: Solid
Analysis Batch: 34150

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 34108

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Benzene			0.100	0.1052		mg/Kg		105	70 - 130		
Toluene			0.100	0.1014		mg/Kg		101	70 - 130		
Ethylbenzene			0.100	0.09875		mg/Kg		99	70 - 130		
m-Xylene & p-Xylene			0.200	0.2025		mg/Kg		101	70 - 130		
o-Xylene			0.100	0.1001		mg/Kg		100	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*89*		*70 - 130*
1,4-Difluorobenzene (Surr)	*102*		*70 - 130*

Lab Sample ID: LCSD 880-34108/2-A
Matrix: Solid
Analysis Batch: 34150

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 34108

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene			0.100	0.1002		mg/Kg		100	70 - 130	5	35
Toluene			0.100	0.09534		mg/Kg		95	70 - 130	6	35
Ethylbenzene			0.100	0.08911		mg/Kg		89	70 - 130	10	35
m-Xylene & p-Xylene			0.200	0.1817		mg/Kg		91	70 - 130	11	35
o-Xylene			0.100	0.09305		mg/Kg		93	70 - 130	7	35

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*92*		*70 - 130*
1,4-Difluorobenzene (Surr)	*102*		*70 - 130*

Lab Sample ID: 890-2873-A-1-C MS
Matrix: Solid
Analysis Batch: 34150

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 34108

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Benzene	<0.00201	U	0.0996	0.08819		mg/Kg		89	70 - 130		
Toluene	<0.00201	U	0.0996	0.08582		mg/Kg		86	70 - 130		

QC Sample Results

Client: Ensolum
Project/Site: PLU 21 BD 104H 123H 124H

Job ID: 890-2874-1
SDG: 03E1558048

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

Lab Sample ID: 890-2873-A-1-C MS — **Client Sample ID: Matrix Spike**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 34150 — **Prep Batch: 34108**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Ethylbenzene	<0.00201	U	0.0996	0.08214		mg/Kg		82	70 - 130
m-Xylene & p-Xylene	<0.00402	U	0.199	0.1681		mg/Kg		84	70 - 130
o-Xylene	<0.00201	U	0.0996	0.08247		mg/Kg		83	70 - 130

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*93*		*70 - 130*
1,4-Difluorobenzene (Surr)	*98*		*70 - 130*

Lab Sample ID: 890-2873-A-1-D MSD — **Client Sample ID: Matrix Spike Duplicate**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 34150 — **Prep Batch: 34108**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	<0.00201	U	0.0998	0.09043		mg/Kg		91	70 - 130	3	35
Toluene	<0.00201	U	0.0998	0.08837		mg/Kg		89	70 - 130	3	35
Ethylbenzene	<0.00201	U	0.0998	0.08669		mg/Kg		87	70 - 130	5	35
m-Xylene & p-Xylene	<0.00402	U	0.200	0.1765		mg/Kg		88	70 - 130	5	35
o-Xylene	<0.00201	U	0.0998	0.08671		mg/Kg		87	70 - 130	5	35

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*85*		*70 - 130*
1,4-Difluorobenzene (Surr)	*101*		*70 - 130*

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

Lab Sample ID: MB 880-33652/1-A — **Client Sample ID: Method Blank**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 33584 — **Prep Batch: 33652**

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		09/02/22 13:37	09/02/22 19:12	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		09/02/22 13:37	09/02/22 19:12	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		09/02/22 13:37	09/02/22 19:12	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*110*		*70 - 130*	*09/02/22 13:37*	*09/02/22 19:12*	*1*
o-Terphenyl	*115*		*70 - 130*	*09/02/22 13:37*	*09/02/22 19:12*	*1*

Lab Sample ID: LCS 880-33652/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 33584 — **Prep Batch: 33652**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Gasoline Range Organics (GRO)-C6-C10	1000	897.3		mg/Kg		90	70 - 130
Diesel Range Organics (Over C10-C28)	1000	906.9		mg/Kg		91	70 - 130

QC Sample Results

Client: Ensolum
Project/Site: PLU 21 BD 104H 123H 124H

Job ID: 890-2874-1
SDG: 03E1558048

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

Lab Sample ID: LCS 880-33652/2-A
Matrix: Solid
Analysis Batch: 33584

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 33652

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1-Chlorooctane	141	S1+	70 - 130
o-Terphenyl	144	S1+	70 - 130

Lab Sample ID: LCSD 880-33652/3-A
Matrix: Solid
Analysis Batch: 33584

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 33652

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10			1000	916.7		mg/Kg		92	70 - 130	2	20
Diesel Range Organics (Over C10-C28)			1000	923.6		mg/Kg		92	70 - 130	2	20

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
1-Chlorooctane	144	S1+	70 - 130
o-Terphenyl	146	S1+	70 - 130

Lab Sample ID: 880-18785-A-1-E MS
Matrix: Solid
Analysis Batch: 33584

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 33652

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	898.3		mg/Kg		88	70 - 130
Diesel Range Organics (Over C10-C28)	<49.9	U	999	847.2		mg/Kg		85	70 - 130

Surrogate	MS %Recovery	MS Qualifier	Limits
1-Chlorooctane	90		70 - 130
o-Terphenyl	78		70 - 130

Lab Sample ID: 880-18785-A-1-F MSD
Matrix: Solid
Analysis Batch: 33584

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 33652

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	998	889.0		mg/Kg		87	70 - 130	1	20
Diesel Range Organics (Over C10-C28)	<49.9	U	998	842.9		mg/Kg		84	70 - 130	1	20

Surrogate	MSD %Recovery	MSD Qualifier	Limits
1-Chlorooctane	90		70 - 130
o-Terphenyl	77		70 - 130

QC Sample Results

Client: Ensolum
Project/Site: PLU 21 BD 104H 123H 124H

Job ID: 890-2874-1
SDG: 03E1558048

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-33691/1-A
Matrix: Solid
Analysis Batch: 33933

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			09/09/22 02:38	1

Lab Sample ID: LCS 880-33691/2-A
Matrix: Solid
Analysis Batch: 33933

Client Sample ID: Lab Control Sample
Prep Type: Soluble

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride			250	240.6		mg/Kg		96	90 - 110		

Lab Sample ID: LCSD 880-33691/3-A
Matrix: Solid
Analysis Batch: 33933

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	241.4		mg/Kg		97	90 - 110	0	20

Lab Sample ID: 890-2874-3 MS
Matrix: Solid
Analysis Batch: 33933

Client Sample ID: PH03
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride	541		251	769.3		mg/Kg		91	90 - 110		

Lab Sample ID: 890-2874-3 MSD
Matrix: Solid
Analysis Batch: 33933

Client Sample ID: PH03
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	541		251	768.7		mg/Kg		91	90 - 110	0	20

QC Association Summary

Client: Ensolum
Project/Site: PLU 21 BD 104H 123H 124H

Job ID: 890-2874-1
SDG: 03E1558048

GC VOA

Prep Batch: 34108

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2874-1	PH01	Total/NA	Solid	5035	
890-2874-2	PH02	Total/NA	Solid	5035	
890-2874-3	PH03	Total/NA	Solid	5035	
890-2874-4	PH04	Total/NA	Solid	5035	
MB 880-34108/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-34108/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-34108/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
890-2873-A-1-C MS	Matrix Spike	Total/NA	Solid	5035	
890-2873-A-1-D MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	

Analysis Batch: 34150

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2874-1	PH01	Total/NA	Solid	8021B	34108
890-2874-2	PH02	Total/NA	Solid	8021B	34108
890-2874-3	PH03	Total/NA	Solid	8021B	34108
890-2874-4	PH04	Total/NA	Solid	8021B	34108
MB 880-34108/5-A	Method Blank	Total/NA	Solid	8021B	34108
LCS 880-34108/1-A	Lab Control Sample	Total/NA	Solid	8021B	34108
LCSD 880-34108/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	34108
890-2873-A-1-C MS	Matrix Spike	Total/NA	Solid	8021B	34108
890-2873-A-1-D MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	34108

Analysis Batch: 34261

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2874-1	PH01	Total/NA	Solid	Total BTEX	
890-2874-2	PH02	Total/NA	Solid	Total BTEX	
890-2874-3	PH03	Total/NA	Solid	Total BTEX	
890-2874-4	PH04	Total/NA	Solid	Total BTEX	

GC Semi VOA

Analysis Batch: 33584

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2874-1	PH01	Total/NA	Solid	8015B NM	33652
890-2874-2	PH02	Total/NA	Solid	8015B NM	33652
890-2874-3	PH03	Total/NA	Solid	8015B NM	33652
890-2874-4	PH04	Total/NA	Solid	8015B NM	33652
MB 880-33652/1-A	Method Blank	Total/NA	Solid	8015B NM	33652
LCS 880-33652/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	33652
LCSD 880-33652/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	33652
880-18785-A-1-E MS	Matrix Spike	Total/NA	Solid	8015B NM	33652
880-18785-A-1-F MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	33652

Prep Batch: 33652

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2874-1	PH01	Total/NA	Solid	8015NM Prep	
890-2874-2	PH02	Total/NA	Solid	8015NM Prep	
890-2874-3	PH03	Total/NA	Solid	8015NM Prep	
890-2874-4	PH04	Total/NA	Solid	8015NM Prep	
MB 880-33652/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-33652/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	

QC Association Summary

Client: Ensolum
Project/Site: PLU 21 BD 104H 123H 124H

Job ID: 890-2874-1
SDG: 03E1558048

GC Semi VOA (Continued)

Prep Batch: 33652 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCSD 880-33652/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
880-18785-A-1-E MS	Matrix Spike	Total/NA	Solid	8015NM Prep	
880-18785-A-1-F MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	

Analysis Batch: 33845

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2874-1	PH01	Total/NA	Solid	8015 NM	
890-2874-2	PH02	Total/NA	Solid	8015 NM	
890-2874-3	PH03	Total/NA	Solid	8015 NM	
890-2874-4	PH04	Total/NA	Solid	8015 NM	

HPLC/IC

Leach Batch: 33691

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2874-1	PH01	Soluble	Solid	DI Leach	
890-2874-2	PH02	Soluble	Solid	DI Leach	
890-2874-3	PH03	Soluble	Solid	DI Leach	
890-2874-4	PH04	Soluble	Solid	DI Leach	
MB 880-33691/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-33691/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-33691/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
890-2874-3 MS	PH03	Soluble	Solid	DI Leach	
890-2874-3 MSD	PH03	Soluble	Solid	DI Leach	

Analysis Batch: 33933

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2874-1	PH01	Soluble	Solid	300.0	33691
890-2874-2	PH02	Soluble	Solid	300.0	33691
890-2874-3	PH03	Soluble	Solid	300.0	33691
890-2874-4	PH04	Soluble	Solid	300.0	33691
MB 880-33691/1-A	Method Blank	Soluble	Solid	300.0	33691
LCS 880-33691/2-A	Lab Control Sample	Soluble	Solid	300.0	33691
LCSD 880-33691/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	33691
890-2874-3 MS	PH03	Soluble	Solid	300.0	33691
890-2874-3 MSD	PH03	Soluble	Solid	300.0	33691

Lab Chronicle

Client: Ensolum
Project/Site: PLU 21 BD 104H 123H 124H

Job ID: 890-2874-1
SDG: 03E1558048

Client Sample ID: PH01

Lab Sample ID: 890-2874-1
Matrix: Solid
Date Collected: 08/31/22 09:05
Date Received: 09/01/22 09:21

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	34108	09/09/22 12:42	MR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	34150	09/10/22 21:13	MR	EET MID
Total/NA	Analysis	Total BTEX		1			34261	09/12/22 10:05	AJ	EET MID
Total/NA	Analysis	8015 NM		1			33845	09/06/22 12:59	SM	EET MID
Total/NA	Prep	8015NM Prep			10.00 g	10 mL	33652	09/02/22 13:37	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	33584	09/03/22 03:07	SM	EET MID
Soluble	Leach	DI Leach			5.02 g	50 mL	33691	09/03/22 13:12	KS	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	33933	09/09/22 03:25	CH	EET MID

Client Sample ID: PH02

Lab Sample ID: 890-2874-2
Matrix: Solid
Date Collected: 08/31/22 09:20
Date Received: 09/01/22 09:21

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.05 g	5 mL	34108	09/09/22 12:42	MR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	34150	09/10/22 21:39	MR	EET MID
Total/NA	Analysis	Total BTEX		1			34261	09/12/22 10:05	AJ	EET MID
Total/NA	Analysis	8015 NM		1			33845	09/06/22 12:59	SM	EET MID
Total/NA	Prep	8015NM Prep			10.03 g	10 mL	33652	09/02/22 13:37	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	33584	09/03/22 03:29	SM	EET MID
Soluble	Leach	DI Leach			5 g	50 mL	33691	09/03/22 13:12	KS	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	33933	09/09/22 03:30	CH	EET MID

Client Sample ID: PH03

Lab Sample ID: 890-2874-3
Matrix: Solid
Date Collected: 08/31/22 09:30
Date Received: 09/01/22 09:21

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	34108	09/09/22 12:42	MR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	34150	09/10/22 22:05	MR	EET MID
Total/NA	Analysis	Total BTEX		1			34261	09/12/22 10:05	AJ	EET MID
Total/NA	Analysis	8015 NM		1			33845	09/06/22 12:59	SM	EET MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	33652	09/02/22 13:37	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	33584	09/03/22 03:50	SM	EET MID
Soluble	Leach	DI Leach			4.98 g	50 mL	33691	09/03/22 13:12	KS	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	33933	09/09/22 03:35	CH	EET MID

Client Sample ID: PH04

Lab Sample ID: 890-2874-4
Matrix: Solid
Date Collected: 08/31/22 09:40
Date Received: 09/01/22 09:21

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	34108	09/09/22 12:42	MR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	34150	09/10/22 22:30	MR	EET MID
Total/NA	Analysis	Total BTEX		1			34261	09/12/22 10:05	AJ	EET MID

Eurofins Carlsbad

Lab Chronicle

Client: Ensolum
Project/Site: PLU 21 BD 104H 123H 124H

Job ID: 890-2874-1
SDG: 03E1558048

Client Sample ID: PH04
Date Collected: 08/31/22 09:40
Date Received: 09/01/22 09:21

Lab Sample ID: 890-2874-4
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			33845	09/06/22 12:59	SM	EET MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	33652	09/02/22 13:37	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	33584	09/03/22 04:12	SM	EET MID
Soluble	Leach	DI Leach			4.99 g	50 mL	33691	09/03/22 13:12	KS	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	33933	09/09/22 03:49	CH	EET MID

Laboratory References:

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

Accreditation/Certification Summary

Client: Ensolum
Project/Site: PLU 21 BD 104H 123H 124H

Job ID: 890-2874-1
SDG: 03E1558048

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: PLU 21 BD 104H 123H 124H

Job ID: 890-2874-1
SDG: 03E1558048

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: PLU 21 BD 104H 123H 124H

Job ID: 890-2874-1
SDG: 03E1558048

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-2874-1	PH01	Solid	08/31/22 09:05	09/01/22 09:21	2
890-2874-2	PH02	Solid	08/31/22 09:20	09/01/22 09:21	2
890-2874-3	PH03	Solid	08/31/22 09:30	09/01/22 09:21	2
890-2874-4	PH04	Solid	08/31/22 09:40	09/01/22 09:21	2

Chain of Custody

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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)	Garret 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:	Garret.Green@ExxonMobil.com

Work Order Comments

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

Project Name:	PLU 21 BD 104H, 123H, 124H	Turn Around	☑ Routine ☐ Rush
Project Number:	03E1558048	Due Date:	
Project Location:	32.10934, -103.88918	TAT starts the day received by the lab, if received by 4:30pm	
Sampler's Name:	Kase Parker		
PO #:			

SAMPLE RECEIPT			
Temp Blank:	Yes No	Wet Ice:	Yes No
Samples Received Intact:	Yes No	Thermometer ID:	TNM-007
Cooler Custody Seals:	Yes No N/A	Correction Factor:	-0.2
Sample Custody Seals:	Yes No N/A	Temperature Reading:	1.6
Total Containers:		Corrected Temperature:	1.4

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)	Sample Comments
PH01	S	8/31/2022	9:05	2'				x	x	x	Incident ID:
PH02	S	8/31/2022	9:20	2'				x	x	x	nAPP2209736479
PH03	S	8/31/2022	9:30	2'				x	x	x	nAPP2211651017
PH04	S	8/31/2022	9:40	2'				x	x	x	nAPP2211151438
											CC:
											1666401001

890-2874 Chain of Custody

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		9.1.22 921	2		
3			4		
5			6		

Revised Date: 08/25/2020 Rev. 2020 2

Login Sample Receipt Checklist

Client: Ensolum

Job Number: 890-2874-1
SDG Number: 03E1558048

Login Number: 2874
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: Ensolum

Job Number: 890-2874-1
SDG Number: 03E1558048

Login Number: 2874
List Number: 2
Creator: Rodriguez, Leticia

List Source: Eurofins Midland
List Creation: 09/02/22 10:54 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

Eurofins Carlsbad
1089 N Canal St.
Carlsbad, NM 88220
Tel: (575)988-3199

Laboratory Job ID: 890-2881-1
Laboratory Sample Delivery Group: 03E1558048
Client Project/Site: PLU 21 BD 104H,123H,124H

For:
Ensolum
705 W. Wadley
Suite 210
Midland, Texas 79701

Attn: Ben Belill

JKramer

Authorized for release by:
9/12/2022 9:20:24 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.

Client: Ensolum
Project/Site: PLU 21 BD 104H,123H,124H

Laboratory Job ID: 890-2881-1
SDG: 03E1558048

Table of Contents

Definitions/Glossary

Client: Ensolum
Project/Site: PLU 21 BD 104H,123H,124H

Job ID: 890-2881-1
SDG: 03E1558048

Qualifiers

GC VOA

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

GC Semi VOA

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

HPLC/IC

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

Glossary

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

Case Narrative

Client: Ensolum
Project/Site: PLU 21 BD 104H,123H,124H

Job ID: 890-2881-1
SDG: 03E1558048

Job ID: 890-2881-1

Laboratory: Eurofins Carlsbad

Narrative

Job Narrative
890-2881-1

Receipt
The samples were received on 9/2/2022 2:56 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 5.2°C

GC VOA
Method 8021B: Surrogate recovery for the following samples were outside control limits: (LCS 880-34162/1-A), (LCSD 880-34162/2-A) and (890-2881-A-1-H MSD). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

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

GC Semi VOA
Method 8015MOD_NM: Surrogate recovery for the following samples were outside control limits: (LCS 880-34014/2-A) and (LCSD 880-34014/3-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
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Client Sample Results

Client: Ensolum
Project/Site: PLU 21 BD 104H,123H,124H

Job ID: 890-2881-1
SDG: 03E1558048

Client Sample ID: FS01

Lab Sample ID: 890-2881-1
Matrix: Solid
Date Collected: 09/01/22 12:30
Date Received: 09/02/22 14:56
Sample Depth: 2'

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199		mg/Kg		09/11/22 14:51	09/11/22 19:46	1
Toluene	<0.00199	U	0.00199		mg/Kg		09/11/22 14:51	09/11/22 19:46	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		09/11/22 14:51	09/11/22 19:46	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		09/11/22 14:51	09/11/22 19:46	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		09/11/22 14:51	09/11/22 19:46	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		09/11/22 14:51	09/11/22 19:46	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*97*		*70 - 130*	*09/11/22 14:51*	*09/11/22 19:46*	*1*
1,4-Difluorobenzene (Surr)	*80*		*70 - 130*	*09/11/22 14:51*	*09/11/22 19:46*	*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			09/12/22 09:55	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			09/09/22 10:25	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		09/08/22 14:10	09/08/22 20:27	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		09/08/22 14:10	09/08/22 20:27	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		09/08/22 14:10	09/08/22 20:27	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*120*		*70 - 130*	*09/08/22 14:10*	*09/08/22 20:27*	*1*
o-Terphenyl	*112*		*70 - 130*	*09/08/22 14:10*	*09/08/22 20:27*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**219**		5.02		mg/Kg			09/09/22 12:34	1

Client Sample ID: FS02

Lab Sample ID: 890-2881-2
Matrix: Solid
Date Collected: 09/01/22 12:35
Date Received: 09/02/22 14:56
Sample Depth: 2'

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00198	U	0.00198		mg/Kg		09/11/22 14:51	09/11/22 20:06	1
Toluene	<0.00198	U	0.00198		mg/Kg		09/11/22 14:51	09/11/22 20:06	1
Ethylbenzene	<0.00198	U	0.00198		mg/Kg		09/11/22 14:51	09/11/22 20:06	1
m-Xylene & p-Xylene	<0.00397	U	0.00397		mg/Kg		09/11/22 14:51	09/11/22 20:06	1
o-Xylene	<0.00198	U	0.00198		mg/Kg		09/11/22 14:51	09/11/22 20:06	1
Xylenes, Total	<0.00397	U	0.00397		mg/Kg		09/11/22 14:51	09/11/22 20:06	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*110*		*70 - 130*	*09/11/22 14:51*	*09/11/22 20:06*	*1*

Client Sample Results

Client: Ensolum
Project/Site: PLU 21 BD 104H,123H,124H

Job ID: 890-2881-1
SDG: 03E1558048

Client Sample ID: FS02

Lab Sample ID: 890-2881-2
Matrix: Solid
Date Collected: 09/01/22 12:35
Date Received: 09/02/22 14:56
Sample Depth: 2'

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

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,4-Difluorobenzene (Surr)	*92*		*70 - 130*	*09/11/22 14:51*	*09/11/22 20:06*	*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			09/12/22 09:55	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			09/09/22 10:25	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		09/08/22 14:10	09/08/22 21:31	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9	mg/Kg		09/08/22 14:10	09/08/22 21:31	1
OII Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg		09/08/22 14:10	09/08/22 21:31	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*105*		*70 - 130*	*09/08/22 14:10*	*09/08/22 21:31*	*1*
o-Terphenyl	*97*		*70 - 130*	*09/08/22 14:10*	*09/08/22 21:31*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**328**		4.97	mg/Kg			09/09/22 13:02	1

Client Sample ID: FS03

Lab Sample ID: 890-2881-3
Matrix: Solid
Date Collected: 09/01/22 12:40
Date Received: 09/02/22 14:56
Sample Depth: 2'

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00201	U	0.00201	mg/Kg		09/11/22 14:51	09/11/22 20:27	1
Toluene	<0.00201	U	0.00201	mg/Kg		09/11/22 14:51	09/11/22 20:27	1
Ethylbenzene	<0.00201	U	0.00201	mg/Kg		09/11/22 14:51	09/11/22 20:27	1
m-Xylene & p-Xylene	<0.00402	U	0.00402	mg/Kg		09/11/22 14:51	09/11/22 20:27	1
o-Xylene	<0.00201	U	0.00201	mg/Kg		09/11/22 14:51	09/11/22 20:27	1
Xylenes, Total	<0.00402	U	0.00402	mg/Kg		09/11/22 14:51	09/11/22 20:27	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*107*		*70 - 130*	*09/11/22 14:51*	*09/11/22 20:27*	*1*
1,4-Difluorobenzene (Surr)	*86*		*70 - 130*	*09/11/22 14:51*	*09/11/22 20:27*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00402	U	0.00402	mg/Kg			09/12/22 09:55	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			09/09/22 10:25	1

Eurofins Carlsbad

Client Sample Results

Client: Ensolum
Project/Site: PLU 21 BD 104H,123H,124H

Job ID: 890-2881-1
SDG: 03E1558048

Client Sample ID: FS03

Lab Sample ID: 890-2881-3
Matrix: Solid
Date Collected: 09/01/22 12:40
Date Received: 09/02/22 14:56
Sample Depth: 2'

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		09/08/22 14:10	09/08/22 21:53	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		09/08/22 14:10	09/08/22 21:53	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		09/08/22 14:10	09/08/22 21:53	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*103*		*70 - 130*	*09/08/22 14:10*	*09/08/22 21:53*	*1*
o-Terphenyl	*97*		*70 - 130*	*09/08/22 14:10*	*09/08/22 21:53*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**103**		5.00		mg/Kg			09/09/22 13:11	1

Client Sample ID: FS04

Lab Sample ID: 890-2881-4
Matrix: Solid
Date Collected: 09/01/22 12:45
Date Received: 09/02/22 14:56
Sample Depth: 2'

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00202	U	0.00202		mg/Kg		09/11/22 14:51	09/11/22 20:47	1
Toluene	<0.00202	U	0.00202		mg/Kg		09/11/22 14:51	09/11/22 20:47	1
Ethylbenzene	<0.00202	U	0.00202		mg/Kg		09/11/22 14:51	09/11/22 20:47	1
m-Xylene & p-Xylene	<0.00403	U	0.00403		mg/Kg		09/11/22 14:51	09/11/22 20:47	1
o-Xylene	<0.00202	U	0.00202		mg/Kg		09/11/22 14:51	09/11/22 20:47	1
Xylenes, Total	<0.00403	U	0.00403		mg/Kg		09/11/22 14:51	09/11/22 20:47	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*109*		*70 - 130*	*09/11/22 14:51*	*09/11/22 20:47*	*1*
1,4-Difluorobenzene (Surr)	*91*		*70 - 130*	*09/11/22 14:51*	*09/11/22 20:47*	*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			09/12/22 09:55	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	**55.9**		49.8		mg/Kg			09/09/22 10:25	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	**55.9**		49.8		mg/Kg		09/08/22 14:10	09/08/22 22:14	1
Diesel Range Organics (Over C10-C28)	<49.8	U	49.8		mg/Kg		09/08/22 14:10	09/08/22 22:14	1
Oil Range Organics (Over C28-C36)	<49.8	U	49.8		mg/Kg		09/08/22 14:10	09/08/22 22:14	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*123*		*70 - 130*	*09/08/22 14:10*	*09/08/22 22:14*	*1*
o-Terphenyl	*113*		*70 - 130*	*09/08/22 14:10*	*09/08/22 22:14*	*1*

Client Sample Results

Client: Ensolum
Project/Site: PLU 21 BD 104H,123H,124H

Job ID: 890-2881-1
SDG: 03E1558048

Client Sample ID: FS04

Lab Sample ID: 890-2881-4
Matrix: Solid
Date Collected: 09/01/22 12:45
Date Received: 09/02/22 14:56
Sample Depth: 2'

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	333		5.02		mg/Kg			09/09/22 13:20	1

Client Sample ID: FS05

Lab Sample ID: 890-2881-5
Matrix: Solid
Date Collected: 09/01/22 12:50
Date Received: 09/02/22 14:56
Sample Depth: 2'

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199		mg/Kg		09/11/22 14:51	09/11/22 21:08	1
Toluene	<0.00199	U	0.00199		mg/Kg		09/11/22 14:51	09/11/22 21:08	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		09/11/22 14:51	09/11/22 21:08	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		09/11/22 14:51	09/11/22 21:08	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		09/11/22 14:51	09/11/22 21:08	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		09/11/22 14:51	09/11/22 21:08	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*112*		*70 - 130*	*09/11/22 14:51*	*09/11/22 21:08*	*1*
1,4-Difluorobenzene (Surr)	*92*		*70 - 130*	*09/11/22 14:51*	*09/11/22 21:08*	*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			09/12/22 09:55	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			09/09/22 10:25	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		09/08/22 14:10	09/08/22 22:36	1
Diesel Range Organics (Over C10-C28)	<49.8	U	49.8		mg/Kg		09/08/22 14:10	09/08/22 22:36	1
Oil Range Organics (Over C28-C36)	<49.8	U	49.8		mg/Kg		09/08/22 14:10	09/08/22 22:36	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*102*		*70 - 130*	*09/08/22 14:10*	*09/08/22 22:36*	*1*
o-Terphenyl	*96*		*70 - 130*	*09/08/22 14:10*	*09/08/22 22:36*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	329		4.95		mg/Kg			09/09/22 13:29	1

Client Sample Results

Client: Ensolum
Project/Site: PLU 21 BD 104H,123H,124H

Job ID: 890-2881-1
SDG: 03E1558048

Client Sample ID: FS08

Lab Sample ID: 890-2881-6
Matrix: Solid
Date Collected: 09/01/22 13:05
Date Received: 09/02/22 14:56
Sample Depth: 2'

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00201	U	0.00201		mg/Kg		09/11/22 14:51	09/11/22 21:28	1
Toluene	<0.00201	U	0.00201		mg/Kg		09/11/22 14:51	09/11/22 21:28	1
Ethylbenzene	<0.00201	U	0.00201		mg/Kg		09/11/22 14:51	09/11/22 21:28	1
m-Xylene & p-Xylene	<0.00402	U	0.00402		mg/Kg		09/11/22 14:51	09/11/22 21:28	1
o-Xylene	<0.00201	U	0.00201		mg/Kg		09/11/22 14:51	09/11/22 21:28	1
Xylenes, Total	<0.00402	U	0.00402		mg/Kg		09/11/22 14:51	09/11/22 21:28	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*106*		*70 - 130*	*09/11/22 14:51*	*09/11/22 21:28*	*1*
1,4-Difluorobenzene (Surr)	*87*		*70 - 130*	*09/11/22 14:51*	*09/11/22 21:28*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00402	U	0.00402		mg/Kg			09/12/22 09:55	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			09/09/22 10:25	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		09/08/22 14:10	09/08/22 22:57	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		09/08/22 14:10	09/08/22 22:57	1
OII Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		09/08/22 14:10	09/08/22 22:57	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*109*		*70 - 130*	*09/08/22 14:10*	*09/08/22 22:57*	*1*
o-Terphenyl	*103*		*70 - 130*	*09/08/22 14:10*	*09/08/22 22:57*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**354**		4.97		mg/Kg			09/09/22 13:57	1

Client Sample ID: FS09

Lab Sample ID: 890-2881-7
Matrix: Solid
Date Collected: 09/01/22 13:10
Date Received: 09/02/22 14:56
Sample Depth: 2'

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		09/11/22 14:51	09/11/22 21:49	1
Toluene	<0.00200	U	0.00200		mg/Kg		09/11/22 14:51	09/11/22 21:49	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		09/11/22 14:51	09/11/22 21:49	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		09/11/22 14:51	09/11/22 21:49	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		09/11/22 14:51	09/11/22 21:49	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		09/11/22 14:51	09/11/22 21:49	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*122*		*70 - 130*	*09/11/22 14:51*	*09/11/22 21:49*	*1*

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Client Sample Results

Client: Ensolum
Project/Site: PLU 21 BD 104H,123H,124H

Job ID: 890-2881-1
SDG: 03E1558048

Client Sample ID: FS09

Lab Sample ID: 890-2881-7
Matrix: Solid
Date Collected: 09/01/22 13:10
Date Received: 09/02/22 14:56
Sample Depth: 2'

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

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,4-Difluorobenzene (Surr)	*84*		*70 - 130*	*09/11/22 14:51*	*09/11/22 21:49*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00400	U	0.00400	mg/Kg			09/12/22 09:55	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			09/09/22 10:25	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		09/08/22 14:10	09/08/22 23:18	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		09/08/22 14:10	09/08/22 23:18	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		09/08/22 14:10	09/08/22 23:18	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*103*		*70 - 130*	*09/08/22 14:10*	*09/08/22 23:18*	*1*
o-Terphenyl	*98*		*70 - 130*	*09/08/22 14:10*	*09/08/22 23:18*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**56.7**		4.98	mg/Kg			09/09/22 14:06	1

Client Sample ID: FS10

Lab Sample ID: 890-2881-8
Matrix: Solid
Date Collected: 09/01/22 13:15
Date Received: 09/02/22 14:56
Sample Depth: 2'

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00201	U	0.00201	mg/Kg		09/11/22 14:51	09/11/22 22:09	1
Toluene	<0.00201	U	0.00201	mg/Kg		09/11/22 14:51	09/11/22 22:09	1
Ethylbenzene	<0.00201	U	0.00201	mg/Kg		09/11/22 14:51	09/11/22 22:09	1
m-Xylene & p-Xylene	<0.00402	U	0.00402	mg/Kg		09/11/22 14:51	09/11/22 22:09	1
o-Xylene	<0.00201	U	0.00201	mg/Kg		09/11/22 14:51	09/11/22 22:09	1
Xylenes, Total	<0.00402	U	0.00402	mg/Kg		09/11/22 14:51	09/11/22 22:09	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*113*		*70 - 130*	*09/11/22 14:51*	*09/11/22 22:09*	*1*
1,4-Difluorobenzene (Surr)	*93*		*70 - 130*	*09/11/22 14:51*	*09/11/22 22:09*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00402	U	0.00402	mg/Kg			09/12/22 09:55	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			09/09/22 10:25	1

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Client Sample Results

Client: Ensolum
Project/Site: PLU 21 BD 104H,123H,124H

Job ID: 890-2881-1
SDG: 03E1558048

Client Sample ID: FS10

Lab Sample ID: 890-2881-8
Matrix: Solid
Date Collected: 09/01/22 13:15
Date Received: 09/02/22 14:56
Sample Depth: 2'

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		09/08/22 14:10	09/08/22 23:40	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		09/08/22 14:10	09/08/22 23:40	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		09/08/22 14:10	09/08/22 23:40	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*123*		*70 - 130*	*09/08/22 14:10*	*09/08/22 23:40*	*1*
o-Terphenyl	*112*		*70 - 130*	*09/08/22 14:10*	*09/08/22 23:40*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**92.3**		4.98		mg/Kg			09/09/22 14:15	1

Client Sample ID: FS11

Lab Sample ID: 890-2881-9
Matrix: Solid
Date Collected: 09/01/22 13:20
Date Received: 09/02/22 14:56
Sample Depth: 2'

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199		mg/Kg		09/11/22 14:51	09/11/22 22:30	1
Toluene	<0.00199	U	0.00199		mg/Kg		09/11/22 14:51	09/11/22 22:30	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		09/11/22 14:51	09/11/22 22:30	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		09/11/22 14:51	09/11/22 22:30	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		09/11/22 14:51	09/11/22 22:30	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		09/11/22 14:51	09/11/22 22:30	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*108*		*70 - 130*	*09/11/22 14:51*	*09/11/22 22:30*	*1*
1,4-Difluorobenzene (Surr)	*89*		*70 - 130*	*09/11/22 14:51*	*09/11/22 22:30*	*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			09/12/22 09:55	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			09/09/22 10:25	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		09/08/22 14:10	09/09/22 00:02	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		09/08/22 14:10	09/09/22 00:02	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		09/08/22 14:10	09/09/22 00:02	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*122*		*70 - 130*	*09/08/22 14:10*	*09/09/22 00:02*	*1*
o-Terphenyl	*113*		*70 - 130*	*09/08/22 14:10*	*09/09/22 00:02*	*1*

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Client Sample Results

Client: Ensolum
Project/Site: PLU 21 BD 104H,123H,124H

Job ID: 890-2881-1
SDG: 03E1558048

Client Sample ID: FS11

Lab Sample ID: 890-2881-9
Matrix: Solid
Date Collected: 09/01/22 13:20
Date Received: 09/02/22 14:56
Sample Depth: 2'

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	181		4.98		mg/Kg			09/09/22 14:25	1

Client Sample ID: FS12

Lab Sample ID: 890-2881-10
Matrix: Solid
Date Collected: 09/01/22 13:25
Date Received: 09/02/22 14:56
Sample Depth: 2'

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00198	U	0.00198		mg/Kg		09/11/22 14:51	09/11/22 22:50	1
Toluene	<0.00198	U	0.00198		mg/Kg		09/11/22 14:51	09/11/22 22:50	1
Ethylbenzene	<0.00198	U	0.00198		mg/Kg		09/11/22 14:51	09/11/22 22:50	1
m-Xylene & p-Xylene	<0.00397	U	0.00397		mg/Kg		09/11/22 14:51	09/11/22 22:50	1
o-Xylene	<0.00198	U	0.00198		mg/Kg		09/11/22 14:51	09/11/22 22:50	1
Xylenes, Total	<0.00397	U	0.00397		mg/Kg		09/11/22 14:51	09/11/22 22:50	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*116*		*70 - 130*	*09/11/22 14:51*	*09/11/22 22:50*	*1*
1,4-Difluorobenzene (Surr)	*92*		*70 - 130*	*09/11/22 14:51*	*09/11/22 22:50*	*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			09/12/22 09:55	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			09/09/22 10:25	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		09/08/22 14:10	09/09/22 00:23	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		09/08/22 14:10	09/09/22 00:23	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		09/08/22 14:10	09/09/22 00:23	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*99*		*70 - 130*	*09/08/22 14:10*	*09/09/22 00:23*	*1*
o-Terphenyl	*93*		*70 - 130*	*09/08/22 14:10*	*09/09/22 00:23*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	238		5.00		mg/Kg			09/09/22 14:34	1

Surrogate Summary

Client: Ensolum
Project/Site: PLU 21 BD 104H,123H,124H

Job ID: 890-2881-1
SDG: 03E1558048

Method: 8021B - Volatile Organic Compounds (GC)

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

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	BFB1 (70-130)	DFBZ1 (70-130)
890-2881-1	FS01	97	80
890-2881-1 MS	FS01	118	102
890-2881-1 MSD	FS01	138 S1+	104
890-2881-2	FS02	110	92
890-2881-3	FS03	107	86
890-2881-4	FS04	109	91
890-2881-5	FS05	112	92
890-2881-6	FS08	106	87
890-2881-7	FS09	122	84
890-2881-8	FS10	113	93
890-2881-9	FS11	108	89
890-2881-10	FS12	116	92
LCS 880-34162/1-A	Lab Control Sample	144 S1+	104
LCSD 880-34162/2-A	Lab Control Sample Dup	141 S1+	106
MB 880-34162/5-A	Method Blank	98	85

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)
890-2881-1	FS01	120	112
890-2881-1 MS	FS01	92	83
890-2881-1 MSD	FS01	97	85
890-2881-2	FS02	105	97
890-2881-3	FS03	103	97
890-2881-4	FS04	123	113
890-2881-5	FS05	102	96
890-2881-6	FS08	109	103
890-2881-7	FS09	103	98
890-2881-8	FS10	123	112
890-2881-9	FS11	122	113
890-2881-10	FS12	99	93
LCS 880-34014/2-A	Lab Control Sample	147 S1+	131 S1+
LCSD 880-34014/3-A	Lab Control Sample Dup	152 S1+	139 S1+
MB 880-34014/1-A	Method Blank	107	103

Surrogate Legend

1CO = 1-Chlorooctane
OTPH = o-Terphenyl

QC Sample Results

Client: Ensolum
Project/Site: PLU 21 BD 104H,123H,124H

Job ID: 890-2881-1
SDG: 03E1558048

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-34162/5-A
Matrix: Solid
Analysis Batch: 34160

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 34162

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		09/11/22 14:51	09/11/22 19:24	1
Toluene	<0.00200	U	0.00200		mg/Kg		09/11/22 14:51	09/11/22 19:24	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		09/11/22 14:51	09/11/22 19:24	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		09/11/22 14:51	09/11/22 19:24	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		09/11/22 14:51	09/11/22 19:24	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		09/11/22 14:51	09/11/22 19:24	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*98*		*70 - 130*	*09/11/22 14:51*	*09/11/22 19:24*	*1*
1,4-Difluorobenzene (Surr)	*85*		*70 - 130*	*09/11/22 14:51*	*09/11/22 19:24*	*1*

Lab Sample ID: LCS 880-34162/1-A
Matrix: Solid
Analysis Batch: 34160

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 34162

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Benzene			0.100	0.08208		mg/Kg		82	70 - 130		
Toluene			0.100	0.08061		mg/Kg		81	70 - 130		
Ethylbenzene			0.100	0.09744		mg/Kg		97	70 - 130		
m-Xylene & p-Xylene			0.200	0.2095		mg/Kg		105	70 - 130		
o-Xylene			0.100	0.1203		mg/Kg		120	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*144*	*S1+*	*70 - 130*
1,4-Difluorobenzene (Surr)	*104*		*70 - 130*

Lab Sample ID: LCSD 880-34162/2-A
Matrix: Solid
Analysis Batch: 34160

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 34162

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene			0.100	0.09196		mg/Kg		92	70 - 130	11	35
Toluene			0.100	0.08758		mg/Kg		88	70 - 130	8	35
Ethylbenzene			0.100	0.1057		mg/Kg		106	70 - 130	8	35
m-Xylene & p-Xylene			0.200	0.2270		mg/Kg		114	70 - 130	8	35
o-Xylene			0.100	0.1293		mg/Kg		129	70 - 130	7	35

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*141*	*S1+*	*70 - 130*
1,4-Difluorobenzene (Surr)	*106*		*70 - 130*

Lab Sample ID: 890-2881-1 MS
Matrix: Solid
Analysis Batch: 34160

Client Sample ID: FS01
Prep Type: Total/NA
Prep Batch: 34162

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Benzene	<0.00199	U	0.101	0.08380		mg/Kg		83	70 - 130		
Toluene	<0.00199	U	0.101	0.08110		mg/Kg		80	70 - 130		

QC Sample Results

Client: Ensolum
Project/Site: PLU 21 BD 104H,123H,124H

Job ID: 890-2881-1
SDG: 03E1558048

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

Lab Sample ID: 890-2881-1 MS
Matrix: Solid
Analysis Batch: 34160

Client Sample ID: FS01
Prep Type: Total/NA
Prep Batch: 34162

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Ethylbenzene	<0.00199	U	0.101	0.08569		mg/Kg		85	70 - 130
m-Xylene & p-Xylene	<0.00398	U	0.202	0.1788		mg/Kg		89	70 - 130
o-Xylene	<0.00199	U	0.101	0.1017		mg/Kg		101	70 - 130

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

Lab Sample ID: 890-2881-1 MSD
Matrix: Solid
Analysis Batch: 34160

Client Sample ID: FS01
Prep Type: Total/NA
Prep Batch: 34162

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	0.08733		mg/Kg		87	70 - 130	4	35
Toluene	<0.00199	U	0.100	0.08293		mg/Kg		83	70 - 130	2	35
Ethylbenzene	<0.00199	U	0.100	0.1007		mg/Kg		100	70 - 130	16	35
m-Xylene & p-Xylene	<0.00398	U	0.201	0.2056		mg/Kg		102	70 - 130	14	35
o-Xylene	<0.00199	U	0.100	0.1165		mg/Kg		116	70 - 130	14	35

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*138*	*S1+*	*70 - 130*
1,4-Difluorobenzene (Surr)	*104*		*70 - 130*

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

Lab Sample ID: MB 880-34014/1-A
Matrix: Solid
Analysis Batch: 33968

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 34014

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		09/08/22 14:10	09/08/22 19:23	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		09/08/22 14:10	09/08/22 19:23	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		09/08/22 14:10	09/08/22 19:23	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*107*		*70 - 130*	*09/08/22 14:10*	*09/08/22 19:23*	*1*
o-Terphenyl	*103*		*70 - 130*	*09/08/22 14:10*	*09/08/22 19:23*	*1*

Lab Sample ID: LCS 880-34014/2-A
Matrix: Solid
Analysis Batch: 33968

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 34014

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Gasoline Range Organics (GRO)-C6-C10	1000	1026		mg/Kg		103	70 - 130
Diesel Range Organics (Over C10-C28)	1000	992.0		mg/Kg		99	70 - 130

QC Sample Results

Client: Ensolum
Project/Site: PLU 21 BD 104H,123H,124H

Job ID: 890-2881-1
SDG: 03E1558048

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

Lab Sample ID: LCS 880-34014/2-A
Matrix: Solid
Analysis Batch: 33968

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 34014

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1-Chlorooctane	147	S1+	70 - 130
o-Terphenyl	131	S1+	70 - 130

Lab Sample ID: LCSD 880-34014/3-A
Matrix: Solid
Analysis Batch: 33968

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 34014

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10			1000	1032		mg/Kg		103	70 - 130	1	20
Diesel Range Organics (Over C10-C28)			1000	1050		mg/Kg		105	70 - 130	6	20

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
1-Chlorooctane	152	S1+	70 - 130
o-Terphenyl	139	S1+	70 - 130

Lab Sample ID: 890-2881-1 MS
Matrix: Solid
Analysis Batch: 33968

Client Sample ID: FS01
Prep Type: Total/NA
Prep Batch: 34014

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	829.5		mg/Kg		83	70 - 130
Diesel Range Organics (Over C10-C28)	<50.0	U	999	942.6		mg/Kg		92	70 - 130

Surrogate	MS %Recovery	MS Qualifier	Limits
1-Chlorooctane	92		70 - 130
o-Terphenyl	83		70 - 130

Lab Sample ID: 890-2881-1 MSD
Matrix: Solid
Analysis Batch: 33968

Client Sample ID: FS01
Prep Type: Total/NA
Prep Batch: 34014

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	996	841.1		mg/Kg		84	70 - 130	1	20
Diesel Range Organics (Over C10-C28)	<50.0	U	996	978.1		mg/Kg		96	70 - 130	4	20

Surrogate	MSD %Recovery	MSD Qualifier	Limits
1-Chlorooctane	97		70 - 130
o-Terphenyl	85		70 - 130

QC Sample Results

Client: Ensolum
Project/Site: PLU 21 BD 104H,123H,124H

Job ID: 890-2881-1
SDG: 03E1558048

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-33840/1-A
Matrix: Solid
Analysis Batch: 34020

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			09/09/22 12:06	1

Lab Sample ID: LCS 880-33840/2-A
Matrix: Solid
Analysis Batch: 34020

Client Sample ID: Lab Control Sample
Prep Type: Soluble

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride			250	240.4		mg/Kg		96	90 - 110		

Lab Sample ID: LCSD 880-33840/3-A
Matrix: Solid
Analysis Batch: 34020

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	247.1		mg/Kg		99	90 - 110	3	20

Lab Sample ID: 890-2881-1 MS
Matrix: Solid
Analysis Batch: 34020

Client Sample ID: FS01
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride	219		251	451.5		mg/Kg		92	90 - 110		

Lab Sample ID: 890-2881-1 MSD
Matrix: Solid
Analysis Batch: 34020

Client Sample ID: FS01
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	219		251	451.4		mg/Kg		92	90 - 110	0	20

QC Association Summary

Client: Ensolum
Project/Site: PLU 21 BD 104H,123H,124H

Job ID: 890-2881-1
SDG: 03E1558048

GC VOA

Analysis Batch: 34160

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2881-1	FS01	Total/NA	Solid	8021B	34162
890-2881-2	FS02	Total/NA	Solid	8021B	34162
890-2881-3	FS03	Total/NA	Solid	8021B	34162
890-2881-4	FS04	Total/NA	Solid	8021B	34162
890-2881-5	FS05	Total/NA	Solid	8021B	34162
890-2881-6	FS08	Total/NA	Solid	8021B	34162
890-2881-7	FS09	Total/NA	Solid	8021B	34162
890-2881-8	FS10	Total/NA	Solid	8021B	34162
890-2881-9	FS11	Total/NA	Solid	8021B	34162
890-2881-10	FS12	Total/NA	Solid	8021B	34162
MB 880-34162/5-A	Method Blank	Total/NA	Solid	8021B	34162
LCS 880-34162/1-A	Lab Control Sample	Total/NA	Solid	8021B	34162
LCSD 880-34162/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	34162
890-2881-1 MS	FS01	Total/NA	Solid	8021B	34162
890-2881-1 MSD	FS01	Total/NA	Solid	8021B	34162

Prep Batch: 34162

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2881-1	FS01	Total/NA	Solid	5035	
890-2881-2	FS02	Total/NA	Solid	5035	
890-2881-3	FS03	Total/NA	Solid	5035	
890-2881-4	FS04	Total/NA	Solid	5035	
890-2881-5	FS05	Total/NA	Solid	5035	
890-2881-6	FS08	Total/NA	Solid	5035	
890-2881-7	FS09	Total/NA	Solid	5035	
890-2881-8	FS10	Total/NA	Solid	5035	
890-2881-9	FS11	Total/NA	Solid	5035	
890-2881-10	FS12	Total/NA	Solid	5035	
MB 880-34162/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-34162/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-34162/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
890-2881-1 MS	FS01	Total/NA	Solid	5035	
890-2881-1 MSD	FS01	Total/NA	Solid	5035	

Analysis Batch: 34244

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2881-1	FS01	Total/NA	Solid	Total BTEX	
890-2881-2	FS02	Total/NA	Solid	Total BTEX	
890-2881-3	FS03	Total/NA	Solid	Total BTEX	
890-2881-4	FS04	Total/NA	Solid	Total BTEX	
890-2881-5	FS05	Total/NA	Solid	Total BTEX	
890-2881-6	FS08	Total/NA	Solid	Total BTEX	
890-2881-7	FS09	Total/NA	Solid	Total BTEX	
890-2881-8	FS10	Total/NA	Solid	Total BTEX	
890-2881-9	FS11	Total/NA	Solid	Total BTEX	
890-2881-10	FS12	Total/NA	Solid	Total BTEX	

QC Association Summary

Client: Ensolum
Project/Site: PLU 21 BD 104H,123H,124H

Job ID: 890-2881-1
SDG: 03E1558048

GC Semi VOA

Analysis Batch: 33968

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2881-1	FS01	Total/NA	Solid	8015B NM	34014
890-2881-2	FS02	Total/NA	Solid	8015B NM	34014
890-2881-3	FS03	Total/NA	Solid	8015B NM	34014
890-2881-4	FS04	Total/NA	Solid	8015B NM	34014
890-2881-5	FS05	Total/NA	Solid	8015B NM	34014
890-2881-6	FS08	Total/NA	Solid	8015B NM	34014
890-2881-7	FS09	Total/NA	Solid	8015B NM	34014
890-2881-8	FS10	Total/NA	Solid	8015B NM	34014
890-2881-9	FS11	Total/NA	Solid	8015B NM	34014
890-2881-10	FS12	Total/NA	Solid	8015B NM	34014
MB 880-34014/1-A	Method Blank	Total/NA	Solid	8015B NM	34014
LCS 880-34014/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	34014
LCSD 880-34014/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	34014
890-2881-1 MS	FS01	Total/NA	Solid	8015B NM	34014
890-2881-1 MSD	FS01	Total/NA	Solid	8015B NM	34014

Prep Batch: 34014

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2881-1	FS01	Total/NA	Solid	8015NM Prep	
890-2881-2	FS02	Total/NA	Solid	8015NM Prep	
890-2881-3	FS03	Total/NA	Solid	8015NM Prep	
890-2881-4	FS04	Total/NA	Solid	8015NM Prep	
890-2881-5	FS05	Total/NA	Solid	8015NM Prep	
890-2881-6	FS08	Total/NA	Solid	8015NM Prep	
890-2881-7	FS09	Total/NA	Solid	8015NM Prep	
890-2881-8	FS10	Total/NA	Solid	8015NM Prep	
890-2881-9	FS11	Total/NA	Solid	8015NM Prep	
890-2881-10	FS12	Total/NA	Solid	8015NM Prep	
MB 880-34014/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-34014/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-34014/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
890-2881-1 MS	FS01	Total/NA	Solid	8015NM Prep	
890-2881-1 MSD	FS01	Total/NA	Solid	8015NM Prep	

Analysis Batch: 34075

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2881-1	FS01	Total/NA	Solid	8015 NM	
890-2881-2	FS02	Total/NA	Solid	8015 NM	
890-2881-3	FS03	Total/NA	Solid	8015 NM	
890-2881-4	FS04	Total/NA	Solid	8015 NM	
890-2881-5	FS05	Total/NA	Solid	8015 NM	
890-2881-6	FS08	Total/NA	Solid	8015 NM	
890-2881-7	FS09	Total/NA	Solid	8015 NM	
890-2881-8	FS10	Total/NA	Solid	8015 NM	
890-2881-9	FS11	Total/NA	Solid	8015 NM	
890-2881-10	FS12	Total/NA	Solid	8015 NM	

QC Association Summary

Client: Ensolum
Project/Site: PLU 21 BD 104H,123H,124H

Job ID: 890-2881-1
SDG: 03E1558048

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Leach Batch: 33840

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2881-1	FS01	Soluble	Solid	DI Leach	
890-2881-2	FS02	Soluble	Solid	DI Leach	
890-2881-3	FS03	Soluble	Solid	DI Leach	
890-2881-4	FS04	Soluble	Solid	DI Leach	
890-2881-5	FS05	Soluble	Solid	DI Leach	
890-2881-6	FS08	Soluble	Solid	DI Leach	
890-2881-7	FS09	Soluble	Solid	DI Leach	
890-2881-8	FS10	Soluble	Solid	DI Leach	
890-2881-9	FS11	Soluble	Solid	DI Leach	
890-2881-10	FS12	Soluble	Solid	DI Leach	
MB 880-33840/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-33840/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-33840/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
890-2881-1 MS	FS01	Soluble	Solid	DI Leach	
890-2881-1 MSD	FS01	Soluble	Solid	DI Leach	

Analysis Batch: 34020

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2881-1	FS01	Soluble	Solid	300.0	33840
890-2881-2	FS02	Soluble	Solid	300.0	33840
890-2881-3	FS03	Soluble	Solid	300.0	33840
890-2881-4	FS04	Soluble	Solid	300.0	33840
890-2881-5	FS05	Soluble	Solid	300.0	33840
890-2881-6	FS08	Soluble	Solid	300.0	33840
890-2881-7	FS09	Soluble	Solid	300.0	33840
890-2881-8	FS10	Soluble	Solid	300.0	33840
890-2881-9	FS11	Soluble	Solid	300.0	33840
890-2881-10	FS12	Soluble	Solid	300.0	33840
MB 880-33840/1-A	Method Blank	Soluble	Solid	300.0	33840
LCS 880-33840/2-A	Lab Control Sample	Soluble	Solid	300.0	33840
LCSD 880-33840/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	33840
890-2881-1 MS	FS01	Soluble	Solid	300.0	33840
890-2881-1 MSD	FS01	Soluble	Solid	300.0	33840

Lab Chronicle

Client: Ensolum
Project/Site: PLU 21 BD 104H,123H,124H

Job ID: 890-2881-1
SDG: 03E1558048

Client Sample ID: FS01
Date Collected: 09/01/22 12:30
Date Received: 09/02/22 14:56

Lab Sample ID: 890-2881-1
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	34162	09/11/22 14:51	EL	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	34160	09/11/22 19:46	MR	EET MID
Total/NA	Analysis	Total BTEX		1			34244	09/12/22 09:55	AJ	EET MID
Total/NA	Analysis	8015 NM		1			34075	09/09/22 10:25	SM	EET MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	34014	09/08/22 14:10	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	33968	09/08/22 20:27	SM	EET MID
Soluble	Leach	DI Leach			4.98 g	50 mL	33840	09/06/22 12:41	KS	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	34020	09/09/22 12:34	CH	EET MID

Client Sample ID: FS02
Date Collected: 09/01/22 12:35
Date Received: 09/02/22 14:56

Lab Sample ID: 890-2881-2
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			5.04 g	5 mL	34162	09/11/22 14:51	EL	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	34160	09/11/22 20:06	MR	EET MID
Total/NA	Analysis	Total BTEX		1			34244	09/12/22 09:55	AJ	EET MID
Total/NA	Analysis	8015 NM		1			34075	09/09/22 10:25	SM	EET MID
Total/NA	Prep	8015NM Prep			10.03 g	10 mL	34014	09/08/22 14:10	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	33968	09/08/22 21:31	SM	EET MID
Soluble	Leach	DI Leach			5.03 g	50 mL	33840	09/06/22 12:41	KS	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	34020	09/09/22 13:02	CH	EET MID

Client Sample ID: FS03
Date Collected: 09/01/22 12:40
Date Received: 09/02/22 14:56

Lab Sample ID: 890-2881-3
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.98 g	5 mL	34162	09/11/22 14:51	EL	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	34160	09/11/22 20:27	MR	EET MID
Total/NA	Analysis	Total BTEX		1			34244	09/12/22 09:55	AJ	EET MID
Total/NA	Analysis	8015 NM		1			34075	09/09/22 10:25	SM	EET MID
Total/NA	Prep	8015NM Prep			10.00 g	10 mL	34014	09/08/22 14:10	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	33968	09/08/22 21:53	SM	EET MID
Soluble	Leach	DI Leach			5 g	50 mL	33840	09/06/22 12:41	KS	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	34020	09/09/22 13:11	CH	EET MID

Client Sample ID: FS04
Date Collected: 09/01/22 12:45
Date Received: 09/02/22 14:56

Lab Sample ID: 890-2881-4
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.96 g	5 mL	34162	09/11/22 14:51	EL	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	34160	09/11/22 20:47	MR	EET MID
Total/NA	Analysis	Total BTEX		1			34244	09/12/22 09:55	AJ	EET MID

Lab Chronicle

Client: Ensolum
Project/Site: PLU 21 BD 104H,123H,124H

Job ID: 890-2881-1
SDG: 03E1558048

Client Sample ID: FS04

Lab Sample ID: 890-2881-4
Matrix: Solid
Date Collected: 09/01/22 12:45
Date Received: 09/02/22 14:56

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			34075	09/09/22 10:25	SM	EET MID
Total/NA	Prep	8015NM Prep			10.04 g	10 mL	34014	09/08/22 14:10	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	33968	09/08/22 22:14	SM	EET MID
Soluble	Leach	DI Leach			4.98 g	50 mL	33840	09/06/22 12:41	KS	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	34020	09/09/22 13:20	CH	EET MID

Client Sample ID: FS05

Lab Sample ID: 890-2881-5
Matrix: Solid
Date Collected: 09/01/22 12:50
Date Received: 09/02/22 14:56

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	34162	09/11/22 14:51	EL	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	34160	09/11/22 21:08	MR	EET MID
Total/NA	Analysis	Total BTEX		1			34244	09/12/22 09:55	AJ	EET MID
Total/NA	Analysis	8015 NM		1			34075	09/09/22 10:25	SM	EET MID
Total/NA	Prep	8015NM Prep			10.05 g	10 mL	34014	09/08/22 14:10	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	33968	09/08/22 22:36	SM	EET MID
Soluble	Leach	DI Leach			5.05 g	50 mL	33840	09/06/22 12:41	KS	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	34020	09/09/22 13:29	CH	EET MID

Client Sample ID: FS08

Lab Sample ID: 890-2881-6
Matrix: Solid
Date Collected: 09/01/22 13:05
Date Received: 09/02/22 14:56

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	34162	09/11/22 14:51	EL	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	34160	09/11/22 21:28	MR	EET MID
Total/NA	Analysis	Total BTEX		1			34244	09/12/22 09:55	AJ	EET MID
Total/NA	Analysis	8015 NM		1			34075	09/09/22 10:25	SM	EET MID
Total/NA	Prep	8015NM Prep			10.03 g	10 mL	34014	09/08/22 14:10	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	33968	09/08/22 22:57	SM	EET MID
Soluble	Leach	DI Leach			5.03 g	50 mL	33840	09/06/22 12:41	KS	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	34020	09/09/22 13:57	CH	EET MID

Client Sample ID: FS09

Lab Sample ID: 890-2881-7
Matrix: Solid
Date Collected: 09/01/22 13:10
Date Received: 09/02/22 14:56

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	34162	09/11/22 14:51	EL	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	34160	09/11/22 21:49	MR	EET MID
Total/NA	Analysis	Total BTEX		1			34244	09/12/22 09:55	AJ	EET MID
Total/NA	Analysis	8015 NM		1			34075	09/09/22 10:25	SM	EET MID
Total/NA	Prep	8015NM Prep			10.00 g	10 mL	34014	09/08/22 14:10	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	33968	09/08/22 23:18	SM	EET MID

Lab Chronicle

Client: Ensolum
Project/Site: PLU 21 BD 104H,123H,124H

Job ID: 890-2881-1
SDG: 03E1558048

Client Sample ID: FS09

Lab Sample ID: 890-2881-7
Matrix: Solid
Date Collected: 09/01/22 13:10
Date Received: 09/02/22 14:56

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			5.02 g	50 mL	33840	09/06/22 12:41	KS	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	34020	09/09/22 14:06	CH	EET MID

Client Sample ID: FS10

Lab Sample ID: 890-2881-8
Matrix: Solid
Date Collected: 09/01/22 13:15
Date Received: 09/02/22 14:56

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	34162	09/11/22 14:51	EL	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	34160	09/11/22 22:09	MR	EET MID
Total/NA	Analysis	Total BTEX		1			34244	09/12/22 09:55	AJ	EET MID
Total/NA	Analysis	8015 NM		1			34075	09/09/22 10:25	SM	EET MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	34014	09/08/22 14:10	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	33968	09/08/22 23:40	SM	EET MID
Soluble	Leach	DI Leach			5.02 g	50 mL	33840	09/06/22 12:41	KS	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	34020	09/09/22 14:15	CH	EET MID

Client Sample ID: FS11

Lab Sample ID: 890-2881-9
Matrix: Solid
Date Collected: 09/01/22 13:20
Date Received: 09/02/22 14:56

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	34162	09/11/22 14:51	EL	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	34160	09/11/22 22:30	MR	EET MID
Total/NA	Analysis	Total BTEX		1			34244	09/12/22 09:55	AJ	EET MID
Total/NA	Analysis	8015 NM		1			34075	09/09/22 10:25	SM	EET MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	34014	09/08/22 14:10	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	33968	09/09/22 00:02	SM	EET MID
Soluble	Leach	DI Leach			5.02 g	50 mL	33840	09/06/22 12:41	KS	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	34020	09/09/22 14:25	CH	EET MID

Client Sample ID: FS12

Lab Sample ID: 890-2881-10
Matrix: Solid
Date Collected: 09/01/22 13:25
Date Received: 09/02/22 14:56

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	34162	09/11/22 14:51	EL	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	34160	09/11/22 22:50	MR	EET MID
Total/NA	Analysis	Total BTEX		1			34244	09/12/22 09:55	AJ	EET MID
Total/NA	Analysis	8015 NM		1			34075	09/09/22 10:25	SM	EET MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	34014	09/08/22 14:10	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	33968	09/09/22 00:23	SM	EET MID
Soluble	Leach	DI Leach			5 g	50 mL	33840	09/06/22 12:41	KS	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	34020	09/09/22 14:34	CH	EET MID

Lab Chronicle

Client: Ensolum
Project/Site: PLU 21 BD 104H,123H,124H

Job ID: 890-2881-1
SDG: 03E1558048

Laboratory References:

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

Accreditation/Certification Summary

Client: Ensolum
Project/Site: PLU 21 BD 104H,123H,124H

Job ID: 890-2881-1
SDG: 03E1558048

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: PLU 21 BD 104H,123H,124H

Job ID: 890-2881-1
SDG: 03E1558048

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: PLU 21 BD 104H,123H,124H

Job ID: 890-2881-1
SDG: 03E1558048

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-2881-1	FS01	Solid	09/01/22 12:30	09/02/22 14:56	2'
890-2881-2	FS02	Solid	09/01/22 12:35	09/02/22 14:56	2'
890-2881-3	FS03	Solid	09/01/22 12:40	09/02/22 14:56	2'
890-2881-4	FS04	Solid	09/01/22 12:45	09/02/22 14:56	2'
890-2881-5	FS05	Solid	09/01/22 12:50	09/02/22 14:56	2'
890-2881-6	FS08	Solid	09/01/22 13:05	09/02/22 14:56	2'
890-2881-7	FS09	Solid	09/01/22 13:10	09/02/22 14:56	2'
890-2881-8	FS10	Solid	09/01/22 13:15	09/02/22 14:56	2'
890-2881-9	FS11	Solid	09/01/22 13:20	09/02/22 14:56	2'
890-2881-10	FS12	Solid	09/01/22 13:25	09/02/22 14:56	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: _____

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Project Manager:	Ben Belill	Bill to: (if different)	Garret 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:	Garret.Green@ExxonMobil.com

Work Order Comments

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

Project Name:	PLU 21 BD 104H, 123H, 124H	Turn Around	☑ Routine ☐ Rush
Project Number:	03E1558048	Due Date:	
Project Location:	32.10934, -103.88918	TAT starts the day received by the lab, if received by 4:30pm	
Sampler's Name:	Kase Parker		
PO #:			

SAMPLE RECEIPT				
Temp Blank:	Yes No	Wet Ice:	Yes No	
Samples Received Intact:	Yes No	Thermometer ID:	TM-007	
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:	5.2	

ANALYSIS REQUEST

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Grab/ Comp	# of Cont	Pres. Code	CHLORIDES (EPA: 300.0)	TPH (8015)	BTEX (8021
FS01	S	9/1/2022	12:30	2'				x	x	x
FS02	S	9/1/2022	12:35	2'				x	x	x
FS03	S	9/1/2022	12:40	2'				x	x	x
FS04	S	9/1/2022	12:45	2'				x	x	x
FS05	S	9/1/2022	12:50	2'				x	x	x
FS08	S	9/1/2022	13:05	2'				x	x	x
FS09	S	9/1/2022	13:10	2'				x	x	x
FS10	S	9/1/2022	13:15	2'				x	x	x
FS11	S	9/1/2022	13:20	2'				x	x	x
FS12	S	9/1/2022	13:25	2'				x	x	x

890-2881 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:
nAPP2209736479
nAPP2211651017
nAPP2211151438
CC:
1666401001

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		9/2/22 1456	2		
3			4		
5			6		

Revised Date: 08/25/2020 Rev. 2020.2

Login Sample Receipt Checklist

Client: Ensolum

Job Number: 890-2881-1
SDG Number: 03E1558048

Login Number: 2881
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.	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: Ensolum

Job Number: 890-2881-1
SDG Number: 03E1558048

Login Number: 2881
List Number: 2
Creator: Rodriguez, Leticia

List Source: Eurofins Midland
List Creation: 09/07/22 11:42 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

Eurofins Carlsbad
1089 N Canal St.
Carlsbad, NM 88220
Tel: (575)988-3199

Laboratory Job ID: 890-2882-1
Laboratory Sample Delivery Group: 03E1558048
Client Project/Site: PLU 21 BD 104H, 123H, 124H
Revision: 1

For:
Ensolum
705 W. Wadley
Suite 210
Midland, Texas 79701

Attn: Ben Belill

Jkramer

Authorized for release by:
9/14/2022 5:58:55 PM

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.

Client: Ensolum
Project/Site: PLU 21 BD 104H, 123H, 124H

Laboratory Job ID: 890-2882-1
SDG: 03E1558048

Table of Contents

Definitions/Glossary

Client: Ensolum
Project/Site: PLU 21 BD 104H, 123H, 124H

Job ID: 890-2882-1
SDG: 03E1558048

Qualifiers

GC VOA

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

HPLC/IC

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

Glossary

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

Case Narrative

Client: Ensolum
Project/Site: PLU 21 BD 104H, 123H, 124H

Job ID: 890-2882-1
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Laboratory: Eurofins Carlsbad

Narrative

Job Narrative
890-2882-1

REVISION

The report being provided is a revision of the original report sent on 9/14/2022. The report (revision 1) is being revised due to Pe client email, requesting sample depths to be corrected.

Report revision history

Receipt
The samples were received on 9/2/2022 2:56 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 5.2°C

GC VOA
Method 8021B: Surrogate recovery for the following samples were outside control limits: (LCS 880-34162/1-A), (LCSD 880-34162/2-A) and (890-2881-A-1-H MSD). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

Method 8021B: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 880-34272 and analytical batch 880-34340 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: (LCSD 880-34272/2-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.

GC Semi VOA
Method 8015MOD_NM: Surrogate recovery for the following samples were outside control limits: (LCS 880-34014/2-A) and (LCSD 880-34014/3-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
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Client Sample Results

Client: Ensolum
Project/Site: PLU 21 BD 104H, 123H, 124H

Job ID: 890-2882-1
SDG: 03E1558048

Client Sample ID: SW01

Lab Sample ID: 890-2882-1
Matrix: Solid
Date Collected: 09/02/22 11:20
Date Received: 09/02/22 14:56
Sample Depth: 0 - 2'

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00198	U	0.00198		mg/Kg		09/11/22 14:51	09/12/22 00:12	1
Toluene	<0.00198	U	0.00198		mg/Kg		09/11/22 14:51	09/12/22 00:12	1
Ethylbenzene	<0.00198	U	0.00198		mg/Kg		09/11/22 14:51	09/12/22 00:12	1
m-Xylene & p-Xylene	<0.00397	U	0.00397		mg/Kg		09/11/22 14:51	09/12/22 00:12	1
o-Xylene	<0.00198	U	0.00198		mg/Kg		09/11/22 14:51	09/12/22 00:12	1
Xylenes, Total	<0.00397	U	0.00397		mg/Kg		09/11/22 14:51	09/12/22 00:12	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*109*		*70 - 130*	*09/11/22 14:51*	*09/12/22 00:12*	*1*
1,4-Difluorobenzene (Surr)	*86*		*70 - 130*	*09/11/22 14:51*	*09/12/22 00:12*	*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			09/12/22 09:55	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			09/09/22 10:25	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		09/08/22 14:10	09/09/22 01:06	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		09/08/22 14:10	09/09/22 01:06	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		09/08/22 14:10	09/09/22 01:06	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*119*		*70 - 130*	*09/08/22 14:10*	*09/09/22 01:06*	*1*
o-Terphenyl	*110*		*70 - 130*	*09/08/22 14:10*	*09/09/22 01:06*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**390**		5.02		mg/Kg			09/09/22 14:43	1

Client Sample ID: SW02

Lab Sample ID: 890-2882-2
Matrix: Solid
Date Collected: 09/02/22 11:30
Date Received: 09/02/22 14:56
Sample Depth: 0 - 2'

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199		mg/Kg		09/11/22 14:51	09/12/22 00:33	1
Toluene	<0.00199	U	0.00199		mg/Kg		09/11/22 14:51	09/12/22 00:33	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		09/11/22 14:51	09/12/22 00:33	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		09/11/22 14:51	09/12/22 00:33	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		09/11/22 14:51	09/12/22 00:33	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		09/11/22 14:51	09/12/22 00:33	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*110*		*70 - 130*	*09/11/22 14:51*	*09/12/22 00:33*	*1*

Client Sample Results

Client: Ensolum
Project/Site: PLU 21 BD 104H, 123H, 124H

Job ID: 890-2882-1
SDG: 03E1558048

Client Sample ID: SW02

Date Collected: 09/02/22 11:30
Date Received: 09/02/22 14:56
Sample Depth: 0 - 2'

Lab Sample ID: 890-2882-2
Matrix: Solid

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

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,4-Difluorobenzene (Surr)	*79*		*70 - 130*	*09/11/22 14:51*	*09/12/22 00:33*	*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			09/12/22 09:55	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			09/09/22 10:25	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		09/08/22 14:10	09/09/22 01:28	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		09/08/22 14:10	09/09/22 01:28	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		09/08/22 14:10	09/09/22 01:28	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*114*		*70 - 130*	*09/08/22 14:10*	*09/09/22 01:28*	*1*
o-Terphenyl	*105*		*70 - 130*	*09/08/22 14:10*	*09/09/22 01:28*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**533**		5.01		mg/Kg			09/09/22 15:11	1

Client Sample ID: SW03

Date Collected: 09/02/22 11:40
Date Received: 09/02/22 14:56
Sample Depth: 0 - 3'

Lab Sample ID: 890-2882-3
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		09/12/22 10:28	09/14/22 04:38	1
Toluene	<0.00202	U	0.00202		mg/Kg		09/12/22 10:28	09/14/22 04:38	1
Ethylbenzene	<0.00202	U	0.00202		mg/Kg		09/12/22 10:28	09/14/22 04:38	1
m-Xylene & p-Xylene	<0.00403	U	0.00403		mg/Kg		09/12/22 10:28	09/14/22 04:38	1
o-Xylene	<0.00202	U	0.00202		mg/Kg		09/12/22 10:28	09/14/22 04:38	1
Xylenes, Total	<0.00403	U	0.00403		mg/Kg		09/12/22 10:28	09/14/22 04:38	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*112*		*70 - 130*	*09/12/22 10:28*	*09/14/22 04:38*	*1*
1,4-Difluorobenzene (Surr)	*82*		*70 - 130*	*09/12/22 10:28*	*09/14/22 04:38*	*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			09/12/22 09:55	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			09/09/22 10:25	1

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Client Sample Results

Client: Ensolum
Project/Site: PLU 21 BD 104H, 123H, 124H

Job ID: 890-2882-1
SDG: 03E1558048

Client Sample ID: SW03

Date Collected: 09/02/22 11:40
Date Received: 09/02/22 14:56
Sample Depth: 0 - 3'

Lab Sample ID: 890-2882-3

Matrix: Solid

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		09/08/22 14:10	09/09/22 01:49	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		09/08/22 14:10	09/09/22 01:49	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		09/08/22 14:10	09/09/22 01:49	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*101*		*70 - 130*	*09/08/22 14:10*	*09/09/22 01:49*	*1*
o-Terphenyl	*96*		*70 - 130*	*09/08/22 14:10*	*09/09/22 01:49*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**210**		4.98		mg/Kg			09/09/22 15:20	1

Client Sample ID: SW04

Date Collected: 09/02/22 11:50
Date Received: 09/02/22 14:56
Sample Depth: 0 - 2'

Lab Sample ID: 890-2882-4

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		09/12/22 10:28	09/14/22 04:59	1
Toluene	<0.00200	U	0.00200		mg/Kg		09/12/22 10:28	09/14/22 04:59	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		09/12/22 10:28	09/14/22 04:59	1
m-Xylene & p-Xylene	<0.00399	U	0.00399		mg/Kg		09/12/22 10:28	09/14/22 04:59	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		09/12/22 10:28	09/14/22 04:59	1
Xylenes, Total	<0.00399	U	0.00399		mg/Kg		09/12/22 10:28	09/14/22 04:59	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*125*		*70 - 130*	*09/12/22 10:28*	*09/14/22 04:59*	*1*
1,4-Difluorobenzene (Surr)	*89*		*70 - 130*	*09/12/22 10:28*	*09/14/22 04:59*	*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			09/12/22 09:55	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			09/09/22 10:25	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		09/08/22 14:10	09/09/22 02:11	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		09/08/22 14:10	09/09/22 02:11	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		09/08/22 14:10	09/09/22 02:11	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*99*		*70 - 130*	*09/08/22 14:10*	*09/09/22 02:11*	*1*
o-Terphenyl	*93*		*70 - 130*	*09/08/22 14:10*	*09/09/22 02:11*	*1*

Client Sample Results

Client: Ensolum
Project/Site: PLU 21 BD 104H, 123H, 124H

Job ID: 890-2882-1
SDG: 03E1558048

Client Sample ID: SW04
Date Collected: 09/02/22 11:50
Date Received: 09/02/22 14:56
Sample Depth: 0 - 2'

Lab Sample ID: 890-2882-4
Matrix: Solid

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	119		5.03		mg/Kg			09/09/22 18:19	1

Surrogate Summary

Client: Ensolum
Project/Site: PLU 21 BD 104H, 123H, 124H

Job ID: 890-2882-1
SDG: 03E1558048

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)
880-18879-A-101-F MS	Matrix Spike	123	105
880-18879-A-101-G MSD	Matrix Spike Duplicate	127	105
890-2881-A-1-G MS	Matrix Spike	118	102
890-2881-A-1-H MSD	Matrix Spike Duplicate	138 S1+	104
890-2882-1	SW01	109	86
890-2882-2	SW02	110	79
890-2882-3	SW03	112	82
890-2882-4	SW04	125	89
LCS 880-34162/1-A	Lab Control Sample	144 S1+	104
LCS 880-34272/1-A	Lab Control Sample	127	98
LCSD 880-34162/2-A	Lab Control Sample Dup	141 S1+	106
LCSD 880-34272/2-A	Lab Control Sample Dup	67 S1-	99
MB 880-34162/5-A	Method Blank	98	85
MB 880-34272/5-A	Method Blank	98	85
MB 880-34351/5-A	Method Blank	99	90

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)
890-2881-A-1-E MS	Matrix Spike	92	83
890-2881-A-1-F MSD	Matrix Spike Duplicate	97	85
890-2882-1	SW01	119	110
890-2882-2	SW02	114	105
890-2882-3	SW03	101	96
890-2882-4	SW04	99	93
LCS 880-34014/2-A	Lab Control Sample	147 S1+	131 S1+
LCSD 880-34014/3-A	Lab Control Sample Dup	152 S1+	139 S1+
MB 880-34014/1-A	Method Blank	107	103

Surrogate Legend

1CO = 1-Chlorooctane
OTPH = o-Terphenyl

QC Sample Results

Client: Ensolum
Project/Site: PLU 21 BD 104H, 123H, 124H

Job ID: 890-2882-1
SDG: 03E1558048

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-34162/5-A
Matrix: Solid
Analysis Batch: 34160

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 34162

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		09/11/22 14:51	09/11/22 19:24	1
Toluene	<0.00200	U	0.00200		mg/Kg		09/11/22 14:51	09/11/22 19:24	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		09/11/22 14:51	09/11/22 19:24	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		09/11/22 14:51	09/11/22 19:24	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		09/11/22 14:51	09/11/22 19:24	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		09/11/22 14:51	09/11/22 19:24	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*98*		*70 - 130*	*09/11/22 14:51*	*09/11/22 19:24*	*1*
1,4-Difluorobenzene (Surr)	*85*		*70 - 130*	*09/11/22 14:51*	*09/11/22 19:24*	*1*

Lab Sample ID: LCS 880-34162/1-A
Matrix: Solid
Analysis Batch: 34160

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 34162

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Benzene			0.100	0.08208		mg/Kg		82	70 - 130		
Toluene			0.100	0.08061		mg/Kg		81	70 - 130		
Ethylbenzene			0.100	0.09744		mg/Kg		97	70 - 130		
m-Xylene & p-Xylene			0.200	0.2095		mg/Kg		105	70 - 130		
o-Xylene			0.100	0.1203		mg/Kg		120	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*144*	*S1+*	*70 - 130*
1,4-Difluorobenzene (Surr)	*104*		*70 - 130*

Lab Sample ID: LCSD 880-34162/2-A
Matrix: Solid
Analysis Batch: 34160

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 34162

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene			0.100	0.09196		mg/Kg		92	70 - 130	11	35
Toluene			0.100	0.08758		mg/Kg		88	70 - 130	8	35
Ethylbenzene			0.100	0.1057		mg/Kg		106	70 - 130	8	35
m-Xylene & p-Xylene			0.200	0.2270		mg/Kg		114	70 - 130	8	35
o-Xylene			0.100	0.1293		mg/Kg		129	70 - 130	7	35

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*141*	*S1+*	*70 - 130*
1,4-Difluorobenzene (Surr)	*106*		*70 - 130*

Lab Sample ID: 890-2881-A-1-G MS
Matrix: Solid
Analysis Batch: 34160

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 34162

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Benzene	<0.00199	U	0.101	0.08380		mg/Kg		83	70 - 130		
Toluene	<0.00199	U	0.101	0.08110		mg/Kg		80	70 - 130		

QC Sample Results

Client: Ensolum
Project/Site: PLU 21 BD 104H, 123H, 124H

Job ID: 890-2882-1
SDG: 03E1558048

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

Lab Sample ID: 890-2881-A-1-G MS
Matrix: Solid
Analysis Batch: 34160

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 34162

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Ethylbenzene	<0.00199	U	0.101	0.08569		mg/Kg		85	70 - 130
m-Xylene & p-Xylene	<0.00398	U	0.202	0.1788		mg/Kg		89	70 - 130
o-Xylene	<0.00199	U	0.101	0.1017		mg/Kg		101	70 - 130

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

Lab Sample ID: 890-2881-A-1-H MSD
Matrix: Solid
Analysis Batch: 34160

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 34162

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	0.08733		mg/Kg		87	70 - 130	4	35
Toluene	<0.00199	U	0.100	0.08293		mg/Kg		83	70 - 130	2	35
Ethylbenzene	<0.00199	U	0.100	0.1007		mg/Kg		100	70 - 130	16	35
m-Xylene & p-Xylene	<0.00398	U	0.201	0.2056		mg/Kg		102	70 - 130	14	35
o-Xylene	<0.00199	U	0.100	0.1165		mg/Kg		116	70 - 130	14	35

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*138*	*S1+*	*70 - 130*
1,4-Difluorobenzene (Surr)	*104*		*70 - 130*

Lab Sample ID: MB 880-34272/5-A
Matrix: Solid
Analysis Batch: 34340

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 34272

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		09/12/22 10:28	09/13/22 21:47	1
Toluene	<0.00200	U	0.00200		mg/Kg		09/12/22 10:28	09/13/22 21:47	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		09/12/22 10:28	09/13/22 21:47	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		09/12/22 10:28	09/13/22 21:47	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		09/12/22 10:28	09/13/22 21:47	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		09/12/22 10:28	09/13/22 21:47	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*98*		*70 - 130*	*09/12/22 10:28*	*09/13/22 21:47*	*1*
1,4-Difluorobenzene (Surr)	*85*		*70 - 130*	*09/12/22 10:28*	*09/13/22 21:47*	*1*

Lab Sample ID: LCS 880-34272/1-A
Matrix: Solid
Analysis Batch: 34340

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 34272

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	0.100	0.08116		mg/Kg		81	70 - 130
Toluene	0.100	0.08046		mg/Kg		80	70 - 130
Ethylbenzene	0.100	0.09042		mg/Kg		90	70 - 130
m-Xylene & p-Xylene	0.200	0.1950		mg/Kg		97	70 - 130

QC Sample Results

Client: Ensolum
Project/Site: PLU 21 BD 104H, 123H, 124H

Job ID: 890-2882-1
SDG: 03E1558048

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

Lab Sample ID: LCS 880-34272/1-A
Matrix: Solid
Analysis Batch: 34340

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 34272

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
o-Xylene			0.100	0.1131		mg/Kg		113	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*127*		*70 - 130*
1,4-Difluorobenzene (Surr)	*98*		*70 - 130*

Lab Sample ID: LCSD 880-34272/2-A
Matrix: Solid
Analysis Batch: 34340

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 34272

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene			0.100	0.07578		mg/Kg		76	70 - 130	7	35
Toluene			0.100	0.08052		mg/Kg		81	70 - 130	0	35
Ethylbenzene			0.100	0.09275		mg/Kg		93	70 - 130	3	35
m-Xylene & p-Xylene			0.200	0.2014		mg/Kg		101	70 - 130	3	35
o-Xylene			0.100	0.1170		mg/Kg		117	70 - 130	3	35

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*67*	*S1-*	*70 - 130*
1,4-Difluorobenzene (Surr)	*99*		*70 - 130*

Lab Sample ID: 880-18879-A-101-F MS
Matrix: Solid
Analysis Batch: 34340

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 34272

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Benzene	<0.00201	U F1	0.101	0.05794	F1	mg/Kg		57	70 - 130		
Toluene	<0.00201	U F1	0.101	0.05604	F1	mg/Kg		55	70 - 130		
Ethylbenzene	<0.00201	U F1	0.101	0.06113	F1	mg/Kg		61	70 - 130		
m-Xylene & p-Xylene	<0.00402	U F1	0.202	0.1247	F1	mg/Kg		62	70 - 130		
o-Xylene	<0.00201	U	0.101	0.07156		mg/Kg		71	70 - 130		

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*123*		*70 - 130*
1,4-Difluorobenzene (Surr)	*105*		*70 - 130*

Lab Sample ID: 880-18879-A-101-G MSD
Matrix: Solid
Analysis Batch: 34340

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 34272

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	<0.00201	U F1	0.0994	0.05214	F1	mg/Kg		52	70 - 130	11	35
Toluene	<0.00201	U F1	0.0994	0.05106	F1	mg/Kg		51	70 - 130	9	35
Ethylbenzene	<0.00201	U F1	0.0994	0.05988	F1	mg/Kg		60	70 - 130	2	35
m-Xylene & p-Xylene	<0.00402	U F1	0.199	0.1209	F1	mg/Kg		61	70 - 130	3	35
o-Xylene	<0.00201	U	0.0994	0.06976		mg/Kg		70	70 - 130	3	35

QC Sample Results

Client: Ensolum
Project/Site: PLU 21 BD 104H, 123H, 124H

Job ID: 890-2882-1
SDG: 03E1558048

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

Lab Sample ID: 880-18879-A-101-G MSD
Matrix: Solid
Analysis Batch: 34340

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 34272

Surrogate	MSD %Recovery	MSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	127		70 - 130
1,4-Difluorobenzene (Surr)	105		70 - 130

Lab Sample ID: MB 880-34351/5-A
Matrix: Solid
Analysis Batch: 34340

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 34351

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		09/13/22 09:09	09/13/22 11:13	1
Toluene	<0.00200	U	0.00200		mg/Kg		09/13/22 09:09	09/13/22 11:13	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		09/13/22 09:09	09/13/22 11:13	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		09/13/22 09:09	09/13/22 11:13	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		09/13/22 09:09	09/13/22 11:13	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		09/13/22 09:09	09/13/22 11:13	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	99		70 - 130	09/13/22 09:09	09/13/22 11:13	1
1,4-Difluorobenzene (Surr)	90		70 - 130	09/13/22 09:09	09/13/22 11:13	1

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

Lab Sample ID: MB 880-34014/1-A
Matrix: Solid
Analysis Batch: 33968

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 34014

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		09/08/22 14:10	09/08/22 19:23	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		09/08/22 14:10	09/08/22 19:23	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		09/08/22 14:10	09/08/22 19:23	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	107		70 - 130	09/08/22 14:10	09/08/22 19:23	1
o-Terphenyl	103		70 - 130	09/08/22 14:10	09/08/22 19:23	1

Lab Sample ID: LCS 880-34014/2-A
Matrix: Solid
Analysis Batch: 33968

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 34014

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Gasoline Range Organics (GRO)-C6-C10			1000	1026		mg/Kg		103	70 - 130		
Diesel Range Organics (Over C10-C28)			1000	992.0		mg/Kg		99	70 - 130		

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1-Chlorooctane	147	S1+	70 - 130
o-Terphenyl	131	S1+	70 - 130

QC Sample Results

Client: Ensolum
Project/Site: PLU 21 BD 104H, 123H, 124H

Job ID: 890-2882-1
SDG: 03E1558048

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

Lab Sample ID: LCSD 880-34014/3-A
Matrix: Solid
Analysis Batch: 33968

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 34014

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10			1000	1032		mg/Kg		103	70 - 130	1	20
Diesel Range Organics (Over C10-C28)			1000	1050		mg/Kg		105	70 - 130	6	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1-Chlorooctane	*152*	*S1+*	*70 - 130*
o-Terphenyl	*139*	*S1+*	*70 - 130*

Lab Sample ID: 890-2881-A-1-E MS
Matrix: Solid
Analysis Batch: 33968

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 34014

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	829.5		mg/Kg		83	70 - 130		
Diesel Range Organics (Over C10-C28)	<50.0	U	999	942.6		mg/Kg		92	70 - 130		

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
1-Chlorooctane	*92*		*70 - 130*
o-Terphenyl	*83*		*70 - 130*

Lab Sample ID: 890-2881-A-1-F MSD
Matrix: Solid
Analysis Batch: 33968

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 34014

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	996	841.1		mg/Kg		84	70 - 130	1	20
Diesel Range Organics (Over C10-C28)	<50.0	U	996	978.1		mg/Kg		96	70 - 130	4	20

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
1-Chlorooctane	*97*		*70 - 130*
o-Terphenyl	*85*		*70 - 130*

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-33840/1-A
Matrix: Solid
Analysis Batch: 34020

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			09/09/22 12:06	1

QC Sample Results

Client: Ensolum
Project/Site: PLU 21 BD 104H, 123H, 124H

Job ID: 890-2882-1
SDG: 03E1558048

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: LCS 880-33840/2-A
Matrix: Solid
Analysis Batch: 34020

Client Sample ID: Lab Control Sample
Prep Type: Soluble

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride			250	240.4		mg/Kg		96	90 - 110		

Lab Sample ID: LCSD 880-33840/3-A
Matrix: Solid
Analysis Batch: 34020

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	247.1		mg/Kg		99	90 - 110	3	20

Lab Sample ID: 890-2882-1 MS
Matrix: Solid
Analysis Batch: 34020

Client Sample ID: SW01
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride	390		251	623.1		mg/Kg		93	90 - 110		

Lab Sample ID: 890-2882-1 MSD
Matrix: Solid
Analysis Batch: 34020

Client Sample ID: SW01
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	390		251	620.0		mg/Kg		91	90 - 110	0	20

QC Association Summary

Client: Ensolum
Project/Site: PLU 21 BD 104H, 123H, 124H

Job ID: 890-2882-1
SDG: 03E1558048

GC VOA

Analysis Batch: 34160

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2882-1	SW01	Total/NA	Solid	8021B	34162
890-2882-2	SW02	Total/NA	Solid	8021B	34162
MB 880-34162/5-A	Method Blank	Total/NA	Solid	8021B	34162
LCS 880-34162/1-A	Lab Control Sample	Total/NA	Solid	8021B	34162
LCSD 880-34162/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	34162
890-2881-A-1-G MS	Matrix Spike	Total/NA	Solid	8021B	34162
890-2881-A-1-H MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	34162

Prep Batch: 34162

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2882-1	SW01	Total/NA	Solid	5035	
890-2882-2	SW02	Total/NA	Solid	5035	
MB 880-34162/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-34162/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-34162/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
890-2881-A-1-G MS	Matrix Spike	Total/NA	Solid	5035	
890-2881-A-1-H MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	

Analysis Batch: 34245

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2882-1	SW01	Total/NA	Solid	Total BTEX	
890-2882-2	SW02	Total/NA	Solid	Total BTEX	
890-2882-3	SW03	Total/NA	Solid	Total BTEX	
890-2882-4	SW04	Total/NA	Solid	Total BTEX	

Prep Batch: 34272

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2882-3	SW03	Total/NA	Solid	5035	
890-2882-4	SW04	Total/NA	Solid	5035	
MB 880-34272/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-34272/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-34272/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
880-18879-A-101-F MS	Matrix Spike	Total/NA	Solid	5035	
880-18879-A-101-G MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	

Analysis Batch: 34340

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2882-3	SW03	Total/NA	Solid	8021B	34272
890-2882-4	SW04	Total/NA	Solid	8021B	34272
MB 880-34272/5-A	Method Blank	Total/NA	Solid	8021B	34272
MB 880-34351/5-A	Method Blank	Total/NA	Solid	8021B	34351
LCS 880-34272/1-A	Lab Control Sample	Total/NA	Solid	8021B	34272
LCSD 880-34272/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	34272
880-18879-A-101-F MS	Matrix Spike	Total/NA	Solid	8021B	34272
880-18879-A-101-G MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	34272

Prep Batch: 34351

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 880-34351/5-A	Method Blank	Total/NA	Solid	5035	

QC Association Summary

Client: Ensolum
Project/Site: PLU 21 BD 104H, 123H, 124H

Job ID: 890-2882-1
SDG: 03E1558048

GC Semi VOA

Analysis Batch: 33968

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2882-1	SW01	Total/NA	Solid	8015B NM	34014
890-2882-2	SW02	Total/NA	Solid	8015B NM	34014
890-2882-3	SW03	Total/NA	Solid	8015B NM	34014
890-2882-4	SW04	Total/NA	Solid	8015B NM	34014
MB 880-34014/1-A	Method Blank	Total/NA	Solid	8015B NM	34014
LCS 880-34014/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	34014
LCSD 880-34014/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	34014
890-2881-A-1-E MS	Matrix Spike	Total/NA	Solid	8015B NM	34014
890-2881-A-1-F MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	34014

Prep Batch: 34014

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2882-1	SW01	Total/NA	Solid	8015NM Prep	
890-2882-2	SW02	Total/NA	Solid	8015NM Prep	
890-2882-3	SW03	Total/NA	Solid	8015NM Prep	
890-2882-4	SW04	Total/NA	Solid	8015NM Prep	
MB 880-34014/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-34014/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-34014/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
890-2881-A-1-E MS	Matrix Spike	Total/NA	Solid	8015NM Prep	
890-2881-A-1-F MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	

Analysis Batch: 34076

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2882-1	SW01	Total/NA	Solid	8015 NM	
890-2882-2	SW02	Total/NA	Solid	8015 NM	
890-2882-3	SW03	Total/NA	Solid	8015 NM	
890-2882-4	SW04	Total/NA	Solid	8015 NM	

HPLC/IC

Leach Batch: 33840

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2882-1	SW01	Soluble	Solid	DI Leach	
890-2882-2	SW02	Soluble	Solid	DI Leach	
890-2882-3	SW03	Soluble	Solid	DI Leach	
890-2882-4	SW04	Soluble	Solid	DI Leach	
MB 880-33840/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-33840/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-33840/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
890-2882-1 MS	SW01	Soluble	Solid	DI Leach	
890-2882-1 MSD	SW01	Soluble	Solid	DI Leach	

Analysis Batch: 34020

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2882-1	SW01	Soluble	Solid	300.0	33840
890-2882-2	SW02	Soluble	Solid	300.0	33840
890-2882-3	SW03	Soluble	Solid	300.0	33840
890-2882-4	SW04	Soluble	Solid	300.0	33840
MB 880-33840/1-A	Method Blank	Soluble	Solid	300.0	33840
LCS 880-33840/2-A	Lab Control Sample	Soluble	Solid	300.0	33840

QC Association Summary

Client: Ensolum
Project/Site: PLU 21 BD 104H, 123H, 124H

Job ID: 890-2882-1
SDG: 03E1558048

HPLC/IC (Continued)

Analysis Batch: 34020 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCSD 880-33840/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	33840
890-2882-1 MS	SW01	Soluble	Solid	300.0	33840
890-2882-1 MSD	SW01	Soluble	Solid	300.0	33840

Lab Chronicle

Client: Ensolum
Project/Site: PLU 21 BD 104H, 123H, 124H

Job ID: 890-2882-1
SDG: 03E1558048

Client Sample ID: SW01
Date Collected: 09/02/22 11:20
Date Received: 09/02/22 14:56

Lab Sample ID: 890-2882-1
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	34162	09/11/22 14:51	EL	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	34160	09/12/22 00:12	MR	EET MID
Total/NA	Analysis	Total BTEX		1			34245	09/12/22 09:55	AJ	EET MID
Total/NA	Analysis	8015 NM		1			34076	09/09/22 10:25	SM	EET MID
Total/NA	Prep	8015NM Prep			10.03 g	10 mL	34014	09/08/22 14:10	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	33968	09/09/22 01:06	SM	EET MID
Soluble	Leach	DI Leach			4.98 g	50 mL	33840	09/06/22 12:41	KS	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	34020	09/09/22 14:43	CH	EET MID

Client Sample ID: SW02
Date Collected: 09/02/22 11:30
Date Received: 09/02/22 14:56

Lab Sample ID: 890-2882-2
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.03 g	5 mL	34162	09/11/22 14:51	EL	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	34160	09/12/22 00:33	MR	EET MID
Total/NA	Analysis	Total BTEX		1			34245	09/12/22 09:55	AJ	EET MID
Total/NA	Analysis	8015 NM		1			34076	09/09/22 10:25	SM	EET MID
Total/NA	Prep	8015NM Prep			10.03 g	10 mL	34014	09/08/22 14:10	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	33968	09/09/22 01:28	SM	EET MID
Soluble	Leach	DI Leach			4.99 g	50 mL	33840	09/06/22 12:41	KS	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	34020	09/09/22 15:11	CH	EET MID

Client Sample ID: SW03
Date Collected: 09/02/22 11:40
Date Received: 09/02/22 14:56

Lab Sample ID: 890-2882-3
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			4.96 g	5 mL	34272	09/12/22 10:28	EL	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	34340	09/14/22 04:38	AJ	EET MID
Total/NA	Analysis	Total BTEX		1			34245	09/12/22 09:55	AJ	EET MID
Total/NA	Analysis	8015 NM		1			34076	09/09/22 10:25	SM	EET MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	34014	09/08/22 14:10	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	33968	09/09/22 01:49	SM	EET MID
Soluble	Leach	DI Leach			5.02 g	50 mL	33840	09/06/22 12:41	KS	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	34020	09/09/22 15:20	CH	EET MID

Client Sample ID: SW04
Date Collected: 09/02/22 11:50
Date Received: 09/02/22 14:56

Lab Sample ID: 890-2882-4
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.01 g	5 mL	34272	09/12/22 10:28	EL	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	34340	09/14/22 04:59	AJ	EET MID
Total/NA	Analysis	Total BTEX		1			34245	09/12/22 09:55	AJ	EET MID

Lab Chronicle

Client: Ensolum
Project/Site: PLU 21 BD 104H, 123H, 124H

Job ID: 890-2882-1
SDG: 03E1558048

Client Sample ID: SW04
Date Collected: 09/02/22 11:50
Date Received: 09/02/22 14:56

Lab Sample ID: 890-2882-4
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			34076	09/09/22 10:25	SM	EET MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	34014	09/08/22 14:10	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	33968	09/09/22 02:11	SM	EET MID
Soluble	Leach	DI Leach			4.97 g	50 mL	33840	09/06/22 12:41	KS	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	34020	09/09/22 18:19	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: PLU 21 BD 104H, 123H, 124H

Job ID: 890-2882-1
SDG: 03E1558048

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: PLU 21 BD 104H, 123H, 124H

Job ID: 890-2882-1
SDG: 03E1558048

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: PLU 21 BD 104H, 123H, 124H

Job ID: 890-2882-1
SDG: 03E1558048

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-2882-1	SW01	Solid	09/02/22 11:20	09/02/22 14:56	0 - 2'
890-2882-2	SW02	Solid	09/02/22 11:30	09/02/22 14:56	0 - 2'
890-2882-3	SW03	Solid	09/02/22 11:40	09/02/22 14:56	0 - 3'
890-2882-4	SW04	Solid	09/02/22 11:50	09/02/22 14:56	0 - 2'

Chain of Custody

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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, LLC	Company Name:	XTO Energy, Inc.
Address:	3122 National parks Hwy	Address:	3104 E. Green Street
City, State ZIP:	Carlsbad, NM 88220	City, State ZIP:	Carlsbad, NM 88220
Phone:	9898540852	Email:	bbelill@ensolum.com

Work Order Comments

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

Project Name:	PLU 21 BD 104H, 123H, 124H	Turn Around	
Project Number:	03E1558048	☑ Routine ☐ Rush	
Project Location:	EDDY COUNTY, NM	Due Date:	5 day TAT
Sampler's Name:	Gilbert Moreno	TAT starts the day received by the lab, if received by 4:30pm	
PO #:			

SAMPLE RECEIPT				
Temp Blank:	Yes No	Wet Ice:	Yes No	
Samples Received Intact:	Yes No	Thermometer ID:	TMM-007	
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:	5.2	

ANALYSIS REQUEST

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Grab/ Comp	# of Cont	Pres. Code	CHLORIDES (EPA: 300.0)	TPH (8015)	BTEX (8021)
SW01	S	9.2.22	11:20	0-2'	Comp	1		X	X	X
SW02	S	9.2.22	11:30	0-2'	Comp	1		X	X	X
SW03	S	9.2.22	11:40	0-3'	Comp	1		X	X	X
SW04	S	9.2.22	11:50	0-2'	Comp	1		X	X	X

Parameters

890-2882 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

Cost Center: 1666351001

Incident Number: nAPP2209736479(104H), nAPP2211651017(123H), nAPP2211151438(124H)

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		Amanda Stuff	9/2/22 1452			
3				4		
5				6		

Revised Date 08/25/2020 Rev. 2020.2

Login Sample Receipt Checklist

Client: Ensolum

Job Number: 890-2882-1
SDG Number: 03E1558048

Login Number: 2882
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.	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: Ensolum

Job Number: 890-2882-1
SDG Number: 03E1558048

Login Number: 2882
List Number: 2
Creator: Rodriguez, Leticia

List Source: Eurofins Midland
List Creation: 09/07/22 11:42 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

Eurofins Carlsbad
1089 N Canal St.
Carlsbad, NM 88220
Tel: (575)988-3199

Laboratory Job ID: 890-2883-1
Laboratory Sample Delivery Group: 03E1558048
Client Project/Site: PLU 21 BD 104H, 123H, 124H

For:
Ensolum
705 W. Wadley
Suite 210
Midland, Texas 79701

Attn: Ben Belill

JKramer

Authorized for release by:
9/14/2022 8:33:29 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.

Client: Ensolum
Project/Site: PLU 21 BD 104H, 123H, 124H

Laboratory Job ID: 890-2883-1
SDG: 03E1558048

Table of Contents

Definitions/Glossary

Client: Ensolum Job ID: 890-2883-1
Project/Site: PLU 21 BD 104H, 123H, 124H SDG: 03E1558048

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
F1	MS and/or MSD recovery 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: PLU 21 BD 104H, 123H, 124H

Job ID: 890-2883-1
SDG: 03E1558048

Job ID: 890-2883-1

Laboratory: Eurofins Carlsbad

Narrative

Job Narrative
890-2883-1

Receipt
The samples were received on 9/2/2022 2:56 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 5.2°C

GC VOA
Method 8021B: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 880-34295 and analytical batch 880-34173 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: FS18 (890-2883-8). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

Method 8021B: Surrogate recovery for the following sample was outside control limits: (LCSD 880-34272/2-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.

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: PLU 21 BD 104H, 123H, 124H

Job ID: 890-2883-1
SDG: 03E1558048

Client Sample ID: FS06

Lab Sample ID: 890-2883-1
Matrix: Solid
Date Collected: 09/02/22 09:00
Date Received: 09/02/22 14:56
Sample Depth: 3'

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00201	U	0.00201		mg/Kg		09/12/22 10:28	09/14/22 05:19	1
Toluene	<0.00201	U	0.00201		mg/Kg		09/12/22 10:28	09/14/22 05:19	1
Ethylbenzene	<0.00201	U	0.00201		mg/Kg		09/12/22 10:28	09/14/22 05:19	1
m-Xylene & p-Xylene	<0.00402	U	0.00402		mg/Kg		09/12/22 10:28	09/14/22 05:19	1
o-Xylene	<0.00201	U	0.00201		mg/Kg		09/12/22 10:28	09/14/22 05:19	1
Xylenes, Total	<0.00402	U	0.00402		mg/Kg		09/12/22 10:28	09/14/22 05:19	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*115*		*70 - 130*	*09/12/22 10:28*	*09/14/22 05:19*	*1*
1,4-Difluorobenzene (Surr)	*89*		*70 - 130*	*09/12/22 10:28*	*09/14/22 05:19*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00402	U	0.00402		mg/Kg			09/13/22 08:36	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			09/09/22 11:30	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		09/08/22 08:49	09/08/22 10:53	1
Diesel Range Organics (Over C10-C28)	<50.0	U F1	50.0		mg/Kg		09/08/22 08:49	09/08/22 10:53	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		09/08/22 08:49	09/08/22 10:53	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*82*		*70 - 130*	*09/08/22 08:49*	*09/08/22 10:53*	*1*
o-Terphenyl	*85*		*70 - 130*	*09/08/22 08:49*	*09/08/22 10:53*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**430**		4.99		mg/Kg			09/09/22 05:13	1

Client Sample ID: FS07

Lab Sample ID: 890-2883-2
Matrix: Solid
Date Collected: 09/02/22 09:10
Date Received: 09/02/22 14:56
Sample Depth: 3'

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00201	U	0.00201		mg/Kg		09/12/22 10:28	09/14/22 05:40	1
Toluene	<0.00201	U	0.00201		mg/Kg		09/12/22 10:28	09/14/22 05:40	1
Ethylbenzene	<0.00201	U	0.00201		mg/Kg		09/12/22 10:28	09/14/22 05:40	1
m-Xylene & p-Xylene	<0.00402	U	0.00402		mg/Kg		09/12/22 10:28	09/14/22 05:40	1
o-Xylene	<0.00201	U	0.00201		mg/Kg		09/12/22 10:28	09/14/22 05:40	1
Xylenes, Total	<0.00402	U	0.00402		mg/Kg		09/12/22 10:28	09/14/22 05:40	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*106*		*70 - 130*	*09/12/22 10:28*	*09/14/22 05:40*	*1*

Client Sample Results

Client: Ensolum
Project/Site: PLU 21 BD 104H, 123H, 124H

Job ID: 890-2883-1
SDG: 03E1558048

Client Sample ID: FS07

Lab Sample ID: 890-2883-2
Matrix: Solid
Date Collected: 09/02/22 09:10
Date Received: 09/02/22 14:56
Sample Depth: 3'

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

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,4-Difluorobenzene (Surr)	*73*		*70 - 130*	*09/12/22 10:28*	*09/14/22 05:40*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00402	U	0.00402	mg/Kg			09/13/22 08:36	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			09/09/22 11:30	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		09/08/22 08:49	09/08/22 11:56	1
Diesel Range Organics (Over C10-C28)	<49.8	U	49.8	mg/Kg		09/08/22 08:49	09/08/22 11:56	1
OII Range Organics (Over C28-C36)	<49.8	U	49.8	mg/Kg		09/08/22 08:49	09/08/22 11:56	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*83*		*70 - 130*	*09/08/22 08:49*	*09/08/22 11:56*	*1*
o-Terphenyl	*86*		*70 - 130*	*09/08/22 08:49*	*09/08/22 11:56*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**369**		5.01	mg/Kg			09/09/22 05:27	1

Client Sample ID: FS13

Lab Sample ID: 890-2883-3
Matrix: Solid
Date Collected: 09/02/22 09:20
Date Received: 09/02/22 14:56
Sample Depth: 3'

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		09/12/22 13:31	09/13/22 00:21	1
Toluene	<0.00200	U	0.00200	mg/Kg		09/12/22 13:31	09/13/22 00:21	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		09/12/22 13:31	09/13/22 00:21	1
m-Xylene & p-Xylene	<0.00401	U	0.00401	mg/Kg		09/12/22 13:31	09/13/22 00:21	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		09/12/22 13:31	09/13/22 00:21	1
Xylenes, Total	<0.00401	U	0.00401	mg/Kg		09/12/22 13:31	09/13/22 00:21	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*109*		*70 - 130*	*09/12/22 13:31*	*09/13/22 00:21*	*1*
1,4-Difluorobenzene (Surr)	*84*		*70 - 130*	*09/12/22 13:31*	*09/13/22 00:21*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00401	U	0.00401	mg/Kg			09/13/22 08:36	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			09/09/22 11:30	1

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Client Sample Results

Client: Ensolum
Project/Site: PLU 21 BD 104H, 123H, 124H

Job ID: 890-2883-1
SDG: 03E1558048

Client Sample ID: FS13

Lab Sample ID: 890-2883-3
Matrix: Solid
Date Collected: 09/02/22 09:20
Date Received: 09/02/22 14:56
Sample Depth: 3'

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		09/08/22 08:49	09/08/22 12:17	1
Diesel Range Organics (Over C10-C28)	<49.8	U	49.8		mg/Kg		09/08/22 08:49	09/08/22 12:17	1
Oil Range Organics (Over C28-C36)	<49.8	U	49.8		mg/Kg		09/08/22 08:49	09/08/22 12:17	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*88*		*70 - 130*	*09/08/22 08:49*	*09/08/22 12:17*	*1*
o-Terphenyl	*92*		*70 - 130*	*09/08/22 08:49*	*09/08/22 12:17*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**392**		4.97		mg/Kg			09/09/22 05:32	1

Client Sample ID: FS14

Lab Sample ID: 890-2883-4
Matrix: Solid
Date Collected: 09/02/22 09:30
Date Received: 09/02/22 14:56
Sample Depth: 3'

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00201	U	0.00201		mg/Kg		09/12/22 13:31	09/13/22 00:41	1
Toluene	<0.00201	U	0.00201		mg/Kg		09/12/22 13:31	09/13/22 00:41	1
Ethylbenzene	<0.00201	U	0.00201		mg/Kg		09/12/22 13:31	09/13/22 00:41	1
m-Xylene & p-Xylene	<0.00402	U	0.00402		mg/Kg		09/12/22 13:31	09/13/22 00:41	1
o-Xylene	<0.00201	U	0.00201		mg/Kg		09/12/22 13:31	09/13/22 00:41	1
Xylenes, Total	<0.00402	U	0.00402		mg/Kg		09/12/22 13:31	09/13/22 00:41	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*107*		*70 - 130*	*09/12/22 13:31*	*09/13/22 00:41*	*1*
1,4-Difluorobenzene (Surr)	*86*		*70 - 130*	*09/12/22 13:31*	*09/13/22 00:41*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00402	U	0.00402		mg/Kg			09/13/22 08:36	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			09/09/22 11:30	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		09/08/22 08:49	09/08/22 12:37	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		09/08/22 08:49	09/08/22 12:37	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		09/08/22 08:49	09/08/22 12:37	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*86*		*70 - 130*	*09/08/22 08:49*	*09/08/22 12:37*	*1*
o-Terphenyl	*89*		*70 - 130*	*09/08/22 08:49*	*09/08/22 12:37*	*1*

Client Sample Results

Client: Ensolum
Project/Site: PLU 21 BD 104H, 123H, 124H

Job ID: 890-2883-1
SDG: 03E1558048

Client Sample ID: FS14

Lab Sample ID: 890-2883-4
Matrix: Solid
Date Collected: 09/02/22 09:30
Date Received: 09/02/22 14:56
Sample Depth: 3'

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	369		5.05		mg/Kg			09/09/22 05:37	1

Client Sample ID: FS15

Lab Sample ID: 890-2883-5
Matrix: Solid
Date Collected: 09/02/22 09:40
Date Received: 09/02/22 14:56
Sample Depth: 2'

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199		mg/Kg		09/12/22 13:31	09/13/22 02:44	1
Toluene	<0.00199	U	0.00199		mg/Kg		09/12/22 13:31	09/13/22 02:44	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		09/12/22 13:31	09/13/22 02:44	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		09/12/22 13:31	09/13/22 02:44	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		09/12/22 13:31	09/13/22 02:44	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		09/12/22 13:31	09/13/22 02:44	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*109*		*70 - 130*	*09/12/22 13:31*	*09/13/22 02:44*	*1*
1,4-Difluorobenzene (Surr)	*88*		*70 - 130*	*09/12/22 13:31*	*09/13/22 02:44*	*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			09/13/22 08:36	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			09/09/22 11:30	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		09/08/22 08:49	09/08/22 12:58	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		09/08/22 08:49	09/08/22 12:58	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		09/08/22 08:49	09/08/22 12:58	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*87*		*70 - 130*	*09/08/22 08:49*	*09/08/22 12:58*	*1*
o-Terphenyl	*89*		*70 - 130*	*09/08/22 08:49*	*09/08/22 12:58*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	249		5.02		mg/Kg			09/09/22 05:42	1

Client Sample Results

Client: Ensolum
Project/Site: PLU 21 BD 104H, 123H, 124H

Job ID: 890-2883-1
SDG: 03E1558048

Client Sample ID: FS16

Lab Sample ID: 890-2883-6
Matrix: Solid
Date Collected: 09/02/22 09:50
Date Received: 09/02/22 14:56
Sample Depth: 2'

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		09/12/22 13:31	09/13/22 03:04	1
Toluene	<0.00200	U	0.00200		mg/Kg		09/12/22 13:31	09/13/22 03:04	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		09/12/22 13:31	09/13/22 03:04	1
m-Xylene & p-Xylene	<0.00399	U	0.00399		mg/Kg		09/12/22 13:31	09/13/22 03:04	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		09/12/22 13:31	09/13/22 03:04	1
Xylenes, Total	<0.00399	U	0.00399		mg/Kg		09/12/22 13:31	09/13/22 03:04	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*109*		*70 - 130*	*09/12/22 13:31*	*09/13/22 03:04*	*1*
1,4-Difluorobenzene (Surr)	*83*		*70 - 130*	*09/12/22 13:31*	*09/13/22 03:04*	*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			09/13/22 08:36	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			09/09/22 11:30	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		09/08/22 08:49	09/08/22 13:19	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		09/08/22 08:49	09/08/22 13:19	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		09/08/22 08:49	09/08/22 13:19	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*89*		*70 - 130*	*09/08/22 08:49*	*09/08/22 13:19*	*1*
o-Terphenyl	*90*		*70 - 130*	*09/08/22 08:49*	*09/08/22 13:19*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**283**		4.98		mg/Kg			09/09/22 05:57	1

Client Sample ID: FS17

Lab Sample ID: 890-2883-7
Matrix: Solid
Date Collected: 09/02/22 10:00
Date Received: 09/02/22 14:56
Sample Depth: 2'

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199		mg/Kg		09/12/22 13:31	09/13/22 03:25	1
Toluene	<0.00199	U	0.00199		mg/Kg		09/12/22 13:31	09/13/22 03:25	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		09/12/22 13:31	09/13/22 03:25	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		09/12/22 13:31	09/13/22 03:25	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		09/12/22 13:31	09/13/22 03:25	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		09/12/22 13:31	09/13/22 03:25	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*107*		*70 - 130*	*09/12/22 13:31*	*09/13/22 03:25*	*1*

Client Sample Results

Client: Ensolum
Project/Site: PLU 21 BD 104H, 123H, 124H

Job ID: 890-2883-1
SDG: 03E1558048

Client Sample ID: FS17

Lab Sample ID: 890-2883-7
Matrix: Solid
Date Collected: 09/02/22 10:00
Date Received: 09/02/22 14:56
Sample Depth: 2'

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

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,4-Difluorobenzene (Surr)	*81*		*70 - 130*	*09/12/22 13:31*	*09/13/22 03:25*	*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			09/13/22 08:36	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			09/09/22 11:30	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		09/08/22 08:49	09/08/22 13:40	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9	mg/Kg		09/08/22 08:49	09/08/22 13:40	1
OII Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg		09/08/22 08:49	09/08/22 13:40	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*86*		*70 - 130*	*09/08/22 08:49*	*09/08/22 13:40*	*1*
o-Terphenyl	*88*		*70 - 130*	*09/08/22 08:49*	*09/08/22 13:40*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**119**		4.98	mg/Kg			09/09/22 06:01	1

Client Sample ID: FS18

Lab Sample ID: 890-2883-8
Matrix: Solid
Date Collected: 09/02/22 10:10
Date Received: 09/02/22 14:56
Sample Depth: 2'

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		09/13/22 09:09	09/13/22 11:55	1
Toluene	<0.00200	U	0.00200	mg/Kg		09/13/22 09:09	09/13/22 11:55	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		09/13/22 09:09	09/13/22 11:55	1
m-Xylene & p-Xylene	<0.00399	U	0.00399	mg/Kg		09/13/22 09:09	09/13/22 11:55	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		09/13/22 09:09	09/13/22 11:55	1
Xylenes, Total	<0.00399	U	0.00399	mg/Kg		09/13/22 09:09	09/13/22 11:55	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*89*		*70 - 130*	*09/13/22 09:09*	*09/13/22 11:55*	*1*
1,4-Difluorobenzene (Surr)	*64*	*S1-*	*70 - 130*	*09/13/22 09:09*	*09/13/22 11:55*	*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			09/13/22 08:36	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	**175**		50.0	mg/Kg			09/09/22 11:30	1

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Client Sample Results

Client: Ensolum
Project/Site: PLU 21 BD 104H, 123H, 124H

Job ID: 890-2883-1
SDG: 03E1558048

Client Sample ID: FS18

Lab Sample ID: 890-2883-8
Matrix: Solid
Date Collected: 09/02/22 10:10
Date Received: 09/02/22 14:56
Sample Depth: 2'

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		09/08/22 08:49	09/08/22 14:00	1
Diesel Range Organics (Over C10-C28)	**175**		50.0		mg/Kg		09/08/22 08:49	09/08/22 14:00	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		09/08/22 08:49	09/08/22 14:00	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*82*		*70 - 130*	*09/08/22 08:49*	*09/08/22 14:00*	*1*
o-Terphenyl	*84*		*70 - 130*	*09/08/22 08:49*	*09/08/22 14:00*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**167**		4.95		mg/Kg			09/09/22 06:06	1

Client Sample ID: FS19

Lab Sample ID: 890-2883-9
Matrix: Solid
Date Collected: 09/02/22 10:20
Date Received: 09/02/22 14:56
Sample Depth: 3'

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00198	U	0.00198		mg/Kg		09/13/22 09:09	09/13/22 12:15	1
Toluene	<0.00198	U	0.00198		mg/Kg		09/13/22 09:09	09/13/22 12:15	1
Ethylbenzene	<0.00198	U	0.00198		mg/Kg		09/13/22 09:09	09/13/22 12:15	1
m-Xylene & p-Xylene	<0.00397	U	0.00397		mg/Kg		09/13/22 09:09	09/13/22 12:15	1
o-Xylene	<0.00198	U	0.00198		mg/Kg		09/13/22 09:09	09/13/22 12:15	1
Xylenes, Total	<0.00397	U	0.00397		mg/Kg		09/13/22 09:09	09/13/22 12:15	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*106*		*70 - 130*	*09/13/22 09:09*	*09/13/22 12:15*	*1*
1,4-Difluorobenzene (Surr)	*108*		*70 - 130*	*09/13/22 09:09*	*09/13/22 12:15*	*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			09/13/22 08:36	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			09/09/22 11:30	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		09/08/22 08:49	09/08/22 14:22	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		09/08/22 08:49	09/08/22 14:22	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		09/08/22 08:49	09/08/22 14:22	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*91*		*70 - 130*	*09/08/22 08:49*	*09/08/22 14:22*	*1*
o-Terphenyl	*95*		*70 - 130*	*09/08/22 08:49*	*09/08/22 14:22*	*1*

Client Sample Results

Client: Ensolum
Project/Site: PLU 21 BD 104H, 123H, 124H

Job ID: 890-2883-1
SDG: 03E1558048

Client Sample ID: FS19

Lab Sample ID: 890-2883-9
Matrix: Solid
Date Collected: 09/02/22 10:20
Date Received: 09/02/22 14:56
Sample Depth: 3'

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**99.9**		5.01		mg/Kg			09/09/22 06:12	1

Client Sample ID: FS20

Lab Sample ID: 890-2883-10
Matrix: Solid
Date Collected: 09/02/22 10:30
Date Received: 09/02/22 14:56
Sample Depth: 2'

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**0.00336**		0.00199		mg/Kg		09/12/22 13:37	09/13/22 01:51	1
Toluene	<0.00199	U	0.00199		mg/Kg		09/12/22 13:37	09/13/22 01:51	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		09/12/22 13:37	09/13/22 01:51	1
m-Xylene & p-Xylene	**0.00476**		0.00398		mg/Kg		09/12/22 13:37	09/13/22 01:51	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		09/12/22 13:37	09/13/22 01:51	1
Xylenes, Total	**0.00476**		0.00398		mg/Kg		09/12/22 13:37	09/13/22 01:51	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*81*		*70 - 130*	*09/12/22 13:37*	*09/13/22 01:51*	*1*
1,4-Difluorobenzene (Surr)	*122*		*70 - 130*	*09/12/22 13:37*	*09/13/22 01:51*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	**0.00812**		0.00398		mg/Kg			09/13/22 08:36	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			09/09/22 11:30	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		09/08/22 08:49	09/08/22 14:42	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		09/08/22 08:49	09/08/22 14:42	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		09/08/22 08:49	09/08/22 14:42	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*88*		*70 - 130*	*09/08/22 08:49*	*09/08/22 14:42*	*1*
o-Terphenyl	*92*		*70 - 130*	*09/08/22 08:49*	*09/08/22 14:42*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**52.5**		4.99		mg/Kg			09/09/22 06:17	1

Client Sample Results

Client: Ensolum
Project/Site: PLU 21 BD 104H, 123H, 124H

Job ID: 890-2883-1
SDG: 03E1558048

Client Sample ID: FS21

Lab Sample ID: 890-2883-11
Matrix: Solid
Date Collected: 09/02/22 10:40
Date Received: 09/02/22 14:56
Sample Depth: 2'

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199		mg/Kg		09/12/22 13:37	09/13/22 02:11	1
Toluene	<0.00199	U	0.00199		mg/Kg		09/12/22 13:37	09/13/22 02:11	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		09/12/22 13:37	09/13/22 02:11	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		09/12/22 13:37	09/13/22 02:11	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		09/12/22 13:37	09/13/22 02:11	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		09/12/22 13:37	09/13/22 02:11	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*106*		*70 - 130*	*09/12/22 13:37*	*09/13/22 02:11*	*1*
1,4-Difluorobenzene (Surr)	*107*		*70 - 130*	*09/12/22 13:37*	*09/13/22 02:11*	*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			09/13/22 08:36	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			09/09/22 11:30	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		09/08/22 08:49	09/08/22 15:24	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		09/08/22 08:49	09/08/22 15:24	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		09/08/22 08:49	09/08/22 15:24	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*90*		*70 - 130*	*09/08/22 08:49*	*09/08/22 15:24*	*1*
o-Terphenyl	*94*		*70 - 130*	*09/08/22 08:49*	*09/08/22 15:24*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**178**		5.05		mg/Kg			09/09/22 06:21	1

Client Sample ID: FS22

Lab Sample ID: 890-2883-12
Matrix: Solid
Date Collected: 09/02/22 10:50
Date Received: 09/02/22 14:56
Sample Depth: 2'

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00201	U	0.00201		mg/Kg		09/12/22 13:37	09/13/22 02:31	1
Toluene	<0.00201	U	0.00201		mg/Kg		09/12/22 13:37	09/13/22 02:31	1
Ethylbenzene	<0.00201	U	0.00201		mg/Kg		09/12/22 13:37	09/13/22 02:31	1
m-Xylene & p-Xylene	<0.00402	U	0.00402		mg/Kg		09/12/22 13:37	09/13/22 02:31	1
o-Xylene	<0.00201	U	0.00201		mg/Kg		09/12/22 13:37	09/13/22 02:31	1
Xylenes, Total	<0.00402	U	0.00402		mg/Kg		09/12/22 13:37	09/13/22 02:31	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*97*		*70 - 130*	*09/12/22 13:37*	*09/13/22 02:31*	*1*

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Client Sample Results

Client: Ensolum
Project/Site: PLU 21 BD 104H, 123H, 124H

Job ID: 890-2883-1
SDG: 03E1558048

Client Sample ID: FS22

Lab Sample ID: 890-2883-12
Matrix: Solid
Date Collected: 09/02/22 10:50
Date Received: 09/02/22 14:56
Sample Depth: 2'

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

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,4-Difluorobenzene (Surr)	*98*		*70 - 130*	*09/12/22 13:37*	*09/13/22 02:31*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00402	U	0.00402	mg/Kg			09/13/22 08:36	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			09/09/22 11:30	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		09/08/22 08:49	09/08/22 15:45	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9	mg/Kg		09/08/22 08:49	09/08/22 15:45	1
OII Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg		09/08/22 08:49	09/08/22 15:45	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*93*		*70 - 130*	*09/08/22 08:49*	*09/08/22 15:45*	*1*
o-Terphenyl	*98*		*70 - 130*	*09/08/22 08:49*	*09/08/22 15:45*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**46.4**		5.04	mg/Kg			09/09/22 06:36	1

Client Sample ID: FS23

Lab Sample ID: 890-2883-13
Matrix: Solid
Date Collected: 09/02/22 11:00
Date Received: 09/02/22 14:56
Sample Depth: 2'

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00202	U	0.00202	mg/Kg		09/12/22 13:37	09/13/22 02:52	1
Toluene	<0.00202	U	0.00202	mg/Kg		09/12/22 13:37	09/13/22 02:52	1
Ethylbenzene	<0.00202	U	0.00202	mg/Kg		09/12/22 13:37	09/13/22 02:52	1
m-Xylene & p-Xylene	<0.00403	U	0.00403	mg/Kg		09/12/22 13:37	09/13/22 02:52	1
o-Xylene	<0.00202	U	0.00202	mg/Kg		09/12/22 13:37	09/13/22 02:52	1
Xylenes, Total	<0.00403	U	0.00403	mg/Kg		09/12/22 13:37	09/13/22 02:52	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*99*		*70 - 130*	*09/12/22 13:37*	*09/13/22 02:52*	*1*
1,4-Difluorobenzene (Surr)	*102*		*70 - 130*	*09/12/22 13:37*	*09/13/22 02:52*	*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			09/13/22 08:36	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			09/09/22 11:30	1

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Client Sample Results

Client: Ensolum
Project/Site: PLU 21 BD 104H, 123H, 124H

Job ID: 890-2883-1
SDG: 03E1558048

Client Sample ID: FS23

Lab Sample ID: 890-2883-13
Matrix: Solid
Date Collected: 09/02/22 11:00
Date Received: 09/02/22 14:56
Sample Depth: 2'

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		09/08/22 08:49	09/08/22 16:06	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		09/08/22 08:49	09/08/22 16:06	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		09/08/22 08:49	09/08/22 16:06	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*89*		*70 - 130*	*09/08/22 08:49*	*09/08/22 16:06*	*1*
o-Terphenyl	*94*		*70 - 130*	*09/08/22 08:49*	*09/08/22 16:06*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**35.2**		5.02		mg/Kg			09/09/22 06:41	1

Client Sample ID: FS24

Lab Sample ID: 890-2883-14
Matrix: Solid
Date Collected: 09/02/22 11:10
Date Received: 09/02/22 14:56
Sample Depth: 2'

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		09/12/22 13:37	09/13/22 03:12	1
Toluene	<0.00200	U	0.00200		mg/Kg		09/12/22 13:37	09/13/22 03:12	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		09/12/22 13:37	09/13/22 03:12	1
m-Xylene & p-Xylene	<0.00399	U	0.00399		mg/Kg		09/12/22 13:37	09/13/22 03:12	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		09/12/22 13:37	09/13/22 03:12	1
Xylenes, Total	<0.00399	U	0.00399		mg/Kg		09/12/22 13:37	09/13/22 03:12	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*92*		*70 - 130*	*09/12/22 13:37*	*09/13/22 03:12*	*1*
1,4-Difluorobenzene (Surr)	*102*		*70 - 130*	*09/12/22 13:37*	*09/13/22 03:12*	*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			09/13/22 08:36	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			09/09/22 11:30	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		09/08/22 08:49	09/08/22 16:27	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		09/08/22 08:49	09/08/22 16:27	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		09/08/22 08:49	09/08/22 16:27	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*86*		*70 - 130*	*09/08/22 08:49*	*09/08/22 16:27*	*1*
o-Terphenyl	*90*		*70 - 130*	*09/08/22 08:49*	*09/08/22 16:27*	*1*

Client Sample Results

Client: Ensolum
Project/Site: PLU 21 BD 104H, 123H, 124H

Job ID: 890-2883-1
SDG: 03E1558048

Client Sample ID: FS24

Lab Sample ID: 890-2883-14
Matrix: Solid
Date Collected: 09/02/22 11:10
Date Received: 09/02/22 14:56
Sample Depth: 2'

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	24.7		4.96		mg/Kg			09/09/22 06:55	1

Client Sample ID: FS25

Lab Sample ID: 890-2883-15
Matrix: Solid
Date Collected: 09/02/22 11:20
Date Received: 09/02/22 14:56
Sample Depth: 2'

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199		mg/Kg		09/12/22 13:37	09/13/22 03:33	1
Toluene	<0.00199	U	0.00199		mg/Kg		09/12/22 13:37	09/13/22 03:33	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		09/12/22 13:37	09/13/22 03:33	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		09/12/22 13:37	09/13/22 03:33	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		09/12/22 13:37	09/13/22 03:33	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		09/12/22 13:37	09/13/22 03:33	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*97*		*70 - 130*	*09/12/22 13:37*	*09/13/22 03:33*	*1*
1,4-Difluorobenzene (Surr)	*105*		*70 - 130*	*09/12/22 13:37*	*09/13/22 03:33*	*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			09/13/22 08:36	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			09/09/22 11:30	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		09/08/22 08:49	09/08/22 16:48	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		09/08/22 08:49	09/08/22 16:48	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		09/08/22 08:49	09/08/22 16:48	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*98*		*70 - 130*	*09/08/22 08:49*	*09/08/22 16:48*	*1*
o-Terphenyl	*104*		*70 - 130*	*09/08/22 08:49*	*09/08/22 16:48*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	40.9		4.96		mg/Kg			09/09/22 07:00	1

Client Sample Results

Client: Ensolum
Project/Site: PLU 21 BD 104H, 123H, 124H

Job ID: 890-2883-1
SDG: 03E1558048

Client Sample ID: FS26

Lab Sample ID: 890-2883-16
Matrix: Solid
Date Collected: 09/02/22 11:30
Date Received: 09/02/22 14:56
Sample Depth: 2'

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199		mg/Kg		09/12/22 13:37	09/13/22 03:53	1
Toluene	<0.00199	U	0.00199		mg/Kg		09/12/22 13:37	09/13/22 03:53	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		09/12/22 13:37	09/13/22 03:53	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		09/12/22 13:37	09/13/22 03:53	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		09/12/22 13:37	09/13/22 03:53	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		09/12/22 13:37	09/13/22 03:53	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*94*		*70 - 130*	*09/12/22 13:37*	*09/13/22 03:53*	*1*
1,4-Difluorobenzene (Surr)	*117*		*70 - 130*	*09/12/22 13:37*	*09/13/22 03:53*	*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			09/13/22 08:36	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			09/09/22 11:30	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		09/08/22 08:49	09/08/22 17:09	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		09/08/22 08:49	09/08/22 17:09	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		09/08/22 08:49	09/08/22 17:09	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*84*		*70 - 130*	*09/08/22 08:49*	*09/08/22 17:09*	*1*
o-Terphenyl	*88*		*70 - 130*	*09/08/22 08:49*	*09/08/22 17:09*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**399**		5.00		mg/Kg			09/09/22 07:05	1

Client Sample ID: FS27

Lab Sample ID: 890-2883-17
Matrix: Solid
Date Collected: 09/02/22 11:40
Date Received: 09/02/22 14:56
Sample Depth: 2'

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		09/12/22 13:37	09/13/22 04:13	1
Toluene	<0.00200	U	0.00200		mg/Kg		09/12/22 13:37	09/13/22 04:13	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		09/12/22 13:37	09/13/22 04:13	1
m-Xylene & p-Xylene	<0.00401	U	0.00401		mg/Kg		09/12/22 13:37	09/13/22 04:13	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		09/12/22 13:37	09/13/22 04:13	1
Xylenes, Total	<0.00401	U	0.00401		mg/Kg		09/12/22 13:37	09/13/22 04:13	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*102*		*70 - 130*	*09/12/22 13:37*	*09/13/22 04:13*	*1*

Client Sample Results

Client: Ensolum
Project/Site: PLU 21 BD 104H, 123H, 124H

Job ID: 890-2883-1
SDG: 03E1558048

Client Sample ID: FS27

Lab Sample ID: 890-2883-17
Matrix: Solid
Date Collected: 09/02/22 11:40
Date Received: 09/02/22 14:56
Sample Depth: 2'

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

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,4-Difluorobenzene (Surr)	*99*		*70 - 130*	*09/12/22 13:37*	*09/13/22 04:13*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00401	U	0.00401	mg/Kg			09/13/22 08:36	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			09/09/22 11:30	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		09/08/22 08:49	09/08/22 17:30	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9	mg/Kg		09/08/22 08:49	09/08/22 17:30	1
OII Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg		09/08/22 08:49	09/08/22 17:30	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*87*		*70 - 130*	*09/08/22 08:49*	*09/08/22 17:30*	*1*
o-Terphenyl	*92*		*70 - 130*	*09/08/22 08:49*	*09/08/22 17:30*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**528**		5.02	mg/Kg			09/09/22 07:10	1

Client Sample ID: FS28

Lab Sample ID: 890-2883-18
Matrix: Solid
Date Collected: 09/02/22 11:50
Date Received: 09/02/22 14:56
Sample Depth: 2'

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199	mg/Kg		09/13/22 09:09	09/13/22 11:34	1
Toluene	<0.00199	U	0.00199	mg/Kg		09/13/22 09:09	09/13/22 11:34	1
Ethylbenzene	<0.00199	U	0.00199	mg/Kg		09/13/22 09:09	09/13/22 11:34	1
m-Xylene & p-Xylene	<0.00398	U	0.00398	mg/Kg		09/13/22 09:09	09/13/22 11:34	1
o-Xylene	<0.00199	U	0.00199	mg/Kg		09/13/22 09:09	09/13/22 11:34	1
Xylenes, Total	<0.00398	U	0.00398	mg/Kg		09/13/22 09:09	09/13/22 11:34	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*103*		*70 - 130*	*09/13/22 09:09*	*09/13/22 11:34*	*1*
1,4-Difluorobenzene (Surr)	*94*		*70 - 130*	*09/13/22 09:09*	*09/13/22 11:34*	*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			09/13/22 08:36	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			09/09/22 11:30	1

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Client Sample Results

Client: Ensolum
Project/Site: PLU 21 BD 104H, 123H, 124H

Job ID: 890-2883-1
SDG: 03E1558048

Client Sample ID: FS28
Date Collected: 09/02/22 11:50
Date Received: 09/02/22 14:56
Sample Depth: 2'

Lab Sample ID: 890-2883-18
Matrix: Solid

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		09/08/22 08:49	09/08/22 17:50	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		09/08/22 08:49	09/08/22 17:50	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		09/08/22 08:49	09/08/22 17:50	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*96*		*70 - 130*	*09/08/22 08:49*	*09/08/22 17:50*	*1*
o-Terphenyl	*102*		*70 - 130*	*09/08/22 08:49*	*09/08/22 17:50*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**497**		4.97		mg/Kg			09/09/22 07:15	1

Surrogate Summary

Client: Ensolum
Project/Site: PLU 21 BD 104H, 123H, 124H

Job ID: 890-2883-1
SDG: 03E1558048

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)
880-19046-A-6-G MS	Matrix Spike	106	102
880-19046-A-6-H MSD	Matrix Spike Duplicate	110	101
890-2883-1	FS06	115	89
890-2883-2	FS07	106	73
890-2883-3	FS13	109	84
890-2883-4	FS14	107	86
890-2883-5	FS15	109	88
890-2883-6	FS16	109	83
890-2883-7	FS17	107	81
890-2883-8	FS18	89	64 S1-
890-2883-9	FS19	106	108
890-2883-10	FS20	81	122
890-2883-11	FS21	106	107
890-2883-12	FS22	97	98
890-2883-13	FS23	99	102
890-2883-14	FS24	92	102
890-2883-15	FS25	97	105
890-2883-16	FS26	94	117
890-2883-17	FS27	102	99
890-2883-18	FS28	103	94
890-2883-18 MS	FS28	113	102
890-2883-18 MSD	FS28	119	107
890-2909-A-1-G MS	Matrix Spike	117	108
890-2909-A-1-H MSD	Matrix Spike Duplicate	122	110
LCS 880-34272/1-A	Lab Control Sample	127	98
LCS 880-34295/1-A	Lab Control Sample	116	109
LCS 880-34296/1-A	Lab Control Sample	108	92
LCS 880-34351/1-A	Lab Control Sample	113	106
LCSD 880-34272/2-A	Lab Control Sample Dup	67 S1-	99
LCSD 880-34295/2-A	Lab Control Sample Dup	110	107
LCSD 880-34296/2-A	Lab Control Sample Dup	118	93
LCSD 880-34351/2-A	Lab Control Sample Dup	113	106
MB 880-34213/5-A	Method Blank	96	86
MB 880-34272/5-A	Method Blank	98	85
MB 880-34295/5-A	Method Blank	93	92
MB 880-34296/5-A	Method Blank	106	112
MB 880-34351/5-A	Method Blank	99	90

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)
890-2883-1	FS06	82	85
890-2883-1 MS	FS06	76	72

Surrogate Summary

Client: Ensolum Job ID: 890-2883-1
Project/Site: PLU 21 BD 104H, 123H, 124H SDG: 03E1558048

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

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

		Percent Surrogate Recovery (Acceptance Limits)											
		1CO1	OTPH1										
Lab Sample ID	Client Sample ID	(70-130)	(70-130)										
890-2883-1 MSD	FS06	79	73										
890-2883-2	FS07	83	86										
890-2883-3	FS13	88	92										
890-2883-4	FS14	86	89										
890-2883-5	FS15	87	89										
890-2883-6	FS16	89	90										
890-2883-7	FS17	86	88										
890-2883-8	FS18	82	84										
890-2883-9	FS19	91	95										
890-2883-10	FS20	88	92										
890-2883-11	FS21	90	94										
890-2883-12	FS22	93	98										
890-2883-13	FS23	89	94										
890-2883-14	FS24	86	90										
890-2883-15	FS25	98	104										
890-2883-16	FS26	84	88										
890-2883-17	FS27	87	92										
890-2883-18	FS28	96	102										
LCS 880-33980/2-A	Lab Control Sample	94	103										
LCSD 880-33980/3-A	Lab Control Sample Dup	100	108										
MB 880-33980/1-A	Method Blank	90	96										

Surrogate Legend

1CO = 1-Chlorooctane

OTPH = o-Terphenyl

QC Sample Results

Client: Ensolum
Project/Site: PLU 21 BD 104H, 123H, 124H

Job ID: 890-2883-1
SDG: 03E1558048

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-34213/5-A
Matrix: Solid
Analysis Batch: 34173

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 34213

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		09/12/22 09:23	09/12/22 10:47	1
Toluene	<0.00200	U	0.00200		mg/Kg		09/12/22 09:23	09/12/22 10:47	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		09/12/22 09:23	09/12/22 10:47	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		09/12/22 09:23	09/12/22 10:47	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		09/12/22 09:23	09/12/22 10:47	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		09/12/22 09:23	09/12/22 10:47	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*96*		*70 - 130*	*09/12/22 09:23*	*09/12/22 10:47*	*1*
1,4-Difluorobenzene (Surr)	*86*		*70 - 130*	*09/12/22 09:23*	*09/12/22 10:47*	*1*

Lab Sample ID: MB 880-34272/5-A
Matrix: Solid
Analysis Batch: 34340

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 34272

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		09/12/22 10:28	09/13/22 21:47	1
Toluene	<0.00200	U	0.00200		mg/Kg		09/12/22 10:28	09/13/22 21:47	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		09/12/22 10:28	09/13/22 21:47	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		09/12/22 10:28	09/13/22 21:47	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		09/12/22 10:28	09/13/22 21:47	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		09/12/22 10:28	09/13/22 21:47	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*98*		*70 - 130*	*09/12/22 10:28*	*09/13/22 21:47*	*1*
1,4-Difluorobenzene (Surr)	*85*		*70 - 130*	*09/12/22 10:28*	*09/13/22 21:47*	*1*

Lab Sample ID: LCS 880-34272/1-A
Matrix: Solid
Analysis Batch: 34340

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 34272

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Benzene			0.100	0.08116		mg/Kg		81	70 - 130		
Toluene			0.100	0.08046		mg/Kg		80	70 - 130		
Ethylbenzene			0.100	0.09042		mg/Kg		90	70 - 130		
m-Xylene & p-Xylene			0.200	0.1950		mg/Kg		97	70 - 130		
o-Xylene			0.100	0.1131		mg/Kg		113	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*127*		*70 - 130*
1,4-Difluorobenzene (Surr)	*98*		*70 - 130*

Lab Sample ID: LCSD 880-34272/2-A
Matrix: Solid
Analysis Batch: 34340

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 34272

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene			0.100	0.07578		mg/Kg		76	70 - 130	7	35

QC Sample Results

Client: Ensolum
Project/Site: PLU 21 BD 104H, 123H, 124H

Job ID: 890-2883-1
SDG: 03E1558048

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

Lab Sample ID: LCSD 880-34272/2-A — **Client Sample ID: Lab Control Sample Dup**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 34340 — **Prep Batch: 34272**

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Toluene			0.100	0.08052		mg/Kg		81	70 - 130	0	35
Ethylbenzene			0.100	0.09275		mg/Kg		93	70 - 130	3	35
m-Xylene & p-Xylene			0.200	0.2014		mg/Kg		101	70 - 130	3	35
o-Xylene			0.100	0.1170		mg/Kg		117	70 - 130	3	35

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*67*	*S1-*	*70 - 130*
1,4-Difluorobenzene (Surr)	*99*		*70 - 130*

Lab Sample ID: MB 880-34295/5-A — **Client Sample ID: Method Blank**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 34173 — **Prep Batch: 34295**

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		09/12/22 13:31	09/12/22 21:57	1
Toluene	<0.00200	U	0.00200		mg/Kg		09/12/22 13:31	09/12/22 21:57	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		09/12/22 13:31	09/12/22 21:57	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		09/12/22 13:31	09/12/22 21:57	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		09/12/22 13:31	09/12/22 21:57	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		09/12/22 13:31	09/12/22 21:57	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*93*		*70 - 130*	*09/12/22 13:31*	*09/12/22 21:57*	*1*
1,4-Difluorobenzene (Surr)	*92*		*70 - 130*	*09/12/22 13:31*	*09/12/22 21:57*	*1*

Lab Sample ID: LCS 880-34295/1-A — **Client Sample ID: Lab Control Sample**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 34173 — **Prep Batch: 34295**

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene			0.100	0.08965		mg/Kg		90	70 - 130
Toluene			0.100	0.07941		mg/Kg		79	70 - 130
Ethylbenzene			0.100	0.08581		mg/Kg		86	70 - 130
m-Xylene & p-Xylene			0.200	0.1763		mg/Kg		88	70 - 130
o-Xylene			0.100	0.1027		mg/Kg		103	70 - 130

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*116*		*70 - 130*
1,4-Difluorobenzene (Surr)	*109*		*70 - 130*

Lab Sample ID: LCSD 880-34295/2-A — **Client Sample ID: Lab Control Sample Dup**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 34173 — **Prep Batch: 34295**

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene			0.100	0.08509		mg/Kg		85	70 - 130	5	35
Toluene			0.100	0.07692		mg/Kg		77	70 - 130	3	35
Ethylbenzene			0.100	0.07998		mg/Kg		80	70 - 130	7	35

QC Sample Results

Client: Ensolum
Project/Site: PLU 21 BD 104H, 123H, 124H

Job ID: 890-2883-1
SDG: 03E1558048

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

Lab Sample ID: LCSD 880-34295/2-A — **Client Sample ID: Lab Control Sample Dup**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 34173 — **Prep Batch: 34295**

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
m-Xylene & p-Xylene			0.200	0.1649		mg/Kg		82	70 - 130	7	35
o-Xylene			0.100	0.09309		mg/Kg		93	70 - 130	10	35

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*110*		*70 - 130*
1,4-Difluorobenzene (Surr)	*107*		*70 - 130*

Lab Sample ID: 890-2909-A-1-G MS — **Client Sample ID: Matrix Spike**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 34173 — **Prep Batch: 34295**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	<0.00200	U	0.0998	0.08265		mg/Kg		83	70 - 130
Toluene	<0.00200	U	0.0998	0.07198		mg/Kg		72	70 - 130
Ethylbenzene	<0.00200	U	0.0998	0.07267		mg/Kg		73	70 - 130
m-Xylene & p-Xylene	<0.00399	U F1	0.200	0.1366	F1	mg/Kg		68	70 - 130
o-Xylene	<0.00200	U	0.0998	0.08208		mg/Kg		82	70 - 130

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*117*		*70 - 130*
1,4-Difluorobenzene (Surr)	*108*		*70 - 130*

Lab Sample ID: 890-2909-A-1-H MSD — **Client Sample ID: Matrix Spike Duplicate**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 34173 — **Prep Batch: 34295**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	<0.00200	U	0.100	0.09325		mg/Kg		93	70 - 130	12	35
Toluene	<0.00200	U	0.100	0.07646		mg/Kg		76	70 - 130	6	35
Ethylbenzene	<0.00200	U	0.100	0.07457		mg/Kg		74	70 - 130	3	35
m-Xylene & p-Xylene	<0.00399	U F1	0.200	0.1342	F1	mg/Kg		67	70 - 130	2	35
o-Xylene	<0.00200	U	0.100	0.08506		mg/Kg		85	70 - 130	4	35

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

Lab Sample ID: MB 880-34296/5-A — **Client Sample ID: Method Blank**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 34301 — **Prep Batch: 34296**

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		09/12/22 13:37	09/12/22 19:47	1
Toluene	<0.00200	U	0.00200		mg/Kg		09/12/22 13:37	09/12/22 19:47	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		09/12/22 13:37	09/12/22 19:47	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		09/12/22 13:37	09/12/22 19:47	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		09/12/22 13:37	09/12/22 19:47	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		09/12/22 13:37	09/12/22 19:47	1

QC Sample Results

Client: Ensolum
Project/Site: PLU 21 BD 104H, 123H, 124H

Job ID: 890-2883-1
SDG: 03E1558048

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

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	106		70 - 130	09/12/22 13:37	09/12/22 19:47	1
1,4-Difluorobenzene (Surr)	112		70 - 130	09/12/22 13:37	09/12/22 19:47	1

Lab Sample ID: LCS 880-34296/1-A — **Client Sample ID: Lab Control Sample**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 34301 — **Prep Batch: 34296**

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Benzene			0.100	0.08335		mg/Kg		83	70 - 130		
Toluene			0.100	0.09156		mg/Kg		92	70 - 130		
Ethylbenzene			0.100	0.09626		mg/Kg		96	70 - 130		
m-Xylene & p-Xylene			0.200	0.2062		mg/Kg		103	70 - 130		
o-Xylene			0.100	0.1043		mg/Kg		104	70 - 130		

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene (Surr)	108		70 - 130
1,4-Difluorobenzene (Surr)	92		70 - 130

Lab Sample ID: LCSD 880-34296/2-A — **Client Sample ID: Lab Control Sample Dup**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 34301 — **Prep Batch: 34296**

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene			0.100	0.08280		mg/Kg		83	70 - 130	1	35
Toluene			0.100	0.09450		mg/Kg		94	70 - 130	3	35
Ethylbenzene			0.100	0.09622		mg/Kg		96	70 - 130	0	35
m-Xylene & p-Xylene			0.200	0.2057		mg/Kg		103	70 - 130	0	35
o-Xylene			0.100	0.1068		mg/Kg		107	70 - 130	2	35

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	118		70 - 130
1,4-Difluorobenzene (Surr)	93		70 - 130

Lab Sample ID: 880-19046-A-6-G MS — **Client Sample ID: Matrix Spike**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 34301 — **Prep Batch: 34296**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Benzene	<0.00199	U	0.0998	0.08107		mg/Kg		81	70 - 130		
Toluene	<0.00199	U	0.0998	0.07936		mg/Kg		80	70 - 130		
Ethylbenzene	<0.00199	U	0.0998	0.07798		mg/Kg		78	70 - 130		
m-Xylene & p-Xylene	<0.00398	U	0.200	0.1659		mg/Kg		83	70 - 130		
o-Xylene	<0.00199	U	0.0998	0.08435		mg/Kg		85	70 - 130		

Surrogate	MS %Recovery	MS Qualifier	Limits
4-Bromofluorobenzene (Surr)	106		70 - 130
1,4-Difluorobenzene (Surr)	102		70 - 130

QC Sample Results

Client: Ensolum
Project/Site: PLU 21 BD 104H, 123H, 124H

Job ID: 890-2883-1
SDG: 03E1558048

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

Lab Sample ID: 880-19046-A-6-H MSD — **Client Sample ID: Matrix Spike Duplicate**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 34301 — **Prep Batch: 34296**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	<0.00199	U	0.0990	0.07641		mg/Kg		77	70 - 130	6	35
Toluene	<0.00199	U	0.0990	0.07525		mg/Kg		76	70 - 130	5	35
Ethylbenzene	<0.00199	U	0.0990	0.07499		mg/Kg		76	70 - 130	4	35
m-Xylene & p-Xylene	<0.00398	U	0.198	0.1597		mg/Kg		81	70 - 130	4	35
o-Xylene	<0.00199	U	0.0990	0.08073		mg/Kg		82	70 - 130	4	35

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*110*		*70 - 130*
1,4-Difluorobenzene (Surr)	*101*		*70 - 130*

Lab Sample ID: MB 880-34351/5-A — **Client Sample ID: Method Blank**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 34340 — **Prep Batch: 34351**

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		09/13/22 09:09	09/13/22 11:13	1
Toluene	<0.00200	U	0.00200		mg/Kg		09/13/22 09:09	09/13/22 11:13	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		09/13/22 09:09	09/13/22 11:13	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		09/13/22 09:09	09/13/22 11:13	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		09/13/22 09:09	09/13/22 11:13	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		09/13/22 09:09	09/13/22 11:13	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*99*		*70 - 130*	*09/13/22 09:09*	*09/13/22 11:13*	*1*
1,4-Difluorobenzene (Surr)	*90*		*70 - 130*	*09/13/22 09:09*	*09/13/22 11:13*	*1*

Lab Sample ID: LCS 880-34351/1-A — **Client Sample ID: Lab Control Sample**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 34340 — **Prep Batch: 34351**

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Benzene			0.100	0.08589		mg/Kg		86	70 - 130		
Toluene			0.100	0.07897		mg/Kg		79	70 - 130		
Ethylbenzene			0.100	0.08358		mg/Kg		84	70 - 130		
m-Xylene & p-Xylene			0.200	0.1728		mg/Kg		86	70 - 130		
o-Xylene			0.100	0.1017		mg/Kg		102	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*113*		*70 - 130*
1,4-Difluorobenzene (Surr)	*106*		*70 - 130*

Lab Sample ID: LCSD 880-34351/2-A — **Client Sample ID: Lab Control Sample Dup**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 34340 — **Prep Batch: 34351**

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene			0.100	0.08544		mg/Kg		85	70 - 130	1	35
Toluene			0.100	0.08090		mg/Kg		81	70 - 130	2	35

QC Sample Results

Client: Ensolum
Project/Site: PLU 21 BD 104H, 123H, 124H

Job ID: 890-2883-1
SDG: 03E1558048

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

Lab Sample ID: LCSD 880-34351/2-A — **Client Sample ID: Lab Control Sample Dup**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 34340 — **Prep Batch: 34351**

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Ethylbenzene			0.100	0.08428		mg/Kg		84	70 - 130	1	35
m-Xylene & p-Xylene			0.200	0.1741		mg/Kg		87	70 - 130	1	35
o-Xylene			0.100	0.1008		mg/Kg		101	70 - 130	1	35

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*113*		*70 - 130*
1,4-Difluorobenzene (Surr)	*106*		*70 - 130*

Lab Sample ID: 890-2883-18 MS — **Client Sample ID: FS28**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 34340 — **Prep Batch: 34351**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	<0.00199	U	0.0998	0.07796		mg/Kg		78	70 - 130
Toluene	<0.00199	U	0.0998	0.07251		mg/Kg		73	70 - 130
Ethylbenzene	<0.00199	U	0.0998	0.07915		mg/Kg		79	70 - 130
m-Xylene & p-Xylene	<0.00398	U	0.200	0.1613		mg/Kg		81	70 - 130
o-Xylene	<0.00199	U	0.0998	0.09278		mg/Kg		93	70 - 130

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*113*		*70 - 130*
1,4-Difluorobenzene (Surr)	*102*		*70 - 130*

Lab Sample ID: 890-2883-18 MSD — **Client Sample ID: FS28**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 34340 — **Prep Batch: 34351**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	<0.00199	U	0.0996	0.08998		mg/Kg		90	70 - 130	14	35
Toluene	<0.00199	U	0.0996	0.08317		mg/Kg		84	70 - 130	14	35
Ethylbenzene	<0.00199	U	0.0996	0.09130		mg/Kg		92	70 - 130	14	35
m-Xylene & p-Xylene	<0.00398	U	0.199	0.1882		mg/Kg		94	70 - 130	15	35
o-Xylene	<0.00199	U	0.0996	0.1079		mg/Kg		108	70 - 130	15	35

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*119*		*70 - 130*
1,4-Difluorobenzene (Surr)	*107*		*70 - 130*

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

Lab Sample ID: MB 880-33980/1-A — **Client Sample ID: Method Blank**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 33972 — **Prep Batch: 33980**

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		09/08/22 08:49	09/08/22 09:52	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		09/08/22 08:49	09/08/22 09:52	1

QC Sample Results

Client: Ensolum
Project/Site: PLU 21 BD 104H, 123H, 124H

Job ID: 890-2883-1
SDG: 03E1558048

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

Lab Sample ID: MB 880-33980/1-A — **Client Sample ID: Method Blank**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 33972 — **Prep Batch: 33980**

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
OII Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		09/08/22 08:49	09/08/22 09:52	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*90*		*70 - 130*	*09/08/22 08:49*	*09/08/22 09:52*	*1*
o-Terphenyl	*96*		*70 - 130*	*09/08/22 08:49*	*09/08/22 09:52*	*1*

Lab Sample ID: LCS 880-33980/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 33972 — **Prep Batch: 33980**

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Gasoline Range Organics (GRO)-C6-C10			1000	890.1		mg/Kg		89	70 - 130		
Diesel Range Organics (Over C10-C28)			1000	903.3		mg/Kg		90	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1-Chlorooctane	*94*		*70 - 130*
o-Terphenyl	*103*		*70 - 130*

Lab Sample ID: LCSD 880-33980/3-A — **Client Sample ID: Lab Control Sample Dup**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 33972 — **Prep Batch: 33980**

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10			1000	873.8		mg/Kg		87	70 - 130	2	20
Diesel Range Organics (Over C10-C28)			1000	984.9		mg/Kg		98	70 - 130	9	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1-Chlorooctane	*100*		*70 - 130*
o-Terphenyl	*108*		*70 - 130*

Lab Sample ID: 890-2883-1 MS — **Client Sample ID: FS06**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 33972 — **Prep Batch: 33980**

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	1046		mg/Kg		103	70 - 130		
Diesel Range Organics (Over C10-C28)	<50.0	U F1	999	679.4	F1	mg/Kg		68	70 - 130		

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
1-Chlorooctane	*76*		*70 - 130*
o-Terphenyl	*72*		*70 - 130*

QC Sample Results

Client: Ensolum
Project/Site: PLU 21 BD 104H, 123H, 124H

Job ID: 890-2883-1
SDG: 03E1558048

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

Lab Sample ID: 890-2883-1 MSD — **Client Sample ID: FS06**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 33972 — **Prep Batch: 33980**

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	996	1089		mg/Kg		108	70 - 130	4	20
Diesel Range Organics (Over C10-C28)	<50.0	U F1	996	704.6		mg/Kg		71	70 - 130	4	20

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
1-Chlorooctane	*79*		*70 - 130*
o-Terphenyl	*73*		*70 - 130*

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-33839/1-A — **Client Sample ID: Method Blank**
Matrix: Solid — **Prep Type: Soluble**
Analysis Batch: 34019

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.00	U	5.00		mg/Kg			09/09/22 04:58	1

Lab Sample ID: LCS 880-33839/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Solid — **Prep Type: Soluble**
Analysis Batch: 34019

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride			250	241.9		mg/Kg		97	90 - 110		

Lab Sample ID: LCSD 880-33839/3-A — **Client Sample ID: Lab Control Sample Dup**
Matrix: Solid — **Prep Type: Soluble**
Analysis Batch: 34019

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride			250	242.6		mg/Kg		97	90 - 110	0	20

Lab Sample ID: 890-2883-1 MS — **Client Sample ID: FS06**
Matrix: Solid — **Prep Type: Soluble**
Analysis Batch: 34019

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride	430		250	654.0		mg/Kg		90	90 - 110		

Lab Sample ID: 890-2883-1 MSD — **Client Sample ID: FS06**
Matrix: Solid — **Prep Type: Soluble**
Analysis Batch: 34019

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	430		250	655.3		mg/Kg		90	90 - 110	0	20

QC Sample Results

Client: Ensolum
Project/Site: PLU 21 BD 104H, 123H, 124H

Job ID: 890-2883-1
SDG: 03E1558048

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: 890-2883-11 MS
Matrix: Solid
Analysis Batch: 34019

Client Sample ID: FS21
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride	178		253	410.9		mg/Kg		92	90 - 110		

Lab Sample ID: 890-2883-11 MSD
Matrix: Solid
Analysis Batch: 34019

Client Sample ID: FS21
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	178		253	411.1		mg/Kg		92	90 - 110	0	20

QC Association Summary

Client: Ensolum
Project/Site: PLU 21 BD 104H, 123H, 124H

Job ID: 890-2883-1
SDG: 03E1558048

GC VOA

Analysis Batch: 34173

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2883-3	FS13	Total/NA	Solid	8021B	34295
890-2883-4	FS14	Total/NA	Solid	8021B	34295
890-2883-5	FS15	Total/NA	Solid	8021B	34295
890-2883-6	FS16	Total/NA	Solid	8021B	34295
890-2883-7	FS17	Total/NA	Solid	8021B	34295
MB 880-34213/5-A	Method Blank	Total/NA	Solid	8021B	34213
MB 880-34295/5-A	Method Blank	Total/NA	Solid	8021B	34295
LCS 880-34295/1-A	Lab Control Sample	Total/NA	Solid	8021B	34295
LCSD 880-34295/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	34295
890-2909-A-1-G MS	Matrix Spike	Total/NA	Solid	8021B	34295
890-2909-A-1-H MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	34295

Prep Batch: 34213

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 880-34213/5-A	Method Blank	Total/NA	Solid	5035	

Prep Batch: 34272

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2883-1	FS06	Total/NA	Solid	5035	
890-2883-2	FS07	Total/NA	Solid	5035	
MB 880-34272/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-34272/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-34272/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	

Prep Batch: 34295

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2883-3	FS13	Total/NA	Solid	5035	
890-2883-4	FS14	Total/NA	Solid	5035	
890-2883-5	FS15	Total/NA	Solid	5035	
890-2883-6	FS16	Total/NA	Solid	5035	
890-2883-7	FS17	Total/NA	Solid	5035	
MB 880-34295/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-34295/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-34295/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
890-2909-A-1-G MS	Matrix Spike	Total/NA	Solid	5035	
890-2909-A-1-H MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	

Prep Batch: 34296

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2883-10	FS20	Total/NA	Solid	5035	
890-2883-11	FS21	Total/NA	Solid	5035	
890-2883-12	FS22	Total/NA	Solid	5035	
890-2883-13	FS23	Total/NA	Solid	5035	
890-2883-14	FS24	Total/NA	Solid	5035	
890-2883-15	FS25	Total/NA	Solid	5035	
890-2883-16	FS26	Total/NA	Solid	5035	
890-2883-17	FS27	Total/NA	Solid	5035	
MB 880-34296/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-34296/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-34296/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
880-19046-A-6-G MS	Matrix Spike	Total/NA	Solid	5035	

QC Association Summary

Client: Ensolum
Project/Site: PLU 21 BD 104H, 123H, 124H

Job ID: 890-2883-1
SDG: 03E1558048

GC VOA (Continued)

Prep Batch: 34296 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-19046-A-6-H MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	

Analysis Batch: 34301

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2883-10	FS20	Total/NA	Solid	8021B	34296
890-2883-11	FS21	Total/NA	Solid	8021B	34296
890-2883-12	FS22	Total/NA	Solid	8021B	34296
890-2883-13	FS23	Total/NA	Solid	8021B	34296
890-2883-14	FS24	Total/NA	Solid	8021B	34296
890-2883-15	FS25	Total/NA	Solid	8021B	34296
890-2883-16	FS26	Total/NA	Solid	8021B	34296
890-2883-17	FS27	Total/NA	Solid	8021B	34296
MB 880-34296/5-A	Method Blank	Total/NA	Solid	8021B	34296
LCS 880-34296/1-A	Lab Control Sample	Total/NA	Solid	8021B	34296
LCSD 880-34296/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	34296
880-19046-A-6-G MS	Matrix Spike	Total/NA	Solid	8021B	34296
880-19046-A-6-H MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	34296

Analysis Batch: 34340

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2883-1	FS06	Total/NA	Solid	8021B	34272
890-2883-2	FS07	Total/NA	Solid	8021B	34272
890-2883-8	FS18	Total/NA	Solid	8021B	34351
890-2883-9	FS19	Total/NA	Solid	8021B	34351
890-2883-18	FS28	Total/NA	Solid	8021B	34351
MB 880-34272/5-A	Method Blank	Total/NA	Solid	8021B	34272
MB 880-34351/5-A	Method Blank	Total/NA	Solid	8021B	34351
LCS 880-34272/1-A	Lab Control Sample	Total/NA	Solid	8021B	34272
LCS 880-34351/1-A	Lab Control Sample	Total/NA	Solid	8021B	34351
LCSD 880-34272/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	34272
LCSD 880-34351/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	34351
890-2883-18 MS	FS28	Total/NA	Solid	8021B	34351
890-2883-18 MSD	FS28	Total/NA	Solid	8021B	34351

Analysis Batch: 34347

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2883-1	FS06	Total/NA	Solid	Total BTEX	
890-2883-2	FS07	Total/NA	Solid	Total BTEX	
890-2883-3	FS13	Total/NA	Solid	Total BTEX	
890-2883-4	FS14	Total/NA	Solid	Total BTEX	
890-2883-5	FS15	Total/NA	Solid	Total BTEX	
890-2883-6	FS16	Total/NA	Solid	Total BTEX	
890-2883-7	FS17	Total/NA	Solid	Total BTEX	
890-2883-8	FS18	Total/NA	Solid	Total BTEX	
890-2883-9	FS19	Total/NA	Solid	Total BTEX	
890-2883-10	FS20	Total/NA	Solid	Total BTEX	
890-2883-11	FS21	Total/NA	Solid	Total BTEX	
890-2883-12	FS22	Total/NA	Solid	Total BTEX	
890-2883-13	FS23	Total/NA	Solid	Total BTEX	
890-2883-14	FS24	Total/NA	Solid	Total BTEX	
890-2883-15	FS25	Total/NA	Solid	Total BTEX	

QC Association Summary

Client: Ensolum
Project/Site: PLU 21 BD 104H, 123H, 124H

Job ID: 890-2883-1
SDG: 03E1558048

GC VOA (Continued)

Analysis Batch: 34347 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2883-16	FS26	Total/NA	Solid	Total BTEX	
890-2883-17	FS27	Total/NA	Solid	Total BTEX	
890-2883-18	FS28	Total/NA	Solid	Total BTEX	

Prep Batch: 34351

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2883-8	FS18	Total/NA	Solid	5035	
890-2883-9	FS19	Total/NA	Solid	5035	
890-2883-18	FS28	Total/NA	Solid	5035	
MB 880-34351/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-34351/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-34351/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
890-2883-18 MS	FS28	Total/NA	Solid	5035	
890-2883-18 MSD	FS28	Total/NA	Solid	5035	

GC Semi VOA

Analysis Batch: 33972

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2883-1	FS06	Total/NA	Solid	8015B NM	33980
890-2883-2	FS07	Total/NA	Solid	8015B NM	33980
890-2883-3	FS13	Total/NA	Solid	8015B NM	33980
890-2883-4	FS14	Total/NA	Solid	8015B NM	33980
890-2883-5	FS15	Total/NA	Solid	8015B NM	33980
890-2883-6	FS16	Total/NA	Solid	8015B NM	33980
890-2883-7	FS17	Total/NA	Solid	8015B NM	33980
890-2883-8	FS18	Total/NA	Solid	8015B NM	33980
890-2883-9	FS19	Total/NA	Solid	8015B NM	33980
890-2883-10	FS20	Total/NA	Solid	8015B NM	33980
890-2883-11	FS21	Total/NA	Solid	8015B NM	33980
890-2883-12	FS22	Total/NA	Solid	8015B NM	33980
890-2883-13	FS23	Total/NA	Solid	8015B NM	33980
890-2883-14	FS24	Total/NA	Solid	8015B NM	33980
890-2883-15	FS25	Total/NA	Solid	8015B NM	33980
890-2883-16	FS26	Total/NA	Solid	8015B NM	33980
890-2883-17	FS27	Total/NA	Solid	8015B NM	33980
890-2883-18	FS28	Total/NA	Solid	8015B NM	33980
MB 880-33980/1-A	Method Blank	Total/NA	Solid	8015B NM	33980
LCS 880-33980/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	33980
LCSD 880-33980/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	33980
890-2883-1 MS	FS06	Total/NA	Solid	8015B NM	33980
890-2883-1 MSD	FS06	Total/NA	Solid	8015B NM	33980

Prep Batch: 33980

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2883-1	FS06	Total/NA	Solid	8015NM Prep	
890-2883-2	FS07	Total/NA	Solid	8015NM Prep	
890-2883-3	FS13	Total/NA	Solid	8015NM Prep	
890-2883-4	FS14	Total/NA	Solid	8015NM Prep	
890-2883-5	FS15	Total/NA	Solid	8015NM Prep	
890-2883-6	FS16	Total/NA	Solid	8015NM Prep	

QC Association Summary

Client: Ensolum
Project/Site: PLU 21 BD 104H, 123H, 124H

Job ID: 890-2883-1
SDG: 03E1558048

GC Semi VOA (Continued)

Prep Batch: 33980 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2883-7	FS17	Total/NA	Solid	8015NM Prep	
890-2883-8	FS18	Total/NA	Solid	8015NM Prep	
890-2883-9	FS19	Total/NA	Solid	8015NM Prep	
890-2883-10	FS20	Total/NA	Solid	8015NM Prep	
890-2883-11	FS21	Total/NA	Solid	8015NM Prep	
890-2883-12	FS22	Total/NA	Solid	8015NM Prep	
890-2883-13	FS23	Total/NA	Solid	8015NM Prep	
890-2883-14	FS24	Total/NA	Solid	8015NM Prep	
890-2883-15	FS25	Total/NA	Solid	8015NM Prep	
890-2883-16	FS26	Total/NA	Solid	8015NM Prep	
890-2883-17	FS27	Total/NA	Solid	8015NM Prep	
890-2883-18	FS28	Total/NA	Solid	8015NM Prep	
MB 880-33980/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-33980/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-33980/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
890-2883-1 MS	FS06	Total/NA	Solid	8015NM Prep	
890-2883-1 MSD	FS06	Total/NA	Solid	8015NM Prep	

Analysis Batch: 34097

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2883-1	FS06	Total/NA	Solid	8015 NM	
890-2883-2	FS07	Total/NA	Solid	8015 NM	
890-2883-3	FS13	Total/NA	Solid	8015 NM	
890-2883-4	FS14	Total/NA	Solid	8015 NM	
890-2883-5	FS15	Total/NA	Solid	8015 NM	
890-2883-6	FS16	Total/NA	Solid	8015 NM	
890-2883-7	FS17	Total/NA	Solid	8015 NM	
890-2883-8	FS18	Total/NA	Solid	8015 NM	
890-2883-9	FS19	Total/NA	Solid	8015 NM	
890-2883-10	FS20	Total/NA	Solid	8015 NM	
890-2883-11	FS21	Total/NA	Solid	8015 NM	
890-2883-12	FS22	Total/NA	Solid	8015 NM	
890-2883-13	FS23	Total/NA	Solid	8015 NM	
890-2883-14	FS24	Total/NA	Solid	8015 NM	
890-2883-15	FS25	Total/NA	Solid	8015 NM	
890-2883-16	FS26	Total/NA	Solid	8015 NM	
890-2883-17	FS27	Total/NA	Solid	8015 NM	
890-2883-18	FS28	Total/NA	Solid	8015 NM	

HPLC/IC

Leach Batch: 33839

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2883-1	FS06	Soluble	Solid	DI Leach	
890-2883-2	FS07	Soluble	Solid	DI Leach	
890-2883-3	FS13	Soluble	Solid	DI Leach	
890-2883-4	FS14	Soluble	Solid	DI Leach	
890-2883-5	FS15	Soluble	Solid	DI Leach	
890-2883-6	FS16	Soluble	Solid	DI Leach	
890-2883-7	FS17	Soluble	Solid	DI Leach	
890-2883-8	FS18	Soluble	Solid	DI Leach	

QC Association Summary

Client: Ensolum
Project/Site: PLU 21 BD 104H, 123H, 124H

Job ID: 890-2883-1
SDG: 03E1558048

HPLC/IC (Continued)

Leach Batch: 33839 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2883-9	FS19	Soluble	Solid	DI Leach	
890-2883-10	FS20	Soluble	Solid	DI Leach	
890-2883-11	FS21	Soluble	Solid	DI Leach	
890-2883-12	FS22	Soluble	Solid	DI Leach	
890-2883-13	FS23	Soluble	Solid	DI Leach	
890-2883-14	FS24	Soluble	Solid	DI Leach	
890-2883-15	FS25	Soluble	Solid	DI Leach	
890-2883-16	FS26	Soluble	Solid	DI Leach	
890-2883-17	FS27	Soluble	Solid	DI Leach	
890-2883-18	FS28	Soluble	Solid	DI Leach	
MB 880-33839/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-33839/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-33839/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
890-2883-1 MS	FS06	Soluble	Solid	DI Leach	
890-2883-1 MSD	FS06	Soluble	Solid	DI Leach	
890-2883-11 MS	FS21	Soluble	Solid	DI Leach	
890-2883-11 MSD	FS21	Soluble	Solid	DI Leach	

Analysis Batch: 34019

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2883-1	FS06	Soluble	Solid	300.0	33839
890-2883-2	FS07	Soluble	Solid	300.0	33839
890-2883-3	FS13	Soluble	Solid	300.0	33839
890-2883-4	FS14	Soluble	Solid	300.0	33839
890-2883-5	FS15	Soluble	Solid	300.0	33839
890-2883-6	FS16	Soluble	Solid	300.0	33839
890-2883-7	FS17	Soluble	Solid	300.0	33839
890-2883-8	FS18	Soluble	Solid	300.0	33839
890-2883-9	FS19	Soluble	Solid	300.0	33839
890-2883-10	FS20	Soluble	Solid	300.0	33839
890-2883-11	FS21	Soluble	Solid	300.0	33839
890-2883-12	FS22	Soluble	Solid	300.0	33839
890-2883-13	FS23	Soluble	Solid	300.0	33839
890-2883-14	FS24	Soluble	Solid	300.0	33839
890-2883-15	FS25	Soluble	Solid	300.0	33839
890-2883-16	FS26	Soluble	Solid	300.0	33839
890-2883-17	FS27	Soluble	Solid	300.0	33839
890-2883-18	FS28	Soluble	Solid	300.0	33839
MB 880-33839/1-A	Method Blank	Soluble	Solid	300.0	33839
LCS 880-33839/2-A	Lab Control Sample	Soluble	Solid	300.0	33839
LCSD 880-33839/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	33839
890-2883-1 MS	FS06	Soluble	Solid	300.0	33839
890-2883-1 MSD	FS06	Soluble	Solid	300.0	33839
890-2883-11 MS	FS21	Soluble	Solid	300.0	33839
890-2883-11 MSD	FS21	Soluble	Solid	300.0	33839

Lab Chronicle

Client: Ensolum
Project/Site: PLU 21 BD 104H, 123H, 124H

Job ID: 890-2883-1
SDG: 03E1558048

Client Sample ID: FS06

Date Collected: 09/02/22 09:00
Date Received: 09/02/22 14:56

Lab Sample ID: 890-2883-1
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.97 g	5 mL	34272	09/12/22 10:28	EL	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	34340	09/14/22 05:19	AJ	EET MID
Total/NA	Analysis	Total BTEX		1			34347	09/13/22 08:36	AJ	EET MID
Total/NA	Analysis	8015 NM		1			34097	09/09/22 11:30	AJ	EET MID
Total/NA	Prep	8015NM Prep			10.00 g	10 mL	33980	09/08/22 08:49	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	33972	09/08/22 10:53	AJ	EET MID
Soluble	Leach	DI Leach			5.01 g	50 mL	33839	09/06/22 12:39	KS	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	34019	09/09/22 05:13	CH	EET MID

Client Sample ID: FS07

Date Collected: 09/02/22 09:10
Date Received: 09/02/22 14:56

Lab Sample ID: 890-2883-2
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.98 g	5 mL	34272	09/12/22 10:28	EL	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	34340	09/14/22 05:40	AJ	EET MID
Total/NA	Analysis	Total BTEX		1			34347	09/13/22 08:36	AJ	EET MID
Total/NA	Analysis	8015 NM		1			34097	09/09/22 11:30	AJ	EET MID
Total/NA	Prep	8015NM Prep			10.04 g	10 mL	33980	09/08/22 08:49	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	33972	09/08/22 11:56	AJ	EET MID
Soluble	Leach	DI Leach			4.99 g	50 mL	33839	09/06/22 12:39	KS	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	34019	09/09/22 05:27	CH	EET MID

Client Sample ID: FS13

Date Collected: 09/02/22 09:20
Date Received: 09/02/22 14:56

Lab Sample ID: 890-2883-3
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	34295	09/12/22 13:31	MR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	34173	09/13/22 00:21	MR	EET MID
Total/NA	Analysis	Total BTEX		1			34347	09/13/22 08:36	AJ	EET MID
Total/NA	Analysis	8015 NM		1			34097	09/09/22 11:30	AJ	EET MID
Total/NA	Prep	8015NM Prep			10.05 g	10 mL	33980	09/08/22 08:49	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	33972	09/08/22 12:17	AJ	EET MID
Soluble	Leach	DI Leach			5.03 g	50 mL	33839	09/06/22 12:39	KS	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	34019	09/09/22 05:32	CH	EET MID

Client Sample ID: FS14

Date Collected: 09/02/22 09:30
Date Received: 09/02/22 14:56

Lab Sample ID: 890-2883-4
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.97 g	5 mL	34295	09/12/22 13:31	MR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	34173	09/13/22 00:41	MR	EET MID
Total/NA	Analysis	Total BTEX		1			34347	09/13/22 08:36	AJ	EET MID

Lab Chronicle

Client: Ensolum
Project/Site: PLU 21 BD 104H, 123H, 124H

Job ID: 890-2883-1
SDG: 03E1558048

Client Sample ID: FS14

Lab Sample ID: 890-2883-4
Matrix: Solid
Date Collected: 09/02/22 09:30
Date Received: 09/02/22 14:56

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			34097	09/09/22 11:30	AJ	EET MID
Total/NA	Prep	8015NM Prep			10.03 g	10 mL	33980	09/08/22 08:49	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	33972	09/08/22 12:37	AJ	EET MID
Soluble	Leach	DI Leach			4.95 g	50 mL	33839	09/06/22 12:39	KS	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	34019	09/09/22 05:37	CH	EET MID

Client Sample ID: FS15

Lab Sample ID: 890-2883-5
Matrix: Solid
Date Collected: 09/02/22 09:40
Date Received: 09/02/22 14:56

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	34295	09/12/22 13:31	MR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	34173	09/13/22 02:44	MR	EET MID
Total/NA	Analysis	Total BTEX		1			34347	09/13/22 08:36	AJ	EET MID
Total/NA	Analysis	8015 NM		1			34097	09/09/22 11:30	AJ	EET MID
Total/NA	Prep	8015NM Prep			10.00 g	10 mL	33980	09/08/22 08:49	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	33972	09/08/22 12:58	AJ	EET MID
Soluble	Leach	DI Leach			4.98 g	50 mL	33839	09/06/22 12:39	KS	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	34019	09/09/22 05:42	CH	EET MID

Client Sample ID: FS16

Lab Sample ID: 890-2883-6
Matrix: Solid
Date Collected: 09/02/22 09:50
Date Received: 09/02/22 14:56

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	34295	09/12/22 13:31	MR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	34173	09/13/22 03:04	MR	EET MID
Total/NA	Analysis	Total BTEX		1			34347	09/13/22 08:36	AJ	EET MID
Total/NA	Analysis	8015 NM		1			34097	09/09/22 11:30	AJ	EET MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	33980	09/08/22 08:49	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	33972	09/08/22 13:19	AJ	EET MID
Soluble	Leach	DI Leach			5.02 g	50 mL	33839	09/06/22 12:39	KS	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	34019	09/09/22 05:57	CH	EET MID

Client Sample ID: FS17

Lab Sample ID: 890-2883-7
Matrix: Solid
Date Collected: 09/02/22 10:00
Date Received: 09/02/22 14:56

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	34295	09/12/22 13:31	MR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	34173	09/13/22 03:25	MR	EET MID
Total/NA	Analysis	Total BTEX		1			34347	09/13/22 08:36	AJ	EET MID
Total/NA	Analysis	8015 NM		1			34097	09/09/22 11:30	AJ	EET MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	33980	09/08/22 08:49	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	33972	09/08/22 13:40	AJ	EET MID

Lab Chronicle

Client: Ensolum
Project/Site: PLU 21 BD 104H, 123H, 124H

Job ID: 890-2883-1
SDG: 03E1558048

Client Sample ID: FS17
Date Collected: 09/02/22 10:00
Date Received: 09/02/22 14:56

Lab Sample ID: 890-2883-7
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			5.02 g	50 mL	33839	09/06/22 12:39	KS	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	34019	09/09/22 06:01	CH	EET MID

Client Sample ID: FS18
Date Collected: 09/02/22 10:10
Date Received: 09/02/22 14:56

Lab Sample ID: 890-2883-8
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.01 g	5 mL	34351	09/13/22 09:09	MR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	34340	09/13/22 11:55	AJ	EET MID
Total/NA	Analysis	Total BTEX		1			34347	09/13/22 08:36	AJ	EET MID
Total/NA	Analysis	8015 NM		1			34097	09/09/22 11:30	AJ	EET MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	33980	09/08/22 08:49	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	33972	09/08/22 14:00	AJ	EET MID
Soluble	Leach	DI Leach			5.05 g	50 mL	33839	09/06/22 12:39	KS	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	34019	09/09/22 06:06	CH	EET MID

Client Sample ID: FS19
Date Collected: 09/02/22 10:20
Date Received: 09/02/22 14:56

Lab Sample ID: 890-2883-9
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			5.04 g	5 mL	34351	09/13/22 09:09	MR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	34340	09/13/22 12:15	AJ	EET MID
Total/NA	Analysis	Total BTEX		1			34347	09/13/22 08:36	AJ	EET MID
Total/NA	Analysis	8015 NM		1			34097	09/09/22 11:30	AJ	EET MID
Total/NA	Prep	8015NM Prep			10.03 g	10 mL	33980	09/08/22 08:49	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	33972	09/08/22 14:22	AJ	EET MID
Soluble	Leach	DI Leach			4.99 g	50 mL	33839	09/06/22 12:39	KS	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	34019	09/09/22 06:12	CH	EET MID

Client Sample ID: FS20
Date Collected: 09/02/22 10:30
Date Received: 09/02/22 14:56

Lab Sample ID: 890-2883-10
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.02 g	5 mL	34296	09/12/22 13:37	MR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	34301	09/13/22 01:51	MR	EET MID
Total/NA	Analysis	Total BTEX		1			34347	09/13/22 08:36	AJ	EET MID
Total/NA	Analysis	8015 NM		1			34097	09/09/22 11:30	AJ	EET MID
Total/NA	Prep	8015NM Prep			10.03 g	10 mL	33980	09/08/22 08:49	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	33972	09/08/22 14:42	AJ	EET MID
Soluble	Leach	DI Leach			5.01 g	50 mL	33839	09/06/22 12:39	KS	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	34019	09/09/22 06:17	CH	EET MID

Lab Chronicle

Client: Ensolum
Project/Site: PLU 21 BD 104H, 123H, 124H

Job ID: 890-2883-1
SDG: 03E1558048

Client Sample ID: FS21

Lab Sample ID: 890-2883-11
Matrix: Solid
Date Collected: 09/02/22 10:40
Date Received: 09/02/22 14:56

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	34296	09/12/22 13:37	MR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	34301	09/13/22 02:11	MR	EET MID
Total/NA	Analysis	Total BTEX		1			34347	09/13/22 08:36	AJ	EET MID
Total/NA	Analysis	8015 NM		1			34097	09/09/22 11:30	AJ	EET MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	33980	09/08/22 08:49	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	33972	09/08/22 15:24	AJ	EET MID
Soluble	Leach	DI Leach			4.95 g	50 mL	33839	09/06/22 12:39	KS	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	34019	09/09/22 06:21	CH	EET MID

Client Sample ID: FS22

Lab Sample ID: 890-2883-12
Matrix: Solid
Date Collected: 09/02/22 10:50
Date Received: 09/02/22 14:56

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	34296	09/12/22 13:37	MR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	34301	09/13/22 02:31	MR	EET MID
Total/NA	Analysis	Total BTEX		1			34347	09/13/22 08:36	AJ	EET MID
Total/NA	Analysis	8015 NM		1			34097	09/09/22 11:30	AJ	EET MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	33980	09/08/22 08:49	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	33972	09/08/22 15:45	AJ	EET MID
Soluble	Leach	DI Leach			4.96 g	50 mL	33839	09/06/22 12:39	KS	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	34019	09/09/22 06:36	CH	EET MID

Client Sample ID: FS23

Lab Sample ID: 890-2883-13
Matrix: Solid
Date Collected: 09/02/22 11:00
Date Received: 09/02/22 14:56

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	34296	09/12/22 13:37	MR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	34301	09/13/22 02:52	MR	EET MID
Total/NA	Analysis	Total BTEX		1			34347	09/13/22 08:36	AJ	EET MID
Total/NA	Analysis	8015 NM		1			34097	09/09/22 11:30	AJ	EET MID
Total/NA	Prep	8015NM Prep			10.03 g	10 mL	33980	09/08/22 08:49	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	33972	09/08/22 16:06	AJ	EET MID
Soluble	Leach	DI Leach			4.98 g	50 mL	33839	09/06/22 12:39	KS	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	34019	09/09/22 06:41	CH	EET MID

Client Sample ID: FS24

Lab Sample ID: 890-2883-14
Matrix: Solid
Date Collected: 09/02/22 11:10
Date Received: 09/02/22 14:56

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	34296	09/12/22 13:37	MR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	34301	09/13/22 03:12	MR	EET MID
Total/NA	Analysis	Total BTEX		1			34347	09/13/22 08:36	AJ	EET MID

Eurofins Carlsbad

Lab Chronicle

Client: Ensolum
Project/Site: PLU 21 BD 104H, 123H, 124H

Job ID: 890-2883-1
SDG: 03E1558048

Client Sample ID: FS24
Date Collected: 09/02/22 11:10
Date Received: 09/02/22 14:56

Lab Sample ID: 890-2883-14
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8015 NM		1			34097	09/09/22 11:30	AJ	EET MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	33980	09/08/22 08:49	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	33972	09/08/22 16:27	AJ	EET MID
Soluble	Leach	DI Leach			5.04 g	50 mL	33839	09/06/22 12:39	KS	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	34019	09/09/22 06:55	CH	EET MID

Client Sample ID: FS25
Date Collected: 09/02/22 11:20
Date Received: 09/02/22 14:56

Lab Sample ID: 890-2883-15
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.02 g	5 mL	34296	09/12/22 13:37	MR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	34301	09/13/22 03:33	MR	EET MID
Total/NA	Analysis	Total BTEX		1			34347	09/13/22 08:36	AJ	EET MID
Total/NA	Analysis	8015 NM		1			34097	09/09/22 11:30	AJ	EET MID
Total/NA	Prep	8015NM Prep			10.03 g	10 mL	33980	09/08/22 08:49	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	33972	09/08/22 16:48	AJ	EET MID
Soluble	Leach	DI Leach			5.04 g	50 mL	33839	09/06/22 12:39	KS	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	34019	09/09/22 07:00	CH	EET MID

Client Sample ID: FS26
Date Collected: 09/02/22 11:30
Date Received: 09/02/22 14:56

Lab Sample ID: 890-2883-16
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.03 g	5 mL	34296	09/12/22 13:37	MR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	34301	09/13/22 03:53	MR	EET MID
Total/NA	Analysis	Total BTEX		1			34347	09/13/22 08:36	AJ	EET MID
Total/NA	Analysis	8015 NM		1			34097	09/09/22 11:30	AJ	EET MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	33980	09/08/22 08:49	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	33972	09/08/22 17:09	AJ	EET MID
Soluble	Leach	DI Leach			5 g	50 mL	33839	09/06/22 12:39	KS	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	34019	09/09/22 07:05	CH	EET MID

Client Sample ID: FS27
Date Collected: 09/02/22 11:40
Date Received: 09/02/22 14:56

Lab Sample ID: 890-2883-17
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.99 g	5 mL	34296	09/12/22 13:37	MR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	34301	09/13/22 04:13	MR	EET MID
Total/NA	Analysis	Total BTEX		1			34347	09/13/22 08:36	AJ	EET MID
Total/NA	Analysis	8015 NM		1			34097	09/09/22 11:30	AJ	EET MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	33980	09/08/22 08:49	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	33972	09/08/22 17:30	AJ	EET MID

Eurofins Carlsbad

Lab Chronicle

Client: Ensolum
Project/Site: PLU 21 BD 104H, 123H, 124H

Job ID: 890-2883-1
SDG: 03E1558048

Client Sample ID: FS27

Lab Sample ID: 890-2883-17

Date Collected: 09/02/22 11:40
Matrix: Solid
Date Received: 09/02/22 14:56

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			4.98 g	50 mL	33839	09/06/22 12:39	KS	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	34019	09/09/22 07:10	CH	EET MID

Client Sample ID: FS28

Lab Sample ID: 890-2883-18

Date Collected: 09/02/22 11:50
Matrix: Solid
Date Received: 09/02/22 14:56

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	34351	09/13/22 09:09	MR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	34340	09/13/22 11:34	AJ	EET MID
Total/NA	Analysis	Total BTEX		1			34347	09/13/22 08:36	AJ	EET MID
Total/NA	Analysis	8015 NM		1			34097	09/09/22 11:30	AJ	EET MID
Total/NA	Prep	8015NM Prep			10.03 g	10 mL	33980	09/08/22 08:49	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	33972	09/08/22 17:50	AJ	EET MID
Soluble	Leach	DI Leach			5.03 g	50 mL	33839	09/06/22 12:39	KS	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	34019	09/09/22 07:15	CH	EET MID

Laboratory References:

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

Accreditation/Certification Summary

Client: Ensolum
Project/Site: PLU 21 BD 104H, 123H, 124H

Job ID: 890-2883-1
SDG: 03E1558048

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: PLU 21 BD 104H, 123H, 124H

Job ID: 890-2883-1
SDG: 03E1558048

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: PLU 21 BD 104H, 123H, 124H

Job ID: 890-2883-1
SDG: 03E1558048

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-2883-1	FS06	Solid	09/02/22 09:00	09/02/22 14:56	3'
890-2883-2	FS07	Solid	09/02/22 09:10	09/02/22 14:56	3'
890-2883-3	FS13	Solid	09/02/22 09:20	09/02/22 14:56	3'
890-2883-4	FS14	Solid	09/02/22 09:30	09/02/22 14:56	3'
890-2883-5	FS15	Solid	09/02/22 09:40	09/02/22 14:56	2'
890-2883-6	FS16	Solid	09/02/22 09:50	09/02/22 14:56	2'
890-2883-7	FS17	Solid	09/02/22 10:00	09/02/22 14:56	2'
890-2883-8	FS18	Solid	09/02/22 10:10	09/02/22 14:56	2'
890-2883-9	FS19	Solid	09/02/22 10:20	09/02/22 14:56	3'
890-2883-10	FS20	Solid	09/02/22 10:30	09/02/22 14:56	2'
890-2883-11	FS21	Solid	09/02/22 10:40	09/02/22 14:56	2'
890-2883-12	FS22	Solid	09/02/22 10:50	09/02/22 14:56	2'
890-2883-13	FS23	Solid	09/02/22 11:00	09/02/22 14:56	2'
890-2883-14	FS24	Solid	09/02/22 11:10	09/02/22 14:56	2'
890-2883-15	FS25	Solid	09/02/22 11:20	09/02/22 14:56	2'
890-2883-16	FS26	Solid	09/02/22 11:30	09/02/22 14:56	2'
890-2883-17	FS27	Solid	09/02/22 11:40	09/02/22 14:56	2'
890-2883-18	FS28	Solid	09/02/22 11:50	09/02/22 14:56	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 2

Project Manager:	Ben Belill	Bill to: (if different)	Garrett Green
Company Name:	Ensolum, LLC	Company Name:	XTO Energy, Inc.
Address:	3122 National parks Hwy	Address:	3104 E. Green Street
City, State ZIP:	Carlsbad, NM 88220	City, State ZIP:	Carlsbad, NM 88220
Phone:	9898540852	Email:	bbelill@ensolum.com

Work Order Comments

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

Project Name:	PLU 21 BD 104H, 123H, 124H	**Turn Around**	
Project Number:	03E1558048	☑ Routine ☐ Rush	
Project Location:	EDDY COUNTY, NM	Due Date:	5 day TAT
Sampler's Name:	Gilbert Moreno	TAT starts the day received by the lab, if received by 4:30pm	
PO #:			

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

ANALYSIS REQUEST

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Grab/ Comp	# of Cont	Pres. Code	CHLORIDES (EPA: 300.0)	TPH (8015)	BTEX (8021)
FS06	S	9.2.22	9:00	3'	Comp	1		X	X	X
FS07	S	9.2.22	9:10	3'	Comp	1		X	X	X
FS13	S	9.2.22	9:20	3'	Comp	1		X	X	X
FS14	S	9.2.22	9:30	3'	Comp	1		X	X	X
FS15	S	9.2.22	9:40	2'	Comp	1		X	X	X
FS16	S	9.2.22	9:50	2'	Comp	1		X	X	X
FS17	S	9.2.22	10:00	2'	Comp	1		X	X	X
FS18	S	9.2.22	10:10	2'	Comp	1		X	X	X
FS19	S	9.2.22	10:20	3'	Comp	1		X	X	X
FS20	S	9.2.22	10:30	2'	Comp	1		X	X	X

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

Cost Center: 1666351001

Incident Number:
nAPP2209736479(104H),
nAPP2211651017(123H),
nAPP2211151438(124H)

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

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

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
1		9/2/22 1456	2		
3			4		
5			6		

Revised Date: 08/25/2020 Rev: 2020.2

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Chain of Custody

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

Work Order No: _____

www.xenco.com Page 2 of 2

Project Manager:	Ben Belill	Bill to: (if different)	Garrett Green
Company Name:	Ensolum, LLC	Company Name:	XTO Energy, Inc.
Address:	3122 National parks Hwy	Address:	3104 E. Green Street
City, State ZIP:	Carlsbad, NM 88220	City, State ZIP:	Carlsbad, NM 88220
Phone:	9898540852	Email:	bbelill@ensolum.com

Work Order Comments

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

Project Name:	PLU 21 BD 104H, 123H, 124H	**Turn Around**	
Project Number:	03E1558048	☑ Routine ☐ Rush	
Project Location:	EDDY COUNTY, NM	Due Date:	5 day TAT
Sampler's Name:	Gilbert Moreno	TAT starts the day received by the lab, if received by 4:30pm	
PO #:			

SAMPLE RECEIPT			
Temp Blank:	(Yes) No	Wet Ice:	(Yes) No
Samples Received Intact:	(Yes) No	Thermometer ID:	TAM-007
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:	5.2

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Grab/ Comp	# of Cont	Pres. Code	CHLORIDES (EPA: 300.0)	TPH (8015)	BTEX (8021	Parameters
FS21	S	9.2.22	10:40	2'	Comp	1		X	X	X	
FS22	S	9.2.22	10:50	2'	Comp	1		X	X	X	
FS23	S	9.2.22	11:00	2'	Comp	1		X	X	X	
FS24	S	9.2.22	11:10	2'	Comp	1		X	X	X	
FS25	S	9.2.22	11:20	2'	Comp	1		X	X	X	
FS26	S	9.2.22	11:30	2'	Comp	1		X	X	X	
FS27	S	9.2.22	11:40	2'	Comp	1		X	X	X	
~~FS28~~	S	9.2.22	11:50	2'	Comp	1		X	X	X	

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

Cost Center: 1666351001

Incident Number: nAPP2209736479(104H), nAPP2211651017(123H), nAPP2211151438(124H)

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		9/2/22 1450	3		
3			4		
5			6		

Revised Date: 08/25/2020 Rev. 2020.2

Login Sample Receipt Checklist

Client: Ensolum

Job Number: 890-2883-1
SDG Number: 03E1558048

Login Number: 2883
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.	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: Ensolum

Job Number: 890-2883-1
SDG Number: 03E1558048

Login Number: 2883
List Number: 2
Creator: Rodriguez, Leticia

List Source: Eurofins Midland
List Creation: 09/07/22 11:42 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

Eurofins Carlsbad
1089 N Canal St.
Carlsbad, NM 88220
Tel: (575)988-3199

Laboratory Job ID: 890-2984-1
Laboratory Sample Delivery Group: 03E1558048
Client Project/Site: PLU 21 BD 104H, 123H, 124H

For:
Ensolum
705 W. Wadley
Suite 210
Midland, Texas 79701

Attn: Ben Belill

JKramer

Authorized for release by:
9/20/2022 11:34:05 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.

Client: Ensolum
Project/Site: PLU 21 BD 104H, 123H, 124H

Laboratory Job ID: 890-2984-1
SDG: 03E1558048

Table of Contents

Definitions/Glossary

Client: Ensolum Job ID: 890-2984-1
Project/Site: PLU 21 BD 104H, 123H, 124H SDG: 03E1558048

Qualifiers

GC VOA

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

GC Semi VOA

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

HPLC/IC

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

Glossary

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

Case Narrative

Client: Ensolum
Project/Site: PLU 21 BD 104H, 123H, 124H

Job ID: 890-2984-1
SDG: 03E1558048

Job ID: 890-2984-1

Laboratory: Eurofins Carlsbad

Narrative

Job Narrative
890-2984-1

Receipt
The sample was received on 9/15/2022 3:27 PM. 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 15.8°C

GC VOA
Method 8021B: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 880-34689 and analytical batch 880-34832 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: Surrogate recovery for the following samples were outside control limits: (LCS 880-34747/2-A) and (LCSD 880-34747/3-A). Evidence of matrix interferences is not obvious.

Method 8015MOD_NM: The method blank for preparation batch 880-34747 and analytical batch 880-34755 contained Gasoline Range Organics (GRO)-C6-C10 and OII Range Organics (Over C28-C36) 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.

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

Client Sample Results

Client: Ensolum
Project/Site: PLU 21 BD 104H, 123H, 124H

Job ID: 890-2984-1
SDG: 03E1558048

Client Sample ID: FS18
Date Collected: 09/15/22 13:35
Date Received: 09/15/22 15:27
Sample Depth: 2'

Lab Sample ID: 890-2984-1
Matrix: Solid

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U F1	0.00200		mg/Kg		09/19/22 12:00	09/19/22 17:53	1
Toluene	<0.00200	U F2 F1	0.00200		mg/Kg		09/19/22 12:00	09/19/22 17:53	1
Ethylbenzene	<0.00200	U F2 F1	0.00200		mg/Kg		09/19/22 12:00	09/19/22 17:53	1
m-Xylene & p-Xylene	<0.00399	U F2 F1	0.00399		mg/Kg		09/19/22 12:00	09/19/22 17:53	1
o-Xylene	<0.00200	U F2 F1	0.00200		mg/Kg		09/19/22 12:00	09/19/22 17:53	1
Xylenes, Total	<0.00399	U F2 F1	0.00399		mg/Kg		09/19/22 12:00	09/19/22 17:53	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*103*		*70 - 130*	*09/19/22 12:00*	*09/19/22 17:53*	*1*
1,4-Difluorobenzene (Surr)	*108*		*70 - 130*	*09/19/22 12:00*	*09/19/22 17:53*	*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			09/20/22 09:48	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			09/20/22 09:06	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		09/19/22 08:27	09/19/22 13:08	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		09/19/22 08:27	09/19/22 13:08	1
OII Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		09/19/22 08:27	09/19/22 13:08	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*88*		*70 - 130*	*09/19/22 08:27*	*09/19/22 13:08*	*1*
o-Terphenyl	*93*		*70 - 130*	*09/19/22 08:27*	*09/19/22 13:08*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**237**		4.97		mg/Kg			09/19/22 17:29	1

Surrogate Summary

Client: Ensolum
Project/Site: PLU 21 BD 104H, 123H, 124H

Job ID: 890-2984-1
SDG: 03E1558048

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)
890-2984-1	FS18	103	108
890-2984-1 MS	FS18	112	103
890-2984-1 MSD	FS18	66 S1-	112
LCS 880-34689/1-A	Lab Control Sample	105	100
LCSD 880-34689/2-A	Lab Control Sample Dup	102	103
MB 880-34689/5-B	Method Blank	101	117

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)
890-2984-1	FS18	88	93
890-2984-1 MS	FS18	84	78
890-2984-1 MSD	FS18	84	78
LCS 880-34747/2-A	Lab Control Sample	166 S1+	176 S1+
LCSD 880-34747/3-A	Lab Control Sample Dup	186 S1+	200 S1+
MB 880-34747/1-A	Method Blank	91	98

Surrogate Legend

1CO = 1-Chlorooctane
OTPH = o-Terphenyl

QC Sample Results

Client: Ensolum
Project/Site: PLU 21 BD 104H, 123H, 124H

Job ID: 890-2984-1
SDG: 03E1558048

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-34689/5-B
Matrix: Solid
Analysis Batch: 34832

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 34689

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		09/16/22 15:45	09/19/22 17:24	1
Toluene	<0.00200	U	0.00200		mg/Kg		09/16/22 15:45	09/19/22 17:24	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		09/16/22 15:45	09/19/22 17:24	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		09/16/22 15:45	09/19/22 17:24	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		09/16/22 15:45	09/19/22 17:24	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		09/16/22 15:45	09/19/22 17:24	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*101*		*70 - 130*	*09/16/22 15:45*	*09/19/22 17:24*	*1*
1,4-Difluorobenzene (Surr)	*117*		*70 - 130*	*09/16/22 15:45*	*09/19/22 17:24*	*1*

Lab Sample ID: LCS 880-34689/1-A
Matrix: Solid
Analysis Batch: 34832

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 34689

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Benzene			0.100	0.09148		mg/Kg		91	70 - 130		
Toluene			0.100	0.09608		mg/Kg		96	70 - 130		
Ethylbenzene			0.100	0.09681		mg/Kg		97	70 - 130		
m-Xylene & p-Xylene			0.200	0.2046		mg/Kg		102	70 - 130		
o-Xylene			0.100	0.1027		mg/Kg		103	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*105*		*70 - 130*
1,4-Difluorobenzene (Surr)	*100*		*70 - 130*

Lab Sample ID: LCSD 880-34689/2-A
Matrix: Solid
Analysis Batch: 34832

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 34689

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene			0.100	0.09765		mg/Kg		98	70 - 130	7	35
Toluene			0.100	0.09126		mg/Kg		91	70 - 130	5	35
Ethylbenzene			0.100	0.08993		mg/Kg		90	70 - 130	7	35
m-Xylene & p-Xylene			0.200	0.1909		mg/Kg		95	70 - 130	7	35
o-Xylene			0.100	0.09752		mg/Kg		98	70 - 130	5	35

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*102*		*70 - 130*
1,4-Difluorobenzene (Surr)	*103*		*70 - 130*

Lab Sample ID: 890-2984-1 MS
Matrix: Solid
Analysis Batch: 34832

Client Sample ID: FS18
Prep Type: Total/NA
Prep Batch: 34689

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Benzene	<0.00200	U F1	0.0998	0.08170		mg/Kg		82	70 - 130		
Toluene	<0.00200	U F2 F1	0.0998	0.07915		mg/Kg		79	70 - 130		

QC Sample Results

Client: Ensolum
Project/Site: PLU 21 BD 104H, 123H, 124H

Job ID: 890-2984-1
SDG: 03E1558048

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

Lab Sample ID: 890-2984-1 MS — **Client Sample ID: FS18**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 34832 — **Prep Batch: 34689**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Ethylbenzene	<0.00200	U F2 F1	0.0998	0.07827		mg/Kg		78	70 - 130
m-Xylene & p-Xylene	<0.00399	U F2 F1	0.200	0.1597		mg/Kg		80	70 - 130
o-Xylene	<0.00200	U F2 F1	0.0998	0.08156		mg/Kg		82	70 - 130

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*112*		*70 - 130*
1,4-Difluorobenzene (Surr)	*103*		*70 - 130*

Lab Sample ID: 890-2984-1 MSD — **Client Sample ID: FS18**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 34832 — **Prep Batch: 34689**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	<0.00200	U F1	0.100	0.06928	F1	mg/Kg		69	70 - 130	16	35
Toluene	<0.00200	U F2 F1	0.100	0.05454	F2 F1	mg/Kg		54	70 - 130	37	35
Ethylbenzene	<0.00200	U F2 F1	0.100	0.05045	F2 F1	mg/Kg		50	70 - 130	43	35
m-Xylene & p-Xylene	<0.00399	U F2 F1	0.201	0.1004	F2 F1	mg/Kg		50	70 - 130	46	35
o-Xylene	<0.00200	U F2 F1	0.100	0.05598	F2 F1	mg/Kg		56	70 - 130	37	35

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*66*	*S1-*	*70 - 130*
1,4-Difluorobenzene (Surr)	*112*		*70 - 130*

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

Lab Sample ID: MB 880-34747/1-A — **Client Sample ID: Method Blank**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 34755 — **Prep Batch: 34747**

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		09/19/22 08:27	09/19/22 12:04	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		09/19/22 08:27	09/19/22 12:04	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		09/19/22 08:27	09/19/22 12:04	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*91*		*70 - 130*	*09/19/22 08:27*	*09/19/22 12:04*	*1*
o-Terphenyl	*98*		*70 - 130*	*09/19/22 08:27*	*09/19/22 12:04*	*1*

Lab Sample ID: LCS 880-34747/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 34755 — **Prep Batch: 34747**

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Gasoline Range Organics (GRO)-C6-C10			1000	868.7		mg/Kg		87	70 - 130
Diesel Range Organics (Over C10-C28)			1000	774.2		mg/Kg		77	70 - 130

Eurofins Carlsbad

QC Sample Results

Client: Ensolum
Project/Site: PLU 21 BD 104H, 123H, 124H

Job ID: 890-2984-1
SDG: 03E1558048

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

Lab Sample ID: LCS 880-34747/2-A
Matrix: Solid
Analysis Batch: 34755

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 34747

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1-Chlorooctane	166	S1+	70 - 130
o-Terphenyl	176	S1+	70 - 130

Lab Sample ID: LCSD 880-34747/3-A
Matrix: Solid
Analysis Batch: 34755

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 34747

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10			1000	920.7		mg/Kg		92	70 - 130	6	20
Diesel Range Organics (Over C10-C28)			1000	834.1		mg/Kg		83	70 - 130	7	20

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
1-Chlorooctane	186	S1+	70 - 130
o-Terphenyl	200	S1+	70 - 130

Lab Sample ID: 890-2984-1 MS
Matrix: Solid
Analysis Batch: 34755

Client Sample ID: FS18
Prep Type: Total/NA
Prep Batch: 34747

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	996	886.6		mg/Kg		87	70 - 130
Diesel Range Organics (Over C10-C28)	<49.9	U	996	711.5		mg/Kg		71	70 - 130

Surrogate	MS %Recovery	MS Qualifier	Limits
1-Chlorooctane	84		70 - 130
o-Terphenyl	78		70 - 130

Lab Sample ID: 890-2984-1 MSD
Matrix: Solid
Analysis Batch: 34755

Client Sample ID: FS18
Prep Type: Total/NA
Prep Batch: 34747

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	887.2		mg/Kg		87	70 - 130	0	20
Diesel Range Organics (Over C10-C28)	<49.9	U	999	717.5		mg/Kg		72	70 - 130	1	20

Surrogate	MSD %Recovery	MSD Qualifier	Limits
1-Chlorooctane	84		70 - 130
o-Terphenyl	78		70 - 130

QC Sample Results

Client: Ensolum
Project/Site: PLU 21 BD 104H, 123H, 124H

Job ID: 890-2984-1
SDG: 03E1558048

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-34799/1-A
Matrix: Solid
Analysis Batch: 34853

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			09/19/22 15:32	1

Lab Sample ID: LCS 880-34799/2-A
Matrix: Solid
Analysis Batch: 34853

Client Sample ID: Lab Control Sample
Prep Type: Soluble

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride			250	246.7		mg/Kg		99	90 - 110		

Lab Sample ID: LCSD 880-34799/3-A
Matrix: Solid
Analysis Batch: 34853

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	247.0		mg/Kg		99	90 - 110	0	20

Lab Sample ID: 880-19354-A-11-C MS
Matrix: Solid
Analysis Batch: 34853

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	481		248	714.2		mg/Kg		94	90 - 110		

Lab Sample ID: 880-19354-A-11-D MSD
Matrix: Solid
Analysis Batch: 34853

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	481		248	713.3		mg/Kg		94	90 - 110	0	20

QC Association Summary

Client: Ensolum
Project/Site: PLU 21 BD 104H, 123H, 124H

Job ID: 890-2984-1
SDG: 03E1558048

GC VOA

Prep Batch: 34689

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2984-1	FS18	Total/NA	Solid	5035	
MB 880-34689/5-B	Method Blank	Total/NA	Solid	5035	
LCS 880-34689/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-34689/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
890-2984-1 MS	FS18	Total/NA	Solid	5035	
890-2984-1 MSD	FS18	Total/NA	Solid	5035	

Analysis Batch: 34832

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2984-1	FS18	Total/NA	Solid	8021B	34689
MB 880-34689/5-B	Method Blank	Total/NA	Solid	8021B	34689
LCS 880-34689/1-A	Lab Control Sample	Total/NA	Solid	8021B	34689
LCSD 880-34689/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	34689
890-2984-1 MS	FS18	Total/NA	Solid	8021B	34689
890-2984-1 MSD	FS18	Total/NA	Solid	8021B	34689

Analysis Batch: 34910

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2984-1	FS18	Total/NA	Solid	Total BTEX	

GC Semi VOA

Prep Batch: 34747

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2984-1	FS18	Total/NA	Solid	8015NM Prep	
MB 880-34747/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-34747/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-34747/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
890-2984-1 MS	FS18	Total/NA	Solid	8015NM Prep	
890-2984-1 MSD	FS18	Total/NA	Solid	8015NM Prep	

Analysis Batch: 34755

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2984-1	FS18	Total/NA	Solid	8015B NM	34747
MB 880-34747/1-A	Method Blank	Total/NA	Solid	8015B NM	34747
LCS 880-34747/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	34747
LCSD 880-34747/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	34747
890-2984-1 MS	FS18	Total/NA	Solid	8015B NM	34747
890-2984-1 MSD	FS18	Total/NA	Solid	8015B NM	34747

Analysis Batch: 34896

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2984-1	FS18	Total/NA	Solid	8015 NM	

HPLC/IC

Leach Batch: 34799

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2984-1	FS18	Soluble	Solid	DI Leach	
MB 880-34799/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-34799/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-34799/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	

QC Association Summary

Client: Ensolum
Project/Site: PLU 21 BD 104H, 123H, 124H

Job ID: 890-2984-1
SDG: 03E1558048

HPLC/IC (Continued)

Leach Batch: 34799 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-19354-A-11-C MS	Matrix Spike	Soluble	Solid	DI Leach	
880-19354-A-11-D MSD	Matrix Spike Duplicate	Soluble	Solid	DI Leach	

Analysis Batch: 34853

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2984-1	FS18	Soluble	Solid	300.0	34799
MB 880-34799/1-A	Method Blank	Soluble	Solid	300.0	34799
LCS 880-34799/2-A	Lab Control Sample	Soluble	Solid	300.0	34799
LCSD 880-34799/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	34799
880-19354-A-11-C MS	Matrix Spike	Soluble	Solid	300.0	34799
880-19354-A-11-D MSD	Matrix Spike Duplicate	Soluble	Solid	300.0	34799

Lab Chronicle

Client: Ensolum
Project/Site: PLU 21 BD 104H, 123H, 124H

Job ID: 890-2984-1
SDG: 03E1558048

Client Sample ID: FS18
Date Collected: 09/15/22 13:35
Date Received: 09/15/22 15:27

Lab Sample ID: 890-2984-1
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	34689	09/19/22 12:00	MR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	34832	09/19/22 17:53	MR	EET MID
Total/NA	Analysis	Total BTEX		1			34910	09/20/22 09:48	AJ	EET MID
Total/NA	Analysis	8015 NM		1			34896	09/20/22 09:06	SM	EET MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	34747	09/19/22 08:27	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	34755	09/19/22 13:08	SM	EET MID
Soluble	Leach	DI Leach			5.03 g	50 mL	34799	09/19/22 09:49	KS	EET MID
Soluble	Analysis	300.0		1			34853	09/19/22 17:29	CH	EET MID

Laboratory References:

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

Accreditation/Certification Summary

Client: Ensolum
Project/Site: PLU 21 BD 104H, 123H, 124H

Job ID: 890-2984-1
SDG: 03E1558048

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: PLU 21 BD 104H, 123H, 124H

Job ID: 890-2984-1
SDG: 03E1558048

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: PLU 21 BD 104H, 123H, 124H

Job ID: 890-2984-1
SDG: 03E1558048

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-2984-1	FS18	Solid	09/15/22 13:35	09/15/22 15:27	2'

eurofins Environment Testing Xenco

Chain of Custody

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

Work Order No: ______

www.xenco.com Page 1 of 1

Project Manager:	Ben Belill	Bill to: (if different)	Garrett Green
Company Name:	Ensolum, LLC	Company Name:	XTO Energy, Inc.
Address:	3122 National parks Hwy	Address:	3104 E. Green Street
City, State ZIP:	Carlsbad, NM 88220	City, State ZIP:	Carlsbad, NM 88220
Phone:	9898540852	Email:	bbelill@ensolum.com

Work Order Comments

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

Project Name:	PLU 21 BD 104H, 123H, 124H	Turn Around	
Project Number:	03E1558048	☐ Routine	☑ Rush
Project Location:	EDDY COUNTY, NM	Due Date:	24HR
Sampler's Name:	CONNER WHITMAN	TAT starts the day received by the lab, if received by 4:30pm	
PO #:			

SAMPLE RECEIPT			
Temp Blank:	(Yes) No	Wet Ice:	(Yes) No
Samples Received Intact:	(Yes) No	Thermometer ID:	TM-007
Cooler Custody Seals:	Yes No (N/A)	Correction Factor:	-0.2
Sample Custody Seals:	Yes No (N/A)	Temperature Reading:	16.0
Total Containers:		Corrected Temperature:	15.8

ANALYSIS REQUEST

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Grab/ Comp	# of Cont	Pres. Code	CHLORIDES (EPA: 300.0)	TPH (8015)	BTEX (8021	Sample Comments
FS18	S	9/15/2022	1:35 pm	2'	Comp	1		X	X	X	Cost Center: 1666401001, 1666411001
											Incident Number: nAPP2209736479, nAPP2211651017, nAPP2211151438

890-2984 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

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 [signature]	[signature]	9/15/22 1527	2		
3			4		
5			6		

Revised Date: 08/25/2020 Rev. 2020.2

Eurofins Carlsbad
1089 N Canal St
Carlsbad NM 88220
Phone: 575-988-3199 Fax: 575-988-3199

Chain of Custody Record

eurofins | Environment Testing America

Client Information (Sub Contract Lab)	Sampler	Lab PM: Kramer Jessica	Carrier Tracking No(s)	COC No: 890-926 1
Client Contact: Shipping/Receiving	Phone	E-Mail: Jessica Kramer@et.eurofinsus.com	State of Origin: New Mexico	Page: Page 1 of 1
Company: Eurofins Environment Testing South Centr		Accreditations Required (See note): NELAP - Texas		Job #: 890-2984-1
Address: 1211 W Florida Ave ,	Due Date Requested: 9/16/2022			
City: Midland	TAT Requested (days):			
State Zip: TX 79701				
Phone: 432-704-5440(Tel)	PO #:			
Email	WO #:			
Project Name: PLU 21 BD 104H 123H 124H	Project #: 89000093			
Site:	SSOW#:			

Analysis Requested

Preservation Codes

A HCL, B NaOH, C Zn Acetate, D Nitric Acid, E NaHSO4, F MeOH, G Amchlor, H Ascorbic Acid, I Ice, J DI Water, K EDTA, L EDA, M - Hexane, N None, O - AsNaO2, P Na2O4S, Q - Na2SO3, R Na2S2O3, S - H2SO4, T TSP Dodecahydrate, U - Acetone, V MCAA, W pH 4-5, Y Trizma, Z - other (specify)

Other:

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water S=solid O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	8015MOD_NM/8015NM_S_Prep (MOD) Full TPH	8015MOD_Calc	300_ORGFM_28D/DI_LEACH Chloride	8021B/5035FP_Calc (MOD) BTEX	Total_BTEX_GCV	Total Number of containers	Special Instructions/Note:
			Preservation Code:										
FS18 (890-2984-1)	9/15/22	13 35 Mountain		Solid			X	X	X	X	X	1	

Note: Since laboratory accreditations are subject to change, Eurofins Environment Testing South Central, LLC places the ownership of method analyte & accreditation compliance upon out subcontract laboratories This sample shipment is forwarded under chain-of-custody If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed the samples must be shipped back to the Eurofins Environment Testing South Central LLC laboratory or other instructions will be provided Any changes to accreditation status should be brought to Eurofins Environment Testing South Central LLC attention immediately If all requested accreditations are current to date, return the signed Chain of Custody attesting to said complicance to Eurofins Environment Testing South Central LLC.

Possible Hazard Identification: Unconfirmed	Sample Disposal (A fee may be assessed if samples are retained longer than 1 month): ☐ Return To Client ☐ Disposal By Lab ☐ Archive For ____ Months
Deliverable Requested I II III IV Other (specify) Primary Deliverable Rank. 2	Special Instructions/QC Requirements

Empty Kit Relinquished by	Date	Time	Method of Shipment:

Relinquished by	Date/Time	Company	Received by	Date/Time	Company
Relinquished by	Date/Time	Company	Received by	Date/Time:	Company
Relinquished by	Date/Time:	Company	Received by	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No	Cooler Temperature(s) °C and Other Remarks.

Ver: 06/08/2021

Login Sample Receipt Checklist

Client: Ensolum

Job Number: 890-2984-1
SDG Number: 03E1558048

Login Number: 2984
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.	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: Ensolum

Job Number: 890-2984-1
SDG Number: 03E1558048

Login Number: 2984
List Number: 2
Creator: Teel, Brianna

List Source: Eurofins Midland
List Creation: 09/19/22 08:28 AM

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 E

NMOCD Notifications

From: Green, Garrett J
To: ocd.enviro@state.nm.us; mike.bratcher@state.nm.us; Hamlet, Robert, EMNRD
Cc: Tacoma Morrissey
Subject: XTO - Sampling Notification (Week of 8/29/22 - 9/2/22)
Date: Friday, August 26, 2022 3:15:37 PM

[**EXTERNAL EMAIL**]

All,

XTO plans to complete final sampling activities at the following sites the week of August 29, 2022.

Monday
- Brushy Draw West 25 / nAPP2216138431
- Big Sinks 2-24-30 / nAPP2219644709 & nAPP2220224382

Tuesday
- Brushy Draw West 25 / nAPP2216138431
- PLU 21 BD 123-124 & 104 / nAPP2211651017, nAPP2211151438, nAPP2210942764, & nAPP2209736479
- ADU 816/ NAB1435334641

Wednesday
- Brushy Draw West 25 / nAPP2216138431
- PLU 21 BD 123-124 & 104 / nAPP2211651017, nAPP2211151438, nAPP2210942764, & nAPP2209736479
- ADU 816/ NAB1435334641
- PLU Pierce Canyon 12 / nAPP2222044186

Thursday
- PLU 21 BD 123-124 & 104 / nAPP2211651017, nAPP2211151438, nAPP2210942764, & nAPP2209736479
- JRU DI2/ nAPP2211654411 & nAPP2208349430

Friday
- PLU 21 BD 123-124 & 104 / nAPP2211651017, nAPP2211151438, nAPP2210942764, & nAPP2209736479
- PLU S Frac Pond / nAPP2211150068

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

From:	Collins, Melanie
To:	DelawareSpills /SM
Cc:	Aimee Cole; Ben Belill
Subject:	FW: (Extension Approval) - PLU 21 BD 104H(2), 123H and 124H / nAPP22097363379, nAPP2210942764, nAPP221651017, nAPP2211151438
Date:	Thursday, June 23, 2022 4:38:46 PM
Attachments:	image002.png

[**EXTERNAL EMAIL**]

From: Hamlet, Robert, EMNRD [mailto:Robert.Hamlet@state.nm.us]
Sent: Thursday, June 23, 2022 3:27 PM
To: Collins, Melanie <melanie.collins@exxonmobil.com>
Subject: (Extension Approval) - PLU 21 BD 104H(2), 123H and 124H / nAPP22097363379, nAPP2210942764, nAPP221651017, nAPP2211151438

External Email – Think Before You Click

RE: Incident **#NAPP2209736479, NAPP2210942764, NAPP221651017, NAPP2211151438**

Melanie,

Your request for an extension to **September 21st, 2022** is approved. Please include this e-mail correspondence in the remediation and/or closure report.

Robert Hamlet ● Environmental Specialist - Advanced
Environmental Bureau
EMNRD - Oil Conservation Division
811 S. First Street | Artesia, NM 88210
575.909.0302 | robert.hamlet@state.nm.us
http://www.emnrd.state.nm.us/OCD/

From: Collins, Melanie <melanie.collins@exxonmobil.com>
Sent: Thursday, June 23, 2022 2:15 PM
To: Hamlet, Robert, EMNRD <Robert.Hamlet@state.nm.us>
Subject: RE: [EXTERNAL] XTO - Extension Request - PLU 21 BD 104H(2), 123H and 124H / nAPP22097363379, nAPP2210942764, nAPP221651017, nAPP2211151438

My apologies for that. The correct incident number for the 3/25/2022 spill should be nAPP2209736479.

Thank you,
Melanie Collins

From: Hamlet, Robert, EMNRD [mailto:Robert.Hamlet@state.nm.us]
Sent: Thursday, June 23, 2022 3:11 PM
To: Collins, Melanie <melanie.collins@exxonmobil.com>
Subject: RE: [EXTERNAL] XTO - Extension Request - PLU 21 BD 104H(2), 123H and 124H / nAPP22097363379, nAPP2210942764, nAPP221651017, nAPP2211151438

External Email – Think Before You Click

Melanie,

The incident nAPP22097363379 has one too many numbers. What's the correct incident number?
Thanks

Robert Hamlet ● Environmental Specialist - Advanced
Environmental Bureau
EMNRD - Oil Conservation Division
811 S. First Street | Artesia, NM 88210
575.909.0302 | robert.hamlet@state.nm.us
http://www.emnrd.state.nm.us/OCD/

From: Collins, Melanie <melanie.collins@exxonmobil.com>
Sent: Thursday, June 23, 2022 7:46 AM
To: Enviro, OCD, EMNRD <OCD.Enviro@state.nm.us>; Bratcher, Mike, EMNRD <mike.bratcher@state.nm.us>; Hamlet, Robert, EMNRD <Robert.Hamlet@state.nm.us>
Cc: Pennington, Shelby G <shelby.g.pennington@exxonmobil.com>; DelawareSpills /SM <DelawareSpills@exxonmobil.com>; acole@ensolum.com; bbelill@ensolum.com
Subject: [EXTERNAL] XTO - Extension Request - PLU 21 BD 104H(2), 123H and 124H / nAPP22097363379, nAPP2210942764, nAPP221651017, nAPP2211151438

CAUTION: This email originated outside of our organization. Exercise caution prior to clicking on links or opening attachments.

All,

XTO - Extension Request - PLU 21 BD 104H(2), 123H and 124H / nAPP22097363379, nAPP2210942764, nAPP221651017, nAPP2211151438

XTO is requesting an extension of the current deadlines of June 23, 2022, July 4, 2022, July 7, 2022, and July 14, 2022, for submitting a remediation work plan or closure report required in 19.15.29.12.B.(1) NMAC for the Poker Lake Unit 21 BD 104H(2), 124H, and 123H (Incident Numbers nAPP22097363379, nAPP2210942764, nAPP2211151438 and nAPP221651017). The four releases are located on the same well pad and occurred during frac operations on March 25, 2022, April 5, 2022, April 8, 2022, and April 15, 2022, respectively. Initial assessment of the release areas has been completed, however; remediation work could not begin until frac operations were complete. XTO operations provided notification that the pad was clear, and additional site assessment was completed on June 17, 2022. Based on the most recent analytical results, additional remediation activities are required. In order to complete the remediation activities and submit a remediation work plan or closure request, XTO is requesting a 90-day extension until September 21, 2022.

Thank you,

Melanie Collins

XTO ENERGY

Environmental Technician

melanie.collins@exxonmobil.com

432-556-3756

ENSOLUM

APPENDIX F

Friction Reducer Safety Data Sheet

PFP INDUSTRIES

SAFETY DATA SHEET

Issuing Date 01-Aug-2019 **Revision Date** 01-Aug-2019 **Revision Number** 1

1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING

Product identifier

Product Name POLYglide Xcel-200

Other means of identification

Product Code(s) 10497

Synonyms None

Recommended use of the chemical and restrictions on use

Recommended Use No information available

Uses advised against No information available

Details of the supplier of the safety data sheet

Supplier Address
PfP Industries
29738 Goynes Rd.
Katy, TX 77493

Manufacturer Address
PfP Industries
29738 Goynes Rd.
Katy, TX 77493

Emergency telephone number

Company Phone Number 281-371-2000

Emergency Telephone Chemtrec 1-800-424-9300

2. HAZARDS IDENTIFICATION

Classification

This chemical is considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)

Flammable liquids	Category 4

Hazards not otherwise classified (HNOC)
Not applicable

Label elements

Warning

Combustible liquid

Appearance Opaque **Physical state** Liquid **Odor** Mineral Oil

Precautionary Statements - Prevention
Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking
Wear protective gloves/protective clothing/eye protection/face protection

Precautionary Statements - Response

In case of fire: Use CO2, dry chemical, or foam for extinction

Precautionary Statements - Storage
Store in a well-ventilated place. Keep cool

Precautionary Statements - Disposal
Dispose of contents/container to an approved waste disposal plant

Other Information
May be harmful in contact with skin
Harmful to aquatic life

3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance

Chemical name	CAS No	Weight-%	Trade secret
Petroleum distillates, hydrotreated light	64742-47-8	40 - 70	

*The exact percentage (concentration) of composition has been withheld as a trade secret.

4. FIRST AID MEASURES

Description of first aid measures

Inhalation Remove to fresh air.

Eye contact Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Keep eye wide open while rinsing. Do not rub affected area. Remove contact lenses, if present and easy to do. Continue rinsing.

Skin contact Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes.

Ingestion Clean mouth with water and drink afterwards plenty of water.

Self-protection of the first aider Remove all sources of ignition. Ensure that medical personnel are aware of the material(s) involved, take precautions to protect themselves and prevent spread of contamination. Wear personal protective clothing (see section 8).

Most important symptoms and effects, both acute and delayed

Symptoms No information available.

Indication of any immediate medical attention and special treatment needed

Note to physicians Treat symptomatically.

5. FIRE-FIGHTING MEASURES

Suitable Extinguishing Media Dry chemical. Carbon dioxide (CO2). Water spray. Alcohol resistant foam.

Unsuitable extinguishing media CAUTION: Use of water spray when fighting fire may be inefficient.

Specific hazards arising from the chemical Keep product and empty container away from heat and sources of ignition. In the event of fire, cool tanks with water spray.

Explosion data
Sensitivity to Mechanical Impact None.
Sensitivity to Static Discharge None.

Special protective equipment for fire-fighters Firefighters should wear self-contained breathing apparatus and full firefighting turnout gear. Use personal protection equipment.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Personal precautions Evacuate personnel to safe areas. Use personal protective equipment as required. See section 8 for more information. Take precautionary measures against static discharges. Do not touch or walk through spilled material.

Environmental precautions

Environmental precautions Refer to protective measures listed in Sections 7 and 8. Prevent further leakage or spillage if safe to do so.

Methods and material for containment and cleaning up

Methods for containment Stop leak if you can do it without risk. Do not touch or walk through spilled material. Dike far ahead of liquid spill for later disposal.

Methods for cleaning up Take precautionary measures against static discharges. Dam up. Soak up with inert absorbent material. Pick up and transfer to properly labeled containers.

Prevention of secondary hazards Clean contaminated objects and areas thoroughly observing environmental regulations.

7. HANDLING AND STORAGE

Precautions for safe handling

Advice on safe handling Use personal protection equipment. Do not breathe vapor or mist. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Take precautionary measures against static discharges. Use with local exhaust ventilation.

Conditions for safe storage, including any incompatibilities

Storage Conditions Keep containers tightly closed in a dry, cool and well-ventilated place. Keep away from heat, sparks, flame and other sources of ignition (i.e., pilot lights, electric motors and static electricity). Keep in properly labeled containers. Store in accordance with the particular national regulations. Store in accordance with local regulations.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

Exposure Limits The following ingredients are the only ingredients of the product above the cut-off level (or level that contributes to the hazard classification of the mixture) which have an exposure limit applicable in the region for which this safety data sheet is intended or other recommended limit. At this time, the other relevant constituents have no known exposure limits from the sources listed here.

Appropriate engineering controls

Engineering controls Showers
Eyewash stations
Ventilation systems.

Individual protection measures, such as personal protective equipment

Eye/face protection Tight sealing safety goggles.

Skin and body protection No special protective equipment required.

Respiratory protection No protective equipment is needed under normal use conditions. If exposure limits are exceeded or irritation is experienced, ventilation and evacuation may be required.

General hygiene considerations Do not eat, drink or smoke when using this product. Contaminated work clothing should not be allowed out of the workplace. Regular cleaning of equipment, work area and clothing is recommended. Wash hands before breaks and immediately after handling the product.

9. PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Physical state	Liquid
Appearance	Opaque
Color	Milky white to yellow
Odor	Mineral Oil
Odor threshold	No information available

Property	Values	Remarks • Method
pH	No data available	None known
Melting point / freezing point	No data available	None known
Boiling point / boiling range	No data available	None known
Flash point	>= 67 °C / 153 °F	
Evaporation rate	No data available	None known
Flammability (solid, gas)	No data available	None known
Flammability Limit in Air		None known
Upper flammability limit:	No data available	
Lower flammability limit:	No data available	
Vapor pressure	No data available	None known
Vapor density	No data available	None known
Relative density	0.97 - 1.03	
Water solubility	Miscible in water	
Solubility in other solvents	No data available	None known
Partition coefficient	No data available	None known
Autoignition temperature	No data available	None known
Decomposition temperature	No data available	None known
Kinematic viscosity	≥150 mm²/s	
Dynamic viscosity	No data available	None known
Explosive properties	No information available	
Oxidizing properties	No information available	

Other Information

Softening point	No information available
Molecular weight	No information available
VOC Content (%)	No information available
Liquid Density	No information available
Bulk density	No information available

10. STABILITY AND REACTIVITY

Reactivity	No information available.
Chemical stability	Stable under normal conditions.
Possibility of hazardous reactions	None under normal processing.
Conditions to avoid	Heat, flames and sparks.
Incompatible materials	None known based on information supplied.
Hazardous decomposition products	None known based on information supplied.

11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure

Product Information

Inhalation	Specific test data for the substance or mixture is not available.
Eye contact	Specific test data for the substance or mixture is not available.
Skin contact	Specific test data for the substance or mixture is not available.
Ingestion	Specific test data for the substance or mixture is not available.

Symptoms related to the physical, chemical and toxicological characteristics

Symptoms No information available.

Numerical measures of toxicity

Acute toxicity

The following values are calculated based on chapter 3.1 of the GHS document.

ATEmix (oral)	5,005.00 mg/kg
ATEmix (dermal)	2,002.00 mg/kg
ATEmix (inhalation-dust/mist)	5.20 mg/l

Component Information

Chemical name	Oral LD50	Dermal LD50	Inhalation LC50
Petroleum distillates, hydrotreated light 64742-47-8	> 5000 mg/kg (Rat)	> 2000 mg/kg (Rabbit)	> 5.2 mg/L (Rat) 4 h

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Skin corrosion/irritation No information available.

Serious eye damage/eye irritation No information available.

Respiratory or skin sensitization No information available.

Germ cell mutagenicity No information available.

Carcinogenicity No information available.

Reproductive toxicity No information available.

STOT - single exposure No information available.

STOT - repeated exposure No information available.

Aspiration hazard No information available.

12. ECOLOGICAL INFORMATION

Ecotoxicity

Chemical name	Algae/aquatic plants	Fish	Toxicity to microorganisms	Crustacea
Petroleum distillates, hydrotreated light 64742-47-8	-	2.4: 96 h Oncorhynchus mykiss mg/L LC50 static 45: 96 h Pimephales promelas mg/L LC50 flow-through 2.2: 96 h Lepomis macrochirus mg/L LC50 static	-	4720: 96 h Den-dronereides heteropoda mg/L LC50

Persistence and degradability No information available.

Bioaccumulation There is no data for this product.

Other adverse effects No information available.

13. DISPOSAL CONSIDERATIONS

Waste treatment methods

Waste from residues/unused products Dispose of in accordance with local regulations. Dispose of waste in accordance with environmental legislation.

Contaminated packaging Do not reuse empty containers.

14. TRANSPORT INFORMATION

DOT Not regulated. Product does not sustain combustion (49 CFR 173.120(b)(3))

15. REGULATORY INFORMATION

International Inventories

TSCA	Complies
DSL/NDSL	Complies
EINECS/ELINCS	Complies
ENCS	Does not comply
IECSC	Complies
KECL	Complies

PICCS	Complies
AICS	Complies

Legend:
TSCA - United States Toxic Substances Control Act Section 8(b) Inventory
DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List
EINECS/ELINCS - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances
ENCS - Japan Existing and New Chemical Substances
IECSC - China Inventory of Existing Chemical Substances
KECL - Korean Existing and Evaluated Chemical Substances
PICCS - Philippines Inventory of Chemicals and Chemical Substances
AICS - Australian Inventory of Chemical Substances

US Federal Regulations

SARA 313
Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product does not contain any chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372.

SARA 311/312 Hazard Categories

Acute health hazard	No
Chronic Health Hazard	No
Fire hazard	Yes
Sudden release of pressure hazard	No
Reactive Hazard	No

CWA (Clean Water Act)
This product does not contain any substances regulated as pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42).

CERCLA
This material, as supplied, does not contain any substances regulated as hazardous substances under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302) or the Superfund Amendments and Reauthorization Act (SARA) (40 CFR 355). There may be specific reporting requirements at the local, regional, or state level pertaining to releases of this material.

US State Regulations

California Proposition 65
This product does not contain any Proposition 65 chemicals.

U.S. State Right-to-Know Regulations

US State Regulations This product does not contain any substances regulated by state right-to-know regulations

U.S. EPA Label Information

EPA Pesticide Registration Number Not applicable

16. OTHER INFORMATION, INCLUDING DATE OF PREPARATION OF THE LAST REVISION

NFPA	Health hazards	2	Flammability	2	Instability	0	Physical and chemical properties -
HMIS	Health hazards	2	Flammability	2	Physical hazards	0	Personal protection X

Issuing Date	01-Aug-2019
Revision Date	01-Aug-2019
Revision Note	No information available.

Disclaimer

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End of Safety Data Sheet

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State of New Mexico
Energy, Minerals and Natural Resources
Oil Conservation Division
1220 S. St Francis Dr.
Santa Fe, NM 87505

CONDITIONS

Action 145416

CONDITIONS

Operator: XTO ENERGY, INC 6401 Holiday Hill Road Midland, TX 79707	OGRID: 5380
	Action Number: 145416
	Action Type: [C-141] Release Corrective Action (C-141)

CONDITIONS

Created By	Condition	Condition Date
rhamlet	The Closure Report is Approved. Chain of Custody and Analysis Request form on 6/17/22 show samples not received at proper temperature of 6 deg. Celsius or below. Samples were delivered at temperature of 14.0 deg. Celsius. Chain of Custody and Analysis Request form on 9/15/22 show samples not received at proper temperature of 6 deg. Celsius or below. Samples were delivered at temperature of 15.8 deg. Celsius. If samples are improperly cared for again on future remediation projects, the report will be immediately denied.	12/13/2022