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	NAPP2209041753
District RP	
Facility ID	
Application ID	

Release Notification

Responsible Party

					OGRID 5380	
Contact Name	Adrian Ba	ker		Contact Te	elephone 432-236-3808	
Contact email	Contact email adrian.baker@exxonmobil.com			Incident #	(assigned by OCD)	
Contact mailir	ng address	6401 Holiday Hill	Rd Bldg 5, Midlar	nd, Texas, 79707		
			Location	of Release So	ource	
Latitude 32.	54665			Longitude _	-103.85412	
			(NAD 83 in dec	rimal degrees to 5 decim	nal places)	
Site Name Bl	FU 5F Han	Solo 114H		Site Type p	Production Well	
Date Release I				API# (if app.		
Unit Letter	Section	Township	Range	Coun	ity	
G	27	20S	31E	Eddy	У	
		l(s) Released (Select al	I that apply and attach	l Volume of F	justification for the volumes provided below)	
Crude Oil		Volume Release			Volume Recovered (bbls)	
Produced V	Water	Volume Release	d (bbls)		Volume Recovered (bbls)	
		in the produced	ion of total dissolv water >10,000 mg/	\ /	☐ Yes ☐ No	
Condensate	e	Volume Release	d (bbls)		Volume Recovered (bbls)	
☐ Natural Ga	ıs	Volume Release	d (Mcf)		Volume Recovered (Mcf)	
Volume/Weight Released (provide units)		units)	Volume/Weight Recovered (provide units)			
Produced water w/FR 6.33 BBLS			6.00 BBLS			
Cause of Relea	All free	riuias were recov	ered with a vacuui	m trailer. Friction R	nted valve did not shut all the way while removing hose. Reducer (FR) SDS will be provided as part of been retained for remediation purposes.	

Received by OCD: 8/12/2022 11:41:04 AM
State of New Mexico
Page 2
Oil Conservation Division

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Incident ID	NAPP2209041753
District RP	
Facility ID	
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Was this a major release as defined by	If YES, for what reason(s) does the respon	sible party consider this a major release?
19.15.29.7(A) NMAC?	N/A	
☐ Yes 🗷 No		
If VEC was immediate n	ation given to the OCD? By whom? To wh	om? When and by what means (phone amail ata)?
N/A	ouce given to the OCD? By whom? To wh	om? When and by what means (phone, email, etc)?
	Initial Re	esponse
The responsible	party must undertake the following actions immediatel	unless they could create a safety hazard that would result in injury
The source of the rele	ease has been stopped.	
× The impacted area ha	is been secured to protect human health and	the environment.
		ikes, absorbent pads, or other containment devices.
	ecoverable materials have been removed and	
	d above have <u>not</u> been undertaken, explain v	vhy:
NA		
has begun, please attach	a narrative of actions to date. If remedial	emediation immediately after discovery of a release. If remediation efforts have been successfully completed or if the release occurred lease attach all information needed for closure evaluation.
regulations all operators are public health or the environ failed to adequately investig addition, OCD acceptance o and/or regulations.	required to report and/or file certain release notifient. The acceptance of a C-141 report by the O ate and remediate contamination that pose a three of a C-141 report does not relieve the operator of the contamination	best of my knowledge and understand that pursuant to OCD rules and ications and perform corrective actions for releases which may endanger CD does not relieve the operator of liability should their operations have at to groundwater, surface water, human health or the environment. In responsibility for compliance with any other federal, state, or local laws
Printed Name: Adrian Ba	aker	Title: SSHE Coordinator
Signature:	hola	Date: 3/31/22
email: adrian.baker@exx	conmobil.com	Telephone: 432-236-3808
OCD Only		
Received by: Jocelyn H	Harimon	Date: 03/31/2022

Location:	BEU 5E Han Solo 114H		
Spill Date:	3/17/2022		
	Area 1		
Approximate A	rea =	33.69	cu.ft.
	VOLUME OF LEAK		
Total Crude Oil	=	0.00	bbls
Total Produced	Water =	6.00	bbls
	Area 2		
Approximate A	rea =	750.00	sq. ft.
Average Satura	tion (or depth) of spill =	1.00	inches
Average Porosi	ty Factor =	0.03	
	VOLUME OF LEAK		
Total Crude Oil	=	0.00	bbls
Total Produced	Water =	0.33	bbls

TOTAL VOLUME OF LEAK					
Total Crude Oil =	0.00	bbls			
Total Produced Water =	6.33	bbls			
TOTAL VOLUME RECOVERED					
Total Crude Oil =	0.00	bbls			
Total Produced Water =	6.00	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

1220 S. St Francis Dr., Santa Fe, NM 87505 Phone:(505) 476-3470 Fax:(505) 476-3462

State of New Mexico Energy, Minerals and Natural Resources Oil Conservation Division 1220 S. St Francis Dr. **Santa Fe, NM 87505**

CONDITIONS

Action 94807

CONDITIONS

Operator:	OGRID:
XTO ENERGY, INC	5380
6401 Holiday Hill Road Midland, TX 79707	Action Number: 94807
· · · · · · · · · · · · · · · · · · ·	Action Type:
	[C-141] Release Corrective Action (C-141)

CONDITIONS

Created By		Condition Date
jharimon	None	3/31/2022

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Incident ID	NAPP2209041753	
District RP		
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Application ID		

Site Assessment/Characterization

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

What is the shallowest depth to groundwater beneath the area affected by the release?	_50-100 (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 ver contamination associated with the release have been determined. Refer to 19.15.29.11 NMAC for specifics.	tical extents of soil
Characterization Report Checklist: Each of the following items must be included in the report.	
 \infty Scaled site map showing impacted area, surface features, subsurface features, delineation points, and monitoring well \infty Field data 	ls.
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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Incident ID	NAPP2209041753	ĺ
District RP		
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Application ID		

regulations all operators are required to report and/or file certain public health or the environment. The acceptance of a C-141 refailed to adequately investigate and remediate contamination that	release notifications and perform corrective actions for releases which may endanger port by the OCD does not relieve the operator of liability should their operations have at pose a threat to groundwater, surface water, human health or the environment. In experience of responsibility for compliance with any other federal, state, or local laws
Printed Name: _Garrett Green	Title: _Environmental Coordinator
Signature: Sath Sur	Date:08/12/2022
email: _garrett.green@exxonmobil.com	Telephone:575-200-0729
OCD Only Received by: Jocelyn Harimon	Date: 08/12/2022

of New Mexico

Incident ID NAPP2209041753

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 must be notified 2 days prior to liner inspection)	s of the liner integrity if applicable (Note: appropriate OCD District office
☐ Laboratory analyses of final sampling (Note: appropriate OD	C District office must be notified 2 days prior to final sampling)
Description of remediation activities	
and regulations all operators are required to report and/or file certar may endanger public health or the environment. The acceptance of should their operations have failed to adequately investigate and re human health or the environment. In addition, OCD acceptance of compliance with any other federal, state, or local laws and/or regul restore, reclaim, and re-vegetate the impacted surface area to the coaccordance with 19.15.29.13 NMAC including notification to the Coaccordance area to the coaccordance with 19.15.29.13 NMAC including notification with 19.15.29.13 NMAC including notification with 19.15.29.13 NMAC including notification with 19.15.29.13 NMAC including notif	ations. The responsible party acknowledges they must substantially onditions that existed prior to the release or their final land use in
OCD Only	
Jocelyn Harimon	08/12/2022
Received by:	Date:
	of liability should their operations have failed to adequately investigate and water, human health, or the environment nor does not relieve the responsible for regulations.
Closure Approved by:	Date: 09/29/2022
Printed Name: Jennifer Nobul	Title: Environmental Specialist A



August 12, 2022

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

Re: Closure Request

BEU 5E Han Solo 114H

Incident Number NAPP2209041753

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 BEU 5E Han Solo 114H (Site). The purpose of the site assessment and soil sampling activities was to address impacts to soil following a release of produced water with friction reducer at the Site. Based on the excavation activities and laboratory analytical results from the soil sampling events, XTO is submitting this Closure Request, describing remediation that has occurred and requesting closure for Incident Number NAPP2209041753.

SITE DESCRIPTION AND RELEASE SUMMARY

The Site is located in Unit G, Section 27, Township 20 South, Range 31 East, in Eddy County, New Mexico (32.54665° N, 103.85412°W) and is associated with oil and gas exploration and production operations on Bureau of Land Management (BLM) Federal Land.

On March 17, 2022, an air valve malfunctioned while removing a hose resulting in the release of 6.33 barrels (bbls) of produced water, treated with friction reducer, into the temporary lined containment and onto the surface of the well pad. A vacuum truck was immediately dispatched to the Site to recover the free-standing fluids; approximately 6 bbls of produced water were recovered. XTO reported the release to the New Mexico Oil Conservation Division (NMOCD) on a Release Notification Form C-141 (Form C-141) on March 31, 2022. The release was assigned Incident Number NAPP2209041753.

Produced water is recycled through filtering and separation, then mixed in a blender with friction reducer and used as hydraulic fracturing (frac) fluid during the well completion process. The safety data sheet (SDS) for friction reducer is provided as an attachment.

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).

Ensolum, LLC | Environmental, Engineering & Hydrogeologic Consultants
601 North Marienfield, Suite 400 | Midland, TX 78209 | ensolum.com
Texas PG Firm No. 50588 | Texas PE Firm No. F-21843



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 between 50 and 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 323307103503901, located approximately 0.6 miles northeast of the Site. The groundwater well has a reported depth to groundwater of 77 feet bgs and a total depth of 156 feet bgs. Ground surface elevation at the groundwater well location is 3,510 feet above mean sea level (amsl), which is approximately 16 feet lower in elevation than the Site. All wells used for depth to groundwater determination are presented on Figure 1. The referenced well records are included in Appendix A.

The closest continuously flowing or significant watercourse to the Site is an unnamed dry wash, located approximately 8,043 feet northeast 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 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). Site receptors are identified on Figure 1.

Based on the results of the Site Characterization, 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)-gasoline range organics (GRO) and TPH-diesel range organics (DRO): 1,000 mg/kg
- TPH: 2,500 mg/kg
- Chloride: 10,000 mg/kg

SITE ASSESSMENT ACTIVITIES

On April 18, 2022, Ensolum personnel visited the Site to evaluate the release extent based on information provided on the Form C-141 and visual observations. Three preliminary soil samples (SS01 through SS03) were collected within the release extent from a depth of approximately 0. 5 feet bgs to assess the lateral extent of the impacted soil. 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 (COC) procedures to Eurofins Laboratories (Eurofins) in Carlsbad, New Mexico, for analysis of BTEX following United States Environmental Protection Agency (EPA) Method 8021B; TPH-GRO, TPH-DRO, and TPH-oil range organics (ORO) following EPA Method 8015M/D; and chloride following EPA Method 300.0.



Laboratory analytical results for preliminary soil samples SS01 and SS02 indicated benzene, BTEX, TPH-GRO/TPH-DRO, TPH, and chloride concentrations were compliant with the Closure Criteria. Laboratory analytical results for preliminary soil sample SS03 indicated TPH-GRO/TPH-DRO and TPH concentrations exceed the Closure Criteria. Based on visible staining in the release area, elevated field screening results, and laboratory analytical results for the preliminary soil samples, delineation and excavation activities were warranted.

DELINEATION AND EXCAVATION SOIL SAMPLING ACTIVITIES

On May 31, 2022, Ensolum personnel were at the Site to oversee delineation and excavation activities. Four potholes (PH01 through PH04) were advanced via backhoe within the release extent and at the location of the temporary lined containment to a depth of 2 feet bgs. Delineation soil samples were collected from each pothole at depths of 1-foot and 2 feet bgs. In addition, four lateral delineation soil samples (SS04 through SS07) were collected around the visible release extent from a depth of 0.5 feet bgs to confirm the lateral extent of the release. Soil from the delineation activities was field screened for volatile aromatic hydrocarbons and chloride using a PID and Hach® chloride QuanTab® test strips, respectively. Field screening results and observations for the potholes were logged on lithologic/soil sampling logs, which are included in Appendix C. The potholes and lateral delineation soil sample locations are depicted on Figure 3.

Laboratory analytical results for delineation pothole soil samples PH01/PH01A through PH04/PH04A and lateral delineation soil samples SS04 through SS07 indicated benzene, BTEX, TPH-GRO/TPH-DRO, TPH, and chloride concentrations are compliant with the Closure Criteria and compliant with the most stringent Table 1 Closure Criteria.

Impacted soil was excavated from the release area as indicated by visible staining, field screening activities, and laboratory analytical results for the preliminary soil samples. Excavation activities were performed using a backhoe and transport vehicle. The excavation occurred on the well pad. To direct excavation activities, Ensolum personnel screened soil for volatile aromatic hydrocarbons and chloride utilizing a PID and Hach® chloride QuanTab® test strips, respectively.

Following removal of impacted soil, Ensolum personnel collected 5-point composite soil samples representing 200 square feet from the 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 FS04 were collected from the floor of the excavation at a depth of 0.75 feet bgs. Due to the shallow depth of the excavation, soil from the sidewalls was incorporated into the floor sample. Due to staining near FS04, additional soil was removed from this area and subsequent sample FS04A was collected. 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 4.

The final excavation extent measured approximately 810 square feet. A total of approximately 25 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 Carlsbad, New Mexico. After completion of confirmation sampling, the excavation areas were secured with fencing.

LABORATORY ANALYTICAL RESULTS

Laboratory analytical results for the excavation floor soil samples FS01 through FS03 and FS04A, collected from the final excavation extent, indicated benzene, BTEX, TPH-DRO/TPH-GRO, TPH, and chloride concentrations were compliant with the Closure Criteria and compliant with the most stringent



Table 1 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 17, 2022, release of produced water with friction reducer. Laboratory analytical results for the excavation soil samples, collected from the final excavation extent, indicated benzene, BTEX, TPH-GRO/TPH-DRO, TPH, and chloride concentrations were compliant with the Site Closure Criteria and compliant with the most stringent Table 1 Closure Criteria. Based on the soil sample analytical results, no further remediation was required. XTO will backfill the excavation with material purchased locally and recontour the Site to match pre-existing site conditions.

Excavation of impacted soil has mitigated impacts at this Site. Depth to groundwater has been estimated to be between 50 and 100 feet bgs and no other sensitive receptors were identified near the release extent. XTO believes these remedial actions are protective of human health, the environment, and groundwater. As such, XTO respectfully requests closure for Incident Number NAPP2209041753.

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

Sincerely, **Ensolum**, **LLC**

Kalei Jennings Senior Scientist Ashley L. Ager, M.S., P.G. Program Director

ashley L. ager

cc: Garrett Green, XTO

Kalui Jennings

Shelby Pennington, XTO Bureau of Land Management

Appendices:

Figure 1 Site Receptor Map

Figure 2 Preliminary Soil Sample Locations
Figure 3 Delineation Soil Sample Locations
Figure 4 Excavation Soil Sample Locations
Table 1 Soil Sample Analytical Results
Appendix A Referenced Well Records

Appendix B Photographic Log

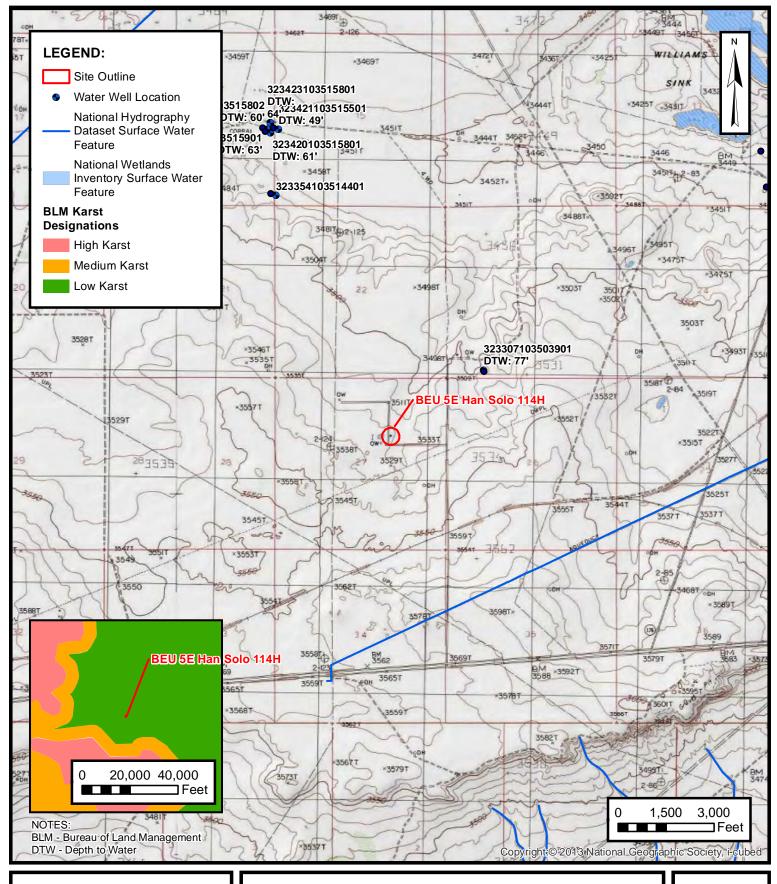
Appendix C Lithologic / Soil Sampling Logs

Appendix D Laboratory Analytical Reports & Chain-of-Custody Documentation

Appendix E NMOCD Notifications
Appendix F SDS for Friction Reducer



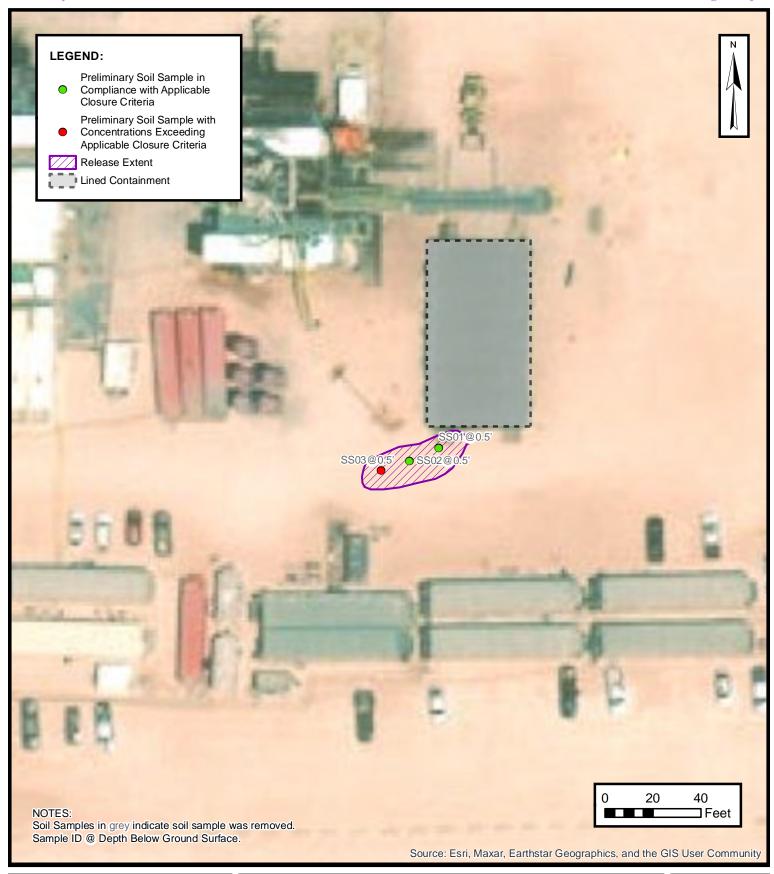
FIGURES





SITE RECEPTOR MAP

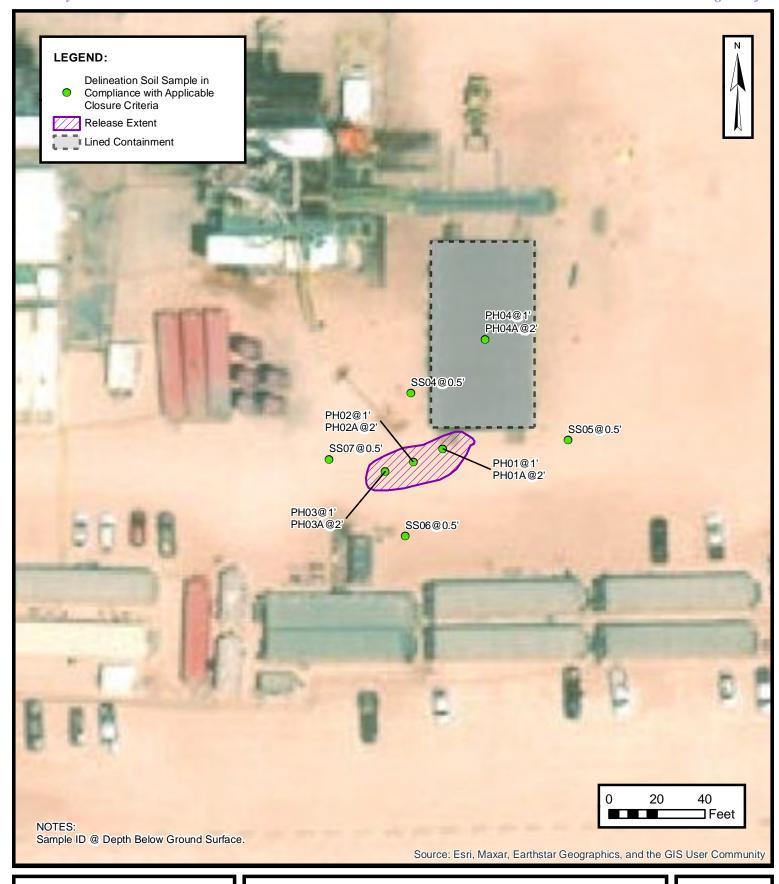
XTO ENERGY, INC BEU 5E HAN SOLO 114H NAPP2209041753 Unit G, Sec 27, T20S, R31E Eddy County, New Mexico FIGURE





PRELIMINARY SOIL SAMPLE LOCATIONS

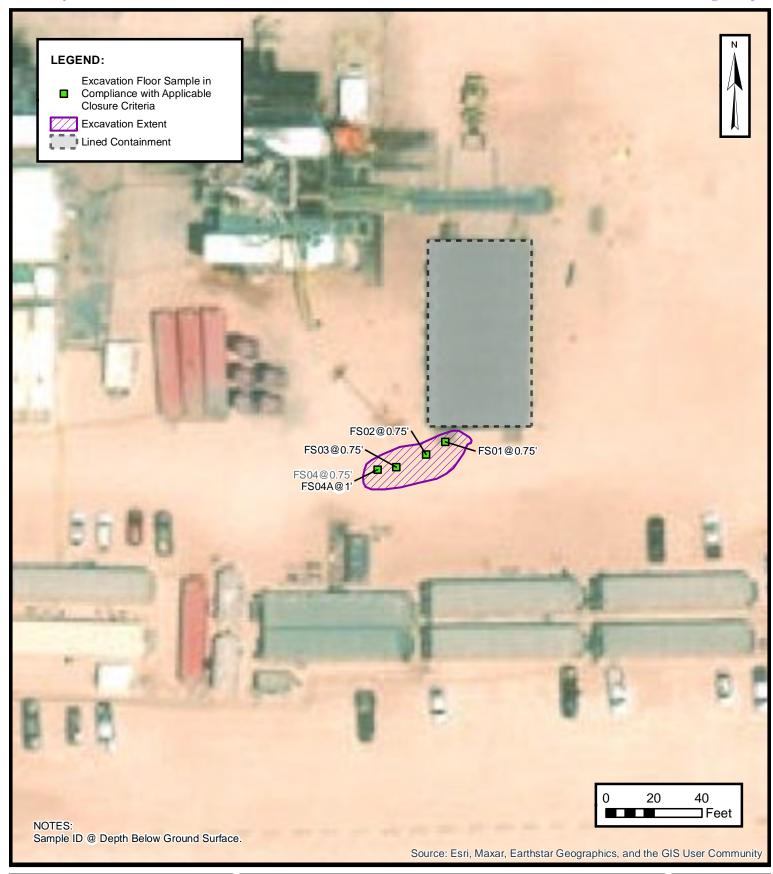
XTO ENERGY, INC BEU 5E HAN SOLO 114H NAPP2209041753 Unit G, Sec 27, T20S, R31E Eddy County, New Mexico **FIGURE**





DELINEATION SOIL SAMPLE LOCATIONS

XTO ENERGY, INC BEU 5E HAN SOLO 114H NAPP2209041753 Unit G, Sec 27, T20S, R31E Eddy County, New Mexico **FIGURE**





EXCAVATION SOIL SAMPLE LOCATIONS

XTO ENERGY, INC BEU 5E HAN SOLO 114H NAPP2135442784 Unit G, Sec 27, T20S, R31E Eddy County, New Mexico FIGURE



TABLES



TABLE 1 SOIL SAMPLE ANALYTICAL RESULTS BEU 5E Han Solo 114H 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 C	losure Criteria ((NMAC 19.15.29)	10	50	NE	NE	NE	1,000	2,500	10,000
				Preliminar	ry Assessment S	oil Samples				
SS01	04/18/2022	0.5	<0.00202	< 0.00404	<50.0	361	295	361	656	408
SS02	04/18/2022	0.5	<0.00200	<0.00401	<50.0	985	420	985	1,410	847
SS03	04/18/2022	0.5	<0.00199	<0.00398	<250	2,830	5,210	2,830	8,040	534
				Del	linaetion Soil San	nples				
PH01	05/31/2022	1	<0.00201	0.0216	<49.9	<49.9	<49.9	<49.9	<49.9	28.9
PH01A	05/31/2022	2	<0.00202	<0.00404	<50.0	<50.0	<50.0	<50.0	<50.0	46.6
PH02	05/31/2022	1	<0.00200	<0.00401	<50.0	<50.0	<50.0	<50.0	<50.0	73.3
PH02A	05/31/2022	2	<0.00202	0.0111	<49.9	<49.9	<49.9	<49.9	<49.9	513
PH03	05/31/2022	1	<0.00200	0.00889	<50.0	<50.0	<50.0	<50.0	<50.0	324
PH03A	05/31/2022	2	<0.00200	0.00979	<49.9	<49.9	<49.9	<49.9	<49.9	173
PH04	05/31/2022	1	<0.00201	<0.00402	<49.8	<49.8	<49.8	<49.8	<49.8	16.8
PH04A	05/31/2022	2	<0.00202	0.00783	<49.9	81.4	<49.9	81.4	81.4	70
SS04	05/31/2022	0.5	<0.00199	<0.00398	<50.0	58.2	<50.0	58.2	58.2	270
SS05	05/31/2022	0.5	<0.00198	0.045	66.9	<50.0	<50.0	66.9	66.9	187
SS06	05/31/2022	0.5	<0.00199	<0.00398	<49.9	<49.9	<49.9	<49.9	<49.9	487
SS07	05/31/2022	0.5	<0.00199	0.00505	<49.9	<49.9	<49.9	<49.9	<49.9	166
				Excav	ation Floor Soil S	Samples				
FS01	05/31/2022	0.75	<0.00200	0.0143	<50.0	57.3	<50.0	57.3	57.3	443
FS02	05/31/2022	0.75	<0.00200	0.0151	<49.9	<49.9	<49.9	<49.9	<49.9	500
FS03	05/31/2022	0.75	<0.00200	0.0233	<49.8	67	<49.8	67.0	67.0	231
FS04	05/31/2022	0.75	<0.00200	0.0058	<50.0	1,540	<50.0	1,540	1,540	490
FS04A	05/31/2022	1	<0.00198	<0.00397	<49.9	<49.9	<49.9	<49.9	<49.9	91.7

Notes:

bgs: below ground surface mg/kg: milligrams per kilogram

NMOCD: New Mexico Oil Conservation Division

 $\label{eq:BTEX:Benzene} \mbox{BTEX: Benzene, Toluene, Ethylbenzene, and Xylenes}$

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

GRO: Gasoline Range Organics

DRO: Diesel Range Organics

ORO: Oil Range Organics

TPH: Total Petroleum Hydrocarbon

Ensolum 1 of 1



APPENDIX A

Referenced Well Records



USGS Home Contact USGS Search USGS

National Water Information System: Web Interface

USGS Water Resources	Data Category:	Geographic Area:		
0303 Water Resources	Groundwater >	United States	~ [GO

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- Explore the NEW <u>USGS National Water Dashboard</u> interactive map to access realtime water data from over 13,500 stations nationwide.
- Full News 🔕

Groundwater levels for the Nation

Important: <u>Next Generation Monitoring Location Page</u>

Search Results -- 1 sites found

site no list =

• 323307103503901

Minimum number of levels = 1

Save file of selected sites to local disk for future upload

USGS 323307103503901 20S.31E.23.33312

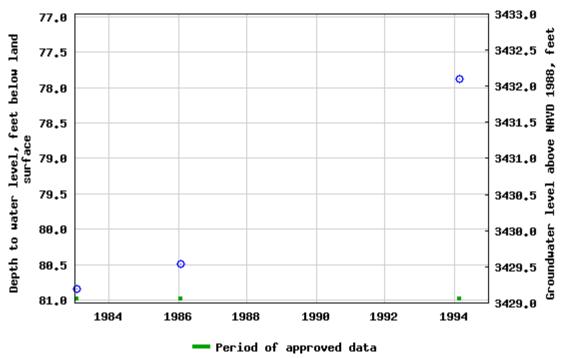
Available data for this site Groundwater: Field measurements V GO

Eddy County, New Mexico
Hydrologic Unit Code 13060011
Latitude 32°33'07", Longitude 103°50'39" NAD27
Land-surface elevation 3,510 feet above NAVD88
The depth of the well is 156 feet below land surface.
This well is completed in the Other aquifers (N99990THER) national aquifer.
This well is completed in the Rustler Formation (312RSLR) local aquifer.

Output formats

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





Breaks in the plot represent a gap of at least one year between field measurements. <u>Download a presentation-quality graph</u>

Questions about sites/data?
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Automated retrievals
Help
Data Tips
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U.S. Department of the Interior | U.S. Geological Survey

Title: Groundwater for USA: Water Levels

URL: https://nwis.waterdata.usgs.gov/nwis/gwlevels?

Page Contact Information: <u>USGS Water Data Support Team</u>

Page Last Modified: 2022-08-11 18:07:52 EDT

0.68 0.52 nadww01





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National Water Information System: Web Interface

USGS Water Resources

Data Category:

Groundwater

Geographic Area:

United States

GO

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

Groundwater levels for the Nation

Important: Next Generation Monitoring Location Page

Search Results -- 1 sites found

Agency code = usgs

site_no list =

• 323307103503901

72019

77.88

Minimum number of levels = 1

Save file of selected sites to local disk for future upload

USGS 323307103503901 20S.31E.23.33312

Eddy County, New Mexico

Table of data

1994-03-02

Latitude 32°33'07", Longitude 103°50'39" NAD27

Land-surface elevation 3,510 feet above NAVD88

The depth of the well is 156 feet below land surface.

This well is completed in the Other aquifers (N9999OTHER) national aquifer.

This well is completed in the Rustler Formation (312RSLR) local aquifer.

Output formats

Tab-separat	ted data									
Graph of da	<u>ıta</u>									
<u>Reselect pe</u>	<u>riod</u>									
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
1983-01-2	0	D	62610		3427.56	NGVD29	1	Z		
1983-01-2	0	D	62611		3429.16	NAVD88	1	Z		
1983-01-2	0	D	72019	80.84			1	Z		
1986-01-2	2	D	62610		3427.91	NGVD29	1	Z		
1986-01-2	2	D	62611		3429.51	NAVD88	1	Z		
1986-01-2	2	D	72019	80.49			1	Z		
1994-03-0	2	D	62610		3430.52	NGVD29	1	S		
1994-03-0	2	D	62611		3432.12	NAVD88	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						

Section	Code	Description
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
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	А	Approved for publication Processing and review completed.

Questions about sites/data? Feedback on this web site **Automated retrievals** <u>Help</u> Data Tips Explanation of terms
Subscribe for system changes <u>News</u>

Accessibility FOIA Privacy Policies and Notices

U.S. Department of the Interior | U.S. Geological Survey Title: Groundwater for USA: Water Levels

URL: https://nwis.waterdata.usgs.gov/nwis/gwlevels?

Page Contact Information: <u>USGS Water Data Support Team</u> Page Last Modified: 2022-08-11 18:08:31 EDT

0.26 0.23 nadww01





New Mexico Office of the State Engineer

Water Right Summary

get image list

WR File Number: CP 00370 Subbasin: CP Cross Reference: -

Primary Purpose: DOM 72-12-1 DOMESTIC ONE HOUSEHOLD

Primary Status: PMT PERMIT

Total Acres: Subfile: - Header: -

Total Diversion: 3 Cause/Case: -

Owner: BALLARD & BONFIELD

Documents on File

Status From/

Trn# Doc File/Act 1 2 Transaction Desc. To Acres Diversion Consumptive

821 473010 72121 1966-07-06 PMT LOG CP 00370

T 3

Current Points of Diversion

(NAD83 UTM in meters)

 POD Number
 Well Tag
 Source
 64 Q16 Q4 Sec
 Tws Rng
 X
 Y
 Other Location Desc

 CP 00370
 Shallow
 1
 1
 36
 20S
 31E
 609945
 3600358*

An () after northing value indicates UTM location was derived from PLSS - see Help

The data is furnished by the NMOSE/ISC and is accepted by the recipient with the expressed understanding that the OSE/ISC make no warranties, expressed or implied, concerning the accuracy, completeness, reliability, usability, or suitability for any particular purpose of the data.

8/11/22 4:09 PM WATER RIGHT SUMMARY



New Mexico Office of the State Engineer

Point of Diversion Summary

(quarters are 1=NW 2=NE 3=SW 4=SE)

(quarters are smallest to largest)

(NAD83 UTM in meters)

Well Tag **POD Number** Q64 Q16 Q4 Sec Tws Rng

CP 00370 36 20S 31E 609945 3600358*

Driller License: 30 **Driller Company:** BARRON, EMMETT

Driller Name: BARRON, EMMETT

Drill Start Date: 07/11/1966 **Drill Finish Date:**

07/14/1966

Plug Date:

Log File Date:

10/11/1966

PCW Rcv Date:

Source:

Shallow

Pump Type:

Pipe Discharge Size:

Estimated Yield:

Casing Size:

Depth Well:

120 feet

Depth Water:

80 feet

Water Bearing Stratifications:

Top Bottom Description

75

80 Sandstone/Gravel/Conglomerate

The data is furnished by the NMOSE/ISC and is accepted by the recipient with the expressed understanding that the OSE/ISC make no warranties, expressed or implied, concerning the accuracy, completeness, reliability, or suitability for any particular purpose of the data.

8/11/22 4:09 PM

POINT OF DIVERSION SUMMARY

^{*}UTM location was derived from PLSS - see Help



APPENDIX B

Photographic Log

ENSOLUM

Photographic Log

XTO Energy, Inc.
BEU 5E Han Solo 114H
Incident Number NAPP2209041753





Description: View of release area.



Photograph 2 Date: 04/18/2022
Description: View of staining observed during initial site assessment.



Photograph 3 Date: 05/31/2022

Description: Northwest view of final excavation.



Photograph 4 Date: 05/31/2022

Description: North view of final excavation.



APPENDIX C

Lithologic / Soil Sampling Logs

_									
		_						Sample Name: PH01	Date: 05/31/2022
		=	N	S	OL		M	Site Name: BEU 5E Han Solo 11	
	- 0								
 						Job Number: 03E1558021			
_		LITHOL	OGI	c / SOIL S	SAMPLING	LOG		Logged By: Conner Shore	Method: Backhoe
	linates:	1-1 -	•	and a second	tale 114 Circ Cir	1 =	· · · · ·	Hole Diameter:	Total Depth: 2'
								PID for chloride and vapor, resp factors included.	ectively. Chloride test
Moisture	Chloride (ppm)	Vapor (ppm)	Staining	Sample ID	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithologic (Descriptions
N	<179.2	1.6	N	PH01	1' _	L - _ 1'	cche	Caliche	
N	<179.2	3.3	N	PH01	2' _	2'	sp-sm	well graded Caliche with s	some red brown sandstone
					-	_			
					-	-			
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									1	
		_						Sample Name: PH02	Date: 05/31/2022	
	-		N	5	OL		M	Site Name: BEU 5E Han Solo 114H		
_	-									
						Job Number: 03E1558021				
		LITHOL	OGI	C / SOIL S	SAMPLING	LOG		Logged By: Conner Shore	Method: Backhoe	
	linates:							Hole Diameter:	Total Depth: 3'	
			_					PID for chloride and vapor, respec factors included.	tively. Chloride test	
Moisture	Chloride (ppm)	Vapor (ppm)	Staining	Sample ID	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithologic Descriptions		
N	<179.2	0.3	N	PH02	1' _	L - _ 1'	cche	Caliche		
N	560	0.3	N	PH02	2'	2'	sp-sm	well graded Caliche with sor	ne red brown sandstone	
N	<179.2	0.3	N	PH02	3'	3'	sp-sm	well graded Caliche with sor	ne red brown sandstone	

								Canada Nama BUO2	D-+ 05/24/2022
							Sample Name: PH03 Date: 05/31/2022		
	-2		N	5		Site Name: BEU 5E Han Solo 114H			
	9					Incident Number: NAPP22090417	o3		
						Job Number: 03E1558021			
		LITHOL	OGI	c / SOIL S	SAMPLING	LOG		Logged By: Conner Shore	Method: Backhoe
	inates:							Hole Diameter:	Total Depth: 2'
								PID for chloride and vapor, respect factors included.	ively. Chloride test
Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample ID	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithologic Des	scriptions
	202	1.0		B.1.00	1	<u>l</u> -			
N	392	1.0	N	PH03	1'	1'	cche	Caliche	
N	212	0.2	N	PH03	2'	2'	sp-sm	well graded Caliche with som	e red brown sandstone
						_			
					_	_			
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APPENDIX D

Laboratory Analytical Reports &

Chain of Custody Documentation



Environment Testing America

ANALYTICAL REPORT

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

Laboratory Job ID: 890-2209-1

Laboratory Sample Delivery Group: 03E1558021 Client Project/Site: BEU 5E HON SOLO 114H

For:

Ensolum 705 W. Wadley Suite 210 Midland, Texas 79701

Attn: Kalei Jennings

J. KRAMER

Authorized for release by: 4/25/2022 10:28:27 AM

Jessica Kramer, Project Manager (432)704-5440

Jessica.Kramer@et.eurofinsus.com

.....LINKS

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www.eurofinsus.com/Env

Released to Imaging: 9/29/2022 12:24:29 PM

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.

1

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11

12

Client: Ensolum
Project/Site: BEU 5E HON SOLO 114H
Laboratory Job ID: 890-2209-1
SDG: 03E1558021

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Definitions/Glossary

Job ID: 890-2209-1 Client: Ensolum Project/Site: BEU 5E HON SOLO 114H

SDG: 03E1558021

Qualifiers

GC VOA Qualifier

Qualifier Description F1 MS and/or MSD recovery exceeds control limits. F2 MS/MSD RPD exceeds control limits

Indicates the analyte was analyzed for but not detected.

GC Semi VOA

Qualifier **Qualifier Description** S1+

Surrogate recovery exceeds control limits, high biased. Indicates the analyte was analyzed for but not detected.

HPLC/IC

Qualifier **Qualifier Description**

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

DFR 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

Decision Level Concentration (Radiochemistry) DLC

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)

Method Detection Limit MDL 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

Toxicity Equivalent Factor (Dioxin) TEF Toxicity Equivalent Quotient (Dioxin) TEQ

TNTC Too Numerous To Count

Eurofins Carlsbad

Case Narrative

Client: Ensolum

Project/Site: BEU 5E HON SOLO 114H

Job ID: 890-2209-1

SDG: 03E1558021

Job ID: 890-2209-1

Laboratory: Eurofins Carlsbad

Narrative

Job Narrative 890-2209-1

Receipt

The samples were received on 4/19/2022 4:26 PM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 3.6°C

GC VOA

Method 8021B: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 880-23940 and analytical batch 880-23883 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: (890-2207-A-1-D) and (890-2207-A-1-F) MSD). Evidence of matrix interferences is not obvious.

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

HPLC/IC

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

Client: Ensolum

Job ID: 890-2209-1 Project/Site: BEU 5E HON SOLO 114H SDG: 03E1558021

Client Sample ID: SS01 Lab Sample ID: 890-2209-1

Date Collected: 04/18/22 11:20 Matrix: Solid Date Received: 04/19/22 16:26

Sample Depth: 0.5

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fa
Benzene	<0.00202	U	0.00202	mg/Kg		04/21/22 11:35	04/22/22 01:43	
Toluene	<0.00202	U	0.00202	mg/Kg		04/21/22 11:35	04/22/22 01:43	
Ethylbenzene	<0.00202	U	0.00202	mg/Kg		04/21/22 11:35	04/22/22 01:43	
m-Xylene & p-Xylene	<0.00404	U	0.00404	mg/Kg		04/21/22 11:35	04/22/22 01:43	
o-Xylene	<0.00202	U	0.00202	mg/Kg		04/21/22 11:35	04/22/22 01:43	
Xylenes, Total	<0.00404	U	0.00404	mg/Kg		04/21/22 11:35	04/22/22 01:43	
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fa
1-Bromofluorobenzene (Surr)	108		70 - 130			04/21/22 11:35	04/22/22 01:43	
1,4-Difluorobenzene (Surr)	101		70 - 130			04/21/22 11:35	04/22/22 01:43	
Method: Total BTEX - Total BT	EX Calculation							
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fa
Total BTEX	<0.00404	U	0.00404	mg/Kg			04/22/22 11:18	
Method: 8015 NM - Diesel Rang	ge Organics (DR	O) (GC)						
Analyte		Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fa
Total TPH	656		50.0	mg/Kg			04/25/22 09:06	
Method: 8015B NM - Diesel Ra	nge Organics (D	RO) (GC)						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fa
Gasoline Range Organics	<50.0	U	50.0	mg/Kg		04/21/22 13:45	04/23/22 07:56	
Diesel Range Organics (Over	361		50.0	mg/Kg		04/21/22 13:45	04/23/22 07:56	
Oll Range Organics (Over C28-C36)	295		50.0	mg/Kg		04/21/22 13:45	04/23/22 07:56	
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fa
1-Chlorooctane	109		70 - 130			04/21/22 13:45	04/23/22 07:56	
o-Terphenyl	106		70 - 130			04/21/22 13:45	04/23/22 07:56	
Method: 300.0 - Anions, Ion Ch	romatography -	Soluble						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fa

Client Sample ID: SS02 Lab Sample ID: 890-2209-2 Matrix: Solid

Date Collected: 04/18/22 11:25 Date Received: 04/19/22 16:26

Sample Depth: 0.5

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		04/21/22 11:35	04/22/22 03:05	1
Toluene	<0.00200	U	0.00200	mg/Kg		04/21/22 11:35	04/22/22 03:05	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		04/21/22 11:35	04/22/22 03:05	1
m-Xylene & p-Xylene	<0.00401	U	0.00401	mg/Kg		04/21/22 11:35	04/22/22 03:05	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		04/21/22 11:35	04/22/22 03:05	1
Xylenes, Total	< 0.00401	U	0.00401	mg/Kg		04/21/22 11:35	04/22/22 03:05	1

Job ID: 890-2209-1

Client: Ensolum Project/Site: BEU 5E HON SOLO 114H SDG: 03E1558021

Client Sample ID: SS02 Lab Sample ID: 890-2209-2

Date Collected: 04/18/22 11:25 Matrix: Solid Date Received: 04/19/22 16:26

Sample Depth: 0.5

Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fa
4-Bromofluorobenzene (Surr)	112		70 - 130			04/21/22 11:35	04/22/22 03:05	
1,4-Difluorobenzene (Surr)	96		70 - 130			04/21/22 11:35	04/22/22 03:05	
Method: Total BTEX - Total BTE	EX Calculation							
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fa
Total BTEX	<0.00401	U	0.00401	mg/Kg			04/22/22 11:18	
Method: 8015 NM - Diesel Ranç	ge Organics (DR	O) (GC)						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fa
Total TPH	1410		50.0	mg/Kg			04/25/22 09:06	
Method: 8015B NM - Diesel Rai	nge Organics (D	RO) (GC)						
Analyte		Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0	mg/Kg		04/21/22 13:45	04/23/22 07:34	,
Diesel Range Organics (Over C10-C28)	985		50.0	mg/Kg		04/21/22 13:45	04/23/22 07:34	,
Oll Range Organics (Over C28-C36)	420		50.0	mg/Kg		04/21/22 13:45	04/23/22 07:34	
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fa
1-Chlorooctane	121		70 - 130			04/21/22 13:45	04/23/22 07:34	
o-Terphenyl	118		70 - 130			04/21/22 13:45	04/23/22 07:34	
Method: 300.0 - Anions, Ion Ch	romatography -	Soluble						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	847		5.04	mg/Kg			04/21/22 19:43	

Lab Sample ID: 890-2209-3 **Client Sample ID: SS03** Date Collected: 04/18/22 11:40 **Matrix: Solid**

Date Received: 04/19/22 16:26

Sample Depth: 0.5

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199	mg/Kg		04/21/22 11:35	04/22/22 03:26	1
Toluene	<0.00199	U	0.00199	mg/Kg		04/21/22 11:35	04/22/22 03:26	1
Ethylbenzene	<0.00199	U	0.00199	mg/Kg		04/21/22 11:35	04/22/22 03:26	1
m-Xylene & p-Xylene	<0.00398	U	0.00398	mg/Kg		04/21/22 11:35	04/22/22 03:26	1
o-Xylene	<0.00199	U	0.00199	mg/Kg		04/21/22 11:35	04/22/22 03:26	1
Xylenes, Total	<0.00398	U	0.00398	mg/Kg		04/21/22 11:35	04/22/22 03:26	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	110		70 - 130			04/21/22 11:35	04/22/22 03:26	1
1,4-Difluorobenzene (Surr)	101		70 - 130			04/21/22 11:35	04/22/22 03:26	1
Method: Total BTEX - Total B1	EX Calculation							
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398	mg/Kg			04/22/22 11:18	

Client Sample Results

Client: Ensolum Job ID: 890-2209-1 Project/Site: BEU 5E HON SOLO 114H SDG: 03E1558021

Client Sample ID: SS03

Lab Sample ID: 890-2209-3 Date Collected: 04/18/22 11:40 Date Received: 04/19/22 16:26

Sample Depth: 0.5

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	8040		250	mg/Kg			04/25/22 09:06	1
- Method: 8015B NM - Diesel Rar	nge Organics (DI	RO) (GC)						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<250	U	250	mg/Kg		04/21/22 13:45	04/23/22 07:13	5
Diesel Range Organics (Over C10-C28)	2830		250	mg/Kg		04/21/22 13:45	04/23/22 07:13	5
Oll Range Organics (Over C28-C36)	5210		250	mg/Kg		04/21/22 13:45	04/23/22 07:13	5
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	104		70 - 130			04/21/22 13:45	04/23/22 07:13	5
o-Terphenyl	94		70 - 130			04/21/22 13:45	04/23/22 07:13	5
Method: 300.0 - Anions, Ion Ch	romatography -	Soluble						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	534		5.02	mg/Kg			04/21/22 20:10	

Surrogate Summary

Job ID: 890-2209-1 Client: Ensolum Project/Site: BEU 5E HON SOLO 114H SDG: 03E1558021

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)	
390-2207-A-1-A MS	Matrix Spike	106	100	
890-2207-A-1-B MSD	Matrix Spike Duplicate	107	102	
890-2209-1	SS01	108	101	
890-2209-2	SS02	112	96	
390-2209-3	SS03	110	101	
LCS 880-23940/1-A	Lab Control Sample	106	103	
_CSD 880-23940/2-A	Lab Control Sample Dup	104	101	
MB 880-23898/5-A	Method Blank	101	97	
MB 880-23940/5-A	Method Blank	99	91	
Surrogate Legend				

DFBZ = 1,4-Difluorobenzene (Surr)

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

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

				Percent Surrogate Recovery (Acceptance Limits)
		1CO1	OTPH1	
Lab Sample ID	Client Sample ID	(70-130)	(70-130)	
890-2207-A-1-E MS	Matrix Spike	110	108	
890-2207-A-1-F MSD	Matrix Spike Duplicate	133 S1+	128	
890-2209-1	SS01	109	106	
890-2209-2	SS02	121	118	
890-2209-3	SS03	104	94	
LCS 880-23941/2-A	Lab Control Sample	115	109	
LCSD 880-23941/3-A	Lab Control Sample Dup	116	113	
MB 880-23941/1-A	Method Blank	113	125	

1CO = 1-Chlorooctane

OTPH = o-Terphenyl

1

Client: Ensolum Job ID: 890-2209-1 Project/Site: BEU 5E HON SOLO 114H SDG: 03E1558021

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-23898/5-A

Analysis Batch: 23883

Matrix: Solid

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 23898

	MB	MB						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		04/21/22 09:32	04/21/22 11:41	1
Toluene	<0.00200	U	0.00200	mg/Kg		04/21/22 09:32	04/21/22 11:41	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		04/21/22 09:32	04/21/22 11:41	1
m-Xylene & p-Xylene	<0.00400	U	0.00400	mg/Kg		04/21/22 09:32	04/21/22 11:41	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		04/21/22 09:32	04/21/22 11:41	1
Xylenes, Total	<0.00400	U	0.00400	mg/Kg		04/21/22 09:32	04/21/22 11:41	1

MB MB

Surrogate	%Recovery	Qualifier	Limits	Prej	pared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	101		70 - 130	04/21/2	22 09:32	04/21/22 11:41	1
1,4-Difluorobenzene (Surr)	97		70 - 130	04/21/2	22 09:32	04/21/22 11:41	1

Lab Sample ID: MB 880-23940/5-A

Matrix: Solid

Xylenes, Total

Client Sample ID: Method Blank

04/21/22 22:17

Prep Type: Total/NA

Prep Batch: 23940

Analysis Batch: 23883 MR MR

Analyte Result Qualifier RL Unit Prepared Analyzed Dil Fac Benzene <0.00200 U 0.00200 mg/Kg 04/21/22 11:35 04/21/22 22:17 Toluene <0.00200 U 0.00200 mg/Kg 04/21/22 11:35 04/21/22 22:17 Ethylbenzene <0.00200 U 0.00200 mg/Kg 04/21/22 11:35 04/21/22 22:17 0.00400 04/21/22 11:35 04/21/22 22:17 m-Xylene & p-Xylene <0.00400 U mg/Kg <0.00200 U 0.00200 o-Xylene mg/Kg 04/21/22 11:35 04/21/22 22:17

0.00400

mg/Kg

MB MB

<0.00400 U

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	99		70 - 130	04/21/22 11:35	04/21/22 22:17	1
1,4-Difluorobenzene (Surr)	91		70 - 130	04/21/22 11:35	04/21/22 22:17	1

Lab Sample ID: LCS 880-23940/1-A

Matrix: Solid

Analysis Batch: 23883

Client Sample ID: Lab Control Sample

Client Sample ID: Lab Control Sample Dup

04/21/22 11:35

Prep Type: Total/NA

Prep Batch: 23940

	Spike	LCS	LCS				%Rec	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Benzene	0.100	0.1005		mg/Kg		100	70 - 130	
Toluene	0.100	0.09886		mg/Kg		99	70 - 130	
Ethylbenzene	0.100	0.09908		mg/Kg		99	70 - 130	
m-Xylene & p-Xylene	0.200	0.2021		mg/Kg		101	70 - 130	
o-Xylene	0.100	0.1023		mg/Kg		102	70 - 130	

LCS LCS

Surrogate	%Recovery Qualifier	Limits
4-Bromofluorobenzene (Surr)	106	70 - 130
1,4-Difluorobenzene (Surr)	103	70 - 130

Lab Sample ID: LCSD 880-23940/2-A

Matrix: Solid

Analysis Batch: 23883

	Prep Type:	Total/NA
	Prep Batc	h: 23940
LCSD LCSD	%Rec	RPD

Spike Analyte Added Result Qualifier Unit %Rec RPD Limit Limits Benzene 0.100 0.09617 mg/Kg 96 70 - 130 35

Job ID: 890-2209-1 Client: Ensolum Project/Site: BEU 5E HON SOLO 114H SDG: 03E1558021

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

Lab Sample ID: LCSD 880-23940/2-A **Matrix: Solid**

Analysis Batch: 23883

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA Prep Batch: 23940

Spike LCSD LCSD %Rec **RPD** Analyte Added Result Qualifier Unit %Rec Limits **RPD** Limit D Toluene 0.100 0.09442 94 70 - 130 35 mg/Kg 5 Ethylbenzene 0.100 0.09448 mg/Kg 94 70 - 130 5 35 0.200 m-Xylene & p-Xylene 0.1923 mg/Kg 96 70 130 35 5 o-Xylene 0.100 0.09722 mg/Kg 97 70 - 130 5 35

LCSD LCSD

Surrogate	%Recovery	Qualifier	Limits
4-Bromofluorobenzene (Surr)	104		70 - 130
1,4-Difluorobenzene (Surr)	101		70 - 130

Lab Sample ID: 890-2207-A-1-A MS Client Sample ID: Matrix Spike

Matrix: Solid

Analysis Batch: 23883

Prep Type: Total/NA

Prep Batch: 23940

MS MS %Rec Sample Sample Spike Result Qualifier Analyte Added Result Qualifier Unit %Rec Limits Benzene <0.00201 U 0.101 0.1025 mg/Kg 102 70 - 130 Toluene <0.00201 U 0.101 0.09214 91 70 - 130 mg/Kg Ethylbenzene 0.101 0.07746 77 70 - 130 <0.00201 U F2 F1 mg/Kg m-Xylene & p-Xylene <0.00402 U F1 0.202 0.1606 80 70 - 130 mg/Kg o-Xylene <0.00201 UF1 0.101 0.07856 mg/Kg 78 70 - 130

MS MS

Surrogate	%Recovery Qualifier	Limits
4-Bromofluorobenzene (Surr)	106	70 - 130
1,4-Difluorobenzene (Surr)	100	70 - 130

Lab Sample ID: 890-2207-A-1-B MSD Client Sample ID: Matrix Spike Duplicate

Matrix: Solid

Analysis Batch: 23883

Prep Type: Total/NA Prep Batch: 23940

%Rec MSD MSD RPD Sample Sample Spike Analyte Result Qualifier Added Result Qualifier Unit D %Rec Limits RPD Limit Benzene <0.00201 U 0.0994 0.09413 mg/Kg 95 70 - 130 9 35 Toluene <0.00201 U 0.0994 0.08168 mg/Kg 82 70 - 130 12 35 Ethylbenzene <0.00201 U F2 F1 0.0994 0.03017 F2 F1 mg/Kg 30 70 - 130 88 35 0.199 0.1354 F1 68 70 - 130 35 m-Xylene & p-Xylene <0.00402 UF1 mg/Kg 17 0.0994 o-Xylene <0.00201 UF1 0.06657 F1 mg/Kg 70 - 130 35

MSD MSD

Surrogate	%Recovery Qualifie	r Limits
4-Bromofluorobenzene (Surr)	107	70 - 130
1,4-Difluorobenzene (Surr)	102	70 - 130

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

Lab Sample ID: MB 880-23941/1-A

Analysis Batch: 24009

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 23941

мв мв Analyte Result Qualifier RL Unit Prepared Analyzed Dil Fac <50.0 U 50.0 mg/Kg 04/21/22 13:45 04/22/22 23:02 Gasoline Range Organics

(GRO)-C6-C10

Matrix: Solid

Client: Ensolum

Job ID: 890-2209-1

SDG: 03E1558021

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

Lab Sample ID: MB 880-23941/1-A **Matrix: Solid**

Project/Site: BEU 5E HON SOLO 114H

Analysis Batch: 24009

Client Sample ID: Method Blank

Prep Type: Total/NA Prep Batch: 23941

	IVID	IVID						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics (Over	<50.0	U	50.0	mg/Kg		04/21/22 13:45	04/22/22 23:02	1
C10-C28)								
Oll Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		04/21/22 13:45	04/22/22 23:02	1

MB MB

	Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
	1-Chlorooctane	113		70 - 130	04/21/22 13:45	04/22/22 23:02	1
Į	o-Terphenyl	125		70 - 130	04/21/22 13:45	04/22/22 23:02	1

Client Sample ID: Lab Control Sample

Lab Sample ID: LCS 880-23941/2-A **Matrix: Solid** Prep Type: Total/NA

Analysis Batch: 24009 Prep Batch: 23941

Spi	ke LCS	LCS				%Rec	
Analyte Add	ed Result	Qualifier	Unit	D	%Rec	Limits	
Gasoline Range Organics 10	00 921.4		mg/Kg	_	92	70 - 130	
(GRO)-C6-C10							
Diesel Range Organics (Over 10	00 1216		mg/Kg		122	70 - 130	
C10-C28)							

LCS LCS

Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane	115		70 - 130
o-Terphenyl	109		70 - 130

Lab Sample ID: LCSD 880-23941/3-A

Matrix: Solid

Analysis Batch: 24009

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

Prep Batch: 23941

	Spike	LCSD	LCSD				%Rec		RPD
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Gasoline Range Organics	1000	953.6		mg/Kg		95	70 - 130	3	20
(GRO)-C6-C10									
Diesel Range Organics (Over	1000	1108		mg/Kg		111	70 - 130	9	20
C10-C28)									

LCSD LCSD Surrogate %Recovery Qualifier Limits 1-Chlorooctane 116 70 - 130 o-Terphenyl 113 70 - 130

Lab Sample ID: 890-2207-A-1-E MS

Matrix: Solid

Analysis Batch: 24009

Client Sample ID: Matrix Spike

Prep Type: Total/NA Prep Batch: 23941

Sample Sample Spike MS MS %Rec Analyte Result Qualifier Added Result Qualifier Unit %Rec Limits Gasoline Range Organics <49.9 U 1000 947.1 93 70 - 130 mg/Kg (GRO)-C6-C10 1000 961.1 96 70 - 130 Diesel Range Organics (Over <49.9 U mg/Kg

C10-C28)

	IVIS	IVIS	
Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane	110		70 - 130
o-Terphenyl	108		70 - 130

Client: Ensolum Job ID: 890-2209-1 Project/Site: BEU 5E HON SOLO 114H SDG: 03E1558021

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

Lab Sample ID: 890-2207-A-1-F MSD Client Sample ID: Matrix Spike Duplicate

Matrix: Solid

Prep Type: Total/NA **Analysis Batch: 24009** Prep Batch: 23941

	Sample	Sample	Spike	MSD	MSD				%Rec		RPD
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Gasoline Range Organics	<49.9	U	998	1157		mg/Kg		114	70 - 130	20	20
(GRO)-C6-C10											
Diesel Range Organics (Over	<49.9	U	998	1177		mg/Kg		118	70 - 130	20	20
C10-C28)											

MSD MSD %Recovery Qualifier Limits Surrogate 1-Chlorooctane 133 S1+ 70 - 130 o-Terphenyl 128 70 - 130

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-23900/1-A Client Sample ID: Method Blank **Prep Type: Soluble**

Matrix: Solid

Analysis Batch: 23991

мв мв

Analyte	Result Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.00 U	5.00	mg/Kg			04/21/22 18:48	1

Lab Sample ID: LCS 880-23900/2-A **Client Sample ID: Lab Control Sample Matrix: Solid Prep Type: Soluble**

Analysis Batch: 23991

	Spike	LCS	LCS				%Rec	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Chloride	250	245.8		mg/Kg		98	90 - 110	

Lab Sample ID: LCSD 880-23900/3-A Client Sample ID: Lab Control Sample Dup **Prep Type: Soluble**

Matrix: Solid

Analysis Batch: 23991

	Spike	LCSD	LCSD				%Rec		RPD	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit	
Chloride	250	2/5 1		ma/Ka		08	90 110		20	

Lab Sample ID: 890-2209-1 MS **Client Sample ID: SS01 Prep Type: Soluble**

Matrix: Solid

Analysis Batch: 23991

	Sample	Sample	Spike	IVIS	IVIS				%Rec	
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Chloride	408		251	654.5		mg/Kg		98	90 - 110	

Lab Sample ID: 890-2209-1 MSD **Client Sample ID: SS01** Matrix: Solid **Prep Type: Soluble**

Analysis Batch: 23991

Sample Sample Spike MSD MSD %Rec RPD Result Qualifier Added Result Qualifier Limit Analyte %Rec Limits RPD Unit 251 641.7 93 Chloride 408 90 - 110 mg/Kg

QC Association Summary

 Client: Ensolum
 Job ID: 890-2209-1

 Project/Site: BEU 5E HON SOLO 114H
 SDG: 03E1558021

GC VOA

Analysis Batch: 23883

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2209-1	SS01	Total/NA	Solid	8021B	23940
890-2209-2	SS02	Total/NA	Solid	8021B	23940
890-2209-3	SS03	Total/NA	Solid	8021B	23940
MB 880-23898/5-A	Method Blank	Total/NA	Solid	8021B	23898
MB 880-23940/5-A	Method Blank	Total/NA	Solid	8021B	23940
LCS 880-23940/1-A	Lab Control Sample	Total/NA	Solid	8021B	23940
LCSD 880-23940/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	23940
890-2207-A-1-A MS	Matrix Spike	Total/NA	Solid	8021B	23940
890-2207-A-1-B MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	23940

Prep Batch: 23898

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 880-23898/5-A	Method Blank	Total/NA	Solid	5035	

Prep Batch: 23940

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2209-1	SS01	Total/NA	Solid	5035	
890-2209-2	SS02	Total/NA	Solid	5035	
890-2209-3	SS03	Total/NA	Solid	5035	
MB 880-23940/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-23940/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-23940/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
890-2207-A-1-A MS	Matrix Spike	Total/NA	Solid	5035	
890-2207-A-1-B MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	

Analysis Batch: 24033

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2209-1	SS01	Total/NA	Solid	Total BTEX	
890-2209-2	SS02	Total/NA	Solid	Total BTEX	
890-2209-3	SS03	Total/NA	Solid	Total BTEX	

GC Semi VOA

Prep Batch: 23941

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2209-1	SS01	Total/NA	Solid	8015NM Prep	
890-2209-2	SS02	Total/NA	Solid	8015NM Prep	
890-2209-3	SS03	Total/NA	Solid	8015NM Prep	
MB 880-23941/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-23941/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-23941/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
890-2207-A-1-E MS	Matrix Spike	Total/NA	Solid	8015NM Prep	
890-2207-A-1-F MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	

Analysis Batch: 24009

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2209-1	SS01	Total/NA	Solid	8015B NM	23941
890-2209-2	SS02	Total/NA	Solid	8015B NM	23941
890-2209-3	SS03	Total/NA	Solid	8015B NM	23941
MB 880-23941/1-A	Method Blank	Total/NA	Solid	8015B NM	23941
LCS 880-23941/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	23941

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QC Association Summary

 Client: Ensolum
 Job ID: 890-2209-1

 Project/Site: BEU 5E HON SOLO 114H
 SDG: 03E1558021

GC Semi VOA (Continued)

Analysis Batch: 24009 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCSD 880-23941/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	23941
890-2207-A-1-E MS	Matrix Spike	Total/NA	Solid	8015B NM	23941
890-2207-A-1-F MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	23941

Analysis Batch: 24125

Lab Sample ID 890-2209-1	Client Sample ID SS01	Prep Type Total/NA	Matrix Solid	Method 8015 NM	Prep Batch
890-2209-2	SS02	Total/NA	Solid	8015 NM	
890-2209-3	SS03	Total/NA	Solid	8015 NM	

HPLC/IC

Leach Batch: 23900

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2209-1	SS01	Soluble	Solid	DI Leach	_
890-2209-2	SS02	Soluble	Solid	DI Leach	
890-2209-3	SS03	Soluble	Solid	DI Leach	
MB 880-23900/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-23900/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-23900/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
890-2209-1 MS	SS01	Soluble	Solid	DI Leach	
890-2209-1 MSD	SS01	Soluble	Solid	DI Leach	

Analysis Batch: 23991

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2209-1	SS01	Soluble	Solid	300.0	23900
890-2209-2	SS02	Soluble	Solid	300.0	23900
890-2209-3	SS03	Soluble	Solid	300.0	23900
MB 880-23900/1-A	Method Blank	Soluble	Solid	300.0	23900
LCS 880-23900/2-A	Lab Control Sample	Soluble	Solid	300.0	23900
LCSD 880-23900/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	23900
890-2209-1 MS	SS01	Soluble	Solid	300.0	23900
890-2209-1 MSD	SS01	Soluble	Solid	300.0	23900

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Date Received: 04/19/22 16:26

Client: Ensolum Project/Site: BEU 5E HON SOLO 114H Job ID: 890-2209-1

SDG: 03E1558021

Client Sample ID: SS01 Lab Sample ID: 890-2209-1 Date Collected: 04/18/22 11:20

Matrix: Solid

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.95 g	5 mL	23940	04/21/22 11:35	MR	XEN MID
Total/NA	Analysis	8021B		1			23883	04/22/22 01:43	MR	XEN MID
Total/NA	Analysis	Total BTEX		1			24033	04/22/22 11:18	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			24125	04/25/22 09:06	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.00 g	10 mL	23941	04/21/22 13:45	DM	XEN MID
Total/NA	Analysis	8015B NM		1			24009	04/23/22 07:56	AJ	XEN MID
Soluble	Leach	DI Leach			4.98 g	50 mL	23900	04/21/22 09:36	CH	XEN MID
Soluble	Analysis	300.0		1			23991	04/21/22 19:15	CH	XEN MID

Lab Sample ID: 890-2209-2 **Client Sample ID: SS02**

Date Collected: 04/18/22 11:25 **Matrix: Solid**

Date Received: 04/19/22 16:26

Batch Dil Initial Final Batch Batch Prepared Prep Type Туре Method Run Factor Amount Amount Number or Analyzed Analyst Lab 5035 23940 Total/NA Prep 4.99 g 04/21/22 11:35 MR XEN MID 5 mL 8021B Total/NA 23883 04/22/22 03:05 XEN MID Analysis 1 MR Total/NA Total BTEX 24033 04/22/22 11:18 XEN MID Analysis 1 A.I Total/NA Analysis 8015 NM 24125 04/25/22 09:06 XEN MID Total/NA 8015NM Prep 23941 XEN MID Prep 10.01 g 04/21/22 13:45 DM 10 mL Total/NA Analysis 8015B NM 24009 04/23/22 07:34 AJ XEN MID Soluble XEN MID Leach DI Leach 4.96 g 50 mL 23900 04/21/22 09:36 CH Soluble Analysis 300.0 23991 04/21/22 19:43 CH XEN MID

Lab Sample ID: 890-2209-3 **Client Sample ID: SS03** Date Collected: 04/18/22 11:40

Date Received: 04/19/22 16:26

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.02 g	5 mL	23940	04/21/22 11:35	MR	XEN MID
Total/NA	Analysis	8021B		1			23883	04/22/22 03:26	MR	XEN MID
Total/NA	Analysis	Total BTEX		1			24033	04/22/22 11:18	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			24125	04/25/22 09:06	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	23941	04/21/22 13:45	DM	XEN MID
Total/NA	Analysis	8015B NM		5			24009	04/23/22 07:13	AJ	XEN MID
Soluble	Leach	DI Leach			4.98 g	50 mL	23900	04/21/22 09:36	CH	XEN MID
Soluble	Analysis	300.0		1			23991	04/21/22 20:10	CH	XEN MID

Laboratory References:

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

Eurofins Carlsbad

Released to Imaging: 9/29/2022 12:24:29 PM

Matrix: Solid

Accreditation/Certification Summary

 Client: Ensolum
 Job ID: 890-2209-1

 Project/Site: BEU 5E HON SOLO 114H
 SDG: 03E1558021

Laboratory: Eurofins Midland

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

Authority		ogram	Identification Number	Expiration Date	
Texas	NI	ELAP	T104704400-21-22	06-30-22	
The following analytes	are included in this report by	it the laboratory is not cortifi	ed by the governing authority. This list ma	av include analytee fo	
the agency does not of	. ,	at the laboratory is not certifi	ed by the governing additionty. This list the	ay include arialytes to	
0 ,	. ,	Matrix	Analyte	ay include analytes to	
the agency does not of	fer certification.	•	, , ,	ay include analytes to	

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4.0

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Method Summary

Client: Ensolum Job ID: 890-2209-1 Project/Site: BEU 5E HON SOLO 114H

SDG: 03E1558021	

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

Protocol References:

ASTM = ASTM International

MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions. SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

TAL SOP = TestAmerica Laboratories, Standard Operating Procedure

Laboratory References:

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

Sample Summary

Client: Ensolum

Project/Site: BEU 5E HON SOLO 114H

Job ID: 890-2209-1

SDG: 03E1558021

1558021	

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-2209-1	SS01	Solid	04/18/22 11:20	04/19/22 16:26	0.5
890-2209-2	SS02	Solid	04/18/22 11:25	04/19/22 16:26	0.5
890-2209-3	SS03	Solid	04/18/22 11:40	04/19/22 16:26	0.5

Work Order No:

Midland, TX (432) 704-5440, San Antonio, TX (210) 509-3334

Environment Testing

💸 eurofins

Xenco

EL Paso, TX (915) 585-3443, Lubbock, TX (806) 794-1296

Houston, TX (281) 240-4200, Dallas, TX (214) 902-0300

Chain of Custody

sed Date: 08/25/2020 Rev. 2020.

4-19-33

Z

		NO COCOL	(27.5) 592-7.550, Calisbad, NW (57.5) 500-5199	www.xenco.com	Page of
Project Manager:	Kale, Jennings	Bill to: (if different)	Adrian Baker	Work Order Comments	mments
Company Name:	Existing LC	Company Name:	XTO Energy Day	Program: UST/PST ☐ PRP ☐ Brov	Brownfields ☐ RRC ☐ Superfund ☐
Address:	705 W wedley Ave Switch	ALC 24 Address:	3104 E. Alean Street		1
City, State ZIP:	Midland, TX 79705	City, State ZIP:	(colour), NM 88220	Reporting: Level II Level III P	PST/UST TRRP Level IV
Phone:	817-683-2503	Email: Kiennings	W	Deliverables: EDD ADaPT	ıT ☐ Other:
Project Name:	BEU SE Hom Solo 1144	Turn Around	ANALYSIS REQUEST	UEST	Preservative Codes
Project Number:	-	Rush	Pres. Code		None: NO DI Water: H ₂ O
Project Location:	Eddy Due Date:	Jate:			0
Sampler's Name:	Castro	TAT starts the day received by			
PO #:		the lab, if received by 4:30pm	7		H ₂ SO 4: H ₂ NaOH: Na
SAMPLE RECEIPT	Temp Blank: (xes)No Wet	No	in etermination of the state of		H ₃ PO ₄ : HP
Samples Received Intact:	(Ye) No Thermometer ID:		10		NaHSO 4: NABIS
Cooler Custody Seals:	Yes No AVA Correction Factor:	2.2	7		Na ₂ S ₂ O ₃ : NaSO ₃
Sample Custody Seals:	Yes No (N/A) Temperature Reading:	3.8 ibu		890-2209 Chain of Custody	Zn Acetate+NaOH: Zn
Total Containers:	Corrected Temperature:	sture: 3.6		-	NaOH+Ascorbic Acid: SAPC
Sample Identification	Matrix Date Sampled	Time Depth Grab/#	81E 194		Sample Comments
1085	5 64/18/22 11	N20 0.5'	XXX		INC. NAPPOZUACHITSS
2005					(C:1606761001
5203	7 7	>	つ		
	1				
	7				
\					
Total 200.7 / 6010 Circle Method(s) and	Total 200.7 / 6010 200.8 / 6020: 8RCRA Circle Method(s) and Metal(s) to be analyzed To	13PPM Texas 11 AI	8RCRA 13PPM Texas 11 Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K TCLP/SPLP6010: 8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Tl U	g Mn Mo Ni K Se Ag SiO ₂ Na Sr Tl Sn U V Se Ag Tl U Hg: 1631/245.1/7470 / 747	TI Sn U V Zn /7470 /7471
Notice: Signature of this docume of service. Eurofins Xenco will be	int and relinquishment of samples constitutes a valid pure is label only for the cost of samples and shall not assume:	chase order from client company to any responsibility for any losses or ex	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 for 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 client standard and a payable of the control of the c	rms and conditions eyond the control sss previously negotiated.	
Relinquished by (Signature)	inage of solice will be applied to each project and a charge of solice from the projec	inature)	Date/Time Relinquished by: (Signature)	ture) Received by: (Signature)) Date/Time
ー・イン ラフェララス アーニンド		1			

Login Sample Receipt Checklist

Client: Ensolum Job Number: 890-2209-1 SDG Number: 03E1558021

Login Number: 2209 List Source: Eurofins Carlsbad

List Number: 1 Creator: Clifton, Cloe

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: 890-2209-1 SDG Number: 03E1558021

Login Number: 2209 **List Source: Eurofins Midland** List Number: 2 List Creation: 04/21/22 11:26 AM

Creator: Rodriguez, Leticia

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	N/A	

<6mm (1/4").



Environment Testing America

ANALYTICAL REPORT

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

Laboratory Job ID: 890-2363-1

Laboratory Sample Delivery Group: 03E1558021 Client Project/Site: BEU 5E Han Solo 114H

For:

Ensolum 705 W. Wadley Suite 210 Midland, Texas 79701

Attn: Kalei Jennings

RAMER

Authorized for release by: 6/6/2022 11:53:26 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

Results relate only to the items tested and the sample(s) as received by the laboratory.

Client: Ensolum

Project/Site: BEU 5E Han Solo 114H

Laboratory Job ID: 890-2363-1

SDG: 03E1558021

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Definitions/Glossary

Client: Ensolum Job ID: 890-2363-1 Project/Site: BEU 5E Han Solo 114H

SDG: 03E1558021

Qualifiers

GC	VOA
Qual	lifier

*1	LCS/LCSD RPD exceeds control limits.
F1	MS and/or MSD recovery exceeds control limits.
F2	MS/MSD RPD exceeds control limits

Qualifier Description

U Indicates the analyte was analyzed for but not detected.

GC Semi VOA

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

HPLC/IC

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

Glossary

EDL

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
DI	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)

LOD Limit of Detection (DoD/DOE) LOQ Limit of Quantitation (DoD/DOE) EPA recommended "Maximum Contaminant Level" MCL

Estimated Detection Limit (Dioxin)

MDA Minimum Detectable Activity (Radiochemistry) Minimum Detectable Concentration (Radiochemistry) MDC MDL Method Detection Limit

MI 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 Practical Quantitation Limit PQL

PRES Presumptive QC **Quality Control**

RER Relative Error Ratio (Radiochemistry)

Reporting Limit or Requested Limit (Radiochemistry) RL

RPD Relative Percent Difference, a measure of the relative difference between two points

TEF Toxicity Equivalent Factor (Dioxin) **TEQ** Toxicity Equivalent Quotient (Dioxin)

TNTC Too Numerous To Count

Case Narrative

Client: Ensolum

Project/Site: BEU 5E Han Solo 114H

Job ID: 890-2363-1

SDG: 03E1558021

Job ID: 890-2363-1

Laboratory: Eurofins Carlsbad

Narrative

Job Narrative 890-2363-1

Receipt

The samples were received on 6/1/2022 9:07 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 2.4°C

GC VOA

Method 8021B: The RPD of the laboratory control sample (LCS) and laboratory control sample duplicate (LCSD) for preparation batch 880-26732 and analytical batch 880-26723 recovered outside control limits for the following analytes: Benzene.

Method 8021B: The matrix spike / matrix spike duplicate (MS/MSD) recoveries and precision for preparation batch 880-26732 and analytical batch 880-26723 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample / laboratory sample control duplicate (LCS/LCSD) precision was within acceptance limits.

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

GC Semi VOA

Method 8015MOD NM: Surrogate recovery for the following sample was outside control limits: (880-15387-A-1-C MS). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

Method 8015MOD_NM: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 880-26719 and analytical batch 880-26700 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.

HPLC/IC

Method 300_ORGFM_28D: The matrix spike / matrix spike duplicate (MS/MSD) recoveries and precision for preparation batch 880-26738 and analytical batch 880-26786 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample / laboratory sample control duplicate (LCS/LCSD) precision was within acceptance limits.

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

Client: Ensolum Job ID: 890-2363-1

Project/Site: BEU 5E Han Solo 114H SDG: 03E1558021

Client Sample ID: PH01 Lab Sample ID: 890-2363-1 Date Collected: 05/31/22 12:30 Date Received: 06/01/22 09:07

Sample Depth: 1'

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00201	U *1	0.00201	mg/Kg		06/02/22 11:29	06/03/22 07:56	1
Toluene	0.00272		0.00201	mg/Kg		06/02/22 11:29	06/03/22 07:56	1
Ethylbenzene	<0.00201	U	0.00201	mg/Kg		06/02/22 11:29	06/03/22 07:56	1
m-Xylene & p-Xylene	0.0148		0.00402	mg/Kg		06/02/22 11:29	06/03/22 07:56	1
o-Xylene	0.00410		0.00201	mg/Kg		06/02/22 11:29	06/03/22 07:56	1
Xylenes, Total	0.0189		0.00402	mg/Kg		06/02/22 11:29	06/03/22 07:56	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	115		70 - 130			06/02/22 11:29	06/03/22 07:56	1
1,4-Difluorobenzene (Surr)	90		70 - 130			06/02/22 11:29	06/03/22 07:56	1
Method: Total BTEX - Total BTE	(Calculation							
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	0.0216		0.00402	mg/Kg			06/03/22 14:08	1
Mathadi 2045 NM Diagal Danga	Organias (DD)	0) (00)						
Method: 8015 NM - Diesel Range Analyte	•	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	- ************************************		49.9	mg/Kg	=	Trepareu	06/02/22 17:28	1
-	140.0	O	43.3	mg/Ng			00/02/22 17:20	
Method: 8015B NM - Diesel Rang	ge Organics (D	RO) (GC)						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9	mg/Kg		06/02/22 13:00	06/02/22 14:54	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9	mg/Kg		06/02/22 13:00	06/02/22 14:54	1
Oll Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg		06/02/22 13:00	06/02/22 14:54	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	76		70 - 130			06/02/22 13:00	06/02/22 14:54	1
o-Terphenyl	71		70 - 130			06/02/22 13:00	06/02/22 14:54	1
Method: 300.0 - Anions, Ion Chro	omatography -	Soluble						
•								
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac

Client Sample ID: PH01 Lab Sample ID: 890-2363-2 Matrix: Solid

Date Collected: 05/31/22 12:35 Date Received: 06/01/22 09:07

Sample Depth: 2'

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00202	U *1	0.00202	mg/Kg		06/02/22 11:29	06/03/22 08:17	1
Toluene	<0.00202	U	0.00202	mg/Kg		06/02/22 11:29	06/03/22 08:17	1
Ethylbenzene	<0.00202	U	0.00202	mg/Kg		06/02/22 11:29	06/03/22 08:17	1
m-Xylene & p-Xylene	<0.00404	U	0.00404	mg/Kg		06/02/22 11:29	06/03/22 08:17	1
o-Xylene	<0.00202	U	0.00202	mg/Kg		06/02/22 11:29	06/03/22 08:17	1
Xylenes, Total	<0.00404	U	0.00404	mg/Kg		06/02/22 11:29	06/03/22 08:17	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)			70 - 130			06/02/22 11:29	06/03/22 08:17	

Lab Sample ID: 890-2363-2

Client: Ensolum Job ID: 890-2363-1

Project/Site: BEU 5E Han Solo 114H SDG: 03E1558021

Client Sample ID: PH01 Date Collected: 05/31/22 12:35

Date Received: 06/01/22 09:07

Sample Depth: 2'

Method: 8021B - Volatile Organic Compou	unds (GC) (Continued)
---	-----------------------

Surrogate	%Recovery Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,4-Difluorobenzene (Surr)	86	70 - 130	06/02/22 11:29	06/03/22 08:17	1

Method:	Total BT	FX - Tota	al BTFX	Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00404	U	0.00404	mg/Kg			06/03/22 14:08	1

POV (CC	· (DD	Organics	Pango	Diceol	5 NIM	2015	Mothod:	
ı	\$ (D	Organics	Range	- Diesel	5 NM	8015	Method:	

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0	mg/Kg			06/02/22 17:28	1

Method: 8015B	NM Discol	Dange Ore	aaniee (DD()) /CC)
MICHIOU. OU 13D	INIVI - DIESEI	Rallue Oli	ualiics lunc	JI (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0	mg/Kg		06/02/22 13:00	06/02/22 16:19	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		06/02/22 13:00	06/02/22 16:19	1
Oll Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		06/02/22 13:00	06/02/22 16:19	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac

Surrogate	%Recovery Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	81	70 - 130	06/02/22 13:00	06/02/22 16:19	1
o-Terphenyl	80	70 - 130	06/02/22 13:00	06/02/22 16:19	1

Method: 300.0 - Anions, lo	n Chromatography - Soluble

Analyte	Result Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	46.6	4.96	mg/Kg			06/04/22 17:44	1

Client Sample ID: PH02 Lab Sample ID: 890-2363-3 Matrix: Solid

Date Collected: 05/31/22 12:50 Date Received: 06/01/22 09:07

Sample Depth: 1'

Method: 8021B -	Volatile Organ	ic Compounds	s (GC)
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moniour coz iz romanic ci gain	o oompoundo (,						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U *1	0.00200	mg/Kg		06/02/22 11:29	06/03/22 08:37	1
Toluene	<0.00200	U	0.00200	mg/Kg		06/02/22 11:29	06/03/22 08:37	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		06/02/22 11:29	06/03/22 08:37	1
m-Xylene & p-Xylene	<0.00401	U	0.00401	mg/Kg		06/02/22 11:29	06/03/22 08:37	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		06/02/22 11:29	06/03/22 08:37	1
Xylenes, Total	<0.00401	U	0.00401	mg/Kg		06/02/22 11:29	06/03/22 08:37	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)			70 - 130			06/02/22 11:29	06/03/22 08:37	1
1,4-Difluorobenzene (Surr)	85		70 - 130			06/02/22 11:29	06/03/22 08:37	1

Method:	Total RTF)	(- Total RTFX	Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00401	U	0.00401	ma/Ka			06/03/22 14:08	1

Analyte	•	•	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH			<50.0	U	50.0	mg/Kg			06/02/22 17:28	1

Client: Ensolum Job ID: 890-2363-1

Project/Site: BEU 5E Han Solo 114H SDG: 03E1558021

Client Sample ID: PH02 Lab Sample ID: 890-2363-3 Date Collected: 05/31/22 12:50 Date Received: 06/01/22 09:07

Sample Depth: 1'

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics	<50.0	U	50.0	mg/Kg		06/02/22 13:00	06/02/22 14:32	1
(GRO)-C6-C10								
Diesel Range Organics (Over	<50.0	U	50.0	mg/Kg		06/02/22 13:00	06/02/22 14:32	1
C10-C28)								
Oll Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		06/02/22 13:00	06/02/22 14:32	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	83		70 - 130			06/02/22 13:00	06/02/22 14:32	1
o-Terphenyl	80		70 - 130			06/02/22 13:00	06/02/22 14:32	1
Method: 300.0 - Anions, Ion Chro	matography -	Soluble						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac

Client Sample ID: PH02 Lab Sample ID: 890-2363-4 Date Collected: 05/31/22 12:55 Matrix: Solid

Date Received: 06/01/22 09:07

Sample Depth: 2'

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00202	U *1	0.00202	mg/Kg		06/02/22 11:29	06/03/22 08:58	1
Toluene	<0.00202	U	0.00202	mg/Kg		06/02/22 11:29	06/03/22 08:58	1
Ethylbenzene	<0.00202	U	0.00202	mg/Kg		06/02/22 11:29	06/03/22 08:58	1
m-Xylene & p-Xylene	0.00816		0.00403	mg/Kg		06/02/22 11:29	06/03/22 08:58	1
o-Xylene	0.00289		0.00202	mg/Kg		06/02/22 11:29	06/03/22 08:58	1
Xylenes, Total	0.0111		0.00403	mg/Kg		06/02/22 11:29	06/03/22 08:58	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	127		70 - 130			06/02/22 11:29	06/03/22 08:58	1
1,4-Difluorobenzene (Surr)	91		70 - 130			06/02/22 11:29	06/03/22 08:58	1
- Method: Total BTEX - Total BTEX	(Calculation							
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	0.0111		0.00403	mg/Kg			06/03/22 14:08	1
Method: 8015 NM - Diesel Range	Organics (DR	O) (GC)						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
T TD.:								
Total TPH	<49.9	U	49.9	mg/Kg			06/02/22 17:28	1
Total TPH : Method: 8015B NM - Diesel Rang			49.9	mg/Kg			06/02/22 17:28	1
: Method: 8015B NM - Diesel Rang	ge Organics (DI		49.9 RL	mg/Kg Unit	D	Prepared	06/02/22 17:28 Analyzed	
- -	ge Organics (DI	RO) (GC) Qualifier			<u>D</u>	Prepared 06/02/22 13:00		Dil Fac
Method: 8015B NM - Diesel Rang Analyte Gasoline Range Organics	ge Organics (DI	RO) (GC) Qualifier	RL	Unit	<u>D</u>		Analyzed	Dil Fac
Method: 8015B NM - Diesel Rang Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over	ge Organics (DI Result <49.9	RO) (GC) Qualifier U	RL 49.9	Unit mg/Kg	<u> </u>	06/02/22 13:00	Analyzed 06/02/22 15:36	Dil Fac
Method: 8015B NM - Diesel Rang Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) Oll Range Organics (Over C28-C36)	ge Organics (DI Result <49.9	RO) (GC) Qualifier U	RL 49.9	Unit mg/Kg mg/Kg	<u>D</u>	06/02/22 13:00 06/02/22 13:00	Analyzed 06/02/22 15:36 06/02/22 15:36	Dil Fac 1 1 Dil Fac
Method: 8015B NM - Diesel Rang Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28)	ge Organics (DI Result <49.9 <49.9	RO) (GC) Qualifier U	RL 49.9 49.9 49.9	Unit mg/Kg mg/Kg	<u> </u>	06/02/22 13:00 06/02/22 13:00 06/02/22 13:00	Analyzed 06/02/22 15:36 06/02/22 15:36 06/02/22 15:36	Dil Fac 1 1

Job ID: 890-2363-1

Client: Ensolum Project/Site: BEU 5E Han Solo 114H SDG: 03E1558021

Client Sample ID: PH02 Lab Sample ID: 890-2363-4 Date Collected: 05/31/22 12:55

Matrix: Solid

Matrix: Solid

Date Received: 06/01/22 09:07 Sample Depth: 2'

Method: 300.0 - Anions, Ion Chromatography - Soluble											
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac			
Chloride	513		4.99	mg/Kg			06/04/22 18:02	1			

Client Sample ID: PH03 Lab Sample ID: 890-2363-5

Date Collected: 05/31/22 13:35

Method: Total BTEX - Total BTEX Calculation

Date Received: 06/01/22 09:07 Sample Depth: 1'

Analyte

(GRO)-C6-C10

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U *1	0.00200	mg/Kg		06/02/22 11:29	06/03/22 09:19	1
Toluene	0.00383		0.00200	mg/Kg		06/02/22 11:29	06/03/22 09:19	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		06/02/22 11:29	06/03/22 09:19	1
m-Xylene & p-Xylene	0.00506		0.00399	mg/Kg		06/02/22 11:29	06/03/22 09:19	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		06/02/22 11:29	06/03/22 09:19	1
Xylenes, Total	0.00506		0.00399	mg/Kg		06/02/22 11:29	06/03/22 09:19	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	120		70 - 130			06/02/22 11:29	06/03/22 09:19	1
1,4-Difluorobenzene (Surr)	91		70 - 130			06/02/22 11:29	06/03/22 09:19	1

Total BTEX	0.00889		0.00399	mg/Kg			06/03/22 14:08	1
Method: 8015 NM - Diesel Range	Organics (DR	O) (GC)						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0	mg/Kg			06/02/22 17:28	1
Method: 8015B NM - Diesel Rang	•	, , ,						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics	<50.0	U	50.0	mg/Kg		06/02/22 13:00	06/02/22 14:11	1

Unit

Prepared

Analyzed

Dil Fac

Surrogate 1-Chlorooctane	%Recovery 93	Qualifier			Prepared 06/02/22 13:00	Analyzed 06/02/22 14:11	Dil Fac
Oll Range Organics (Over C28-C36)	<50.0		50.0	mg/Kg	06/02/22 13:00	06/02/22 14:11	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg	06/02/22 13:00	06/02/22 14:11	1

Method: 300.0 - Anions, Ion Chron	Method: 300.0 - Anions, Ion Chromatography - Soluble											
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac				
Chloride	324	F1	4.95	mg/Kg			06/04/22 18:11	1				

Lab Sample ID: 890-2363-6

Client Sample Results

 Client: Ensolum
 Job ID: 890-2363-1

 Project/Site: BEU 5E Han Solo 114H
 SDG: 03E1558021

Client Sample ID: PH03

Date Collected: 05/31/22 13:40 Date Received: 06/01/22 09:07

Sample Depth: 2'

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		06/02/22 13:19	06/04/22 09:43	1
Toluene	0.00356		0.00200	mg/Kg		06/02/22 13:19	06/04/22 09:43	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		06/02/22 13:19	06/04/22 09:43	1
m-Xylene & p-Xylene	0.00623		0.00400	mg/Kg		06/02/22 13:19	06/04/22 09:43	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		06/02/22 13:19	06/04/22 09:43	1
Xylenes, Total	0.00623		0.00400	mg/Kg		06/02/22 13:19	06/04/22 09:43	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	100		70 - 130			06/02/22 13:19	06/04/22 09:43	1
1,4-Difluorobenzene (Surr)	94		70 - 130			06/02/22 13:19	06/04/22 09:43	1
- Method: Total BTEX - Total BTEX	X Calculation							
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	0.00979		0.00400	mg/Kg			06/03/22 14:08	1
Method: 8015 NM - Diesel Range Analyte	•	O) (GC) Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9	mg/Kg			06/02/22 17:28	1
- Method: 8015B NM - Diesel Rang	ge Organics (D	RO) (GC)						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9	mg/Kg		06/02/22 13:00	06/02/22 13:49	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9	mg/Kg		06/02/22 13:00	06/02/22 13:49	1
Oll Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg		06/02/22 13:00	06/02/22 13:49	1
	9/ D anasama	Qualifier	Limits			Prepared	Analyzed	Dil Fac
Surrogate	%Recovery							
Surrogate 1-Chlorooctane			70 - 130			06/02/22 13:00	06/02/22 13:49	
			70 - 130 70 - 130			06/02/22 13:00 06/02/22 13:00	06/02/22 13:49 06/02/22 13:49	1
1-Chlorooctane	81 78	Soluble						1
1-Chlorooctane o-Terphenyl	81 78 omatography -	Soluble Qualifier		Unit	D			1 1 Dil Fac

Surrogate Summary

Job ID: 890-2363-1 Client: Ensolum Project/Site: BEU 5E Han Solo 114H SDG: 03E1558021

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)	
880-15398-A-21-B MS	Matrix Spike	96	101	
880-15398-A-21-C MSD	Matrix Spike Duplicate	97	102	
390-2358-A-1-C MS	Matrix Spike	126	85	
390-2358-A-1-D MSD	Matrix Spike Duplicate	125	87	
390-2363-1	PH01	115	90	
390-2363-2	PH01	102	86	
390-2363-3	PH02	114	85	
390-2363-4	PH02	127	91	
390-2363-5	PH03	120	91	
390-2363-6	PH03	100	94	
LCS 880-26723/3	Lab Control Sample	98	97	
LCS 880-26742/1-A	Lab Control Sample	98	103	
LCSD 880-26723/4	Lab Control Sample Dup	114	94	
LCSD 880-26732/2-A	Lab Control Sample Dup	109	96	
LCSD 880-26742/2-A	Lab Control Sample Dup	97	102	
MB 880-26723/8	Method Blank	107	100	
MB 880-26732/5-A	Method Blank	108	97	
MB 880-26742/5-A	Method Blank	96	90	
MB 880-26827/5-A	Method Blank	93	91	

BFB = 4-Bromofluorobenzene (Surr)

DFBZ = 1,4-Difluorobenzene (Surr)

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

Matrix: Solid Prep Type: Total/NA

		1CO1	OTPH1	
Lab Sample ID	Client Sample ID	(70-130)	(70-130)	
880-15387-A-1-C MS	Matrix Spike	77	69 S1-	
880-15387-A-1-D MSD	Matrix Spike Duplicate	78	70	
890-2363-1	PH01	76	71	
890-2363-2	PH01	81	80	
890-2363-3	PH02	83	80	
890-2363-4	PH02	80	80	
890-2363-5	PH03	93	92	
890-2363-6	PH03	81	78	
LCS 880-26719/2-A	Lab Control Sample	118	114	
LCSD 880-26719/3-A	Lab Control Sample Dup	114	113	
MB 880-26719/1-A	Method Blank	98	109	

1CO = 1-Chlorooctane

OTPH = o-Terphenyl

Client: Ensolum Job ID: 890-2363-1 Project/Site: BEU 5E Han Solo 114H

SDG: 03E1558021

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-26723/8

Matrix: Solid Analysis Batch: 26723 Client Sample ID: Method Blank

Prep Type: Total/NA

MB MB

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg			06/02/22 19:35	1
Toluene	<0.00200	U	0.00200	mg/Kg			06/02/22 19:35	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg			06/02/22 19:35	1
m-Xylene & p-Xylene	<0.00400	U	0.00400	mg/Kg			06/02/22 19:35	1
o-Xylene	<0.00200	U	0.00200	mg/Kg			06/02/22 19:35	1
Xylenes, Total	<0.00400	U	0.00400	mg/Kg			06/02/22 19:35	1

MB MB

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	107		70 - 130		06/02/22 19:35	1
1,4-Difluorobenzene (Surr)	100		70 - 130		06/02/22 19:35	1

Lab Sample ID: LCS 880-26723/3

Matrix: Solid

Analyte

Benzene

Toluene

o-Xylene

Ethylbenzene

m-Xylene & p-Xylene

Analysis Batch: 26723

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

LCS LCS %Rec Spike Added Result Qualifier Unit %Rec Limits 0.100 0.09952 mg/Kg 100 70 - 130 0.100 0.09677 mg/Kg 97 70 - 130 0.100 0.1048 mg/Kg 105 70 - 130 0.200 0.2023 101 70 - 130 mg/Kg 0.100 0.09314 70 - 130 mg/Kg 93

LCS LCS

Surrogate	%Recovery Qualified	r Limits
4-Bromofluorobenzene (Surr)	98	70 - 130
1,4-Difluorobenzene (Surr)	97	70 - 130

Lab Sample ID: LCSD 880-26723/4

Matrix: Solid

Analysis Batch: 26723

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

	Spike	LCSD	LCSD				%Rec		RPD	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit	
Benzene	0.100	0.1035		mg/Kg		103	70 - 130	4	35	
Toluene	0.100	0.1107		mg/Kg		111	70 - 130	13	35	
Ethylbenzene	0.100	0.1275		mg/Kg		127	70 - 130	20	35	
m-Xylene & p-Xylene	0.200	0.2600		mg/Kg		130	70 - 130	25	35	
o-Xylene	0.100	0.1169		mg/Kg		117	70 - 130	23	35	

LCSD LCSD

Surrogate	%Recovery	Qualifier	Limits
4-Bromofluorobenzene (Surr)	114		70 - 130
1 4-Difluorobenzene (Surr)	94		70 - 130

Lab Sample ID: MB 880-26732/5-A

Matrix: Solid

Analysis Batch: 26723

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 26732

	IND							
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		06/02/22 11:29	06/03/22 06:12	1
Toluene	<0.00200	U	0.00200	mg/Kg		06/02/22 11:29	06/03/22 06:12	1

Client: Ensolum Job ID: 890-2363-1 Project/Site: BEU 5E Han Solo 114H SDG: 03E1558021

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

Lab Sample ID: MB 880-26732/5-A

Matrix: Solid

m-Xylene & p-Xylene

Analyte

o-Xylene

Ethylbenzene

Xylenes, Total

Analysis Batch: 26723

Client Sample ID: Method Blank

06/02/22 11:29

Prep Type: Total/NA

06/03/22 06:12

Prep Batch: 26732

MB MB Result Qualifier RL Unit Prepared Analyzed Dil Fac 0.00200 <0.00200 U 06/02/22 11:29 06/03/22 06:12 mg/Kg <0.00400 U 0.00400 mg/Kg 06/02/22 11:29 06/03/22 06:12 0.00200 <0.00200 U 06/02/22 11:29 06/03/22 06:12

mg/Kg

mg/Kg

MB MB

<0.00400 U

Surrogate	%Recovery Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	108	70 - 130	06/02/22 11:29	06/03/22 06:12	1
1,4-Difluorobenzene (Surr)	97	70 - 130	06/02/22 11:29	06/03/22 06:12	1

0.00400

Lab Sample ID: LCSD 880-26732/2-A Client Sample ID: Lab Control Sample Dup Prep Type: Total/NA

Matrix: Solid

Analysis Batch: 26723

	Spike	LCSD	LCSD				%Rec		RPD
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Benzene	0.100	0.07063	*1	mg/Kg		71	70 - 130	40	35
Toluene	0.100	0.07592		mg/Kg		76	70 - 130	25	35
Ethylbenzene	0.100	0.08356		mg/Kg		84	70 - 130	21	35
m-Xylene & p-Xylene	0.200	0.1654		mg/Kg		83	70 - 130	20	35
o-Xylene	0.100	0.07869		mg/Kg		79	70 - 130	17	35

LCSD LCSD

Surrogate	%Recovery Qualifier	Limits
4-Bromofluorobenzene (Surr)	109	70 - 130
1,4-Difluorobenzene (Surr)	96	70 - 130

Lab Sample ID: 890-2358-A-1-C MS

Matrix: Solid

Analysis Batch: 26723

Client Sam	ple ID:	Matrix	Spike
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Prep Type: Total/NA

Prep Batch: 26732

Prep Batch: 26732

	Sample	Sample	Spike	MS	MS				%Rec	
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Benzene	<0.00201	U F1 *1	0.101	0.02618	F1	mg/Kg		26	70 - 130	
		F2								
Toluene	<0.00201	U F1 F2	0.101	0.03647	F1	mg/Kg		36	70 - 130	
Ethylbenzene	<0.00201	U F1 F2	0.101	0.04234	F1	mg/Kg		42	70 - 130	
m-Xylene & p-Xylene	<0.00402	U F1 F2	0.202	0.08906	F1	mg/Kg		44	70 - 130	
o-Xylene	<0.00201	U F1 F2	0.101	0.04507	F1	mg/Kg		44	70 - 130	

MS MS

Surrogate	%Recovery Qualifier	Limits
4-Bromofluorobenzene (Surr)	126	70 - 130
1,4-Difluorobenzene (Surr)	85	70 - 130

Lab Sample ID: 890-2358-A-1-D MSD

Matrix: Solid Analysis Batch: 26723 Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 26732

	Sample	Sample	Spike	MSD	MSD				%Rec		RPD
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Benzene	<0.00201	U F1 *1	0.0998	0.05830	F1 F2	mg/Kg		58	70 - 130	76	35
		F2									
Toluene	<0.00201	U F1 F2	0.0998	0.07534	F2	mg/Kg		75	70 - 130	70	35

Job ID: 890-2363-1 Client: Ensolum Project/Site: BEU 5E Han Solo 114H SDG: 03E1558021

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

Lab Sample ID: 890-2358-A-1-D MSD

Matrix: Solid

Analysis Batch: 26723

Client Sample	ID:	Matrix	Spike	Duplicate
		Dro	n Tuna	. Total/NIA

Prep Type: Total/NA Prep Batch: 26732

Sample Sample Spike MSD MSD **RPD** Analyte Result Qualifier Added Result Qualifier Unit %Rec Limits **RPD** Limit Ethylbenzene <0.00201 U F1 F2 0.0998 0.09191 F2 92 70 - 130 74 35 mg/Kg m-Xylene & p-Xylene <0.00402 U F1 F2 0.200 0.1906 F2 mg/Kg 95 70 - 130 73 35 0.0998 0.08909 F2 o-Xylene <0.00201 U F1 F2 88 70 - 130 66 mg/Kg

MSD MSD

Surrogate	%Recovery	Qualifier	Limits
4-Bromofluorobenzene (Surr)	125		70 - 130
1,4-Difluorobenzene (Surr)	87		70 - 130

Lab Sample ID: MB 880-26742/5-A

Matrix: Solid

Analysis Batch: 26785

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

Prep Batch: 26742

MB MB

Analyte	Result Q	ualifier RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200 U	0.00200	mg/Kg		06/02/22 13:19	06/04/22 09:01	1
Toluene	<0.00200 U	0.00200	mg/Kg		06/02/22 13:19	06/04/22 09:01	1
Ethylbenzene	<0.00200 U	0.00200	mg/Kg		06/02/22 13:19	06/04/22 09:01	1
m-Xylene & p-Xylene	<0.00400 U	0.00400	mg/Kg		06/02/22 13:19	06/04/22 09:01	1
o-Xylene	<0.00200 U	0.00200	mg/Kg		06/02/22 13:19	06/04/22 09:01	1
Xylenes, Total	<0.00400 U	0.00400	mg/Kg		06/02/22 13:19	06/04/22 09:01	1

MB MB

Surrogate	%Recovery Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	96	70 - 130	06/02/22 13:19	06/04/22 09:01	1
1.4-Difluorobenzene (Surr)	90	70 - 130	06/02/22 13:19	06/04/22 09:01	1

Lab Sample ID: LCS 880-26742/1-A

Matrix: Solid

Analysis Batch: 26785

Client Sample ID: Lab Control Sample

Prep Type: Total/NA Prep Batch: 26742

Spike LCS LCS %Rec Analyte Added Result Qualifier Unit %Rec Limits Benzene 0.100 0.08689 mg/Kg 87 70 - 130 Toluene 0.100 0.08352 mg/Kg 84 70 - 130 Ethylbenzene 0.100 0.08568 mg/Kg 86 70 - 130 0.200 0.1693 85 70 - 130 m-Xylene & p-Xylene mg/Kg 0.100 o-Xylene 0.09262 mg/Kg 93 70 - 130

LCS LCS

Surrogate	%Recovery Qualifier	Limits
4-Bromofluorobenzene (Surr)	98	70 - 130
1,4-Difluorobenzene (Surr)	103	70 - 130

Lab Sample ID: LCSD 880-26742/2-A

Matrix: Solid

Analysis Batch: 26785

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 26742

	Spike	LCSD	LCSD				%Rec		RPD
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Benzene	0.100	0.09661		mg/Kg		97	70 - 130	11	35
Toluene	0.100	0.09185		mg/Kg		92	70 - 130	10	35
Ethylbenzene	0.100	0.09186		mg/Kg		92	70 - 130	7	35
m-Xylene & p-Xylene	0.200	0.1786		mg/Kg		89	70 - 130	5	35

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Client: Ensolum Job ID: 890-2363-1 Project/Site: BEU 5E Han Solo 114H SDG: 03E1558021

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

Lab Sample ID: LCSD 880-26742/2-A

Lab Sample ID: 880-15398-A-21-B MS

Lab Sample ID: 880-15398-A-21-C MSD

Matrix: Solid Analysis Batch: 26785

Matrix: Solid

Matrix: Solid

Analysis Batch: 26785

Analysis Batch: 26785

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA Prep Batch: 26742

Spike LCSD LCSD %Rec RPD Analyte Added Result Qualifier Unit %Rec Limits **RPD** Limit D o-Xylene 0.100 0.09290 93 70 - 130 0 35 mg/Kg

LCSD LCSD

Surrogate %Recovery Qualifier Limits 4-Bromofluorobenzene (Surr) 97 70 - 130 70 - 130 1,4-Difluorobenzene (Surr) 102

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 26742

Sample Sample Spike MS MS Result Qualifier Added Analyte Result Qualifier Unit %Rec Limits Benzene <0.00199 U 0.0996 0.08902 mg/Kg 89 70 - 130 Toluene <0.00199 U 0.0996 0.08192 mg/Kg 82 70 - 130 <0.00199 0.0996 0.07916 Ethylbenzene U mg/Kg 79 70 - 130 <0.00398 U 0.199 0.1535 77 70 - 130 m-Xylene & p-Xylene mg/Kg o-Xylene <0.00199 U 0.0996 0.07784 mg/Kg 78 70 - 130

MS MS

Surrogate	%Recovery Qualifier	Limits
4-Bromofluorobenzene (Surr)	96	70 - 130
1,4-Difluorobenzene (Surr)	101	70 - 130

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA Prep Batch: 26742

	Sample	Sample	Spike	MSD	MSD				%Rec		RPD
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Benzene	<0.00199	U	0.101	0.1109		mg/Kg		110	70 - 130	22	35
Toluene	< 0.00199	U	0.101	0.1015		mg/Kg		100	70 - 130	21	35
Ethylbenzene	< 0.00199	U	0.101	0.09874		mg/Kg		98	70 - 130	22	35
m-Xylene & p-Xylene	<0.00398	U	0.202	0.1906		mg/Kg		94	70 - 130	22	35
o-Xylene	< 0.00199	U	0.101	0.09589		mg/Kg		95	70 - 130	21	35

MSD MSD

Surrogate	%Recovery Qualifier	Limits
4-Bromofluorobenzene (Surr)	97	70 - 130
1,4-Difluorobenzene (Surr)	102	70 - 130

Lab Sample ID: MB 880-26827/5-A Client Sample ID: Method Blank **Matrix: Solid**

Prep Type: Total/NA **Analysis Batch: 26785** Prep Batch: 26827

мв мв

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		06/03/22 14:04	06/03/22 22:24	1
Toluene	<0.00200	U	0.00200	mg/Kg		06/03/22 14:04	06/03/22 22:24	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		06/03/22 14:04	06/03/22 22:24	1
m-Xylene & p-Xylene	<0.00400	U	0.00400	mg/Kg		06/03/22 14:04	06/03/22 22:24	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		06/03/22 14:04	06/03/22 22:24	1
Xylenes, Total	<0.00400	U	0.00400	mg/Kg		06/03/22 14:04	06/03/22 22:24	1

Client: Ensolum

Job ID: 890-2363-1

SDG: 03E1558021

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

Lab Sample ID: MB 880-26827/5-A **Matrix: Solid**

Project/Site: BEU 5E Han Solo 114H

Analysis Batch: 26785

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 26827

MB MB

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	93		70 - 130	06/03/22 14:0	06/03/22 22:24	1
1,4-Difluorobenzene (Surr)	91		70 - 130	06/03/22 14:0	06/03/22 22:24	1

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

Lab Sample ID: MB 880-26719/1-A

Matrix: Solid

Analysis Batch: 26700

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 26719

MB MB

	IVID	IAID						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics	<50.0	U	50.0	mg/Kg		06/02/22 10:21	06/02/22 10:38	1
(GRO)-C6-C10								
Diesel Range Organics (Over	<50.0	U	50.0	mg/Kg		06/02/22 10:21	06/02/22 10:38	1
C10-C28)								
OII Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		06/02/22 10:21	06/02/22 10:38	1
	MR	MR						

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	98		70 - 130	06/02/22 10:21	06/02/22 10:38	1
o-Terphenyl	109		70 - 130	06/02/22 10:21	06/02/22 10:38	1

Lab Sample ID: LCS 880-26719/2-A

Matrix: Solid

Analysis Batch: 26700

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 26719

	Spike	LCS	LCS				%Rec	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Gasoline Range Organics	1000	959.3		mg/Kg		96	70 - 130	
(GRO)-C6-C10								
Diesel Range Organics (Over	1000	877.7		mg/Kg		88	70 - 130	
C10-C28)								

LCS LCS Surrogate %Recovery Qualifier Limits 70 - 130 1-Chlorooctane 118 o-Terphenyl 114 70 - 130

Lab Sample ID: LCSD 880-26719/3-A

Matrix: Solid

Analysis Batch: 26700

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 26719

		Spike	LCSD	LCSD				%Rec		RPD
Analyte		Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Gasoline Range Org	ganics	 1000	932.6		mg/Kg		93	70 - 130	3	20
(GRO)-C6-C10										
Diesel Range Orgar	nics (Over	1000	854.9		mg/Kg		85	70 - 130	3	20
C10-C28)										

LCSD LCSD

Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane	114		70 - 130
o-Terphenyl	113		70 - 130

Client Sample ID: Matrix Spike

70 - 130

Limits

70 - 130

70 - 130

Client Sample ID: Method Blank

Client Sample ID: Lab Control Sample

Client Sample ID: Lab Control Sample Dup

Prep Type: Soluble

Prep Type: Soluble

Prep Type: Soluble

RPD

3

Limit

20

20

Job ID: 890-2363-1 Client: Ensolum Project/Site: BEU 5E Han Solo 114H SDG: 03E1558021

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

<49.9 UF1

Result Qualifier

Lab Sample ID: 880-15387-A-1-C MS

Diesel Range Organics (Over

Matrix: Solid									Prep	Type: Total/NA
Analysis Batch: 26700									Prep	Batch: 26719
	Sample	Sample	Spike	MS	MS				%Rec	
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Gasoline Range Organics	<49.9	U	997	813.3		mg/Kg		78	70 - 130	
(GRO)-C6-C10										

668 9 F1

Result Qualifier

mg/Kg

Unit

D

%Rec

997

Added

C10-C28)

Analyte

MS MS %Recovery Limits Surrogate Qualifier 1-Chlorooctane 70 - 130 77 o-Terphenyl 69 S1-70 - 130

Lab Sample ID: 880-15387-A-1-D MSD

ab Sample ID: 880-15387-A-1- <mark>[</mark>	O MSD			Client Sample ID: Matrix Spike I	Duplicate
Matrix: Solid				Prep Type:	Total/NA
Analysis Batch: 26700				Prep Bato	ch: 26719
	Sample Sample	Spike	MSD MSD	%Rec	RPD

<49.9 U 1000 Gasoline Range Organics 805.1 mg/Kg 77 (GRO)-C6-C10 Diesel Range Organics (Over <49.9 UF1 1000 686.7 F1 mg/Kg 69 C10-C28)

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

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-26738/1-A

Matrix: Solid

Analysis Batch: 26786

MB MB

Analyte Result Qualifier RL Unit Dil Fac Prepared Analyzed Chloride <5.00 U 5.00 06/04/22 14:50 mg/Kg

Lab Sample ID: LCS 880-26738/2-A

Matrix: Solid

Analysis Batch: 26786

	Spike	LCS	LCS			%Rec
Analyte	Added	Result	Qualifier Unit	D	%Rec	Limits
Chloride	250	225.5	ma/Ka		90	90 - 110

Lab Sample ID: LCSD 880-26738/3-A

Matrix: Solid

Analysis Batch: 26786

Analysis Batch. 20700									
	Spike	LCSD	LCSD				%Rec		RPD
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Chloride	250	228.2		mg/Kg		91	90 - 110	1	20

Client: Ensolum Job ID: 890-2363-1 Project/Site: BEU 5E Han Solo 114H

SDG: 03E1558021

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: 890-2363-5 MS **Client Sample ID: PH03 Matrix: Solid Prep Type: Soluble**

Analysis Batch: 26786

	Sample	Sample	Spike	MS	MS				%Rec		
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits		
Chloride	324	F1	248	522.4	F1	mg/Kg		80	90 - 110		_

Lab Sample ID: 890-2363-5 MSD **Client Sample ID: PH03 Matrix: Solid Prep Type: Soluble**

Analysis Batch: 26786

Sample Sample Spike MSD MSD %Rec RPD RPD Limit Result Qualifier Added Result Qualifier %Rec Limits Analyte Unit 541.4 F1 Chloride 324 F1 248 mg/Kg 88 90 - 110 4

QC Association Summary

 Client: Ensolum
 Job ID: 890-2363-1

 Project/Site: BEU 5E Han Solo 114H
 SDG: 03E1558021

GC VOA

Analysis Batch: 26723

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2363-1	PH01	Total/NA	Solid	8021B	26732
890-2363-2	PH01	Total/NA	Solid	8021B	26732
890-2363-3	PH02	Total/NA	Solid	8021B	26732
890-2363-4	PH02	Total/NA	Solid	8021B	26732
890-2363-5	PH03	Total/NA	Solid	8021B	26732
MB 880-26723/8	Method Blank	Total/NA	Solid	8021B	
MB 880-26732/5-A	Method Blank	Total/NA	Solid	8021B	26732
LCS 880-26723/3	Lab Control Sample	Total/NA	Solid	8021B	
LCSD 880-26723/4	Lab Control Sample Dup	Total/NA	Solid	8021B	
LCSD 880-26732/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	26732
890-2358-A-1-C MS	Matrix Spike	Total/NA	Solid	8021B	26732
890-2358-A-1-D MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	26732

Prep Batch: 26732

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2363-1	PH01	Total/NA	Solid	5035	
890-2363-2	PH01	Total/NA	Solid	5035	
890-2363-3	PH02	Total/NA	Solid	5035	
890-2363-4	PH02	Total/NA	Solid	5035	
890-2363-5	PH03	Total/NA	Solid	5035	
MB 880-26732/5-A	Method Blank	Total/NA	Solid	5035	
LCSD 880-26732/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
890-2358-A-1-C MS	Matrix Spike	Total/NA	Solid	5035	
890-2358-A-1-D MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	

Prep Batch: 26742

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Bate
890-2363-6	PH03	Total/NA	Solid	5035	
MB 880-26742/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-26742/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-26742/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
880-15398-A-21-B MS	Matrix Spike	Total/NA	Solid	5035	
880-15398-A-21-C MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	

Analysis Batch: 26785

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2363-6	PH03	Total/NA	Solid	8021B	26742
MB 880-26742/5-A	Method Blank	Total/NA	Solid	8021B	26742
MB 880-26827/5-A	Method Blank	Total/NA	Solid	8021B	26827
LCS 880-26742/1-A	Lab Control Sample	Total/NA	Solid	8021B	26742
LCSD 880-26742/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	26742
880-15398-A-21-B MS	Matrix Spike	Total/NA	Solid	8021B	26742
880-15398-A-21-C MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	26742

Prep Batch: 26827

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 880-26827/5-A	Method Blank	Total/NA	Solid	5035	

Analysis Batch: 26832

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2363-1	PH01	Total/NA	Solid	Total BTEX	<u> </u>

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QC Association Summary

 Client: Ensolum
 Job ID: 890-2363-1

 Project/Site: BEU 5E Han Solo 114H
 SDG: 03E1558021

GC VOA (Continued)

Analysis Batch: 26832 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2363-2	PH01	Total/NA	Solid	Total BTEX	
890-2363-3	PH02	Total/NA	Solid	Total BTEX	
890-2363-4	PH02	Total/NA	Solid	Total BTEX	
890-2363-5	PH03	Total/NA	Solid	Total BTEX	
890-2363-6	PH03	Total/NA	Solid	Total BTEX	

GC Semi VOA

Analysis Batch: 26700

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2363-1	PH01	Total/NA	Solid	8015B NM	26719
890-2363-2	PH01	Total/NA	Solid	8015B NM	26719
890-2363-3	PH02	Total/NA	Solid	8015B NM	26719
890-2363-4	PH02	Total/NA	Solid	8015B NM	26719
890-2363-5	PH03	Total/NA	Solid	8015B NM	26719
890-2363-6	PH03	Total/NA	Solid	8015B NM	26719
MB 880-26719/1-A	Method Blank	Total/NA	Solid	8015B NM	26719
LCS 880-26719/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	26719
LCSD 880-26719/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	26719
880-15387-A-1-C MS	Matrix Spike	Total/NA	Solid	8015B NM	26719
880-15387-A-1-D MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	26719

Prep Batch: 26719

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2363-1	PH01	Total/NA	Solid	8015NM Prep	
890-2363-2	PH01	Total/NA	Solid	8015NM Prep	
890-2363-3	PH02	Total/NA	Solid	8015NM Prep	
890-2363-4	PH02	Total/NA	Solid	8015NM Prep	
890-2363-5	PH03	Total/NA	Solid	8015NM Prep	
890-2363-6	PH03	Total/NA	Solid	8015NM Prep	
MB 880-26719/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-26719/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-26719/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
880-15387-A-1-C MS	Matrix Spike	Total/NA	Solid	8015NM Prep	
880-15387-A-1-D MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	

Analysis Batch: 26769

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2363-1	PH01	Total/NA	Solid	8015 NM	
890-2363-2	PH01	Total/NA	Solid	8015 NM	
890-2363-3	PH02	Total/NA	Solid	8015 NM	
890-2363-4	PH02	Total/NA	Solid	8015 NM	
890-2363-5	PH03	Total/NA	Solid	8015 NM	
890-2363-6	PH03	Total/NA	Solid	8015 NM	

HPLC/IC

Leach Batch: 26738

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2363-1	PH01	Soluble	Solid	DI Leach	
890-2363-2	PH01	Soluble	Solid	DI Leach	
890-2363-3	PH02	Soluble	Solid	DI Leach	

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QC Association Summary

 Client: Ensolum
 Job ID: 890-2363-1

 Project/Site: BEU 5E Han Solo 114H
 SDG: 03E1558021

HPLC/IC (Continued)

Leach Batch: 26738 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2363-4	PH02	Soluble	Solid	DI Leach	
890-2363-5	PH03	Soluble	Solid	DI Leach	
890-2363-6	PH03	Soluble	Solid	DI Leach	
MB 880-26738/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-26738/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-26738/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
890-2363-5 MS	PH03	Soluble	Solid	DI Leach	
890-2363-5 MSD	PH03	Soluble	Solid	DI Leach	

Analysis Batch: 26786

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2363-1	PH01	Soluble	Solid	300.0	26738
890-2363-2	PH01	Soluble	Solid	300.0	26738
890-2363-3	PH02	Soluble	Solid	300.0	26738
890-2363-4	PH02	Soluble	Solid	300.0	26738
890-2363-5	PH03	Soluble	Solid	300.0	26738
890-2363-6	PH03	Soluble	Solid	300.0	26738
MB 880-26738/1-A	Method Blank	Soluble	Solid	300.0	26738
LCS 880-26738/2-A	Lab Control Sample	Soluble	Solid	300.0	26738
LCSD 880-26738/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	26738
890-2363-5 MS	PH03	Soluble	Solid	300.0	26738
890-2363-5 MSD	PH03	Soluble	Solid	300.0	26738

Job ID: 890-2363-1

SDG: 03E1558021

Client Sample ID: PH01

Client: Ensolum

Date Collected: 05/31/22 12:30 Date Received: 06/01/22 09:07

Project/Site: BEU 5E Han Solo 114H

Lab Sample ID: 890-2363-1

Matrix: Solid

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.97 g	5 mL	26732	06/02/22 11:29	MR	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	26723	06/03/22 07:56	MR	XEN MID
Total/NA	Analysis	Total BTEX		1			26832	06/03/22 14:08	SM	XEN MID
Total/NA	Analysis	8015 NM		1			26769	06/02/22 17:28	SM	XEN MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	26719	06/02/22 13:00	DM	XEN MID
Total/NA	Analysis	8015B NM		1			26700	06/02/22 14:54	SM	XEN MID
Soluble	Leach	DI Leach			5 g	50 mL	26738	06/02/22 12:28	CH	XEN MID
Soluble	Analysis	300.0		1			26786	06/04/22 17:35	CH	XEN MID

Client Sample ID: PH01 Lab Sample ID: 890-2363-2

Date Collected: 05/31/22 12:35

Matrix: Solid

Date Received: 06/01/22 09:07

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.95 g	5 mL	26732	06/02/22 11:29	MR	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	26723	06/03/22 08:17	MR	XEN MID
Total/NA	Analysis	Total BTEX		1			26832	06/03/22 14:08	SM	XEN MID
Total/NA	Analysis	8015 NM		1			26769	06/02/22 17:28	SM	XEN MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	26719	06/02/22 13:00	DM	XEN MID
Total/NA	Analysis	8015B NM		1			26700	06/02/22 16:19	SM	XEN MID
Soluble	Leach	DI Leach			5.04 g	50 mL	26738	06/02/22 12:28	CH	XEN MID
Soluble	Analysis	300.0		1			26786	06/04/22 17:44	CH	XEN MID

Client Sample ID: PH02 Lab Sample ID: 890-2363-3

Date Collected: 05/31/22 12:50 Date Received: 06/01/22 09:07

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.99 g	5 mL	26732	06/02/22 11:29	MR	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	26723	06/03/22 08:37	MR	XEN MID
Total/NA	Analysis	Total BTEX		1			26832	06/03/22 14:08	SM	XEN MID
Total/NA	Analysis	8015 NM		1			26769	06/02/22 17:28	SM	XEN MID
Total/NA	Prep	8015NM Prep			10.00 g	10 mL	26719	06/02/22 13:00	DM	XEN MID
Total/NA	Analysis	8015B NM		1			26700	06/02/22 14:32	SM	XEN MID
Soluble	Leach	DI Leach			4.99 g	50 mL	26738	06/02/22 12:28	CH	XEN MID
Soluble	Analysis	300.0		1			26786	06/04/22 17:53	CH	XEN MID

Client Sample ID: PH02 Lab Sample ID: 890-2363-4

Date Collected: 05/31/22 12:55 Date Received: 06/01/22 09:07

Г	5.4.1	5		ъ.,		-	5.4.1			
	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.96 g	5 mL	26732	06/02/22 11:29	MR	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	26723	06/03/22 08:58	MR	XEN MID
Total/NA	Analysis	Total BTEX		1			26832	06/03/22 14:08	SM	XEN MID

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Matrix: Solid

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Matrix: Solid

Lab Chronicle

 Client: Ensolum
 Job ID: 890-2363-1

 Project/Site: BEU 5E Han Solo 114H
 SDG: 03E1558021

Client Sample ID: PH02

Date Collected: 05/31/22 12:55 Date Received: 06/01/22 09:07 Lab Sample ID: 890-2363-4

Matrix: Solid

Matrix: Solid

Matrix: Solid

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	8015 NM		1			26769	06/02/22 17:28	SM	XEN MID
Total/NA	Prep	8015NM Prep			10.03 g	10 mL	26719	06/02/22 13:00	DM	XEN MID
Total/NA	Analysis	8015B NM		1			26700	06/02/22 15:36	SM	XEN MID
Soluble	Leach	DI Leach			5.01 g	50 mL	26738	06/02/22 12:28	CH	XEN MID
Soluble	Analysis	300.0		1			26786	06/04/22 18:02	CH	XEN MID

Client Sample ID: PH03 Lab Sample ID: 890-2363-5

Date Collected: 05/31/22 13:35 Date Received: 06/01/22 09:07

Batch Batch Dil Initial Final Batch Prepared Method Prep Type Amount Amount Number or Analyzed Type Run Factor Analyst Lab 26732 5035 Total/NA Prep 5.01 g 5 mL 06/02/22 11:29 MR XEN MID Total/NA Analysis 8021B 5 mL 5 mL 26723 06/03/22 09:19 MR XEN MID 1 Total/NA Total BTEX 26832 XEN MID Analysis 1 06/03/22 14:08 SM Total/NA Analysis 8015 NM 26769 06/02/22 17:28 SM XEN MID XEN MID Total/NA Prep 8015NM Prep 10.01 g 10 mL 26719 06/02/22 13:00 DM Total/NA Analysis 8015B NM 26700 06/02/22 14:11 SM XEN MID 1 Soluble Leach DI Leach 5.05 g 50 mL 26738 06/02/22 12:28 CH XEN MID Soluble Analysis 300.0 1 26786 06/04/22 18:11 СН XEN MID

Client Sample ID: PH03 Lab Sample ID: 890-2363-6

Date Collected: 05/31/22 13:40 Date Received: 06/01/22 09:07

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.00 g	5 mL	26742	06/02/22 13:19	EL	XEN MID
Total/NA	Analysis	8021B		1	0 mL	1.0 mL	26785	06/04/22 09:43	MR	XEN MID
Total/NA	Analysis	Total BTEX		1			26832	06/03/22 14:08	SM	XEN MID
Total/NA	Analysis	8015 NM		1			26769	06/02/22 17:28	SM	XEN MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	26719	06/02/22 13:00	DM	XEN MID
Total/NA	Analysis	8015B NM		1			26700	06/02/22 13:49	SM	XEN MID
Soluble	Leach	DI Leach			5.04 g	50 mL	26738	06/02/22 12:28	CH	XEN MID
Soluble	Analysis	300.0		1			26786	06/04/22 18:39	CH	XEN MID

Laboratory References:

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

Eurofins Carlsbad

Released to Imaging: 9/29/2022 12:24:29 PM

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Accreditation/Certification Summary

 Client: Ensolum
 Job ID: 890-2363-1

 Project/Site: BEU 5E Han Solo 114H
 SDG: 03E1558021

Laboratory: Eurofins Midland

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

Authority	Pr	ogram	Identification Number	Expiration Date
Texas	NI	ELAP	T104704400-21-22	06-30-22
The following analytes	are included in this report by	it the laboratory is not cortifi	ed by the governing authority. This list ma	av include analytee fo
the agency does not of	. ,	at the laboratory is not certifi	ed by the governing additionty. This list the	ay include arialytes to
0 ,	. ,	Matrix	Analyte	ay include analytes to
the agency does not of	fer certification.	•	, , ,	ay include analytes to

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Method Summary

Job ID: 890-2363-1 Client: Ensolum Project/Site: BEU 5E Han Solo 114H

SDG: 03E1558021

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

Protocol References:

ASTM = ASTM International

MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions. SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

TAL SOP = TestAmerica Laboratories, Standard Operating Procedure

Laboratory References:

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

Sample Summary

Client: Ensolum

Project/Site: BEU 5E Han Solo 114H

Job ID: 890-2363-1

SDG: 03E1558021

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-2363-1	PH01	Solid	05/31/22 12:30	06/01/22 09:07	1'
890-2363-2	PH01	Solid	05/31/22 12:35	06/01/22 09:07	2'
890-2363-3	PH02	Solid	05/31/22 12:50	06/01/22 09:07	1'
890-2363-4	PH02	Solid	05/31/22 12:55	06/01/22 09:07	2'
890-2363-5	PH03	Solid	05/31/22 13:35	06/01/22 09:07	1'
890-2363-6	PH03	Solid	05/31/22 13:40	06/01/22 09:07	2'

Relinquished by: (Signature)

ANTOLOXO,

Received by: (Signature)

Date/Time

Relinquished by: (Signature)

Received by: (Signature)

Date/Time

Revised Date 08/25/2020 Rev 2020.2

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eurofins

Project Manager:

Ensolum LLC. Kalei Jennings

City, State ZIP: Address: Company Name:

City, State ZIP:

Carlsbad, NM 88220 3104 E. Green Street XTO Energy, Inc. Adrian Baker

Deliverables: EDD

ADaPT 🗆

Other:

Level IV

State of Project:

Program: UST/PST 🗌 PRP 📗 Brownfields 🗌 RRC 📗

Superfund []

www.xenco.com

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Work Order Comments

Company Name: Bill to: (if different) Xenco Environment Testing

Chain of Custody

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 Houston, TX (281) 240-4200, Dallas, TX (214) 902-0300

Work Order No:

Phone: 81	817.683.2503		Email:							Deliverables: EDD [ACAT [
Project Name:	BEU 5E Han Solo 114H	no 114H	Turn	Turn Around					ANALYSIS REQUEST	JEST	Preservat	Preservative Codes
Project Number:	03E1558021	21	2 Routine	Rush	Pres.						None: NO	DI Water: H ₂ O
Project Location:			Due Date:	3DAY TAT							Cool: Cool	MeOH: Me
Sampler's Name:	Conner Shore	оге	TAT starts the	TAT starts the day received by	y						HCL: HC	HNO3: HN
PO#:			the lab, if reco	the lab, if received by 4:30pm	rs				-	-	H ₂ S0 ₄ : H ₂	NaOH: Na
SAMPLE RECEIPT	Temp Blank:	Cos No	Wet ice:	Ves No	nete	.0)					H₃PO₄: HP	
Samples Received Intact:	t: (Yes) No	Thermometer ID:	er ID:	7.7.00	ıran	300					NaHSO ₄ : NABIS	
Cooler Custody Seals:	Yes No Min	Correction Factor:	actor:	20-	3	PA:					Na ₂ S ₂ O ₃ : NaSO ₃	3
Sample Custody Seals:	Yes No (N/A	Temperature Reading:	e Reading:	H	é	S (E			890 2363 Chain		Zn Acetate+NaOH: Zn)H: Zn
Total Containers:		Corrected T	Corrected Temperature:	ナル		IDE	15)	3021	090-2000 Clight	all of custody	NaOH+Ascorbic Acid: SAPC	Acid: SAPC
Sample Identification	cation Matrix	Date Sampled	Time Sampled	Depth Grab/	Grab/ # of Comp Cont	CHLOR	TPH (80	BTEX (Sample C	Sample Comments
PH01	S	05.31.22	1230	1' G		×	×	×			Incident ID:NA	Incident ID:NAPP2209041753
PH01	s	05.31.22	1235	2' G	_	×	×	×				
PH02	s	05.31.22	1250	+ G		×	×	×			Cost Center:1606761001	306761001
PH02	S	05.31.22	1255	2' G	_	×	×	×				
РН03	S	05.31.22	1335	1' G	-	×	×	×			AFE	
РН03	s	05.31.22	1340	2' G		×	×	×				
	/											
51 7	1											
Total 200.7 / 6010	200.8 / 6020:		RCRA 13P	PM Texas	11 ≥	Sb As	Ba	e B	8RCRA 13PPM Texas 11 Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb N	Pb Mg Mn Mo Ni K Se Ag SiO₂ Na Sr Tl Sn U V Zn	SiO ₂ Na Sr Tl Sn U	V Zn
Circle Method(s) and Metal(s) to be analyzed	Metal(s) to be ana	yzed	TCLP / S	TCLP / SPLP 6010: BRCRA	RCRA	Sb &	s Ba	ВеС	Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag	TI U	Hg: 1631 / 245.1 / 7470 / 7471	7471
Notice: Signature of this docu	ument and relinquishme	nt of samples cor	nstitutes a valid p	urchase order fr	om client	compan	y to Eurc	fins Xer	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	assigns standard terms and condi	tions	
of Eurofins Xenco. A minimu	iff be liable only for the one charge of \$85.00 will	cost of samples a be applied to eacl	nd snair not assu h project and a cl	harge of \$5 for ea	ch sampl	e submit	ted to E	urofins)	of service. Eurofins Xenco will be liable only for the cost of samples and shall not assume any responsibility for any bases or expenses incurred by the circumstance of the cost of samples and shall not assume any responsibility for any bases of expenses incurred by the circumstance of the cost of samples and shall not assume any responsibility for any bases or expenses incurred by the circumstance of the cost of samples and shall not assume any responsibility for any bases or expenses incurred by the circumstance of the cost of samples and shall not assume any responsibility for any bases or expenses incurred by the circumstance of the cost of samples and shall not assume any responsibility for any bases or expenses incurred by the circumstance of the cost of samples and shall not assume any responsibility for any bases or expenses incurred by the circumstance of the cost of samples and shall not assume any responsibility for any bases or expenses incurred by the circumstance of the cost of samples and shall not assume any responsibility for any bases or expenses incurred by the cost of samples and shall not assume any cost of samples and shall not assume any cost of samples and shall not assume any cost of samples and sa	fill be enforced unless previously no	gotiated.	

Login Sample Receipt Checklist

Client: Ensolum Job Number: 890-2363-1 SDG Number: 03E1558021

Login Number: 2363 List Source: Eurofins Carlsbad

List Number: 1

Creator: Stutzman, Amanda

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: 890-2363-1 SDG Number: 03E1558021

> List Source: Eurofins Midland List Creation: 06/02/22 11:42 AM

Creator: Rodriguez, Leticia

Login Number: 2363

List Number: 2

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	N/A	

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<6mm (1/4").



Environment Testing America

ANALYTICAL REPORT

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

Laboratory Job ID: 890-2364-1

Laboratory Sample Delivery Group: 03E1558021 Client Project/Site: BEU 5E Han Solo 114H

For:

eurofins 🔆

Ensolum 705 W. Wadley Suite 210 Midland, Texas 79701

Attn: Kalei Jennings



Authorized for release by: 6/3/2022 3:07:54 PM

Jessica Kramer, Project Manager (432)704-5440

Jessica.Kramer@et.eurofinsus.com

Have a Question?

EOL

.....LINKS

Review your project results through

Received by OCD: 8/12/2022 11:41:04 AM

Visit us at:

www.eurofinsus.com/Env Released to Imaging: 9/29/2022 12:24:29 PM

signature is intended to be the legally binding equivalent of a traditionally handwritten

This report has been electronically signed and authorized by the signatory. Electronic

Results relate only to the items tested and the sample(s) as received by the laboratory.

Client: Ensolum

Laboratory Job ID: 890-2364-1

Project/Site: BEU 5E Han Solo 114H

SDG: 03E1558021

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Definitions/Glossary

Client: Ensolum Job ID: 890-2364-1 Project/Site: BEU 5E Han Solo 114H

SDG: 03E1558021

Qualifiers

GC	VOA
Qual	ifier

*1	LCS/LCSD RPD exceeds control limits.
F1	MS and/or MSD recovery exceeds control limits.
F2	MS/MSD RPD exceeds control limits
U	Indicates the analyte was analyzed for but not detected.

Qualifier Description

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

LOD

LOQ

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

MCL EPA recommended "Maximum Contaminant Level" MDA Minimum Detectable Activity (Radiochemistry) MDC Minimum Detectable Concentration (Radiochemistry) MDL Method Detection Limit

Limit of Quantitation (DoD/DOE)

Limit of Detection (DoD/DOE)

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 Positive / Present POS **Practical Quantitation Limit** PQL **PRES** Presumptive

Quality Control QC 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)

Too Numerous To Count TNTC

Case Narrative

Client: Ensolum

Project/Site: BEU 5E Han Solo 114H

Job ID: 890-2364-1

SDG: 03E1558021

Job ID: 890-2364-1

Laboratory: Eurofins Carlsbad

Narrative

Job Narrative 890-2364-1

Receipt

The samples were received on 6/1/2022 9:07 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 2.4°C

GC VOA

Method 8021B: The RPD of the laboratory control sample (LCS) and laboratory control sample duplicate (LCSD) for preparation batch 880-26732 and analytical batch 880-26723 recovered outside control limits for the following analytes: Benzene.

Method 8021B: The matrix spike / matrix spike duplicate (MS/MSD) recoveries and precision for preparation batch 880-26732 and analytical batch 880-26723 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample / laboratory sample control duplicate (LCS/LCSD) precision was within acceptance limits.

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

GC Semi VOA

Method 8015MOD NM: Surrogate recovery for the following sample was outside control limits: (890-2361-A-27-A). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

Method 8015MOD_NM: The method blank for preparation batch 880-26686 and analytical batch 880-26698 contained Gasoline Range Organics (GRO)-C6-C10 and Diesel Range Organics (Over C10-C28) above the method detection limit. This target analyte concentration was less than the reporting limit (RL); therefore, re-extraction and/or re-analysis of samples was not performed.

Method 8015MOD NM: The matrix spike duplicate (MSD) recoveries for preparation batch 880-26686 and analytical batch 880-26698 were outside control limits. Non-homogeneity is suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.

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

HPLC/IC

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

Eurofins Carlsbad 6/3/2022

Matrix: Solid

Lab Sample ID: 890-2364-1

Client Sample Results

 Client: Ensolum
 Job ID: 890-2364-1

 Project/Site: BEU 5E Han Solo 114H
 SDG: 03E1558021

Client Sample ID: PH04

Date Collected: 05/31/22 15:10 Date Received: 06/01/22 09:07

Sample Depth: 1'

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00201	U *1	0.00201	mg/Kg		06/02/22 11:29	06/03/22 11:24	1
Toluene	<0.00201	U	0.00201	mg/Kg		06/02/22 11:29	06/03/22 11:24	1
Ethylbenzene	<0.00201	U	0.00201	mg/Kg		06/02/22 11:29	06/03/22 11:24	1
m-Xylene & p-Xylene	<0.00402	U	0.00402	mg/Kg		06/02/22 11:29	06/03/22 11:24	1
o-Xylene	<0.00201	U	0.00201	mg/Kg		06/02/22 11:29	06/03/22 11:24	1
Xylenes, Total	<0.00402	U	0.00402	mg/Kg		06/02/22 11:29	06/03/22 11:24	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	105		70 - 130			06/02/22 11:29	06/03/22 11:24	1
1,4-Difluorobenzene (Surr)	90		70 - 130			06/02/22 11:29	06/03/22 11:24	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			06/03/22 14:08	1
Total TPH	<49.8	U	49.8	mg/Kg			06/02/22 17:22	1
Method, XII.128 MM - Diesei Kant								
			DI	11-:4		Duamanad	Analysed	Dil Faa
Analyte	Result	Qualifier	RL	Unit	D	Prepared 00/04/22 46/47	Analyzed	Dil Fac
Analyte Gasoline Range Organics		Qualifier	49.8 ————————————————————————————————————	Unit mg/Kg	<u>D</u>	Prepared 06/01/22 16:47	Analyzed 06/02/22 15:36	Dil Fac
Method: 8015B NM - Diesel Rang Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over	Result	Qualifier U		mg/Kg	D			1
Analyte Gasoline Range Organics (GRO)-C6-C10	Result <49.8	Qualifier U	49.8		<u>D</u>	06/01/22 16:47	06/02/22 15:36	1
Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28)	Result <49.8	Qualifier U	49.8	mg/Kg	<u>D</u>	06/01/22 16:47	06/02/22 15:36	1
Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) Oll Range Organics (Over C28-C36)	Result <49.8	Qualifier U U U	49.8	mg/Kg	<u>D</u>	06/01/22 16:47 06/01/22 16:47	06/02/22 15:36 06/02/22 15:36	1
Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) Oll Range Organics (Over C28-C36) Surrogate	Result <49.8 <49.8 <49.8	Qualifier U U U	49.8 49.8 49.8	mg/Kg	<u> </u>	06/01/22 16:47 06/01/22 16:47 06/01/22 16:47	06/02/22 15:36 06/02/22 15:36 06/02/22 15:36	1 1 1 1 Dil Fac
Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) Oll Range Organics (Over C28-C36)	Result	Qualifier U U U	49.8 49.8 49.8 <i>Limits</i>	mg/Kg	<u> </u>	06/01/22 16:47 06/01/22 16:47 06/01/22 16:47 Prepared	06/02/22 15:36 06/02/22 15:36 06/02/22 15:36 Analyzed	Dil Fac
Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) Oll Range Organics (Over C28-C36) Surrogate 1-Chlorooctane	Result	Qualifier U U Qualifier	49.8 49.8 49.8 Limits 70 - 130	mg/Kg	<u>D</u>	06/01/22 16:47 06/01/22 16:47 06/01/22 16:47 Prepared 06/01/22 16:47	06/02/22 15:36 06/02/22 15:36 06/02/22 15:36 Analyzed 06/02/22 15:36	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) OII Range Organics (Over C28-C36) Surrogate 1-Chlorooctane o-Terphenyl	Result	Qualifier U U Qualifier	49.8 49.8 49.8 Limits 70 - 130	mg/Kg	<u>D</u>	06/01/22 16:47 06/01/22 16:47 06/01/22 16:47 Prepared 06/01/22 16:47	06/02/22 15:36 06/02/22 15:36 06/02/22 15:36 Analyzed 06/02/22 15:36	Dil Face 1 Dil Face 1 Dil Face 1 Dil Face

Client Sample ID: PH04 Lab Sample ID: 890-2364-2

Date Collected: 05/31/22 15:20 Date Received: 06/01/22 09:07

Sample Depth: 2'

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00202	U *1	0.00202	mg/Kg		06/02/22 11:29	06/03/22 11:45	1
Toluene	0.00377		0.00202	mg/Kg		06/02/22 11:29	06/03/22 11:45	1
Ethylbenzene	<0.00202	U	0.00202	mg/Kg		06/02/22 11:29	06/03/22 11:45	1
m-Xylene & p-Xylene	0.00406		0.00404	mg/Kg		06/02/22 11:29	06/03/22 11:45	1
o-Xylene	<0.00202	U	0.00202	mg/Kg		06/02/22 11:29	06/03/22 11:45	1
Xylenes, Total	0.00406		0.00404	mg/Kg		06/02/22 11:29	06/03/22 11:45	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	99		70 - 130			06/02/22 11:29	06/03/22 11:45	1

Eurofins Carlsbad

Matrix: Solid

Matrix: Solid

Lab Sample ID: 890-2364-2

06/02/22 21:12

Client Sample Results

 Client: Ensolum
 Job ID: 890-2364-1

 Project/Site: BEU 5E Han Solo 114H
 SDG: 03E1558021

Client Sample ID: PH04

Date Collected: 05/31/22 15:20 Date Received: 06/01/22 09:07

Sample Depth: 2'

Chloride

Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1,4-Difluorobenzene (Surr)	85		70 - 130			06/02/22 11:29	06/03/22 11:45	1
· Method: Total BTEX - Total BTEX	(Calculation							
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	0.00783		0.00404	mg/Kg			06/03/22 14:08	1
Method: 8015 NM - Diesel Range	Organics (DR	O) (GC)						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	81.4		49.9	mg/Kg			06/02/22 17:22	1
Method: 8015B NM - Diesel Rang	ge Organics (DI	RO) (GC)						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics	<49.9	U	49.9	mg/Kg		06/01/22 16:47	06/02/22 15:15	1
(GRO)-C6-C10								
Diesel Range Organics (Over	81.4		49.9	mg/Kg		06/01/22 16:47	06/02/22 15:15	1
C10-C28)								
OII Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg		06/01/22 16:47	06/02/22 15:15	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	124		70 - 130			06/01/22 16:47	06/02/22 15:15	1
o-Terphenyl	121		70 - 130			06/01/22 16:47	06/02/22 15:15	1

5.05

mg/Kg

70.0

Surrogate Summary

 Client: Ensolum
 Job ID: 890-2364-1

 Project/Site: BEU 5E Han Solo 114H
 SDG: 03E1558021

Method: 8021B - Volatile Organic Compounds (GC)

Matrix: Solid Prep Type: Total/NA

		DED4	DED74	Percent Surrogate Recovery (Acceptance Limits)
		BFB1	DFBZ1	
Lab Sample ID	Client Sample ID	(70-130)	(70-130)	
890-2358-A-1-C MS	Matrix Spike	126	85	
890-2358-A-1-D MSD	Matrix Spike Duplicate	125	87	
890-2364-1	PH04	105	90	
890-2364-2	PH04	99	85	
LCS 880-26723/3	Lab Control Sample	98	97	
LCS 880-26732/1-A	Lab Control Sample	101	103	
LCSD 880-26723/4	Lab Control Sample Dup	114	94	
LCSD 880-26732/2-A	Lab Control Sample Dup	109	96	
MB 880-26723/8	Method Blank	107	100	
MB 880-26732/5-A	Method Blank	108	97	

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 Sur
		1CO1	OTPH1	
Lab Sample ID	Client Sample ID	(70-130)	(70-130)	
890-2361-A-27-B MS	Matrix Spike	118	122	
890-2361-A-27-C MSD	Matrix Spike Duplicate	114	119	
890-2364-1	PH04	103	99	
890-2364-2	PH04	124	121	
LCS 880-26686/2-A	Lab Control Sample	114	116	
LCSD 880-26686/3-A	Lab Control Sample Dup	114	116	
MB 880-26686/1-A	Method Blank	100	108	

Surrogate Legend

1CO = 1-Chlorooctane

OTPH = o-Terphenyl

Job ID: 890-2364-1 Client: Ensolum Project/Site: BEU 5E Han Solo 114H SDG: 03E1558021

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-26723/8

Matrix: Solid

Analysis Batch: 26723

Client Sample ID: Method Blank

Prep Type: Total/NA

MB MB Dil Fac Analyte Result Qualifier RL Unit D Prepared Analyzed Benzene <0.00200 U 0.00200 mg/Kg 06/02/22 19:35 Toluene <0.00200 U 0.00200 mg/Kg 06/02/22 19:35 Ethylbenzene <0.00200 U 0.00200 06/02/22 19:35 mg/Kg m-Xylene & p-Xylene <0.00400 U 0.00400 mg/Kg 06/02/22 19:35 o-Xylene <0.00200 U 0.00200 06/02/22 19:35 mg/Kg Xylenes, Total <0.00400 U 0.00400 06/02/22 19:35 mg/Kg

MB MB

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	107		70 - 130		06/02/22 19:35	1
1,4-Difluorobenzene (Surr)	100		70 - 130		06/02/22 19:35	1

Lab Sample ID: LCS 880-26723/3

Matrix: Solid

Analysis Batch: 26723

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

LCS LCS %Rec Spike Analyte Added Result Qualifier Unit %Rec Limits Benzene 0.100 0.09952 mg/Kg 100 70 - 130 Toluene 0.100 0.09677 mg/Kg 97 70 - 130 Ethylbenzene 0.100 0.1048 mg/Kg 105 70 - 130 70 - 130 101 m-Xylene & p-Xylene 0.200 0.2023 mg/Kg 0.100 o-Xylene 0.09314 mg/Kg 93 70 - 130

LCS LCS

Surrogate	%Recovery Qualifier	Limits
4-Bromofluorobenzene (Surr)	98	70 - 130
1,4-Difluorobenzene (Surr)	97	70 - 130

Lab Sample ID: LCSD 880-26723/4

Matrix: Solid

Analysis Batch: 26723

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

	Spike	LCSD	LCSD			%Rec		RPD	
Analyte	Added	Result	Qualifier Unit	D	%Rec	Limits	RPD	Limit	
Benzene	0.100	0.1035	mg/Kg		103	70 - 130	4	35	
Toluene	0.100	0.1107	mg/Kg		111	70 - 130	13	35	
Ethylbenzene	0.100	0.1275	mg/Kg		127	70 - 130	20	35	
m-Xylene & p-Xylene	0.200	0.2600	mg/Kg		130	70 - 130	25	35	
o-Xylene	0.100	0.1169	mg/Kg		117	70 - 130	23	35	

LCSD LCSD

<0.00200 U

Surrogate	%Recovery	Qualifier	Limits
4-Bromofluorobenzene (Surr)	114		70 - 130
1 4-Difluorobenzene (Surr)	94		70 - 130

Lab Sample ID: MB 880-26732/5-A

Matrix: Solid

Toluene

Analysis Batch: 26723

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

06/03/22 06:12

06/02/22 11:29

Prep Batch: 26732

MB MB Result Qualifier Unit Analyte RL Prepared Analyzed <0.00200 U 06/03/22 06:12 Benzene 0.00200 mg/Kg 06/02/22 11:29

Eurofins Carlsbad

0.00200

mg/Kg

Dil Fac

QC Sample Results

Job ID: 890-2364-1 Client: Ensolum SDG: 03E1558021 Project/Site: BEU 5E Han Solo 114H

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

Lab Sample ID: MB 880-26732/5-A

Matrix: Solid

Analyte

o-Xylene

Ethylbenzene

Xylenes, Total

m-Xylene & p-Xylene

Analysis Batch: 26723

06/03/22 06:12

06/03/22 06:12

06/02/22 11:29

06/02/22 11:29

Prep Type: Total/NA

Prep Batch: 26732

Prep Batch: 26732

MB MB Result Qualifier RL Unit Prepared Analyzed Dil Fac <0.00200 U 0.00200 06/02/22 11:29 06/03/22 06:12 mg/Kg <0.00400 U 0.00400 mg/Kg 06/02/22 11:29 06/03/22 06:12

mg/Kg

mg/Kg

MR MR

<0.00200 U

<0.00400 U

	1112 1112				
Surrogate	%Recovery Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	108	70 - 130	06/02/22 11:29	06/03/22 06:12	1
1,4-Difluorobenzene (Surr)	97	70 - 130	06/02/22 11:29	06/03/22 06:12	1

0.00200

0.00400

Client Sample ID: Lab Control Sample Lab Sample ID: LCS 880-26732/1-A Prep Type: Total/NA

Matrix: Solid

Analysis Batch: 26723

	Spike	LCS	LCS				%Rec
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits
Benzene	0.100	0.1064		mg/Kg		106	70 - 130
Toluene	0.100	0.09779		mg/Kg		98	70 - 130
Ethylbenzene	0.100	0.1036		mg/Kg		104	70 - 130
m-Xylene & p-Xylene	0.200	0.2030		mg/Kg		102	70 - 130
o-Xylene	0.100	0.09296		mg/Kg		93	70 - 130

Surrogate	%Recovery Qualifier	Limits
4-Bromofluorobenzene (Surr)	101	70 - 130
1,4-Difluorobenzene (Surr)	103	70 - 130

Lab Sample ID: LCSD 880-26732/2-A

Matrix: Solid

Analysis Batch: 26723

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA Prep Batch: 26732

LCSD LCSD Spike %Rec RPD Analyte Added Result Qualifier Unit %Rec Limits RPD Limit Benzene 0.100 0.07063 mg/Kg 71 70 - 130 40 35 Toluene 0.100 0.07592 mg/Kg 76 70 - 130 25 35 Ethylbenzene 0.100 0.08356 mg/Kg 84 70 - 130 21 35 m-Xylene & p-Xylene 0.200 0.1654 83 70 - 130 20 35 mg/Kg 0.100 0.07869 o-Xylene mg/Kg 79 70 - 130 35

LCSD LCSD

LCS LCS

Surrogate	%Recovery	Qualifier	Limits
4-Bromofluorobenzene (Surr)	109		70 - 130
1,4-Difluorobenzene (Surr)	96		70 - 130

Lab Sample ID: 890-2358-A-1-C MS

Matrix: Solid

Analysis Batch: 26723

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 26732

	Sample	Sample	Spike	MS	MS				%Rec	
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Benzene	<0.00201	U F1 *1	0.101	0.02618	F1	mg/Kg		26	70 - 130	
		F2								
Toluene	< 0.00201	U F1 F2	0.101	0.03647	F1	mg/Kg		36	70 - 130	
Ethylbenzene	<0.00201	U F1 F2	0.101	0.04234	F1	mg/Kg		42	70 - 130	

QC Sample Results

Job ID: 890-2364-1 Client: Ensolum Project/Site: BEU 5E Han Solo 114H SDG: 03E1558021

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

Lab Sample ID: 890-2358-A-1-C MS

Lab Sample ID: 890-2358-A-1-D MSD

Matrix: Solid

Matrix: Solid

Analysis Batch: 26723

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 26732

Sample Sample Spike MS MS %Rec Analyte Result Qualifier Added Result Qualifier Unit %Rec Limits <0.00402 U F1 F2 0.202 0.08906 F1 44 70 - 130 m-Xylene & p-Xylene mg/Kg o-Xylene <0.00201 U F1 F2 0.101 0.04507 F1 mg/Kg 44 70 - 130

MS MS

Limits Surrogate %Recovery Qualifier 70 - 130 4-Bromofluorobenzene (Surr) 126 70 - 130 1,4-Difluorobenzene (Surr) 85

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 26732

Analysis Batch: 26723 Sample Sample Spike MSD MSD %Rec RPD Analyte Result Qualifier Added Result Qualifier Unit D %Rec Limits RPD Limit Benzene <0.00201 U F1 *1 0.0998 0.05830 F1 F2 58 70 - 130 76 35 mg/Kg F2 Toluene <0.00201 U F1 F2 0.0998 0.07534 F2 75 70 - 130 70 35 mg/Kg 0.09191 F2 Ethylbenzene <0.00201 UF1F2 0.0998 mg/Kg 92 70 - 13074 35 m-Xylene & p-Xylene <0.00402 U F1 F2 0.200 0.1906 F2 95 70 - 130 35 mg/Kg 73 <0.00201 U F1 F2 0.0998 0.08909 F2 70 - 130 o-Xylene mg/Kg 88 66 35

MSD MSD

Surrogate %Recovery Qualifier Limits 4-Bromofluorobenzene (Surr) 125 70 - 130 87 1,4-Difluorobenzene (Surr) 70 - 130

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

Lab Sample ID: MB 880-26686/1-A

Matrix: Solid

Analysis Batch: 26698

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 26686

MR MR

	Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
	Gasoline Range Organics	<50.0	U	50.0	mg/Kg		06/01/22 16:47	06/02/22 10:38	1
	(GRO)-C6-C10								
	Diesel Range Organics (Over	<50.0	U	50.0	mg/Kg		06/01/22 16:47	06/02/22 10:38	1
	C10-C28)								
	Oll Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		06/01/22 16:47	06/02/22 10:38	1
١									

MB MB

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	100		70 - 130	06/01/22 16:47	06/02/22 10:38	1
o-Terphenyl	108		70 - 130	06/01/22 16:47	06/02/22 10:38	1

Lab Sample ID: LCS 880-26686/2-A

Matrix: Solid

Analysis Batch: 26698

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 26686

	Spike	LCS	LCS				%Rec	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Gasoline Range Organics	1000	912.2		mg/Kg		91	70 - 130	
(GRO)-C6-C10								
Diesel Range Organics (Over	1000	981.2		mg/Kg		98	70 - 130	
C10_C28)								

Job ID: 890-2364-1 Client: Ensolum Project/Site: BEU 5E Han Solo 114H

SDG: 03E1558021

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

LCS LCS

Lab Sample ID: LCS 880-26686/2-A Client Sample ID: Lab Control Sample

Matrix: Solid

Analysis Batch: 26698

Prep Type: Total/NA

Prep Batch: 26686

Surrogate %Recovery Qualifier Limits 1-Chlorooctane 114 70 - 130 o-Terphenyl 116 70 - 130

Lab Sample ID: LCSD 880-26686/3-A Client Sample ID: Lab Control Sample Dup

Matrix: Solid

Analysis Batch: 26698

Prep Type: Total/NA

Prep Batch: 26686

%Rec RPD Limits **RPD** Limit

Spike LCSD LCSD Analyte Added Result Qualifier Unit D %Rec 1000 920.1 92 70 - 130 20 Gasoline Range Organics mg/Kg (GRO)-C6-C10 Diesel Range Organics (Over 1000 999.8 100 mg/Kg 70 - 1302 20 C10-C28)

LCSD LCSD

Surrogate %Recovery Qualifier Limits 70 - 130 1-Chlorooctane 114 o-Terphenyl 116 70 - 130

Lab Sample ID: 890-2361-A-27-B MS Client Sample ID: Matrix Spike

Matrix: Solid

Analysis Batch: 26698

Prep Type: Total/NA

Prep Batch: 26686

	Sample	Sample	Spike	MS	MS				%Rec	
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Gasoline Range Organics	<49.9	U F1	997	1303		mg/Kg		127	70 - 130	
(GRO)-C6-C10										
Diesel Range Organics (Over	<49.9	U	997	1216		mg/Kg		122	70 - 130	
C10-C28)										

C10-C28)

MS MS %Recovery Qualifier Surrogate Limits 70 - 130 1-Chlorooctane 118 o-Terphenyl 122 70 - 130

Lab Sample ID: 890-2361-A-27-C MSD Client Sample ID: Matrix Spike Duplicate

Matrix: Solid

Analysis Batch: 26698

Prep Type: Total/NA Prep Batch: 26686

	Sample	Sample	Spike	MSD	MSD				%Rec		RPD	
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit	
Gasoline Range Organics	<49.9	U F1	1000	1390	F1	mg/Kg		135	70 - 130	6	20	
(GRO)-C6-C10												
Diesel Range Organics (Over	<49.9	U	1000	1190		mg/Kg		119	70 - 130	2	20	
C10 C28)												

C10-C28)

พรบ	IVISD	
Recovery	Qualifier	Limits
114		70 - 13

Med Med

Surrogate % 1-Chlorooctane 30 119 70 - 130 o-Terphenyl

QC Sample Results

Job ID: 890-2364-1 Client: Ensolum Project/Site: BEU 5E Han Solo 114H

SDG: 03E1558021

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-26644/1-A

Matrix: Solid

Analysis Batch: 26760

Client Sample ID: Method Blank

Prep Type: Soluble

Client Sample ID: Matrix Spike Duplicate

Prep Type: Soluble

MB MB Dil Fac Analyte Result Qualifier RL Unit D Prepared Analyzed Chloride <5.00 U 5.00 mg/Kg 06/02/22 20:16

Lab Sample ID: LCS 880-26644/2-A Client Sample ID: Lab Control Sample **Matrix: Solid Prep Type: Soluble**

Analysis Batch: 26760

Spike LCS LCS %Rec Added %Rec Analyte Result Qualifier Unit D Limits Chloride 250 241.4 mg/Kg 97 90 - 110

Lab Sample ID: LCSD 880-26644/3-A Client Sample ID: Lab Control Sample Dup **Matrix: Solid Prep Type: Soluble**

Analysis Batch: 26760

LCSD LCSD %Rec RPD Spike Analyte Added Result Qualifier Unit %Rec Limits RPD Limit Chloride 250 243.4 mg/Kg 90 - 110

Lab Sample ID: 880-15356-A-21-F MS Client Sample ID: Matrix Spike **Matrix: Solid Prep Type: Soluble**

Analysis Batch: 26760

MS MS Sample Sample Spike %Rec Analyte Result Qualifier Added Qualifier %Rec Result Unit Limits Chloride 13.6 248 251.4 90 - 110 mg/Kg

Lab Sample ID: 880-15356-A-21-G MSD

Matrix: Solid

Analysis Batch: 26760

Sample Sample Spike MSD MSD %Rec RPD Analyte Result Qualifier Added Result Qualifier Unit %Rec Limits RPD Limit Chloride 248 13.6 252.2 mg/Kg 96 90 - 110 20

QC Association Summary

 Client: Ensolum
 Job ID: 890-2364-1

 Project/Site: BEU 5E Han Solo 114H
 SDG: 03E1558021

GC VOA

Analysis Batch: 26723

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2364-1	PH04	Total/NA	Solid	8021B	26732
890-2364-2	PH04	Total/NA	Solid	8021B	26732
MB 880-26723/8	Method Blank	Total/NA	Solid	8021B	
MB 880-26732/5-A	Method Blank	Total/NA	Solid	8021B	26732
LCS 880-26723/3	Lab Control Sample	Total/NA	Solid	8021B	
LCS 880-26732/1-A	Lab Control Sample	Total/NA	Solid	8021B	26732
LCSD 880-26723/4	Lab Control Sample Dup	Total/NA	Solid	8021B	
LCSD 880-26732/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	26732
890-2358-A-1-C MS	Matrix Spike	Total/NA	Solid	8021B	26732
890-2358-A-1-D MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	26732

Prep Batch: 26732

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2364-1	PH04	Total/NA	Solid	5035	
890-2364-2	PH04	Total/NA	Solid	5035	
MB 880-26732/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-26732/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-26732/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
890-2358-A-1-C MS	Matrix Spike	Total/NA	Solid	5035	
890-2358-A-1-D MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	

Analysis Batch: 26833

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2364-1	PH04	Total/NA	Solid	Total BTEX	
890-2364-2	PH04	Total/NA	Solid	Total BTEX	

GC Semi VOA

Prep Batch: 26686

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2364-1	PH04	Total/NA	Solid	8015NM Prep	
890-2364-2	PH04	Total/NA	Solid	8015NM Prep	
MB 880-26686/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-26686/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-26686/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
890-2361-A-27-B MS	Matrix Spike	Total/NA	Solid	8015NM Prep	
890-2361-A-27-C MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	

Analysis Batch: 26698

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2364-1	PH04	Total/NA	Solid	8015B NM	26686
890-2364-2	PH04	Total/NA	Solid	8015B NM	26686
MB 880-26686/1-A	Method Blank	Total/NA	Solid	8015B NM	26686
LCS 880-26686/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	26686
LCSD 880-26686/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	26686
890-2361-A-27-B MS	Matrix Spike	Total/NA	Solid	8015B NM	26686
890-2361-A-27-C MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	26686

Analysis Batch: 26764

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2364-1	PH04	Total/NA	Solid	8015 NM	

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QC Association Summary

 Client: Ensolum
 Job ID: 890-2364-1

 Project/Site: BEU 5E Han Solo 114H
 SDG: 03E1558021

GC Semi VOA (Continued)

Analysis Batch: 26764 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2364-2	PH04	Total/NA	Solid	8015 NM	

HPLC/IC

Leach Batch: 26644

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2364-1	PH04	Soluble	Solid	DI Leach	
890-2364-2	PH04	Soluble	Solid	DI Leach	
MB 880-26644/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-26644/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-26644/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
880-15356-A-21-F MS	Matrix Spike	Soluble	Solid	DI Leach	
880-15356-A-21-G MSD	Matrix Spike Duplicate	Soluble	Solid	DI Leach	

Analysis Batch: 26760

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2364-1	PH04	Soluble	Solid	300.0	26644
890-2364-2	PH04	Soluble	Solid	300.0	26644
MB 880-26644/1-A	Method Blank	Soluble	Solid	300.0	26644
LCS 880-26644/2-A	Lab Control Sample	Soluble	Solid	300.0	26644
LCSD 880-26644/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	26644
880-15356-A-21-F MS	Matrix Spike	Soluble	Solid	300.0	26644
880-15356-A-21-G MSD	Matrix Spike Duplicate	Soluble	Solid	300.0	26644

Lab Chronicle

Client: Ensolum Job ID: 890-2364-1 Project/Site: BEU 5E Han Solo 114H SDG: 03E1558021

Client Sample ID: PH04

Date Collected: 05/31/22 15:10 Date Received: 06/01/22 09:07

Lab Sample ID: 890-2364-1

Matrix: Solid

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.97 g	5 mL	26732	06/02/22 11:29	MR	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	26723	06/03/22 11:24	MR	XEN MID
Total/NA	Analysis	Total BTEX		1			26833	06/03/22 14:08	SM	XEN MID
Total/NA	Analysis	8015 NM		1			26764	06/02/22 17:22	SM	XEN MID
Total/NA	Prep	8015NM Prep			10.04 g	10 mL	26686	06/01/22 16:47	DM	XEN MID
Total/NA	Analysis	8015B NM		1			26698	06/02/22 15:36	SM	XEN MID
Soluble	Leach	DI Leach			5.05 g	50 mL	26644	06/01/22 10:56	CH	XEN MID
Soluble	Analysis	300.0		1			26760	06/02/22 21:04	CH	XEN MID

Client Sample ID: PH04 Lab Sample ID: 890-2364-2 Matrix: Solid

Date Collected: 05/31/22 15:20 Date Received: 06/01/22 09:07

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.95 g	5 mL	26732	06/02/22 11:29	MR	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	26723	06/03/22 11:45	MR	XEN MID
Total/NA	Analysis	Total BTEX		1			26833	06/03/22 14:08	SM	XEN MID
Total/NA	Analysis	8015 NM		1			26764	06/02/22 17:22	SM	XEN MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	26686	06/01/22 16:47	DM	XEN MID
Total/NA	Analysis	8015B NM		1			26698	06/02/22 15:15	SM	XEN MID
Soluble	Leach	DI Leach			4.95 g	50 mL	26644	06/01/22 10:56	CH	XEN MID
Soluble	Analysis	300.0		1			26760	06/02/22 21:12	CH	XEN MID

Laboratory References:

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

Accreditation/Certification Summary

 Client: Ensolum
 Job ID: 890-2364-1

 Project/Site: BEU 5E Han Solo 114H
 SDG: 03E1558021

Laboratory: Eurofins Midland

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

Authority	Pr	ogram	Identification Number	Expiration Date
Texas	NI	ELAP	T104704400-21-22	06-30-22
The following analytes	are included in this report by	it the laboratory is not cortifi	ed by the governing authority. This list ma	av include analytee fo
the agency does not of	. ,	at the laboratory is not certifi	ed by the governing additionty. This list the	ay include arialytes to
0 ,	. ,	Matrix	Analyte	ay include analytes to
the agency does not of	fer certification.	•	, , ,	ay include analytes to

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Method Summary

Job ID: 890-2364-1 Client: Ensolum Project/Site: BEU 5E Han Solo 114H

SDG: 03E1558021

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

Protocol References:

ASTM = ASTM International

MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions. SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

TAL SOP = TestAmerica Laboratories, Standard Operating Procedure

Laboratory References:

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

Sample Summary

Client: Ensolum

Project/Site: BEU 5E Han Solo 114H

Job ID: 890-2364-1

SDG: 03E1558021

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-2364-1	PH04	Solid	05/31/22 15:10	06/01/22 09:07	1'
890-2364-2	PH04	Solid	05/31/22 15:20	06/01/22 09:07	2'

eurofins Xenco Environment Testing

City, State ZIP

Address: Company Name: Project Manager:

Kalei Jennings Ensolum LLC.

Bill to: (if different)

Company Name:

3104 E. Green Street Carlsbad, NM 88220

State of Project:

Program: UST/PST ☐ PRP ☐ Brownfields ☐ RRC ☐ Superfund ☐

Work Order Comments

Deliverables: EDD

ADaPT 🗆

Other:

Level IV

XTO Energy, Inc. Adrian Baker

City, State ZIP:

Chain of Custody

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 Houston, TX (281) 240-4200, Dallas, TX (214) 902-0300

Phone: 81	817.683.2503		Email:						Leivers	Deliverables: EDD [ADar LCuite:
Project Name:	BEU 5E Han Solo 114H	114H	Turn /	Turn Around					ANALYSIS REQUEST	Preservative Codes
Project Number:	03E1558021	(2)	Routine	K Rush	Code					None: NO DI Water: H ₂ O
Project Location:			Due Date:	3DAY TAT						Cool: Cool MeOH: Me
Sampler's Name:	Conner Shore	Ф	TAT starts the day received by	day received b						
PO #:			the lab, if recei	the lab, if received by 4:30pm						H ₂ SO ₄ : H ₂ NaOH: Na
SAMPLE RECEIPT	Temp Blank:	(Yes) No	Wet ice:	(Yes) No	nete	.0)				H ₃ PO ₄ : HP
Samples Received Intact:	(Yes No	Thermometer ID:	ID:	23 10	arar	300				NaHSO ₄ : NABIS
Cooler Custody Seals:	Yes No MIA	Correction Factor:	ctor:	0.3	Pa	PA:				Na ₂ S ₂ O ₃ : NaSO ₃
Sample Custody Seals:	Yes No WA	Temperature Reading:	Reading:	2.6		S (E			890-2364 Chain of Custody	Zn Acetate+NaOH: Zn
Total Containers:		Corrected Temperature:	mperature:	かって	_	IDE	015)	8021		NaOH+Ascorbic Acid: SAPC
Sample Identification	cation Matrix	Date Sampled	Time Sampled	Depth Grab/	# of Cont	CHLOR	TPH (8	втех (Sample Comments
PH04	s	05.31.22	1510 1'	G		×	×	×		Incident ID:NAPP2209041753
PH04	s	05.31.22	1520 2'	G		×	×	×		
										Cost Center: 1606761001
		\								
										AFE:
					1					
				11 1						
Total 200.7 / 6010 200.8 / 6020: Circle Method(s) and Metal(s) to be analyzed	200.8 / 6020: Metal(s) to be analyz		BRCRA 13PPM	LP 6010: 8RCRA Sb	RCRA	Sb As	AS Ba Be	Be Cd C	r Co Cu Pb Mn N	TO MG MI MO NIN SE AG SIO2 NA SELESTIO V ZELESTION SE AG TIU Hg: 1631/245.1/7470 /7471
				the condense for			E	Sing You	He affiliates and subcontractors it assume	ore theseins standard terms and conditions
once: Signature of this docu f service. Eurofins Xenco wi f Eurofins Xenco. A minimur	ament and reinquisiment of the liable only for the cos m charge of \$85.00 will be a	t of samples and applied to each p	shall not assun	ne any responsi	bility for a	any loss e submit	es or exp	penses i	protice: Signature of this document and reinfquistritent of samples solution between the control of service. 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.	ircumstances beyond the control forced unless previously negotiated.
Relinquished by: (Signature)	signature)	Received	Received by: (Signature)	ıre)		Date	Date/Time		Relinquished by: (Signature)	Received by: (Signature) Date/Time
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Revised Date: 08/25/2020 Rev. 2020.

Login Sample Receipt Checklist

Client: Ensolum

Job Number: 890-2364-1

SDG Number: 03E1558021

Login Number: 2364 List Source: Eurofins Carlsbad

List Number: 1 Creator: Stutzman, Amanda

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 True tampered with. Samples were received on ice. True True Cooler Temperature is acceptable. 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 True HTs) 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 True MS/MSDs Containers requiring zero headspace have no headspace or bubble is N/A

3

5

6

8

10

12

13

14

<6mm (1/4").

Login Sample Receipt Checklist

Client: Ensolum Job Number: 890-2364-1 SDG Number: 03E1558021

Login Number: 2364 **List Source: Eurofins Midland** List Number: 2 List Creation: 06/02/22 11:42 AM

Creator: Rodriguez, Leticia

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	



Have a Question?

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Environment Testing America

ANALYTICAL REPORT

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

Laboratory Job ID: 890-2365-1

Laboratory Sample Delivery Group: 03E1558021 Client Project/Site: BEU 5E Han Solo 114H

Revision: 1

For:

Ensolum 705 W. Wadley Suite 210 Midland, Texas 79701

Attn: Kalei Jennings

RAMER

Authorized for release by: 6/14/2022 9:33:55 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

Results relate only to the items tested and the sample(s) as received by the laboratory.

Laboratory Job ID: 890-2365-1 Client: Ensolum Project/Site: BEU 5E Han Solo 114H

SDG: 03E1558021

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Definitions/Glossary

Client: Ensolum Job ID: 890-2365-1 Project/Site: BEU 5E Han Solo 114H

SDG: 03E1558021

Qualifiers

GC VOA Qualifier **Qualifier Description**

F1 MS and/or MSD recovery exceeds control limits.

F2 MS/MSD RPD exceeds control limits

U Indicates the analyte was analyzed for but not detected.

GC Semi VOA

Qualifier **Qualifier Description**

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

HPLC/IC

Qualifier **Qualifier Description**

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

Glossary

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

Listed under the "D" column to designate that the result is reported on a dry weight basis

%R Percent Recovery Contains Free Liquid **CFL** 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) Limit of Detection (DoD/DOE) LOD Limit of Quantitation (DoD/DOE) LOQ

MCL EPA recommended "Maximum Contaminant Level" MDA Minimum Detectable Activity (Radiochemistry) MDC Minimum Detectable Concentration (Radiochemistry)

MDI Method Detection Limit ML Minimum Level (Dioxin) Most Probable Number MPN 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

Practical Quantitation Limit PQL

PRES Presumptive QC **Quality Control**

RER Relative Error Ratio (Radiochemistry)

RL Reporting Limit or Requested Limit (Radiochemistry)

RPD Relative Percent Difference, a measure of the relative difference between two points

TEF Toxicity Equivalent Factor (Dioxin) **TEQ** Toxicity Equivalent Quotient (Dioxin)

TNTC Too Numerous To Count

Case Narrative

Client: Ensolum

Job ID: 890-2365-1 SDG: 03E1558021 Project/Site: BEU 5E Han Solo 114H

Job ID: 890-2365-1

Laboratory: Eurofins Carlsbad

Narrative

Job Narrative 890-2365-1

REVISION

The report being provided is a revision of the original report sent on 6/6/2022. The report (revision 1) is being revised due to Per client email, requesting TPH re run on sample FS04.

Report revision history

Receipt

The samples were received on 6/1/2022 9:07 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 2.4°C

GC VOA

Method 8021B: The matrix spike / matrix spike duplicate (MS/MSD) recoveries and precision for preparation batch 880-26827 and analytical batch 880-26785 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample / laboratory sample control duplicate (LCS/LCSD) precision was within acceptance limits.

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

GC Semi VOA

Method 8015MOD NM: Surrogate recovery for the following sample was outside control limits: (890-2361-A-27-A). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

Method 8015MOD NM: The method blank for preparation batch 880-26686 and analytical batch 880-26698 contained Gasoline Range Organics (GRO)-C6-C10 and Diesel Range Organics (Over C10-C28) above the method detection limit. This target analyte concentration was less than the reporting limit (RL); therefore, re-extraction and/or re-analysis of samples was not performed.

Method 8015MOD NM: The matrix spike duplicate (MSD) recoveries for preparation batch 880-26686 and analytical batch 880-26698 were outside control limits. Non-homogeneity is suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.

Method 8015MOD NM: Surrogate recovery for the following sample was outside control limits: (880-15469-A-1-B MS). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

Method 8015MOD NM: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 880-27167 and analytical batch 880-27244 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.

Method 8015MOD_NM: Surrogate recovery for the following samples were outside control limits: (LCS 880-27167/2-A), (880-15629-A-21-C MS) and (880-15629-A-21-D MSD). Evidence of matrix interferences is not obvious.

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

HPLC/IC

Method 300 ORGFM 28D: The matrix spike / matrix spike duplicate (MS/MSD) recoveries and precision for preparation batch 880-26738 and analytical batch 880-26786 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample / laboratory sample control duplicate (LCS/LCSD) precision was within acceptance limits.

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

Case Narrative

Client: Ensolum

Project/Site: BEU 5E Han Solo 114H

Job ID: 890-2365-1

SDG: 03E1558021

Job ID: 890-2365-1 (Continued)

Laboratory: Eurofins Carlsbad (Continued)

Matrix: Solid

Lab Sample ID: 890-2365-1

Client: Ensolum Job ID: 890-2365-1

Project/Site: BEU 5E Han Solo 114H SDG: 03E1558021

Client Sample ID: FS01 Date Collected: 05/31/22 14:25

Date Received: 06/01/22 09:07

Sample Depth: 0.75'

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		06/02/22 13:19	06/04/22 10:03	1
Toluene	0.00781		0.00200	mg/Kg		06/02/22 13:19	06/04/22 10:03	1
Ethylbenzene	< 0.00200	U	0.00200	mg/Kg		06/02/22 13:19	06/04/22 10:03	1
m-Xylene & p-Xylene	0.00644		0.00399	mg/Kg		06/02/22 13:19	06/04/22 10:03	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		06/02/22 13:19	06/04/22 10:03	1
Xylenes, Total	0.00644		0.00399	mg/Kg		06/02/22 13:19	06/04/22 10:03	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	99		70 - 130			06/02/22 13:19	06/04/22 10:03	1
1,4-Difluorobenzene (Surr)	100		70 - 130			06/02/22 13:19	06/04/22 10:03	1
Method: Total BTEX - Total B	TEX Calcula	tion						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	0.0143		0.00399	mg/Kg			06/06/22 12:13	1
Method: 8015 NM - Diesel Rai	nge Organic	s (DRO) (G	SC)					
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	57.3		50.0	mg/Kg			06/02/22 17:22	1
Method: 8015B NM - Diesel R	ange Organ	ics (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		06/01/22 16:47	06/02/22 17:02	1
Diesel Range Organics (Over C10-C28)	57.3		50.0	mg/Kg		06/01/22 16:47	06/02/22 17:02	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		06/01/22 16:47	06/02/22 17:02	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
			70 400			00/04/00 40:47	06/02/22 17:02	
1-Chlorooctane	99		70 - 130			06/01/22 16:47	06/02/22 17.02	1

Client Sample ID: FS02 Lab Sample ID: 890-2365-2 Date Collected: 05/31/22 15:10 **Matrix: Solid**

RL

4.99

Unit

mg/Kg

D

Prepared

Analyzed

06/04/22 18:48

Dil Fac

Date Received: 06/01/22 09:07

Method: 300.0 - Anions, Ion Chromatography - Soluble

Result Qualifier

443

Sample Depth: 0.75'

Analyte

Chloride

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		06/02/22 13:19	06/04/22 10:24	1
Toluene	0.00694		0.00200	mg/Kg		06/02/22 13:19	06/04/22 10:24	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		06/02/22 13:19	06/04/22 10:24	1
m-Xylene & p-Xylene	0.00819		0.00401	mg/Kg		06/02/22 13:19	06/04/22 10:24	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		06/02/22 13:19	06/04/22 10:24	1
Xylenes, Total	0.00819		0.00401	mg/Kg		06/02/22 13:19	06/04/22 10:24	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)			70 - 130			06/02/22 13:19	06/04/22 10:24	1

Client: Ensolum Job ID: 890-2365-1

Project/Site: BEU 5E Han Solo 114H SDG: 03E1558021

Client Sample ID: FS02 Lab Sample ID: 890-2365-2 Date Collected: 05/31/22 15:10

Matrix: Solid Date Received: 06/01/22 09:07

Sample Depth: 0.75'

Surrogate		Qualifier Limits	Prepared	Analyzed	Dil Fac
1,4-Difluorobenzene (Surr)	92	70 - 130	06/02/22 13:19	06/04/22 10:24	1

Method: Total BTEX - Total BTEX Calculation

Analyte	Result Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	0.0151	0.00401	mg/Kg			06/06/22 12:13	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			06/02/22 17:22	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		06/01/22 16:47	06/02/22 17:23	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9	mg/Kg		06/01/22 16:47	06/02/22 17:23	1
Oll Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg		06/01/22 16:47	06/02/22 17:23	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	97		70 - 130	06/01/22 16:47	06/02/22 17:23	1
o-Terphenyl	96		70 - 130	06/01/22 16:47	06/02/22 17:23	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	500	5.04	mg/Kg			06/04/22 19:16	1

Lab Sample ID: 890-2365-3 Client Sample ID: FS03 **Matrix: Solid**

Date Collected: 05/31/22 15:15 Date Received: 06/01/22 09:07

Sample Depth: 0.75'

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U F1 F2	0.00200	mg/Kg		06/03/22 14:04	06/03/22 22:46	1
Toluene	0.0122	F1 F2	0.00200	mg/Kg		06/03/22 14:04	06/03/22 22:46	1
Ethylbenzene	< 0.00200	U F1 F2	0.00200	mg/Kg		06/03/22 14:04	06/03/22 22:46	1
m-Xylene & p-Xylene	0.0111	F1	0.00401	mg/Kg		06/03/22 14:04	06/03/22 22:46	1
o-Xylene	< 0.00200	U F1	0.00200	mg/Kg		06/03/22 14:04	06/03/22 22:46	1
Xylenes, Total	0.0111	F1	0.00401	mg/Kg		06/03/22 14:04	06/03/22 22:46	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	99		70 - 130			06/03/22 14:04	06/03/22 22:46	1

4-Bromofluorobenzene (Surr)	99	70 - 130	06/03/22 14:04 06/03/22 22:46	1
1,4-Difluorobenzene (Surr)	100	70 - 130	06/03/22 14:04 06/03/22 22:46	1

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	0.0233		0.00401	mg/Kg			06/06/22 12:13	1

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

Analyte	Result Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	67.0	49.8	mg/Kg	_		06/02/22 17:22	1

Client: Ensolum Job ID: 890-2365-1 Project/Site: BEU 5E Han Solo 114H SDG: 03E1558021

Client Sample ID: FS03

Date Collected: 05/31/22 15:15 Date Received: 06/01/22 09:07

Sample Depth: 0.75'

Lab Sample ID: 890-2365-3

Matrix: Solid

Analyzed

06/04/22 19:25

Method: 8015B NM - Diesel Range Organics (DRO) (GC) Analyte Result Qualifier Unit Dil Fac RL Prepared Analyzed <49.8 U 49.8 06/01/22 16:47 06/02/22 16:19 Gasoline Range Organics mg/Kg (GRO)-C6-C10 **Diesel Range Organics (Over** 06/01/22 16:47 06/02/22 16:19 49.8 mg/Kg 67.0 C10-C28) Oll Range Organics (Over C28-C36) <49.8 U 06/01/22 16:47 06/02/22 16:19 49.8 mg/Kg Dil Fac Surrogate %Recovery Qualifier Limits Prepared Analyzed 1-Chlorooctane 70 - 130 06/01/22 16:47 06/02/22 16:19 101 06/01/22 16:47 06/02/22 16:19 o-Terphenyl 97 70 - 130 Method: 300.0 - Anions, Ion Chromatography - Soluble

Client Sample ID: FS04 Lab Sample ID: 890-2365-4 Date Collected: 05/31/22 15:20 **Matrix: Solid**

RL

5.03

Unit

mg/Kg

Prepared

Result Qualifier

231

Date Received: 06/01/22 09:07

Analyte

Chloride

Method: 8021B - Volatile O Analyte	•	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
	<0.00200		0.00200		_ =	06/03/22 14:04		Dil Fac
Benzene		U		mg/Kg			06/03/22 23:07	
Toluene	0.00580		0.00200	mg/Kg		06/03/22 14:04	06/03/22 23:07	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		06/03/22 14:04	06/03/22 23:07	1
m-Xylene & p-Xylene	< 0.00399	U	0.00399	mg/Kg		06/03/22 14:04	06/03/22 23:07	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		06/03/22 14:04	06/03/22 23:07	1
Xylenes, Total	<0.00399	U	0.00399	mg/Kg		06/03/22 14:04	06/03/22 23:07	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	100		70 - 130			06/03/22 14:04	06/03/22 23:07	1
1,4-Difluorobenzene (Surr)	98		70 - 130			06/03/22 14:04	06/03/22 23:07	1
- Method: Total BTEX - Total	I BTEX Calcula	tion						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	0.00580		0.00399	mg/Kg			06/06/22 12:13	1
- Method: 8015 NM - Diesel	Range Organic	s (DRO) (0	SC)					
Analyte		Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
			49.9	mg/Kg			06/02/22 17:22	

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	108		49.9	mg/Kg			06/02/22 17:22	1
Method: 8015B NM - Diesel Ra	ange Organi	ics (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		06/09/22 10:13	06/10/22 19:51	1
Diesel Range Organics (Over C10-C28)	108		49.9	mg/Kg		06/09/22 10:13	06/10/22 19:51	1
Oll Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg		06/09/22 10:13	06/10/22 19:51	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	72		70 - 130			06/09/22 10:13	06/10/22 19:51	1
o-Terphenyl	75		70 - 130			06/09/22 10:13	06/10/22 19:51	1

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Dil Fac

Client Sample Results

Client: Ensolum Job ID: 890-2365-1
Project/Site: BEU 5E Han Solo 114H SDG: 03E1558021

Client Sample ID: FS04 Lab Sample ID: 890-2365-4

Date Collected: 05/31/22 15:20 Matrix: Solid

Date Received: 06/01/22 09:07 Sample Depth: 0.75'

Method: 300.0 - Anions, Ion Chromatography - SolubleAnalyteResultQualifierRLUnitDPreparedAnalyzedDil FacChloride4905.00mg/Kg06/04/22 19:341

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Surrogate Summary

Client: Ensolum Job ID: 890-2365-1
Project/Site: BEU 5E Han Solo 114H SDG: 03E1558021

Method: 8021B - Volatile Organic Compounds (GC)

Matrix: Solid Prep Type: Total/NA

			Percent Surrogate Rec	covery (Acceptance Limits)
		BFB1	DFBZ1	
Lab Sample ID	Client Sample ID	(70-130)	70-130)	
890-2365-1	FS01	99	100	
390-2365-2	FS02	107	92	
890-2365-3	FS03	99	100	
890-2365-3 MS	FS03	104	100	
890-2365-3 MSD	FS03	102	101	
890-2365-4	FS04	100	98	
LCS 880-26742/1-A	Lab Control Sample	98	103	
LCS 880-26827/1-A	Lab Control Sample	101	102	
LCSD 880-26742/2-A	Lab Control Sample Dup	97	102	
LCSD 880-26827/2-A	Lab Control Sample Dup	102	104	
MB 880-26742/5-A	Method Blank	96	90	
MB 880-26788/5-A	Method Blank	94	91	
MB 880-26827/5-A	Method Blank	93	91	

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	
ab Sample ID	Client Sample ID	(70-130)	(70-130)	
80-15469-A-1-B MS	Matrix Spike	75	67 S1-	
80-15469-A-1-C MSD	Matrix Spike Duplicate	86	76	
80-15629-A-21-C MS	Matrix Spike	73	7 S1-	
30-15629-A-21-D MSD	Matrix Spike Duplicate	74	8 S1-	
90-2361-A-27-B MS	Matrix Spike	118	122	
90-2361-A-27-C MSD	Matrix Spike Duplicate	114	119	
90-2365-1	FS01	99	96	
0-2365-2	FS02	97	96	
90-2365-3	FS03	101	97	
0-2365-4	FS04	72	75	
CS 880-26686/2-A	Lab Control Sample	114	116	
CS 880-26872/2-A	Lab Control Sample	105	104	
S 880-27167/2-A	Lab Control Sample	92	13 S1-	
CSD 880-26686/3-A	Lab Control Sample Dup	114	116	
CSD 880-26872/3-A	Lab Control Sample Dup	103	103	
CSD 880-27167/3-A	Lab Control Sample Dup	95	91	
B 880-26686/1-A	Method Blank	100	108	
IB 880-26872/1-A	Method Blank	93	103	
IB 880-27167/1-A	Method Blank	74	82	

Surrogate Legend

1CO = 1-Chlorooctane

OTPH = o-Terphenyl

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Client: Ensolum Job ID: 890-2365-1 Project/Site: BEU 5E Han Solo 114H SDG: 03E1558021

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-26742/5-A

Matrix: Solid

Analysis Batch: 26785

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 26742

	MB	МВ						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		06/02/22 13:19	06/04/22 09:01	1
Toluene	<0.00200	U	0.00200	mg/Kg		06/02/22 13:19	06/04/22 09:01	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		06/02/22 13:19	06/04/22 09:01	1
m-Xylene & p-Xylene	<0.00400	U	0.00400	mg/Kg		06/02/22 13:19	06/04/22 09:01	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		06/02/22 13:19	06/04/22 09:01	1
Xylenes, Total	<0.00400	U	0.00400	mg/Kg		06/02/22 13:19	06/04/22 09:01	1

MB MB

Surrogate	%Recovery	Qualifier	Limits	Prepared Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	96		70 - 130	06/02/22 13:19 06/04/22 09:01	1
1,4-Difluorobenzene (Surr)	90		70 - 130	06/02/22 13:19 06/04/22 09:01	1

Lab Sample ID: LCS 880-26742/1-A

Matrix: Solid

Analysis Batch: 26785

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 26742

	Spike	LCS	LCS				%Rec	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Benzene	0.100	0.08689		mg/Kg		87	70 - 130	
Toluene	0.100	0.08352		mg/Kg		84	70 - 130	
Ethylbenzene	0.100	0.08568		mg/Kg		86	70 - 130	
m-Xylene & p-Xylene	0.200	0.1693		mg/Kg		85	70 - 130	
o-Xylene	0.100	0.09262		mg/Kg		93	70 - 130	

LCS LCS

Surrogate	%Recovery	Qualifier	Limits
4-Bromofluorobenzene (Surr)	98		70 - 130
1,4-Difluorobenzene (Surr)	103		70 - 130

Lab Sample ID: LCSD 880-26742/2-A

Matrix: Solid

Analysis Batch: 26785

Cilent	Sample	ID: Lab	Control	Sample	Dup

Prep Type: Total/NA

Prep Batch: 26742

	Spike	LCSD	LCSD				%Rec		RPD
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Benzene	0.100	0.09661		mg/Kg		97	70 - 130	11	35
Toluene	0.100	0.09185		mg/Kg		92	70 - 130	10	35
Ethylbenzene	0.100	0.09186		mg/Kg		92	70 - 130	7	35
m-Xylene & p-Xylene	0.200	0.1786		mg/Kg		89	70 - 130	5	35
o-Xylene	0.100	0.09290		mg/Kg		93	70 - 130	0	35

LCSD LCSD

Surrogate	%Recovery	Qualifier	Limits
4-Bromofluorobenzene (Surr)	97		70 - 130
1.4-Difluorobenzene (Surr)	102		70 - 130

Lab Sample ID: MB 880-26788/5-A

Matrix: Solid

Analysis Batch: 26785

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

Prep Batch: 26788

	IVID I	IVID						
Analyte	Result (Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200 U	U	0.00200	mg/Kg		06/03/22 09:28	06/03/22 11:47	1
Toluene	<0.00200 l	U	0.00200	mg/Kg		06/03/22 09:28	06/03/22 11:47	1

Client: Ensolum Job ID: 890-2365-1 Project/Site: BEU 5E Han Solo 114H SDG: 03E1558021

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

Lab Sample ID: MB 880-26788/5-A

Matrix: Solid

Ethylbenzene

Xylenes, Total

o-Xylene

Analysis Batch: 26785

Client Sample ID: Method Blank

Prep Type: Total/NA Prep Batch: 26788

MB MB **Result Qualifier** RL Unit Prepared Analyzed Dil Fac <0.00200 U 0.00200 mg/Kg 06/03/22 09:28 06/03/22 11:47 m-Xylene & p-Xylene <0.00400 U 0.00400 mg/Kg 06/03/22 09:28 06/03/22 11:47 <0.00200 U 0.00200 mg/Kg 06/03/22 09:28 06/03/22 11:47

mg/Kg

MB MB

<0.00400 U

Surrogate	%Recovery Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	94	70 - 130	06/03/22 09:28	06/03/22 11:47	1
1,4-Difluorobenzene (Surr)	91	70 - 130	06/03/22 09:28	06/03/22 11:47	1

0.00400

Lab Sample ID: MB 880-26827/5-A

Matrix: Solid

Analysis Batch: 26785

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

06/03/22 09:28 06/03/22 11:47

Prep Batch: 26827

_	MB	MB					•	
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		06/03/22 14:04	06/03/22 22:24	1
Toluene	<0.00200	U	0.00200	mg/Kg		06/03/22 14:04	06/03/22 22:24	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		06/03/22 14:04	06/03/22 22:24	1
m-Xylene & p-Xylene	<0.00400	U	0.00400	mg/Kg		06/03/22 14:04	06/03/22 22:24	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		06/03/22 14:04	06/03/22 22:24	1
Xylenes, Total	<0.00400	U	0.00400	mg/Kg		06/03/22 14:04	06/03/22 22:24	1

MB MB

Surrogate	%Recovery Qualific	er Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	93	70 - 130	06/03/22 14:04	06/03/22 22:24	1
1,4-Difluorobenzene (Surr)	91	70 - 130	06/03/22 14:04	06/03/22 22:24	1

Lab Sample ID: LCS 880-26827/1-A

Matrix: Solid

Analysis Batch: 26785

Client Sample ID: Lab Control Sample Prep Type: Total/NA Prep Batch: 26827

	Spike	LCS	LCS				%Rec	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Benzene	0.100	0.09216		mg/Kg		92	70 - 130	
Toluene	0.100	0.08828		mg/Kg		88	70 - 130	
Ethylbenzene	0.100	0.09094		mg/Kg		91	70 - 130	
m-Xylene & p-Xylene	0.200	0.1744		mg/Kg		87	70 - 130	
o-Xylene	0.100	0.09416		mg/Kg		94	70 - 130	

LCS LCS

Surrogate	%Recovery Qu	alifier	Limits
4-Bromofluorobenzene (Surr)	101		70 - 130
1,4-Difluorobenzene (Surr)	102		70 - 130

Lab Sample ID: LCSD 880-26827/2-A

Matrix: Solid

Analysis Batch: 26785

Client Sample ID: Lab	Control Sample Dup
	Pren Type: Total/NA

rep Type: Total/NA Prep Batch: 26827

Alialysis balcii. 20100							Prep Batch. 20021			
	Spike	LCSD	LCSD				%Rec		RPD	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit	
Benzene	 0.100	0.09492		mg/Kg		95	70 - 130	3	35	
Toluene	0.100	0.08896		mg/Kg		89	70 - 130	1	35	
Ethylbenzene	0.100	0.09117		mg/Kg		91	70 - 130	0	35	

Client: Ensolum Job ID: 890-2365-1
Project/Site: BEU 5E Han Solo 114H SDG: 03E1558021

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

Lab Sample ID: LCSD 880-26827/2-A

Matrix: Solid

Analysis Batch: 26785

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA Prep Batch: 26827

LCSD LCSD Spike %Rec **RPD** Analyte Added Result Qualifier Unit %Rec Limits RPD Limit m-Xylene & p-Xylene 0.200 0.1757 mg/Kg 88 70 - 130 1 35 o-Xylene 0.100 0.09401 mg/Kg 94 70 - 130 0 35

Lab Sample ID: 890-2365-3 MS

Matrix: Solid

Surrogate

Analysis Batch: 26785

4-Bromofluorobenzene (Surr)

1,4-Difluorobenzene (Surr)

890-2365-3 MS Client Sample ID: FS03
Prep Type: Total/NA

Prep Batch: 26827

Spike MS MS %Rec Sample Sample Analyte Result Qualifier Added Result Qualifier Unit D %Rec Limits Benzene <0.00200 U F1 F2 0.100 0.04998 F1 mg/Kg 49 70 - 130 Toluene 0.100 0.05019 F1 mg/Kg 38 70 - 130 0.0122 F1 F2 Ethylbenzene <0.00200 U F1 F2 0.100 0.04600 F1 mg/Kg 44 70 - 130 m-Xylene & p-Xylene 0.0111 F1 0.200 0.09790 F1 mg/Kg 43 70 - 130 o-Xylene <0.00200 UF1 0.100 0.05326 F1 mg/Kg 52 70 - 130

MS MS

Surrogate	%Recovery	Qualifier	Limits
4-Bromofluorobenzene (Surr)	104		70 - 130
1.4-Difluorobenzene (Surr)	100		70 - 130

Lab Sample ID: 890-2365-3 MSD

Matrix: Solid

Analysis Batch: 26785

Client Sample ID: FS03 Prep Type: Total/NA

Prep Batch: 26827

Sample	Sample	Spike	MSD	MSD				%Rec		RPD
Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
<0.00200	U F1 F2	0.0996	0.07616	F2	mg/Kg		76	70 - 130	42	35
0.0122	F1 F2	0.0996	0.07257	F1 F2	mg/Kg		61	70 - 130	36	35
<0.00200	U F1 F2	0.0996	0.06858	F1 F2	mg/Kg		67	70 - 130	39	35
0.0111	F1	0.199	0.1365	F1	mg/Kg		63	70 - 130	33	35
<0.00200	U F1	0.0996	0.06710	F1	mg/Kg		66	70 - 130	23	35
	Result <0.00200 0.0122 <0.00200 0.0111	Sample Sample Result Qualifier <0.00200	Result Qualifier Added <0.00200	Result Qualifier Added Result <0.00200	Result Qualifier Added Result Qualifier <0.00200	Result Qualifier Added Result Qualifier Unit <0.00200	Result Qualifier Added Result Qualifier Unit D <0.00200	Result Qualifier Added Result Qualifier Unit D %Rec <0.00200	Result Qualifier Added Result Qualifier Unit D %Rec Limits <0.00200	Result Qualifier Added Result Qualifier Unit D %Rec Limits RPD <0.00200

MSD MSD

Surrogate	%Recovery Qualifier	Limits
4-Bromofluorobenzene (Surr)	102	70 - 130
1,4-Difluorobenzene (Surr)	101	70 - 130

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

Lab Sample ID: MB 880-26686/1-A

Matrix: Solid

Analysis Batch: 26698

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

Prep Batch: 26686

	MR	MR							
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
Gasoline Range Organics	<50.0	U	50.0	mg/Kg		06/01/22 16:47	06/02/22 10:38	1	
(GRO)-C6-C10									
Diesel Range Organics (Over	<50.0	U	50.0	mg/Kg		06/01/22 16:47	06/02/22 10:38	1	
C10-C28)									
Oll Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		06/01/22 16:47	06/02/22 10:38	1	

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Client: Ensolum Job ID: 890-2365-1
Project/Site: BEU 5E Han Solo 114H SDG: 03E1558021

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

	МВ	MB				
Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	100		70 - 130	06/01/22 16:47	06/02/22 10:38	1
o-Terphenyl	108		70 - 130	06/01/22 16:47	06/02/22 10:38	1

Lab Sample ID: LCS 880-26686/2-A Client Sample ID: Lab Control Sample **Matrix: Solid** Prep Type: Total/NA Prep Batch: 26686 **Analysis Batch: 26698** Spike LCS LCS %Rec Analyte Added Result Qualifier Unit %Rec Limits D Gasoline Range Organics 1000 912.2 mg/Kg 91 70 - 130 (GRO)-C6-C10 Diesel Range Organics (Over 1000 981.2 mg/Kg 98 70 - 130 C10-C28) LCS LCS %Recovery Qualifier Surrogate Limits 1-Chlorooctane 114 70 - 130 o-Terphenyl 116 70 - 130 **Client Sample ID: Lab Control Sample Dup** Lab Sample ID: LCSD 880-26686/3-A

Matrix: Solid Prep Type: Total/NA **Analysis Batch: 26698** Prep Batch: 26686 LCSD LCSD %Rec RPD Spike Analyte Added Result Qualifier Unit %Rec Limits RPD Limit 1000 920.1 92 70 - 130 20 Gasoline Range Organics mg/Kg 1 (GRO)-C6-C10 Diesel Range Organics (Over 1000 999.8 mg/Kg 100 70 - 130 2 20 C10-C28)

 Surrogate
 %Recovery 1-Chlorooctane
 Qualifier 2-130
 Limits 70 - 130

 0-Terphenyl
 116
 70 - 130

Lab Sample ID: 890-2361-A-27-B MS

Matrix: Solid

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

Analysis Batch: 26698 Prep Batch: 26686 Sample Sample Spike MS MS %Rec Result Qualifier Analyte Result Qualifier Added Unit D %Rec Limits Gasoline Range Organics <49.9 U F1 997 1303 mg/Kg 127 70 - 130 (GRO)-C6-C10 997 Diesel Range Organics (Over <49.9 U 1216 mg/Kg 122 70 - 130

C10-C28) **MS MS**

Surrogate	%Recovery Qualifier	Limits
1-Chlorooctane	118	70 - 130
o-Terphenyl	122	70 - 130

Lab Sample ID: 890-2361-A-27-C MSD Client Sample ID: Matrix Spike Duplicate **Matrix: Solid** Prep Type: Total/NA **Analysis Batch: 26698** Prep Batch: 26686 MSD MSD Sample Sample Spike %Rec **RPD** Result Qualifier Added Result Qualifier Limits **RPD** Limit Analyte Unit D %Rec Gasoline Range Organics <49.9 UF1 1000 1390 F1 135 70 - 130 mg/Kg

(GRO)-C6-C10

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Client: Ensolum Job ID: 890-2365-1 Project/Site: BEU 5E Han Solo 114H SDG: 03E1558021

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

Lab Sample ID: 890-2361-A-27-C MSD **Client Sample ID: Matrix Spike Duplicate Matrix: Solid** Prep Type: Total/NA **Analysis Batch: 26698** Prep Batch: 26686

	Sample	Sample	Spike	MSD	MSD				%Rec		RPD
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Diesel Range Organics (Over	<49.9	U	1000	1190		mg/Kg		119	70 - 130	2	20

	MSD	MSD	
Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane	114		70 - 130
o-Terphenyl	119		70 - 130

Lab Sample ID: MB 880-26872/1-A **Client Sample ID: Method Blank**

Matrix: Solid

MB MB

Prep Type: Total/NA **Analysis Batch: 26868** Prep Batch: 26872

Result Qualifier RL Unit Dil Fac **Analyte** Prepared Analyzed Gasoline Range Organics <50.0 U 50.0 06/06/22 08:40 06/06/22 21:55 mg/Kg (GRO)-C6-C10 06/06/22 08:40 06/06/22 21:55 Diesel Range Organics (Over <50.0 U 50.0 mg/Kg C10-C28) mg/Kg Oll Range Organics (Over C28-C36) <50.0 U 50.0 06/06/22 08:40 06/06/22 21:55

MB MB Surrogate Qualifier Limits Prepared Dil Fac %Recovery Analyzed 1-Chlorooctane 93 70 - 130 06/06/22 08:40 06/06/22 21:55 103 70 - 130 06/06/22 08:40 06/06/22 21:55 o-Terphenyl

Lab Sample ID: LCS 880-26872/2-A **Client Sample ID: Lab Control Sample** Prep Type: Total/NA

Matrix: Solid

Analysis Batch: 26868

Prep Batch: 26872 Spike LCS LCS %Rec **Analyte** Added Result Qualifier Unit D %Rec Limits Gasoline Range Organics 1000 753.8 mg/Kg 75 70 - 130 (GRO)-C6-C10 Diesel Range Organics (Over 1000 1025 mg/Kg 102 70 - 130 C10-C28)

LCS LCS %Recovery Qualifier Surrogate Limits 1-Chlorooctane 105 70 - 130 o-Terphenyl 104 70 - 130

Lab Sample ID: LCSD 880-26872/3-A

Analysis Batch: 26868

Matrix: Solid

Prep Batch: 26872 Spike LCSD LCSD %Rec RPD **Analyte** Added Result Qualifier Unit %Rec Limits **RPD** Limit Gasoline Range Organics 1000 715.7 72 70 - 130 5 20 mg/Kg (GRO)-C6-C10 1000 1008 101 70 - 130 20 Diesel Range Organics (Over mg/Kg C10-C28)

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

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Prep Type: Total/NA

Client Sample ID: Lab Control Sample Dup

Client: Ensolum Job ID: 890-2365-1 Project/Site: BEU 5E Han Solo 114H SDG: 03E1558021

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

Lab Sample ID: 880-15469-A-1-B MS

Matrix: Solid

Analysis Batch: 26868

Client Sample ID: Matrix Spike

Prep Type: Total/NA Prep Batch: 26872

Prep Batch: 26872

Sample Sample Spike MS MS %Rec Result Qualifier Added Result Qualifier D %Rec Limits Analyte Unit <49.9 U Gasoline Range Organics 997 800.5 mg/Kg 80 70 - 130 (GRO)-C6-C10 Diesel Range Organics (Over 997 929.7 87 70 - 130 62.4 mg/Kg

C10-C28)

MS MS Limits Surrogate %Recovery Qualifier 1-Chlorooctane 70 - 130 75 70 - 130 o-Terphenyl 67 S1-

Client Sample ID: Matrix Spike Duplicate

Lab Sample ID: 880-15469-A-1-C MSD **Matrix: Solid** Prep Type: Total/NA

Analysis Batch: 26868

	Sample	Sample	Spike	MSD	MSD				%Rec		RPD
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	1000	923.7		mg/Kg		92	70 - 130	14	20
Diesel Range Organics (Over	62.4		1000	1128		mg/Kg		107	70 - 130	19	20

C10-C28)

	MSD	MSD	
Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane	86		70 - 130
o-Terphenyl	76		70 - 130

MB MB

Lab Sample ID: MB 880-27167/1-A

Matrix: Solid

Analysis Batch: 27244

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 27167

ı									
	Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
	Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0	mg/Kg		06/09/22 10:13	06/10/22 10:28	1
	Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		06/09/22 10:13	06/10/22 10:28	1
	Oll Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		06/09/22 10:13	06/10/22 10:28	1

MB MB

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	74		70 - 130	06/09/22 10:13	06/10/22 10:28	1
o-Terphenyl	82		70 - 130	06/09/22 10:13	06/10/22 10:28	1

Lab Sample ID: LCS 880-27167/2-A

Matrix: Solid

Analysis Batch: 27244

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 27167
0/ 5

	Spike	LCS	LCS				%Rec	
Analyte	Added	l Result	Qualifier	Unit	D	%Rec	Limits	
Gasoline Range Organics	1000	872.5		mg/Kg		87	70 - 130	
(GRO)-C6-C10								
Diesel Range Organics (Over	1000	1086		mg/Kg		109	70 - 130	
C10-C28)								

Client: Ensolum Job ID: 890-2365-1 Project/Site: BEU 5E Han Solo 114H SDG: 03E1558021

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

Lab Sample ID: LCS 880-27167/2-A

Matrix: Solid

Analysis Batch: 27244

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 27167

LCS LCS %Recovery Qualifier Surrogate

1-Chlorooctane 92 70 - 130 o-Terphenyl 13 S1-70 - 130

Client Sample ID: Lab Control Sample Dup Lab Sample ID: LCSD 880-27167/3-A

Limits

Matrix: Solid

Analysis Batch: 27244

Prep Type: Total/NA

Prep Batch: 27167

LCSD LCSD RPD %Rec Spike Analyte Added Result Qualifier Unit %Rec Limits RPD Limit Gasoline Range Organics 1000 887.3 mg/Kg 89 70 - 130 2 20 (GRO)-C6-C10 Diesel Range Organics (Over 1000 1084 mg/Kg 108 70 - 130 0 20

C10-C28)

LCSD LCSD Surrogate %Recovery Qualifier Limits 1-Chlorooctane 95 70 - 130 70 - 130 o-Terphenyl 91

Lab Sample ID: 880-15629-A-21-C MS Client Sample ID: Matrix Spike

Matrix: Solid

Analysis Batch: 27244

Prep Type: Total/NA

Prep Batch: 27167 %Rec

Prep Type: Total/NA

Client Sample ID: Matrix Spike Duplicate

Sample Sample Spike MS MS Result Qualifier Added Result Qualifier Limits Analyte Unit D %Rec <49.9 U F1 644.5 F1 Gasoline Range Organics 997 mg/Kg 65 70 - 130 (GRO)-C6-C10 997 Diesel Range Organics (Over <49.9 UF1 711.7 F1 mg/Kg 67 70 - 130 C10-C28)

MS MS Surrogate %Recovery Qualifier Limits 1-Chlorooctane 70 - 130 73 o-Terphenyl 7 S1-70 - 130

Lab Sample ID: 880-15629-A-21-D MSD

Matrix: Solid

Analysis Batch: 27244 Prep Batch: 27167 Sample Sample Spike MSD MSD %Rec **RPD** Limits **RPD**

Result Qualifier Added Result Qualifier Limit **Analyte** Unit %Rec Gasoline Range Organics <49.9 U F1 1000 720.3 72 70 - 130 20 mg/Kg (GRO)-C6-C10 Diesel Range Organics (Over <49.9 UF1 1000 734.3 F1 mg/Kg 69 70 - 130 3 20 C10-C28)

MSD MSD %Recovery Qualifier Limits Surrogate 1-Chlorooctane 74 70 - 130 o-Terphenyl 8 S1-70 - 130

Client: Ensolum Job ID: 890-2365-1 Project/Site: BEU 5E Han Solo 114H SDG: 03E1558021

Method: 300.0 - Anions, Ion Chromatography

MB MB

Lab Sample ID: MB 880-26738/1-A

Client Sample ID: Method Blank

Client Sample ID: Matrix Spike Duplicate

Prep Type: Soluble

Matrix: Solid

Analysis Batch: 26786

Prep Type: Soluble

Analyte Result Qualifier RL Unit Analyzed Dil Fac D Prepared 5.00 06/04/22 14:50 Chloride <5.00 U mg/Kg

Lab Sample ID: LCS 880-26738/2-A **Client Sample ID: Lab Control Sample Matrix: Solid**

Prep Type: Soluble

Analysis Batch: 26786

Spike LCS LCS %Rec Analyte Added Result Qualifier Unit D %Rec Limits Chloride 250 225.5 90 - 110 mg/Kg 90

Lab Sample ID: LCSD 880-26738/3-A Client Sample ID: Lab Control Sample Dup **Prep Type: Soluble**

Matrix: Solid

Analysis Batch: 26786

Spike LCSD LCSD %Rec RPD Added Result Qualifier Limits **RPD** Limit **Analyte** Unit %Rec Chloride 250 228.2 91 90 - 110 mg/Kg

Lab Sample ID: 890-2363-A-5-C MS **Client Sample ID: Matrix Spike Prep Type: Soluble**

Matrix: Solid

Analysis Batch: 26786

Spike MS MS %Rec Sample Sample Analyte Result Qualifier Added Result Qualifier Unit %Rec Limits Chloride 324 F1 248 522.4 F1 mg/Kg 80 90 - 110

Lab Sample ID: 890-2363-A-5-D MSD

Matrix: Solid

Analysis Batch: 26786

MSD MSD RPD Sample Sample Spike %Rec Analyte Result Qualifier Added Result Qualifier Unit Limits RPD %Rec Limit Chloride 324 F1 248 541.4 F1 88 20 mg/Kg 90 - 110

QC Association Summary

Client: Ensolum Project/Site: BEU 5E Han Solo 114H Job ID: 890-2365-1 SDG: 03E1558021

GC VOA

Prep Batch: 26742

Lab Sample ID 890-2365-1	Client Sample ID FS01	Prep Type Total/NA	Matrix Solid	Method 5035	Prep Batch
890-2365-2	FS02	Total/NA	Solid	5035	
MB 880-26742/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-26742/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-26742/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	

Analysis Batch: 26785

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2365-1	FS01	Total/NA	Solid	8021B	26742
890-2365-2	FS02	Total/NA	Solid	8021B	26742
890-2365-3	FS03	Total/NA	Solid	8021B	26827
890-2365-4	FS04	Total/NA	Solid	8021B	26827
MB 880-26742/5-A	Method Blank	Total/NA	Solid	8021B	26742
MB 880-26788/5-A	Method Blank	Total/NA	Solid	8021B	26788
MB 880-26827/5-A	Method Blank	Total/NA	Solid	8021B	26827
LCS 880-26742/1-A	Lab Control Sample	Total/NA	Solid	8021B	26742
LCS 880-26827/1-A	Lab Control Sample	Total/NA	Solid	8021B	26827
LCSD 880-26742/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	26742
LCSD 880-26827/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	26827
890-2365-3 MS	FS03	Total/NA	Solid	8021B	26827
890-2365-3 MSD	FS03	Total/NA	Solid	8021B	26827

Prep Batch: 26788

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 880-26788/5-A	Method Blank	Total/NA	Solid	5035	

Prep Batch: 26827

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2365-3	FS03	Total/NA	Solid	5035	
890-2365-4	FS04	Total/NA	Solid	5035	
MB 880-26827/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-26827/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-26827/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
890-2365-3 MS	FS03	Total/NA	Solid	5035	
890-2365-3 MSD	FS03	Total/NA	Solid	5035	

Analysis Batch: 26917

Lab Sample ID 890-2365-1	Client Sample ID FS01	Prep Type Total/NA	Matrix Solid	Method Total BTEX	Prep Batch
890-2365-2	FS02	Total/NA	Solid	Total BTEX	
890-2365-3	FS03	Total/NA	Solid	Total BTEX	
890-2365-4	FS04	Total/NA	Solid	Total BTEX	

GC Semi VOA

Prep Batch: 26686

Lab Sample ID 890-2365-1	Client Sample ID FS01	Prep Type Total/NA	Matrix Solid	Method 8015NM Prep	Prep Batch
890-2365-2	FS02	Total/NA	Solid	8015NM Prep	
890-2365-3	FS03	Total/NA	Solid	8015NM Prep	
MB 880-26686/1-A	Method Blank	Total/NA	Solid	8015NM Prep	

QC Association Summary

Client: Ensolum Job ID: 890-2365-1 Project/Site: BEU 5E Han Solo 114H SDG: 03E1558021

GC Semi VOA (Continued)

Prep Batch: 26686 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 880-26686/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-26686/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
890-2361-A-27-B MS	Matrix Spike	Total/NA	Solid	8015NM Prep	
890-2361-A-27-C MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	

Analysis Batch: 26698

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2365-1	FS01	Total/NA	Solid	8015B NM	26686
890-2365-2	FS02	Total/NA	Solid	8015B NM	26686
890-2365-3	FS03	Total/NA	Solid	8015B NM	26686
MB 880-26686/1-A	Method Blank	Total/NA	Solid	8015B NM	26686
LCS 880-26686/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	26686
LCSD 880-26686/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	26686
890-2361-A-27-B MS	Matrix Spike	Total/NA	Solid	8015B NM	26686
890-2361-A-27-C MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	26686

Analysis Batch: 26765

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2365-1	FS01	Total/NA	Solid	8015 NM	
890-2365-2	FS02	Total/NA	Solid	8015 NM	
890-2365-3	FS03	Total/NA	Solid	8015 NM	
890-2365-4	FS04	Total/NA	Solid	8015 NM	

Analysis Batch: 26868

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 880-26872/1-A	Method Blank	Total/NA	Solid	8015B NM	26872
LCS 880-26872/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	26872
LCSD 880-26872/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	26872
880-15469-A-1-B MS	Matrix Spike	Total/NA	Solid	8015B NM	26872
880-15469-A-1-C MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	26872

Prep Batch: 26872

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 880-26872/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-26872/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-26872/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
880-15469-A-1-B MS	Matrix Spike	Total/NA	Solid	8015NM Prep	
880-15469-A-1-C MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	

Prep Batch: 27167

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2365-4	FS04	Total/NA	Solid	8015NM Prep	
MB 880-27167/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-27167/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-27167/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
880-15629-A-21-C MS	Matrix Spike	Total/NA	Solid	8015NM Prep	
880-15629-A-21-D MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	

Analysis Batch: 27244

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2365-4	FS04	Total/NA	Solid	8015B NM	27167

QC Association Summary

 Client: Ensolum
 Job ID: 890-2365-1

 Project/Site: BEU 5E Han Solo 114H
 SDG: 03E1558021

GC Semi VOA (Continued)

Analysis Batch: 27244 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 880-27167/1-A	Method Blank	Total/NA	Solid	8015B NM	27167
LCS 880-27167/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	27167
LCSD 880-27167/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	27167
880-15629-A-21-C MS	Matrix Spike	Total/NA	Solid	8015B NM	27167
880-15629-A-21-D MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	27167

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Leach Batch: 26738

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2365-1	FS01	Soluble	Solid	DI Leach	
890-2365-2	FS02	Soluble	Solid	DI Leach	
890-2365-3	FS03	Soluble	Solid	DI Leach	
890-2365-4	FS04	Soluble	Solid	DI Leach	
MB 880-26738/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-26738/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-26738/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
890-2363-A-5-C MS	Matrix Spike	Soluble	Solid	DI Leach	
890-2363-A-5-D MSD	Matrix Spike Duplicate	Soluble	Solid	DI Leach	

Analysis Batch: 26786

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2365-1	FS01	Soluble	Solid	300.0	26738
890-2365-2	FS02	Soluble	Solid	300.0	26738
890-2365-3	FS03	Soluble	Solid	300.0	26738
890-2365-4	FS04	Soluble	Solid	300.0	26738
MB 880-26738/1-A	Method Blank	Soluble	Solid	300.0	26738
LCS 880-26738/2-A	Lab Control Sample	Soluble	Solid	300.0	26738
LCSD 880-26738/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	26738
890-2363-A-5-C MS	Matrix Spike	Soluble	Solid	300.0	26738
890-2363-A-5-D MSD	Matrix Spike Duplicate	Soluble	Solid	300.0	26738

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Date Received: 06/01/22 09:07

Job ID: 890-2365-1

Client: Ensolum Project/Site: BEU 5E Han Solo 114H SDG: 03E1558021

Client Sample ID: FS01 Lab Sample ID: 890-2365-1 Date Collected: 05/31/22 14:25

Matrix: Solid

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.01 g	5 mL	26742	06/02/22 13:19	EL	XEN MID
Total/NA	Analysis	8021B		1	0 mL	1.0 mL	26785	06/04/22 10:03	MR	XEN MID
Total/NA	Analysis	Total BTEX		1			26917	06/06/22 12:13	SM	XEN MID
Total/NA	Analysis	8015 NM		1			26765	06/02/22 17:22	SM	XEN MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	26686	06/01/22 16:47	DM	XEN MID
Total/NA	Analysis	8015B NM		1			26698	06/02/22 17:02	SM	XEN MID
Soluble	Leach	DI Leach			5.01 g	50 mL	26738	06/02/22 12:28	СН	XEN MID
Soluble	Analysis	300.0		1			26786	06/04/22 18:48	CH	XEN MID

Client Sample ID: FS02 Lab Sample ID: 890-2365-2

Date Collected: 05/31/22 15:10 **Matrix: Solid** Date Received: 06/01/22 09:07

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.99 g	5 mL	26742	06/02/22 13:19	EL	XEN MID
Total/NA	Analysis	8021B		1	0 mL	1.0 mL	26785	06/04/22 10:24	MR	XEN MID
Total/NA	Analysis	Total BTEX		1			26917	06/06/22 12:13	SM	XEN MID
Total/NA	Analysis	8015 NM		1			26765	06/02/22 17:22	SM	XEN MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	26686	06/01/22 16:47	DM	XEN MID
Total/NA	Analysis	8015B NM		1			26698	06/02/22 17:23	SM	XEN MID
Soluble	Leach	DI Leach			4.96 g	50 mL	26738	06/02/22 12:28	СН	XEN MI
Soluble	Analysis	300.0		1			26786	06/04/22 19:16	CH	XEN MI

Client Sample ID: FS03 Lab Sample ID: 890-2365-3 Date Collected: 05/31/22 15:15 Matrix: Solid

Date Received: 06/01/22 09:07

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.99 g	5 mL	26827	06/03/22 14:04	MR	XEN MID
Total/NA	Analysis	8021B		1	0 mL	1.0 mL	26785	06/03/22 22:46	MR	XEN MID
Total/NA	Analysis	Total BTEX		1			26917	06/06/22 12:13	SM	XEN MID
Total/NA	Analysis	8015 NM		1			26765	06/02/22 17:22	SM	XEN MID
Total/NA	Prep	8015NM Prep			10.04 g	10 mL	26686	06/01/22 16:47	DM	XEN MID
Total/NA	Analysis	8015B NM		1			26698	06/02/22 16:19	SM	XEN MID
Soluble	Leach	DI Leach			4.97 g	50 mL	26738	06/02/22 12:28	СН	XEN MID
Soluble	Analysis	300.0		1			26786	06/04/22 19:25	CH	XEN MID

Client Sample ID: FS04 Lab Sample ID: 890-2365-4 Date Collected: 05/31/22 15:20 Matrix: Solid

Date Received: 06/01/22 09:07

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	26827	06/03/22 14:04	MR	XEN MID
Total/NA	Analysis	8021B		1	0 mL	1.0 mL	26785	06/03/22 23:07	MR	XEN MID
Total/NA	Analysis	Total BTEX		1			26917	06/06/22 12:13	SM	XEN MID

Lab Chronicle

Client: Ensolum Job ID: 890-2365-1 Project/Site: BEU 5E Han Solo 114H SDG: 03E1558021

Client Sample ID: FS04 Lab Sample ID: 890-2365-4

Date Collected: 05/31/22 15:20 Matrix: Solid Date Received: 06/01/22 09:07

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	8015 NM		1			26765	06/02/22 17:22	SM	XEN MID
Total/NA	Prep	8015NM Prep			10.03 g	10 mL	27167	06/09/22 10:13	DM	XEN MID
Total/NA	Analysis	8015B NM		1			27244	06/10/22 19:51	AJ	XEN MID
Soluble	Leach	DI Leach			5 g	50 mL	26738	06/02/22 12:28	CH	XEN MID
Soluble	Analysis	300.0		1			26786	06/04/22 19:34	CH	XEN MID

Laboratory References:

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

Accreditation/Certification Summary

 Client: Ensolum
 Job ID: 890-2365-1

 Project/Site: BEU 5E Han Solo 114H
 SDG: 03E1558021

Laboratory: Eurofins Midland

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

uthority		ogram	Identification Number	Expiration Date
Texas	NE	ELAP	T104704400-21-22	06-30-22
The following analyte	are included in this rene	art but the laboratory is r	and contified by the devenies outbority	This list may include analytes for u
the agency does not	offer certification.	•	not certified by the governing authority.	This list may include analytes for w
	•	Matrix	Analyte	This list may include analytes for w
the agency does not	offer certification.	•		This list may include analytes for w

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Method Summary

Client: Ensolum

Project/Site: BEU 5E Han Solo 114H

Job ID: 890-2365-1

SDG: 03E1558021

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oratory		

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

Protocol References:

ASTM = ASTM International

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

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

TAL SOP = TestAmerica Laboratories, Standard Operating Procedure

Laboratory References:

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

Sample Summary

Client: Ensolum

Project/Site: BEU 5E Han Solo 114H

Job ID: 890-2365-1

SDG: 03E1558021

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-2365-1	FS01	Solid	05/31/22 14:25	06/01/22 09:07	0.75'
890-2365-2	FS02	Solid	05/31/22 15:10	06/01/22 09:07	0.75'
890-2365-3	FS03	Solid	05/31/22 15:15	06/01/22 09:07	0.75'
890-2365-4	FS04	Solid	05/31/22 15:20	06/01/22 09:07	0.75'

eurofins Environment Testing

Address: City, State ZIP:

Company Name: Project Manager:

Ensolum LLC. Kalei Jennings

Address: City, State ZIP:

Carlsbad, NM 88220 3104 E. Green Street XTO Energy, Inc. Adrian Baker

Company Name: Bill to: (if different)

Chain of Custody

Houston, TX (281) 240-4200, Dallas, TX (214) 902-0300 Midland, TX (432) 704-5440, San Antonio, TX (210) 509-333 EL Paso, TX (915) 585-3443, Lubbock, TX (806) 794-1296 Hobbs, NM (575) 392-7550, Carlsbad, NM (575) 988-3199

4	Work Order No:
	www.xenco.com Page 1 of 1
	Work Order Comments
	Program: UST/PST ☐ PRP☐ Brownfields ☐ RRC ☐ Superfund ☐
	State of Project:
	Reporting: Level III PST/UST TRRP Level IV
	Deliverables: EDD ☐ ADaPT ☐ Other:

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Date/Time	Received by: (Signature)	Relinquished by: (Signature)	ne	Date/Time			Received by: (Signature)	eceived by:	70	jnature)	Relinquished by: (Signature)
	ctors. It assigns standard terms and conditions sees are due to circumstances beyond the control terms will be enforced unless previously negotiated.	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 \$86.00 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 negotiat	Eurofins Xen r expenses in to Eurofins X	npany to losses or ubmitted t	cilent cou ity for any sample s	e order from responsibil	s a valid purchas il not assume an et and a charge o	ples constitute mples and sha I to each proje	ment of sam he cost of sa vill be applied	ent and relinquish be liable only for t charge of \$85.00 v	tice: Signature of this docum service. Eurofins Xenco will Eurofins Xenco. A minimum
1/4/0 / /4/1	Ag II U Hg: 1631 / 245.1 / /4/0 / /4/1	Cd Cr Co Cu Pb Mn Mo Ni Se Ag	Ba Be Co	Sb As Ba	8RCRA S	010: 8R	TCLP / SPLP 6010:	TC	nalyzed	etal(s) to be a	Circle Method(s) and Metal(s) to be analyzed
∏ Sn U V Zn	No Ni K Se A		e E	As Ba	≥	Texas 11	13PPM	8RCRA	9:	200.8 / 6020:	Total 200.7 / 6010
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Cost Center: 1606761001	Cost C		×	×	-	ဝ	1515 0.75		05.31.22	S	FS03
			×	×	-	ဝ	1510 0.75'		05.31.22	ဖ	FS02
Incident ID:NAPP2209041753	Incide		×	×	_	G	1425 0.75		05.31.22	S	FS01
Sample Comments	σ		BTEX	TPH (8	# of Cont	Grab/ Comp	Time Depth	Date T Sampled Sai	Matrix San		Sample Identification
NaOH+Ascorbic Acid: SAPC	NaOH					H	rature: 2	Corrected Temperature:	Corre		Total Containers:
Zn Acetate+NaOH: Zn	Zn Ace		ı	S (E		6	ding:	Temperature Reading:	N/A Tem	Yes No /	Sample Custody Seals:
Na ₂ S ₂ U ₃ : NaSU ₃	Na ₂ S ₂ S	y custody		PA:	P	S		Correction Factor:	M/A Corre	Yes No	Cooler Custody Seals:
NaHSO4: NABIS	NaHSO	890-2365 Chain of C.		300	arai	3.00	17-20	Thermometer ID:		(Yes No	Samples Received Intact:
; HP	H ₃ PO ₄ : HP).0)	mete	s) No	Wet ice: (res	S N	k: Wes	Temp Blank:	SAMPLE RECEIPT
: H ₂ NaOH: Na	H ₂ SO ₄ : H ₂				ers	y 4:30pm	the lab, if received by 4:30pm	the			PO#:
	HCL: HC					eceived by	TAT starts the day received by	TAT	Shore	Conner Shore	Sampler's Name:
	Cool: Cool			_		SDAY TAT	Due Date: St	Due			Project Location:
NO DI Water: H ₂ O	None: NO				Code	ush	Routine Rush	12) RC	8021	03E1558021	Project Number:
. 10001 145110 00000		ANALI GIG DESCEO				no	lurn Around		SOIO 114	BEU 5E Han Solo 174H	Project Name:

Login Sample Receipt Checklist

 Client: Ensolum
 Job Number: 890-2365-1

 SDG Number: 03E1558021

Login Number: 2365 List Source: Eurofins Carlsbad

List Number: 1

Creator: Stutzman, Amanda

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	
s the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	

Eurofins Carlsbad

Released to Imaging: 9/29/2022 12:24:29 PM

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Login Sample Receipt Checklist

Client: Ensolum

Job Number: 890-2365-1

SDG Number: 03E1558021

List Source: Eurofins Midland
List Number: 2
List Creation: 06/02/22 11:42 AM

Creator: Rodriguez, Leticia

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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Environment Testing America

ANALYTICAL REPORT

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

Laboratory Job ID: 890-2366-1

Laboratory Sample Delivery Group: 03E1558021 Client Project/Site: BEU 5E Han Solo 114H

For:

Ensolum 705 W. Wadley Suite 210 Midland, Texas 79701

Attn: Kalei Jennings

RAMER

Authorized for release by: 6/6/2022 11:47:00 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

Results relate only to the items tested and the sample(s) as received by the laboratory.

Client: Ensolum
Project/Site: BEU 5E Han Solo 114H
Laboratory Job ID: 890-2366-1
SDG: 03E1558021

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Definitions/Glossary

Job ID: 890-2366-1 Client: Ensolum Project/Site: BEU 5E Han Solo 114H

SDG: 03E1558021

Qualifiers

GC VOA

Qualifier **Qualifier Description** F1 MS and/or MSD recovery exceeds control limits. F2 MS/MSD RPD exceeds control limits

Indicates the analyte was analyzed for but not detected.

GC Semi VOA

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

HPLC/IC

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

Glossary

Abbreviation These commonly used abbreviations may or may not be present in this report. Listed under the "D" column to designate that the result is reported on a dry weight basis %R Percent Recovery CFL Contains Free Liquid CFU Colony Forming Unit CNF Contains No Free Liquid DER Duplicate Error Ratio (normalized absolute difference) Dil Fac **Dilution Factor** DL Detection Limit (DoD/DOE) DL, RA, RE, IN Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample Decision Level Concentration (Radiochemistry) DLC

EDL Estimated Detection Limit (Dioxin) LOD Limit of Detection (DoD/DOE) LOQ Limit of Quantitation (DoD/DOE)

MCL EPA recommended "Maximum Contaminant Level" Minimum Detectable Activity (Radiochemistry) MDA Minimum Detectable Concentration (Radiochemistry) MDC

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**

Presumptive **PRES** QC **Quality Control**

RER Relative Error Ratio (Radiochemistry)

Reporting Limit or Requested Limit (Radiochemistry)

RPD Relative Percent Difference, a measure of the relative difference between two points

Toxicity Equivalent Factor (Dioxin) TEF Toxicity Equivalent Quotient (Dioxin) TFO

TNTC Too Numerous To Count

Case Narrative

Client: Ensolum

Project/Site: BEU 5E Han Solo 114H

Job ID: 890-2366-1 SDG: 03E1558021

Job ID: 890-2366-1

Laboratory: Eurofins Carlsbad

Narrative

Job Narrative 890-2366-1

Receipt

The samples were received on 6/1/2022 9:07 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 2.4°C

GC VOA

Method 8021B: The matrix spike / matrix spike duplicate (MS/MSD) recoveries and precision for preparation batch 880-26827 and analytical batch 880-26785 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample / laboratory sample control duplicate (LCS/LCSD) precision was within acceptance limits.

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

GC Semi VOA

Method 8015MOD_NM: Surrogate recovery for the following sample was outside control limits: (880-15387-A-1-C MS). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

Method 8015MOD_NM: Surrogate recovery for the following sample was outside control limits: SS04 (890-2366-1). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

Method 8015MOD_NM: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 880-26719 and analytical batch 880-26700 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.

Method 8015MOD_NM: Surrogate recovery for the following sample was outside control limits: SS06 (890-2366-3). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

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

HPLC/IC

Method 300_ORGFM_28D: The matrix spike / matrix spike duplicate (MS/MSD) recoveries and precision for preparation batch 880-26738 and analytical batch 880-26786 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample / laboratory sample control duplicate (LCS/LCSD) precision was within acceptance limits.

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

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Client: Ensolum Job ID: 890-2366-1

Project/Site: BEU 5E Han Solo 114H SDG: 03E1558021

Client Sample ID: SS04 Lab Sample ID: 890-2366-1 Date Collected: 05/31/22 13:50 Matrix: Solid

Date Received: 06/01/22 09:07 Sample Depth: 0.5'

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199	mg/Kg		06/03/22 14:04	06/03/22 23:27	1
Toluene	0.00354		0.00199	mg/Kg		06/03/22 14:04	06/03/22 23:27	1
Ethylbenzene	< 0.00199	U	0.00199	mg/Kg		06/03/22 14:04	06/03/22 23:27	1
m-Xylene & p-Xylene	<0.00398	U	0.00398	mg/Kg		06/03/22 14:04	06/03/22 23:27	1
o-Xylene	< 0.00199	U	0.00199	mg/Kg		06/03/22 14:04	06/03/22 23:27	1
Xylenes, Total	<0.00398	U	0.00398	mg/Kg		06/03/22 14:04	06/03/22 23:27	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	99		70 - 130			06/03/22 14:04	06/03/22 23:27	1
1,4-Difluorobenzene (Surr)	94		70 - 130			06/03/22 14:04	06/03/22 23:27	1
- Method: Total BTEX - Total BTEX	X Calculation							
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	< 0.00398	U	0.00398	mg/Kg			06/06/22 12:13	1
Method: 8015 NM - Diesel Range Analyte		Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
T-4-LTDU							/ lilaly = o a	Diriac
Total TPH	58.2		50.0	mg/Kg		<u> </u>	06/02/22 17:28	1
		RO) (GC)	50.0	mg/Kg		<u> </u>		
Nethod: 8015B NM - Diesel Rang 	ge Organics (D	RO) (GC) Qualifier	50.0 RL	mg/Kg Unit		Prepared		1
Method: 8015B NM - Diesel Rang	ge Organics (D	Qualifier			<u>D</u>	Prepared 06/02/22 13:00	06/02/22 17:28	1 Dil Fac
Method: 8015B NM - Diesel Rang Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over	ge Organics (D	Qualifier	RL	Unit	<u>D</u>		06/02/22 17:28 Analyzed	Dil Fac
Method: 8015B NM - Diesel Rang Analyte Gasoline Range Organics (GRO)-C6-C10	ge Organics (D Result <50.0	Qualifier U	RL 50.0	<mark>Unit</mark> mg/Kg	<u>D</u>	06/02/22 13:00	06/02/22 17:28 Analyzed 06/02/22 15:15	Dil Fac
Method: 8015B NM - Diesel Rang Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28)	ge Organics (D Result <50.0	Qualifier U	RL 50.0	Unit mg/Kg mg/Kg	<u>D</u>	06/02/22 13:00 06/02/22 13:00	06/02/22 17:28 Analyzed 06/02/22 15:15 06/02/22 15:15	1 Dil Fac
Method: 8015B NM - Diesel Rang Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) Oll Range Organics (Over C28-C36)	ge Organics (D Result <50.0 58.2 <50.0	Qualifier U	RL 50.0 50.0 50.0	Unit mg/Kg mg/Kg	<u>D</u>	06/02/22 13:00 06/02/22 13:00 06/02/22 13:00	06/02/22 17:28 Analyzed 06/02/22 15:15 06/02/22 15:15	Dil Face 1 1 1 1 Dil Face
Method: 8015B NM - Diesel Rang Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) Oll Range Organics (Over C28-C36) Surrogate	ge Organics (D Result <50.0 58.2 <50.0 %Recovery 76	Qualifier U	FL 50.0 50.0 50.0 Limits	Unit mg/Kg mg/Kg	<u>D</u>	06/02/22 13:00 06/02/22 13:00 06/02/22 13:00 Prepared	Analyzed 06/02/22 15:15 06/02/22 15:15 06/02/22 15:15 Analyzed	Dil Fac
Method: 8015B NM - Diesel Rang Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) Oll Range Organics (Over C28-C36) Surrogate 1-Chlorooctane	ge Organics (D Result <50.0 58.2 <50.0 %Recovery 76 69	Qualifier U Qualifier S1-	RL 50.0 50.0 50.0 Limits 70 - 130	Unit mg/Kg mg/Kg	<u>D</u>	06/02/22 13:00 06/02/22 13:00 06/02/22 13:00 Prepared 06/02/22 13:00	Analyzed 06/02/22 15:15 06/02/22 15:15 06/02/22 15:15 Analyzed 06/02/22 15:15	
Method: 8015B NM - Diesel Rang Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) OII Range Organics (Over C28-C36) Surrogate 1-Chlorooctane o-Terphenyl	ge Organics (D Result <50.0 58.2 <50.0 %Recovery 76 69 omatography -	Qualifier U Qualifier S1-	RL 50.0 50.0 50.0 Limits 70 - 130	Unit mg/Kg mg/Kg	<u>D</u>	06/02/22 13:00 06/02/22 13:00 06/02/22 13:00 Prepared 06/02/22 13:00	Analyzed 06/02/22 15:15 06/02/22 15:15 06/02/22 15:15 Analyzed 06/02/22 15:15	Dil Fac

Client Sample ID: SS05 Lab Sample ID: 890-2366-2

Date Collected: 05/31/22 13:55 Date Received: 06/01/22 09:07

Sample Depth: 0.5'

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00198	U	0.00198	mg/Kg		06/03/22 14:04	06/03/22 23:48	1
Toluene	0.0144		0.00198	mg/Kg		06/03/22 14:04	06/03/22 23:48	1
Ethylbenzene	0.00213		0.00198	mg/Kg		06/03/22 14:04	06/03/22 23:48	1
m-Xylene & p-Xylene	0.0244		0.00397	mg/Kg		06/03/22 14:04	06/03/22 23:48	1
o-Xylene	0.00407		0.00198	mg/Kg		06/03/22 14:04	06/03/22 23:48	1
Xylenes, Total	0.0285		0.00397	mg/Kg		06/03/22 14:04	06/03/22 23:48	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)			70 - 130			06/03/22 14:04	06/03/22 23:48	1

Eurofins Carlsbad

Matrix: Solid

Released to Imaging: 9/29/2022 12:24:29 PM

Matrix: Solid

Lab Sample ID: 890-2366-2

Client: Ensolum Job ID: 890-2366-1 Project/Site: BEU 5E Han Solo 114H SDG: 03E1558021

Client Sample ID: SS05

Date Collected: 05/31/22 13:55 Date Received: 06/01/22 09:07

Sample Depth: 0.5'

Method: 8021B - Volatile O	rganic Compou	nds (GC)	(Continued)
Michiga: OUL 1B Volume C	i gaino compou	1145 (55)	(Goillinaca)

Surrogate	%Recovery Qualifie	er Limits	Prepared	Analyzed	Dil Fac
1,4-Difluorobenzene (Surr)	88	70 - 130	06/03/22 14:04	06/03/22 23:48	1

Method: To	tal BTFX - Tot	tal BTEX Calculation	n

Analyte	Result Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	0.0450	0.00397	mg/Kg			06/06/22 12:13	1

Mothod: 2015 NM - Diocol	Pango Organice (DPO) (CC)

Analyte	Result Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
Total TPH	66.9	50.0	ma/Ka			06/02/22 17:28	1	

	Method: 8015B NM - Diese	l Range Organics (DRO) (G	C)	
--	--------------------------	---------------------------	----	--

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	66.9		50.0	mg/Kg		06/02/22 13:00	06/02/22 16:41	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		06/02/22 13:00	06/02/22 16:41	1
Oll Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		06/02/22 13:00	06/02/22 16:41	1
Currente	9/ D anayamı	Ovelifier	l imita			Duamanad	Amalumad	Dil Foo

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil I
1-Chlorooctane	82		70 - 130	06/02/22 13:00	06/02/22 16:41	
o-Terphenyl	75		70 - 130	06/02/22 13:00	06/02/22 16:41	

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	187	4.99	mg/Kg		_	06/04/22 19:53	1

Client Sample ID: SS06 Lab Sample ID: 890-2366-3

Date Collected: 05/31/22 14:00 Date Received: 06/01/22 09:07

Sample Depth: 0.5'

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199	mg/Kg		06/03/22 14:04	06/04/22 00:08	1
Toluene	0.00211		0.00199	mg/Kg		06/03/22 14:04	06/04/22 00:08	1
Ethylbenzene	<0.00199	U	0.00199	mg/Kg		06/03/22 14:04	06/04/22 00:08	1
m-Xylene & p-Xylene	<0.00398	U	0.00398	mg/Kg		06/03/22 14:04	06/04/22 00:08	1
o-Xylene	<0.00199	U	0.00199	mg/Kg		06/03/22 14:04	06/04/22 00:08	1
Xylenes, Total	<0.00398	U	0.00398	mg/Kg		06/03/22 14:04	06/04/22 00:08	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	110		70 - 130			06/03/22 14:04	06/04/22 00:08	1
1,4-Difluorobenzene (Surr)	86		70 - 130			06/03/22 14:04	06/04/22 00:08	1

Mothod:	Total RTEY	- Total RTFY	Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	< 0.00398	U	0.00398	ma/Ka			06/06/22 12:13	1

	Method: 8015 NM - Diesel	Range Organics (DRO	D) (GC)	١
ı	Michiga. 00 to Min - Diese	i italige Organics (Ditt		,

Analyte	•	•	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH			<49.9	U	49.9	mg/Kg			06/02/22 17:28	1

Eurofins Carlsbad

Matrix: Solid

Matrix: Solid

Lab Sample ID: 890-2366-3

Job ID: 890-2366-1

Client: Ensolum Project/Site: BEU 5E Han Solo 114H SDG: 03E1558021

Client Sample ID: SS06 Date Collected: 05/31/22 14:00

Date Received: 06/01/22 09:07

Sample Depth: 0.5'

Method: 8015B NM - Diesel Rang	ge Organics (D	RO) (GC)						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9	mg/Kg		06/02/22 13:00	06/02/22 17:02	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9	mg/Kg		06/02/22 13:00	06/02/22 17:02	1
Oll Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg		06/02/22 13:00	06/02/22 17:02	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	73		70 - 130			06/02/22 13:00	06/02/22 17:02	1
o-Terphenyl	66	S1-	70 - 130			06/02/22 13:00	06/02/22 17:02	1
- Method: 300.0 - Anions, Ion Chro	omatography -	Soluble						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	487		4.97	mg/Kg			06/04/22 20:02	1

Lab Sample ID: 890-2366-4 **Client Sample ID: SS07** Date Collected: 05/31/22 14:05 Matrix: Solid

Date Received: 06/01/22 09:07

Sample Depth: 0.5'

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199	mg/Kg		06/03/22 14:04	06/04/22 00:29	1
Toluene	0.00505		0.00199	mg/Kg		06/03/22 14:04	06/04/22 00:29	1
Ethylbenzene	<0.00199	U	0.00199	mg/Kg		06/03/22 14:04	06/04/22 00:29	1
m-Xylene & p-Xylene	<0.00398	U	0.00398	mg/Kg		06/03/22 14:04	06/04/22 00:29	1
o-Xylene	<0.00199	U	0.00199	mg/Kg		06/03/22 14:04	06/04/22 00:29	1
Xylenes, Total	<0.00398	U	0.00398	mg/Kg		06/03/22 14:04	06/04/22 00:29	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	96		70 - 130			06/03/22 14:04	06/04/22 00:29	1
1,4-Difluorobenzene (Surr)	99		70 - 130			06/03/22 14:04	06/04/22 00:29	1
Method: Total BTEX - Total BTEX	(Calculation							
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	0.00505		0.00398	mg/Kg			06/06/22 12:13	1
Method: 8015 NM - Diesel Range	Organics (DR	O) (GC)						
Method: 8015 NM - Diesel Range Analyte	•	O) (GC) Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
	•	Qualifier	RL 49.9	Unit mg/Kg	<u>D</u>	Prepared	Analyzed 06/02/22 17:28	Dil Fac
Analyte	Result <49.9	Qualifier U			<u>D</u>	Prepared		
Analyte Total TPH	Result <49.9 ge Organics (D	Qualifier U			<u>D</u>	Prepared Prepared		1
Analyte Total TPH Method: 8015B NM - Diesel Rang	Result <49.9 ge Organics (D	Qualifier U RO) (GC) Qualifier	49.9	mg/Kg			06/02/22 17:28	1 Dil Fac
Analyte Total TPH Method: 8015B NM - Diesel Rang Analyte Gasoline Range Organics	Result <49.9 ge Organics (D Result	Qualifier U RO) (GC) Qualifier U	49.9	mg/Kg		Prepared	06/02/22 17:28 Analyzed	Dil Fac
Analyte Total TPH Method: 8015B NM - Diesel Rang Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over	Result <49.9 ge Organics (D Result <49.9	Qualifier U RO) (GC) Qualifier U	49.9 RL 49.9	mg/Kg Unit mg/Kg		Prepared 06/02/22 13:00	06/02/22 17:28 Analyzed 06/02/22 17:23	Dil Fac
Analyte Total TPH Method: 8015B NM - Diesel Rang Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) Oll Range Organics (Over C28-C36)	Result	Qualifier U RO) (GC) Qualifier U	49.9 RL 49.9 49.9	mg/Kg Unit mg/Kg mg/Kg		Prepared 06/02/22 13:00 06/02/22 13:00	06/02/22 17:28 Analyzed 06/02/22 17:23 06/02/22 17:23	1 Dil Fac
Analyte Total TPH Method: 8015B NM - Diesel Rang Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28)	Result <49.9 ge Organics (D Result <49.9 <49.9 <49.9	Qualifier U RO) (GC) Qualifier U U	49.9 RL 49.9 49.9 49.9	mg/Kg Unit mg/Kg mg/Kg		Prepared 06/02/22 13:00 06/02/22 13:00	06/02/22 17:28 Analyzed 06/02/22 17:23 06/02/22 17:23	1 Dil Fac

Client Sample Results

 Client: Ensolum
 Job ID: 890-2366-1

 Project/Site: BEU 5E Han Solo 114H
 SDG: 03E1558021

Client Sample ID: SS07 Lab Sample ID: 890-2366-4

Date Collected: 05/31/22 14:05

Date Received: 06/01/22 09:07

Matrix: Solid

Sample Depth: 0.5'

Method: 300.0 - Anions, Ion Chrom	atography - \$	Soluble						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	166		4.99	mg/Kg			06/04/22 20:11	1

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Surrogate Summary

Job ID: 890-2366-1 Client: Ensolum Project/Site: BEU 5E Han Solo 114H SDG: 03E1558021

Method: 8021B - Volatile Organic Compounds (GC)

Matrix: Solid Prep Type: Total/NA

		BFB1	DFBZ1	Percent Surrogate Recovery (Acceptance Limits)
Lab Sample ID	Client Sample ID	(70-130)	(70-130)	
890-2365-A-3-D MS	Matrix Spike	104	100	
890-2365-A-3-E MSD	Matrix Spike Duplicate	102	101	
890-2366-1	SS04	99	94	
890-2366-2	SS05	102	88	
890-2366-3	SS06	110	86	
890-2366-4	SS07	96	99	
LCS 880-26827/1-A	Lab Control Sample	101	102	
LCSD 880-26827/2-A	Lab Control Sample Dup	102	104	
MB 880-26788/5-A	Method Blank	94	91	
MB 880-26827/5-A	Method Blank	93	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)	
880-15387-A-1-C MS	Matrix Spike	77	69 S1-	
880-15387-A-1-D MSD	Matrix Spike Duplicate	78	70	
890-2366-1	SS04	76	69 S1-	
890-2366-2	SS05	82	75	
890-2366-3	SS06	73	66 S1-	
890-2366-4	SS07	93	91	
LCS 880-26719/2-A	Lab Control Sample	118	114	
LCSD 880-26719/3-A	Lab Control Sample Dup	114	113	
MB 880-26719/1-A	Method Blank	98	109	

1CO = 1-Chlorooctane

OTPH = o-Terphenyl

Job ID: 890-2366-1 Client: Ensolum Project/Site: BEU 5E Han Solo 114H SDG: 03E1558021

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-26788/5-A

Matrix: Solid

Analysis Batch: 26785

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 26788

1

	MB	MB						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		06/03/22 09:28	06/03/22 11:47	•
Toluene	<0.00200	U	0.00200	mg/Kg		06/03/22 09:28	06/03/22 11:47	
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		06/03/22 09:28	06/03/22 11:47	
m-Xylene & p-Xylene	<0.00400	U	0.00400	mg/Kg		06/03/22 09:28	06/03/22 11:47	
o-Xylene	<0.00200	U	0.00200	mg/Kg		06/03/22 09:28	06/03/22 11:47	
Xylenes, Total	<0.00400	U	0.00400	mg/Kg		06/03/22 09:28	06/03/22 11:47	•

MB MB

Surrogate	%Recovery	Qualifier	Limits	Prej	pared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	94		70 - 130	06/03/2	22 09:28	06/03/22 11:47	1
1,4-Difluorobenzene (Surr)	91		70 - 130	06/03/2	22 09:28	06/03/22 11:47	1

Lab Sample ID: MB 880-26827/5-A

Matrix: Solid

Analysis Batch: 26785

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 26827

MR MR Analyte Result Qualifier RL Unit Prepared Analyzed Dil Fac Benzene <0.00200 U 0.00200 mg/Kg 06/03/22 14:04 06/03/22 22:24 Toluene <0.00200 U 0.00200 mg/Kg 06/03/22 14:04 06/03/22 22:24 Ethylbenzene <0.00200 U 0.00200 mg/Kg 06/03/22 14:04 06/03/22 22:24 06/03/22 14:04 06/03/22 22:24 m-Xylene & p-Xylene <0.00400 U 0.00400 mg/Kg 06/03/22 22:24 o-Xylene <0.00200 U 0.00200 mg/Kg 06/03/22 14:04 Xylenes, Total <0.00400 U 0.00400 06/03/22 14:04 06/03/22 22:24 mg/Kg

MB MB

Surrogate	%Recovery	Qualifier	Limits	Prepared	l Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	93		70 - 130	06/03/22 14	:04 06/03/22 22:24	1
1,4-Difluorobenzene (Surr)	91		70 - 130	06/03/22 14	:04 06/03/22 22:24	1

Lab Sample ID: LCS 880-26827/1-A

Matrix: Solid

Analysis Batch: 26785

Client Sample ID: Lab Control Sample

Prep Type: Total/NA Prep Batch: 26827

Spike LCS LCS %Rec Analyte Added Result Qualifier Unit %Rec Limits Benzene 0.100 0.09216 mg/Kg 92 70 - 130 Toluene 0.100 0.08828 mg/Kg 88 70 - 130 Ethylbenzene 0.100 0.09094 mg/Kg 91 70 - 130 m-Xylene & p-Xylene 0.200 0.1744 mg/Kg 87 70 - 130 0.09416 0.100 70 - 130 o-Xylene mg/Kg 94

LCS LCS

Surrogate	%Recovery Qualifier	Limits
4-Bromofluorobenzene (Surr)	101	70 _ 130
1.4-Difluorobenzene (Surr)	102	70 - 130

Lab Sample ID: LCSD 880-26827/2-A

Matrix: Solid

Analysis Batch: 26785

Prep Type: Total/NA

Prep Batch: 26827

	Spike	LCSD LCSD				70 KeC		KFD	
Analyte	Added	Result Qualifie	er Unit	D	%Rec	Limits	RPD	Limit	
Benzene	0.100	0.09492	mg/Kg		95	70 - 130	3	35	

LCCD LCCD

Chiles

Client: Ensolum Job ID: 890-2366-1 Project/Site: BEU 5E Han Solo 114H SDG: 03E1558021

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

Lab Sample ID: LCSD 880-26827/2-A

Matrix: Solid Analysis Batch: 26785 Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA Prep Batch: 26827

Client Sample ID: Matrix Spike

	Spike	LCSD	LCSD				%Rec		RPD
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Toluene	0.100	0.08896		mg/Kg		89	70 - 130	1	35
Ethylbenzene	0.100	0.09117		mg/Kg		91	70 - 130	0	35
m-Xylene & p-Xylene	0.200	0.1757		mg/Kg		88	70 - 130	1	35
o-Xylene	0.100	0.09401		mg/Kg		94	70 - 130	0	35

LCSD LCSD

Surrogate	%Recovery	Qualifier	Limits
4-Bromofluorobenzene (Surr)	102		70 - 130
1,4-Difluorobenzene (Surr)	104		70 - 130

Lab Sample ID: 890-2365-A-3-D MS

	Sample Sample	Snika	MS MS	% Pac
Analysis Batch: 26785				Prep Batch: 26827
Matrix: Solid				Prep Type: Total/NA

Result Qualifier Analyte Added Result Qualifier Unit %Rec Limits Benzene <0.00200 U F1 F2 0.100 0.04998 F1 mg/Kg 49 70 - 130 Toluene 0.100 38 70 - 130 0.0122 F1 F2 0.05019 F1 mg/Kg Ethylbenzene 0.100 <0.00200 U F1 F2 0.04600 F1 mg/Kg 44 70 - 130 0.0111 F1 0.200 0.09790 F1 43 70 - 130 m-Xylene & p-Xylene mg/Kg o-Xylene <0.00200 UF1 0.100 0.05326 F1 mg/Kg 52 70 - 130

MS MS

Surrogate	%Recovery Qualifier	Limits
4-Bromofluorobenzene (Surr)	104	70 - 130
1,4-Difluorobenzene (Surr)	100	70 - 130

Lab Sample ID: 890-2365-A-3-E MSD Client Sample ID: Matrix Spike Duplicate

Ma An

atrix: Solid								Prep ⁻	Type: Tot	al/NA
nalysis Batch: 26785								Prep	Batch:	26827
	Sample	Sample	Spike	MSD	MSD			%Rec		RPD
		A 110		- "	•	 _	0/ 5			

		- up.o							,0.100		
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Benzene	<0.00200	U F1 F2	0.0996	0.07616	F2	mg/Kg		76	70 - 130	42	35
Toluene	0.0122	F1 F2	0.0996	0.07257	F1 F2	mg/Kg		61	70 - 130	36	35
Ethylbenzene	<0.00200	U F1 F2	0.0996	0.06858	F1 F2	mg/Kg		67	70 - 130	39	35
m-Xylene & p-Xylene	0.0111	F1	0.199	0.1365	F1	mg/Kg		63	70 - 130	33	35
o-Xylene	<0.00200	U F1	0.0996	0.06710	F1	mg/Kg		66	70 - 130	23	35

MSD MSD

Surrogate	%Recovery Qualifier	Limits
4-Bromofluorobenzene (Surr)	102	70 - 130
1,4-Difluorobenzene (Surr)	101	70 - 130

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

Lab Sample ID: MB 880-26719/1-A **Matrix: Solid**

Analysis Batch: 26700

Client Sample ID: Method Blank Prep Type: Total/NA Prep Batch: 26719

мв мв Result Qualifier RL Unit Prepared <50.0 U 50.0 mg/Kg 06/02/22 10:21 06/02/22 10:38 Gasoline Range Organics (GRO)-C6-C10

Client: Ensolum

Job ID: 890-2366-1

SDG: 03E1558021

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

Lab Sample ID: MB 880-26719/1-A **Matrix: Solid**

Project/Site: BEU 5E Han Solo 114H

Analysis Batch: 26700

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 26719

	IND	IVID						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics (Over	<50.0	U	50.0	mg/Kg		06/02/22 10:21	06/02/22 10:38	1
C10-C28)								
Oll Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		06/02/22 10:21	06/02/22 10:38	1
	MD	MD						

MB MB

MR MR

Surrogate	%Recovery	Qualifier	Limits	Prep	ared	Analyzed	Dil Fac
1-Chlorooctane	98		70 - 130	06/02/2	22 10:21	06/02/22 10:38	1
o-Terphenyl	109		70 - 130	06/02/2	22 10:21	06/02/22 10:38	1

Client Sample ID: Lab Control Sample

Lab Sample ID: LCS 880-26719/2-A **Matrix: Solid** Prep Type: Total/NA

Analysis Batch: 26700 Prep Batch: 26719

	Spike	LCS	LCS				%Rec	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Gasoline Range Organics	1000	959.3		mg/Kg		96	70 - 130	
(GRO)-C6-C10								
Diesel Range Organics (Over	1000	877.7		mg/Kg		88	70 - 130	
C10-C28)								

LCS LCS

Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane	118		70 - 130
o-Terphenyl	114		70 - 130

Lab Sample ID: LCSD 880-26719/3-A

Client Sample ID: Lab Control Sample Dup

%Rec

Matrix: Solid Prep Type: Total/NA Prep Batch: 26719 **Analysis Batch: 26700**

	Spike	LCSD	LCSD				%Rec		RPD
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Gasoline Range Organics	1000	932.6		mg/Kg		93	70 - 130	3	20
(GRO)-C6-C10									
Diesel Range Organics (Over	1000	854.9		mg/Kg		85	70 - 130	3	20
C10-C28)									

LCSD LCSD Surrogate %Recovery Qualifier Limits 1-Chlorooctane 114 70 - 130 o-Terphenyl 113 70 - 130

Lab Sample ID: 880-15387-A-1-C MS Client Sample ID: Matrix Spike

Matrix: Solid Prep Type: Total/NA

Analysis Batch: 26700 Prep Batch: 26719

MS MS

Sample Sample Spike Analyte Result Qualifier Added Result Qualifier Unit %Rec Limits <49.9 U 997 813.3 78 70 - 130 Gasoline Range Organics mg/Kg (GRO)-C6-C10 997 668.9 F1 Diesel Range Organics (Over <49.9 UF1 mg/Kg 67 70 - 130

C10-C28)

	WS	INIS	
Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane	77		70 - 130
o-Terphenyl	69	S1-	70 - 130

Job ID: 890-2366-1

Client: Ensolum SDG: 03E1558021 Project/Site: BEU 5E Han Solo 114H

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

Lab Sample ID: 880-15387-A-1-D MSD Client Sample ID: Matrix Spike Duplicate **Matrix: Solid** Prep Type: Total/NA Analysis Batch: 26700 Prep Batch: 26719

	Sample	Sample	Spike	MSD	MSD				%Rec		RPD
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Gasoline Range Organics	<49.9	U	1000	805.1		mg/Kg		77	70 - 130	1	20
(GRO)-C6-C10											
Diesel Range Organics (Over	<49.9	U F1	1000	686.7	F1	mg/Kg		69	70 - 130	3	20
C10-C28)											

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

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-26738/1-A Client Sample ID: Method Blank **Prep Type: Soluble**

Matrix: Solid

Analysis Batch: 26786

мв мв

Analyte	Result Q	ualifier RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.00 U	5.00	mg/Kg			06/04/22 14:50	1

Lab Sample ID: LCS 880-26738/2-A **Client Sample ID: Lab Control Sample Matrix: Solid Prep Type: Soluble**

Analysis Batch: 26786

	Spike	LCS	LCS				%Rec	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Chloride	250	225.5		mg/Kg		90	90 - 110	

Lab Sample ID: LCSD 880-26738/3-A Client Sample ID: Lab Control Sample Dup **Prep Type: Soluble**

Matrix: Solid

Analysis Batch: 26786

	Spike	LCSD	LCSD				%Rec		RPD	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit	
Chloride	250	228.2		mg/Kg		91	90 - 110	1	20	

Lab Sample ID: 880-15398-A-32-B MS Client Sample ID: Matrix Spike **Prep Type: Soluble**

Matrix: Solid

Analysis Batch: 26786

	Sample	Sample	Spike	MS	MS				%Rec	
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Chloride	1020		1250	2283		ma/Ka		102	90 110	

Lab Sample ID: 880-15398-A-32-C MSD

Matrix: Solid

Analysis Batch: 26786

-	Sample	Sample	Spike	MSD	MSD				%Rec		RPD
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Chloride	1020		1250	2347		mg/Kg		107	90 - 110	3	20

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Prep Type: Soluble

Client Sample ID: Matrix Spike Duplicate

QC Sample Results

Client: Ensolum Job ID: 890-2366-1 Project/Site: BEU 5E Han Solo 114H

SDG: 03E1558021

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: 890-2363-A-5-C MS Client Sample ID: Matrix Spike

Matrix: Solid Prep Type: Soluble Analysis Batch: 26786

Sample Sample Spike MS MS %Rec Result Qualifier Result Qualifier Added Analyte Unit %Rec Limits Chloride 324 F1 248 522.4 F1 mg/Kg 80 90 - 110

Lab Sample ID: 890-2363-A-5-D MSD Client Sample ID: Matrix Spike Duplicate

Matrix: Solid Prep Type: Soluble

Analysis Batch: 26786 Sample Sample Spike MSD MSD %Rec

RPD Result Qualifier Added Result Qualifier Limits RPD Limit Analyte Unit D %Rec Chloride 324 F1 248 541.4 F1 mg/Kg 88 90 - 110 4 20

QC Association Summary

 Client: Ensolum
 Job ID: 890-2366-1

 Project/Site: BEU 5E Han Solo 114H
 SDG: 03E1558021

GC VOA

Analysis Batch: 26785

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2366-1	SS04	Total/NA	Solid	8021B	26827
890-2366-2	SS05	Total/NA	Solid	8021B	26827
890-2366-3	SS06	Total/NA	Solid	8021B	26827
890-2366-4	SS07	Total/NA	Solid	8021B	26827
MB 880-26788/5-A	Method Blank	Total/NA	Solid	8021B	26788
MB 880-26827/5-A	Method Blank	Total/NA	Solid	8021B	26827
LCS 880-26827/1-A	Lab Control Sample	Total/NA	Solid	8021B	26827
LCSD 880-26827/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	26827
890-2365-A-3-D MS	Matrix Spike	Total/NA	Solid	8021B	26827
890-2365-A-3-E MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	26827

Prep Batch: 26788

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 880-26788/5-A	Method Blank	Total/NA	Solid	5035	

Prep Batch: 26827

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2366-1	SS04	Total/NA	Solid	5035	_
890-2366-2	SS05	Total/NA	Solid	5035	
890-2366-3	SS06	Total/NA	Solid	5035	
890-2366-4	SS07	Total/NA	Solid	5035	
MB 880-26827/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-26827/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-26827/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
890-2365-A-3-D MS	Matrix Spike	Total/NA	Solid	5035	
890-2365-A-3-E MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	

Analysis Batch: 26918

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2366-1	SS04	Total/NA	Solid	Total BTEX	
890-2366-2	SS05	Total/NA	Solid	Total BTEX	
890-2366-3	SS06	Total/NA	Solid	Total BTEX	
890-2366-4	SS07	Total/NA	Solid	Total BTEX	

GC Semi VOA

Analysis Batch: 26700

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2366-1	SS04	Total/NA	Solid	8015B NM	26719
890-2366-2	SS05	Total/NA	Solid	8015B NM	26719
890-2366-3	SS06	Total/NA	Solid	8015B NM	26719
890-2366-4	SS07	Total/NA	Solid	8015B NM	26719
MB 880-26719/1-A	Method Blank	Total/NA	Solid	8015B NM	26719
LCS 880-26719/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	26719
LCSD 880-26719/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	26719
880-15387-A-1-C MS	Matrix Spike	Total/NA	Solid	8015B NM	26719
880-15387-A-1-D MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	26719

Prep Batch: 26719

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2366-1	SS04	Total/NA	Solid	8015NM Prep	

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QC Association Summary

 Client: Ensolum
 Job ID: 890-2366-1

 Project/Site: BEU 5E Han Solo 114H
 SDG: 03E1558021

GC Semi VOA (Continued)

Prep Batch: 26719 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2366-2	SS05	Total/NA	Solid	8015NM Prep	
890-2366-3	SS06	Total/NA	Solid	8015NM Prep	
890-2366-4	SS07	Total/NA	Solid	8015NM Prep	
MB 880-26719/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-26719/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-26719/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
880-15387-A-1-C MS	Matrix Spike	Total/NA	Solid	8015NM Prep	
880-15387-A-1-D MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	

Analysis Batch: 26770

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2366-1	SS04	Total/NA	Solid	8015 NM	
890-2366-2	SS05	Total/NA	Solid	8015 NM	
890-2366-3	SS06	Total/NA	Solid	8015 NM	
890-2366-4	SS07	Total/NA	Solid	8015 NM	

HPLC/IC

Leach Batch: 26738

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2366-1	SS04	Soluble	Solid	DI Leach	
890-2366-2	SS05	Soluble	Solid	DI Leach	
890-2366-3	SS06	Soluble	Solid	DI Leach	
890-2366-4	SS07	Soluble	Solid	DI Leach	
MB 880-26738/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-26738/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-26738/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
880-15398-A-32-B MS	Matrix Spike	Soluble	Solid	DI Leach	
880-15398-A-32-C MSD	Matrix Spike Duplicate	Soluble	Solid	DI Leach	
890-2363-A-5-C MS	Matrix Spike	Soluble	Solid	DI Leach	
890-2363-A-5-D MSD	Matrix Spike Duplicate	Soluble	Solid	DI Leach	

Analysis Batch: 26786

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2366-1	SS04	Soluble	Solid	300.0	26738
890-2366-2	SS05	Soluble	Solid	300.0	26738
890-2366-3	SS06	Soluble	Solid	300.0	26738
890-2366-4	SS07	Soluble	Solid	300.0	26738
MB 880-26738/1-A	Method Blank	Soluble	Solid	300.0	26738
LCS 880-26738/2-A	Lab Control Sample	Soluble	Solid	300.0	26738
LCSD 880-26738/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	26738
880-15398-A-32-B MS	Matrix Spike	Soluble	Solid	300.0	26738
880-15398-A-32-C MSD	Matrix Spike Duplicate	Soluble	Solid	300.0	26738
890-2363-A-5-C MS	Matrix Spike	Soluble	Solid	300.0	26738
890-2363-A-5-D MSD	Matrix Spike Duplicate	Soluble	Solid	300.0	26738

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Matrix: Solid

Matrix: Solid

Client: Ensolum

Job ID: 890-2366-1 Project/Site: BEU 5E Han Solo 114H SDG: 03E1558021

Client Sample ID: SS04 Lab Sample ID: 890-2366-1

Date Collected: 05/31/22 13:50 Matrix: Solid Date Received: 06/01/22 09:07

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.03 g	5 mL	26827	06/03/22 14:04	MR	XEN MID
Total/NA	Analysis	8021B		1	0 mL	1.0 mL	26785	06/03/22 23:27	MR	XEN MID
Total/NA	Analysis	Total BTEX		1			26918	06/06/22 12:13	SM	XEN MID
Total/NA	Analysis	8015 NM		1			26770	06/02/22 17:28	SM	XEN MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	26719	06/02/22 13:00	DM	XEN MID
Total/NA	Analysis	8015B NM		1			26700	06/02/22 15:15	SM	XEN MID
Soluble	Leach	DI Leach			5.05 g	50 mL	26738	06/02/22 12:28	CH	XEN MID
Soluble	Analysis	300.0		5			26786	06/04/22 19:44	CH	XEN MID

Client Sample ID: SS05 Lab Sample ID: 890-2366-2

Date Collected: 05/31/22 13:55 Date Received: 06/01/22 09:07

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.04 g	5 mL	26827	06/03/22 14:04	MR	XEN MID
Total/NA	Analysis	8021B		1	0 mL	1.0 mL	26785	06/03/22 23:48	MR	XEN MID
Total/NA	Analysis	Total BTEX		1			26918	06/06/22 12:13	SM	XEN MID
Total/NA	Analysis	8015 NM		1			26770	06/02/22 17:28	SM	XEN MID
Total/NA	Prep	8015NM Prep			10.00 g	10 mL	26719	06/02/22 13:00	DM	XEN MID
Total/NA	Analysis	8015B NM		1			26700	06/02/22 16:41	SM	XEN MID
Soluble	Leach	DI Leach			5.01 g	50 mL	26738	06/02/22 12:28	CH	XEN MID
Soluble	Analysis	300.0		1			26786	06/04/22 19:53	CH	XEN MID

Client Sample ID: SS06 Lab Sample ID: 890-2366-3

Date Collected: 05/31/22 14:00 Date Received: 06/01/22 09:07

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.02 g	5 mL	26827	06/03/22 14:04	MR	XEN MID
Total/NA	Analysis	8021B		1	0 mL	1.0 mL	26785	06/04/22 00:08	MR	XEN MID
Total/NA	Analysis	Total BTEX		1			26918	06/06/22 12:13	SM	XEN MID
Total/NA	Analysis	8015 NM		1			26770	06/02/22 17:28	SM	XEN MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	26719	06/02/22 13:00	DM	XEN MID
Total/NA	Analysis	8015B NM		1			26700	06/02/22 17:02	SM	XEN MID
Soluble	Leach	DI Leach			5.03 g	50 mL	26738	06/02/22 12:28	CH	XEN MID
Soluble	Analysis	300.0		1			26786	06/04/22 20:02	CH	XEN MID

Client Sample ID: SS07 Lab Sample ID: 890-2366-4

Date Collected: 05/31/22 14:05 Date Received: 06/01/22 09:07

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.03 g	5 mL	26827	06/03/22 14:04	MR	XEN MID
Total/NA	Analysis	8021B		1	0 mL	1.0 mL	26785	06/04/22 00:29	MR	XEN MID
Total/NA	Analysis	Total BTEX		1			26918	06/06/22 12:13	SM	XEN MID

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Matrix: Solid

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Released to Imaging: 9/29/2022 12:24:29 PM

Lab Chronicle

Client: Ensolum Job ID: 890-2366-1 Project/Site: BEU 5E Han Solo 114H SDG: 03E1558021

Client Sample ID: SS07 Lab Sample ID: 890-2366-4

Matrix: Solid

Date Collected: 05/31/22 14:05 Date Received: 06/01/22 09:07

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	8015 NM		1			26770	06/02/22 17:28	SM	XEN MID
Total/NA	Prep	8015NM Prep			10.03 g	10 mL	26719	06/02/22 13:00	DM	XEN MID
Total/NA	Analysis	8015B NM		1			26700	06/02/22 17:23	SM	XEN MID
Soluble	Leach	DI Leach			5.01 g	50 mL	26738	06/02/22 12:28	СН	XEN MID
Soluble	Analysis	300.0		1			26786	06/04/22 20:11	CH	XEN MID

Laboratory References:

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

Accreditation/Certification Summary

Client: Ensolum Job ID: 890-2366-1 Project/Site: BEU 5E Han Solo 114H

SDG: 03E1558021

Laboratory: Eurofins Midland

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

Authority	Pr	rogram	Identification Number	Expiration Date
Texas	NI	ELAP	T104704400-21-22	06-30-22
The following analytes the agency does not of	• •	ut the laboratory is not certif	ied by the governing authority. This list ma	ay include analytes fo
Analysis Method	Prep Method	Matrix	Analyte	
8015 NM		Solid	Total TPH	

Method Summary

Client: Ensolum Project/Site: BEU 5E Han Solo 114H Job ID: 890-2366-1

SDG: 03E1558021

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

Protocol References:

ASTM = ASTM International

MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions. SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

TAL SOP = TestAmerica Laboratories, Standard Operating Procedure

Laboratory References:

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

Sample Summary

Client: Ensolum

Project/Site: BEU 5E Han Solo 114H

Job ID: 890-2366-1

SDG: 03E1558021

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-2366-1	SS04	Solid	05/31/22 13:50	06/01/22 09:07	0.5'
890-2366-2	SS05	Solid	05/31/22 13:55	06/01/22 09:07	0.5'
890-2366-3	SS06	Solid	05/31/22 14:00	06/01/22 09:07	0.5'
890-2366-4	SS07	Solid	05/31/22 14:05	06/01/22 09:07	0.5'

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Xerico

Environment Testing

Chain of Custody

Houston, TX (2 Midland, TX (432 EL Paso, TX (9 Hobbs, NM (57

(915) 585-3443, Lubbock, TX (806) 794-1296	. (281) 240-4200, Dailas, TX (214) 902-0300 32) 704-5440, San Antonio, TX (210) 509-3334	Work Order No:
I, NM (575) 988-3199	(915) 585-3443, Lubbock, TX (806) 794-1296	
	575) 392-7550, Carlsbad, NM (575) 988-3199	۲ ــــــــــــــــــــــــــــــــــــ
	Adrian Baker	Work Order Comments
	XTO Energy, Inc.	Program: UST/PST ☐ PRP☐ Brownfields ☐ RRC ☐ Superfund ☐
Carlsbad, NM 88220 Reporting: Level III ☐ Level III ☐ PST/UST ☐ TRRP ☐ Level IV☐ Deliverables: EDD ☐ ADaPT ☐ Other:	3104 E. Green Street	State of Project:
Deliverables: EDD	Carlsbad, NM 88220	Reporting: Level II Level III PST/UST TRRP Level IV

City, State ZIP:

817.683.2503

City, State ZIP: Address: Company Name: Bill to: (if different)

Company Name: Project Manager:

Ensolum LLC.

Kalei Jennings

Received by: (Signature)	Relinquished by: (Signature)	Date/Time	Da	(e)	Received by: (Signature)	Receive	7	Relinquished by: (Signature)
2 2 2	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.	any to Eurofins sses or expens mitted to Eurofi	ilent comp y for any lo ample sub	hase order from c any responsibility je of \$5 for each s	stitutes a valid purc d shall not assume project and a charg	of samples cons t of samples an applied to each	nd relinquishment able only for the cos ge of \$85.00 will be	Notice: Signature of this document and relinquishment of samples constitutes a valid purchase order from client company to Eurofins Xenco, its affiliates and subcontra 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 lot of Eurofins Xenco. A minimum charge of \$35.00 will be applied to each project and a charge of \$5 for each sample submitted to Eurofins Xenco, but not analyzed. These
	B Cd Ca Cr Co Cu Fe Pb Mg Mn N Cd Cr Co Cu Pb Mn Mo Ni Se Ag	As Ba Be As Ba Be		Texas 11 6010: 8RC	8RCRA 13PPM TCLP / SPLP		200.8 / 6020: al(s) to be analy:	Total 200.7 / 6010 200.8 / 6020: Circle Method(s) and Metal(s) to be analyzed
-								
-								
-								
-		+	-					
		+						1
	×	×		6	1405 0.5	05.31.22	S	\$807
+	×	×	×	o <u>.</u>	1400 0.5	05.31.22	s	SS06
+	×	×	×	G	1355 0.5	05.31.22	s	\$805
 	×	×	×	G	1350 0.5	05.31.22	S	SS04
	BIEX	TPH (8	Cont CHLO	Depth Grab/ t	Time D	Date Sampled	Matrix	Sample Identification
		015)	RIDE	17.6	mperature:	Corrected Temperature:	(Total Containers:
	890-2366 Chain of Custody		S (E	9.6	Reading:	N/A Temperature Reading:	Yes No (N/A)	Sample Custody Seals: Y
==				0-12	actor:	Correction Factor:	Yes NO MIAN	Cooler Custody Seals: Y
				700-7	1	Thermometer ID:	(Yes No	Samples Received Intact:
			nete	res No	Wet ice:	Yes No	Temp Blank:	SAMPLE RECEIPT
			ers	d by 4:30pm	the lab, if received by 4:30pm)		PO#:
-				y received by	TAT starts the day received by	æ	Conner Shore	Sampler's Name:
				THT YAUS	Due Date: 3			Project Location:
1			Code	A Rush	® koutine ≯		03E1558021	ň
	MINAL FOIG SEROPO				jurn Arouno	11411	BEU SE Han Solo 114H	Project Name: BE

Login Sample Receipt Checklist

Client: Ensolum

Job Number: 890-2366-1

SDG Number: 03E1558021

Login Number: 2366 List Source: Eurofins Carlsbad

List Number: 1 Creator: Stutzman, Amanda

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 True tampered with. Samples were received on ice. True True Cooler Temperature is acceptable. 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 True HTs) 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 True MS/MSDs Containers requiring zero headspace have no headspace or bubble is N/A

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4 C

46

13

14

<6mm (1/4").

Login Sample Receipt Checklist

Client: Ensolum Job Number: 890-2366-1 SDG Number: 03E1558021

Login Number: 2366
List Source: Eurofins Midland
List Number: 2
List Creation: 06/02/22 11:42 AM

Creator: Rodriguez, Leticia

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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Released to Imaging: 9/29/2022 12:24:29 PM

Environment Testing America

ANALYTICAL REPORT

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

Laboratory Job ID: 890-2594-1

Laboratory Sample Delivery Group: 03E1558021 Client Project/Site: BEU 5E HAN SOLO 114H

For:

Ensolum 705 W. Wadley Suite 210 Midland, Texas 79701

Attn: Kalei Jennings

RAMER

Authorized for release by: 7/27/2022 9:33:22 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

Results relate only to the items tested and the sample(s) as received by the laboratory.

Client: Ensolum Laboratory Job ID: 890-2594-1 Project/Site: BEU 5E HAN SOLO 114H SDG: 03E1558021

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Definitions/Glossary

Job ID: 890-2594-1 Client: Ensolum Project/Site: BEU 5E HAN SOLO 114H

SDG: 03E1558021

Qualifiers

GC VOA Qualifier

F1 MS and/or MSD recovery exceeds control limits.

F2 MS/MSD RPD exceeds control limits

Qualifier Description

Indicates the analyte was analyzed for but not detected.

GC Semi VOA

Qualifier **Qualifier Description**

Indicates the analyte was analyzed for but not detected.

HPLC/IC

Qualifier **Qualifier Description**

Indicates the analyte was analyzed for but not detected.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
n	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" Minimum Detectable Activity (Radiochemistry) MDA MDC Minimum Detectable Concentration (Radiochemistry)

MDL Method Detection Limit Minimum Level (Dioxin) ML MPN Most Probable Number Method Quantitation Limit MQL

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)

Reporting Limit or Requested Limit (Radiochemistry) RL

RPD Relative Percent Difference, a measure of the relative difference between two points

TEF Toxicity Equivalent Factor (Dioxin) TEQ Toxicity Equivalent Quotient (Dioxin)

TNTC Too Numerous To Count

Case Narrative

Client: Ensolum

Job ID: 890-2594-1 Project/Site: BEU 5E HAN SOLO 114H SDG: 03E1558021

Job ID: 890-2594-1

Laboratory: Eurofins Carlsbad

Narrative

Job Narrative 890-2594-1

Receipt

The sample was received on 7/19/2022 3:58 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 2.8°C

GC VOA

Method 8021B: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 880-30562 and analytical batch 880-30657 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.

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

GC Semi VOA

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

HPLC/IC

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

Eurofins Carlsbad 7/27/2022

Matrix: Solid

Lab Sample ID: 890-2594-1

Client Sample Results

Client: Ensolum Job ID: 890-2594-1 Project/Site: BEU 5E HAN SOLO 114H SDG: 03E1558021

Client Sample ID: FS04A

Date Collected: 07/19/22 13:00 Date Received: 07/19/22 15:58

Sample Depth: 1

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fa
Benzene	<0.00198	U	0.00198	mg/Kg		07/26/22 09:25	07/26/22 13:24	
Toluene	<0.00198	U	0.00198	mg/Kg		07/26/22 09:25	07/26/22 13:24	
Ethylbenzene	<0.00198	U	0.00198	mg/Kg		07/26/22 09:25	07/26/22 13:24	
m-Xylene & p-Xylene	<0.00397	U	0.00397	mg/Kg		07/26/22 09:25	07/26/22 13:24	
o-Xylene	<0.00198	U	0.00198	mg/Kg		07/26/22 09:25	07/26/22 13:24	
Xylenes, Total	<0.00397	U	0.00397	mg/Kg		07/26/22 09:25	07/26/22 13:24	
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fa
4-Bromofluorobenzene (Surr)	99		70 - 130			07/26/22 09:25	07/26/22 13:24	
1,4-Difluorobenzene (Surr)	81		70 - 130			07/26/22 09:25	07/26/22 13:24	
Method: Total BTEX - Total BTEX	Calculation							
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fa
Method: 8015 NM - Diesel Range	•							
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fa
Total TPH	<49.9	U	49.9	mg/Kg			07/27/22 08:23	
Method: 8015B NM - Diesel Rang	je Organics (D	RO) (GC)						
Analyte		Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fa
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9	mg/Kg		07/25/22 16:23	07/26/22 13:44	
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9	mg/Kg		07/25/22 16:23	07/26/22 13:44	
Oll Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg		07/25/22 16:23	07/26/22 13:44	
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fa
1-Chlorooctane	84		70 - 130			07/25/22 16:23	07/26/22 13:44	
o-Terphenyl	91		70 - 130			07/25/22 16:23	07/26/22 13:44	
Method: 300.0 - Anions, Ion Chro								
Analyte		Qualifier	RL	Unit mg/Kg	D	Prepared	Analyzed	Dil Fa
Chloride	91.7						07/25/22 00:50	

Surrogate Summary

 Client: Ensolum
 Job ID: 890-2594-1

 Project/Site: BEU 5E HAN SOLO 114H
 SDG: 03E1558021

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)	
880-17132-A-4-F MS	Matrix Spike	103	95	
880-17132-A-4-G MSD	Matrix Spike Duplicate	110	96	
890-2594-1	FS04A	99	81	
890-2603-A-1-D MS	Matrix Spike	103	85	
890-2603-A-1-E MSD	Matrix Spike Duplicate	107	92	
LCS 880-30562/1-A	Lab Control Sample	106	94	
LCS 880-30664/1-A	Lab Control Sample	105	95	
LCSD 880-30562/2-A	Lab Control Sample Dup	104	94	
LCSD 880-30664/2-A	Lab Control Sample Dup	108	98	
MB 880-30562/5-A	Method Blank	90	84	
MB 880-30664/5-A	Method Blank	100	87	
Surrogate Legend				

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)	
880-17280-A-18-D MS	Matrix Spike	88	94	
880-17280-A-18-E MSD	Matrix Spike Duplicate	85	92	
890-2594-1	FS04A	84	91	
LCS 880-30622/2-A	Lab Control Sample	102	114	
LCSD 880-30622/3-A	Lab Control Sample Dup	91	104	
MB 880-30622/1-A	Method Blank	98	110	
Surrogate Legend				
1CO = 1-Chlorooctane				

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OTPH = o-Terphenyl

Client: Ensolum Job ID: 890-2594-1 SDG: 03E1558021 Project/Site: BEU 5E HAN SOLO 114H

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-30562/5-A

Matrix: Solid Analysis Batch: 30657 Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 30562

	МВ	мв						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		07/25/22 10:57	07/26/22 22:37	1
Toluene	<0.00200	U	0.00200	mg/Kg		07/25/22 10:57	07/26/22 22:37	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		07/25/22 10:57	07/26/22 22:37	1
m-Xylene & p-Xylene	<0.00400	U	0.00400	mg/Kg		07/25/22 10:57	07/26/22 22:37	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		07/25/22 10:57	07/26/22 22:37	1
Xylenes, Total	<0.00400	U	0.00400	mg/Kg		07/25/22 10:57	07/26/22 22:37	1

мв мв

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	90		70 - 130	07/25/22 10:5	7 07/26/22 22:37	1
1,4-Difluorobenzene (Surr)	84		70 - 130	07/25/22 10:5	7 07/26/22 22:37	1

Lab Sample ID: LCS 880-30562/1-A

Matrix: Solid

Analysis Batch: 30657

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 30562

	Spike	LCS	LCS				%Rec	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Benzene	0.100	0.09490		mg/Kg		95	70 - 130	
Toluene	0.100	0.09745		mg/Kg		97	70 - 130	
Ethylbenzene	0.100	0.1000		mg/Kg		100	70 - 130	
m-Xylene & p-Xylene	0.200	0.2002		mg/Kg		100	70 - 130	
o-Xylene	0.100	0.1107		mg/Kg		111	70 - 130	

LCS LCS

Surrogate	%Recovery Qu	ualifier	Limits
4-Bromofluorobenzene (Surr)	106		70 - 130
1,4-Difluorobenzene (Surr)	94		70 - 130

Lab Sample ID: LCSD 880-30562/2-A

Matrix: Solid

Analysis Batch: 30657

Prep Type: Total/NA

Prep Batch: 30562

	Spike	LCSD	LCSD				%Rec		RPD	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit	
Benzene	0.100	0.1003		mg/Kg		100	70 - 130	6	35	
Toluene	0.100	0.1020		mg/Kg		102	70 - 130	5	35	
Ethylbenzene	0.100	0.1039		mg/Kg		104	70 - 130	4	35	
m-Xylene & p-Xylene	0.200	0.2077		mg/Kg		104	70 - 130	4	35	
o-Xylene	0.100	0.1145		mg/Kg		114	70 - 130	3	35	

LCSD LCSD

Surrogate	%Recovery	Qualifier	Limits
4-Bromofluorobenzene (Surr)	104		70 - 130
1.4-Difluorobenzene (Surr)	94		70 - 130

Lab Sample ID: 890-2603-A-1-D MS

Matrix: Solid

Analysis Batch: 30657

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

Prep Batch: 30562

	Sample	Sample	Spike	MS	MS				%Rec	
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Benzene	<0.00201	U F1 F2	0.101	0.03049	F1	mg/Kg	_	30	70 - 130	
Toluene	<0.00201	U F1 F2	0.101	0.03834	F1	mg/Kg		37	70 - 130	

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Client: Ensolum

Job ID: 890-2594-1

SDG: 03E1558021

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

Lab Sample ID: 890-2603-A-1-D MS

Project/Site: BEU 5E HAN SOLO 114H

Matrix: Solid

Analysis Batch: 30657

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 30562

	Sample	Sample	Spike	MS	MS				%Rec	
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Ethylbenzene	<0.00201	U F1 F2	0.101	0.01617	F1	mg/Kg		16	70 - 130	
m-Xylene & p-Xylene	<0.00402	U F1 F2	0.202	0.08284	F1	mg/Kg		40	70 - 130	
o-Xylene	<0.00201	U F1 F2	0.101	0.04972	F1	mg/Kg		49	70 - 130	
	Me	MC								

Surrogate	%Recovery	Qualifier	Limits
4-Bromofluorobenzene (Surr)	103		70 - 130
1,4-Difluorobenzene (Surr)	85		70 - 130

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 30562

Lab Sample ID: 890-2603-A-1-E MSD **Matrix: Solid**

Analysis Batch: 30657

Sample Sample Spike MSD MSD RPD Result Qualifier Added Result Qualifier %Rec Limits RPD Limit Analyte Unit 0.100 0.07677 F2 Benzene <0.00201 U F1 F2 mg/Kg 77 70 - 130 86 35 Toluene 0.100 0.08242 F2 70 - 130 <0.00201 UF1F2 mg/Kg 81 73 35 Ethylbenzene <0.00201 UF1F2 0.100 0.08472 F2 mg/Kg 85 70 - 130 136 35 m-Xylene & p-Xylene <0.00402 U F1 F2 0.200 0.1719 F2 85 70 - 130 70 35 mg/Kg 0.100 o-Xylene <0.00201 U F1 F2 0.09434 F2 94 70 - 130 62 mg/Kg

MSD MSD

Surrogate	%Recovery Qualifier	Limits
4-Bromofluorobenzene (Surr)	107	70 - 130
1,4-Difluorobenzene (Surr)	92	70 - 130

Lab Sample ID: MB 880-30664/5-A

Matrix: Solid

Analysis Batch: 30657

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 30664

MB MB

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		07/26/22 09:25	07/26/22 12:01	1
Toluene	<0.00200	U	0.00200	mg/Kg		07/26/22 09:25	07/26/22 12:01	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		07/26/22 09:25	07/26/22 12:01	1
m-Xylene & p-Xylene	<0.00400	U	0.00400	mg/Kg		07/26/22 09:25	07/26/22 12:01	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		07/26/22 09:25	07/26/22 12:01	1
Xylenes, Total	<0.00400	U	0.00400	mg/Kg		07/26/22 09:25	07/26/22 12:01	1

MB MB

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	100		70 - 130	07/26/22 09:25	07/26/22 12:01	1
1,4-Difluorobenzene (Surr)	87		70 - 130	07/26/22 09:25	07/26/22 12:01	1

Lab Sample ID: LCS 880-30664/1-A

Matrix: Solid

Analysis Batch: 30657

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 30664

	Spike	LCS	LCS				%Rec	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Benzene	0.100	0.09358		mg/Kg		94	70 - 130	
Toluene	0.100	0.09382		mg/Kg		94	70 - 130	
Ethylbenzene	0.100	0.09803		mg/Kg		98	70 - 130	
m-Xylene & p-Xylene	0.200	0.1983		mg/Kg		99	70 - 130	

QC Sample Results

Job ID: 890-2594-1 Client: Ensolum Project/Site: BEU 5E HAN SOLO 114H SDG: 03E1558021

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

Lab Sample ID: LCS 880-30664/1-A **Client Sample ID: Lab Control Sample Matrix: Solid** Prep Type: Total/NA Analysis Batch: 30657 Prep Batch: 30664 LCS LCS

Spike %Rec Analyte Added Result Qualifier Unit %Rec Limits D 0.100 0.1073 107 70 - 130 o-Xylene mg/Kg

LCS LCS Surrogate %Recovery Qualifier Limits 4-Bromofluorobenzene (Surr) 105 70 - 130 70 - 130 1,4-Difluorobenzene (Surr) 95

Lab Sample ID: LCSD 880-30664/2-A

Client Sample ID: Lab Control Sample Dup **Matrix: Solid** Prep Type: Total/NA **Analysis Batch: 30657** Prep Batch: 30664

Spike LCSD LCSD RPD RPD Analyte Added Result Qualifier Unit %Rec Limits Limit D Benzene 0.100 0.09765 mg/Kg 98 70 - 130 4 35 Toluene 0.100 0.09676 mg/Kg 97 70 - 130 35 3 Ethylbenzene 0.100 0.1016 mg/Kg 102 70 - 130 4 35 m-Xylene & p-Xylene 0.200 0.2052 mg/Kg 103 70 - 130 35 0.100 0.1117 112 70 - 130 35 o-Xylene mg/Kg

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

Lab Sample ID: 880-17132-A-4-F MS Client Sample ID: Matrix Spike Prep Type: Total/NA

Matrix: Solid Analysis Batch: 30657

MS MS Sample Sample Spike %Rec Result Qualifier Added Result Qualifier Analyte Unit D %Rec Limits Benzene <0.00201 U 0.100 0.08215 mg/Kg 82 70 - 130 Toluene < 0.00201 U 0.100 0.07761 mg/Kg 77 70 - 130 Ethylbenzene <0.00201 U 0.100 0.07428 mg/Kg 74 70 - 130 m-Xylene & p-Xylene < 0.00402 U 0.200 0.1476 mg/Kg 74 70 - 130 o-Xylene <0.00201 U 0.100 0.08083 mg/Kg 81 70 - 130

MS MS %Recovery Surrogate Qualifier Limits 4-Bromofluorobenzene (Surr) 103 70 - 130 70 - 130 1,4-Difluorobenzene (Surr) 95

Lab Sample ID: 880-17132-A-4-G MSD Client Sample ID: Matrix Spike Duplicate

Matrix: Solid Prep Type: Total/NA **Analysis Batch: 30657** Prep Batch: 30664

	Sample	Sample	Spike	MSD	MSD				%Rec		RPD
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Benzene	<0.00201	U	0.0998	0.08953		mg/Kg		90	70 - 130	9	35
Toluene	<0.00201	U	0.0998	0.08606		mg/Kg		85	70 - 130	10	35
Ethylbenzene	<0.00201	U	0.0998	0.08275		mg/Kg		83	70 - 130	11	35
m-Xylene & p-Xylene	<0.00402	U	0.200	0.1653		mg/Kg		83	70 - 130	11	35
o-Xylene	<0.00201	U	0.0998	0.09102		mg/Kg		91	70 - 130	12	35

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Prep Batch: 30664

Project/Site: BEU 5E HAN SOLO 114H

Client: Ensolum

Job ID: 890-2594-1

SDG: 03E1558021

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

Lab Sample ID: 880-17132-A-4-G MSD **Matrix: Solid**

Analysis Batch: 30657

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 30664

MSD MSD

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

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

Lab Sample ID: MB 880-30622/1-A

Matrix: Solid Analysis Batch: 30645

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 30622

MB MB

Analyte Result Qualifier RL Unit D Prepared Analyzed Dil Fac Gasoline Range Organics <50.0 U 50.0 07/25/22 16:23 07/26/22 09:44 mg/Kg (GRO)-C6-C10 Diesel Range Organics (Over <50.0 U 50.0 mg/Kg 07/25/22 16:23 07/26/22 09:44 C10-C28) Oll Range Organics (Over C28-C36) <50.0 U 50.0 mg/Kg 07/25/22 16:23 07/26/22 09:44

MB MB

Dil Fac Surrogate %Recovery Qualifier Limits Prepared Analyzed 70 - 130 07/25/22 16:23 07/26/22 09:44 1-Chlorooctane 98 o-Terphenyl 110 70 - 130 07/25/22 16:23 07/26/22 09:44

Lab Sample ID: LCS 880-30622/2-A Client Sample ID: Lab Control Sample

Matrix: Solid

Analysis Batch: 30645

Prep Type: Total/NA

Prep Batch: 30622

Spike LCS LCS %Rec Analyte Added Result Qualifier Unit D %Rec Limits Gasoline Range Organics 1000 957.4 mg/Kg 96 70 - 130 (GRO)-C6-C10 Diesel Range Organics (Over 1000 926.5 mg/Kg 93 70 - 130 C10-C28)

LCS LCS

%Recovery Surrogate Qualifier Limits 1-Chlorooctane 102 70 - 130 o-Terphenyl 114 70 - 130

Lab Sample ID: LCSD 880-30622/3-A

Released to Imaging: 9/29/2022 12:24:29 PM

Matrix: Solid

Analysis Batch: 30645

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 30622

Spike LCSD LCSD %Rec Analyte Added Result Qualifier Unit %Rec Limits RPD Limit Gasoline Range Organics 1000 988.4 99 70 - 130 3 20 mg/Kg (GRO)-C6-C10 Diesel Range Organics (Over 1000 863.8 86 70 - 130 20 mg/Kg

C10-C28)

LCSD LCSD

Surrogate	%Recovery Qualifier	Limits
1-Chlorooctane	91	70 - 130
o-Terphenyl	104	70 - 130

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RPD

Job ID: 890-2594-1 Client: Ensolum Project/Site: BEU 5E HAN SOLO 114H

SDG: 03E1558021

Prep Type: Total/NA

Prep Type: Total/NA

Prep Batch: 30622

Client Sample ID: Matrix Spike

Client Sample ID: Matrix Spike Duplicate

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

Lab Sample ID: 880-17280-A-18-D MS

Matrix: Solid

Analysis Batch: 30645

-	Sample	Sample	Spike	MS	MS				%Rec
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits
Gasoline Range Organics	<50.0	U	1000	1163		mg/Kg		116	70 - 130
(GRO)-C6-C10									
Diesel Range Organics (Over	<50.0	U	1000	789.8		mg/Kg		79	70 - 130
C10-C28)									

C10-C28)

MS MS %Recovery

Qualifier Limits Surrogate 70 - 130 1-Chlorooctane 88 o-Terphenyl 94 70 - 130

Lab Sample ID: 880-17280-A-18-E MSD

Matrix: Solid

Analysis Batch: 30645									Prep	Batch:	30622
	Sample	Sample	Spike	MSD	MSD				%Rec		RPD
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	999	1054		mg/Kg		106	70 - 130	10	20
Diesel Range Organics (Over C10-C28)	<50.0	U	999	773.5		mg/Kg		77	70 - 130	2	20

MSD MSD Surrogate %Recovery Qualifier Limits 1-Chlorooctane 85 70 - 130 o-Terphenyl 92 70 - 130

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-30245/1-A Client Sample ID: Method Blank **Prep Type: Soluble**

Matrix: Solid

Analysis Batch: 30486

MB MB

Analyte Result Qualifier RL Unit Dil Fac Prepared Analyzed Chloride <5.00 U 5.00 mg/Kg 07/24/22 23:00

Lab Sample ID: LCS 880-30245/2-A **Client Sample ID: Lab Control Sample Matrix: Solid Prep Type: Soluble**

Analysis Batch: 30486

	Spike	LCS	LCS				%Rec	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Chloride	250	264.1		ma/Ka		106	90 - 110	

Lab Sample ID: LCSD 880-30245/3-A Client Sample ID: Lab Control Sample Dup **Matrix: Solid Prep Type: Soluble**

Analysis Batch: 30486

Spike LCSD LCSD %Rec RPD Analyte Added Result Qualifier Unit D %Rec Limits RPD Limit Chloride 250 265.5 106 mg/Kg 90 - 110 20

Chloride

QC Sample Results

Client: Ensolum Job ID: 890-2594-1 Project/Site: BEU 5E HAN SOLO 114H SDG: 03E1558021

Method: 300.0 - Anions, Ion Chromatography (Continued)

948

Lab Sample ID: 880-17194-A-1-B MS Client Sample ID: Matrix Spike

Matrix: Solid Prep Type: Soluble Analysis Batch: 30486

Sample Sample Spike MS MS %Rec Result Qualifier Added Result Qualifier Analyte Unit %Rec Limits

250

Lab Sample ID: 880-17194-A-1-C MSD Client Sample ID: Matrix Spike Duplicate

Matrix: Solid

Prep Type: Soluble

1174

mg/Kg

91

90 - 110

Analysis Batch: 30486 Sample Sample Spike MSD MSD %Rec RPD

Result Qualifier Added Result Qualifier Limits RPD Limit Analyte Unit D %Rec Chloride 948 250 1184 mg/Kg 94 90 - 110 20

QC Association Summary

Client: Ensolum

Project/Site: BEU 5E HAN SOLO 114H

Job ID: 890-2594-1 SDG: 03E1558021

58021

GC VOA

Prep Batch: 30562

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 880-30562/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-30562/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-30562/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
890-2603-A-1-D MS	Matrix Spike	Total/NA	Solid	5035	
890-2603-A-1-E MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	

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Analysis Batch: 30657

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Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2594-1	FS04A	Total/NA	Solid	8021B	30664
MB 880-30562/5-A	Method Blank	Total/NA	Solid	8021B	30562
MB 880-30664/5-A	Method Blank	Total/NA	Solid	8021B	30664
LCS 880-30562/1-A	Lab Control Sample	Total/NA	Solid	8021B	30562
LCS 880-30664/1-A	Lab Control Sample	Total/NA	Solid	8021B	30664
LCSD 880-30562/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	30562
LCSD 880-30664/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	30664
880-17132-A-4-F MS	Matrix Spike	Total/NA	Solid	8021B	30664
880-17132-A-4-G MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	30664
890-2603-A-1-D MS	Matrix Spike	Total/NA	Solid	8021B	30562
890-2603-A-1-E MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	30562

0

Prep Batch: 30664

77

Lab Sample ID 890-2594-1	Client Sample ID FS04A	Prep Type Total/NA	Matrix Solid	Method 5035	Prep Batch
MB 880-30664/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-30664/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-30664/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
880-17132-A-4-F MS	Matrix Spike	Total/NA	Solid	5035	
880-17132-A-4-G MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	

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Analysis Batch: 30716

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2594-1	FS04A	Total/NA	Solid	Total BTEX	

GC Semi VOA

Prep Batch: 30622

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2594-1	FS04A	Total/NA	Solid	8015NM Prep	
MB 880-30622/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-30622/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-30622/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
880-17280-A-18-D MS	Matrix Spike	Total/NA	Solid	8015NM Prep	
880-17280-A-18-E MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	

Analysis Batch: 30645

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2594-1	FS04A	Total/NA	Solid	8015B NM	30622
MB 880-30622/1-A	Method Blank	Total/NA	Solid	8015B NM	30622
LCS 880-30622/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	30622
LCSD 880-30622/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	30622
880-17280-A-18-D MS	Matrix Spike	Total/NA	Solid	8015B NM	30622

QC Association Summary

 Client: Ensolum
 Job ID: 890-2594-1

 Project/Site: BEU 5E HAN SOLO 114H
 SDG: 03E1558021

GC Semi VOA (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-17280-A-18-E MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	30622

Analysis Batch: 30753

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2594-1	FS04A	Total/NA	Solid	8015 NM	

HPLC/IC

Leach Batch: 30245

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2594-1	FS04A	Soluble	Solid	DI Leach	
MB 880-30245/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-30245/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-30245/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
880-17194-A-1-B MS	Matrix Spike	Soluble	Solid	DI Leach	
880-17194-A-1-C MSD	Matrix Spike Duplicate	Soluble	Solid	DI Leach	

Analysis Batch: 30486

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2594-1	FS04A	Soluble	Solid	300.0	30245
MB 880-30245/1-A	Method Blank	Soluble	Solid	300.0	30245
LCS 880-30245/2-A	Lab Control Sample	Soluble	Solid	300.0	30245
LCSD 880-30245/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	30245
880-17194-A-1-B MS	Matrix Spike	Soluble	Solid	300.0	30245
880-17194-A-1-C MSD	Matrix Spike Duplicate	Soluble	Solid	300.0	30245

Date Received: 07/19/22 15:58

Lab Chronicle

Client: Ensolum Job ID: 890-2594-1 Project/Site: BEU 5E HAN SOLO 114H SDG: 03E1558021

Client Sample ID: FS04A Lab Sample ID: 890-2594-1 Date Collected: 07/19/22 13:00

Matrix: Solid

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.04 g	5 mL	30664	07/26/22 09:25	MR	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	30657	07/26/22 13:24	MR	XEN MID
Total/NA	Analysis	Total BTEX		1			30716	07/26/22 15:53	SM	XEN MID
Total/NA	Analysis	8015 NM		1			30753	07/27/22 08:23	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	30622	07/25/22 16:23	DM	XEN MID
Total/NA	Analysis	8015B NM		1			30645	07/26/22 13:44	AJ	XEN MID
Soluble	Leach	DI Leach			4.96 g	50 mL	30245	07/22/22 12:23	SMC	XEN MID
Soluble	Analysis	300.0		1			30486	07/25/22 00:50	CH	XEN MID

Laboratory References:

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

Accreditation/Certification Summary

 Client: Ensolum
 Job ID: 890-2594-1

 Project/Site: BEU 5E HAN SOLO 114H
 SDG: 03E1558021

Laboratory: Eurofins Midland

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

Authority	Pr	ogram	Identification Number	Expiration Date
Texas	NI	ELAP	T104704400-22-24	06-30-23
The following analytes	are included in this report hi	it the laboratory is not certific	ed by the governing authority. This list ma	y include analytes for y
the agency does not of	. ,	it the laboratory is not contin	ou by the governing additionty. This list the	ay include analytes for t
0 ,	. ,	Matrix	Analyte	y include analytes for v
the agency does not of	fer certification.	•	, , ,	

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Method Summary

 Client: Ensolum
 Job ID: 890-2594-1

 Project/Site: BEU 5E HAN SOLO 114H
 SDG: 03E1558021

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

Protocol References:

ASTM = ASTM International

MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions. SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

TAL SOP = TestAmerica Laboratories, Standard Operating Procedure

Laboratory References:

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

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Sample Summary

Client: Ensolum

Project/Site: BEU 5E HAN SOLO 114H

Job ID: 890-2594-1

SDG: 03E1558021

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-2594-1	FS04A	Solid	07/19/22 13:00	07/19/22 15:58	1

Work Order No:

Midland, TX (432) 704-5440, San Antonio, TX (210) 509-3334 EL Paso, TX (915) 585-3443, Lubbock, TX (806) 794-1296

Environment Testing

eurofins

Xenco

Houston, TX (281) 240-4200, Dallas, TX (214) 902-0300 Chain of Custody

7/27/2022

Program: UST/PST 🗌 PRP 📗 Brownfields 🗌 RRC 📋 Superfund 🗌 Incident ID:NAPP2209041753 DI Water: H₂O Revised Date: 08/25/2020 Rev. 2020 Cost Center: 1606761001 HNO₃: HN NaOH: Na MeOH: Me **Preservative Codes** NaOH+Ascorbic Acid: SAPC Sample Comments Date/Time ŏ TI Sh U V Zn Zn Acetate+NaOH: Zn Hg: 1631 / 245.1 / 7470 / 7471 NaHSO₄: NABIS Na₂S₂O₃: NaSO₃ Other: H₃PO₄: HP Page_ Work Order Comments Cool: Cool None: NO H₂SO₄: H₂ HCL: HC ADaPT ဟ Received by: (Signature) K Se Ag SiO₂ Na www.xenco.com not analyzed. These terms will be enforced unless previously negotiated 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 otice: 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 Deliverables: EDD State of Project: Co Cu Fe Pb Mg Mn Mo Ni Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Tl U 890-2594 Chain of Custody ANALYSIS REQUEST Relinquished by: (Signature) Hobbs, NM (575) 392-7550, Carlsbad, NM (575) 988-3199 Be B Cd Ca Cr rofins 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 3104 E. Green Street Carlsbad, NM 88220 BTEX (8021 XTO Energy, Inc. × Garrett Green Date/Time 8RCRA 13PPM Texas 11 Al Sb As Ba 19/23 (2108) HQT Email: kjennings@ensolum.com CHLORIDES (EPA: 300.0) # of Cont TCLP / SPLP 6010: 8RCRA Pres. **enatemene** Bill to: (if different) Company Name: COMP Grab/ Сотр City, State ZIP: TAT starts the day received by the lab, if received by 4:30pm Ses No 1 Address: Rush Turn Around Depth Received by: (Signature) Due Date: Sampled ✓ Routine Wet Ice: Corrected Temperature: 300 Time (N/A Temperature Reading: The sale Yes No M/A Correction Factor: Thermometer ID: 7/19/2022 Sampled Kes No Date BEU 5E HAN SOLO 114H EDDY COUNTY, NM Circle Method(s) and Metal(s) to be analyzed 3122 National parks Hwy Conner Shore 03E1558021 Matrix Carlsbad, NM 88220 Temp Blank: 200.8 / 6020: (Yes No S Yes No Kalei Jennings Ensolum, LLC 8176832503 Relinquished by: (Signature) FBOTA KSOUA Sample Identification Samples Received Intact: Total 200.7 / 6010 SAMPLE RECEIPT Sample Custody Seals: Cooler Custody Seals: Sampler's Name: Total Confainers: Project Manager Project Location: Company Name Project Number City, State ZIP Project Name: Phone:

Login Sample Receipt Checklist

Client: Ensolum Job Number: 890-2594-1 SDG Number: 03E1558021

Login Number: 2594 List Source: Eurofins Carlsbad

List Number: 1 Creator: Clifton, Cloe

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: 890-2594-1

SDG Number: 03E1558021

Login Number: 2594
List Source: Eurofins Midland
List Number: 2
List Creation: 07/21/22 10:51 AM

Creator: Rodriguez, Leticia

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	N/A	

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<6mm (1/4").



APPENDIX E

NMOCD Notifications

From: Hamlet, Robert, EMNRD

To: Collins, Melanie

Cc: DelawareSpills /SM; Aimee Cole; Kalei Jennings; Tacoma Morrissey: Ben Belill; Pennington, Shelby G; Bratcher,

Mike, EMNRD; Nobui, Jennifer, EMNRD; Harimon, Jocelyn, EMNRD

Subject: (Extension Approval) XTO - BEU 5E Han Solo 114H (Incident Number NAPP2209041753)

Date: Friday, June 10, 2022 3:26:24 PM

Attachments: image002.jpg image003.png

[**EXTERNAL EMAIL**]

RE: Incident #NAPP2209041753

Melanie,

Your request for an extension to **August 14th, 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: Friday, June 10, 2022 12:48 PM

To: Enviro, OCD, EMNRD <OCD.Enviro@state.nm.us>; Hamlet, Robert, EMNRD <Robert.Hamlet@state.nm.us>; Bratcher, Mike, EMNRD <mike.bratcher@state.nm.us>

Cc: DelawareSpills /SM <DelawareSpills@exxonmobil.com>; acole@ensolum.com; Kalei Jennings <kjennings@ensolum.com>; Tacoma Morrissey <tmorrissey@ensolum.com>; bbelill@ensolum.com; Pennington, Shelby G <shelby.g.pennington@exxonmobil.com>

Subject: [EXTERNAL] XTO- Extension Request- BEU 5E Han Solo 114H (Incident Number NAPP2209041753)

CAUTION: This email originated outside of our organization. Exercise caution prior to clicking on links or opening attachments.

All.

BEU 5E Han Solo 114H (Incident Number NAPP2209041753)

XTO is requesting an extension for the current deadline of June 15, 2022 for submitting a closure request required in 19.15.29.12.B.(1) NMAC at the BEU 5E Han Solo 114H (Incident Number NAPP2209041753). The release occurred on March 17, 2022 and initial assessment and excavation of the release has been completed. Based on laboratory analytical results received this week, XTO is requesting a 60-day extension to complete additional excavation of the impacted soil. In order to complete the excavation activities and submit a closure request, XTO requests an extension until August 14, 2022.

Please do not hesitate to reach out should you have any questions or require further information regarding this extension request.

Thank you,

Melanie Collins

SSHE Technician



An **ExxonMobil** Subsidiary 6401 Holiday Hill Rd, Bldg 5 Midland, TX 79707 432-218-3709 From: <u>Aimee Cole</u>

To: <u>Tacoma Morrissey</u>; <u>Kalei Jennings</u>; <u>Ben Belill</u>

Subject: FW: XTO - Sampling Notification (week of 5/30/22 - 6/3/22)

Date: Wednesday, May 25, 2022 4:40:13 PM

Attachments: image001.png

image002.png image003.png image004.png

Submittal below for your records/attachment for reporting.

Thanks!



Aimee Cole

Senior Managing Scientist 720-384-7365

Ensolum, LLC

From: Baker, Adrian <adrian.baker@exxonmobil.com>

Sent: Wednesday, May 25, 2022 2:17 PM

To: ocd.enviro@state.nm.us; Bratcher, Mike, EMNRD <mike.bratcher@state.nm.us>; Hamlet,

Robert, EMNRD <Robert.Hamlet@state.nm.us>; Nobui, Jennifer, EMNRD

<Jennifer.Nobui@state.nm.us>

Cc: DelawareSpills /SM <DelawareSpills@exxonmobil.com>; Green, Garrett J <garrett.green@exxonmobil.com>; Aimee Cole <acole@ensolum.com>

Subject: XTO - Sampling Notification (week of 5/30/22 - 6/3/22)

[**EXTERNAL EMAIL**]

All.

XTO plans to complete final sampling activities at the following sites the week of May 30, 2022.

Tuesday, May 31st

- PLU 223 / nAPP2204945328, nAPP2205343597, NAPP2201745910
- BEU 5E Han Solo 114H / nAPP2209041753

Wednesday, June 1st

- PLU 223 / nAPP2204945328, nAPP2205343597, NAPP2201745910
- BEU 5E Han Solo 114H / nAPP2209041753

Thursday, June 2nd

- PLU 223 / nAPP2204945328, nAPP2205343597, NAPP2201745910
- Row 4 Muy Wayno Line / nAPP2209039217
- Pierce Canyon 3 SWD/ nAPP2209446613

Friday, June 3rd

- PLU 223 / nAPP2204945328, nAPP2205343597, NAPP2201745910
- Row 4 Muy Wayno Line / nAPP2209039217

Thank you,

Adrian Baker Environmental Coordinator Permian Business Unit

XTO Energy Inc. 6401 N. Holiday Hill Dr. Midland, Tx 79707 Mobile:(432)-236-3808 adrian.baker@exxonmobil.com From: <u>Tacoma Morrissey</u>
To: <u>Ben Belill; Kalei Jennings</u>

Subject: FW: XTO - Sampling Notification (week of 7/18/22 - 7/22/22)

Date: Monday, July 18, 2022 8:59:15 AM

Attachments: image001.png

image002.png image003.png image004.png

See below.



Tacoma Morrissey

Senior Geologist 337-257-8307 Ensolum, LLC

From: Green, Garrett J <garrett.green@exxonmobil.com>

Sent: Friday, July 15, 2022 2:22 PM

To: ocd.enviro@state.nm.us; Bratcher, Mike, EMNRD <mike.bratcher@state.nm.us>; Hamlet,

Robert, EMNRD < Robert. Hamlet@state.nm.us>

Cc: Tacoma Morrissey <tmorrissey@ensolum.com>; DelawareSpills /SM

<DelawareSpills@exxonmobil.com>

Subject: XTO - Sampling Notification (week of 7/18/22 - 7/22/22)

[**EXTERNAL EMAIL**]

All,

XTO plans to complete final sampling activities at the following sites the week of July 18, 2022.

Tuesday

- BEU 5E Han Solo 114H/ nAPP2209041753
- BEU 5E Han Solo 105H/ nAPP2209731445

Wednesday

- BEU 5E Han Solo 114H/ nAPP2209041753
- BEU 5E Han Solo 105H/ nAPP2209731445

Thursday

- PLU 18 TWR 155H/ nAPP2214735696
- JRU DI 1 Liner Delineation/ nAPP2216152113

Friday

- PLU 18 TWR 155H/ nAPP2214735696

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



APPENDIX F

Safety Data Sheet for Friction Reducer



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 Manufacturer Address

PfP Industries PfP Industries 29738 Goynes Rd. 29738 Goynes Rd. Katy, TX 77493 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

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Revision Date 01-Aug-2019

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

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Revision Date 01-Aug-2019

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.

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Revision Date 01-Aug-2019

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 pressureNo data availableNone knownVapor densityNo data availableNone known

Relative density 0.97 - 1.03 Water solubility Miscible in water

Solubility in other solvents
Partition coefficient
No data available
None known
Autoignition temperature
No data available
None known

Kinematic viscosity ≥150 mm²/s

Dynamic viscosity No data available None known Explosive properties No information available

No information available

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Oxidizing properties

Revision Date 01-Aug-2019

Other Information

Softening point

Molecular weight

VOC Content (%)

Liquid 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.

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Revision Date 01-Aug-2019

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

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Revision Date 01-Aug-2019

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

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Revision Date 01-Aug-2019

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

The data supplied herein is for use only in connection with occupational safety and health. The information provided in this Safety Data Sheet is believed to be correct as of the date issued. Updates to this information may be obtained by contacting (either reference contact location or website). PfP Industries MAKES NO WARRANTIES, EXPRESSED OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE OR COURSE OF PERFORMANCE OR USAGE OF TRADE. This information is not meant to be an all-inclusive document on worldwide hazard communication regulations. Each user of the material described herein must evaluate the conditions of use and design, many of which will be solely within the user's knowledge and control, and the appropriate protective actions, including proper notification and training of employees, necessary to prevent employee exposures, property damage or release to the environment.

End of Safety Data Sheet

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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

1220 S. St Francis Dr., Santa Fe, NM 87505 Phone:(505) 476-3470 Fax:(505) 476-3462

State of New Mexico Energy, Minerals and Natural Resources Oil Conservation Division 1220 S. St Francis Dr. **Santa Fe, NM 87505**

CONDITIONS

Action 133568

CONDITIONS

Operator:	OGRID:
XTO ENERGY, INC	5380
6401 Holiday Hill Road	Action Number:
Midland, TX 79707	133568
	Action Type:
	[C-141] Release Corrective Action (C-141)

CONDITIONS

Created By	Condition	Condition Date
jnobui	Closure Report Approved.	9/29/2022