Page 1 of 173

Incident ID NAPP2214547737

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 photographs 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 certa may endanger public health or the environment. The acceptance of should their operations have failed to adequately investigate and reshuman health or the environment. In addition, OCD acceptance of compliance with any other federal, state, or local laws and/or regularestore, reclaim, and re-vegetate the impacted surface area to the conformation of the c	ations. The responsible party acknowledges they must substantially onditions that existed prior to the release or their final land use in
OCD Only	
Received by: Jocelyn Harimon	Date:12/29/2022
	y 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: Robert Hamlet	Date: 4/4/2023
Printed Name: Robert Hamlet	Title: Environmental Specialist - Advanced

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

State of New Mexico Energy Minerals and Natural Resources Department

Oil Conservation Division 1220 South St. Francis Dr. Santa Fe, NM 87505 Form C-141
Revised August 24, 2018
Submit to appropriate OCD District office

Incident ID	NAPP2222741514
District RP	
Facility ID	
Application ID	

Release Notification

Responsible Party

				OGRID 4	5380	
Contact Name Garrett Green				Contact Te	Contact Telephone 575-200-0729	
Contact email garrett.green@exxonmobil.com			om	Incident #	(assigned by OCD)	
Contact mail	ing address	3104 E. Greene St	reet, Carlsbad, Ne	w Mexico, 88220		
			Location	of Release So	ource	
Latitude 32.1	.0230			Longitude	-103.86420	
			(NAD 83 in dec	cimal degrees to 5 decim	nal places)	
Site Name	PLU 27 Bru	shy Draw 167H		Site Type	Production Well	
Date Release		•		API# (if app		
Unit Letter	Section	Township	Range	Coun	ty	
Н	27	25S	30E	Edd	y	
Surface Owner	r: 🗆 State	▼ Federal □ Tr	ribal 🔲 Private (<i>I</i>	Vame:)	
Surface Owner	i State	r cuciai 11	iloai 🔲 i iivate (i	чите.	,	
			Nature and	l Volume of I	Release	
	Materia	l(s) Released (Select al	I that apply and attach	calculations or specific	justification for the volumes provided below)	
Crude Oil		Volume Release			Volume Recovered (bbls)	
Produced	Water	Volume Release	ed (bbls)		Volume Recovered (bbls)	
			ion of total dissolv		☐ Yes ☐ No	
in the produced water >10,000 mg/l? Condensate Volume Released (bbls)		/1?	Volume Recovered (bbls)			
			Volume Recovered (Mcf)			
Natural Gas Volume Released (Mcf)		: '4-'	,			
Volume/Weight Released (provide units)			~	e units)	Volume/Weight Recovered (provide units)	
Produced Water w/FR 45.00 BBLS 0.00 BBLS						
A 4 low pressure suction nose separated during pumping operations, causing fluids to release onto pad. No fluids						
were recovered. A third-party contractor has been retained for remediation purposes.						
Course of Distance						

Received by OCD: 12/29/2022/2:30:04 PM State of New Mexico
Page 2 Oil Conservation Division

1	Pa	ge	ge	o f	4)	73

Incident ID	NAPP2222741514
District RP	
Facility ID	
Application ID	

Was this a major	If YES, for what reason(s) does the respo	nsible party consider this a major release?		
release as defined by 19.15.29.7(A) NMAC?	A release greater than 25 barrels.			
19.13.29.7(A) NMAC:				
🗶 Yes 🗌 No				
If YES, was immediate n	otice given to the OCD? By whom? To w	nom? When and by what means (phone, email, etc)?		
Yes, by Melanie Collins to	o ocd.enviro@state.nm.us, Mike Bratcher,	and Robert Hamlet on 08/05/2022 via email.		
	Initial R	esponse		
The responsible	party must undertake the following actions immediate	- ly unless they could create a safety hazard that would result in injury		
The responsible	party must are take the join of mig deliver immediate	y amess mey could be care a sujety mazar a mar nound result in my ary		
The source of the rele	ease has been stopped.			
	s been secured to protect human health and	the environment.		
•	•	likes, absorbent pads, or other containment devices.		
★ All free liquids and red	ecoverable materials have been removed an	d managed appropriately.		
If all the actions describe	d above have <u>not</u> been undertaken, explain	why:		
NA				
Per 19.15.29.8 B. (4) NM	IAC the responsible party may commence 1	remediation immediately after discovery of a release. If remediation		
has begun, please attach a narrative of actions to date. If remedial efforts have been successfully completed or if the release occurred				
within a lined containment area (see 19.15.29.11(A)(5)(a) NMAC), please attach all information needed for closure evaluation.				
		best of my knowledge and understand that pursuant to OCD rules and fications and perform corrective actions for releases which may endanger		
public health or the environs	ment. The acceptance of a C-141 report by the G	DCD does not relieve the operator of liability should their operations have		
failed to adequately investigate and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In addition, OCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws				
and/or regulations.	Tu o 111 report does not reneve the operator of			
Printed Name: Garrett G	reen	Title: SSHE Coordinator		
	Salt Sun	Date: 08/15/2022		
Signature:	mer · · · · · · · · · · · · · · · · · · ·			
email: garrett.green@exx	KOIIIIOUII.COM	Telephone: 575-200-0729		
OCD O				
OCD Only				
Received by: Jocelyn	Harimon	Date: 08/15/2022		

Location:	PLU 27 Brushy Draw 167H		
Spill Date:	8/2/2022		
	Area 1		
Approximate A	rea = 8983.00	sq. ft.	
Average Satura	tion (or depth) of spill = 3.75	inches	
Average Porosi	ty Factor = 0.09		
	VOLUME OF LEAK		
Total Crude Oil	= 0.00	bbls	
Total Produced Water = 45.00 bb		bbls	
	TOTAL VOLUME OF LEAK		
Total Crude Oi	= 0.00	bbls	
Total Produced	Total Produced Water = 45.00		
	TOTAL VOLUME RECOVERED		
Total Crude Oi	= 0.00	bbls	
Total Produced	Water = 0.00	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 133893

CONDITIONS

Operator:	OGRID:
XTO ENERGY, INC	5380
6401 Holiday Hill Road	Action Number:
Midland, TX 79707	133893
	Action Type:
	[C-141] Release Corrective Action (C-141)

CONDITIONS

Ī	Created By		Condition Date
Ī	jharimon	None	8/15/2022

	Page 6 of 1	<i>73</i>
Incident ID	NAPP2222741514	
District RP		
Facility ID		
Application ID		

Site Assessment/Characterization

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

What is the shallowest depth to groundwater beneath the area affected by the release?	<u>>100</u> (ft bgs)			
Did this release impact groundwater or surface water?	☐ Yes ⊠ No			
Are the lateral extents of the release within 300 feet of a continuously flowing watercourse or any other significant watercourse?	☐ Yes ⊠ No			
Are the lateral extents of the release within 200 feet of any lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark)?	☐ Yes ⊠ No			
Are the lateral extents of the release within 300 feet of an occupied permanent residence, school, hospital, institution, or church?	☐ Yes ⊠ No			
Are the lateral extents of the release within 500 horizontal feet of a spring or a private domestic fresh water well used by less than five households for domestic or stock watering purposes?	☐ Yes ⊠ No			
Are the lateral extents of the release within 1000 feet of any other fresh water well or spring?	☐ Yes ⊠ No			
Are the lateral extents of the release within incorporated municipal boundaries or within a defined municipal fresh water well field?	☐ Yes ⊠ No			
Are the lateral extents of the release within 300 feet of a wetland?	☐ Yes ⊠ No			
Are the lateral extents of the release overlying a subsurface mine?	☐ Yes ⊠ No			
Are the lateral extents of the release overlying an unstable area such as karst geology?	☐ Yes ⊠ No			
Are the lateral extents of the release within a 100-year floodplain?	☐ Yes ⊠ No			
Did the release impact areas not on an exploration, development, production, or storage site?	☐ Yes ⊠ No			
Attach a comprehensive report (electronic submittals in .pdf format are preferred) demonstrating the lateral and vertical extents of soil contamination associated with the release have been determined. Refer to 19.15.29.11 NMAC for specifics.				
Characterization Report Checklist: Each of the following items must be included in the report.				
 Scaled site map showing impacted area, surface features, subsurface features, delineation points, and monitoring well Field data □ Data table of soil contaminant concentration data □ Depth to water determination □ Determination of water sources and significant watercourses within ½-mile of the lateral extents of the release □ Boring or excavation logs □ Photographs including date and GIS information □ Topographic/Aerial maps 	ls.			

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.

□ Laboratory data including chain of custody

Received by OCD: 12/29/2022 2:30:04 PM Form C-141 State of New Mexico Page 4 Oil Conservation Division

Facility ID
Application ID

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

Printed Name: _Garrett Green______ Title: _Environmental Coordinator______

Signature: ______ Date: ______12/28/2022_____

email: _garrett.green@exxonmobil.com______ Telephone: ______575-200-0729_______

OCD Only

Received by: _____ Jocelyn Harimon ______ Date: ______12/29/2022______

Page 8 of 173

Incident ID	NAPP2214547737
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 photo 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 certa may endanger public health or the environment. The acceptance of should their operations have failed to adequately investigate and rehuman health or the environment. In addition, OCD acceptance of compliance with any other federal, state, or local laws and/or regularestore, reclaim, and re-vegetate the impacted surface area to the caccordance with 19.15.29.13 NMAC including notification to the Orinted Name: _Garrett Green	ations. The responsible party acknowledges they must substantially onditions that existed prior to the release or their final land use in OCD when reclamation and re-vegetation are complete. Title: _Environmental Coordinator
Signature: Sath Sun	Date:12/28/2022
email:garrett.green@exxonmobil.com	Telephone:575-200-0729
OCD Only	
Received by: Jocelyn Harimon	Date:12/29/2022
	y 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:
Printed Name:	Title:



December 28, 2022

New Mexico Oil Conservation Division

New Mexico Energy, Minerals, and Natural Resources Department 1220 South St. Francis Drive Santa Fe, New Mexico 87505

Re: Closure Request

PLU 27 Brushy Draw 167H

Incident Number NAPP2222741514

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 and soil sampling activities performed at the Poker Lake Unit (PLU) 27 Brushy Draw 167H (Site). The purpose of the site assessment and soil sampling activities was to assess for the presence or absence of impacts to soil following a release of produced water with friction reducer (FR) at the Site. Based on field observations, field screening activities, and laboratory analytical results from the soil sampling events, XTO is submitting this Closure Request, describing site assessment and delineation activities that have occurred and requesting no further action for Incident Number NAPP2222741514.

SITE DESCRIPTION AND RELEASE SUMMARY

The Site is located Unit H, Section 27, Township 25 South, Range 30 East, in Eddy County, New Mexico (32.10230°N, 103.86420°W) and is associated with oil and gas exploration and production operations on federal land managed by the Bureau of Land Management.

On August 2, 2022, a 4-inch low pressure suction hose separated, causing 45 barrels (bbls) of produced water with FR to release onto the well pad; no fluids 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 August 15, 2022. The release was assigned Incident Number NAPP2222741514.

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

SITE CHARACTERIZATION AND CLOSURE CRITERIA

The Site was characterized to assess the applicability of Table I, Closure Criteria for Soils Impacted by a Release, of Title 19, Chapter 15, Part 29 (19.15.29) of the New Mexico Administrative Code (NMAC). Results from the characterization desktop review are presented on page 3 of the Form C-141, Site Assessment/Characterization. Potential site receptors are identified on Figure 1.

Ensolum, LLC | Environmental, Engineering & Hydrogeologic Consultants 601 N Marienfield Street | Midland, TX 78209 | ensolum.com XTO Energy, Inc Closure Request PLU 27 Brushy Draw 167H

Depth to groundwater at the Site is estimated to be greater than 100 feet below ground surface (bgs) based on the nearest groundwater well data. The closest permitted groundwater well with depth to groundwater data is a soil boring, C-4498, permitted by the New Mexico Office of the State Engineer (NMOSE), located approximately 7,278 feet east of the Site. No groundwater was encountered during drilling and the soil boring has a total depth of 109 feet bgs. Ground surface elevation at the groundwater well location is 3,344 feet above mean sea level (amsl), which is approximately 50 feet higher 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 intermittent dry wash, located approximately 588 feet west 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 I Closure Criteria (Closure Criteria) apply:

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

SITE ASSESSMENT ACTIVITIES AND ANALYTICAL RESULTS

Between August 22, 2022 and October 27, 2022, Ensolum personnel visited the Site to evaluate the release extent based on information provided on the Form C-141. Nine soil samples (SS01-SS09) were collected within and around the release extent from a depth of 0.5 feet bgs to assess the lateral extent of the impacted soil. The preliminary soil samples were field screened for volatile organic compounds (VOCs) utilizing a calibrated photoionization detector (PID) and chloride utilizing Hach® chloride QuanTab® test strips. The 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 under strict chain-of-custody procedures to Eurofins Laboratories (Eurofins) in Carlsbad, New Mexico, for analysis of the following chemicals of conern (COCs): BTEX following United States Environmental Protection Agency (EPA) Method 8021B; TPH-GRO, TPH-DRO, and TPH-oil range organics (ORO) following EPA Method 8015M/D; and chloride following EPA Method 300.0. Soil samples delivered to the laboratory the same day they are collected may not have equilibrated to the 6 degrees Celcius required for shippment and long term storage, but are considered to have been received in acceptable condition.

Potholes PH01 through PH05 were advanced via hydro-vacuum (hydrovac) to a depth of 3 feet bgs within the release extent to assess the vertical extent of the release. Delineation soil samples were collected from each pothole at depths of 1-foot, 2 feet, and 3 feet bgs. Delineation samples were field



XTO Energy, Inc Closure Request PLU 27 Brushy Draw 167H

screened for VOCs and chloride. Field screening results and sample observations were logged on lithologic/soil sampling logs, which are included in Appendix C. The delineation soil sample locations are depicted on Figure 2.

Laboratory analytical results for all delineation soil samples indicated concentrations of all COCs were compliant with the Site Closure Criteria and in compliance with the reclamation requirement. Laboratory analytical results are summarized in Table 1 and laboratory analytical reports are included in Appendix D.

CLOSURE REQUEST

Site assessment and delineation activities were conducted at the Site to address the August 2, 2022, release of produced water with FR. Laboratory analytical results for the delineation soil samples indicated all COC concentrations were compliant with the Site Closure Criteria and the most stringent Table I Closure Criteria. Based on the soil sample laboratory analytical results, no remediation was required. As such, XTO respectfully requests closure for Incident Number NAPP2222741514.

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

Kalui Jennings

Senior Project Manager

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

Principal

Ashley L. Ager

cc: Garrett Green, XTO

Shelby Pennington, XTO Bureau of Land Management

Appendices:

Figure 1 Site Receptor Map Figure 2 Soil Sample Locations

Table 1 Soil Sample Analytical Results
Appendix A Referenced Well Records

Appendix B Photographic Log

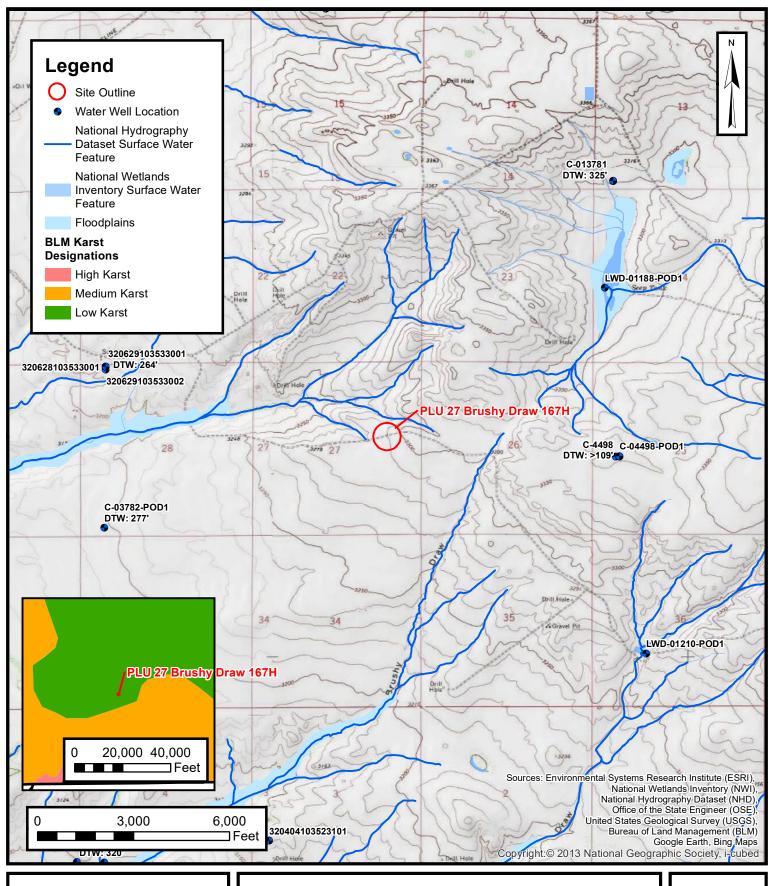
Appendix C Lithologic Soil Sampling Logs

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

Appendix E NMOCD Notifications
Appendix F SDS for Friction Reducer



FIGURES

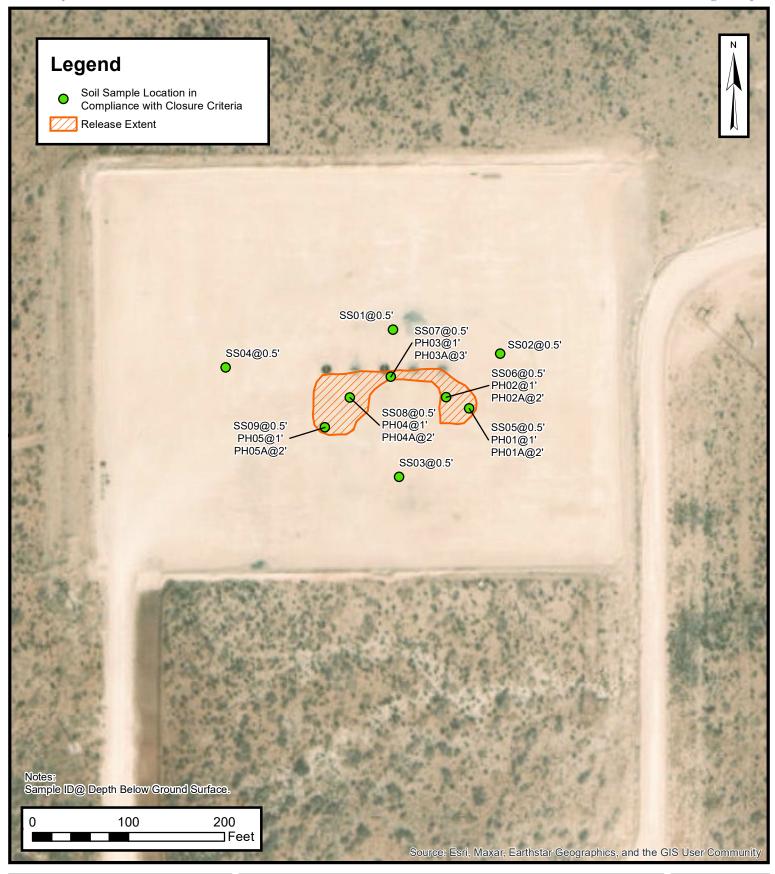




Site Receptor Map

XTO Energy, Inc PLU 27 Brushy Draw 167H NAPP2222741514 Unit H, Sec 27, T25S, R30E Eddy County, New Mexico **FIGURE**

1





Soil Sample Locations Map

XTO Energy, Inc PLU 27 Brushy Draw 167H NAPP2222741514 Unit G, Sec 19, T24S, R31E Eddy County, New Mexico FIGURE

2



TABLES

Received by OCD: 12/29/2022 2:30:04 PM



TABLE 1 SOIL SAMPLE ANALYTICAL RESULTS PLU 27 Brushy Draw 167H 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	20,000
				Deli	ineation Soil Sar	nples				
SS01	08/22/2022	0.5	<0.00200	<0.00401	<50.0	<50.0	<50.0	<50.0	<50.0	274
SS02	08/22/2022	0.5	<0.00201	<0.00402	<49.9	<49.9	<49.9	<49.9	<49.9	590
SS03	08/22/2022	0.5	<0.00199	<0.00398	<49.9	<49.9	<49.9	<49.9	<49.9	45.5
SS04	08/22/2022	0.5	<0.00199	<0.00398	<50.0	<50.0	<50.0	<50.0	<50.0	247
SS05	08/22/2022	0.5	<0.00200	<0.00401	<49.9	<49.9	<49.9	<49.9	<49.9	96.4
SS06	08/22/2022	0.5	<0.00200	<0.00399	<50.0	<50.0	<50.0	<50.0	<50.0	29.0
SS07	08/22/2022	0.5	<0.00199	<0.00398	<50.0	<50.0	<50.0	<50.0	<50.0	166
SS08	08/22/2022	0.5	<0.00200	<0.00399	<49.9	<49.9	<49.9	<49.9	<49.9	29.6
SS09	08/22/2022	0.5	<0.00200	<0.00401	<50.0	<50.0	<50.0	<50.0	<50.0	35.4
PH01	09/21/2022	1	<0.00201	<0.00402	<50.0	<50.0	<50.0	<50.0	<50.0	108
PH01A	09/21/2022	2	<0.00198	<0.00396	<49.9	<49.9	<49.9	<49.9	<49.9	230
PH02	10/27/2022	1	<0.00199	<0.00398	<50.0	60.5	<50.0	60.5	60.5	160
PH02A	10/27/2022	3	<0.00200	<0.00399	<50.0	<50.0	<50.0	<50.0	<50.0	262
PH03	10/27/2022	1	<0.00202	<0.00403	<49.8	<49.8	<49.8	<49.8	<49.8	420
PH03A	10/27/2022	3	<0.00200	<0.00399	<49.9	<49.9	<49.9	<49.9	<49.9	161
PH04	10/27/2022	1	<0.00198	<0.00396	<49.8	<49.8	<49.8	<49.8	<49.8	33.2
PH04A	10/27/2022	2	<0.00201	<0.00396	<50.0	<50.0	<50.0	<50.0	<50.0	23.1
PH05	09/21/2022	1	<0.00199	<0.00398	<50.0	<50.0	<50.0	<50.0	<50.0	29.9
PH05A	09/21/2022	2	< 0.00199	<0.00398	<49.9	<49.9	<49.9	<49.9	<49.9	136

Notes:

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

NMOCD: New Mexico Oil Conservation Division

BTEX: Benzene, Toluene, Ethylbenzene, and Xylenes

GRO: Gasoline Range Organics

DRO: Diesel Range Organics

ORO: Oil Range Organics

TPH: Total Petroleum Hydrocarbon

Ensolum



APPENDIX A

Referenced Well Records

WELL TAG ID NO.



	OSE POD NO		0.)		WELL TAG ID NO.			OSE FILE NO	S).			
NO	POD1 (BI	H-01)			n/a			C-4498				
II	WELL OWNE	ER NAME(S	i)					PHONE (OPTIC	ONAL)			-
GENERAL AND WELL LOCATION	XTO Energ	gy (Kyle	Littrell)									
ננ	WELL OWNE	R MAILIN	G ADDRESS					CITY		STATE		ZIP
EL	6401 Holid	lay Hill D	Dr.					Midland		TX	79707	
M Q					· · · · · · · · · · · · · · · · · · ·			T				
AN	WELL		DE	GREES 32°	MINUTES 6'	SECOND 1.96'	•					
AL	LOCATIO	<u> </u>	TITUDE			1.50	N	!	REQUIRED: ONE TENT	H OF A	SECOND	
ER	(FROM GP	S) LC	NGITUDE	-103°	50'	26.19	" W	* DATUM REC	QUIRED: WGS 84			
E	DESCRIPTIO	ON RELATI	NG WELL LOCATION TO	STREET ADD	RESS AND COMMON	LANDMAR	RKS – PLS	S (SECTION, TO	WNSHJIP, RANGE) WH	ERE AV	AILABLE	
1.0	NW SW N	E Sec. 25	5 T25S R30E									
										.,		
	LICENSE NO		NAME OF LICENSED		Y1-1- 15 A41-1				NAME OF WELL DRI			
	124	19			Jackie D. Atkins				Atkins Eng	ineering	g Associates, I	nc.
	DRILLING ST		DRILLING ENDED		OMPLETED WELL (FT			LE DEPTH (FT)	DEPTH WATER FIRS			
	02/24/	2021	02/24/2021	tempo	rary well materia	և		109		n/a	l	
	001 MT TOD								STATIC WATER LEV			LL (FT)
Z	COMPLETED) WELL IS:	ARTESIAN	DRY HO	LE SHALLO	W (UNCON	FINED)			n/a	1	
OIT	DRILLING FI	LUID:	AIR	MUD	ADDITIV	ES – SPECII	FY:		•			
2. DRILLING & CASING INFORMATION	DRILLING M	ETHOD:	ROTARY	П намме	R CABLE TO	OOL	✓ OTHE	R – SPECIFY:	Hollo	w Sten	Auger	
FO	DEDELL	(f4 1 -1)	1	CASDIC	MATERIAL AND	VOD I			I	Γ		l
Z		(feet bgl)	BORE HOLE	CASING	GRADE	//OR		ASING	CASING		ING WALL	SLOT
N N	FROM	ТО	DIAM (inches)		each casing string,			NECTION YPE	INSIDE DIAM.	l	ICKNESS (inches)	SIZE (inches)
CAS			(inches)	note		ing diameter)	(inches)			` ′		
3	0	109	±6.5	ļ	Boring- HSA			-				
N.												
DR												
2.												
									7			
									USE DII MAR	1120)21 pm4: 26	
												ļ
				<u> </u>								
	DEPTH	(feet bgl)	BORE HOLE	T.	IST ANNULAR SE	EAL MAT	ERIAL A	AND	AMOUNT		метно	D OF
1	FROM	TO	DIAM. (inches)	I .	VEL PACK SIZE-				(cubic feet)		PLACEM	
RI.	TACOM	10		 					-			
ANNULAR MATERIAL												
ľ W				 								
[¥												
N				<u> </u>	 					-		
										-+		
€.				1								
									<u> </u>			
FOR	FOR OSE INTERNAL USE WR-20 WELL RECORD & LOG (Version 06/30/17)											
FILE	E NO	44	98 <u> </u>		POD NO	,		TRN	NO. 682	<u>52</u>	-8	
100	ATION	13	7 729	55 R	30E Sec	25		WELL TAG I	NO NA		PAGE	1 OF 2

	 											
	DEPTH (1	feet bgl)	THICKNESS (feet)	INCLUDE WAT	ND TYPE OF MA'ER-BEARING CA	VITIES O	R FRAC	TURE ZONE	5	WAT BEAR (YES /	ING?	ESTIMATED YIELD FOR WATER- BEARING ZONES (gpm)
	0	34	34	Ca	liche, tan, no odor,	no stain. g	avel, dr	 v		Y	✓N	102
	34	40	6	1	e, tan, no odor, no s					Y	√ N	
	40	56	16		, no odor, no stain,			<u></u>			√N	
	56	72	16	sandstone, low consc	• • •				l. drv	Y	√N	
	72	79	7		, no odor, no stain,					Y	√N	
د	79	109	30	sandstone, low - medi	• • •				ted, m		√ N	
VEL					,	,	,				N	
)F V							<u> </u>			Y	N	
4 HYDROGEOLOGIC log of Well										Y	N	
₹.										Y	N	
DO.									<u>-</u>		N	
EOL										Y	N	
SOC										Y	N	
XDE									\dashv		N	
4 H		· · · · · · · · · · · · · · · · · · ·									N	
									+		N	
											N	
										Y	N	
										Y	N	
										<u>Y</u>	N	
										Y	N	
	METHODI	ISED TO ES	TIMATE VIELD	OF WATER-BEARD	IC CTD ATA.			· · · · · · · · · · · · · · · · · · ·	TOTA	L ESTIM		
	PUM		IR LIFT		THER – SPECIFY	' :				L YIELD		0.00
NC	WELL TES			TACH A COPY OF DA								
TEST; RIG SUPERVISION	MISCELLA	NEOUS INF	fe	emporary well mater eet below ground sur- ogs adapted from Wi	face, then hydrate	ed bentoni		from ten fee	t belov	w ground	surface	
EST	PRINT NAN	ME(S) OF D	RILL RIG SUPE	RVISOR(S) THAT PRO	OVIDED ONSITE	SUPERVI	SION O	F WELL CON	STRUC	CTION O	THER TH	IAN LICENSEE:
5. T	Shane Eldri			(4)								
SIGNATURE	CORRECT	RECORD O	F THE ABOVE I	FIES THAT, TO THE DESCRIBED HOLE A 30 DAYS AFTER COM	ND THAT HE OR	SHE WIL	L FILE					
6. SIGNA	Jack K	Atkins		J	ackie D. Atkins		_			03/11	/2021	
9		SIGNAT	URE OF DRILLE	ER / PRINT SIGNEI	E NAME		_				DATE	
EO	OGE PARED	NIAT TIOP						W/D OA W/D	[DE	י אַ מַקּרַי	OG W-	rsion 06/20/2017
	E NO.	449°	y		POD NO.	7		TRN NO.	68	7.57		rsion 06/30/2017)
\vdash	CATION	132	T2.5	55 R30E	50175		WELL	TAG ID NO.	<u> </u>	VA		PAGE 2 OF 2
												-

John R. D Antonio, Jr., P.E. State Engineer



koswell Office 1900 WEST SECOND STREET ROSWELL, NM 88201

STATE OF NEW MEXICO OFFICE OF THE STATE ENGINEER

Trn Nbr:

682528

File Nbr:

C 04498

Well File Nbr: C 04498 POD1

Mar. 11, 2021

TACOMA MORRISEY WSP USA 3300 NORTH A STREET BLDG 1 #222 MIDLAND, TX 79705

Greetings:

The above numbered permit was issued in your name on 12/01/2020.

The Well Record was received in this office on 03/11/2021, stating that it had been completed on 02/24/2021, and was a dry well. The well is to be plugged according to 19.27.4.30 NMAC.

Please note that another well can be drilled under this permit if the well is completed and the well log filed on or before 12/01/2021.

If you have any questions, please feel free to contact us.

Andrew Dennis (575) 622 - 6521

drywell



APPENDIX B

Photographic Log



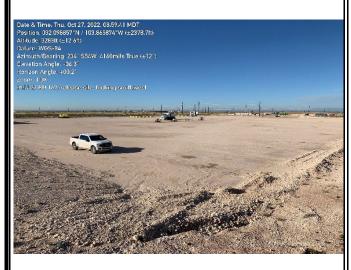
Photographic Log
XTO Energy, Inc.
PLU 27 Brushy Draw 167H
Incident Number NAPP2222741514





Photograph 1 Date: August 22, 2022 Description: Release extent, facing northeast.

Photograph 2 Date: August 22, 2022 Description: Release extent, facing east.





Photograph 3 Date: August 22, 2022 Description: Release extent, facing southwest.

Photograph 4 Date: August 22, 2022 Description: Pothole delineation via hydrovac.



APPENDIX C

Lithologic Soil Sampling Logs

								Sample Name: PH01	Date: 9/21/22
			N				M	Site Name: PLU 27 Brushy Dr Incident Number: NAPP2222	aw 167H
								Incident Number: NAPP2222	741514
								Job Number: 03E1558100	
					SAMPLING	LOG		Logged By: Kase Parker	Method: Hydrovac
		2.10230,						Hole Diameter:	Total Depth: 2'
			-				orrection	PID for chloride and vapor, refactors included.	espectively. Chloride test
Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample ID	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithologid	c Descriptions
					-	_ 0'			
N	240	0	N	PH01	1'	1' 	ССНЕ	CALICHE	
N	ND	0	Ν	PH01A	2' -	_ _ 2' _	CCHE	CALICHE	
					-	- - -			
					-	- - -			
					-	- - -			
					-	- - -			
						- - -			
						- - -			
					-	- - -			
					- - -	- - -			
						- - -			
						- - -			
					- - -	- - -			

								Sample Name: PH02	Date: 10/27/2022
		E	N	S	OL	U	M	Incident Number: NAPP2222741	
								Job Number: 03E1558100	J14
		LITHOL	OGI	r / sou s	SAMPLING	S LOG		Logged By: Connor Whitman	Method: Hydrovac
Coord		2.10230,			DAIVIF LINC	, 100		Hole Diameter:	Total Depth: 2'
Comm	ents: Fie	ld screen	ing c	onducted w			orrection	PID for chloride and vapor, respe factors included.	•
Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample ID	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithologic De	escriptions
] - -	0' 			
N	<168	15.1	N	PH02	1'	1' 	CCHE	CALICHE	
N	224	0	N	PH02A	2' -	- 2' - - - - -	CCHE	CALICHE	
					-	- - - - -			
						-			
						- - - - -			
					- - - - -	- - - -			

								Sample Name: PH03	Data: 10/27/2022
		_						•	Date: 10/27/2022
		E	N	S	OL	_ U	M	Incident Number: NAPP2222741	
								Job Number: 03E1558100	D14
		LITHOL	OGI	r / sou s	SAMPLING	S LOG		Logged By: Connor Whitman	Method: Hydrovac
Coord		2.10230,			DAIVIF LINC	, 100		Hole Diameter:	Total Depth: 3'
Comm	nents: Fie	ld screen	ing c	onducted v				PID for chloride and vapor, respetators included.	· ·
Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample ID	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithologic De	escriptions
N	340	0	N	PH03	1 - - 1' .	0' - - - 1'	ССНЕ	CALICHE with sand	
N	540	0	N			- - 2' -	ССНЕ	CALICHE	
N	224	0	Ζ	PH03A	3' -	- 3' 	CCHE	CALICHE	

								Sample Name: PH04	Date: 10/27/2022
		F	N	S	OI		M	Site Name: PLU 27 Brushy Dr	
								Incident Number: NAPP2222	741514
								Job Number: 03E1558100	1
					SAMPLING	LOG		Logged By: Connor Whitman	
	linates: 3							Hole Diameter:	Total Depth: 2'
								PID for chloride and vapor, refactors included.	espectively. Chloride test
Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample ID	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithologic	: Descriptions
N	<168	0	N	PH04	1' -	I - 0' - - - 1'	SP	SAND, poorly sorted bro	own sand with silt and clay
N	<168	0	Z	PH04A	2' -	2'	SP	SAA	

								Sample Name: PH05	Date: 9/21/22
					0 1				
			1		U	LU	IAI	Incident Number: NAPP2222	
								Job Number: 03E1558100	
		LITHOL	OGI	C / SOIL S	SAMPLING	LOG		Logged By: Kase Parker	Method: Hydrovac
Coord	inates: 32	2.10230,	-103.	86420				Hole Diameter:	Total Depth: 2'
							orrection	PID for chloride and vapor, refactors included.	espectively. Chloride test
Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample ID	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithologic	: Descriptions
						0' - -			
N	ND	0	N	PH05	1'] -	1' 	SP	SAND, brown, fine sand	
N	168	0	N	PH05A	2' -	2'	CCHE	CALICHE	
					-	- - -			
						- - -			
					-	- - -			
					-	- - -			
					-	- -			
					-	- - -			
					-	- - -			
					- -	- -			
					-	- - -			
					- -	<u>-</u>			
					-	- -			
					-	- - -			
					-	- -			
						- -			



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: 890-2800-1

Laboratory Sample Delivery Group: 03E1558100 Client Project/Site: PLU 27 Brushy Draw 167

For:

Ensolum 705 W. Wadley Suite 210 Midland, Texas 79701

Attn: Kalei Jennings

MAMER

Authorized for release by: 9/5/2022 8:03:09 AM

Jessica Kramer, Project Manager (432)704-5440

Jessica.Kramer@et.eurofinsus.com

Links

Review your project results through

Have a Question?



Visit us at:

www.eurofinsus.com/Env
Released to Imaging: 4/4/2023 2:55:26 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

3

5

6

2

9

11

13

Client: Ensolum
Project/Site: PLU 27 Brushy Draw 167
Laboratory Job ID: 890-2800-1
SDG: 03E1558100

Table of Contents

Cover Page	1
Table of Contents	2
Definitions/Glossary	3
Case Narrative	4
Client Sample Results	5
Surrogate Summary	12
QC Sample Results	13
QC Association Summary	17
Lab Chronicle	20
Certification Summary	23
Method Summary	24
Sample Summary	25
Chain of Custody	26
Receipt Checklists	27

9

Definitions/Glossary

Job ID: 890-2800-1 Client: Ensolum Project/Site: PLU 27 Brushy Draw 167

SDG: 03E1558100

Qualifiers

GC VOA

Qualifier **Qualifier Description**

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

GC Semi VOA

Qualifier **Qualifier Description**

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

HPLC/IC

Qualifier **Qualifier Description**

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

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)

EPA recommended "Maximum Contaminant Level" MCL 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: PLU 27 Brushy Draw 167

Job ID: 890-2800-1

SDG: 03E1558100

Job ID: 890-2800-1

Laboratory: Eurofins Carlsbad

Narrative

Job Narrative 890-2800-1

Receipt

The samples were received on 8/23/2022 8:18 AM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 1.6°C

GC VOA

Method 8021B: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 880-33517 and analytical batch 880-33694 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 was outside acceptance limits for the following matrix spike/matrix spike duplicate (MS/MSD) samples: (890-2799-A-1-B MS) and (890-2799-A-1-C MSD). The parent sample's surrogate recovery was within limits. The MS/MSD sample has been qualified and reported.

Method 8015MOD NM: The method blank for preparation batch 880-32866 and analytical batch 880-32894 contained Gasoline Range Organics (GRO)-C6-C10 above the method detection limit. This target analyte concentration was less than the reporting limit (RL); therefore, re-extraction and/or re-analysis of samples was not performed.

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 880-32909 and 880-32909 and analytical batch 880-33251 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample / laboratory sample control duplicate (LCS/LCSD) precision was within acceptance limits.

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

Client Sample Results

 Client: Ensolum
 Job ID: 890-2800-1

 Project/Site: PLU 27 Brushy Draw 167
 SDG: 03E1558100

Client Sample ID: SS01 Lab Sample ID: 890-2800-1

Date Collected: 08/22/22 14:45

Date Received: 08/23/22 08:18

Matrix: Solid

Sample Depth: 0.5

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fa
Benzene	<0.00200	U	0.00200	mg/Kg		09/01/22 09:48	09/04/22 06:26	
Toluene	<0.00200	U	0.00200	mg/Kg		09/01/22 09:48	09/04/22 06:26	
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		09/01/22 09:48	09/04/22 06:26	
m-Xylene & p-Xylene	<0.00399	U	0.00399	mg/Kg		09/01/22 09:48	09/04/22 06:26	
o-Xylene	<0.00200	U	0.00200	mg/Kg		09/01/22 09:48	09/04/22 06:26	
Xylenes, Total	<0.00399	U	0.00399	mg/Kg		09/01/22 09:48	09/04/22 06:26	
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fa
4-Bromofluorobenzene (Surr)	93		70 - 130			09/01/22 09:48	09/04/22 06:26	
1,4-Difluorobenzene (Surr)	99		70 - 130			09/01/22 09:48	09/04/22 06:26	
Method: Total BTEX - Total BTEX	(Calculation							
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fa
Total BTEX	<0.00399	U	0.00399	mg/Kg			09/04/22 10:53	
Method: 8015 NM - Diesel Range	•		ъ.	11-14	_	Bassassad	A.v.alamad	D:: F-
Analyte		Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fa
Total TPH	<50.0	U	50.0	mg/Kg			08/26/22 09:25	
Method: 8015B NM - Diesel Rang	ge Organics (D	RO) (GC)						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fa
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0	mg/Kg		08/24/22 16:32	08/25/22 12:58	
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		08/24/22 16:32	08/25/22 12:58	
Oll Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		08/24/22 16:32	08/25/22 12:58	
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fa
1-Chlorooctane	79		70 - 130			08/24/22 16:32	08/25/22 12:58	
o-Terphenyl	82		70 - 130			08/24/22 16:32	08/25/22 12:58	
Method: 300.0 - Anions, Ion Chro								
Amalusta	Docult	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fa
Analyte	Resuit	Qualifier	25.1	 		riepaieu	Allalyzeu	Dilla

Client Sample ID: SS03 Lab Sample ID: 890-2800-2

Date Collected: 08/22/22 14:55 Date Received: 08/23/22 08:18

Sample Depth: 0.5

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199	mg/Kg		09/01/22 09:48	09/04/22 06:46	1
Toluene	<0.00199	U	0.00199	mg/Kg		09/01/22 09:48	09/04/22 06:46	1
Ethylbenzene	<0.00199	U	0.00199	mg/Kg		09/01/22 09:48	09/04/22 06:46	1
m-Xylene & p-Xylene	<0.00398	U	0.00398	mg/Kg		09/01/22 09:48	09/04/22 06:46	1
o-Xylene	<0.00199	U	0.00199	mg/Kg		09/01/22 09:48	09/04/22 06:46	1
Xylenes, Total	<0.00398	U	0.00398	mg/Kg		09/01/22 09:48	09/04/22 06:46	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	91		70 - 130			09/01/22 09:48	09/04/22 06:46	1

Eurofins Carlsbad

Matrix: Solid

Project/Site: PLU 27 Brushy Draw 167

Client: Ensolum

Job ID: 890-2800-1

SDG: 03E1558100

Client Sample ID: SS03

Date Collected: 08/22/22 14:55 Date Received: 08/23/22 08:18

Sample Depth: 0.5

Lab Sample ID: 890-2800-2

Matrix: Solid

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

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,4-Difluorobenzene (Surr)	103		70 - 130	09/01/22 09:48	09/04/22 06:46	1

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398	mg/Kg			09/04/22 10:53	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	ma/Ka			08/26/22 09:25	1

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

Analyte		Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organic	s	<49.9	U	49.9	mg/Kg		08/24/22 16:32	08/25/22 13:19	1
(GRO)-C6-C10									
Diesel Range Organics (Over	<49.9	U	49.9	mg/Kg		08/24/22 16:32	08/25/22 13:19	1
C10-C28)									
Oll Range Organics (Ove	er C28-C36)	<49.9	U	49.9	mg/Kg		08/24/22 16:32	08/25/22 13:19	1
Surrogate		%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac

Surrogate	%Recovery	Qualifier	Limits		Preparea	Anaiyzea	DII Fac
1-Chlorooctane	78		70 - 130	_	08/24/22 16:32	08/25/22 13:19	1
o-Terphenyl	80		70 - 130		08/24/22 16:32	08/25/22 13:19	1
							

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	45.5	4.97	mg/Kg			08/30/22 16:19	1

Client Sample ID: SS04

Date Collected: 08/22/22 15:00

Lab Sample ID: 890-2800-3

Matrix: Solid

Date Collected: 08/22/22 15:00 Date Received: 08/23/22 08:18

Sample Depth: 0.5

Method: 8021B -	. Volatila	Organic (Compounds	(GC)
Methou, ouz ib :	· voiatile	Oruanic C	JUHUUUHIUS	100

Michiga. 002 1D - Volatile Orga	ine compounds	(30)						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199	mg/Kg		09/01/22 09:48	09/04/22 07:06	1
Toluene	<0.00199	U	0.00199	mg/Kg		09/01/22 09:48	09/04/22 07:06	1
Ethylbenzene	< 0.00199	U	0.00199	mg/Kg		09/01/22 09:48	09/04/22 07:06	1
m-Xylene & p-Xylene	<0.00398	U	0.00398	mg/Kg		09/01/22 09:48	09/04/22 07:06	1
o-Xylene	<0.00199	U	0.00199	mg/Kg		09/01/22 09:48	09/04/22 07:06	1
Xylenes, Total	<0.00398	U	0.00398	mg/Kg		09/01/22 09:48	09/04/22 07:06	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	96		70 - 130			09/01/22 09:48	09/04/22 07:06	1
1,4-Difluorobenzene (Surr)	101		70 - 130			09/01/22 09:48	09/04/22 07:06	1

Method:	Total RTF)	(- Total RTFX	Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398	ma/Ka			09/04/22 10:53	1

Method: 8015 NM - Diese	Range Organics	(DRO)	(GC)
Michiga. 00 10 Min - Diese	i italige Organics	(DITO)	(00)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0	mg/Kg			08/26/22 09:25	1

Eurofins Carlsbad

2

4

6

8

1 N

13

ofins Carisbac

Client: Ensolum Job ID: 890-2800-1 Project/Site: PLU 27 Brushy Draw 167 SDG: 03E1558100

Client Sample ID: SS04 Lab Sample ID: 890-2800-3

Date Collected: 08/22/22 15:00 Matrix: Solid Date Received: 08/23/22 08:18

Sample Depth: 0.5

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0	mg/Kg		08/24/22 16:32	08/25/22 13:40	1
Diesel Range Organics (Over	<50.0	U	50.0	mg/Kg		08/24/22 16:32	08/25/22 13:40	1
C10-C28)								
Oll Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		08/24/22 16:32	08/25/22 13:40	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	85		70 - 130			08/24/22 16:32	08/25/22 13:40	1
o-Terphenyl	84		70 - 130			08/24/22 16:32	08/25/22 13:40	1
Method: 300.0 - Anions, Ion Chro	omatography -	Soluble						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Analyte								

Lab Sample ID: 890-2800-4 **Client Sample ID: SS05** Date Collected: 08/22/22 15:05 Matrix: Solid

Date Received: 08/23/22 08:18

Sample Depth: 0.5

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		09/01/22 09:48	09/04/22 07:27	1
Toluene	<0.00200	U	0.00200	mg/Kg		09/01/22 09:48	09/04/22 07:27	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		09/01/22 09:48	09/04/22 07:27	1
m-Xylene & p-Xylene	<0.00401	U	0.00401	mg/Kg		09/01/22 09:48	09/04/22 07:27	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		09/01/22 09:48	09/04/22 07:27	1
Xylenes, Total	<0.00401	U	0.00401	mg/Kg		09/01/22 09:48	09/04/22 07:27	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	93		70 - 130			09/01/22 09:48	09/04/22 07:27	1
1,4-Difluorobenzene (Surr)	105		70 - 130			09/01/22 09:48	09/04/22 07:27	1
Method: Total BTEX - Total BTEX	(Calculation							
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00401	U	0.00401	mg/Kg			09/04/22 10:53	1
Method: 8015 NM - Diesel Range	Organics (DR	O) (GC)						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Analyte Total TPH		Qualifier	RL 49.9	Unit mg/Kg	<u>D</u>	Prepared	Analyzed 08/26/22 09:25	Dil Fac
Total TPH	<49.9	Qualifier U			<u>D</u>	Prepared		
Total TPH Method: 8015B NM - Diesel Rang	<49.9	Qualifier U			<u>D</u>	Prepared Prepared		
Total TPH Method: 8015B NM - Diesel Rang Analyte Gasoline Range Organics	<49.9	Qualifier U RO) (GC) Qualifier	49.9	mg/Kg			08/26/22 09:25	1
·	<49.9 ge Organics (DI Result	Qualifier U RO) (GC) Qualifier U	49.9	mg/Kg		Prepared	08/26/22 09:25 Analyzed	1 Dil Fac
Total TPH Method: 8015B NM - Diesel Rang Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over	<49.9 ge Organics (DI Result <49.9	Qualifier U RO) (GC) Qualifier U	49.9 RL 49.9	mg/Kg Unit mg/Kg		Prepared 08/24/22 16:32	08/26/22 09:25 Analyzed 08/25/22 14:01	Dil Fac
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)	<49.9 ge Organics (DI Result <49.9	Qualifier U RO) (GC) Qualifier U U	49.9 RL 49.9 49.9	mg/Kg Unit mg/Kg mg/Kg		Prepared 08/24/22 16:32 08/24/22 16:32	08/26/22 09:25 Analyzed 08/25/22 14:01 08/25/22 14:01	Dil Fac
Total TPH Method: 8015B NM - Diesel Rang Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28)	<49.9 ge Organics (DI Result <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 08/24/22 16:32 08/24/22 16:32 08/24/22 16:32	08/26/22 09:25 Analyzed 08/25/22 14:01 08/25/22 14:01	1 Dil Fac

Eurofins Carlsbad

Job ID: 890-2800-1

Client: Ensolum Project/Site: PLU 27 Brushy Draw 167 SDG: 03E1558100

Lab Sample ID: 890-2800-4

Date Collected: 08/22/22 15:05 Date Received: 08/23/22 08:18

Client Sample ID: SS05

Matrix: Solid

Sample Depth: 0.5

Method: 300.0 - Anions, Ion Chromatography - Soluble									
Aı	nalyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
CI	hloride	96.4		5.03	mg/Kg			08/30/22 16:56	1

Client Sample ID: SS06 Lab Sample ID: 890-2800-5

Date Collected: 08/22/22 15:10 Date Received: 08/23/22 08:18

Matrix: Solid

Sample Depth: 0.5

Analyte

o-Terphenyl

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		09/01/22 09:48	09/04/22 07:47	1
Toluene	<0.00200	U	0.00200	mg/Kg		09/01/22 09:48	09/04/22 07:47	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		09/01/22 09:48	09/04/22 07:47	1
m-Xylene & p-Xylene	<0.00399	U	0.00399	mg/Kg		09/01/22 09:48	09/04/22 07:47	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		09/01/22 09:48	09/04/22 07:47	1
Xylenes, Total	<0.00399	U	0.00399	mg/Kg		09/01/22 09:48	09/04/22 07:47	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	91		70 - 130			09/01/22 09:48	09/04/22 07:47	1
1,4-Difluorobenzene (Surr)	101		70 - 130			09/01/22 09:48	09/04/22 07:47	1

Total BTEX	<0.00399	U	0.00399	mg/Kg			09/04/22 10:53	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			08/26/22 09:25	1
Method: 8015B NM - Diesel Rang Analyte	•	RO) (GC) Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0	mg/Kg		08/24/22 16:32	08/25/22 14:23	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		08/24/22 16:32	08/25/22 14:23	1
Oll Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		08/24/22 16:32	08/25/22 14:23	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	85		70 - 130			08/24/22 16:32	08/25/22 14:23	1

RL

Result Qualifier

Unit

Prepared

08/24/22 16:32

Analyzed

08/25/22 14:23

Dil Fac

Method: 300.0 - Anions, Ion Chromatography - Soluble								
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	29.0		4.99	mg/Kg			08/31/22 15:50	1

70 - 130

Matrix: Solid

Client Sample Results

 Client: Ensolum
 Job ID: 890-2800-1

 Project/Site: PLU 27 Brushy Draw 167
 SDG: 03E1558100

Client Sample ID: SS07 Lab Sample ID: 890-2800-6

Date Collected: 08/22/22 15:15
Date Received: 08/23/22 08:18

Sample Depth: 0.5

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199	mg/Kg		09/01/22 09:48	09/04/22 08:08	1
Toluene	<0.00199	U	0.00199	mg/Kg		09/01/22 09:48	09/04/22 08:08	1
Ethylbenzene	<0.00199	U	0.00199	mg/Kg		09/01/22 09:48	09/04/22 08:08	1
m-Xylene & p-Xylene	<0.00398	U	0.00398	mg/Kg		09/01/22 09:48	09/04/22 08:08	1
o-Xylene	<0.00199	U	0.00199	mg/Kg		09/01/22 09:48	09/04/22 08:08	1
Xylenes, Total	<0.00398	U	0.00398	mg/Kg		09/01/22 09:48	09/04/22 08:08	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	95		70 - 130			09/01/22 09:48	09/04/22 08:08	1
1,4-Difluorobenzene (Surr)	107		70 - 130			09/01/22 09:48	09/04/22 08:08	1
Method: Total BTEX - Total BTEX	(Calculation							
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398	mg/Kg			09/04/22 10:53	1
Method: 8015 NM - Diesel Range	Organics (DR	O) (GC)						
Analyte	•	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0	mg/Kg			08/26/22 09:25	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	<50.0	U	50.0	mg/Kg		08/24/22 16:32	08/25/22 14:44	1
Discal Bango Organico (Over	<50.0	11				08/24/22 16:32	08/25/22 14:44	
Diesel Range Organics (Over C10-C28)	\30.0	U	50.0	mg/Kg				1
C10-C28) Oll Range Organics (Over C28-C36)	<50.0		50.0 50.0	mg/Kg mg/Kg		08/24/22 16:32	08/25/22 14:44	•
C10-C28) OII Range Organics (Over C28-C36)		U		0 0				1
C10-C28) Oll Range Organics (Over C28-C36) Surrogate	<50.0	U	50.0	0 0		08/24/22 16:32	08/25/22 14:44	
C10-C28)	<50.0	U	50.0	0 0		08/24/22 16:32 Prepared	08/25/22 14:44 Analyzed	1 Dil Fac
C10-C28) Oll Range Organics (Over C28-C36) Surrogate 1-Chlorooctane	<50.0 **Recovery 84 83	U Qualifier	50.0 Limits 70 - 130	0 0		08/24/22 16:32 Prepared 08/24/22 16:32	08/25/22 14:44 Analyzed 08/25/22 14:44	1 Dil Fac
C10-C28) Oll Range Organics (Over C28-C36) Surrogate 1-Chlorooctane o-Terphenyl	<50.0 **Recovery 84 83 **pomatography -	U Qualifier	50.0 Limits 70 - 130	0 0	D	08/24/22 16:32 Prepared 08/24/22 16:32	08/25/22 14:44 Analyzed 08/25/22 14:44	

Client Sample ID: SS08

Lab Sample ID: 890-2800-7

Date Collected: 08/22/22 15:20

Matrix: Solid

Date Collected: 08/22/22 15:20 Date Received: 08/23/22 08:18

Sample Depth: 0.5

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		09/01/22 09:48	09/04/22 10:18	1
Toluene	<0.00200	U	0.00200	mg/Kg		09/01/22 09:48	09/04/22 10:18	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		09/01/22 09:48	09/04/22 10:18	1
m-Xylene & p-Xylene	<0.00399	U	0.00399	mg/Kg		09/01/22 09:48	09/04/22 10:18	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		09/01/22 09:48	09/04/22 10:18	1
Xylenes, Total	<0.00399	U	0.00399	mg/Kg		09/01/22 09:48	09/04/22 10:18	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	87		70 - 130			09/01/22 09:48	09/04/22 10:18	

Eurofins Carlsbad

2

3

5

8

10

12

13

 Client: Ensolum
 Job ID: 890-2800-1

 Project/Site: PLU 27 Brushy Draw 167
 SDG: 03E1558100

Client Sample ID: SS08

Lab Sample ID: 890-2800-7

Date Collected: 08/22/22 15:20

Matrix: Solid

Date Collected: 08/22/22 15:20
Date Received: 08/23/22 08:18

Sample Depth: 0.5

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

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,4-Difluorobenzene (Surr)	109		70 - 130	09/01/22 09:48	09/04/22 10:18	1

Method: Total	BTEX -	Total BTEX	Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00399	U	0.00399	mg/Kg			09/04/22 10:53	1

ı		
ı	Method: 8015 NM - Diesel Range Organics (DRO)	(CC)
ı	Method. 0013 NM - Diesel Kange Organics (DKO)	(00)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9	mg/Kg			08/26/22 09:25	1

Method: 8015B	NM - Diesel	Range Ord	anics	(DRO)	(GC)
motilioa. oo lob	THE DIGGGE	Trainge Oit	garnos	(5.10)	100)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics	<49.9	U	49.9	mg/Kg		08/24/22 16:32	08/25/22 15:06	1
(GRO)-C6-C10								
Diesel Range Organics (Over	<49.9	U	49.9	mg/Kg		08/24/22 16:32	08/25/22 15:06	1
C10-C28)								
Oll Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg		08/24/22 16:32	08/25/22 15:06	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac

Surrogate	%Recovery	Qualifier	LIIIIII	Frepareu	Allalyzeu	DII
1-Chlorooctane	89		70 - 130	08/24/22 16:32	08/25/22 15:06	
o-Terphenyl	89		70 - 130	08/24/22 16:32	08/25/22 15:06	

 $\label{eq:method:method:method:method:one} \textbf{Method: 300.0 - Anions, lon Chromatography - Soluble}$

Analyte	Result Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	29.6	5.02	mg/Kg		_	08/30/22 17:23	1

Client Sample ID: SS09

Date Collected: 08/22/22 15:25

Lab Sample ID: 890-2800-8

Matrix: Solid

Date Collected: 08/22/22 15:25 Date Received: 08/23/22 08:18

Sample Depth: 0.5

Method: 8021B -	. Volatila	Organic (Compounds	(GC)
Methou, ouz ib :	· voiatile	Oruanic C	JUHUUUHIUS	100

ine compounds (,00,						
Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
<0.00200	U	0.00200	mg/Kg		09/01/22 09:48	09/04/22 10:38	1
<0.00200	U	0.00200	mg/Kg		09/01/22 09:48	09/04/22 10:38	1
<0.00200	U	0.00200	mg/Kg		09/01/22 09:48	09/04/22 10:38	1
<0.00401	U	0.00401	mg/Kg		09/01/22 09:48	09/04/22 10:38	1
<0.00200	U	0.00200	mg/Kg		09/01/22 09:48	09/04/22 10:38	1
<0.00401	U	0.00401	mg/Kg		09/01/22 09:48	09/04/22 10:38	1
%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
85		70 - 130			09/01/22 09:48	09/04/22 10:38	1
107		70 - 130			09/01/22 09:48	09/04/22 10:38	1
	Result <0.00200 <0.00200 <0.00200 <0.00200 <0.00401 <0.00200 <0.00401 %Recovery 85		Result Qualifier RL	Result Qualifier RL Unit <0.00200	Result Qualifier RL Unit D <0.00200	Result Qualifier RL Unit D Prepared <0.00200	Result Qualifier RL Unit D Prepared Prepared Analyzed <0.00200 U

Mothod:	Total RT	EY - Tota	I DTEY	Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00401	U	0.00401	ma/Ka			09/04/22 10:53	1

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0	mg/Kg			08/26/22 09:25	1

Eurofins Carlsbad

2

4

J

7

9

11

13

14

Sample Depth: 0.5

Chloride

Client Sample Results

Client: Ensolum Job ID: 890-2800-1 Project/Site: PLU 27 Brushy Draw 167 SDG: 03E1558100

Lab Sample ID: 890-2800-8 **Client Sample ID: SS09**

08/30/22 17:33

Date Collected: 08/22/22 15:25

Matrix: Solid Date Received: 08/23/22 08:18

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0	mg/Kg		08/24/22 16:32	08/25/22 15:27	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		08/24/22 16:32	08/25/22 15:27	1
Oll Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		08/24/22 16:32	08/25/22 15:27	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	77		70 - 130			08/24/22 16:32	08/25/22 15:27	1
o-Terphenyl	77		70 - 130			08/24/22 16:32	08/25/22 15:27	1

4.95

35.4

mg/Kg

Surrogate Summary

 Client: Ensolum
 Job ID: 890-2800-1

 Project/Site: PLU 27 Brushy Draw 167
 SDG: 03E1558100

Method: 8021B - Volatile Organic Compounds (GC)

Matrix: Solid Prep Type: Total/NA

				Percent Surrogate Recovery (Acceptance L
		BFB1	DFBZ1	
Lab Sample ID	Client Sample ID	(70-130)	(70-130)	
380-18420-A-1-B MS	Matrix Spike	92	102	
380-18420-A-1-C MSD	Matrix Spike Duplicate	99	98	
390-2800-1	SS01	93	99	
390-2800-2	SS03	91	103	
390-2800-3	SS04	96	101	
390-2800-4	SS05	93	105	
390-2800-5	SS06	91	101	
390-2800-6	SS07	95	107	
390-2800-7	SS08	87	109	
390-2800-8	SS09	85	107	
_CS 880-33517/1-A	Lab Control Sample	89	104	
LCSD 880-33517/2-A	Lab Control Sample Dup	94	100	
MB 880-33067/5-A	Method Blank	79	116	
MB 880-33517/5-A	Method Blank	80	115	
Surrogate Legend				
BFB = 4-Bromofluorober	nzene (Surr)			

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

Matrix: Solid Prep Type: Total/NA

				Percent Surrogate Recovery (Acceptance Limits)
		1CO1	OTPH1	
Lab Sample ID	Client Sample ID	(70-130)	(70-130)	
890-2799-A-1-B MS	Matrix Spike	74	67 S1-	
890-2799-A-1-C MSD	Matrix Spike Duplicate	78	69 S1-	
890-2800-1	SS01	79	82	
890-2800-2	SS03	78	80	
890-2800-3	SS04	85	84	
890-2800-4	SS05	74	73	
890-2800-5	SS06	85	84	
890-2800-6	SS07	84	83	
890-2800-7	SS08	89	89	
890-2800-8	SS09	77	77	
LCS 880-32866/2-A	Lab Control Sample	81	93	
LCSD 880-32866/3-A	Lab Control Sample Dup	92	108	
MB 880-32866/1-A	Method Blank	88	95	

Surrogate Legend

1CO = 1-Chlorooctane

OTPH = o-Terphenyl

Client: Ensolum Job ID: 890-2800-1 Project/Site: PLU 27 Brushy Draw 167

SDG: 03E1558100

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-33067/5-A

Matrix: Solid Analysis Batch: 33694 Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 33067

1

	MB	MB						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		08/26/22 13:58	09/03/22 16:29	1
Toluene	<0.00200	U	0.00200	mg/Kg		08/26/22 13:58	09/03/22 16:29	
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		08/26/22 13:58	09/03/22 16:29	
m-Xylene & p-Xylene	<0.00400	U	0.00400	mg/Kg		08/26/22 13:58	09/03/22 16:29	
o-Xylene	<0.00200	U	0.00200	mg/Kg		08/26/22 13:58	09/03/22 16:29	
Xylenes, Total	<0.00400	U	0.00400	mg/Kg		08/26/22 13:58	09/03/22 16:29	•

MB MB

Surrogate	%Recovery Qualifier	Limits	Pre	pared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	79	70 - 130	08/26/	/22 13:58	09/03/22 16:29	1
1,4-Difluorobenzene (Surr)	116	70 - 130	08/26/	/22 13:58	09/03/22 16:29	1

Lab Sample ID: MB 880-33517/5-A

Matrix: Solid

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

Prep Batch: 33517

Analysis Batch: 33694

	IVID	IVID						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		09/01/22 09:48	09/04/22 04:56	1
Toluene	<0.00200	U	0.00200	mg/Kg		09/01/22 09:48	09/04/22 04:56	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		09/01/22 09:48	09/04/22 04:56	1
m-Xylene & p-Xylene	<0.00400	U	0.00400	mg/Kg		09/01/22 09:48	09/04/22 04:56	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		09/01/22 09:48	09/04/22 04:56	1
Xylenes, Total	< 0.00400	U	0.00400	mg/Kg		09/01/22 09:48	09/04/22 04:56	1

мв мв

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	80		70 - 130	09/01/22 09:48	09/04/22 04:56	1
1,4-Difluorobenzene (Surr)	115		70 - 130	09/01/22 09:48	09/04/22 04:56	1

Lab Sample ID: LCS 880-33517/1-A

Matrix: Solid

Analysis Batch: 33694

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

Prep Batch: 33517

	Spike	LCS	LCS				%Rec	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Benzene	0.100	0.1118		mg/Kg		112	70 - 130	
Toluene	0.100	0.1053		mg/Kg		105	70 - 130	
Ethylbenzene	0.100	0.1006		mg/Kg		101	70 - 130	
m-Xylene & p-Xylene	0.200	0.1826		mg/Kg		91	70 - 130	
o-Xylene	0.100	0.09566		mg/Kg		96	70 - 130	

LCS LCS

Surrogate	%Recovery Qualifier	Limits
4-Bromofluorobenzene (Surr)	89	70 - 130
1.4-Difluorobenzene (Surr)	104	70 - 130

Lab Sample ID: LCSD 880-33517/2-A

Matrix: Solid

Analysis Batch: 33694

Client Sample ID: Lab	Control Sample Dup
	Dron Type, Total/NA

Prep Type: Total/NA

Prep Batch: 33517

	эріке	LCSD LCSD				%Rec		KPD	
Analyte	Added	Result Qualifier	Unit	D	%Rec	Limits	RPD	Limit	
Benzene	0.100	0.1058	mg/Kg		106	70 - 130	6	35	

QC Sample Results

Client: Ensolum Job ID: 890-2800-1 SDG: 03E1558100 Project/Site: PLU 27 Brushy Draw 167

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

Lab Sample ID: LCSD 880-33517/2-A

Matrix: Solid Analysis Batch: 33694 Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA Prep Batch: 33517

	Spike	LCSD	LCSD				%Rec		RPD
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Toluene	0.100	0.1093		mg/Kg		109	70 - 130	4	35
Ethylbenzene	0.100	0.1088		mg/Kg		109	70 - 130	8	35
m-Xylene & p-Xylene	0.200	0.2002		mg/Kg		100	70 - 130	9	35
o-Xylene	0.100	0.1054		mg/Kg		105	70 - 130	10	35

LCSD LCSD

Surrogate	%Recovery	Qualifier	Limits
4-Bromofluorobenzene (Surr)	94		70 - 130
1,4-Difluorobenzene (Surr)	100		70 - 130

Lab Sample ID: 880-18420-A-1-B MS Client Sample ID: Matrix Spike

Matrix: Solid

Analysis Batch: 33694

Prep Type: Total/NA

Prep Batch: 33517

	Sample	Sample	Spike	MS	MS				%Rec	
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Benzene	<0.00199	U	0.0998	0.08123		mg/Kg		81	70 - 130	
Toluene	<0.00199	U F1	0.0998	0.06569	F1	mg/Kg		66	70 - 130	
Ethylbenzene	<0.00199	U F1	0.0998	0.04828	F1	mg/Kg		48	70 - 130	
m-Xylene & p-Xylene	<0.00398	U F1	0.200	0.08446	F1	mg/Kg		42	70 - 130	
o-Xylene	<0.00199	U F1	0.0998	0.04561	F1	mg/Kg		46	70 - 130	

MS MS

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

Lab Sample ID: 880-18420-A-1-C MSD

Matrix: Solid

Analysis Batch: 33694

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 33517

	Sample	Sample	Spike	MSD	MSD				%Rec		RPD
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Benzene	<0.00199	U	0.100	0.07476	-	mg/Kg		74	70 - 130	8	35
Toluene	< 0.00199	U F1	0.100	0.06471	F1	mg/Kg		64	70 - 130	2	35
Ethylbenzene	< 0.00199	U F1	0.100	0.04660	F1	mg/Kg		46	70 - 130	4	35
m-Xylene & p-Xylene	<0.00398	U F1	0.201	0.08240	F1	mg/Kg		41	70 - 130	2	35
o-Xylene	< 0.00199	U F1	0.100	0.04473	F1	mg/Kg		45	70 - 130	2	35

MSD MSD

Surrogate	%Recovery	Quaimer	Limits
4-Bromofluorobenzene (Surr)	99		70 - 130
1,4-Difluorobenzene (Surr)	98		70 - 130

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

Lab Sample ID: MB 880-32866/1-A

Matrix: Solid

Analysis Batch: 32894

Client Sample ID: Method Blank

Prep Type: Total/NA Prep Batch: 32866

мв мв Result Qualifier Unit Prepared <50.0 U 50.0 mg/Kg 08/24/22 16:32 08/25/22 10:52 Gasoline Range Organics

(GRO)-C6-C10

Job ID: 890-2800-1 Client: Ensolum Project/Site: PLU 27 Brushy Draw 167

SDG: 03E1558100

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

Lab Sample ID: MB 880-32866/1-A Client Sample ID: Method Blank **Matrix: Solid** Prep Type: Total/NA Analysis Batch: 32894 Prep Batch: 32866 MB MB

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		08/24/22 16:32	08/25/22 10:52	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		08/24/22 16:32	08/25/22 10:52	1
	МВ	MB						
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	88		70 - 130			08/24/22 16:32	08/25/22 10:52	1
o-Terphenyl	95		70 - 130			08/24/22 16:32	08/25/22 10:52	1

Lab Sample ID: LCS 880-32866/2-A Client Sample ID: Lab Control Sample **Matrix: Solid** Prep Type: Total/NA Prep Batch: 32866 Analysis Batch: 32894 LCS LCS Spike Analyte Added Result Qualifier Unit %Rec Limits Gasoline Range Organics 1000 858.4 86 70 - 130 mg/Kg (GRO)-C6-C10 1000 863.3 Diesel Range Organics (Over mg/Kg 86 70 - 130 C10-C28) LCS LCS Qualifier Limits Surrogate %Recovery 1-Chlorooctane 70 - 130 81 o-Terphenyl 93 70 - 130

Lab Sample ID: LCSD 880-32866/3-A Client Sample ID: Lab Control Sample Dup **Matrix: Solid** Prep Type: Total/NA Analysis Batch: 32894 Prep Batch: 32866 Spike LCSD LCSD %Rec **RPD** Added Result Qualifier %Rec Limits RPD Limit Analyte Unit D

Gasoline Range Organics		1000	926.7	mg/Kg	93	70 - 130	8	20
(GRO)-C6-C10								
Diesel Range Organics (Over		1000	979.5	mg/Kg	98	70 - 130	13	20
C10-C28)								
LCSD	LCSD							
Surrogate %Recovery	Qualifier	Limits						

	1-Chlorooctane	92	70 - 130
	o-Terphenyl	108	70 - 130
Γ	- Lab Sample ID: 890-2799-A-1-	B MS	

Matrix: Solid Prep Type: Total/NA Analysis Batch: 32894 Prep Batch: 32866 MS MS %Rec Sample Sample Spike Result Qualifier Added Result Qualifier %Rec Limits Analyte Unit <49.9 U 999 70 - 130 Gasoline Range Organics 761.1 72 mg/Kg (GRO)-C6-C10 999 717.7 72 Diesel Range Organics (Over <49.9 U mg/Kg 70 - 130 C10-C28)

	MS	MS	
Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane	74		70 _ 130
o-Terphenyl	67	S1-	70 - 130

Eurofins Carlsbad

Project/Site: PLU 27 Brushy Draw 167

Client: Ensolum

o-Terphenyl

Job ID: 890-2800-1

SDG: 03E1558100

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

69 S1-

3570 F1

Lab Sample ID: 890-2799-A-1- Matrix: Solid Analysis Batch: 32894	-C MSD					CI	lient Sa	ample IC		oike Dup Type: To Batch:	tal/NA
	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	998	783.2		mg/Kg		74	70 - 130	3	20
Diesel Range Organics (Over C10-C28)	<49.9	U	998	734.2		mg/Kg		74	70 - 130	2	20
	MSD	MSD									
Surrogate	%Recovery	Qualifier	Limits								
1-Chlorooctane	78		70 - 130								

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: LCSD 880-32909/3-A

	Lab Sample ID: MB 880-32909/1-A Matrix: Solid Analysis Batch: 33251						Client Sa	ample ID: Metho Prep Type:	
		MB	MB						
	Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
	Chloride	<5.00	U	5.00	mg/Kg			08/30/22 15:05	1
ì	_								

70 - 130

Lab Sample ID: LCS 880-32909/2-A			Client Sample ID: Lab Control Sample
Matrix: Solid			Prep Type: Soluble
Analysis Batch: 33251			
	Spike	LCS LCS	%Rec

	Эріке	LUS	LUS				/orec	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Chloride	250	267.6		mg/Kg		107	90 - 110	

Matrix: Solid Analysis Batch: 33251						Prep	Type: So	oluble
	Spike	LCSD LCS	D			%Rec		RPD
Analyte	Added	Result Qua	lifier Unit	D	%Rec	Limits	RPD	Limit

Analyte		Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Chloride		250	256.1		mg/Kg		102	90 - 110	4	20
_										

Lab Sample ID: 880-18461-A-1-E MS	Client Sample ID: Matrix Spike
Matrix: Solid	Prep Type: Soluble
Analysis Batch: 33251	

-	Sample Sam	ple Spike	MS	MS				%Rec
Analyte	Result Qual	ifier Added	Result	Qualifier	Unit	D	%Rec	Limits
Chloride	3570 F1	1250	4951	F1	mg/Kg	_	111	90 - 110

Lab Sample ID: 880-18461-A-1-F MSD Matrix: Solid Analysis Batch: 33251						Client S	ample I	D: Matrix S Prep	pike Dup Type: S	
	Sample	Spike	MSD	MSD				%Rec		RPD
Analyte Posult	Qualifier	habbA	Posult	Qualifier	Unit	n	% Pac	Limite	PPD	Limit

5079 F1

1250

90 - 110

Client Sample ID: Lab Control Sample Dup

Eurofins Carlsbad

Chloride

Client: Ensolum

Job ID: 890-2800-1 Project/Site: PLU 27 Brushy Draw 167 SDG: 03E1558100

GC VOA

Prep Batch: 33067

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 880-33067/5-A	Method Blank	Total/NA	Solid	5035	

Prep Batch: 33517

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2800-1	SS01	Total/NA	Solid	5035	
890-2800-2	SS03	Total/NA	Solid	5035	
890-2800-3	SS04	Total/NA	Solid	5035	
890-2800-4	SS05	Total/NA	Solid	5035	
890-2800-5	SS06	Total/NA	Solid	5035	
890-2800-6	SS07	Total/NA	Solid	5035	
890-2800-7	SS08	Total/NA	Solid	5035	
890-2800-8	SS09	Total/NA	Solid	5035	
MB 880-33517/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-33517/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-33517/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
880-18420-A-1-B MS	Matrix Spike	Total/NA	Solid	5035	
880-18420-A-1-C MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	

Analysis Batch: 33694

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2800-1	SS01	Total/NA	Solid	8021B	33517
890-2800-2	SS03	Total/NA	Solid	8021B	33517
890-2800-3	SS04	Total/NA	Solid	8021B	33517
890-2800-4	SS05	Total/NA	Solid	8021B	33517
890-2800-5	SS06	Total/NA	Solid	8021B	33517
890-2800-6	SS07	Total/NA	Solid	8021B	33517
890-2800-7	SS08	Total/NA	Solid	8021B	33517
890-2800-8	SS09	Total/NA	Solid	8021B	33517
MB 880-33067/5-A	Method Blank	Total/NA	Solid	8021B	33067
MB 880-33517/5-A	Method Blank	Total/NA	Solid	8021B	33517
LCS 880-33517/1-A	Lab Control Sample	Total/NA	Solid	8021B	33517
LCSD 880-33517/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	33517
880-18420-A-1-B MS	Matrix Spike	Total/NA	Solid	8021B	33517
880-18420-A-1-C MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	33517

Analysis Batch: 33706

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2800-1	SS01	Total/NA	Solid	Total BTEX	
890-2800-2	SS03	Total/NA	Solid	Total BTEX	
890-2800-3	SS04	Total/NA	Solid	Total BTEX	
890-2800-4	SS05	Total/NA	Solid	Total BTEX	
890-2800-5	SS06	Total/NA	Solid	Total BTEX	
890-2800-6	SS07	Total/NA	Solid	Total BTEX	
890-2800-7	SS08	Total/NA	Solid	Total BTEX	
890-2800-8	SS09	Total/NA	Solid	Total BTEX	

GC Semi VOA

Prep Batch: 32866

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2800-1	SS01	Total/NA	Solid	8015NM Prep	

Eurofins Carlsbad

Released to Imaging: 4/4/2023 2:55:26 PM

 Client: Ensolum
 Job ID: 890-2800-1

 Project/Site: PLU 27 Brushy Draw 167
 SDG: 03E1558100

GC Semi VOA (Continued)

Prep Batch: 32866 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2800-2	SS03	Total/NA	Solid	8015NM Prep	
890-2800-3	SS04	Total/NA	Solid	8015NM Prep	
890-2800-4	SS05	Total/NA	Solid	8015NM Prep	
890-2800-5	SS06	Total/NA	Solid	8015NM Prep	
890-2800-6	SS07	Total/NA	Solid	8015NM Prep	
890-2800-7	SS08	Total/NA	Solid	8015NM Prep	
890-2800-8	SS09	Total/NA	Solid	8015NM Prep	
MB 880-32866/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-32866/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-32866/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
890-2799-A-1-B MS	Matrix Spike	Total/NA	Solid	8015NM Prep	
890-2799-A-1-C MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	

Analysis Batch: 32894

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2800-1	SS01	Total/NA	Solid	8015B NM	32866
890-2800-2	SS03	Total/NA	Solid	8015B NM	32866
890-2800-3	SS04	Total/NA	Solid	8015B NM	32866
890-2800-4	SS05	Total/NA	Solid	8015B NM	32866
890-2800-5	SS06	Total/NA	Solid	8015B NM	32866
890-2800-6	SS07	Total/NA	Solid	8015B NM	32866
890-2800-7	SS08	Total/NA	Solid	8015B NM	32866
890-2800-8	SS09	Total/NA	Solid	8015B NM	32866
MB 880-32866/1-A	Method Blank	Total/NA	Solid	8015B NM	32866
LCS 880-32866/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	32866
LCSD 880-32866/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	32866
890-2799-A-1-B MS	Matrix Spike	Total/NA	Solid	8015B NM	32866
890-2799-A-1-C MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	32866

Analysis Batch: 33028

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2800-1	SS01	Total/NA	Solid	8015 NM	
890-2800-2	SS03	Total/NA	Solid	8015 NM	
890-2800-3	SS04	Total/NA	Solid	8015 NM	
890-2800-4	SS05	Total/NA	Solid	8015 NM	
890-2800-5	SS06	Total/NA	Solid	8015 NM	
890-2800-6	SS07	Total/NA	Solid	8015 NM	
890-2800-7	SS08	Total/NA	Solid	8015 NM	
890-2800-8	SS09	Total/NA	Solid	8015 NM	

HPLC/IC

Leach Batch: 32909

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2800-1	SS01	Soluble	Solid	DI Leach	
890-2800-2	SS03	Soluble	Solid	DI Leach	
890-2800-3	SS04	Soluble	Solid	DI Leach	
890-2800-4	SS05	Soluble	Solid	DI Leach	
890-2800-5	SS06	Soluble	Solid	DI Leach	
890-2800-6	SS07	Soluble	Solid	DI Leach	
890-2800-7	SS08	Soluble	Solid	DI Leach	

Eurofins Carlsbad

3

6

8

10

12

13

Н

 Client: Ensolum
 Job ID: 890-2800-1

 Project/Site: PLU 27 Brushy Draw 167
 SDG: 03E1558100

HPLC/IC (Continued)

Leach Batch: 32909 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2800-8	SS09	Soluble	Solid	DI Leach	
MB 880-32909/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-32909/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-32909/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
880-18461-A-1-E MS	Matrix Spike	Soluble	Solid	DI Leach	
880-18461-A-1-F MSD	Matrix Spike Duplicate	Soluble	Solid	DI Leach	

Analysis Batch: 33251

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2800-1	SS01	Soluble	Solid	300.0	32909
890-2800-2	SS03	Soluble	Solid	300.0	32909
890-2800-3	SS04	Soluble	Solid	300.0	32909
890-2800-4	SS05	Soluble	Solid	300.0	32909
890-2800-5	SS06	Soluble	Solid	300.0	32909
890-2800-6	SS07	Soluble	Solid	300.0	32909
890-2800-7	SS08	Soluble	Solid	300.0	32909
890-2800-8	SS09	Soluble	Solid	300.0	32909
MB 880-32909/1-A	Method Blank	Soluble	Solid	300.0	32909
LCS 880-32909/2-A	Lab Control Sample	Soluble	Solid	300.0	32909
LCSD 880-32909/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	32909
880-18461-A-1-E MS	Matrix Spike	Soluble	Solid	300.0	32909
880-18461-A-1-F MSD	Matrix Spike Duplicate	Soluble	Solid	300.0	32909

Date Received: 08/23/22 08:18

Client: Ensolum Project/Site: PLU 27 Brushy Draw 167 Job ID: 890-2800-1 SDG: 03E1558100

Client Sample ID: SS01 Lab Sample ID: 890-2800-1 Date Collected: 08/22/22 14:45

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			5.01 g	5 mL	33517	09/01/22 09:48	MR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	33694	09/04/22 06:26	AJ	EET MID
Total/NA	Analysis	Total BTEX		1			33706	09/04/22 10:53	AJ	EET MID
Total/NA	Analysis	8015 NM		1			33028	08/26/22 09:25	SM	EET MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	32866	08/24/22 16:32	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	32894	08/25/22 12:58	SM	EET MID
Soluble	Leach	DI Leach			4.98 g	50 mL	32909	08/25/22 09:40	KS	EET MID
Soluble	Analysis	300.0		5	50 mL	50 mL	33251	08/30/22 16:10	CH	EET MID

Client Sample ID: SS03 Lab Sample ID: 890-2800-2

Date Collected: 08/22/22 14:55 Matrix: Solid

Date Received: 08/23/22 08:18

Dil Initial Final Batch Batch Batch Prepared Prep Type Туре Method Run Factor Amount Amount Number or Analyzed Analyst Lab Prep 5035 Total/NA 5.02 g 5 mL 33517 09/01/22 09:48 MR EET MID Total/NA 8021B 5 mL 33694 09/04/22 06:46 **EET MID** Analysis 1 5 mL AJ Total/NA Total BTEX 33706 09/04/22 10:53 Analysis A.I **EET MID** 1 Total/NA Analysis 8015 NM 33028 08/26/22 09:25 SM **EET MID** Total/NA 32866 Prep 8015NM Prep 10.02 g 10 mL 08/24/22 16:32 DM EET MID Total/NA Analysis 8015B NM 1 uL 1 uL 32894 08/25/22 13:19 SM **EET MID** Soluble Leach DI Leach 5.03 g 50 mL 32909 08/25/22 09:40 KS **EET MID** Soluble Analysis 300.0 50 mL 50 mL 33251 08/30/22 16:19 СН **EET MID**

Lab Sample ID: 890-2800-3 Client Sample ID: SS04 Date Collected: 08/22/22 15:00 Matrix: Solid

Date Received: 08/23/22 08:18

	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	33517	09/01/22 09:48	MR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	33694	09/04/22 07:06	AJ	EET MID
Total/NA	Analysis	Total BTEX		1			33706	09/04/22 10:53	AJ	EET MID
Total/NA	Analysis	8015 NM		1			33028	08/26/22 09:25	SM	EET MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	32866	08/24/22 16:32	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	32894	08/25/22 13:40	SM	EET MID
Soluble	Leach	DI Leach			4.97 g	50 mL	32909	08/25/22 09:40	KS	EET MIC
Soluble	Analysis	300.0		5	50 mL	50 mL	33251	08/30/22 16:28	CH	EET MID

Client Sample ID: SS05 Lab Sample ID: 890-2800-4 Date Collected: 08/22/22 15:05 Matrix: Solid

Date Received: 08/23/22 08:18

Г										
	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.99 g	5 mL	33517	09/01/22 09:48	MR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	33694	09/04/22 07:27	AJ	EET MID
Total/NA	Analysis	Total BTEX		1			33706	09/04/22 10:53	AJ	EET MID

Eurofins Carlsbad

Page 20 of 28

Client: Ensolum

Project/Site: PLU 27 Brushy Draw 167

Job ID: 890-2800-1 SDG: 03E1558100

Lab Sample ID: 890-2800-4

Matrix: Solid

Date Collected: 08/22/22 15:05 Date Received: 08/23/22 08:18

Client Sample ID: SS05

	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			33028	08/26/22 09:25	SM	EET MID
Total/NA	Prep	8015NM Prep			10.03 g	10 mL	32866	08/24/22 16:32	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	32894	08/25/22 14:01	SM	EET MID
Soluble	Leach	DI Leach			4.97 g	50 mL	32909	08/25/22 09:40	KS	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	33251	08/30/22 16:56	CH	EET MID

Client Sample ID: SS06 Lab Sample ID: 890-2800-5

Date Collected: 08/22/22 15:10 **Matrix: Solid**

Date Received: 08/23/22 08:18

	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	33517	09/01/22 09:48	MR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	33694	09/04/22 07:47	AJ	EET MID
Total/NA	Analysis	Total BTEX		1			33706	09/04/22 10:53	AJ	EET MIC
Total/NA	Analysis	8015 NM		1			33028	08/26/22 09:25	SM	EET MIC
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	32866	08/24/22 16:32	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	32894	08/25/22 14:23	SM	EET MID
Soluble	Leach	DI Leach			5.01 g	50 mL	32909	08/25/22 09:40	KS	EET MIC
Soluble	Analysis	300.0		1	50 mL	50 mL	33251	08/31/22 15:50	CH	EET MID

Client Sample ID: SS07 Lab Sample ID: 890-2800-6 **Matrix: Solid**

Date Collected: 08/22/22 15:15 Date Received: 08/23/22 08:18

	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	33517	09/01/22 09:48	MR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	33694	09/04/22 08:08	AJ	EET MID
Total/NA	Analysis	Total BTEX		1			33706	09/04/22 10:53	AJ	EET MID
Total/NA	Analysis	8015 NM		1			33028	08/26/22 09:25	SM	EET MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	32866	08/24/22 16:32	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	32894	08/25/22 14:44	SM	EET MID
Soluble	Leach	DI Leach			5.04 g	50 mL	32909	08/25/22 09:40	KS	EET MID
Soluble	Analysis	300.0		5	50 mL	50 mL	33251	08/30/22 17:14	CH	EET MID

Lab Sample ID: 890-2800-7 **Client Sample ID: SS08**

Date Collected: 08/22/22 15:20 Date Received: 08/23/22 08:18

_	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.01 g	5 mL	33517	09/01/22 09:48	MR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	33694	09/04/22 10:18	AJ	EET MID
Total/NA	Analysis	Total BTEX		1			33706	09/04/22 10:53	AJ	EET MID
Total/NA	Analysis	8015 NM		1			33028	08/26/22 09:25	SM	EET MID
Total/NA Total/NA	Prep Analysis	8015NM Prep 8015B NM		1	10.03 g 1 uL	10 mL 1 uL	32866 32894	08/24/22 16:32 08/25/22 15:06	DM SM	EET MID EET MID

Eurofins Carlsbad

Matrix: Solid

Lab Chronicle

Client: Ensolum Job ID: 890-2800-1 Project/Site: PLU 27 Brushy Draw 167 SDG: 03E1558100

Client Sample ID: SS08 Lab Sample ID: 890-2800-7

Date Collected: 08/22/22 15:20 Matrix: Solid Date Received: 08/23/22 08:18

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			4.98 g	50 mL	32909	08/25/22 09:40	KS	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	33251	08/30/22 17:23	CH	EET MID

Client Sample ID: SS09 Lab Sample ID: 890-2800-8

Date Collected: 08/22/22 15:25 **Matrix: Solid**

Date Received: 08/23/22 08:18

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.99 g	5 mL	33517	09/01/22 09:48	MR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	33694	09/04/22 10:38	AJ	EET MID
Total/NA	Analysis	Total BTEX		1			33706	09/04/22 10:53	AJ	EET MID
Total/NA	Analysis	8015 NM		1			33028	08/26/22 09:25	SM	EET MID
Total/NA	Prep	8015NM Prep			10.00 g	10 mL	32866	08/24/22 16:32	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	32894	08/25/22 15:27	SM	EET MID
Soluble	Leach	DI Leach			5.05 g	50 mL	32909	08/25/22 09:40	KS	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	33251	08/30/22 17:33	CH	EET MID

Laboratory References:

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

Accreditation/Certification Summary

Client: Ensolum Job ID: 890-2800-1 Project/Site: PLU 27 Brushy Draw 167

SDG: 03E1558100

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	T104704400-22-24	06-30-23
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: PLU 27 Brushy Draw 167

Job ID: 890-2800-1

SDG: 03E1558100

col	Laboratory
46	EET MID
SOP	EET MID
46	EET MID
46	EET MID
WW	EET MID
46	EET MID

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

Protocol References:

ASTM = ASTM International

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

TAL SOP = TestAmerica Laboratories, Standard Operating Procedure

Laboratory References:

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

Sample Summary

Client: Ensolum

Project/Site: PLU 27 Brushy Draw 167

Job ID: 890-2800-1

SDG: 03E1558100

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-2800-1	SS01	Solid	08/22/22 14:45	08/23/22 08:18	0.5
890-2800-2	SS03	Solid	08/22/22 14:55	08/23/22 08:18	0.5
890-2800-3	SS04	Solid	08/22/22 15:00	08/23/22 08:18	0.5
890-2800-4	SS05	Solid	08/22/22 15:05	08/23/22 08:18	0.5
890-2800-5	SS06	Solid	08/22/22 15:10	08/23/22 08:18	0.5
890-2800-6	SS07	Solid	08/22/22 15:15	08/23/22 08:18	0.5
890-2800-7	SS08	Solid	08/22/22 15:20	08/23/22 08:18	0.5
890-2800-8	SS09	Solid	08/22/22 15:25	08/23/22 08:18	0.5

eurofins **Environment Testing**

Phone:

303-887-2946 Carlsbad, NM 88220 3122 National Parks Hwy

Email: Garret. Green@ExxonMobil.com

City, State ZIP:

Carlsbad, NM 88220

Company Name: Bill to: (if different)

XTO Energy 3104 E. Green St.

Garrett Green

Address:

PLU 27 Brushy Draw 167

03E1558100

City, State ZIP:

Project Manager:

Kalei Jennings

Company Name: \ddress:

Ensolum

Sampler's Name: Project Location:

Conner Shore

Due Date:

☑ Routine

Rush

Pres. Code

ANALYSIS REQUEST

Preservative Codes

DI Water: H₂O

Turn Around

Project Number: Project Name:

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 Hobbs, NM (575) 392-7550, Carlsbad

io, TX (210) 509-3334	Work Order No:
TX (806) 794-1296	
NM (575) 988-3199	~
	www.xenco.com Page L of L
	Work Order Comments
	Program: UST/PST ☐ PRP☐ Brownfields ☐ RRC ☐ Superfund ☐
	State of Project:
	Reporting: Level II ☐ Level III ☐ PST/UST ☐ TRRP ☐ Level IV☐
	Deliverables: EDD

Revised Date: 08/25/2020 Rev. 2020 2	7	6	6							G.
			8.8382818	.23 B	∞^			In		3 CC
Date/Time	Received by: (Signature)	Relinquished by: (Signature)	Гime	Date/Time		ure)	Received by: (Signature	Receive	ature)	Relinquished by: (Signature
	ractors. It assigns standard terms and conditions losses are due to circumstances beyond the control se terms will be enforced unless previously negotiated.		to Eurofins Xer or expenses in ed to Eurofins X	nt company r any losses ple submitte	from clier sibility fo each sam	urchase order me any respor arge of \$5 for	nstitutes a valid p ind shall not assu h project and a ch	of samples co st of samples a applied to eac	at and relinquishment liable only for the co large 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 subcont 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 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. The
7470 / 7471	_{\g} Ti U Hg: 1631 / 245 1 / 7470 / 747	Cd Cr Co Cu Pb Mn Mo Ni Se Ag Tl U	Ba Be C	A Sb As	8RCR/	CLP / SPLP 6010: 8RCRA	TCLP / SI	zed	al(s) to be analy	Circle Method(s) and Metal(s) to be analyzed
Sn U V Zn	Pb Mg Mn Mo Ni K Se Ag SiO ₂ Na Sr Ti Sn U V Zn	Cd Ca Cr Co Cu Fe Pb Mg Mn	Ba Be B	Sb As	5 11 AI	PM Texas 11	8RCRA 13PPM		200.8 / 6020:	Total 200.7 / 6010
					_		Ì			
			×	×		0.5' G	1525	08.22.22	S	SS09
			×	×	1	0.5' G		08.22.22	S	SS08
			×	×		0.5' G	1515	08.22.22	S	SS07
	AFE:		×	×		0.5' G	1510	08.22.22	S	SS06
			×	×		0.5' G	1505	08.22.22	s	SS05
enter:	Cost Center:		×	×		0.5' G	1500	08.22.22	S	SS04
			×	×		0.5' G	1455	08.22.22	S	SS03
Incident ID: NAPP2222741514	Inciden		×	×		0.5' G	1445	08.22.22	S	SS01
Sample Comments	Sa		TPH (80	을 유 CHLOR	Grab/ # of Comp Cont	Depth Co	Time Sampled	Date Sampled	on Matrix	Sample Identification
NaOH+Ascorbic Acid: SAPC	NaOH+		_	IDE	1	1-10	Corrected Temperature:	Corrected		Total Containers:
Zn Acetate+NaOH: Zn	The state of the s	890-2800 Chain of Custody	•	S (E		000	e Reading:	Temperature Reading:	Yes No TNIA	Sample Custody Seals:
Na ₂ S ₂ O ₃ : NaSO ₃					Pi	-0.	-actor:	Correction Factor	Yes No (N/A	Cooler Custody Seals:
NaHSO ₄ : NABIS	NaHSO				Ĭ	30-MM	er ID:	Thermometer ID:	(Yes) NO	Samples Received Intact:
+ -	H ₃ PO ₄ : HP			_	nete	Yes No	Wet Ice:	Yes No	Temp Blank:	SAMPLE RECEIPT
H ₂ NaOH: Na	H ₂ S0 ₄ : H ₂				_	ived by 4:30	the lab, if received by 4:30pm			PO#:
	I I I HCL: HC		-	_	by	day received	TAT starts the day received by	<u>а</u>	Conner Shore	Sampler's Name:

H₂S0₄: H₂ HCL: HC Cool: Cool None: NO

MeOH: Me HNO₃: HN

Login Sample Receipt Checklist

Client: Ensolum Job Number: 890-2800-1 SDG Number: 03E1558100

Login Number: 2800 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 Nur

Job Number: 890-2800-1 SDG Number: 03E1558100

Login Number: 2800 List Source: Eurofins Midland
List Number: 2 List Creation: 08/24/22 10:58 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	

4

2

3

4

6

8

10

12

13

14

<6mm (1/4").

Environment Testing America

ANALYTICAL REPORT

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

Laboratory Job ID: 890-2799-1

Laboratory Sample Delivery Group: 03E1558100 Client Project/Site: PLU 27 Brushy Draw 167

For:

Ensolum 705 W. Wadley Suite 210 Midland, Texas 79701

Attn: Kalei Jennings

MRAMER

Authorized for release by: 9/5/2022 8:03:06 AM

Jessica Kramer, Project Manager (432)704-5440

Jessica.Kramer@et.eurofinsus.com

Links

Review your project results through

Have a Question?



Visit us at:

www.eurofinsus.com/Env
Released to Imaging: 4/4/2023 2:55:26 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

2

3

6

R

9

11

12

13

Client: Ensolum
Project/Site: PLU 27 Brushy Draw 167
Laboratory Job ID: 890-2799-1
SDG: 03E1558100

Table of Contents

Cover Page	1
Table of Contents	2
Definitions/Glossary	3
Case Narrative	4
Client Sample Results	5
Surrogate Summary	6
QC Sample Results	7
QC Association Summary	11
Lab Chronicle	13
Certification Summary	14
Method Summary	15
Sample Summary	16
Chain of Custody	17
Receint Checklists	18

	٧	

Definitions/Glossary

Job ID: 890-2799-1 Client: Ensolum Project/Site: PLU 27 Brushy Draw 167

SDG: 03E1558100

Qualifiers

GC VOA

Qualifier **Qualifier Description**

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

GC Semi VOA

Qualifier **Qualifier Description**

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

HPLC/IC

Qualifier **Qualifier Description**

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

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)

EPA recommended "Maximum Contaminant Level" MCL 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

Case Narrative

Client: Ensolum

Project/Site: PLU 27 Brushy Draw 167

Job ID: 890-2799-1 SDG: 03E1558100

1558100

Job ID: 890-2799-1

Laboratory: Eurofins Carlsbad

Narrative

Job Narrative 890-2799-1

Receipt

The sample was received on 8/23/2022 8:18 AM. Unless otherwise noted below, the sample arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 1.6°C

GC VOA

Method 8021B: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 880-33517 and analytical batch 880-33694 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 was outside acceptance limits for the following matrix spike/matrix spike duplicate (MS/MSD) samples: (890-2799-A-1-B MS) and (890-2799-A-1-C MSD). The parent sample's surrogate recovery was within limits. The MS/MSD sample has been qualified and reported.

Method 8015MOD_NM: The method blank for preparation batch 880-32866 and analytical batch 880-32894 contained Gasoline Range Organics (GRO)-C6-C10 above the method detection limit. This target analyte concentration was less than the reporting limit (RL); therefore, re-extraction and/or re-analysis of samples was not performed.

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 880-32909 and analytical batch 880-33251 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.

5

6

3

<u>11</u>

13

114

Sample Depth: 0.5

Client Sample Results

Client: Ensolum Job ID: 890-2799-1

Project/Site: PLU 27 Brushy Draw 167 SDG: 03E1558100

Client Sample ID: SS02 Date Collected: 08/22/22 14:50 Date Received: 08/23/22 08:18

Lab Sample ID: 890-2799-1

Matrix: Solid

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00201	U	0.00201	mg/Kg		09/01/22 09:48	09/04/22 06:05	1
Toluene	<0.00201	U	0.00201	mg/Kg		09/01/22 09:48	09/04/22 06:05	1
Ethylbenzene	<0.00201	U	0.00201	mg/Kg		09/01/22 09:48	09/04/22 06:05	1
m-Xylene & p-Xylene	<0.00402	U	0.00402	mg/Kg		09/01/22 09:48	09/04/22 06:05	1
o-Xylene	<0.00201	U	0.00201	mg/Kg		09/01/22 09:48	09/04/22 06:05	1
Xylenes, Total	<0.00402	U	0.00402	mg/Kg		09/01/22 09:48	09/04/22 06:05	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	90	-	70 - 130			09/01/22 09:48	09/04/22 06:05	1

1,4-Difluorobenzene (Surr) 101 70 - 130 09/01/22 09:48 09/04/22 06:05 **Method: Total BTEX - Total BTEX Calculation** Analyte Result Qualifier RL Unit Prepared Analyzed Total BTEX <0.00402 U 0.00402 mg/Kg 09/04/22 10:53

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			08/26/22 09:25	1

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics	<49.9	U	49.9	mg/Kg		08/24/22 16:32	08/25/22 11:55	1
(GRO)-C6-C10								
Diesel Range Organics (Over	<49.9	U	49.9	mg/Kg		08/24/22 16:32	08/25/22 11:55	1
C10-C28)								
Oll Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg		08/24/22 16:32	08/25/22 11:55	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	83		70 - 130			08/24/22 16:32	08/25/22 11:55	1
o-Terphenyl	87		70 - 130			08/24/22 16:32	08/25/22 11:55	1

Method: 300.0 - Anions, Ion Chromatography - Soluble								
	Analyte	Result Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
	Chloride	590	25.3	mg/Kg			08/30/22 16:00	5

Surrogate Summary

 Client: Ensolum
 Job ID: 890-2799-1

 Project/Site: PLU 27 Brushy Draw 167
 SDG: 03E1558100

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)	
880-18420-A-1-B MS	Matrix Spike	92	102	
880-18420-A-1-C MSD	Matrix Spike Duplicate	99	98	
890-2799-1	SS02	90	101	
LCS 880-33517/1-A	Lab Control Sample	89	104	
LCSD 880-33517/2-A	Lab Control Sample Dup	94	100	
MB 880-33067/5-A	Method Blank	79	116	
MB 880-33517/5-A	Method Blank	80	115	

BFB = 4-Bromofluorobenzene (Surr)

DFBZ = 1,4-Difluorobenzene (Surr)

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

Matrix: Solid Prep Type: Total/NA

				Percent Surrogate Recovery (Acceptance Limits)
		1CO1	OTPH1	
Lab Sample ID	Client Sample ID	(70-130)	(70-130)	
890-2799-1	SS02	83	87	
890-2799-1 MS	SS02	74	67 S1-	
890-2799-1 MSD	SS02	78	69 S1-	
LCS 880-32866/2-A	Lab Control Sample	81	93	
LCSD 880-32866/3-A	Lab Control Sample Dup	92	108	
MB 880-32866/1-A	Method Blank	88	95	

1CO = 1-Chlorooctane

OTPH = o-Terphenyl

3

5

0

13

14

Client: Ensolum Job ID: 890-2799-1 SDG: 03E1558100 Project/Site: PLU 27 Brushy Draw 167

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-33067/5-A

Analysis Batch: 33694

Matrix: Solid

мв мв

Client	Sample	ID:	Method	Blan	k

Prep Type: Total/NA

Prep Batch: 33067

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		08/26/22 13:58	09/03/22 16:29	1
Toluene	<0.00200	U	0.00200	mg/Kg		08/26/22 13:58	09/03/22 16:29	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		08/26/22 13:58	09/03/22 16:29	1
m-Xylene & p-Xylene	<0.00400	U	0.00400	mg/Kg		08/26/22 13:58	09/03/22 16:29	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		08/26/22 13:58	09/03/22 16:29	1
Xylenes, Total	<0.00400	U	0.00400	mg/Kg		08/26/22 13:58	09/03/22 16:29	1

MB MB

Surrogate	%Recovery Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	79	70 - 130	08/26/22 13:58	09/03/22 16:29	1
1,4-Difluorobenzene (Surr)	116	70 - 130	08/26/22 13:58	09/03/22 16:29	1

Lab Sample ID: MB 880-33517/5-A

Matrix: Solid

Analysis Batch: 33694

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 33517

мв мв

Analyte	Result Qua	alifier RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200 U	0.00200	mg/Kg		09/01/22 09:48	09/04/22 04:56	1
Toluene	<0.00200 U	0.00200	mg/Kg		09/01/22 09:48	09/04/22 04:56	1
Ethylbenzene	<0.00200 U	0.00200	mg/Kg		09/01/22 09:48	09/04/22 04:56	1
m-Xylene & p-Xylene	<0.00400 U	0.00400	mg/Kg		09/01/22 09:48	09/04/22 04:56	1
o-Xylene	<0.00200 U	0.00200	mg/Kg		09/01/22 09:48	09/04/22 04:56	1
Xylenes, Total	<0.00400 U	0.00400	mg/Kg		09/01/22 09:48	09/04/22 04:56	1

MB MB

Surrogate	%Recovery	Qualifier	Limits		Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	80		70 - 130	09	9/01/22 09:48	09/04/22 04:56	1
1,4-Difluorobenzene (Surr)	115		70 - 130	09	9/01/22 09:48	09/04/22 04:56	1

Lab Sample ID: LCS 880-33517/1-A

Matrix: Solid

Analysis Batch: 33694

Client Sample ID: Lab Control Sample

Prep Type: Total/NA Prep Batch: 33517

Spike LCS LCS Analyte Added Result Qualifier Unit %Rec Limits Benzene 0.100 0.1118 mg/Kg 112 70 - 130 Toluene 0.100 0.1053 mg/Kg 105 70 - 130 0.100 101 Ethylbenzene 0.1006 mg/Kg 70 - 130 0.200 70 - 130 m-Xylene & p-Xylene 0.1826 mg/Kg 91 0.100 0.09566 70 - 130 o-Xylene mg/Kg

LCS LCS

Surrogate	%Recovery Qualifier	Limits
4-Bromofluorobenzene (Surr)	89	70 - 130
1.4-Difluorobenzene (Surr)	104	70 - 130

Lab Sample ID: LCSD 880-33517/2-A

Matrix: Solid

Analysis Batch: 33694

Client Sample ID:	Lab Control Sample Dup
	Dren Times Tetal/NA

Prep Type: Total/NA

Prep Batch: 33517

	Spike	LCSD LCSD				%Rec		RPD	
Analyte	Added	Result Qualifier	Unit	D	%Rec	Limits	RPD	Limit	
Benzene	0.100	0.1058	mg/Kg		106	70 - 130	6	35	

QC Sample Results

 Client: Ensolum
 Job ID: 890-2799-1

 Project/Site: PLU 27 Brushy Draw 167
 SDG: 03E1558100

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

Lab Sample ID: LCSD 880-33517/2-A

Client Sample ID: Lab Control Sample Dup

Matrix: Solid

Prep Type: Total/NA

Analysis Batch: 33694 Prep Batch: 33517 Spike LCSD LCSD %Rec **RPD** Analyte Added Result Qualifier Unit %Rec Limits **RPD** Limit D Toluene 0.100 0.1093 35 mg/Kg 109 70 - 1304

Ethylbenzene 0.100 0.1088 mg/Kg 109 70 - 130 8 35 0.200 0.2002 70 - 130 35 m-Xylene & p-Xylene mg/Kg 100 g o-Xylene 0.100 0.1054 mg/Kg 105 70 - 130 10 35 LCSD LCSD

 Surrogate
 %Recovery
 Qualifier
 Limits

 4-Bromofluorobenzene (Surr)
 94
 70 - 130

 1,4-Difluorobenzene (Surr)
 100
 70 - 130

Lab Sample ID: 880-18420-A-1-B MS Client Sample ID: Matrix Spike

Matrix: Solid Prep Type: Total/NA
Analysis Batch: 33694 Prep Batch: 33517

MS MS %Rec Sample Sample Spike Analyte Result Qualifier Added Result Qualifier Unit %Rec Limits U 0.0998 0.08123 Benzene <0.00199 mg/Kg 81 70 - 130 Toluene <0.00199 0.0998 0.06569 F1 66 70 - 130 U F1 mg/Kg 0.0998 Ethylbenzene < 0.00199 UF1 0.04828 mg/Kg 48 70 - 130 0.200 42 70 - 130 m-Xylene & p-Xylene <0.00398 UF1 0.08446 F1 mg/Kg o-Xylene <0.00199 UF1 0.0998 0.04561 F1 mg/Kg 46 70 - 130

 Surrogate
 %Recovery
 Qualifier
 Limits

 4-Bromofluorobenzene (Surr)
 92
 70 - 130

 1,4-Difluorobenzene (Surr)
 102
 70 - 130

Lab Sample ID: 880-18420-A-1-C MSD

Client Sample ID: Matrix Spike Duplicate

Matrix: Solid Prep Type: Total/NA
Analysis Batch: 33694 Prep Batch: 33517

	Sample	Sample	Spike	MSD	MSD				%Rec		RPD
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Benzene	<0.00199	U	0.100	0.07476		mg/Kg		74	70 - 130	8	35
Toluene	<0.00199	U F1	0.100	0.06471	F1	mg/Kg		64	70 - 130	2	35
Ethylbenzene	<0.00199	U F1	0.100	0.04660	F1	mg/Kg		46	70 - 130	4	35
m-Xylene & p-Xylene	<0.00398	U F1	0.201	0.08240	F1	mg/Kg		41	70 - 130	2	35
o-Xylene	<0.00199	U F1	0.100	0.04473	F1	mg/Kg		45	70 - 130	2	35

 Surrogate
 %Recovery
 Qualifier
 Limits

 4-Bromofluorobenzene (Surr)
 99
 70 - 130

 1,4-Difluorobenzene (Surr)
 98
 70 - 130

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

Lab Sample ID: MB 880-32866/1-A

Matrix: Solid

Client Sample ID: Method Blank

Prep Type: Total/NA

Analysis Batch: 32894 Prep Batch: 32866

Analyte Result Qualifier RL Unit Prepared Analyzed Dil Fac <50.0 Ū 50.0 08/24/22 16:32 08/25/22 10:52 Gasoline Range Organics mg/Kg (GRO)-C6-C10

Eurofins Carlsbad

2

3

5

7

9

11

13

H

Project/Site: PLU 27 Brushy Draw 167

Client: Ensolum

Job ID: 890-2799-1

SDG: 03E1558100

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

Lab Sample ID: MB 880-32866/1-A Client Sample ID: Method Blank **Matrix: Solid**

Prep Type: Total/NA Prep Batch: 32866

MR MR

	IVID	MID						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics (Over	<50.0	U	50.0	mg/Kg		08/24/22 16:32	08/25/22 10:52	1
C10-C28)								
Oll Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		08/24/22 16:32	08/25/22 10:52	1

	IVIB	IVIB					
Surrogate	%Recovery	Qualifier	Limits		Prepared	Analyzed	Dil Fac
1-Chlorooctane	88		70 - 130	0	8/24/22 16:32	08/25/22 10:52	1
o-Terphenyl	95		70 - 130	0	8/24/22 16:32	08/25/22 10:52	1

Client Sample ID: Lab Control Sample

Lab Sample ID: LCS 880-32866/2-A **Matrix: Solid**

Analysis Batch: 32894

Analysis Batch: 32894

Prep Type: Total/NA Prep Batch: 32866

LCS LCS Spike Analyte Added Result Qualifier Unit D %Rec Limits Gasoline Range Organics 1000 858.4 86 70 - 130 mg/Kg (GRO)-C6-C10 1000 863.3 Diesel Range Organics (Over 86 70 - 130mg/Kg C10-C28)

LCS LCS

Qualifier Limits Surrogate %Recovery 1-Chlorooctane 70 - 130 81 o-Terphenyl 93 70 - 130

Lab Sample ID: LCSD 880-32866/3-A Client Sample ID: Lab Control Sample Dup **Matrix: Solid** Prep Type: Total/NA

Analysis Batch: 32894

Analysis Batch: 32894

Prep Batch: 32866

Spike LCSD LCSD %Rec **RPD** Added Result Qualifier %Rec Limits RPD Limit Analyte Unit D Gasoline Range Organics 1000 926.7 93 70 - 130 8 20 mg/Kg (GRO)-C6-C10 Diesel Range Organics (Over 1000 979.5 mg/Kg 98 70 - 130 13 20

C10-C28)

LCSD LCSD Surrogate %Recovery Qualifier Limits 1-Chlorooctane 92 70 - 130 o-Terphenyl 108 70 - 130

Lab Sample ID: 890-2799-1 MS **Client Sample ID: SS02 Matrix: Solid** Prep Type: Total/NA

Prep Batch: 32866

MS MS %Rec Sample Sample Spike Result Qualifier Added Result Qualifier %Rec Analyte Unit Limits <49.9 U 999 Gasoline Range Organics 761.1 72 70 - 130mg/Kg (GRO)-C6-C10 999 Diesel Range Organics (Over <49.9 U 717.7 mg/Kg 72 70 - 130 C10-C28)

MS MS %Recovery Surrogate Qualifier Limits 1-Chlorooctane 74 70 - 130 70 - 130 67 S1o-Terphenyl

QC Sample Results

Client: Ensolum Job ID: 890-2799-1 Project/Site: PLU 27 Brushy Draw 167

SDG: 03E1558100

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

Lab Sample ID: 890-2799-1 MSD **Client Sample ID: SS02 Matrix: Solid** Prep Type: Total/NA Analysis Batch: 32894 Prep Batch: 32866

	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	783.2		mg/Kg		74	70 - 130	3	20
(GRO)-C6-C10											
Diesel Range Organics (Over	<49.9	U	998	734.2		mg/Kg		74	70 - 130	2	20
C10-C28)											

MSD MSD %Recovery Qualifier Limits Surrogate 1-Chlorooctane 70 - 130 78 o-Terphenyl 69 S1-70 - 130

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-32909/1-A Client Sample ID: Method Blank **Prep Type: Soluble**

Matrix: Solid

Analysis Batch: 33251

мв мв

Analyte Result Qualifier RL Unit Prepared Analyzed Dil Fac Chloride <5.00 U 5.00 mg/Kg 08/30/22 15:05

Lab Sample ID: LCS 880-32909/2-A **Client Sample ID: Lab Control Sample Prep Type: Soluble**

Matrix: Solid

Analysis Batch: 33251

	Spike	LCS	LCS				%Rec	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Chloride	250	267.6		mg/Kg		107	90 - 110	

Lab Sample ID: LCSD 880-32909/3-A Client Sample ID: Lab Control Sample Dup **Prep Type: Soluble**

Matrix: Solid

Analysis Batch: 33251

	Spike	LCSD	LCSD				%Rec		RPD	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit	
Chloride	250	256 1		ma/Ka		102	90 - 110	4	20	

Lab Sample ID: 880-18461-A-1-E MS Client Sample ID: Matrix Spike **Prep Type: Soluble**

Matrix: Solid

Analysis Batch: 33251

	Sample	Sample	Spike	MS	MS				%Rec	
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Chloride	3570	F1	1250	4951	F1	ma/Ka		111	90 _ 110	

Lab Sample ID: 880-18461-A-1-F MSD

Client Sample ID: Matrix Spike Duplicate **Matrix: Solid Prep Type: Soluble**

Analysis Batch: 33251

	Sample	Sample	Spike	MSD	MSD				%Rec		RPD
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Chloride	3570	F1	1250	5079	F1	mg/Kg		121	90 - 110	3	20

Client: Ensolum

Job ID: 890-2799-1 Project/Site: PLU 27 Brushy Draw 167 SDG: 03E1558100

GC VOA

Prep Batch: 33067

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 880-33067/5-A	Method Blank	Total/NA	Solid	5035	

Prep Batch: 33517

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2799-1	SS02	Total/NA	Solid	5035	
MB 880-33517/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-33517/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-33517/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
880-18420-A-1-B MS	Matrix Spike	Total/NA	Solid	5035	
880-18420-A-1-C MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	

Analysis Batch: 33694

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2799-1	SS02	Total/NA	Solid	8021B	33517
MB 880-33067/5-A	Method Blank	Total/NA	Solid	8021B	33067
MB 880-33517/5-A	Method Blank	Total/NA	Solid	8021B	33517
LCS 880-33517/1-A	Lab Control Sample	Total/NA	Solid	8021B	33517
LCSD 880-33517/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	33517
880-18420-A-1-B MS	Matrix Spike	Total/NA	Solid	8021B	33517
880-18420-A-1-C MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	33517

Analysis Batch: 33705

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2799-1	SS02	Total/NA	Solid	Total BTEX	

GC Semi VOA

Prep Batch: 32866

Lab Sample ID 890-2799-1	Client Sample ID SS02	Prep Type Total/NA	Matrix Solid	Method 8015NM Prep	Prep Batch
MB 880-32866/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-32866/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-32866/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
890-2799-1 MS	SS02	Total/NA	Solid	8015NM Prep	
890-2799-1 MSD	SS02	Total/NA	Solid	8015NM Prep	

Analysis Batch: 32894

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2799-1	SS02	Total/NA	Solid	8015B NM	32866
MB 880-32866/1-A	Method Blank	Total/NA	Solid	8015B NM	32866
LCS 880-32866/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	32866
LCSD 880-32866/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	32866
890-2799-1 MS	SS02	Total/NA	Solid	8015B NM	32866
890-2799-1 MSD	SS02	Total/NA	Solid	8015B NM	32866

Analysis Batch: 33027

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2799-1	SS02	Total/NA	Solid	8015 NM	

Client: Ensolum Job ID: 890-2799-1 Project/Site: PLU 27 Brushy Draw 167 SDG: 03E1558100

HPLC/IC

Leach Batch: 32909

Lab Sample ID 890-2799-1	Client Sample ID SS02	Prep Type Soluble	Matrix Solid	Method DI Leach	Prep Batch
MB 880-32909/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-32909/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-32909/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
880-18461-A-1-E MS	Matrix Spike	Soluble	Solid	DI Leach	
880-18461-A-1-F MSD	Matrix Spike Duplicate	Soluble	Solid	DI Leach	

Analysis Batch: 33251

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2799-1	SS02	Soluble	Solid	300.0	32909
MB 880-32909/1-A	Method Blank	Soluble	Solid	300.0	32909
LCS 880-32909/2-A	Lab Control Sample	Soluble	Solid	300.0	32909
LCSD 880-32909/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	32909
880-18461-A-1-E MS	Matrix Spike	Soluble	Solid	300.0	32909
880-18461-A-1-F MSD	Matrix Spike Duplicate	Soluble	Solid	300.0	32909

Lab Chronicle

Client: Ensolum Job ID: 890-2799-1 Project/Site: PLU 27 Brushy Draw 167 SDG: 03E1558100

Client Sample ID: SS02 Lab Sample ID: 890-2799-1 Date Collected: 08/22/22 14:50

Matrix: Solid

Date Received: 08/23/22 08:18					
Batch	Bato				

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.98 g	5 mL	33517	09/01/22 09:48	MR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	33694	09/04/22 06:05	AJ	EET MID
Total/NA	Analysis	Total BTEX		1			33705	09/04/22 10:53	AJ	EET MID
Total/NA	Analysis	8015 NM		1			33027	08/26/22 09:25	SM	EET MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	32866	08/24/22 16:32	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	32894	08/25/22 11:55	SM	EET MID
Soluble	Leach	DI Leach			4.95 g	50 mL	32909	08/25/22 09:40	KS	EET MID
Soluble	Analysis	300.0		5	50 mL	50 mL	33251	08/30/22 16:00	CH	EET MID

Laboratory References:

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

Accreditation/Certification Summary

Client: Ensolum Job ID: 890-2799-1 Project/Site: PLU 27 Brushy Draw 167

SDG: 03E1558100

Laboratory: Eurofins Midland

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

		rogram	Identification Number	Expiration Date
		ELAP	T104704400-22-24	06-30-23
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: PLU 27 Brushy Draw 167

Job ID: 890-2799-1

SDG: 03E1558100

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

7

Protocol References:

ASTM = ASTM International

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

TAL SOP = TestAmerica Laboratories, Standard Operating Procedure

Laboratory References:

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

9

4.0

11

46

12

Sample Summary

Client: Ensolum

Project/Site: PLU 27 Brushy Draw 167

Job ID: 890-2799-1

SDG: 03E1558100

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-2799-1	SS02	Solid	08/22/22 14:50	08/23/22 08:18	0.5

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

Project Manager:

Kalei Jennings Ensolum

Company Name: Address:

City, State ZIP:

Carlsbad, NM 88220 3122 National Parks Hwy

City, State ZIP: Address: Company Name: Bill to: (if different)

Carlsbad, NM 88220 3104 E. Green St. XTO Energy Garrett Green

Reporting: Level II 🗌 Level III 🗎 PST/UST 📗 TRRP 📗

Level IV

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

Work Order Comments

www.xenco.com

으

State of Project:

EL Paso, TX (915) 585-3443, Lubbock, TX (806) 794-1296 Houston, TX (281) 240-4200, Dallas, TX (214) 902-0300 fildland, TX (432) 704-5440, San Antonio, TX (210) 509-3334 Chain of Custody

Work Order No:

Phone: 303	303-887-2946	Е	Email: Garret.Green@ExxonMobil.com	<u>)@Еххс</u>	nMobi	il.com			Deliverables: EDD	ADaPT Other:	
Project Name:	PLU 27 Brushy Draw 167		Turn Around					ANALYSIS REQUEST	JEST	Preservat	Preservative Codes
Project Number:	03E1558100	☑ Routine	ine 🗌 Rush	Pres. Code						None: NO	DI Water: H ₂ O
Project Location:		Due Date:	ate:							Cool: Cool	MeOH: Me
Sampler's Name:	Conner Shore	TAT sta	TAT starts the day received by	<u> </u>					-	HCL: HC	HNO3: HN
PO#:		the lab	the lab, if received by 4:30pm	-						H ₂ S0 ₄ : H ₂	NaOH: Na
SAMPLE RECEIPT	Temp Blank:	Yes No Wet Ice:	ce: Yes No	nete	.0)					H₃PO₄: HP	
Samples Received Intact:	(Yes) No	Thermometer ID:	3. W. 41	ran	300.					NaHSO₄: NABIS	on .
Cooler Custody Seals:	Yes No	Correction Factor:	- O - O	Pā	PA:					Na ₂ S ₂ O ₃ : NaSO ₃	3
Sample Custody Seals:	Yes No N/A T	N/A Temperature Reading:	1 - S		6 (E			890-2799 Chain of Custody	stody	Zn Acetate+NaOH: Zn	OH: Zn
Total Containers:		Corrected Temperature:	e:	1	IDES	15)	3021		_	NaOH+Ascorbic Acid: SAPC	c Acid: SAPC
Sample Identification	Matrix	Date Time Sampled Sampled	e Depth Grab/	# of Cont	CHLOR	TPH (80	BTEX (Sample C	Sample Comments
SS02	S	08.22.22 1450	0.5' G	_		×	×			Incident ID: N/	Incident ID: NAPP2222741514
							_			Cost Center:	
										AFE:	
	1	\									
\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \											
							_				
\											
Total 200.7 / 6010	200.8 / 6020:	8RCRA	13PPM Texas 11	≥	Sb As	Ва Ве	e B Cd	Ca Cr Co Cu Fe	Pb Mg Mn Mo Ni K Se	Ag SiO ₂ Na Sr Ti Sn U V Zn	V Zn
Circle Method(s) and Metal(s) to be analyzed	/letal(s) to be analyze		TCLP / SPLP 6010: 8RCRA		Sb As Ba Be	s Ba	Be Co	Cd Cr Co Cu Pb Mn Mo Ni	o Ni Se Ag TI U	Hg: 1631 / 245.1 / 7470 / 7471	7471
otice: Signature of this docun f service. Eurofins Xenco will f Eurofins Xenco. A minimum	ment and relinquishment of a Il be liable only for the cost o n charge of \$85.00 will be api	amples constitutes a f samples and shall no biled to each project a	valid purchase order from the state of the second of the s	om client o bility for a ch sample	ompany ny losses submitte	to Eurof s or expe	ins Xeno	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.	assigns standard terms and due to circumstances beyon ill be enforced unless previo	d conditions Id the control usly negotiated.	
Relinquished by: (Signature)	ignature)	Received by: (S	(Signature)		Date/Time	Time		Relinquished by: (Signature)	e) Received	ıre)	Date/Time
H		the cat	0	ZĮ	Š	22	818				
ى (1					4				
5							6			Revised Dat	Revised Date 08/25/2020 Rev 2020 2

Login Sample Receipt Checklist

Client: Ensolum Job Number: 890-2799-1 SDG Number: 03E1558100

Login Number: 2799 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: 890-2799-1

 SDG Number: 03E1558100

List Source: Eurofins Midland List Creation: 08/24/22 10:58 AM

List Number: 2 Creator: Rodriguez, Leticia

Login Number: 2799

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	

N/A

/ **J**

2

3

4

6

8

10

12

13

14

<6mm (1/4").

Containers requiring zero headspace have no headspace or bubble is



Environment Testing America

ANALYTICAL REPORT

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

Laboratory Job ID: 890-3026-1

Laboratory Sample Delivery Group: 03E1558100 Client Project/Site: PLU 27 BRUSHY DRAW 167

For:

Ensolum 705 W. Wadley Suite 210 Midland, Texas 79701

Attn: Kalei Jennings

MRAMER

Authorized for release by 10/4/2022 10:33:34 AM

Jessica Kramer, Project Manager (432)704-5440

Jessica.Kramer@et.eurofinsus.com

Authorized for release by:

Ask—The Expert

EOL

Have a Question?

····· Links ······

Review your project results through

Visit us at:

www.eurofinsus.com/Env
Released to Imaging: 4/4/2023 2:55:26 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

_

3

5

7

8

1 N

13

Н

Client: Ensolum
Project/Site: PLU 27 BRUSHY DRAW 167

Laboratory

Laboratory Job ID: 890-3026-1 SDG: 03E1558100

Table of Contents

1
2
3
4
5
9
10
14
16
18
19
20
21
22

__

5

6

8

11

13

14

Definitions/Glossary

Job ID: 890-3026-1 Client: Ensolum Project/Site: PLU 27 BRUSHY DRAW 167

SDG: 03E1558100

Qualifiers

GC VOA

Qualifier **Qualifier Description**

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

DER Duplicate Error Ratio (normalized absolute difference)

Dil Fac **Dilution Factor**

Detection Limit (DoD/DOE) DL

DL, RA, RE, IN Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample

DLC Decision Level Concentration (Radiochemistry)

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

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

MDL Method Detection Limit ML Minimum Level (Dioxin) Most Probable Number MPN Method Quantitation Limit MQL

NC Not Calculated

ND Not Detected at the reporting limit (or MDL or EDL if shown)

NFG 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)

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

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

TNTC Too Numerous To Count

Case Narrative

Client: Ensolum

Project/Site: PLU 27 BRUSHY DRAW 167

Job ID: 890-3026-1

SDG: 03E1558100

Job ID: 890-3026-1

Laboratory: Eurofins Carlsbad

Narrative

Job Narrative 890-3026-1

Receipt

The samples were received on 9/21/2022 1:16 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 4.0°C

GC VOA

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

GC Semi VOA

Method 8015MOD NM: The surrogate recovery for the blank associated with preparation batch 880-35172 and analytical batch 880-35220 was outside the upper control limits.

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

HPLC/IC

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

Matrix: Solid

Lab Sample ID: 890-3026-1

Client Sample Results

Client: Ensolum Job ID: 890-3026-1 Project/Site: PLU 27 BRUSHY DRAW 167 SDG: 03E1558100

Client Sample ID: PH01

Date Collected: 09/21/22 09:15 Date Received: 09/21/22 13:16

Sample Depth: 1

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00201	U	0.00201	mg/Kg		10/03/22 13:34	10/03/22 22:21	1
Toluene	<0.00201	U	0.00201	mg/Kg		10/03/22 13:34	10/03/22 22:21	1
Ethylbenzene	<0.00201	U	0.00201	mg/Kg		10/03/22 13:34	10/03/22 22:21	1
m-Xylene & p-Xylene	<0.00402	U	0.00402	mg/Kg		10/03/22 13:34	10/03/22 22:21	1
o-Xylene	<0.00201	U	0.00201	mg/Kg		10/03/22 13:34	10/03/22 22:21	1
Xylenes, Total	<0.00402	U	0.00402	mg/Kg		10/03/22 13:34	10/03/22 22:21	
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fa
4-Bromofluorobenzene (Surr)	118		70 - 130			10/03/22 13:34	10/03/22 22:21	
1,4-Difluorobenzene (Surr)	95		70 - 130			10/03/22 13:34	10/03/22 22:21	1
Method: Total BTEX - Total BTEX	X Calculation							
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fa
Total BTEX	<0.00402	U	0.00402	mg/Kg			10/04/22 08:33	
Method: 8015 NM - Diesel Range								
Method: 8015 NM - Diesel Range Analyte		O) (GC) Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
		Qualifier		Unit mg/Kg	<u>D</u>	Prepared	Analyzed 09/26/22 13:20	
Analyte Total TPH	Result <50.0	Qualifier U			<u>D</u>	Prepared		
Analyte	Result <50.0	Qualifier U			<u>D</u>	Prepared Prepared		
Analyte Total TPH Method: 8015B NM - Diesel Ran	Result <50.0	Qualifier U RO) (GC) Qualifier	50.0	mg/Kg			09/26/22 13:20	Dil Fac
Analyte Total TPH Method: 8015B NM - Diesel Rang Analyte Gasoline Range Organics (GRO)-C6-C10	Result <50.0 Ge Organics (Dige Result	Qualifier U RO) (GC) Qualifier	50.0	mg/Kg		Prepared	09/26/22 13:20 Analyzed	Dil Fac
Analyte Total TPH Method: 8015B NM - Diesel Rang Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over	Result <50.0 Ge Organics (Dige Result	Qualifier U RO) (GC) Qualifier U	50.0	mg/Kg		Prepared	09/26/22 13:20 Analyzed	Dil Fac
Analyte Total TPH Method: 8015B NM - Diesel Rang Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28)	Result <50.0	Qualifier U RO) (GC) Qualifier U	50.0 RL 50.0 50.0	mg/Kg Unit mg/Kg		Prepared 09/22/22 11:27	09/26/22 13:20 Analyzed 09/24/22 01:38 09/24/22 01:38	Dil Fac
Analyte Total TPH Method: 8015B NM - Diesel Rang Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over	Result <50.0 ge Organics (Dige Result <50.0)	Qualifier U RO) (GC) Qualifier U	50.0 RL 50.0	mg/Kg Unit mg/Kg		Prepared 09/22/22 11:27	09/26/22 13:20 Analyzed 09/24/22 01:38	Dil Fac
Analyte Total TPH Method: 8015B NM - Diesel Rang Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28)	Result <50.0	Qualifier U RO) (GC) Qualifier U U	50.0 RL 50.0 50.0	mg/Kg Unit mg/Kg		Prepared 09/22/22 11:27	09/26/22 13:20 Analyzed 09/24/22 01:38 09/24/22 01:38	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 <50.0	Qualifier U RO) (GC) Qualifier U U	50.0 RL 50.0 50.0 50.0	mg/Kg Unit mg/Kg		Prepared 09/22/22 11:27 09/22/22 11:27	09/26/22 13:20 Analyzed 09/24/22 01:38 09/24/22 01:38	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) Surrogate	Result	Qualifier U RO) (GC) Qualifier U U	50.0 RL 50.0 50.0 50.0 Limits	mg/Kg Unit mg/Kg		Prepared 09/22/22 11:27 09/22/22 11:27 09/22/22 11:27 Prepared	Analyzed 09/24/22 01:38 09/24/22 01:38 09/24/22 01:38 Analyzed	Dil Fac
Analyte Total TPH 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	Result <50.0	Qualifier U RO) (GC) Qualifier U U Qualifier	50.0 RL 50.0 50.0 50.0 Limits 70 - 130	mg/Kg Unit mg/Kg		Prepared 09/22/22 11:27 09/22/22 11:27 09/22/22 11:27 Prepared 09/22/22 11:27	09/26/22 13:20 Analyzed 09/24/22 01:38 09/24/22 01:38 Analyzed 09/24/22 01:38	Dil Fac
Analyte Total TPH 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	Result	Qualifier U RO) (GC) Qualifier U U Qualifier	50.0 RL 50.0 50.0 50.0 Limits 70 - 130	mg/Kg Unit mg/Kg		Prepared 09/22/22 11:27 09/22/22 11:27 09/22/22 11:27 Prepared 09/22/22 11:27	09/26/22 13:20 Analyzed 09/24/22 01:38 09/24/22 01:38 Analyzed 09/24/22 01:38	Dil Fac

Client Sample ID: PH01A

Date Collected: 09/21/22 09:20 Date Received: 09/21/22 13:16

Sample Depth: 2

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00198	U	0.00198	mg/Kg		10/03/22 13:34	10/03/22 22:42	1
Toluene	<0.00198	U	0.00198	mg/Kg		10/03/22 13:34	10/03/22 22:42	1
Ethylbenzene	<0.00198	U	0.00198	mg/Kg		10/03/22 13:34	10/03/22 22:42	1
m-Xylene & p-Xylene	<0.00396	U	0.00396	mg/Kg		10/03/22 13:34	10/03/22 22:42	1
o-Xylene	<0.00198	U	0.00198	mg/Kg		10/03/22 13:34	10/03/22 22:42	1
Xylenes, Total	<0.00396	U	0.00396	mg/Kg		10/03/22 13:34	10/03/22 22:42	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)			70 - 130			10/03/22 13:34	10/03/22 22:42	1

Eurofins Carlsbad

Lab Sample ID: 890-3026-2

Matrix: Solid

Project/Site: PLU 27 BRUSHY DRAW 167

Client: Ensolum

Job ID: 890-3026-1

Lab Sample ID: 890-3026-2

SDG: 03E1558100

Matrix: Solid

Client Sample ID: PH01A

Date Collected: 09/21/22 09:20 Date Received: 09/21/22 13:16

Sample Depth: 2

Method: 8021B	- Volatile Or	ganic Compo	unds (GC) (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,4-Difluorobenzene (Surr)	107		70 - 130	10/03/22 13:34	10/03/22 22:42	1

Method:	Total RTFX	- Total BTEX	Calculation
Metriou.	IULAI DIEA	- IULAI DIEA	Calculation

Analyte	Result Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00396 U	0.00396	ma/Ka			10/04/22 08:33	1

ı			
ı	Mothod: 8015 NM -	Diesel Range Organio	e (DRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9	mg/Kg			09/26/22 13:20	1

Method: 8015B	NM - Diesel	Range Ord	anics	(DRO)	(GC)
motilioa. oo lob	THE DIGGGE	Trange Or	garnos	(5.10)	100)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9	mg/Kg		09/22/22 11:27	09/24/22 02:21	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9	mg/Kg		09/22/22 11:27	09/24/22 02:21	1
Oll Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg		09/22/22 11:27	09/24/22 02:21	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac

Surrogate	%Recovery Qualifier	Limits	Prepare	ed Analyzed	Dil Fac
1-Chlorooctane	101	70 - 130	09/22/22 1	1:27 09/24/22 02:21	1
o-Terphenyl	109	70 - 130	09/22/22 1	1:27 09/24/22 02:21	1

Method: 300.0 - Anions, Ion	Chromatography - Soluble

Analyte	Result Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	230	4.97	mg/Kg		_	09/23/22 21:55	1

Client Sample ID: PH05 Lab Sample ID: 890-3026-3 Matrix: Solid

Date Collected: 09/21/22 09:25 Date Received: 09/21/22 13:16

Sample Depth: 1

Mathadi 0004D	Valatile Overen	ic Compounds (GC)
Memoo: Auzib	- voianie Urdan	ic Compounds (GC)

	,						
Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
<0.00199	U	0.00199	mg/Kg		10/03/22 13:34	10/03/22 23:03	1
< 0.00199	U	0.00199	mg/Kg		10/03/22 13:34	10/03/22 23:03	1
< 0.00199	U	0.00199	mg/Kg		10/03/22 13:34	10/03/22 23:03	1
<0.00398	U	0.00398	mg/Kg		10/03/22 13:34	10/03/22 23:03	1
< 0.00199	U	0.00199	mg/Kg		10/03/22 13:34	10/03/22 23:03	1
<0.00398	U	0.00398	mg/Kg		10/03/22 13:34	10/03/22 23:03	1
%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
		70 - 130			10/03/22 13:34	10/03/22 23:03	1
103		70 - 130			10/03/22 13:34	10/03/22 23:03	1
	Result <0.00199 <0.00199 <0.00199 <0.00398 <0.00199 <0.00398 %Recovery 116		Result Qualifier RL <0.00199	Result Qualifier RL Unit <0.00199	Result Qualifier RL Unit D <0.00199	Result Qualifier RL Unit D Prepared <0.00199	Result Qualifier RL Unit D Prepared Analyzed < 0.00199 U

Method:	Total R	TFY - T	ntal RT	FX Calcu	ılation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398	mg/Kg			10/04/22 08:33	1

Analyte	•	•	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH			<50.0	U	50.0	mg/Kg			09/26/22 13:20	1

Project/Site: PLU 27 BRUSHY DRAW 167

Client: Ensolum

Job ID: 890-3026-1

SDG: 03E1558100

Client Sample ID: PH05

Date Collected: 09/21/22 09:25 Date Received: 09/21/22 13:16

Sample Depth: 1

Lab Sample ID: 890-3026-3

Matrix: Solid

Method: 8015B NM - Diesel Range Organics (DRO) (GC) Analyte Result Qualifier RL Unit D Analyzed Dil Fac Prepared <50.0 U 50.0 09/22/22 11:27 09/24/22 02:43 Gasoline Range Organics mg/Kg (GRO)-C6-C10 50.0 09/22/22 11:27 09/24/22 02:43 Diesel Range Organics (Over <50.0 U mg/Kg C10-C28) Oll Range Organics (Over C28-C36) <50.0 U 50.0 mg/Kg 09/22/22 11:27 09/24/22 02:43 %Recovery Qualifier Limits Prepared Analyzed Dil Fac Surrogate 1-Chlorooctane 70 - 130 09/22/22 11:27 09/24/22 02:43 98 o-Terphenyl 104 70 - 130 09/22/22 11:27 09/24/22 02:43 Method: 300.0 - Anions, Ion Chromatography - Soluble Analyte Result Qualifier RL Unit D Prepared Dil Fac Analyzed 4.95 Chloride 29.9 mg/Kg 09/23/22 22:00

Client Sample ID: PH05A Lab Sample ID: 890-3026-4 Matrix: Solid

Date Collected: 09/21/22 09:30 Date Received: 09/21/22 13:16

Sample Depth: 2

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199	mg/Kg		10/03/22 13:34	10/03/22 23:24	1
Toluene	<0.00199	U	0.00199	mg/Kg		10/03/22 13:34	10/03/22 23:24	1
Ethylbenzene	<0.00199	U	0.00199	mg/Kg		10/03/22 13:34	10/03/22 23:24	1
m-Xylene & p-Xylene	<0.00398	U	0.00398	mg/Kg		10/03/22 13:34	10/03/22 23:24	1
o-Xylene	<0.00199	U	0.00199	mg/Kg		10/03/22 13:34	10/03/22 23:24	1
Xylenes, Total	<0.00398	U	0.00398	mg/Kg		10/03/22 13:34	10/03/22 23:24	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	117		70 - 130			10/03/22 13:34	10/03/22 23:24	1
1,4-Difluorobenzene (Surr)	104		70 - 130			10/03/22 13:34	10/03/22 23:24	1
Method: Total BTEX - Total BTEX	(Calculation							
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398	mg/Kg			10/04/22 08:33	1
Method: 8015 NM - Diesel Range	Organics (DR	O) (GC)						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9	mg/Kg			09/26/22 13:20	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		09/22/22 11:27	09/24/22 03:04	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9	mg/Kg		09/22/22 11:27	09/24/22 03:04	1
Oll Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg		09/22/22 11:27	09/24/22 03:04	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	107		70 - 130			09/22/22 11:27	09/24/22 03:04	1
	115		70 - 130			09/22/22 11:27	09/24/22 03:04	1

Client Sample Results

Client: Ensolum Job ID: 890-3026-1 Project/Site: PLU 27 BRUSHY DRAW 167 SDG: 03E1558100

Lab Sample ID: 890-3026-4 Client Sample ID: PH05A Matrix: Solid

Date Collected: 09/21/22 09:30 Date Received: 09/21/22 13:16

Sample Depth: 2

Method: 300.0 - Anions, Ion Chromatography - Soluble									
	Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
	Chloride	136		4.99	mg/Kg			09/23/22 22:05	1

Surrogate Summary

Job ID: 890-3026-1 Client: Ensolum Project/Site: PLU 27 BRUSHY DRAW 167 SDG: 03E1558100

Method: 8021B - Volatile Organic Compounds (GC)

Matrix: Solid Prep Type: Total/NA

				Percent Surrogate Rec
		BFB1	DFBZ1	_
Lab Sample ID	Client Sample ID	(70-130)	(70-130)	
890-3026-1	PH01	118	95	
890-3026-1 MS	PH01	93	96	
890-3026-1 MSD	PH01	95	97	
890-3026-2	PH01A	121	107	
890-3026-3	PH05	116	103	
890-3026-4	PH05A	117	104	
LCS 880-35997/1-A	Lab Control Sample	88	96	
LCSD 880-35997/2-A	Lab Control Sample Dup	89	97	
MB 880-35997/5-A	Method Blank	94	85	
Surrogate Legend				
BFB = 4-Bromofluorobenz	ene (Surr)			
DFBZ = 1,4-Difluorobenze	ene (Surr)			

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

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

				Percent Surrogate Recovery (Acceptance Limit
		1CO1	OTPH1	
Sample ID	Client Sample ID	(70-130)	(70-130)	
)-3010-A-2-C MS	Matrix Spike	90	88	
)-3010-A-2-D MSD	Matrix Spike Duplicate	103	99	
)-3026-1	PH01	92	100	
)-3026-2	PH01A	101	109	
)-3026-3	PH05	98	104	
)-3026-4	PH05A	107	115	
S 880-35172/2-A	Lab Control Sample	99	105	
SD 880-35172/3-A	Lab Control Sample Dup	106	108	
880-35172/1-A	Method Blank	120	139 S1+	

1CO = 1-Chlorooctane OTPH = o-Terphenyl

Client: Ensolum Job ID: 890-3026-1 Project/Site: PLU 27 BRUSHY DRAW 167

SDG: 03E1558100

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-35997/5-A

Analysis Batch: 35920

Matrix: Solid

Lab Sample ID: LCS 880-35997/1-A

Matrix: Solid

Analysis Batch: 35920

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 35997

	IND	IVID						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		10/03/22 13:34	10/03/22 22:00	1
Toluene	<0.00200	U	0.00200	mg/Kg		10/03/22 13:34	10/03/22 22:00	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		10/03/22 13:34	10/03/22 22:00	1
m-Xylene & p-Xylene	<0.00400	U	0.00400	mg/Kg		10/03/22 13:34	10/03/22 22:00	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		10/03/22 13:34	10/03/22 22:00	1
Xylenes, Total	<0.00400	U	0.00400	mg/Kg		10/03/22 13:34	10/03/22 22:00	1

MB MB

MR MR

Surrogate	%Recovery	Qualifier	Limits	1	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	94		70 - 130	10/	/03/22 13:34	10/03/22 22:00	1
1,4-Difluorobenzene (Surr)	85		70 - 130	10/	/03/22 13:34	10/03/22 22:00	1

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 35997

LCS LCS Spike Analyte Added Result Qualifier Unit %Rec Limits Benzene 0.100 0.1071 mg/Kg 107 70 - 130 Toluene 0.100 0.1071 mg/Kg 107 70 - 130 0.100 0.09944 Ethylbenzene mg/Kg 99 70 - 130 0.200 0.2049 102 70 - 130 m-Xylene & p-Xylene mg/Kg 0.100 0.1039 104 70 - 130 o-Xylene mg/Kg

LCS LCS

Surrogate	%Recovery	Qualifier	Limits
4-Bromofluorobenzene (Surr)	88		70 - 130
1,4-Difluorobenzene (Surr)	96		70 - 130

Client Sample ID: Lab Control Sample Dup

Matrix: Solid

Lab Sample ID: LCSD 880-35997/2-A

Analysis Batch: 35920

Prep Type: Total/NA Prep Batch: 35997

	Spike	LCSD	LCSD				%Rec		RPD	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit	
Benzene	0.100	0.1072		mg/Kg		107	70 - 130	0	35	
Toluene	0.100	0.1073		mg/Kg		107	70 - 130	0	35	
Ethylbenzene	0.100	0.09953		mg/Kg		100	70 - 130	0	35	
m-Xylene & p-Xylene	0.200	0.2078		mg/Kg		104	70 - 130	1	35	
o-Xylene	0.100	0.1051		mg/Kg		105	70 - 130	1	35	

LCSD LCSD

Surrogate	%Recovery Qualifier	Limits
4-Bromofluorobenzene (Surr)	89	70 - 130
1,4-Difluorobenzene (Surr)	97	70 - 130

Lab Sample ID: 890-3026-1 MS

Matrix: Solid

Analysis Batch: 35920

Client Sample ID: PH01 Prep Type: Total/NA

Prep Batch: 35997

	Sample	Sample	Spike	MS	MS				%Rec	
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Benzene	<0.00201	U	0.0998	0.09738		mg/Kg		98	70 - 130	
Toluene	<0.00201	U	0.0998	0.1003		mg/Kg		100	70 - 130	

QC Sample Results

Job ID: 890-3026-1 Client: Ensolum Project/Site: PLU 27 BRUSHY DRAW 167 SDG: 03E1558100

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

Lab Sample ID: 890-3026-1 MS **Matrix: Solid**

Analysis Batch: 35920

Client Sample ID: PH01 Prep Type: Total/NA

Prep Batch: 35997

Sample Sample Spike MS MS %Rec Analyte Result Qualifier Added Result Qualifier Unit %Rec Limits D Ethylbenzene <0.00201 U 0.0998 0.09562 96 70 - 130 mg/Kg m-Xylene & p-Xylene <0.00402 0.200 0.1967 mg/Kg 99 70 - 130 <0.00201 U 0.0998 0.1000 70 - 130 o-Xylene mg/Kg 100

MS MS

Surrogate %Recovery Qualifier Limits 70 - 130 4-Bromofluorobenzene (Surr) 93 1,4-Difluorobenzene (Surr) 96 70 - 130

Client Sample ID: PH01

Prep Type: Total/NA

Prep Batch: 35997

Lab Sample ID: 890-3026-1 MSD **Matrix: Solid** Analysis Batch: 35920 Sample Sample Spike MSD MSD

RPD

Result Qualifier RPD Limit Analyte babbA Result Qualifier %Rec Limits Unit Benzene <0.00201 U 0.100 0.09537 mg/Kg 95 70 - 130 2 35 Toluene <0.00201 0.100 0.09776 mg/Kg 98 70 - 130 3 35 Ethylbenzene <0.00201 0.100 0.09210 92 70 - 130 35 U mg/Kg 4 0.200 m-Xylene & p-Xylene <0.00402 U 0.1922 mg/Kg 96 70 - 130 2 35 <0.00201 U 0.100 0.09755 97 70 - 130 o-Xylene mg/Kg 3

MSD MSD

Surrogate	%Recovery	Qualifier	Limits
4-Bromofluorobenzene (Surr)	95		70 - 130
1,4-Difluorobenzene (Surr)	97		70 - 130

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

Lab Sample ID: MB 880-35172/1-A

Matrix: Solid

Analysis Batch: 35220

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

Prep Batch: 35172

мв мв Result Qualifier RL Unit D Prepared Dil Fac Analyte Analyzed 50.0 <50.0 U 09/22/22 11:26 09/23/22 20:35 Gasoline Range Organics mg/Kg (GRO)-C6-C10 09/22/22 11:26 09/23/22 20:35 Diesel Range Organics (Over <50.0 U 50.0 mg/Kg C10-C28) OII Range Organics (Over C28-C36) <50.0 U 50.0 09/22/22 11:26 09/23/22 20:35 mg/Kg

MB MB

Limits %Recovery Qualifier Prepared Analyzed Dil Fac Surrogate 09/22/22 11:26 1-Chlorooctane 120 70 - 130 09/23/22 20:35 139 S1+ 70 - 130 09/22/22 11:26 09/23/22 20:35 o-Terphenyl

Lab Sample ID: LCS 880-35172/2-A

Matrix: Solid

Analysis Batch: 35220

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

Prep Batch: 35172

	Spike	LCS	LCS				%Rec	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Gasoline Range Organics	1000	960.3		mg/Kg		96	70 - 130	
(GRO)-C6-C10								
Diesel Range Organics (Over	1000	891.9		mg/Kg		89	70 - 130	
C10-C28)								

Job ID: 890-3026-1 Client: Ensolum Project/Site: PLU 27 BRUSHY DRAW 167

SDG: 03E1558100

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

Lab Sample ID: LCS 880-35172/2-A

Lab Sample ID: LCSD 880-35172/3-A

Matrix: Solid

Analysis Batch: 35220

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 35172

LCS LCS

Surrogate %Recovery Qualifier Limits 1-Chlorooctane 99 70 - 130 o-Terphenyl 105 70 - 130

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 35172

Matrix: Solid Analysis Batch: 35220

Spike LCSD LCSD %Rec RPD Analyte Added Result Qualifier Unit D %Rec Limits **RPD** Limit 1000 960.5 96 70 - 130O 20 Gasoline Range Organics mg/Kg (GRO)-C6-C10 mg/Kg Diesel Range Organics (Over 1000 951.2 95 70 - 1306 20 C10-C28)

LCSD LCSD

Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane	106		70 - 130
o-Terphenyl	108		70 - 130

Lab Sample ID: 890-3010-A-2-C MS Client Sample ID: Matrix Spike

Matrix: Solid

Analysis Batch: 35220

Prep Type: Total/NA

Prep Batch: 35172

Sample Sample Spike MS MS Analyte Result Qualifier hahhA Result Qualifier Unit D %Rec Limits Gasoline Range Organics <49.9 U 996 887.9 mg/Kg 87 70 - 130 (GRO)-C6-C10 Diesel Range Organics (Over <49.9 U 996 998.1 mg/Kg 100 70 - 130

C10-C28)

(GRO)-C6-C10

	MS	MS	
Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane	90		70 - 130
o-Terphenyl	88		70 - 130

Lab Sample ID: 890-3010-A-2-D MSD Client Sample ID: Matrix Spike Duplicate **Matrix: Solid** Prep Type: Total/NA

Analysis Batch: 35220

Prep Batch: 35172 Sample Sample MSD MSD RPD Spike %Rec Result Qualifier Analyte Added Result Qualifier Unit %Rec Limits **RPD** Limit Gasoline Range Organics <49.9 U 999 1050 103 mg/Kg 70 - 130 17 20

1135

mg/Kg

114

70 - 130

999

Diesel Range Organics (Over <49.9 U C10-C28)

	MSD	MSD	
Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane	103		70 - 130
o-Terphenyl	99		70 - 130

Eurofins Carlsbad

13

20

Client: Ensolum Job ID: 890-3026-1 Project/Site: PLU 27 BRUSHY DRAW 167

SDG: 03E1558100

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-35024/1-A

Client Sample ID: Method Blank

Matrix: Solid Analysis Batch: 35313 **Prep Type: Soluble**

Dil Fac Analyte Result Qualifier RL Unit D Prepared Analyzed Chloride <5.00 U 5.00 mg/Kg 09/23/22 19:42

Lab Sample ID: LCS 880-35024/2-A Client Sample ID: Lab Control Sample **Matrix: Solid Prep Type: Soluble**

Analysis Batch: 35313

Spike LCS LCS %Rec Added %Rec Analyte Result Qualifier Unit D Limits Chloride 250 246.5 mg/Kg 99 90 - 110

мв мв

Lab Sample ID: LCSD 880-35024/3-A Client Sample ID: Lab Control Sample Dup **Matrix: Solid Prep Type: Soluble**

Analysis Batch: 35313

LCSD LCSD %Rec RPD Spike Analyte Added Result Qualifier Unit %Rec Limits RPD Limit Chloride 250 247.9 mg/Kg 90 - 110

Lab Sample ID: 890-3011-A-27-B MS Client Sample ID: Matrix Spike **Matrix: Solid Prep Type: Soluble**

Analysis Batch: 35313

Spike MS MS Sample Sample %Rec Analyte Result Qualifier Added Qualifier %Rec Result Unit Limits 632.7 Chloride 394 252 90 - 110 mg/Kg

Lab Sample ID: 890-3011-A-27-C MSD Client Sample ID: Matrix Spike Duplicate

Matrix: Solid

Analysis Batch: 35313

Sample Sample Spike MSD MSD %Rec RPD Analyte Result Qualifier Added Result Qualifier Unit %Rec Limits RPD Limit Chloride 252 394 632.9 mg/Kg 95 90 - 110 0 20

Eurofins Carlsbad

Prep Type: Soluble

QC Association Summary

 Client: Ensolum
 Job ID: 890-3026-1

 Project/Site: PLU 27 BRUSHY DRAW 167
 SDG: 03E1558100

GC VOA

Analysis Batch: 35920

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3026-1	PH01	Total/NA	Solid	8021B	35997
890-3026-2	PH01A	Total/NA	Solid	8021B	35997
890-3026-3	PH05	Total/NA	Solid	8021B	35997
890-3026-4	PH05A	Total/NA	Solid	8021B	35997
MB 880-35997/5-A	Method Blank	Total/NA	Solid	8021B	35997
LCS 880-35997/1-A	Lab Control Sample	Total/NA	Solid	8021B	35997
LCSD 880-35997/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	35997
890-3026-1 MS	PH01	Total/NA	Solid	8021B	35997
890-3026-1 MSD	PH01	Total/NA	Solid	8021B	35997

Prep Batch: 35997

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batcl
890-3026-1	PH01	Total/NA	Solid	5035	
890-3026-2	PH01A	Total/NA	Solid	5035	
890-3026-3	PH05	Total/NA	Solid	5035	
890-3026-4	PH05A	Total/NA	Solid	5035	
MB 880-35997/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-35997/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-35997/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
890-3026-1 MS	PH01	Total/NA	Solid	5035	
890-3026-1 MSD	PH01	Total/NA	Solid	5035	

Analysis Batch: 36029

Lab San	<u> </u>	ample ID	Prep Type	Matrix	Method	Prep Batch
890-302	6-1 PH01		Total/NA	Solid	Total BTEX	
890-302	6-2 PH01A		Total/NA	Solid	Total BTEX	
890-302	6-3 PH05		Total/NA	Solid	Total BTEX	
890-302	6-4 PH05A		Total/NA	Solid	Total BTEX	

GC Semi VOA

Prep Batch: 35172

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3026-1	PH01	Total/NA	Solid	8015NM Prep	
890-3026-2	PH01A	Total/NA	Solid	8015NM Prep	
890-3026-3	PH05	Total/NA	Solid	8015NM Prep	
890-3026-4	PH05A	Total/NA	Solid	8015NM Prep	
MB 880-35172/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-35172/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-35172/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
890-3010-A-2-C MS	Matrix Spike	Total/NA	Solid	8015NM Prep	
890-3010-A-2-D MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	

Analysis Batch: 35220

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3026-1	PH01	Total/NA	Solid	8015B NM	35172
890-3026-2	PH01A	Total/NA	Solid	8015B NM	35172
890-3026-3	PH05	Total/NA	Solid	8015B NM	35172
890-3026-4	PH05A	Total/NA	Solid	8015B NM	35172
MB 880-35172/1-A	Method Blank	Total/NA	Solid	8015B NM	35172
LCS 880-35172/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	35172

Eurofins Carlsbad

_

3

5

7

9

10

12

IJ

14

QC Association Summary

 Client: Ensolum
 Job ID: 890-3026-1

 Project/Site: PLU 27 BRUSHY DRAW 167
 SDG: 03E1558100

GC Semi VOA (Continued)

Analysis Batch: 35220 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCSD 880-35172/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	35172
890-3010-A-2-C MS	Matrix Spike	Total/NA	Solid	8015B NM	35172
890-3010-A-2-D MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	35172

Analysis Batch: 35414

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method Prep Batch
890-3026-1	PH01	Total/NA	Solid	8015 NM
890-3026-2	PH01A	Total/NA	Solid	8015 NM
890-3026-3	PH05	Total/NA	Solid	8015 NM
890-3026-4	PH05A	Total/NA	Solid	8015 NM

HPLC/IC

Leach Batch: 35024

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3026-1	PH01	Soluble	Solid	DI Leach	
890-3026-2	PH01A	Soluble	Solid	DI Leach	
890-3026-3	PH05	Soluble	Solid	DI Leach	
890-3026-4	PH05A	Soluble	Solid	DI Leach	
MB 880-35024/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-35024/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-35024/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
890-3011-A-27-B MS	Matrix Spike	Soluble	Solid	DI Leach	
890-3011-A-27-C MSD	Matrix Spike Duplicate	Soluble	Solid	DI Leach	

Analysis Batch: 35313

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3026-1	PH01	Soluble	Solid	300.0	35024
890-3026-2	PH01A	Soluble	Solid	300.0	35024
890-3026-3	PH05	Soluble	Solid	300.0	35024
890-3026-4	PH05A	Soluble	Solid	300.0	35024
MB 880-35024/1-A	Method Blank	Soluble	Solid	300.0	35024
LCS 880-35024/2-A	Lab Control Sample	Soluble	Solid	300.0	35024
LCSD 880-35024/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	35024
890-3011-A-27-B MS	Matrix Spike	Soluble	Solid	300.0	35024
890-3011-A-27-C MSD	Matrix Spike Duplicate	Soluble	Solid	300.0	35024

Eurofins Carlsbad

i **oj** 173

3

6

8

9

11

13

14

Project/Site: PLU 27 BRUSHY DRAW 167

Prep

Leach

Analysis

Analysis

Analysis

Client: Ensolum

Job ID: 890-3026-1 SDG: 03E1558100

35172

35220

35024

35313

35313

10 ml

1 uL

50 ml

Lab Sample ID: 890-3026-1

Analyst

MNR

AJ

AJ

SM

DM

SM

SMC

СН

СН

09/22/22 11:27

09/24/22 01:38

09/22/22 11:54

09/23/22 21:50

09/23/22 21:55

Client Sample ID: PH01 Date Collected: 09/21/22 09:15 Date Received: 09/21/22 13:16

Total/NA

Total/NA

Soluble

Soluble

Soluble

Matrix: Solid

Lab

EET MID

EET MID

EET MID

EET MID

EET MID

EET MID

FFT MID

EET MID

Batch Batch Dil Initial Final Batch Prepared Prep Type Method Run Amount Amount Number or Analyzed Type Factor 4.97 g Total/NA Prep 5035 5 mL 35997 10/03/22 13:34 Total/NA Analysis 8021B 1 5 mL 5 mL 35920 10/03/22 22:21 Total/NA Analysis Total BTEX 36029 10/04/22 08:33 Total/NA Analysis 8015 NM 1 35414 09/26/22 13:20

Client Sample ID: PH01A Lab Sample ID: 890-3026-2 **Matrix: Solid**

10.01 g

1 uL

4.98 g

Date Collected: 09/21/22 09:20 Date Received: 09/21/22 13:16

8015NM Prep

8015B NM

DI Leach

300.0

300.0

Dil Final Batch Batch Initial Batch Prepared Prep Type Method Amount Amount Number or Analyzed Type Run Factor **Analyst** Lab Total/NA Prep 5035 5 mL 35997 10/03/22 13:34 MNR EET MID 5.05 g 8021B Total/NA Analysis 1 5 mL 5 mL 35920 10/03/22 22:42 ΑJ **EET MID** Total/NA Total BTEX 36029 10/04/22 08:33 Analysis A.I FFT MID 1 Total/NA Analysis 8015 NM 35414 09/26/22 13:20 SM **EET MID** 10 mL Total/NA 8015NM Prep 10.02 g 35172 09/22/22 11:27 DM FFT MID Prep Total/NA Analysis 8015B NM 1 uL 1 uL 35220 09/24/22 02:21 SM **EET MID** Soluble DI Leach 5.03 g 50 mL 35024 09/22/22 11:54 SMC **EET MID** Leach

Client Sample ID: PH05 Lab Sample ID: 890-3026-3 Date Collected: 09/21/22 09:25

Date Received: 09/21/22 13:16

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 35997 10/03/22 13:34 MNR **EET MID** Total/NA Analysis 8021B 5 mL 5 mL 35920 10/03/22 23:03 **EET MID** 1 AJ Total/NA Total BTEX 36029 10/04/22 08:33 FFT MID Analysis A.I 1 Total/NA Analysis 8015 NM 35414 09/26/22 13:20 SM **EET MID** Total/NA Prep 8015NM Prep 10.00 g 10 ml 35172 09/22/22 11:27 DM FFT MID Total/NA 8015B NM 35220 09/24/22 02:43 Analysis 1 1 uL 1 uL SM **EET MID** DI Leach 5.05 g 50 mL 35024 09/22/22 11:54 SMC Soluble Leach **EET MID** Analysis 300.0 35313 09/23/22 22:00 СН Soluble EET MID

Client Sample ID: PH05A Lab Sample ID: 890-3026-4 Date Collected: 09/21/22 09:30 **Matrix: Solid**

Date Received: 09/21/22 13:16

	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	35997	10/03/22 13:34	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	35920	10/03/22 23:24	AJ	EET MID
Total/NA	Analysis	Total BTEX		1			36029	10/04/22 08:33	AJ	EET MID

Eurofins Carlsbad

Page 16 of 23

Matrix: Solid

EET MID

Lab Chronicle

Client: Ensolum Job ID: 890-3026-1 Project/Site: PLU 27 BRUSHY DRAW 167 SDG: 03E1558100

Client Sample ID: PH05A

Lab Sample ID: 890-3026-4 Date Collected: 09/21/22 09:30

Matrix: Solid

Date Received: 09/21/22 13:16

	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			35414	09/26/22 13:20	SM	EET MID
Total/NA	Prep	8015NM Prep			10.03 g	10 mL	35172	09/22/22 11:27	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	35220	09/24/22 03:04	SM	EET MID
Soluble	Leach	DI Leach			5.01 g	50 mL	35024	09/22/22 11:54	SMC	EET MID
Soluble	Analysis	300.0		1			35313	09/23/22 22:05	CH	EET MID

Laboratory References:

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

Accreditation/Certification Summary

 Client: Ensolum
 Job ID: 890-3026-1

 Project/Site: PLU 27 BRUSHY DRAW 167
 SDG: 03E1558100

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	NE	ELAP	T104704400-22-24	06-30-23
The following analytes	are included in this report, bu	it the laboratory is not certific	ed by the governing authority. This list ma	av include analytes for
the agency does not of	fer certification.	•	, , ,	.,
the agency does not of Analysis Method	fer certification . Prep Method	Matrix	Analyte	-,
0 ,		Matrix Solid	Analyte Total TPH	

_

7

9

10

12

1 4

Method Summary

Client: Ensolum

Project/Site: PLU 27 BRUSHY DRAW 167

Job ID: 890-3026-1

SDG: 03E1558100

col	Laboratory
6	EET MID
OP	EET MID
6	EET MID
6	EET MID
////	EET MID

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

Protocol References:

ASTM = ASTM International

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

TAL SOP = TestAmerica Laboratories, Standard Operating Procedure

Laboratory References:

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

Sample Summary

Client: Ensolum

Project/Site: PLU 27 BRUSHY DRAW 167

Job ID: 890-3026-1

SDG: 03E1558100

,,	

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-3026-1	PH01	Solid	09/21/22 09:15	09/21/22 13:16	1
890-3026-2	PH01A	Solid	09/21/22 09:20	09/21/22 13:16	2
890-3026-3	PH05	Solid	09/21/22 09:25	09/21/22 13:16	1
890-3026-4	PH05A	Solid	09/21/22 09:30	09/21/22 13:16	2

Chain of Custody

Houston, TX (281) 240-4200, Dallas, TX (214) 902-0300 Midland, TX (432) 704-5440, San Antonio, TX (210) 509-3334 EL Paso, TX (915) 565-3443, Lubbock, TX (806) 794-1296 Hobbs, NM (575) 392-7550, Carlsbad, NM (575) 988-3199

Environment Testing

😍 eurofins

Xenco

Work Order No:

									www.xenco.com	om rage 10 10
Project Manager: Ka	Kalei Jennings			Bill to: (if different)		Garret Green	ç		Work Orde	Work Order Comments
	Ensolum			Company Name		XTO Energy	,		Program: UST/PST PRP Bro	☐ PRP ☐ Brownfields ☐ RRC ☐ Superfund ☐
	3122 National Parks Hwv	Hw		Address:		3104 E. Green St	en St.		State of Project:	
e ZIP:	Carlsbad, NM 88220			City, State ZIP:		Carlsbad, NM 88220	M 88220		Reporting: Level II	PST/UST ☐ TRRP ☐ Level IV
	303-887-2948		Email: Gar	Garret.Green@ExxonMobil.com	@Exxon	Mobil con			Deliverables: EDD 🔲 ADa	ADaPT 🔲 Other:
Nomo:	DI 11 27 Brushy Draw 167	797 Mer	Turn	Turn Around				ANALYSIS REQUEST	NEST	Preservative Codes
Project Number	03F1558100	9	✓ Routine	Rush	Pres.	-				None: NO DI Water: H ₂ O
Project Location:	32 10230 -103 86420	1 86420	Due Date:		900	-				Cool: Cool MeOH: Me
Sampler's Name:	Kase Parker	(er	TAT starts the	TAT starts the day received by				_		
PO#			the lab, if received	eived by 4:30pm	SJ	_				H ₂ S0 ₄ : H ₂ NaOH: Na
SAMPLE RECEIPT	Temp Blank:	Yes No	Wet Ice:	(Yes No	əşət	(0:				H₃PO4: HP
Samples Received Intact:	L	Thermometer ID:	er ID:	MOS	ונפוו	300				NaHSO ₄ : NABIS
Cooler Custody Seals:	Yes No	N/A Correction Factor:	actor:	0.01	βq	:A4	78			Na ₂ S ₂ O ₃ : NaSO ₃
Sample Custody Seals:	Yes No NAMA	Y Temperature Reading:	e Reading:	4.2		3) 9		890-3026 Chain of Custody	ustody	Zn Acetate+NaOH: Zn
Total Containers:		Corrected T	Corrected Temperature:	4.0			1208	_	-	NaOH+Ascorbic Acid: SAPC
Sample Identification	cation Matrix	Date Sampled	Time	Depth Comp	# of Cont	яолно 18) нат) хэта			Sample Comments
PHO	S	9/21/2022	_	=		-	×			Incident ID:
PH01A	S	9/21/2022	L	2.			×			NAPP2222741514
PH05	တ	9/21/2022	9:25	1-		×	×			Cost Center:
PH05A	S	9/21/2022	9:30	2		×	×			1667051001
			L							AFE:
						1				
						1				
Total 200.7 / 6010	200.8 / 6020:	8	BRCRA 13F	13PPM Texas 11	1 Al Sb	As Ba	Be B Cd	Ca Cr Co Cu Fe Pb	Pb Mg Mn Mo Ni K Se Ag SiO ₂	Na Sr Ti Sn U V Zn
Circle Method(s) and Metal(s) to be analyzed	Metal(s) to be ana	lyzed	TCLP / SPLP	PLP 6010: 8R	BRCRA S	b As Ba	Sb As Ba Be Cd Cr Co	r Co Cu Pb Mn Mo Ni Se Ag Ti	Ni Se Ag Ti U Hg: 163	Hg: 1631 / 245.1 / 7470 / 7471
Notice: Signature of this document and relinquishment of samples constitutes a valid purcha of service. Eurofins Xenco will be liable only for the cost of samples and shall not assume as of service. Eurofins Xenco, a minimum charge of \$85.00 will be applied to each project and a charge	ument and relinquishme viil be liable only for the v im charge of \$85.00 will in	nt of samples cor cost of samples a be applied to each	nstitutes a valid nd shall not assu project and a c	purchase order fror ume any responsibl harge of \$5 for each	n client coi lity for any h sample si	npany to Eurosses or exipmitted to E	rofins Xenco, t ipenses incurr iurofins Xenco	is affiliates and subcontractors ed by the client if such losses a , but not analyzed. These terms	Notice: Signature of this document and relinquishment of samples constitutes a vaild 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, but not analyzed. These terms will be enforced unless praviously negotiated. Of Eurofins Xenco, but not analyzed. These terms will be enforced unless praviously negotiated.	ol ited.
Relinquished by: (Signature)	Signature)	Receive	Received by: (Signature)	iture)	٦	Date/Time		Relinquished by: (Signature)	ure) Received by: (Signature)	lature) Date/Time
hing	n	1000	ARR		0	-31-22-t	TOT 1811			
3			//			1	4	9-		
>					_					1

Login Sample Receipt Checklist

Client: Ensolum Job Number: 890-3026-1 SDG Number: 03E1558100

Login Number: 3026 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: 890-3026-1 SDG Number: 03E1558100

Login Number: 3026
List Source: Eurofins Midland
List Number: 2
List Creation: 09/22/22 11:12 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	

4

2

A

5

6

0

ΙU

12

13

14

<6mm (1/4").

Environment Testing

ANALYTICAL REPORT

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

Laboratory Job ID: 890-3322-1

Laboratory Sample Delivery Group: 03E1558100 Client Project/Site: PLU 27 Brushy Draw 167

For:

Ensolum 705 W. Wadley Suite 210 Midland, Texas 79701

Attn: Kalei Jennings

JURAMER

Authorized for release by: 11/2/2022 3:59:12 PM

Jessica Kramer, Project Manager (432)704-5440

Jessica.Kramer@et.eurofinsus.com

.....LINKS

Review your project results through

Have a Question?



Visit us at:

www.eurofinsus.com/Env
Released to Imaging: 4/4/2023 2:55:26 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

_

3

__

6

8

11

13

Н

Client: Ensolum
Project/Site: PLU 27 Brushy Draw 167
Laboratory Job ID: 890-3322-1
SDG: 03E1558100

Table of Contents

Cover Page	1
Table of Contents	2
Definitions/Glossary	3
Case Narrative	4
Client Sample Results	5
Surrogate Summary	7
QC Sample Results	8
QC Association Summary	14
Lab Chronicle	16
Certification Summary	17
Method Summary	18
Sample Summary	19
Chain of Custody	20
Racaint Chacklists	21

Definitions/Glossary

Client: Ensolum Job ID: 890-3322-1 Project/Site: PLU 27 Brushy Draw 167

SDG: 03E1558100

Qualifiers

GC VOA

U

RER

RPD

TEF

TEQ

TNTC

RL

Qualifier **Qualifier Description**

Indicates the analyte was analyzed for but not detected.

Indicates the analyte was analyzed for but not detected.

GC Semi VOA

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

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"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control

Eurofins Carlsbad

Relative Error Ratio (Radiochemistry)

Toxicity Equivalent Factor (Dioxin)

Too Numerous To Count

Toxicity Equivalent Quotient (Dioxin)

Reporting Limit or Requested Limit (Radiochemistry)

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

Case Narrative

Client: Ensolum

Project/Site: PLU 27 Brushy Draw 167

Job ID: 890-3322-1

SDG: 03E1558100

Job ID: 890-3322-1

Laboratory: Eurofins Carlsbad

Narrative

Job Narrative 890-3322-1

Receipt

The samples were received on 10/28/2022 12:18 PM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 5.0°C

GC VOA

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

GC Semi VOA

Method 8015MOD_NM: The laboratory control sample (LCS) associated with preparation batch 880-38261 and analytical batch 880-38217 was outside acceptance criteria. Re-extraction and/or re-analysis could not be performed; therefore, the data have been reported. The batch matrix spike/matrix spike duplicate (MS/MSD) was within acceptance limits and may be used to evaluate matrix performance.

Method 8015MOD_NM: Surrogate recovery for the following sample was outside control limits: (890-3322-A-2-D 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 / sample duplicate (MS/MSD/DUP) precision for preparation batch 880-38325 and analytical batch 880-38323 was outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample / laboratory control sample duplicate (LCS/LCSD) precision was within acceptance limits.

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

HPLC/IC

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

5

6

_

10

12

13

114

Matrix: Solid

Lab Sample ID: 890-3322-1

Client Sample Results

 Client: Ensolum
 Job ID: 890-3322-1

 Project/Site: PLU 27 Brushy Draw 167
 SDG: 03E1558100

Client Sample ID: PH02

Date Collected: 10/27/22 09:50 Date Received: 10/28/22 12:18

Sample Depth: 1

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199	mg/Kg		10/31/22 14:07	11/02/22 00:08	1
Toluene	< 0.00199	U	0.00199	mg/Kg		10/31/22 14:07	11/02/22 00:08	1
Ethylbenzene	< 0.00199	U	0.00199	mg/Kg		10/31/22 14:07	11/02/22 00:08	1
m-Xylene & p-Xylene	<0.00398	U	0.00398	mg/Kg		10/31/22 14:07	11/02/22 00:08	1
o-Xylene	<0.00199	U	0.00199	mg/Kg		10/31/22 14:07	11/02/22 00:08	1
Xylenes, Total	<0.00398	U	0.00398	mg/Kg		10/31/22 14:07	11/02/22 00:08	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	102		70 - 130			10/31/22 14:07	11/02/22 00:08	1
1,4-Difluorobenzene (Surr)	102		70 - 130			10/31/22 14:07	11/02/22 00:08	1
- Method: TAL SOP Total BTEX - 1	Total BTEX Cald	culation						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398	mg/Kg			11/02/22 10:24	1
Method: SW846 8015 NM - Diese	ol Pango Organ	ice (DPO) (GC)					
Analyte	•	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	60.5		50.0	mg/Kg	— <u> </u>		11/01/22 13:05	1
Method: SW846 8015B NM - Dies	sol Pango Orga	nice (DPO)	(GC)					
Analyte		Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics	<50.0		50.0	mg/Kg		10/31/22 10:25	10/31/22 19:15	1
(GRO)-C6-C10								
Diesel Range Organics (Over C10-C28)	60.5	*+	50.0	mg/Kg		10/31/22 10:25	10/31/22 19:15	1
Oll Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		10/31/22 10:25	10/31/22 19:15	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	100		70 - 130			10/31/22 10:25	10/31/22 19:15	1
o-Terphenyl	113		70 - 130			10/31/22 10:25	10/31/22 19:15	1
- Mathada NO ANADA 200 0 Antique	. Ion Chromoto	anambir Ci	alubla					
Method: MCAWW 300.0 - Anions	s, ion Unromate	grapny - So	oluble					

Client Sample ID: PH02A

Date Collected: 10/27/22 10:00 Date Received: 10/28/22 12:18

Sample Depth: 2

Chloride

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		10/31/22 14:07	11/02/22 00:28	1
Toluene	<0.00200	U	0.00200	mg/Kg		10/31/22 14:07	11/02/22 00:28	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		10/31/22 14:07	11/02/22 00:28	1
m-Xylene & p-Xylene	<0.00399	U	0.00399	mg/Kg		10/31/22 14:07	11/02/22 00:28	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		10/31/22 14:07	11/02/22 00:28	1
Xylenes, Total	<0.00399	U	0.00399	mg/Kg		10/31/22 14:07	11/02/22 00:28	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	108		70 - 130			10/31/22 14:07	11/02/22 00:28	1

5.02

mg/Kg

160

Eurofins Carlsbad

11/01/22 23:34

Lab Sample ID: 890-3322-2

Matrix: Solid

_

5

<u>'</u>

10

12

11

۱

.

Matrix: Solid

Lab Sample ID: 890-3322-2

Client Sample Results

Client: Ensolum Job ID: 890-3322-1 Project/Site: PLU 27 Brushy Draw 167 SDG: 03E1558100

Client Sample ID: PH02A

Date Collected: 10/27/22 10:00 Date Received: 10/28/22 12:18

Sample Depth: 2

Analyte

Chloride

Released to Imaging: 4/4/2023 2:55:26 PM

Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1,4-Difluorobenzene (Surr)	94		70 - 130			10/31/22 14:07	11/02/22 00:28	
Method: TAL SOP Total BTEX - 1	Total BTEX Cald	culation						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00399	U	0.00399	mg/Kg			11/02/22 10:24	1
Method: SW846 8015 NM - Diese	el Range Organ	ics (DRO) (GC)					
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0	mg/Kg			11/02/22 10:14	
-				3 3				
• •	sel Range Orga			3' 3				
: Method: SW846 8015B NM - Die	•			Unit	D	Prepared	Analyzed	Dil Fac
Method: SW846 8015B NM - Dies Analyte	•	nics (DRO) Qualifier	(GC)		<u>D</u>	Prepared 11/01/22 08:49	Analyzed 11/01/22 12:27	Dil Fac
Method: SW846 8015B NM - Dies Analyte Gasoline Range Organics (GRO)-C6-C10	Result	nics (DRO) Qualifier	(GC)	Unit	<u>D</u>			Dil Fac
Method: SW846 8015B NM - Dies Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over	Result < 50.0	nics (DRO) Qualifier	(GC)	Unit	<u>D</u>			Dil Fac
Method: SW846 8015B NM - Dies Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28)	Result <50.0 <50.0	nics (DRO) Qualifier UF1	(GC) RL 50.0	Unit mg/Kg mg/Kg	<u>D</u>	11/01/22 08:49	11/01/22 12:27	Dil Fac
Method: SW846 8015B NM - Dies Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28)	Result < 50.0	nics (DRO) Qualifier UF1	(GC) RL 50.0	<mark>Unit</mark> mg/Kg	<u>D</u>	11/01/22 08:49	11/01/22 12:27	Dil Fac
Method: SW846 8015B NM - Dies Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over	Result <50.0 <50.0	nics (DRO) Qualifier U F1 U F1 F2	(GC) RL 50.0	Unit mg/Kg mg/Kg	<u>D</u>	11/01/22 08:49	11/01/22 12:27	Dil Fac
Method: SW846 8015B NM - Dies Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) Oll Range Organics (Over C28-C36)	Result <50.0 <50.0 <50.0	nics (DRO) Qualifier U F1 U F1 F2	(GC) RL 50.0 50.0 50.0	Unit mg/Kg mg/Kg	<u>D</u>	11/01/22 08:49 11/01/22 08:49 11/01/22 08:49	11/01/22 12:27 11/01/22 12:27 11/01/22 12:27	1

4.98

Unit

mg/Kg

Prepared

Analyzed

11/01/22 23:39

Result Qualifier

262

Eurofins Carlsbad

Dil Fac

Surrogate Summary

 Client: Ensolum
 Job ID: 890-3322-1

 Project/Site: PLU 27 Brushy Draw 167
 SDG: 03E1558100

Method: 8021B - Volatile Organic Compounds (GC)

Matrix: Solid Prep Type: Total/NA

				Percent Surrogate Recover
		BFB1	DFBZ1	
Lab Sample ID	Client Sample ID	(70-130)	(70-130)	
890-3320-A-1-C MS	Matrix Spike	99	109	
890-3320-A-1-D MSD	Matrix Spike Duplicate	102	105	
890-3322-1	PH02	102	102	
890-3322-2	PH02A	108	94	
LCS 880-38293/1-A	Lab Control Sample	90	96	
LCSD 880-38293/2-A	Lab Control Sample Dup	94	95	
MB 880-38293/5-A	Method Blank	79	94	
MB 880-38298/5-A	Method Blank	79	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 R
		1001	OTPH1	
Lab Sample ID	Client Sample ID	(70-130)	(70-130)	
890-3322-1	PH02	100	113	
890-3322-2	PH02A	101	106	
890-3322-2 MS	PH02A	73	69 S1-	
890-3322-2 MSD	PH02A	90	85	
890-3333-A-1-D MS	Matrix Spike	102	103	
890-3333-A-1-E MSD	Matrix Spike Duplicate	102	104	
LCS 880-38261/2-A	Lab Control Sample	131 S1+	146 S1+	
LCS 880-38325/2-A	Lab Control Sample	112	120	
LCSD 880-38261/3-A	Lab Control Sample Dup	133 S1+	148 S1+	
LCSD 880-38325/3-A	Lab Control Sample Dup	121	128	
MB 880-38261/1-A	Method Blank	87	99	
	Method Blank	77	83	

1CO = 1-Chlorooctane

OTPH = o-Terphenyl

QC Sample Results

Client: Ensolum Job ID: 890-3322-1 SDG: 03E1558100 Project/Site: PLU 27 Brushy Draw 167

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-38293/5-A

Matrix: Solid Analysis Batch: 38318

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 38293

	MB	MB						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		10/31/22 14:07	11/01/22 22:24	1
Toluene	<0.00200	U	0.00200	mg/Kg		10/31/22 14:07	11/01/22 22:24	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		10/31/22 14:07	11/01/22 22:24	1
m-Xylene & p-Xylene	<0.00400	U	0.00400	mg/Kg		10/31/22 14:07	11/01/22 22:24	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		10/31/22 14:07	11/01/22 22:24	1
Xylenes, Total	<0.00400	U	0.00400	mg/Kg		10/31/22 14:07	11/01/22 22:24	1

MB MB

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	79		70 - 130	10/31/22 14:07	11/01/22 22:24	1
1,4-Difluorobenzene (Surr)	94		70 - 130	10/31/22 14:07	11/01/22 22:24	1

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 38293

Prep Type: Total/NA

Prep Batch: 38293

Lab Sample ID: LCS 880-38293/1-A Matrix: Solid Analysis Batch: 38318

	Spike	LCS	LCS				%Rec	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Benzene	0.100	0.1154		mg/Kg		115	70 - 130	
Toluene	0.100	0.1012		mg/Kg		101	70 - 130	
Ethylbenzene	0.100	0.09494		mg/Kg		95	70 - 130	
m-Xylene & p-Xylene	0.200	0.1880		mg/Kg		94	70 - 130	
o-Xylene	0.100	0.09249		mg/Kg		92	70 - 130	

LCS LCS

Surrogate	%Recovery Qualifie	r Limits
4-Bromofluorobenzene (Surr)	90	70 - 130
1,4-Difluorobenzene (Surr)	96	70 - 130

Client Sample ID: Lab Control Sample Dup

Matrix: Solid

Lab Sample ID: LCSD 880-38293/2-A

Analysis Batch: 38318

	Spike	LCSD	LCSD				%Rec		RPD
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Benzene	0.100	0.1117		mg/Kg		112	70 - 130	3	35
Toluene	0.100	0.09823		mg/Kg		98	70 - 130	3	35
Ethylbenzene	0.100	0.09439		mg/Kg		94	70 - 130	1	35
m-Xylene & p-Xylene	0.200	0.1882		mg/Kg		94	70 - 130	0	35
o-Xylene	0.100	0.09282		mg/Kg		93	70 - 130	0	35

LCSD LCSD

Surrogate	%Recovery	Qualifier	Limits
4-Bromofluorobenzene (Surr)	94		70 - 130
1.4-Difluorobenzene (Surr)	95		70 - 130

Lab Sample ID: 890-3320-A-1-C MS

Matrix: Solid

Analysis Batch: 38318

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

Prep Batch: 38293

	Sample	Sample	Spike	MS	MS				%Rec	
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Benzene	<0.00202	U	0.0998	0.09361		mg/Kg		94	70 - 130	
Toluene	<0.00202	U	0.0998	0.08271		mg/Kg		83	70 - 130	

Prep Batch: 38293

QC Sample Results

Client: Ensolum Job ID: 890-3322-1 Project/Site: PLU 27 Brushy Draw 167 SDG: 03E1558100

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

Lab Sample ID: 890-3320-A-1-C MS Client Sample ID: Matrix Spike Prep Type: Total/NA

Matrix: Solid

Analysis Batch: 38318

	Sample	Sample	Spike	MS	MS				%Rec	
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Ethylbenzene	<0.00202	U	0.0998	0.07970		mg/Kg		80	70 - 130	
m-Xylene & p-Xylene	<0.00403	U	0.200	0.1614		mg/Kg		81	70 - 130	
o-Xylene	<0.00202	U	0.0998	0.07990		mg/Kg		80	70 - 130	

MS MS

Surrogate	%Recovery Qua	lifier Limits
4-Bromofluorobenzene (Surr)	99	70 - 130
1.4-Difluorobenzene (Surr)	109	70 - 130

Client Sample ID: Matrix Spike Duplicate Lab Sample ID: 890-3320-A-1-D MSD Prep Type: Total/NA

Matrix: Solid

Analysis Batch: 38318									Prep	Batch:	38293
	Sample	Sample	Spike	MSD	MSD				%Rec		RPD
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Benzene	<0.00202	U	0.0990	0.08103		mg/Kg		82	70 - 130	14	35
Toluene	<0.00202	U	0.0990	0.07148		mg/Kg		72	70 - 130	15	35
Ethylbenzene	<0.00202	U	0.0990	0.07120		mg/Kg		72	70 - 130	11	35
m-Xylene & p-Xylene	<0.00403	U	0.198	0.1437		mg/Kg		73	70 - 130	12	35
o-Xylene	<0.00202	U	0.0990	0.07128		mg/Kg		72	70 - 130	11	35

MSD MSD

Surrogate	%Recovery	Qualifier	Limits
4-Bromofluorobenzene (Surr)	102		70 - 130
1,4-Difluorobenzene (Surr)	105		70 - 130

Lab Sample ID: MB 880-38298/5-A Client Sample ID: Method Blank

Matrix: Solid

Analysis Batch: 38318

	MB	MB						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		10/31/22 17:00	11/01/22 11:40	1
Toluene	<0.00200	U	0.00200	mg/Kg		10/31/22 17:00	11/01/22 11:40	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		10/31/22 17:00	11/01/22 11:40	1
m-Xylene & p-Xylene	<0.00400	U	0.00400	mg/Kg		10/31/22 17:00	11/01/22 11:40	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		10/31/22 17:00	11/01/22 11:40	1
Xylenes, Total	< 0.00400	U	0.00400	mg/Kg		10/31/22 17:00	11/01/22 11:40	1

MB MB

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	79		70 - 130	10/31/22 17:00	11/01/22 11:40	1
1,4-Difluorobenzene (Surr)	91		70 - 130	10/31/22 17:00	11/01/22 11:40	1

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

Lab Sample ID: MB 880-38261/1-A Client Sample ID: Method Blank Prep Type: Total/NA

Matrix: Solid Analysis Batch: 38217

мв мв Result Qualifier Unit Prepared <50.0 U 50.0 mg/Kg 10/31/22 10:25 10/31/22 09:53 Gasoline Range Organics

(GRO)-C6-C10

Eurofins Carlsbad

Prep Batch: 38261

Prep Type: Total/NA

Prep Batch: 38298

Client: Ensolum Job ID: 890-3322-1 Project/Site: PLU 27 Brushy Draw 167

SDG: 03E1558100

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

Lab Sample ID: MB 880-38261/1-A Client Sample ID: Method Blank **Matrix: Solid** Prep Type: Total/NA Prep Batch: 38261 Analysis Batch: 38217 MB MB

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		10/31/22 10:25	10/31/22 09:53	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		10/31/22 10:25	10/31/22 09:53	1
	МВ	MB						
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	87		70 - 130			10/31/22 10:25	10/31/22 09:53	1
o-Ternhenyl	99		70 130			10/31/22 10:25	10/31/22 09:53	1

Lab Sample ID: LCS 880-38261/2-A Client Sample ID: Lab Control Sample **Matrix: Solid** Prep Type: Total/NA Analysis Batch: 38217 Prep Batch: 38261 LCS LCS Spike Analyte Added Result Qualifier Unit %Rec Limits Gasoline Range Organics 1000 903.3 90 70 - 130 mg/Kg (GRO)-C6-C10 1000 1384 *+ Diesel Range Organics (Over mg/Kg 138 70 - 130 C10-C28) LCS LCS %Recovery Qualifier Limits Surrogate 1-Chlorooctane 131 S1+ 70 - 130 o-Terphenyl 146 S1+ 70 - 130

Lab Sample ID: LCSD 880-38261/3-A Client Sample ID: Lab Control Sample Dup **Matrix: Solid** Prep Type: Total/NA

Analysis Batch: 38217 Prep Batch: 38261

	Spike	LCSD	LCSD				%Rec		RPD	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit	
Gasoline Range Organics	1000	944.8		mg/Kg		94	70 - 130	4	20	
(GRO)-C6-C10										
Diesel Range Organics (Over	1000	1439	*+	mg/Kg		144	70 - 130	4	20	
C10-C28)										

	LCSD	LCSD	
Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane	133	S1+	70 - 130
o-Terphenyl	148	S1+	70 - 130

Lab Sample ID: 890-3333-A-1-D MS Client Sample ID: Matrix Spike

Matrix: Solid Prep Type: Total/NA Analysis Batch: 38217 Prep Batch: 38261

	Sample	Sample	Spike	MS	MS				%Rec	
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Gasoline Range Organics	<50.0	U	997	863.1		mg/Kg		85	70 - 130	
(GRO)-C6-C10										
Diesel Range Organics (Over	<50.0	U *+	997	1014		mg/Kg		100	70 - 130	

C10-C28)	.00.0		007	1011	mg/rtg	100
	MS	MS				
Surrogate	%Recovery	Qualifier	Limits			
1-Chlorooctane	102		70 - 130			
o-Terphenyl	103		70 - 130			

QC Sample Results

Client: Ensolum Job ID: 890-3322-1 SDG: 03E1558100 Project/Site: PLU 27 Brushy Draw 167

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

Lab Sample ID: 890-3333-A-1-E MSD

Matrix: Solid

Analysis Batch: 38217

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 38261 RPD Limit Limits

Sample Sample Spike MSD MSD Result Qualifier Added Result Qualifier RPD Analyte Unit %Rec Gasoline Range Organics <50.0 U 999 861.4 mg/Kg 84 70 - 130 0 20 (GRO)-C6-C10 999 Diesel Range Organics (Over <50.0 U*+ 1025 mg/Kg 101 70 - 130

C10-C28)

MSD MSD

Surrogate	%Recovery	Qualifier	Limits		
1-Chlorooctane	102		70 - 130		
o-Terphenyl	104		70 - 130		

Lab Sample ID: MB 880-38325/1-A Client Sample ID: Method Blank

Matrix: Solid

Analysis Batch: 38323

Prep Type: Total/NA

Prep Batch: 38325

	IVID	IVID						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics	<50.0	U	50.0	mg/Kg		11/01/22 08:49	11/01/22 09:56	1
(GRO)-C6-C10								
Diesel Range Organics (Over	<50.0	U	50.0	mg/Kg		11/01/22 08:49	11/01/22 09:56	1
C10-C28)								
OII Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		11/01/22 08:49	11/01/22 09:56	1

MB MB

Surrogate	%Recovery Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	77	70 - 130	11/01/22 08:49	11/01/22 09:56	1
o-Terphenyl	83	70 - 130	11/01/22 08:49	11/01/22 09:56	1

Lab Sample ID: LCS 880-38325/2-A

Matrix: Solid

Analysis Batch: 38323

Client	Sample	ID: Lab	Control	Sample
--------	--------	---------	---------	--------

Prep Type: Total/NA

Prep Batch: 38325

	Spike	LCS	LCS				%Rec		
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits		
Gasoline Range Organics	1000	1179	-	mg/Kg		118	70 - 130		_
(GRO)-C6-C10									
Diesel Range Organics (Over	1000	1120		mg/Kg		112	70 - 130		
C10-C28)									

LCS LCS

Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane	112		70 - 130
o-Terphenyl	120		70 - 130

Lab Sample ID: LCSD 880-38325/3-A

Matrix: Solid

Analysis Batch: 38323

Prep Type: Total/NA

Prep Batch: 38325

	Spike	LCSD	LCSD				%Rec		RPD	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit	
Gasoline Range Organics	1000	1081		mg/Kg		108	70 - 130	9	20	
(GRO)-C6-C10										
Diesel Range Organics (Over	1000	1234		mg/Kg		123	70 - 130	10	20	
C10-C28)										

Client: Ensolum Job ID: 890-3322-1 Project/Site: PLU 27 Brushy Draw 167

SDG: 03E1558100

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

Lab Sample ID: LCSD 880-38325/3-A **Matrix: Solid**

Analysis Batch: 38323

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 38325

	LCSD	LCSD	
Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane	121		70 - 130
o-Terphenyl	128		70 - 130

Lab Sample ID: 890-3322-2 MS Client Sample ID: PH02A

Matrix: Solid

Analysis Batch: 38323

Prep Type: Total/NA Prep Batch: 38325

	Sample	Sample	Spike	MS	MS				%Rec
Analyte	•	Qualifier	Added		Qualifier	Unit	D	%Rec	Limits
Gasoline Range Organics (GRO)-C6-C10	<50.0	U F1	997	1043		mg/Kg		102	70 - 130
Diesel Range Organics (Over	<50.0	U F1 F2	997	809.2		mg/Kg		77	70 - 130
C10-C28)									

C10-C28)

	IVIS	IVIS	
Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane	73		70 - 130
o-Terphenyl	69	S1-	70 - 130

Lab Sample ID: 890-3322-2 MSD Client Sample ID: PH02A

Matrix: Solid

Analysis Batch: 38323

Prep Type: Total/NA Prep Batch: 38325

	Sample	Sample	Spike	MSD	MSD				%Rec		RPD	
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit	
Gasoline Range Organics	<50.0	U F1	999	899.6		mg/Kg		88	70 - 130	15	20	
(GRO)-C6-C10												
Diesel Range Organics (Over	<50.0	U F1 F2	999	1022	F2	mg/Kg		98	70 - 130	23	20	
C10-C28)												

MSD MSD %Recovery Qualifier Limits Surrogate 70 - 130 1-Chlorooctane 90 o-Terphenyl 85 70 - 130

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-38262/1-A Client Sample ID: Method Blank **Matrix: Solid Prep Type: Soluble**

Analysis Batch: 38428

мв мв Analyte Result Qualifier RL Unit Prepared Analyzed Dil Fac Chloride <5.00 U 5.00 mg/Kg 11/01/22 22:29

Lab Sample ID: LCS 880-38262/2-A **Client Sample ID: Lab Control Sample** Matrix: Solid **Prep Type: Soluble**

Analysis Batch: 38428

	Spike	LCS	LCS				%Rec	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Chloride	250	262.5		mg/Kg		105	90 - 110	

QC Sample Results

Client: Ensolum Job ID: 890-3322-1 Project/Site: PLU 27 Brushy Draw 167

SDG: 03E1558100

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: LCSD 880-38262/3-A Client Sample ID: Lab Control Sample Dup **Matrix: Solid Prep Type: Soluble**

Analysis Batch: 38428

	Sp	ike LCSI	LCSD				%Rec		RPD	
Analyte	Ado	led Resul	t Qualifier	Unit	D	%Rec	Limits	RPD	Limit	
Chloride		265.	5	mg/Kg	_	106	90 - 110	1	20	

Lab Sample ID: 890-3319-A-1-B MS Client Sample ID: Matrix Spike **Prep Type: Soluble**

Matrix: Solid

Analysis Batch: 38428

	Sample	Sample	Spike	MS	MS				%Rec		
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits		
Chloride	151		251	401.6		mg/Kg		100	90 - 110		_

Lab Sample ID: 890-3319-A-1-C MSD **Client Sample ID: Matrix Spike Duplicate Prep Type: Soluble**

Matrix: Solid

Analysis Batch: 38428

	Sample	Sample	Spike	MSD	MSD				%Rec		RPD
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Chloride	151		251	394.5		mg/Kg		97	90 - 110	2	20

QC Association Summary

Client: Ensolum

Project/Site: PLU 27 Brushy Draw 167

Job ID: 890-3322-1 SDG: 03E1558100

GC VOA

Prep Batch: 38293

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3322-1	PH02	Total/NA	Solid	5035	
890-3322-2	PH02A	Total/NA	Solid	5035	
MB 880-38293/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-38293/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-38293/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
890-3320-A-1-C MS	Matrix Spike	Total/NA	Solid	5035	
890-3320-A-1-D MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	

Prep Batch: 38298

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 880-38298/5-A	Method Blank	Total/NA	Solid	5035	

Analysis Batch: 38318

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3322-1	PH02	Total/NA	Solid	8021B	38293
890-3322-2	PH02A	Total/NA	Solid	8021B	38293
MB 880-38293/5-A	Method Blank	Total/NA	Solid	8021B	38293
MB 880-38298/5-A	Method Blank	Total/NA	Solid	8021B	38298
LCS 880-38293/1-A	Lab Control Sample	Total/NA	Solid	8021B	38293
LCSD 880-38293/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	38293
890-3320-A-1-C MS	Matrix Spike	Total/NA	Solid	8021B	38293
890-3320-A-1-D MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	38293

Analysis Batch: 38476

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3322-1	PH02	Total/NA	Solid	Total BTEX	
890-3322-2	PH02A	Total/NA	Solid	Total BTEX	

GC Semi VOA

Analysis Batch: 38217

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3322-1	PH02	Total/NA	Solid	8015B NM	38261
MB 880-38261/1-A	Method Blank	Total/NA	Solid	8015B NM	38261
LCS 880-38261/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	38261
LCSD 880-38261/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	38261
890-3333-A-1-D MS	Matrix Spike	Total/NA	Solid	8015B NM	38261
890-3333-A-1-E MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	38261

Prep Batch: 38261

Lab Sample ID 890-3322-1	Client Sample ID PH02	Prep Type Total/NA	Matrix Solid	Method 8015NM Prep	Prep Batch
MB 880-38261/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-38261/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-38261/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
890-3333-A-1-D MS	Matrix Spike	Total/NA	Solid	8015NM Prep	
890-3333-A-1-E MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	

Analysis Batch: 38323

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3322-2	PH02A	Total/NA	Solid	8015B NM	38325

QC Association Summary

Client: Ensolum

Project/Site: PLU 27 Brushy Draw 167

Job ID: 890-3322-1

SDG: 03E1558100

GC Semi VOA (Continued)

Analysis Batch: 38323 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 880-38325/1-A	Method Blank	Total/NA	Solid	8015B NM	38325
LCS 880-38325/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	38325
LCSD 880-38325/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	38325
890-3322-2 MS	PH02A	Total/NA	Solid	8015B NM	38325
890-3322-2 MSD	PH02A	Total/NA	Solid	8015B NM	38325

Prep Batch: 38325

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3322-2	PH02A	Total/NA	Solid	8015NM Prep	
MB 880-38325/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-38325/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-38325/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
890-3322-2 MS	PH02A	Total/NA	Solid	8015NM Prep	
890-3322-2 MSD	PH02A	Total/NA	Solid	8015NM Prep	

Analysis Batch: 38393

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3322-1	PH02	Total/NA	Solid	8015 NM	
890-3322-2	PH02A	Total/NA	Solid	8015 NM	
_					

HPLC/IC

Leach Batch: 38262

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3322-1	PH02	Soluble	Solid	DI Leach	
890-3322-2	PH02A	Soluble	Solid	DI Leach	
MB 880-38262/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-38262/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-38262/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
890-3319-A-1-B MS	Matrix Spike	Soluble	Solid	DI Leach	
890-3319-A-1-C MSD	Matrix Spike Duplicate	Soluble	Solid	DLLeach	

Analysis Batch: 38428

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3322-1	PH02	Soluble	Solid	300.0	38262
890-3322-2	PH02A	Soluble	Solid	300.0	38262
MB 880-38262/1-A	Method Blank	Soluble	Solid	300.0	38262
LCS 880-38262/2-A	Lab Control Sample	Soluble	Solid	300.0	38262
LCSD 880-38262/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	38262
890-3319-A-1-B MS	Matrix Spike	Soluble	Solid	300.0	38262
890-3319-A-1-C MSD	Matrix Spike Duplicate	Soluble	Solid	300.0	38262

Client: Ensolum

Job ID: 890-3322-1 Project/Site: PLU 27 Brushy Draw 167 SDG: 03E1558100

Client Sample ID: PH02 Lab Sample ID: 890-3322-1

Matrix: Solid

Date Collected: 10/27/22 09:50 Date Received: 10/28/22 12:18

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.03 g	5 mL	38293	10/31/22 14:07	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	38318	11/02/22 00:08	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			38476	11/02/22 10:24	AJ	EET MID
Total/NA	Analysis	8015 NM		1			38393	11/01/22 13:05	AJ	EET MID
Total/NA	Prep	8015NM Prep			10.00 g	10 mL	38261	10/31/22 10:25	AM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	38217	10/31/22 19:15	AJ	EET MID
Soluble	Leach	DI Leach			4.98 g	50 mL	38262	10/31/22 10:26	СН	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	38428	11/01/22 23:34	CH	EET MID

Client Sample ID: PH02A Lab Sample ID: 890-3322-2

Date Collected: 10/27/22 10:00 Matrix: Solid

Date Received: 10/28/22 12:18

	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	38293	10/31/22 14:07	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	38318	11/02/22 00:28	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			38476	11/02/22 10:24	AJ	EET MID
Total/NA	Analysis	8015 NM		1			38393	11/02/22 10:14	AJ	EET MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	38325	11/01/22 08:49	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	38323	11/01/22 12:27	SM	EET MIC
Soluble	Leach	DI Leach			5.02 g	50 mL	38262	10/31/22 10:26	СН	EET MIC
Soluble	Analysis	300.0		1	50 mL	50 mL	38428	11/01/22 23:39	CH	EET MID

Laboratory References:

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

Accreditation/Certification Summary

 Client: Ensolum
 Job ID: 890-3322-1

 Project/Site: PLU 27 Brushy Draw 167
 SDG: 03E1558100

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	NE	ELAP	T104704400-22-24	06-30-23
The following analytes	are included in this report, bu	it the laboratory is not certific	ed by the governing authority. This list ma	av include analytes for
the agency does not of	fer certification.	•	, , ,	.,
the agency does not of Analysis Method	fer certification . Prep Method	Matrix	Analyte	-,
0 ,		Matrix Solid	Analyte Total TPH	

3

4

5

7

9

11

13

14

Method Summary

Client: Ensolum

Project/Site: PLU 27 Brushy Draw 167

Job ID: 890-3322-1 SDG: 03E1558100

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

Protocol References:

ASTM = ASTM International

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

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

TAL SOP = TestAmerica Laboratories, Standard Operating Procedure

Laboratory References:

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

Eurofins Carlsbad

•

3

4

6

9

10

13

14

Sample Summary

Client: Ensolum

Project/Site: PLU 27 Brushy Draw 167

Job ID: 890-3322-1

SDG: 03E1558100

_

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-3322-1	PH02	Solid	10/27/22 09:50	10/28/22 12:18	1
890-3322-2	PH02A	Solid	10/27/22 10:00	10/28/22 12:18	2

Chain of Custody

Houston, TX (281) 240-4200, Dallas, TX (214) 902-0300 Midland, TX (432) 704-5440, San Antonio, TX (210) 509-3334

Work Order No:

Sample Identification	ont of ont ont of ont	Grab 1	Time Depth Comp Con Sampled Comp Con Comp Con 1 Grab 1 10:00 2 Grab 1 1 10:00 2 Grab 1 1 10:00 Example Con	Date Time Sampled Sampled Sampled De 10/27/2022 9:50 10:00 10/27/2022 10:00 8RCRA 13PPM BRCRA 13PPM TCLP / SPLP Samples constitutes a valid purchase of samples and shall not assume any piled to each project and a charge of Received by: (Signature)	stion Matrix S S S S S 200.8 / 6020: 200.8 / 6020: letal(s) to be analyzone and relinquishment of be liable only for the cost charge of \$85.00 will be again of \$85.00 will be again.	Sample Identification PH02 PH02 S 10 PH02A S 10 PH02A S 10 PH02A S 10 Circle Method(s) and Metal(s) to be analyzed Motice: Signature of this document and relinquishment of said of service. Eurofins Xenco will be liable only for the cost of sof Eurofins Xenco. A minimum charge of \$85.00 will be appliable only for the cost of sof Eurofins Xenco. A minimum charge of \$85.00 will be appliable only for the cost of sof Eurofins Xenco. A minimum charge of \$85.00 will be appliable only for the cost of sof Eurofins Xenco. A minimum charge of \$85.00 will be appliable only for the cost of sof Eurofins Xenco. A minimum charge of \$85.00 will be appliable only for the cost of sof Eurofins Xenco. A minimum charge of \$85.00 will be appliable only for the cost of sof Eurofins Xenco. A minimum charge of \$85.00 will be appliable only for the cost of sof Eurofins Xenco. A minimum charge of \$85.00 will be appliable only for the cost of sof Eurofins Xenco.
NAPE Cost	X X X X X X X X X X X X X X X X X X X	mp Cont 1 1 rab 1 1 1 Al Sk 8RCRA 8RCRA 8RCRA sim client corruptions of the sample such such sample such sample such sample such sample such sample such such sample such such sample such sample such sample such	ne Depth Co. 50 1 G. 00 2 G. 00 2 G. 00 Branchase order fro. 13PPM Texas assume any responsit assume any responsit assume any responsit assume any responsit or so for each of the sound of	Date Tir Sampled Sam 10/27/2022 9:10/27/2022 10:10/27/2022	stion Matrix S S S S S 200.8 / 6020: letal(s) to be analyz ent and relinquishment of the liable only for the cost the liable only for the li	Sample Identific PH02 PH02A Total 200.7 / 6010 Ircle Method(s) and Notice: Signature of this documents service. Eurofins Xenco will Eurofins Xenco. A minimum
NAP AFE Cost	X X CHLOI X X TPH (8 X X TPH	mp Cont 1 1 rab 1 1 1 Al St 8RCRA 8RCRA 8RCRA 8RCRA	ne Depth Co 50 1 G 00 2 G 00 2 G 13PPM Texas 13PPM Texas 13PPLP 6010: Basume any responsit da charge of \$5 for ea	Date Tir Sampled Sam 10/27/2022 9:10/27/2022 10:10/27/2022	stion Matrix S S S S 200.8 / 6020: letal(s) to be analyzonal and relinquishment of be liable only for the cost charge of \$85.00 will be ag	Sample Identific Sample Identific PH02 PH02A Total 200.7 / 6010 ircle Method(s) and Note: Signature of this documus service. Eurofins Xenco will Eurofins Xenco. A minimum
Incic NAP Cost Cost Mg Mn Mo Ni K Se Ag SiO ₂ Na Sr Ni Se Ag TI U Hg: 1631 / 245.	X X CHLOI		ne Depth Co 50 1 G 00 2 G 00 2 G	Date ampled //27/2022 //27/2022 8RCI	stion Matrix S S S 200.8 / 6020:	Sample Identific PH02 PH02A Total 200.7 / 6010 Total 200.7 / 6010
Cost Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag SiO ₂ Na Sr	X X CHLOI	≥	Depth 1, 2, 2, PM Texa	Sam 9:	Matrix S S S	Sample Identific PH02 PH02A PH02A Total 200.7 / 6010
Incic NAP Cost	× × CHLOI		Depth 2'		Matrix	Sample Identific PH02 PH02A
Incic NAP Cost	× × CHLOI		Depth 1, 2,		S S Matrix	Sample Identific PH02 PH02A
Incic NAP	× × CHLOI		Depth 1, 2,		S S Matrix	Sample Identific PH02 PH02A
Incic NAP	× × CHLOI		Depth 2'		Matrix	Sample Identific PH02 PH02A
Incic NAP	× × CHLOI		Depth 2'		S S Matrix	Sample Identific PH02 PH02A
Incic NAP Cost	× × CHLOI		Depth 1, 2,		S S Matrix	Sample Identific PH02 PH02A
Incig NAP Cost	× × CHLOI		Depth 1		S S Matrix	Sample Identific PH02 PH02A
Incic NAP Cost	× × CHLOI		Depth 2'		S S Matrix	Sample Identific PH02 PH02A
Incic	× × CHLOI		Depth 2'		S S Matrix	Sample Identific PH02 PH02A
Incic	× CHLOI		Depth		Matrix	Sample Identific PH02
	CHLOI		Depth		Matrix	otal Containers: Sample Identific
	31	-			10	otal Containers:
NaUT+Ascorbic Acid. SAFC	015)		re: Fy O	Corrected Temperature:		
			7	Temperature Reading:	Yes No NIA	Sample Custody Seals:
890-3322 Chain of Custody Na ₂ S ₂ O ₃ . NaSO ₃	PA:	P	-0.9	Correction Factor:	Yes No MA	Cooler Custody Seals:
NaHSO ₄ : NABIS	300.	arar	00 - WM	Thermometer ID:		Samples Received Intact:
H₃PO¿ HP	0)	nete	ice: (Kes) No	(Yes) No Wet Ice:	Temp Blank:	SAMPLE RECEIPT
H ₂ SO ₄ : H ₂ NaOH: Na		_	the lab, if received by 4:30pm	the la		PO #
		by	TAT starts the day received by		Connor Whitman	Sampler's Name:
2)ate:	Due Date:		Project Location:
None: NO DI Water: H ₂ O		Code	utine Rush) Routine	03E1558100	Project Number:
ANALYSIS REQUEST Preservative Codes			Turn Around	aw 167	PLU 27 Brushy Draw 167	Project Name:
Deliverables: EDD ADaPT Other:	onWebil cem	en@Exx	Email: Garrett Gree		303-887-2946	Phone: 303
Reporting: Level II Level III PST/UST	Carlsbad, NM 88220	IP:	City, State ZIP:		Carlsbad, NM 88220	City, State ZIP: Car
State of Project:	3104 E. Green St		Address:	Ŋ	3122 National Parks Hwy	Address: 312
Program: UST/PST PRP Brownfields RRC Superfund	XTO Energy	ame:	Company Name		Ensolum	
Work Order Comments	Garrett Green	erent)	Bill to: (if different)		Kalei Jennings	Project Manager: Kal

Revised Date: 08/25/2020 Rev 2020.2

11/2/2022

Login Sample Receipt Checklist

 Client: Ensolum
 Job Number: 890-3322-1

 SDG Number: 03E1558100

Login Number: 3322 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.	N/A	Refer to Job Narrative for details.
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	

e 120 0j 173

Login Sample Receipt Checklist

Client: Ensolum Job Number: 890-3322-1 SDG Number: 03E1558100

> List Source: Eurofins Midland List Creation: 10/31/22 09:20 AM

Creator: Rodriguez, Leticia

Login Number: 3322

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	

4

1

2

А

9

13

14

<6mm (1/4").

Environment Testing

ANALYTICAL REPORT

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

Laboratory Job ID: 890-3320-1

Laboratory Sample Delivery Group: 03E1558100 Client Project/Site: PLU 27 Brushy Draw 167

For:

Ensolum 705 W. Wadley Suite 210 Midland, Texas 79701

Attn: Kalei Jennings

JURAMER

Authorized for release by: 11/2/2022 3:58:21 PM

Jessica Kramer, Project Manager (432)704-5440

Jessica.Kramer@et.eurofinsus.com

.....LINKS

Review your project results through

Have a Question?



Visit us at:

www.eurofinsus.com/Env
Released to Imaging: 4/4/2023 2:55:26 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

2

3

4

5

7

8

10

12

13

Client: Ensolum
Project/Site: PLU 27 Brushy Draw 167
Laboratory Job ID: 890-3320-1
SDG: 03E1558100

Table of Contents

Cover Page	1
Table of Contents	2
Definitions/Glossary	3
Case Narrative	4
Client Sample Results	5
Surrogate Summary	7
QC Sample Results	8
QC Association Summary	12
Lab Chronicle	14
Certification Summary	15
Method Summary	16
Sample Summary	17
Chain of Custody	18
Receipt Checklists	19

2

3

А

5

7

9

10

12

13

14

Definitions/Glossary

Job ID: 890-3320-1 Client: Ensolum Project/Site: PLU 27 Brushy Draw 167

SDG: 03E1558100

Qualifiers

GC VOA

Qualifier **Qualifier Description**

Indicates the analyte was analyzed for but not detected.

GC Semi VOA

Qualifier **Qualifier Description**

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

HPLC/IC

Qualifier **Qualifier Description**

Indicates the analyte was analyzed for but not detected.

Glossary

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

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

%R Percent Recovery CFL Contains Free Liquid CFU Colony Forming Unit CNF Contains No Free Liquid

DER Duplicate Error Ratio (normalized absolute difference)

Dil Fac **Dilution Factor**

DL Detection Limit (DoD/DOE)

DL, RA, RE, IN Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample

DLC Decision Level Concentration (Radiochemistry)

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

MCL EPA recommended "Maximum Contaminant Level" 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

Project/Site: PLU 27 Brushy Draw 167

Job ID: 890-3320-1

SDG: 03E1558100

Job ID: 890-3320-1

Laboratory: Eurofins Carlsbad

Narrative

Job Narrative 890-3320-1

Receipt

The samples were received on 10/28/2022 12:18 PM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 5.0°C

Receipt Exceptions

The following samples were received and analyzed from an unpreserved bulk soil jar: PH03 (890-3320-1) and PH03A (890-3320-2).

GC VOA

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

GC Semi VOA

Method 8015MOD_NM: The laboratory control sample (LCS) associated with preparation batch 880-38261 and analytical batch 880-38217 was outside acceptance criteria. Re-extraction and/or re-analysis could not be performed; therefore, the data have been reported. The batch matrix spike/matrix spike duplicate (MS/MSD) was within acceptance limits and may be used to evaluate matrix performance.

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

HPLC/IC

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

Client Sample Results

Client: Ensolum Job ID: 890-3320-1 Project/Site: PLU 27 Brushy Draw 167 SDG: 03E1558100

Client Sample ID: PH03

Lab Sample ID: 890-3320-1 Date Collected: 10/27/22 09:40 Matrix: Solid Date Received: 10/28/22 12:18

Sample Depth: 1

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00202	U	0.00202	mg/Kg		10/31/22 14:07	11/01/22 22:46	1
Toluene	<0.00202	U	0.00202	mg/Kg		10/31/22 14:07	11/01/22 22:46	1
Ethylbenzene	<0.00202	U	0.00202	mg/Kg		10/31/22 14:07	11/01/22 22:46	1
m-Xylene & p-Xylene	<0.00403	U	0.00403	mg/Kg		10/31/22 14:07	11/01/22 22:46	1
o-Xylene	<0.00202	U	0.00202	mg/Kg		10/31/22 14:07	11/01/22 22:46	1
Xylenes, Total	<0.00403	U	0.00403	mg/Kg		10/31/22 14:07	11/01/22 22:46	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	93		70 - 130			10/31/22 14:07	11/01/22 22:46	1
1,4-Difluorobenzene (Surr)	78		70 - 130			10/31/22 14:07	11/01/22 22:46	1
Method: TAL SOP Total BTEX -	Total BTEX Cald	culation						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00403	U	0.00403	mg/Kg			11/02/22 10:24	1
Mathadi CMO4C 2045 NM Diag	al Banna Orman	:aa (DDO) (00)					
Method: SW846 8015 NM - Diese	ei Kange Organ	ICS (DRU) (
Analyte	Posult	, ,,	•	Unit	D	Propared	Analyzod	Dil Fac
Analyte Total TPH		Qualifier	RL	Unit	D	Prepared	Analyzed	
Analyte Total TPH		Qualifier	•	Mnit mg/Kg	<u>D</u>	Prepared	Analyzed 11/01/22 13:05	
	<49.8	Qualifier U	RL 49.8		<u>D</u>	Prepared		
Total TPH	<49.8 sel Range Orga	Qualifier U	RL 49.8		<u>D</u>	Prepared Prepared		1
Total TPH Method: SW846 8015B NM - Die Analyte Gasoline Range Organics	<49.8 sel Range Orga	Qualifier U nics (DRO) Qualifier	RL 49.8	mg/Kg	-		11/01/22 13:05	1 Dil Fac
Total TPH Method: SW846 8015B NM - Die Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over	<49.8 sel Range Orga Result	Qualifier U nics (DRO) Qualifier U	RL 49.8 (GC)	mg/Kg	-	Prepared	11/01/22 13:05 Analyzed	Dil Fac
Total TPH Method: SW846 8015B NM - Die Analyte Gasoline Range Organics (GRO)-C6-C10	<49.8 sel Range Orga Result <49.8	Qualifier U nics (DRO) Qualifier U U *+	RL 49.8 (GC) RL 49.8	mg/Kg Unit mg/Kg	-	Prepared 10/31/22 10:25	11/01/22 13:05 Analyzed 10/31/22 17:49	Dil Fac
Total TPH Method: SW846 8015B NM - Die Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28)	<49.8 sel Range Orga Result <49.8 <49.8	Qualifier U nics (DRO) Qualifier U U *+	RL 49.8 (GC) RL 49.8 49.8	mg/Kg Unit mg/Kg mg/Kg	-	Prepared 10/31/22 10:25 10/31/22 10:25	Analyzed 10/31/22 17:49 10/31/22 17:49	1 Dil Fac
Total TPH Method: SW846 8015B NM - Die Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) Oll Range Organics (Over C28-C36)	<49.8 sel Range Orga Result <49.8 <49.8 <49.8	Qualifier U nics (DRO) Qualifier U U *+	RL 49.8 (GC) RL 49.8 49.8 49.8	mg/Kg Unit mg/Kg mg/Kg	-	Prepared 10/31/22 10:25 10/31/22 10:25 10/31/22 10:25	Analyzed 10/31/22 17:49 10/31/22 17:49 10/31/22 17:49	Dil Fac
Total TPH Method: SW846 8015B NM - Die Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) Oll Range Organics (Over C28-C36) Surrogate	<49.8 sel Range Orga Result <49.8 <49.8 <49.8 %Recovery	Qualifier U nics (DRO) Qualifier U U *+	RL 49.8 (GC) RL 49.8 49.8 49.8 Limits	mg/Kg Unit mg/Kg mg/Kg	-	Prepared 10/31/22 10:25 10/31/22 10:25 10/31/22 10:25 Prepared	Analyzed 10/31/22 17:49 10/31/22 17:49 10/31/22 17:49 Analyzed	Dil Fac
Total TPH Method: SW846 8015B NM - Die Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) OII Range Organics (Over C28-C36) Surrogate 1-Chlorooctane	<49.8 sel Range Orga Result <49.8 <49.8 <49.8 %Recovery 83 95	Qualifier U nics (DRO) Qualifier U U *+ U Qualifier	RL 49.8 (GC) RL 49.8 49.8 49.8 49.8 Limits 70 - 130 70 - 130	mg/Kg Unit mg/Kg mg/Kg	-	Prepared 10/31/22 10:25 10/31/22 10:25 10/31/22 10:25 Prepared 10/31/22 10:25	Analyzed 10/31/22 17:49 10/31/22 17:49 10/31/22 17:49 Analyzed 10/31/22 17:49	Dil Fac 1 1 Dil Fac
Total TPH Method: SW846 8015B NM - Die Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) OII Range Organics (Over C28-C36) Surrogate 1-Chlorooctane o-Terphenyl	\$\sell Range Orga Result <49.8 <49.8 <49.8 <83 95 s, Ion Chromato	Qualifier U nics (DRO) Qualifier U U *+ U Qualifier	RL 49.8 (GC) RL 49.8 49.8 49.8 49.8 Limits 70 - 130 70 - 130	mg/Kg Unit mg/Kg mg/Kg	-	Prepared 10/31/22 10:25 10/31/22 10:25 10/31/22 10:25 Prepared 10/31/22 10:25	Analyzed 10/31/22 17:49 10/31/22 17:49 10/31/22 17:49 Analyzed 10/31/22 17:49	1 1 Dil Fac

Client Sample ID: PH03A Lab Sample ID: 890-3320-2

Date Collected: 10/27/22 10:20 Date Received: 10/28/22 12:18

Sample Depth: 3

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		10/31/22 14:07	11/01/22 23:06	1
Toluene	<0.00200	U	0.00200	mg/Kg		10/31/22 14:07	11/01/22 23:06	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		10/31/22 14:07	11/01/22 23:06	1
m-Xylene & p-Xylene	<0.00399	U	0.00399	mg/Kg		10/31/22 14:07	11/01/22 23:06	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		10/31/22 14:07	11/01/22 23:06	1
Xylenes, Total	<0.00399	U	0.00399	mg/Kg		10/31/22 14:07	11/01/22 23:06	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	93		70 - 130			10/31/22 14:07	11/01/22 23:06	1

Eurofins Carlsbad

Matrix: Solid

Client Sample Results

 Client: Ensolum
 Job ID: 890-3320-1

 Project/Site: PLU 27 Brushy Draw 167
 SDG: 03E1558100

Client Sample ID: PH03A Lab Sample ID: 890-3320-2

Date Collected: 10/27/22 10:20 Matrix: Solid
Date Received: 10/28/22 12:18

Sample Depth: 3

Chloride

urrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
,4-Difluorobenzene (Surr)	89		70 - 130			10/31/22 14:07	11/01/22 23:06	
Method: TAL SOP Total BTEX -	Total BTEX Cald	ulation						
nalyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
otal BTEX	<0.00399	U	0.00399	mg/Kg			11/02/22 10:24	1
Method: SW846 8015 NM - Dies	sel Range Organi	ics (DRO) (GC)					
nalyte		Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
otal TPH	<49.9	U	49.9	mg/Kg			11/01/22 13:05	
nalyte	Result	Qualifier	RL	Unit	<u>D</u>	Prepared	Analyzed	Dil Fa
Method: SW846 8015B NM - Did	esel Range Orga	nics (DRO)	(GC)					
Sasoline Range Organics	<49.9	U	49.9	mg/Kg		10/31/22 10:25	10/31/22 18:10	1
GRO)-C6-C10 liesel Range Organics (Over	<49.9	11*+	49.9	mg/Kg		10/31/22 10:25	10/31/22 18:10	
c10-C28)	10.0	•	10.0	mg/rtg		10/01/22 10:20	10/01/22 10:10	
II Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg		10/31/22 10:25	10/31/22 18:10	
urrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fa
-Chlorooctane	96		70 - 130			10/31/22 10:25	10/31/22 18:10	
-Terphenyl	107		70 - 130			10/31/22 10:25	10/31/22 18:10	

5.04

mg/Kg

161

11/01/22 23:10

Surrogate Summary

 Client: Ensolum
 Job ID: 890-3320-1

 Project/Site: PLU 27 Brushy Draw 167
 SDG: 03E1558100

Method: 8021B - Volatile Organic Compounds (GC)

Matrix: Solid Prep Type: Total/NA

				Percent Surrogate Recovery (Acceptance Limits)
		BFB1	DFBZ1	
Lab Sample ID	Client Sample ID	(70-130)	(70-130)	
890-3320-1	PH03	93	78	
890-3320-1 MS	PH03	99	109	
890-3320-1 MSD	PH03	102	105	
890-3320-2	PH03A	93	89	
LCS 880-38293/1-A	Lab Control Sample	90	96	
LCSD 880-38293/2-A	Lab Control Sample Dup	94	95	
MB 880-38293/5-A	Method Blank	79	94	
MB 880-38298/5-A	Method Blank	79	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)
890-3320-1	PH03	83	95
890-3320-2	PH03A	96	107
890-3333-A-1-D MS	Matrix Spike	102	103
890-3333-A-1-E MSD	Matrix Spike Duplicate	102	104
LCS 880-38261/2-A	Lab Control Sample	131 S1+	146 S1+
LCSD 880-38261/3-A	Lab Control Sample Dup	133 S1+	148 S1+
MB 880-38261/1-A	Method Blank	87	99

Surrogate Legend

1CO = 1-Chlorooctane

OTPH = o-Terphenyl

Client: Ensolum

Job ID: 890-3320-1 Project/Site: PLU 27 Brushy Draw 167 SDG: 03E1558100

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-38293/5-A

Matrix: Solid Analysis Batch: 38318 Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 38293

	MB	MR						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		10/31/22 14:07	11/01/22 22:24	1
Toluene	<0.00200	U	0.00200	mg/Kg		10/31/22 14:07	11/01/22 22:24	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		10/31/22 14:07	11/01/22 22:24	1
m-Xylene & p-Xylene	<0.00400	U	0.00400	mg/Kg		10/31/22 14:07	11/01/22 22:24	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		10/31/22 14:07	11/01/22 22:24	1
Xylenes, Total	<0.00400	U	0.00400	mg/Kg		10/31/22 14:07	11/01/22 22:24	1

MB MB

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	79		70 - 130	10/31/22 14	:07 11/01/22 22:24	1
1,4-Difluorobenzene (Surr)	94		70 - 130	10/31/22 14	:07 11/01/22 22:24	1

Lab Sample ID: LCS 880-38293/1-A **Client Sample ID: Lab Control Sample**

Matrix: Solid

Analysis Batch: 38318

Prep Type: Total/NA

Prep Batch: 38293

	Spike	LCS	LCS				%Rec	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Benzene	0.100	0.1154		mg/Kg		115	70 - 130	
Toluene	0.100	0.1012		mg/Kg		101	70 - 130	
Ethylbenzene	0.100	0.09494		mg/Kg		95	70 - 130	
m-Xylene & p-Xylene	0.200	0.1880		mg/Kg		94	70 - 130	
o-Xylene	0.100	0.09249		mg/Kg		92	70 - 130	

LCS LCS

Surrogate	%Recovery Qualifier	Limits
4-Bromofluorobenzene (Surr)	90	70 - 130
1,4-Difluorobenzene (Surr)	96	70 - 130

Lab Sample ID: LCSD 880-38293/2-A

Matrix: Solid

Analysis Batch: 38318

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 38293

LCSD LCSD RPD Spike %Rec Analyte Added Result Qualifier Unit %Rec Limits Limit Benzene 0.100 0.1117 mg/Kg 112 70 - 130 3 35 Toluene 0.100 0.09823 mg/Kg 98 70 - 130 3 35 Ethylbenzene 0.100 0.09439 mg/Kg 94 70 - 130 35 0.200 0.1882 m-Xylene & p-Xylene mg/Kg 94 70 - 130 35 0.100 0.09282 70 - 130 o-Xylene mg/Kg 35

LCSD LCSD

Surrogate	%Recovery	Qualifier	Limits
4-Bromofluorobenzene (Surr)	94		70 - 130
1,4-Difluorobenzene (Surr)	95		70 - 130

Lab Sample ID: 890-3320-1 MS

Matrix: Solid

Analysis Batch: 38318

Client Sample ID: PH03 Prep Type: Total/NA

Prep Batch: 38293

-	Sample	Sample	Spike	MS	MS				%Rec	
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Benzene	<0.00202	U	0.0998	0.09361		mg/Kg		94	70 - 130	
Toluene	<0.00202	U	0.0998	0.08271		mg/Kg		83	70 - 130	

QC Sample Results

Client: Ensolum Job ID: 890-3320-1 Project/Site: PLU 27 Brushy Draw 167 SDG: 03E1558100

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

Lab Sample ID: 890-3320-1 MS Client Sample ID: PH03 **Matrix: Solid** Prep Type: Total/NA

Analysis Batch: 38318 Prep Batch: 38293

	Sample	Sample	Spike	MS	MS				%Rec		
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits		
Ethylbenzene	<0.00202	U	0.0998	0.07970		mg/Kg		80	70 - 130		
m-Xylene & p-Xylene	<0.00403	U	0.200	0.1614		mg/Kg		81	70 - 130		
o-Xylene	<0.00202	U	0.0998	0.07990		mg/Kg		80	70 - 130		

MS MS Surrogate %Recovery Qualifier Limits 70 - 130 4-Bromofluorobenzene (Surr) 99

70 - 130 1,4-Difluorobenzene (Surr) 109

Client Sample ID: PH03 Lab Sample ID: 890-3320-1 MSD **Matrix: Solid** Prep Type: Total/NA

Analysis Batch: 38318 Prep Batch: 38293

	Sample	Sample	Spike	MSD	MSD				%Rec		RPD
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Benzene	<0.00202	U	0.0990	0.08103		mg/Kg		82	70 - 130	14	35
Toluene	<0.00202	U	0.0990	0.07148		mg/Kg		72	70 - 130	15	35
Ethylbenzene	<0.00202	U	0.0990	0.07120		mg/Kg		72	70 - 130	11	35
m-Xylene & p-Xylene	<0.00403	U	0.198	0.1437		mg/Kg		73	70 - 130	12	35
o-Xylene	<0.00202	U	0.0990	0.07128		mg/Kg		72	70 - 130	11	35

MSD MSD Surrogate %Recovery Qualifier Limits 70 - 130 4-Bromofluorobenzene (Surr) 102 1,4-Difluorobenzene (Surr) 70 - 130 105

Lab Sample ID: MB 880-38298/5-A Client Sample ID: Method Blank

Matrix: Solid Prep Type: Total/NA **Analysis Batch: 38318** Prep Batch: 38298 MB MB

Analyte	Result Q	ualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200 U	l .	0.00200	mg/Kg		10/31/22 17:00	11/01/22 11:40	1
Toluene	<0.00200 U	I	0.00200	mg/Kg		10/31/22 17:00	11/01/22 11:40	1
Ethylbenzene	<0.00200 U	I	0.00200	mg/Kg		10/31/22 17:00	11/01/22 11:40	1
m-Xylene & p-Xylene	<0.00400 U		0.00400	mg/Kg		10/31/22 17:00	11/01/22 11:40	1
o-Xylene	<0.00200 U	I	0.00200	mg/Kg		10/31/22 17:00	11/01/22 11:40	1
Xylenes, Total	<0.00400 U	I	0.00400	mg/Kg		10/31/22 17:00	11/01/22 11:40	1

	IVID	IVID				
Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	79		70 - 130	10/31/22 17:00	11/01/22 11:40	1
1,4-Difluorobenzene (Surr)	91		70 - 130	10/31/22 17:00	11/01/22 11:40	1

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

Lab Sample ID: MB 880-38261/1-A Client Sample ID: Method Blank **Matrix: Solid** Prep Type: Total/NA

Analysis Batch: 38217 Prep Batch: 38261 мв мв

Result Qualifier RL Unit Prepared <50.0 U 50.0 mg/Kg 10/31/22 10:25 10/31/22 09:53 Gasoline Range Organics (GRO)-C6-C10

QC Sample Results

Client: Ensolum Job ID: 890-3320-1 Project/Site: PLU 27 Brushy Draw 167 SDG: 03E1558100

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

Lab Sample ID: MB 880-38261/1-A **Matrix: Solid**

Analysis Batch: 38217

Client Sample ID: Method Blank

Prep Type: Total/NA Prep Batch: 38261

ı									
	Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
	Diesel Range Organics (Over	<50.0	U	50.0	mg/Kg		10/31/22 10:25	10/31/22 09:53	1
	C10-C28)	-50.0		50.0	··· - // / ··		40/04/00 40:05	40/24/22 20:52	4
	OII Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		10/31/22 10:25	10/31/22 09:53	1
ı									

MB MB

MR MR

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	87		70 - 130	10/31/22 10:25	10/31/22 09:53	1
o-Terphenyl	99		70 - 130	10/31/22 10:25	10/31/22 09:53	1

Client Sample ID: Lab Control Sample

Lab Sample ID: LCS 880-38261/2-A **Matrix: Solid** Prep Type: Total/NA Analysis Batch: 38217 Prep Batch: 38261

LCS LCS Spike Analyte Added Result Qualifier Unit %Rec Limits Gasoline Range Organics 1000 903.3 90 70 - 130 mg/Kg (GRO)-C6-C10 Diesel Range Organics (Over 1000 1384 *+ mg/Kg 138 70 - 130 C10-C28)

LCS LCS

Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane	131	S1+	70 - 130
o-Terphenyl	146	S1+	70 - 130

Lab Sample ID: LCSD 880-38261/3-A Client Sample ID: Lab Control Sample Dup Prep Type: Total/NA

Matrix: Solid

Analysis Batch: 38217

						-	Batch:		
Spike	LCSD	LCSD				%Rec		RPD	
Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit	

	Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
	Gasoline Range Organics	1000	944.8		mg/Kg		94	70 - 130	4	20
	(GRO)-C6-C10									
١	Diesel Range Organics (Over	1000	1439	*+	mg/Kg		144	70 - 130	4	20
	C10-C28)									

LCSD LCSD Surrogate %Recovery Qualifier Limits 1-Chlorooctane 133 S1+ 70 - 130 o-Terphenyl 148 S1+ 70 - 130

Lab Sample ID: 890-3333-A-1-D MS Client Sample ID: Matrix Spike

Matrix: Solid

Analysis Batch: 38217

Prep Type: Total/NA

Prep Batch: 38261

	Sample	Sample	Spike	MS	MS				%Rec	
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	997	863.1		mg/Kg		85	70 - 130	
Diesel Range Organics (Over C10-C28)	<50.0	U *+	997	1014		mg/Kg		100	70 - 130	

MS MS

Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane	102		70 - 130
o-Terphenyl	103		70 - 130

Job ID: 890-3320-1

Client: Ensolum Project/Site: PLU 27 Brushy Draw 167 SDG: 03E1558100

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

%Recovery Qualifier

<5.00 U

102

104

Lab Sample ID: 890-3333-A-1 Matrix: Solid Analysis Batch: 38217	-E MSD					CI	ient S	ample IC		oike Dup Type: To Batch:	tal/NA
	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	861.4		mg/Kg		84	70 - 130	0	20
Diesel Range Organics (Over C10-C28)	<50.0	U *+	999	1025		mg/Kg		101	70 - 130	1	20
	MSD	MSD									

Limits

70 - 130

70 - 130

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: 890-3319-A-1-B MS

Surrogate

o-Terphenyl

Chloride

1-Chlorooctane

Lab Sample ID: MB 880-38262/1-A Matrix: Solid Analysis Batch: 38428	Matrix: Solid					Client Sa	ample ID: Metho Prep Type:	
	MB	MB						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac

5.00

mg/Kg

_	
Lab Sample ID: LCS 880-38262/2-A	Client Sample ID: Lab Control Sample
Matrix: Solid	Prep Type: Soluble
Analysis Batch: 38428	

	Spike	LCS	LCS				%Rec	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Chloride	 250	262.5		mg/Kg		105	90 - 110	

Lab Sample ID: LCSD 880-38262/3-A			Client Sample ID: Lab Control Sampl	e Dup
Matrix: Solid			Prep Type: So	oluble
Analysis Batch: 38428				
	Spike	LCSD LCSD	%Rec	RPD

Analyte	Ac	ded	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Chloride		250	265.5		mg/Kg		106	90 - 110	1	20
_										

Matrix: Solid									Prep	Type: Soluble
Analysis Batch: 38428										
	Sample	Sample	Spike	MS	MS				%Rec	
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Chloride	151		251	401.6		mg/Kg		100	90 - 110	

Lab Sample ID: 890-3319-A-1-C MSD	Client Sample ID: Matrix Spike Duplicate
Matrix: Solid	Prep Type: Soluble

Analysis Batch: 38428											
	Sample	Sample	Spike	MSD	MSD				%Rec		RPD
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Chloride	151		251	394.5		ma/Ka		97	90 - 110	2	20

Eurofins Carlsbad

11/01/22 22:29

Client Sample ID: Matrix Spike

QC Association Summary

Client: Ensolum Project/Site: PLU 27 Brushy Draw 167 Job ID: 890-3320-1

SDG: 03E1558100

GC VOA

Prep Batch: 38293

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3320-1	PH03	Total/NA	Solid	5035	
890-3320-2	PH03A	Total/NA	Solid	5035	
MB 880-38293/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-38293/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-38293/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
890-3320-1 MS	PH03	Total/NA	Solid	5035	
890-3320-1 MSD	PH03	Total/NA	Solid	5035	

Prep Batch: 38298

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 880-38298/5-A	Method Blank	Total/NA	Solid	5035	

Analysis Batch: 38318

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3320-1	PH03	Total/NA	Solid	8021B	38293
890-3320-2	PH03A	Total/NA	Solid	8021B	38293
MB 880-38293/5-A	Method Blank	Total/NA	Solid	8021B	38293
MB 880-38298/5-A	Method Blank	Total/NA	Solid	8021B	38298
LCS 880-38293/1-A	Lab Control Sample	Total/NA	Solid	8021B	38293
LCSD 880-38293/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	38293
890-3320-1 MS	PH03	Total/NA	Solid	8021B	38293
890-3320-1 MSD	PH03	Total/NA	Solid	8021B	38293

Analysis Batch: 38474

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3320-1	PH03	Total/NA	Solid	Total BTEX	
890-3320-2	PH03A	Total/NA	Solid	Total BTEX	

GC Semi VOA

Analysis Batch: 38217

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3320-1	PH03	Total/NA	Solid	8015B NM	38261
890-3320-2	PH03A	Total/NA	Solid	8015B NM	38261
MB 880-38261/1-A	Method Blank	Total/NA	Solid	8015B NM	38261
LCS 880-38261/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	38261
LCSD 880-38261/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	38261
890-3333-A-1-D MS	Matrix Spike	Total/NA	Solid	8015B NM	38261
890-3333-A-1-E MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	38261

Prep Batch: 38261

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3320-1	PH03	Total/NA	Solid	8015NM Prep	
890-3320-2	PH03A	Total/NA	Solid	8015NM Prep	
MB 880-38261/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-38261/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-38261/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
890-3333-A-1-D MS	Matrix Spike	Total/NA	Solid	8015NM Prep	
890-3333-A-1-E MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	

QC Association Summary

Client: Ensolum

Project/Site: PLU 27 Brushy Draw 167

Job ID: 890-3320-1

SDG: 03E1558100

GC Semi VOA

Analysis Batch: 38391

L	ab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
8	390-3320-1	PH03	Total/NA	Solid	8015 NM	
8	390-3320-2	PH03A	Total/NA	Solid	8015 NM	

HPLC/IC

Leach Batch: 38262

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3320-1	PH03	Soluble	Solid	DI Leach	
890-3320-2	PH03A	Soluble	Solid	DI Leach	
MB 880-38262/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-38262/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-38262/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
890-3319-A-1-B MS	Matrix Spike	Soluble	Solid	DI Leach	
890-3319-A-1-C MSD	Matrix Spike Duplicate	Soluble	Solid	DI Leach	

Analysis Batch: 38428

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3320-1	PH03	Soluble	Solid	300.0	38262
890-3320-2	PH03A	Soluble	Solid	300.0	38262
MB 880-38262/1-A	Method Blank	Soluble	Solid	300.0	38262
LCS 880-38262/2-A	Lab Control Sample	Soluble	Solid	300.0	38262
LCSD 880-38262/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	38262
890-3319-A-1-B MS	Matrix Spike	Soluble	Solid	300.0	38262
890-3319-A-1-C MSD	Matrix Spike Duplicate	Soluble	Solid	300.0	38262

Client: Ensolum Job ID: 890-3320-1 Project/Site: PLU 27 Brushy Draw 167 SDG: 03E1558100

Client Sample ID: PH03 Lab Sample ID: 890-3320-1

Date Collected: 10/27/22 09:40 Matrix: Solid Date Received: 10/28/22 12:18

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.96 g	5 mL	38293	10/31/22 14:07	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	38318	11/01/22 22:46	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			38474	11/02/22 10:24	AJ	EET MID
Total/NA	Analysis	8015 NM		1			38391	11/01/22 13:05	AJ	EET MID
Total/NA	Prep	8015NM Prep			10.04 g	10 mL	38261	10/31/22 10:25	AM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	38217	10/31/22 17:49	AJ	EET MID
Soluble	Leach	DI Leach			5.04 g	50 mL	38262	10/31/22 10:26	СН	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	38428	11/01/22 23:05	CH	EET MID

Client Sample ID: PH03A Lab Sample ID: 890-3320-2

Date Collected: 10/27/22 10:20 Matrix: Solid

Date Received: 10/28/22 12:18

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.01 g	5 mL	38293	10/31/22 14:07	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	38318	11/01/22 23:06	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			38474	11/02/22 10:24	AJ	EET MID
Total/NA	Analysis	8015 NM		1			38391	11/01/22 13:05	AJ	EET MID
Total/NA	Prep	8015NM Prep			10.03 g	10 mL	38261	10/31/22 10:25	AM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	38217	10/31/22 18:10	AJ	EET MID
Soluble	Leach	DI Leach			4.96 g	50 mL	38262	10/31/22 10:26	СН	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	38428	11/01/22 23:10	CH	EET MID

Laboratory References:

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

Accreditation/Certification Summary

Client: Ensolum Job ID: 890-3320-1 Project/Site: PLU 27 Brushy Draw 167

SDG: 03E1558100

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	T104704400-22-24	06-30-23
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: PLU 27 Brushy Draw 167

Job ID: 890-3320-1

SDG: 03E1558100

orv	
ory	

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

Protocol References:

ASTM = ASTM International

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

TAL SOP = TestAmerica Laboratories, Standard Operating Procedure

Laboratory References:

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

Eurofins Carlsbad

2

6

8

9

11

14

Sample Summary

Client: Ensolum

Project/Site: PLU 27 Brushy Draw 167

Job ID: 890-3320-1

SDG: 03E1558100

GDG: 00E 1000 100	

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-3320-1	PH03	Solid	10/27/22 09:40	10/28/22 12:18	1
890-3320-2	PH03A	Solid	10/27/22 10:20	10/28/22 12:18	3

121314

Project Manager: Company Name:

Kalei Jennings

Bill to: (if different)

XTO Energy 3104 E. Green St

Reporting Level II Level III PST/UST TRRP

Level IV

State of Project:

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

Work Order Comments

www.xenco.com

Page

0

Garrett Green

Ensolum

3122 National Parks Hwy

Address: Company Name:

Chain of Custody

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

Work Order No:

City, State ZIP: Carl	Carlsbad, NM 88220	City, State ZIP:	Carlsbad, NM 88220		Reporting: Level III Pai/Uai Take Level IV	CS KKF Level V
	303-887-2946	Email: Garrett Green	n@ExxonMobil.com	Delive	Deliverables: EDD 🔲 ADaPT 🗆	Other:
Project Name:	PLU 27 Brushy Draw 167	Turn Around		ANALYSIS REQUEST		Preservative Codes
Project Number:	03E1558100	Routine Rush	Pres. Code		Z	None: NO DI Water: H ₂ O
Project Location:		Due Date:			-	Cool: Cool MeOH: Me
Sampler's Name:	Connor Whitman	TAT starts the day received by				
PO#:		the lab, if received by 4:30pm			I	H ₂ S0 ₄ : H ₂ NaOH: Na
SAMPLE RECEIPT	Temp Blank: (Yes) No	Wet ice: (Yes) No	nete		I	H₃PO₄: HP
Samples Received Intact:	Mes No Thermometer ID:	FORMINE THE			Z	NaHSO ₄ : NABIS
Cooler Custody Seals:	Yes No NA Correction Factor:			890-3320 Chain of Custody		Na ₂ S ₂ O ₃ : NaSO ₃
Sample Custody Seals:	Yes No NA Temperature Reading:	e Reading: ර් බ			Z	Zn Acetate+NaOH: Zn
Total Containers:		71	15)		Z	NaOH+Ascorbic Acid: SAPC
Sample Identification	ation Matrix Date	Time Depth Grab/	CHLOR TPH (80			Sample Comments
PH03	S 10/27/2022	2 9:40 1' Grab	b 1 x x x		-	Incident ID:
РН03А	S 10/27/2022	2 10:20 3' Grab	0 1 × ×		2	NAPP2222741514
	-				0	Cost Center:
						1667051001
					A	AFE:
		/				
			Contain			
			7			
Total 200.7 / 6010	200.8 / 6020: 8	8RCRA 13PPM Texas 11 Al	Al Sb As Ba Be B	Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni	n Mo Ni K Se Ag SiO ₂ Na Sr	Sr TI Sn U V Zn
Circle Method(s) and Metal(s) to be analyzed	etal(s) to be analyzed	TCLP / SPLP 6010: 8RCRA	CRA Sb As Ba Be	Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se	Ni Se Ag TI U Hg: 1631/2	Hg: 1631 / 245.1 / 7470 / 7471
Notice: Signature of this docum	Notice: Signature of this document and relinquishment of samples constitutes a valid purchase order from client company to Eurofins Xenco, its affiliates and subcontractors	stitutes a valid purchase order from	client company to Eurofins X	. 1	It assigns standard terms and conditions	
of service. Eurofins Xenco will of Eurofins Xenco. A minimum	be liable only for the cost of samples ar charge of \$85.00 will be applied to each	nd shall not assume any responsibility project and a charge of \$5 for each	y for any losses or expenses sample submitted to Eurofina	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 cilent 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.	ircumstances beyond the control forced unless previously negotiated.	
Relinquished by: (Signature)	gnature) / Receiv	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
Catho	$\Omega_m \Omega$	Ò	BE26.01	(2) X		
					_	_

Revised Date: 08/25/2020 Rev. 2020.2

Login Sample Receipt Checklist

 Client: Ensolum
 Job Number: 890-3320-1

 SDG Number: 03E1558100

Login Number: 3320 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.	N/A	Refer to Job Narrative for details.
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	

175

3

4

0

_

1 1

12

14

Login Sample Receipt Checklist

Client: Ensolum Job Number: 890-3320-1 SDG Number: 03E1558100

List Source: Eurofins Midland

Creator: Rodriguez, Leticia

Login Number: 3320

List Number: 2 List Creation: 10/31/22 09:20 AM

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

Page 20 of 20

11/2/2022

Environment Testing

ANALYTICAL REPORT

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

Laboratory Job ID: 890-3321-1

Laboratory Sample Delivery Group: 03E1558100 Client Project/Site: PLU 27 Brushy Draw 167

For:

Ensolum 705 W. Wadley Suite 210 Midland, Texas 79701

Attn: Kalei Jennings

RAMER

11/2/2022 3:58:41 PM

Jessica Kramer, Project Manager (432)704-5440

Jessica.Kramer@et.eurofinsus.com

Authorized for release by:

Have a Question?

EOL

------ LINKS ------

Review your project results through

Visit us at:

www.eurofinsus.com/Env Released to Imaging: 4/4/2023 2:55:26 PM Results relate only to the items tested and the sample(s) as received by the laboratory.

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

Client: Ensolum
Project/Site: PLU 27 Brushy Draw 167
Laboratory Job ID: 890-3321-1
SDG: 03E1558100

Table of Contents

Cover Page	1
Table of Contents	2
Definitions/Glossary	3
Case Narrative	4
Client Sample Results	5
Surrogate Summary	7
QC Sample Results	8
QC Association Summary	12
Lab Chronicle	14
Certification Summary	15
Method Summary	16
Sample Summary	17
Chain of Custody	18
Receipt Checklists	19

3

4

6

8

10

40

13

14

Definitions/Glossary

Client: Ensolum Job ID: 890-3321-1 Project/Site: PLU 27 Brushy Draw 167

SDG: 03E1558100

Qualifiers

GC VOA

Qualifier **Qualifier Description**

Indicates the analyte was analyzed for but not detected.

GC Semi VOA

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

HPLC/IC

Qualifier	Qualifier	Descri	ption
-----------	-----------	--------	-------

Indicates the analyte was analyzed for but not detected.

Glossary

LOQ

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)

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

Limit of Quantitation (DoD/DOE)

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 **Quality Control** QC

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: PLU 27 Brushy Draw 167

Job ID: 890-3321-1

SDG: 03E1558100

Job ID: 890-3321-1

Laboratory: Eurofins Carlsbad

Narrative

Job Narrative 890-3321-1

Receipt

The samples were received on 10/28/2022 12:18 PM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 5.0°C

Receipt Exceptions

The following samples were received and analyzed from an unpreserved bulk soil jar: PH04 (890-3321-1) and PH04A (890-3321-2).

GC VOA

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

GC Semi VOA

Method 8015MOD_NM: The laboratory control sample (LCS) associated with preparation batch 880-38261 and analytical batch 880-38217 was outside acceptance criteria. Re-extraction and/or re-analysis could not be performed; therefore, the data have been reported. The batch matrix spike/matrix spike duplicate (MS/MSD) was within acceptance limits and may be used to evaluate matrix performance.

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.

- 0

_

7

_

10

4.0

13

114

Matrix: Solid

Lab Sample ID: 890-3321-1

10/31/22 10:25

10/31/22 10:25

10/31/22 18:32

10/31/22 18:32

Lab Sample ID: 890-3321-2

Matrix: Solid

Client Sample Results

 Client: Ensolum
 Job ID: 890-3321-1

 Project/Site: PLU 27 Brushy Draw 167
 SDG: 03E1558100

Client Sample ID: PH04

Date Collected: 10/27/22 09:15 Date Received: 10/28/22 12:18

Sample Depth: 1

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00198	U	0.00198	mg/Kg		10/31/22 14:07	11/01/22 23:27	1
Toluene	<0.00198	U	0.00198	mg/Kg		10/31/22 14:07	11/01/22 23:27	1
Ethylbenzene	<0.00198	U	0.00198	mg/Kg		10/31/22 14:07	11/01/22 23:27	1
m-Xylene & p-Xylene	<0.00396	U	0.00396	mg/Kg		10/31/22 14:07	11/01/22 23:27	1
o-Xylene	<0.00198	U	0.00198	mg/Kg		10/31/22 14:07	11/01/22 23:27	1
Xylenes, Total	<0.00396	U	0.00396	mg/Kg		10/31/22 14:07	11/01/22 23:27	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	82		70 - 130			10/31/22 14:07	11/01/22 23:27	1
1,4-Difluorobenzene (Surr)	85		70 - 130			10/31/22 14:07	11/01/22 23:27	1
Total BTEX	<0.00396 sel Range Organ		0.00396 GC)	mg/Kg			11/02/22 10:24	·
Analyte		Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.8	U	49.8	mg/Kg			11/01/22 13:05	1
Method: SW846 8015B NM - Die	esel Range Orga	nics (DRO)	(GC)					
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.8	U	49.8	mg/Kg		10/31/22 10:25	10/31/22 18:32	1
Diesel Range Organics (Over	<49.8	U *+	49.8	mg/Kg		10/31/22 10:25	10/31/22 18:32	1
C10-C28) Oll Range Organics (Over C28-C36)	<49.8	U	49.8	mg/Kg		10/31/22 10:25	10/31/22 18:32	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac

 Method: MCAWW 300.0 - Anions, Ion Chromatography - Soluble

 Analyte
 Result
 Qualifier
 RL
 Unit
 D
 Prepared
 Analyzed
 Dil Fac

 Chloride
 33.2
 5.00
 mg/Kg
 11/01/22 23:15
 1

70 - 130

70 - 130

84

98

Client Sample ID: PH04A
Date Collected: 10/27/22 09:20

Date Received: 10/28/22 12:18

Sample Depth: 2

1-Chlorooctane

o-Terphenyl

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00201	U	0.00201	mg/Kg		10/31/22 14:07	11/01/22 23:47	1
Toluene	<0.00201	U	0.00201	mg/Kg		10/31/22 14:07	11/01/22 23:47	1
Ethylbenzene	<0.00201	U	0.00201	mg/Kg		10/31/22 14:07	11/01/22 23:47	1
m-Xylene & p-Xylene	<0.00402	U	0.00402	mg/Kg		10/31/22 14:07	11/01/22 23:47	1
o-Xylene	<0.00201	U	0.00201	mg/Kg		10/31/22 14:07	11/01/22 23:47	1
Xylenes, Total	<0.00402	U	0.00402	mg/Kg		10/31/22 14:07	11/01/22 23:47	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	99		70 - 130			10/31/22 14:07	11/01/22 23:47	1

Eurofins Carlsbad

2

3

4

6

8

10

12

1 3

Matrix: Solid

Client Sample Results

Client: Ensolum Job ID: 890-3321-1 SDG: 03E1558100

Project/Site: PLU 27 Brushy Draw 167

Client Sample ID: PH04A Lab Sample ID: 890-3321-2 Date Collected: 10/27/22 09:20 Date Received: 10/28/22 12:18

23.1

Sample Depth: 2

Chloride

Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1,4-Difluorobenzene (Surr)	95		70 - 130			10/31/22 14:07	11/01/22 23:47	1
Method: TAL SOP Total BTEX - 1	Total BTEX Cald	ulation						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00402	U	0.00402	mg/Kg			11/02/22 10:24	1
Method: SW846 8015 NM - Diese	el Range Organ	ics (DRO) (GC)					
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0	mg/Kg			11/01/22 13:05	1
Analyte		Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Method: SW846 8015B NM - Dies	sel Range Orga	nics (DRO)	(GC)					
Gasoline Range Organics	<50.0	U	50.0	mg/Kg		10/31/22 10:25	10/31/22 18:53	1
(GRO)-C6-C10 Diesel Range Organics (Over	<50.0	11*+	50.0	mg/Kg		10/31/22 10:25	10/31/22 18:53	1
C10-C28)	\ 30.0	0 +	30.0	mg/Kg		10/31/22 10.23	10/31/22 10.33	'
OII Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		10/31/22 10:25	10/31/22 18:53	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
	87		70 - 130			10/31/22 10:25	10/31/22 18:53	1
1-Chlorooctane								

4.95

mg/Kg

Eurofins Carlsbad

11/01/22 23:29

Surrogate Summary

Job ID: 890-3321-1 Client: Ensolum Project/Site: PLU 27 Brushy Draw 167 SDG: 03E1558100

Method: 8021B - Volatile Organic Compounds (GC)

Matrix: Solid Prep Type: Total/NA

1090-3320-A-1-C MS					Percent Surrogate Recov
890-3320-A-1-C MS Matrix Spike 99 109 890-3320-A-1-D MSD Matrix Spike Duplicate 102 105 890-3321-1 PH04 82 85 890-3321-2 PH04A 99 95 LCS 880-38293/1-A Lab Control Sample 90 96 LCSD 880-38293/2-A Lab Control Sample Dup 94 95 MB 880-38293/5-A Method Blank 79 94 MB 880-38298/5-A Method Blank 79 91			BFB1	DFBZ1	
890-3320-A-1-D MSD Matrix Spike Duplicate 102 105 890-3321-1 PH04 82 85 890-3321-2 PH04A 99 95 LCS 880-38293/1-A Lab Control Sample 90 96 LCSD 880-38293/2-A Lab Control Sample Dup 94 95 MB 880-38293/5-A Method Blank 79 94 MB 880-38298/5-A Method Blank 79 91	Lab Sample ID	Client Sample ID	(70-130)	(70-130)	
890-3321-1 PH04 82 85 890-3321-2 PH04A 99 95 LCS 880-38293/1-A Lab Control Sample 90 96 LCSD 880-38293/2-A Lab Control Sample Dup 94 95 MB 880-38293/5-A Method Blank 79 94 MB 880-38298/5-A Method Blank 79 91	890-3320-A-1-C MS	Matrix Spike	99	109	
390-3321-2 PH04A 99 95 LCS 880-38293/1-A Lab Control Sample 90 96 LCSD 880-38293/2-A Lab Control Sample Dup 94 95 MB 880-38293/5-A Method Blank 79 94 MB 880-38298/5-A Method Blank 79 91	390-3320-A-1-D MSD	Matrix Spike Duplicate	102	105	
LCS 880-38293/1-A Lab Control Sample 90 96 LCSD 880-38293/2-A Lab Control Sample Dup 94 95 MB 880-38293/5-A Method Blank 79 94 MB 880-38298/5-A Method Blank 79 91	890-3321-1	PH04	82	85	
LCSD 880-38293/2-A Lab Control Sample Dup 94 95 MB 880-38293/5-A Method Blank 79 94 MB 880-38298/5-A Method Blank 79 91	890-3321-2	PH04A	99	95	
MB 880-38293/5-A Method Blank 79 94 MB 880-38298/5-A Method Blank 79 91	LCS 880-38293/1-A	Lab Control Sample	90	96	
MB 880-38298/5-A Method Blank 79 91	LCSD 880-38293/2-A	Lab Control Sample Dup	94	95	
	MB 880-38293/5-A	Method Blank	79	94	
	MB 880-38298/5-A	Method Blank	79	91	
Surrogate Legend	Surrogate Legend				

DFBZ = 1,4-Difluorobenzene (Surr)

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

Matrix: Solid Prep Type: Total/NA

				Percent Surrogate Recovery (Acceptance
		1CO1	OTPH1	
Lab Sample ID	Client Sample ID	(70-130)	(70-130)	
890-3321-1	PH04	84	98	
890-3321-2	PH04A	87	99	
890-3333-A-1-D MS	Matrix Spike	102	103	
890-3333-A-1-E MSD	Matrix Spike Duplicate	102	104	
CS 880-38261/2-A	Lab Control Sample	131 S1+	146 S1+	
LCSD 880-38261/3-A	Lab Control Sample Dup	133 S1+	148 S1+	
MB 880-38261/1-A	Method Blank	87	99	

Surrogate Legend

1CO = 1-Chlorooctane

OTPH = o-Terphenyl

QC Sample Results

Client: Ensolum Job ID: 890-3321-1 Project/Site: PLU 27 Brushy Draw 167 SDG: 03E1558100

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-38293/5-A

Lab Sample ID: LCS 880-38293/1-A

Matrix: Solid

Analysis Batch: 38318

Matrix: Solid Analysis Batch: 38318 Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 38293

	мв	MB						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		10/31/22 14:07	11/01/22 22:24	1
Toluene	<0.00200	U	0.00200	mg/Kg		10/31/22 14:07	11/01/22 22:24	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		10/31/22 14:07	11/01/22 22:24	1
m-Xylene & p-Xylene	<0.00400	U	0.00400	mg/Kg		10/31/22 14:07	11/01/22 22:24	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		10/31/22 14:07	11/01/22 22:24	1
Xylenes, Total	<0.00400	U	0.00400	mg/Kg		10/31/22 14:07	11/01/22 22:24	1

MB MB

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	79		70 - 130	10/31/22 14:	07 11/01/22 22:24	1
1,4-Difluorobenzene (Surr)	94		70 - 130	10/31/22 14:	07 11/01/22 22:24	1

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 38293

LCS LCS Spike Analyte Added Result Qualifier Unit %Rec Limits Benzene 0.100 0.1154 mg/Kg 115 70 - 130 Toluene 0.100 0.1012 mg/Kg 101 70 - 130 0.100 0.09494 Ethylbenzene mg/Kg 95 70 - 130 0.200 0.1880 94 70 - 130 m-Xylene & p-Xylene mg/Kg 0.100 0.09249 70 - 130 o-Xylene mg/Kg 92

LCS LCS

Surrogate	%Recovery Qualifie	er Limits
4-Bromofluorobenzene (Surr)	90	70 - 130
1,4-Difluorobenzene (Surr)	96	70 - 130

Client Sample ID: Lab Control Sample Dup

Matrix: Solid

Lab Sample ID: LCSD 880-38293/2-A

Analysis Batch: 38318

Prep Type: Total/NA Prep Batch: 38293

	Spike	LCSD	LCSD				%Rec		RPD
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Benzene	0.100	0.1117		mg/Kg		112	70 - 130	3	35
Toluene	0.100	0.09823		mg/Kg		98	70 - 130	3	35
Ethylbenzene	0.100	0.09439		mg/Kg		94	70 - 130	1	35
m-Xylene & p-Xylene	0.200	0.1882		mg/Kg		94	70 - 130	0	35
o-Xylene	0.100	0.09282		mg/Kg		93	70 - 130	0	35

LCSD LCSD

Surrogate	%Recovery C	Qualifier	Limits
4-Bromofluorobenzene (Surr)	94		70 - 130
1.4-Difluorobenzene (Surr)	95		70 - 130

Lab Sample ID: 890-3320-A-1-C MS

Matrix: Solid

Analysis Batch: 38318

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

Prep Batch: 38293

	Sample	Sample	Spike	MS	MS				%Rec	
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Benzene	<0.00202	U	0.0998	0.09361		mg/Kg		94	70 - 130	
Toluene	<0.00202	U	0.0998	0.08271		mg/Kg		83	70 - 130	

QC Sample Results

Job ID: 890-3321-1 Client: Ensolum Project/Site: PLU 27 Brushy Draw 167 SDG: 03E1558100

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

Lab Sample ID: 890-3320-A-1-C MS

Matrix: Solid Analysis Batch: 38318

Sample Sample Spike MS MS %Rec Analyte Result Qualifier Added Result Qualifier Unit %Rec Limits Ethylbenzene <0.00202 U 0.0998 0.07970 80 70 - 130 mg/Kg m-Xylene & p-Xylene <0.00403 0.200 0.1614 mg/Kg 81 70 - 130 0.0998 o-Xylene <0.00202 U 0.07990 mg/Kg 80 70 - 130

MS MS

Surrogate	%Recovery Qua	alifier Limits
4-Bromofluorobenzene (Surr)	99	70 - 130
1,4-Difluorobenzene (Surr)	109	70 - 130

Lab Sample ID: 890-3320-A-1-D MSD

Matrix: Solid

Analysis Batch: 38318

Client Sample ID: Matrix Spike Duplicate

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 38293

Prep Type: Total/NA

Prep Batch: 38293

Sample Sample Spike MSD MSD RPD Result Qualifier Added Result Qualifier RPD Limit Analyte Unit %Rec Limits 0.0990 Benzene <0.00202 U 0.08103 mg/Kg 82 70 - 130 14 35 72 Toluene <0.00202 U 0.0990 0.07148 mg/Kg 70 - 130 15 35 Ethylbenzene <0.00202 U 0.0990 0.07120 mg/Kg 72 70 - 130 11 35 0.198 0.1437 73 70 - 130 35 m-Xylene & p-Xylene <0.00403 U mq/Kq 12 0.0990 <0.00202 U 0.07128 72 70 - 130 o-Xylene mg/Kg 11

MSD MSD

Surrogate	%Recovery	Qualifier	Limits
4-Bromofluorobenzene (Surr)	102		70 - 130
1,4-Difluorobenzene (Surr)	105		70 - 130

Lab Sample ID: MB 880-38298/5-A

Matrix: Solid

Analysis Batch: 38318

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 38298

	MB	MB						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		10/31/22 17:00	11/01/22 11:40	1
Toluene	<0.00200	U	0.00200	mg/Kg		10/31/22 17:00	11/01/22 11:40	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		10/31/22 17:00	11/01/22 11:40	1
m-Xylene & p-Xylene	<0.00400	U	0.00400	mg/Kg		10/31/22 17:00	11/01/22 11:40	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		10/31/22 17:00	11/01/22 11:40	1
Xylenes, Total	<0.00400	U	0.00400	mg/Kg		10/31/22 17:00	11/01/22 11:40	1

MB MB

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	79		70 - 130	10/31/22 17:00	11/01/22 11:40	1
1,4-Difluorobenzene (Surr)	91		70 - 130	10/31/22 17:00	11/01/22 11:40	1

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

Lab Sample ID: MB 880-38261/1-A

Released to Imaging: 4/4/2023 2:55:26 PM

Matrix: Solid

Analysis Batch: 38217

Client Sample ID: Method Blank

Prep Type: Total/NA Prep Batch: 38261

Analyzed

мв мв Analyte Result Qualifier RL Unit Prepared <50.0 U 50.0 mg/Kg 10/31/22 10:25 10/31/22 09:53 Gasoline Range Organics (GRO)-C6-C10

QC Sample Results

Client: Ensolum Job ID: 890-3321-1 Project/Site: PLU 27 Brushy Draw 167 SDG: 03E1558100

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

Lab Sample ID: MB 880-38261/1-A Client Sample ID: Method Blank **Matrix: Solid** Prep Type: Total/NA Analysis Batch: 38217 Prep Batch: 38261

	MB	MB						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		10/31/22 10:25	10/31/22 09:53	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		10/31/22 10:25	10/31/22 09:53	1
	МВ	МВ						
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	87		70 - 130			10/31/22 10:25	10/31/22 09:53	1
o-Terphenyl	99		70 - 130			10/31/22 10:25	10/31/22 09:53	1

Lab Sample ID: LCS 880-38261/2-A Client Sample ID: Lab Control Sample **Matrix: Solid** Prep Type: Total/NA Analysis Batch: 38217 Prep Batch: 38261 LCS LCS Spike Analyte Added Result Qualifier Unit %Rec Limits Gasoline Range Organics 1000 903.3 90 70 - 130 mg/Kg (GRO)-C6-C10 1000 1384 *+ Diesel Range Organics (Over mg/Kg 138 70 - 130 C10-C28) LCS LCS %Recovery Qualifier Limits Surrogate 1-Chlorooctane 131 S1+ 70 - 130

Lab Sample ID: LCSD 880-38261/3-A Client Sample ID: Lab Control Sample Dup **Matrix: Solid** Prep Type: Total/NA Prep Batch: 38261 Analysis Batch: 38217

70 - 130

	Spike	LCSD	LCSD				%Rec		RPD
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Gasoline Range Organics	1000	944.8		mg/Kg		94	70 - 130	4	20
(GRO)-C6-C10									
Diesel Range Organics (Over	1000	1439	*+	mg/Kg		144	70 - 130	4	20
C10-C28)									

	LCSD	LCSD	
Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane	133	S1+	70 - 130
o-Terphenyl	148	S1+	70 - 130

146 S1+

Lab Sample ID: 890-3333-A-1-D MS Client Sample ID: Matrix Spike **Matrix: Solid**

Prep Type: Total/NA Analysis Batch: 38217 Prep Batch: 38261

	Sample	Sample	Spike	MS	MS				%Rec	
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Gasoline Range Organics	<50.0	U	997	863.1		mg/Kg		85	70 - 130	
(GRO)-C6-C10										
Diesel Range Organics (Over	<50.0	U *+	997	1014		mg/Kg		100	70 - 130	

C10-C28)			
	MS	MS	
Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane	102		70 - 130
o-Terphenyl	103		70 - 130

Eurofins Carlsbad

o-Terphenyl

o-Terphenyl

Client: Ensolum Job ID: 890-3321-1 Project/Site: PLU 27 Brushy Draw 167

SDG: 03E1558100

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

102

104

Lab Sample ID: 890-3333-A Matrix: Solid Analysis Batch: 38217	-1-E MSD					CI	ient Sa	ample IC		oike Dup Type: To Batch:	tal/NA
	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	861.4		mg/Kg		84	70 - 130	0	20
Diesel Range Organics (Over C10-C28)	<50.0	U *+	999	1025		mg/Kg		101	70 - 130	1	20
Surrogate	MSD %Recovery		Limits								

70 - 130

70 - 130

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: LCSD 880-38262/3-A

Lab Sample ID: 890-3319-A-1-B MS

1-Chlorooctane

o-Terphenyl

Lab Sample ID: MB 880-38262/1-A Matrix: Solid						Client Sa	mple ID: Metho Prep Type:	
Analysis Batch: 38428								
	МВ	MB						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.00	U	5.00	mg/Kg			11/01/22 22:29	1

Lab Sample ID: LCS 880-38262/2-A Matrix: Solid			Client Sample ID: Lab Control Sample Prep Type: Soluble
Analysis Batch: 38428	Spike	LCS LCS	%Rec

	Spike	LUS	LUS				/onec	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Chloride	250	262.5		mg/Kg		105	90 - 110	

Matrix: Solid				Prep Type:	Soluble
Analysis Batch: 38428					
	Spike	LCSD LCSD		%Rec	RPD
Analyte	habbA	Posult Qualifier Unit	D %Pac	Limite RPF) Limit

								,		
	Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
L	Chloride		265.5		mg/Kg		106	90 - 110	1	20

Matrix: Solid									Prep	Type: Soluble
Analysis Batch: 38428										
	Sample	Sample	Spike	MS	MS				%Rec	
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Chloride	151		251	401.6		ma/Ka		100	90 - 110	

Official	101	201	TO 1.0	mg/rtg	100	30 - 110	
_							
Lab Sample ID: 890-3319-A-1-C MSE)			Client	Sample ID	: Matrix Spike Duplica	ıte
Matrix: Solid						Pren Type: Solub	בור

Analysis Batch: 38428										-	
	Sample	Sample	Spike	MSD	MSD				%Rec		RPD
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Chloride	151		251	394.5		mg/Kg		97	90 - 110	2	20

Eurofins Carlsbad

Client Sample ID: Lab Control Sample Dup

Client Sample ID: Matrix Spike

QC Association Summary

Client: Ensolum Project/Site: PLU 27 Brushy Draw 167 Job ID: 890-3321-1 SDG: 03E1558100

GC VOA

Prep Batch: 38293

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3321-1	PH04	Total/NA	Solid	5035	
890-3321-2	PH04A	Total/NA	Solid	5035	
MB 880-38293/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-38293/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-38293/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
890-3320-A-1-C MS	Matrix Spike	Total/NA	Solid	5035	
890-3320-A-1-D MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	

Prep Batch: 38298

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 880-38298/5-A	Method Blank	Total/NA	Solid	5035	

Analysis Batch: 38318

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3321-1	PH04	Total/NA	Solid	8021B	38293
890-3321-2	PH04A	Total/NA	Solid	8021B	38293
MB 880-38293/5-A	Method Blank	Total/NA	Solid	8021B	38293
MB 880-38298/5-A	Method Blank	Total/NA	Solid	8021B	38298
LCS 880-38293/1-A	Lab Control Sample	Total/NA	Solid	8021B	38293
LCSD 880-38293/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	38293
890-3320-A-1-C MS	Matrix Spike	Total/NA	Solid	8021B	38293
890-3320-A-1-D MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	38293

Analysis Batch: 38475

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3321-1	PH04	Total/NA	Solid	Total BTEX	
890-3321-2	PH04A	Total/NA	Solid	Total BTEX	

GC Semi VOA

Analysis Batch: 38217

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3321-1	PH04	Total/NA	Solid	8015B NM	38261
890-3321-2	PH04A	Total/NA	Solid	8015B NM	38261
MB 880-38261/1-A	Method Blank	Total/NA	Solid	8015B NM	38261
LCS 880-38261/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	38261
LCSD 880-38261/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	38261
890-3333-A-1-D MS	Matrix Spike	Total/NA	Solid	8015B NM	38261
890-3333-A-1-E MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	38261

Prep Batch: 38261

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3321-1	PH04	Total/NA	Solid	8015NM Prep	
890-3321-2	PH04A	Total/NA	Solid	8015NM Prep	
MB 880-38261/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-38261/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-38261/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
890-3333-A-1-D MS	Matrix Spike	Total/NA	Solid	8015NM Prep	
890-3333-A-1-E MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	

QC Association Summary

Client: Ensolum

Project/Site: PLU 27 Brushy Draw 167

Job ID: 890-3321-1 SDG: 03E1558100

GC Semi VOA

Analysis Batch: 38392

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3321-1	PH04	Total/NA	Solid	8015 NM	
890-3321-2	PH04A	Total/NA	Solid	8015 NM	

HPLC/IC

Leach Batch: 38262

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3321-1	PH04	Soluble	Solid	DI Leach	_
890-3321-2	PH04A	Soluble	Solid	DI Leach	
MB 880-38262/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-38262/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-38262/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
890-3319-A-1-B MS	Matrix Spike	Soluble	Solid	DI Leach	
890-3319-A-1-C MSD	Matrix Spike Duplicate	Soluble	Solid	DI Leach	

9

Analysis Batch: 38428

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3321-1	PH04	Soluble	Solid	300.0	38262
890-3321-2	PH04A	Soluble	Solid	300.0	38262
MB 880-38262/1-A	Method Blank	Soluble	Solid	300.0	38262
LCS 880-38262/2-A	Lab Control Sample	Soluble	Solid	300.0	38262
LCSD 880-38262/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	38262
890-3319-A-1-B MS	Matrix Spike	Soluble	Solid	300.0	38262
890-3319-A-1-C MSD	Matrix Snike Dunlicate	Soluble	Solid	300.0	38262

1

13

14

Project/Site: PLU 27 Brushy Draw 167

Client: Ensolum

Job ID: 890-3321-1 SDG: 03E1558100

Client Sample ID: PH04 Lab Sample ID: 890-3321-1

Date Collected: 10/27/22 09:15 Matrix: Solid Date Received: 10/28/22 12:18

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.05 g	5 mL	38293	10/31/22 14:07	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	38318	11/01/22 23:27	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			38475	11/02/22 10:24	AJ	EET MID
Total/NA	Analysis	8015 NM		1			38392	11/01/22 13:05	AJ	EET MID
Total/NA	Prep	8015NM Prep			10.05 g	10 mL	38261	10/31/22 10:25	AM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	38217	10/31/22 18:32	AJ	EET MID
Soluble	Leach	DI Leach			5 g	50 mL	38262	10/31/22 10:26	СН	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	38428	11/01/22 23:15	CH	EET MID

Client Sample ID: PH04A Lab Sample ID: 890-3321-2 Date Collected: 10/27/22 09:20 Matrix: Solid

Date Received: 10/28/22 12:18

	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	38293	10/31/22 14:07	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	38318	11/01/22 23:47	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			38475	11/02/22 10:24	AJ	EET MID
Total/NA	Analysis	8015 NM		1			38392	11/01/22 13:05	AJ	EET MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	38261	10/31/22 10:25	AM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	38217	10/31/22 18:53	AJ	EET MID
Soluble	Leach	DI Leach			5.05 g	50 mL	38262	10/31/22 10:26	СН	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	38428	11/01/22 23:29	CH	EET MID

Laboratory References:

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

Accreditation/Certification Summary

Client: Ensolum Job ID: 890-3321-1 Project/Site: PLU 27 Brushy Draw 167

SDG: 03E1558100

Laboratory: Eurofins Midland

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

Authority		rogram	Identification Number	Expiration Date			
Texas		ELAP	T104704400-22-24	06-30-23			
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

Method

8021B

Total BTEX

8015 NM

8015B NM

8015NM Prep

DI Leach

300.0

5035

Project/Site: PLU 27 Brushy Draw 167

Method Description

Total BTEX Calculation

Microextraction

Volatile Organic Compounds (GC)

Diesel Range Organics (DRO) (GC)

Diesel Range Organics (DRO) (GC)

Deionized Water Leaching Procedure

Anions, Ion Chromatography

Closed System Purge and Trap

Job ID: 890-3321-1

SDG: 03E1558100

Protocol	Laboratory
Protocor	Laboratory
SW846	EET MID
TAL SOP	EET MID
SW846	EET MID
SW846	EET MID
MCAWW	EET MID
SW846	EET MID

EET MID

EET MID

SW846

ASTM

Protocol References:

ASTM = ASTM International

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

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

TAL SOP = TestAmerica Laboratories, Standard Operating Procedure

Laboratory References:

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

Sample Summary

Client: Ensolum

Project/Site: PLU 27 Brushy Draw 167

Job ID: 890-3321-1

SDG: 03E1558100

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-3321-1	PH04	Solid	10/27/22 09:15	10/28/22 12:18	1
890-3321-2	PH04A	Solid	10/27/22 09:20	10/28/22 12:18	2

Project Manager: Company Name: Address:

Bill to: (If different) Company Name: Address:

3104 E. Green St. XTO Energy Garrett Green

State of Project:

3122 National Parks Hwy

Ensolum Kalei Jennings

13 14

Chain of Custody

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

	Confit	Relinquished by: (Signature)	Notice: Signature of this document and relinquishment of samples constitutes a valid purchase order from client company to Eurofins Xenco, its affiliates and subcontractors. 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 of Eurofins Xenco, will be applied to each project and a charge of \$5 for each sample submitted to Eurofins Xenco, but not analyzed. These terms	Circle Method(s) and Metal(s) to be analyzed	Total 200.7 / 6010					/		/	PH04A	PH04	Sample Identification	Total Containers:	Sample Custody Seals:	Cooler Custody Seals:	Samples Received Intact:	SAMPLE RECEIPT	PO#:	Sampler's Name:	Project Location:	Project Number:	Project Name:	Phone: 30	City, State ZIP: Ca	Audices.
		signature)	ment and relinquishm Il be liable only for the n charge of \$85.00 will	Metal(s) to be an	200.8 / 6020:								S	s	ation Matrix		Yes No N	Yes No N	Yes No	Temp Blank:		Connor Whitman		03E1558100	PLU 27 Brushy Draw 167	303-887-2946	Carlsbad, NM 88220	O LZZ Mational Law
	we bay	Λ ₀ Received	ent of samples constite cost of samples and s						/			-	10/27/2022	10/27/2022	Date Sampled	Corrected Temperature:	N/A Temperature Reading:	NA Correction Factor:	Thermometer ID:	(Yes) No)	hitman		8100	y Draw 167		Ö	311009
		Received by: (Signature)	utes a valid purc shall not assume oject and a char	TCLP / SF	8RCRA 13PPM								9:20	9:15	Time Sampled	perature:	Reading:	tor:	D: //N	Wet Ice:	the lab, if rec	TAT starts the	Due Date:	Routine	Turn	Email:		
		ure)	hase order from any responsibi ge of \$5 for eac	TCLP / SPLP 6010: 8RCRA Sb As Ba Be	M Texas 11								2 Grab	1' Grab	Depth Grab/	5.0	၈ က	6.0-	FOOM!	Yes No	the lab, if received by 4:30pm	TAT starts the day received by		Rush	Turn Around	Email: Garrett Green	City, State ZIP	1001000
	0		client cou lity for any h sample :	RCRA	1 Al Sb	-		-					3b 1	ъ 1	b/ # of Cont	-		P	araı	nete		у	L.	Code		anico Exoro	.0	
	0.28.22	Date/Time	npany to losses or submitted	Sb As	As		5						×	×	CHLOF	RIDE	S (E	PA:	300	0)							Carlsb	9:0:
	22	Time	Eurofins X expenses to Eurofin	Ba Be	Ba Be	/	7						×	×	TPH (8						L			-		Mobil com	Carlsbad, NM 88220	
6	* 8	Relinquish	enco, its affiliates and incurred by the client Xenco, but not analy:	Cd Cr Co Cu Pb Mn Mo	B Cd Ca Cr Co								×	×					_						AN		8220	
		Relinquished by: (Signature)	subcontractors. It assigns if such losses are due t zed. These terms will be	111	Cu Fe Pb Mg												890-3321 Citalin of					_			ANALYSIS REQUEST	De	Re	
		Received by: (Signature)	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.	Ni Se Ag TI U H	Mn Mo Ni K Se Ag												outrou)	in of Clistody				-			ST	Deliverables: EDD	Reporting: Level III Level III Level III PST/UST RRP Level IV Level III Lev]
		(Signature)	itions control egotiated.	Hg: 1631 / 245.1 / 7470 / 7471	SiO ₂ Na Sr TI					AFE:	1	Cost Center:	NAPP2222741514	Incident ID:	Samı	NaOH+Asc	Zn Acetate+NaOH: Zn	Na ₂ S ₂ O ₃ : NaSO ₃	NaHSO4: NABIS	H ₃ PO ₄ : HP	H ₂ S0 ₄ H ₂	HCL: HC	Coot: Cool	None: NO	Prese	ADaPT LL O	III PST/USI III]
The Department of the Control of the		Date/Time		170 / 7471	Sn U V Zn						1667051001	ter	2741514	D	Sample Comments	NaOH+Ascorbic Acid: SAPC	+NaCH: Zn	VaSO ₃	VABIS		NaOH: Na	HNO3: HN	MeOH: Me	DI Water: H ₂ O	Preservative Codes	Other:	RRP Level IV	

Program: UST/PST ☐ PRP☐ Brownfields ☐ RRC ☐ Superfund ☐	Work Order Comments	www.xenco.com Page	Work Order No:
RRC Superfund	its	of	

Login Sample Receipt Checklist

Client: Ensolum Job Number: 890-3321-1 SDG Number: 03E1558100

Login Number: 3321 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.	N/A	Refer to Job Narrative for details.
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	

Login Sample Receipt Checklist

Client: Ensolum

Job Number: 890-3321-1 SDG Number: 03E1558100

Login Number: 3321 **List Source: Eurofins Midland** List Number: 2

List Creation: 10/31/22 09:20 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").



APPENDIX E

NMOCD Notifications

From: Green, Garrett J

To: ocd.enviro@emnrd.nm.gov; Hamlet, Robert, EMNRD; Bratcher, Michael, EMNRD

Cc: <u>DelawareSpills /SM</u>; <u>Tacoma Morrissey</u>

Subject: XTO - Sampling Notification (Week of 10/24/22 - 10/28/22)

Date: Friday, October 21, 2022 1:10:30 PM

[**EXTERNAL EMAIL**]

All,

XTO plans to complete final sampling activities at the following sites the week of Oct 24, 2022.

Monday

Elk Wallow CDP/ nAPP2223831434

Tuesday

Elk Wallow CDP/ nAPP2223831434

Wednesday

- PLU PC 17/ nAPP2223832773

Thursday

- JRU DI 11 Ekalaka 823H/ nAPP2224527297
- Poker Lake Unit 409/ nAPP2223751933
- PLU 27 Brushy Draw 167H / nAPP2222741514

Friday

- JRU DI 11 Ekalaka 823H/ nAPP2224527297
- Poker Lake Unit 409/ nAPP2223751933
- PLU 27 Brushy Draw 167H / nAPP2222741514

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

SDS 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

EN / AGHS Page 1/8

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

EN / AGHS Page 2/8

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.

EN / AGHS Page 3/8

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

> Evewash stations Ventilation systems.

Individual protection measures, such as personal protective equipment

Eve/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.

Do not eat, drink or smoke when using this product. Contaminated work clothing should not General hygiene considerations

> 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

Remarks • Method Property Values

Hq 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

Evaporation rate No data available None known Flammability (solid, gas) No data available None known

Flammability Limit in Air None known

Upper flammability limit: No data available Lower flammability limit: No data available

Vapor pressure No data available None known Vapor density No data available None known

Relative density 0.97 - 1.03Water solubility Miscible in water

Solubility in other solvents No data available None known Partition coefficient No data available None known Autoignition temperature No data available None known Decomposition temperature No data available None known

Kinematic viscosity ≥150 mm²/s

Dynamic viscosity No data available None known **Explosive properties** No information available Oxidizing properties

No information available

EN / AGHS Page 4/8

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.

EN / AGHS Page 5/8

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

EN / AGHS Page 6/8

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

EN / AGHS Page 7/8

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

01-Aug-2019

Revision Date 01-Aug-2019

Revision Note No information available.

Disclaimer

Issuing Date

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

EN / AGHS Page 8/8

District III

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

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 171197

CONDITIONS

Operator:	OGRID:	
XTO ENERGY, INC	5380	
6401 Holiday Hill Road Action Number:		
Midland, TX 79707	171197	
	Action Type:	
	[C-141] Release Corrective Action (C-141)	

CONDITIONS

Created By		Condition Date
rhamlet	We have received your closure report and final C-141 for Incident #NAPP2222741514 PLU 27 BRUSHY DRAW 167H, thank you. This closure is approved.	4/4/2023