Page 1 of 251

Incident ID	NAPP2214342255
District RP	
Facility ID	
Application ID	

Closure

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

Closure Report Attachment Checklist: Each of the following items must be included in the closure report.
□ A scaled site and sampling diagram as described in 19.15.29.11 NMAC
Photographs of the remediated site prior to backfill or photos of the liner integrity if applicable (Note: appropriate OCD District office must be notified 2 days prior to liner inspection)
☐ Laboratory analyses of final sampling (Note: appropriate ODC District office must be notified 2 days prior to final sampling)
☐ Description of remediation activities
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, numan health or the environment. In addition, OCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations. The responsible party acknowledges they must substantially estore, reclaim, and re-vegetate the impacted surface area to the conditions that existed prior to the release or their final land use in accordance with 19.15.29.13 NMAC including notification to the OCD when reclamation and re-vegetation are complete. Printed Name: _Garrett Green Title: _Environmental Coordinator Date: Date: Title: _Environmental Coordinator Telephone:
OCD Only
Received by: Jocelyn Harimon Date: 12/07/2022
Closure approval by the OCD does not relieve the responsible party of liability should their operations have failed to adequately investigate and emediate contamination that poses a threat to groundwater, surface water, human health, or the environment nor does not relieve the responsible party of compliance with any other federal, state, or local laws and/or regulations.
Closure Approved by: Robert Hamlet Date: 3/13/2023
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	NAPP2214342255
District RP	
Facility ID	
Application ID	

Release Notification

Responsible Party

Responsible Party XTO Energy				OGRID 5	5380
Contact Name Garrett Green				Contact Te	elephone 575-200-0729
Contact email garrett.green@exxonmobil.com			om	Incident #	(assigned by OCD)
Contact mail	Contact mailing address 3104 E. Greene Street, Carlsbad, New Mex			w Mexico, 88220	
			Location	of Release So	ource
Latitude 32.1	10939			Longitude	-103.88361
Latitude			(NAD 83 in dec	cimal degrees to 5 decim	nal places)
Site Name DI	III 21 Rmeh	ny Draw 126H		Site Type	Production Well
Date Release	Discovered	05/11/2022		API# (if app	
		03/11/2022		(* 11	,
Unit Letter	Section	Township	Range	Coun	nty
О	21	25S	30E	Eddy	y
G 3 0				Janey Paso	chal
Surface Owne	r: State	Federal Tr	ibal 💌 Private (/	Vame:)
			Nature and	d Volume of F	Release
	Mataria	1(-) D-11 (C-1+-1	1 41-4 1 4 - 44 1-	11-4::6:-	justification for the volumes provided below)
Crude Oi	l	Volume Release		calculations of specific	Volume Recovered (bbls)
Produced	Water	Volume Release	d (bbls)		Volume Recovered (bbls)
		Is the concentrat	ion of total dissol	ved solids (TDS)	Yes No
			water >10,000 mg	y/1?	
Condensa	ite	Volume Release	d (bbls)		Volume Recovered (bbls)
Natural Gas Volume Released (Mcf)			Volume Recovered (Mcf)		
Cother (describe) Volume/Weight Released (provide units)		e units)	Volume/Weight Recovered (provide units)		
Produced water w/ FR 10.00			4.00		
Cause of Rel	ease During	frac operations sar	nd washout caused	d a flange to release	e fluids both into containment and onto pad. All free
	fluids v	vere recovered. A	third-party contra	ctor has been retain	ned for remediation purposes.
•					

Received by OCD: 12/7/2022 1:45:27 PM1 State of New Mexico
Page 2 Oil Conservation Division

State of New Mexico

Insident ID NADD2214242255

Incident ID	NAPP2214342255
District RP	
Facility ID	
Application ID	

Was this a major	If YES, for what reason(s) does the response	nsible party consider this a major release?
release as defined by	N/A	
19.15.29.7(A) NMAC?		
Yes X No		
If YES, was immediate n	Latice given to the OCD? By whom? To w	hom? When and by what means (phone, email, etc)?
N/A	g	(F,,,
	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 source of the rele	ease has been stopped.	
	as been secured to protect human health and	I the environment
	•	dikes, absorbent pads, or other containment devices.
	ecoverable materials have been removed ar	
	d above have <u>not</u> been undertaken, explain	why:
NA		
		remediation immediately after discovery of a release. If remediation efforts have been successfully completed or if the release occurred
		please attach all information needed for closure evaluation.
		best of my knowledge and understand that pursuant to OCD rules and
regulations all operators are	required to report and/or file certain release not	ifications and perform corrective actions for releases which may endanger
		OCD does not relieve the operator of liability should their operations have eat to groundwater, surface water, human health or the environment. In
addition, OCD acceptance of		Presponsibility for compliance with any other federal, state, or local laws
and/or regulations.		
Printed Name: Garrett G	reen	Title: SSHE Coordinator
Signature:	at Sun	Date: 05/23/2022
email: garrett.green@exx	xonmobil.com	Telephone: 575-200-0729
eman.		receptione.
OCD Only		
Received by: Jocelyn I	Harimon	Date: 05/23/2022

0.00 bbls 4.00 bbls

Location:	PLU 21 Brushy Draw 126H		
Spill Date:	5/11/2022		
	Area 1		
Approximate A	rea =	11.23	cu.ft.
	VOLUME OF LEAK		
Total Crude Oil	=	0.00	bbls
Total Produced	Water =	2.00	bbls
	Area 2		-
Approximate A	rea =	6733.00	sq. ft.
Average Satura	tion (or depth) of spill =	2.00	inches
Average Porosi	ty Factor =	0.03	
	VOLUME OF LEAK		
Total Crude Oil	=	0.00	bbls
Total Produced	Water =	8.00	bbls
	TOTAL VOLUME OF LEAK		
Total Crude Oil	=	0.00	bbls
Total Produced	Water =	10.00	bbls
	TOTAL VOLUME RECOVERED		

Total Crude Oil =

Total Produced Water =

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 109385

CONDITIONS

Operator: XTO ENERGY, INC	OGRID: 5380
6401 Holiday Hill Road Midland, TX 79707	Action Number: 109385
	Action Type: [C-141] Release Corrective Action (C-141)

CONDITIONS

Created	By Condition	Condition Date
jharim	on None	5/23/2022

	Page 6 of 2.	<i>51</i>
Incident ID	NAPP2214342255	
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 	ls.	

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

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

Received by OCD: 12/7/2022 1:45:27 PM Form C-141 State of New Mexico Page 4 Oil Conservation Division

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NAPP2214342255

Incident ID	NAPP2214342255
District RP	
Facility ID	
Application ID	

regulations all operators are required to report and/or file certain public health or the environment. The acceptance of a C-141 re failed to adequately investigate and remediate contamination that	an release notifications and perform corrective actions for releases which may endanger port by the OCD does not relieve the operator of liability should their operations have at pose a threat to groundwater, surface water, human health or the environment. In experience of responsibility for compliance with any other federal, state, or local laws
Printed Name: _Garrett Green	Title: _Environmental Coordinator
Signature: Sath Sur	Date:12/07/2022
email: _garrett.green@exxonmobil.com	Telephone:575-200-0729
OCD Only	
Received by: <u>Jocelyn Harimon</u>	Date: 12/07/2022

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Incident ID	NAPP2214342255
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				
Note: Appropriate OCD District office must be notified 2 days prior to liner inspection)					
☐ 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 coaccordance with 19.15.29.13 NMAC including notification to the Operator of Signature:	ations. The responsible party acknowledges they must substantially conditions that existed prior to the release or their final land use in OCD when reclamation and re-vegetation are complete. Title: _Environmental Coordinator Date:12/07/2022				
email:garrett.green@exxonmobil.com	Telephone:575-200-0729				
OCD Only					
Received by:	Date:12/07/2022				
	y of liability should their operations have failed to adequately investigate and water, human health, or the environment nor does not relieve the responsible /or regulations.				
Closure Approved by:	Date:				
Printed Name:	Title:				

District I
1625 N. French Dr., Hobbs, NM 88240
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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	NAPP2215147527
District RP	
Facility ID	
Application ID	

Release Notification

Responsible Party

Γ						
1 ATO Energy				5380		
		Contact Te	Contact Telephone 575-200-0729			
Contact email gar	Contact email garrett.green@exxonmobil.com Incident		Incident #	(assigned by OCD)		
			reet, Carlsbad, Nev	w Mexico, 88220		
			Location	of Release So	ource	
Latitude 32.109 ²	41			Longitude	-103.88323	
Lantude			(NAD 83 in dec	_ Longitude imal degrees to 5 decim	nal places)	
Site Name DILL	21 D 1	L D 005H		Site Type	Production Well	
Date Release Disc		hy Draw 905H		API# (if app.		
Dute Refease Disc		03/19/2022		TIT III (ly upp)	wedere,	
Unit Letter Se	ection	Township	Range	Coun	ty	
О	21	25S	30E	Eddy	y	
Surface Owner:] State [☐ Federal ☐ Tr		Janey Pasc)
Crude Oil	Material	(s) Released (Select al Volume Release		calculations or specific	justification for the volumes p Volume Recovered (b	
Produced Water	er	Volume Release			Volume Recovered (b	,
Troduced was	CI		ion of total dissolv	rad galida (TDS)	Yes No	
			water >10,000 mg/	· /		
Condensate		Volume Release	d (bbls)		Volume Recovered (bbls)	
☐ Natural Gas		Volume Release	d (Mcf)		Volume Recovered (N	Mcf)
▼ Other (describe) Volume/Weight Released (provide units)		units)	Volume/Weight Recovered (provide units)			
Produced Water w	oduced Water w/FR 7.00 BBLS		4.00 BBLS			
Cause of Release	During f	frac operations, the	e blender tub was l. A third-party co	overfilled, causing intractor has been re	fluids to release into coetained for remediation	ontainment and onto pad. All purposes.

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Incident ID	NAPP2215147527
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Facility ID	
Application ID	

Was this a major release as defined by	If YES, for what reason(s) does the respon	sible party consider this a major release?
19.15.29.7(A) NMAC?	N/A	
Yes 🗷 No		
If YES, was immediate no N/A	otice given to the OCD? By whom? To who	om? When and by what means (phone, email, etc)?
N/A		
	Initial Re	sponse
The responsible		unless they could create a safety hazard that would result in injury
The source of the rele	ease has been stopped.	
▼ The impacted area ha	s been secured to protect human health and t	he environment.
Released materials ha	we been contained via the use of berms or di	kes, absorbent pads, or other containment devices.
	ecoverable materials have been removed and	
	d above have <u>not</u> been undertaken, explain w	hy:
NA		
has begun, please attach	a narrative of actions to date. If remedial e	mediation immediately after discovery of a release. If remediation fforts have been successfully completed or if the release occurred ease attach all information needed for closure evaluation.
regulations all operators are public health or the environr failed to adequately investig	required to report and/or file certain release notifient. The acceptance of a C-141 report by the Otate and remediate contamination that pose a threat	est of my knowledge and understand that pursuant to OCD rules and ications and perform corrective actions for releases which may endanger CD does not relieve the operator of liability should their operations have t to groundwater, surface water, human health or the environment. In esponsibility for compliance with any other federal, state, or local laws
Printed Name: Garrett Gr	reen	Title: SSHE Coordinator
Signature:	A Duen	Date:
email: garrett.green@exx	conmobil.com	Telephone: 575-200-0729
OCD Only		
Received by:	Harimon	Date:05/31/2022

0.00 bbls4.00 bbls

Location:	PLU 21 Brushy Draw 905H		
Spill Date:	5/19/2022		
	Area 1		
Approximate A	rea =	22.46	cu.ft.
	VOLUME OF LEAK		
Total Crude Oil	=	0.00	bbls
Total Produced	Water =	4.00	bbls
	Area 2		
Approximate A	rea =	5398.00	sq. ft.
Average Satura	tion (or depth) of spill =	1.25	inches
Average Porosi	ty Factor =	0.03	
	VOLUME OF LEAK		
Total Crude Oil	=	0.00	bbls
Total Produced	Water =	3.00	bbls
	TOTAL VOLUME OF LEAK		
Total Crude Oil	=	0.00	bbls
Total Produced	Water =	7.00	bbls

TOTAL VOLUME RECOVERED

Total Crude Oil =

Total Produced Water =

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 112119

CONDITIONS

Operator:	OGRID:
XTO ENERGY, INC	5380
	Action Number:
Midland, TX 79707	112119
	Action Type:
	[C-141] Release Corrective Action (C-141)

CONDITIONS

Created	By Condition	Condition Date
jharim	on None	5/31/2022

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Incident ID	NAPP2215147527	
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)?								
Are the lateral extents of the release within 300 feet of an occupied permanent residence, school, hospital, institution, or church?	☐ Yes ⊠ No							
Are the lateral extents of the release within 500 horizontal feet of a spring or a private domestic fresh water well used by less than five households for domestic or stock watering purposes?	☐ Yes ⊠ No							
Are the lateral extents of the release within 1000 feet of any other fresh water well or spring?	☐ Yes ⊠ No							
Are the lateral extents of the release within incorporated municipal boundaries or within a defined municipal fresh water well field?	☐ Yes ⊠ No							
Are the lateral extents of the release within 300 feet of a wetland?	☐ Yes ⊠ No							
Are the lateral extents of the release overlying a subsurface mine?	☐ Yes ⊠ No							
Are the lateral extents of the release overlying an unstable area such as karst geology?	☐ Yes ⊠ No							
Are the lateral extents of the release within a 100-year floodplain? ☐ Yes ☒ No								
Did the release impact areas not on an exploration, development, production, or storage site? ☐ Yes ☑ No								
Attach a comprehensive report (electronic submittals in .pdf format are preferred) demonstrating the lateral and ver contamination associated with the release have been determined. Refer to 19.15.29.11 NMAC for specifics.	tical extents of soil							
Characterization Report Checklist: Each of the following items must be included in the report.								
 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

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Incident ID	NAPP2215147527
District RP	
Facility ID	
Application ID	

regulations all operators are required to report and/or file certain public health or the environment. The acceptance of a C-141 refailed to adequately investigate and remediate contamination that	release notifications and perform corrective actions for releases which may endanger port by the OCD does not relieve the operator of liability should their operations have it pose a threat to groundwater, surface water, human health or the environment. In operator of responsibility for compliance with any other federal, state, or local laws
Printed Name: _Garrett Green	Title: _Environmental Coordinator
Signature: Satt Sur	Date:12/07/2022
email: _garrett.green@exxonmobil.com	Telephone:575-200-0729
OCD Only	
Received by:	Date:

Received by OCD: 12/7/2022 1:45:27 PM Form C-141 State of New Mexico Page 6 Oil Conservation Division

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	ng 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 phomust be notified 2 days prior to liner inspection)	otos of the liner integrity if applicable (Note: appropriate OCD District office
☐ Laboratory analyses of final sampling (Note: appropriate €	ODC 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 ce may endanger public health or the environment. The acceptance should their operations have failed to adequately investigate and human health or the environment. In addition, OCD acceptance compliance with any other federal, state, or local laws and/or regrestore, reclaim, and re-vegetate the impacted surface area to the accordance with 19.15.29.13 NMAC including notification to the Printed Name: _Garrett Green	replete to the best of my knowledge and understand that pursuant to OCD rules ertain release notifications and perform corrective actions for releases which he of a C-141 report by the OCD does not relieve the operator of liability defended at contamination that pose a threat to groundwater, surface water, he of a C-141 report does not relieve the operator of responsibility for regulations. The responsible party acknowledges they must substantially be conditions that existed prior to the release or their final land use in the OCD when reclamation and re-vegetation are complete. Title: _Environmental Coordinator Date:12/07/2022 Telephone:575-200-0729
OCD Only	
Received by:	Date:
	arty of liability should their operations have failed to adequately investigate and acc water, human health, or the environment nor does not relieve the responsible and/or regulations.
Closure Approved by:	Date:
Printed Name:	Title:



December 7, 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

Poker Lake Unit (PLU) 21 Brushy Draw 126H / 905H Incident Numbers NAPP2214342255 and NAPP2215147527

Eddy County, New Mexico

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 PLU 21 Brushy Draw 126H and PLU 21 Brushy Draw 905H (located on the same well pad and collectively referred to as the 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 two release events 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 remediation that has occurred and requesting closure for Incident Numbers NAPP2214342255 and NAPP2215147527.

SITE DESCRIPTION AND RELEASE SUMMARY

The Site is located in Unit O, Section 21, Township 25 South, Range 30 East, in Eddy County, New Mexico (32.10939°N, 103.88361°W) and is associated with oil and gas exploration and production operations on Private Land.

NAPP2214342255

On May 11, 2022, during hydraulic fracturing (frac) operations sand washout caused a flange to fail resulting in the release of approximately 10 barrels (bbls) of produced water with FR onto the surface of the well pad. A vacuum truck was dispatched to the Site to recover free-standing fluids; approximately 4 bbls of liquids 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 May 23, 2022. The release was assigned Incident Number NAPP2214342255.

NAPP2215147527

On May 19, 2022, during frac operations, the blender tub was overfilled resulting in the release of approximately 7 bbls of produced water with FR onto the surface of the well pad. A vacuum truck was dispatched to the Site to recover free-standing fluids and approximately 4 bbls were recovered. XTO reported the release to the NMOCD on a Form C-141 on May 31, 2022. The release was assigned Incident Number NAPP2215147527.

XTO Energy, Inc Closure Request PLU 21 Brushy Draw 126H / 905H



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.

Depth to groundwater at the Site is estimated to be greater than 100 feet below ground surface (bgs) based on the nearest groundwater well data. The closest permitted groundwater well with depth to groundwater data is United State Geological Survey (USGS) well 320629103533002, located approximately ½ mile southwest of the Site. The groundwater well has a reported depth to groundwater of 265 feet bgs and a total depth of 280 feet bgs. Ground surface elevation at the groundwater well location is 3,219 feet above mean sea level (amsl), which is approximately 31 feet lower in elevation than the Site. There are no hydrological features near the Site that would indicate shallow groundwater. 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 a dry wash, located approximately 1,427 feet southeast of the Site. The Site is greater than 200 feet from a lakebed, sinkhole, or playa lake and greater than 300 feet from an occupied residence, school, hospital, institution, church, or wetland. The Site is 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

Frac operations continued onsite prohibiting XTO from conducting Site assessment immediately following notification of the release. XTO submitted an extension request for both release events on August 9, 2022, due to frac operations. The NMOCD approved the extension request on August 9, 2022, extending the due date to November 7, 2022.

Between September 27, 2022 and November 7, 2022, Ensolum personnel visited the Site to evaluate the release extents based on information provided on the Form C-141s and information from XTO regarding the location of the former containment. Upon completion of frac operations, a temporary containment was removed and Ensolum personnel were able to access the Site. A total of 9 soil samples (SS01 through SS07) 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. Three soil samples (SS01 through SS03) were collected within the release extent (associated with Incident Number NAPP2215147527) and two soil samples (SS01 through SS02) collected within the release extent (associated with incident number

XTO Energy, Inc Closure Request PLU 21 Brushy Draw 126H / 905H



NAPP2214342255). Additionally, lateral delineation samples (SS04 through SS07) were collected outside the release extents. The preliminary soil samples were field screened for volatile organic compounds (VOCs) utilizing a calibrated photoionization detector (PID) and chloride using Hach® chloride QuanTab® test strips, respectively. 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 at or below 4 degrees Celsius (°C) 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.

Potholes PH01 through PH04 were advanced via backhoe to a depth of 2 feet bgs within the release extents to assess the vertical extent of the releases. The potholes were advanced at the locations of previously collected delineation samples SS01, SS02, and SS03 (associated with Incident Number NAPP2215147527) and at SS01 (associated with incident number NAPP2214342255). Delineation soil samples were collected from each pothole at depths of 1 foot and 2 feet bgs. Soil from the delineation potholes was field screened for VOCs and chloride, respectively. Field screening results and observations for the potholes 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. In addition, the lateral delineation samples (SS04 through SS07) were compliant with the most stingent Table I Closure Criteria and successfully defined the lateral extent of the release. 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 two separate, but commingled releases of produced water with FR. Laboratory analytical results for the delineation soil samples indicated all COC concentrations were compliant with the Site Closure Criteria. The lateral extent of the release was delineated to the reclamation requirement at SS04, SS05, SS06, and SS07 to ensure the release did not flow off pad. Based on the soil sample laboratory analytical results, no further remediation was required.

Depth to groundwater has been estimated to be greater than 100 feet bgs and no other sensitive receptors were identified near the release extent. XTO believes these remedial actions are protective of human health, the environment, and groundwater. As such, XTO respectfully requests closure for Incident Numbers NAPP2214342255 and NAPP2215147527.

XTO Energy, Inc Closure Request PLU 21 Brushy Draw 126H / 905H



If you have any questions or comments, please contact Ms. Kalei Jennings at (817) 683-2503 or kjennings@ensolum.com.

Sincerely, **Ensolum, LLC**

Eric Carroll
Project Geologist

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

ashley L. ager

cc: Garrett Green, XTO

Exis Carroll

Shelby Pennington, XTO

Janey Paschal

Appendices:

Figure 1 Site Receptor Map

Figure 2 Delineation Soil Sample Locations
Table 1 Soil Sample Analytical Results
Appendix A Appendix B Lithologic Soil Sampling Logs

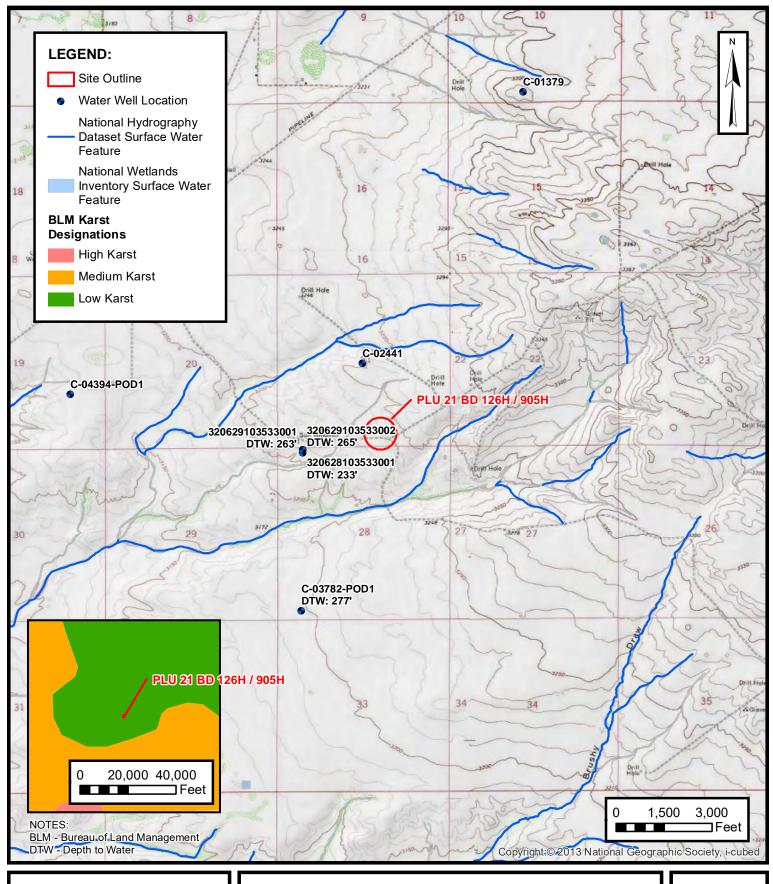
Appendix C Photographic Log

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

Appendix E NMOCD Notifications
Appendix F SDS for Friction Reducer



FIGURES



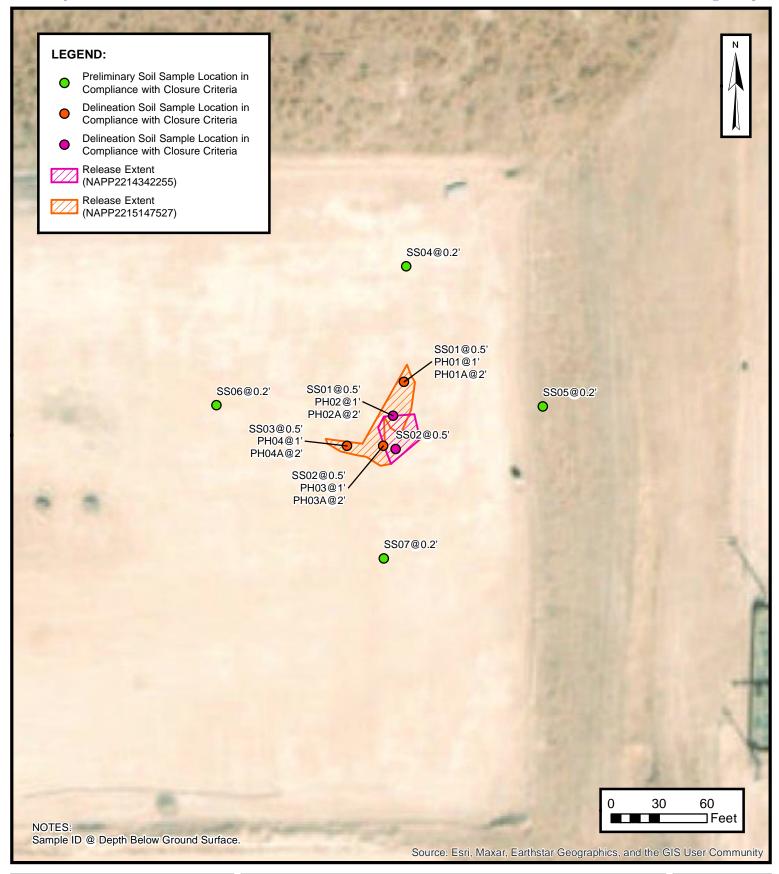


SITE RECEPTOR MAP

XTO ENERGY, INC.
PLU 21 BD 126H / 905H
NAPP2215147527 & NAPP2214342255
Unit O, Sec 21, T25S, R30E
Eddy County, New Mexico

FIGURE

1





DELINEATION SOIL SAMPLE LOCATIONS

XTO ENERGY, INC.
PLU 21 BD 126H / 905H
NAPP2215147527 & NAPP2214342255
Unit O, Sec 21, T25S, R30E
Eddy County, New Mexico

FIGURE

2



TABLES

Received by OCD: 12/7/2022 1:45:27 PM



TABLE 1 SOIL SAMPLE ANALYTICAL RESULTS PLU 21 Brushy Draw 126H / 905H 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	Closure Criteria (NMAC 19.15.29)	10	50	NE	NE	NE	1,000	2,500	20,000		
	Preliminary Soil Samples (NAPP2215147527)											
SS01	09/27/2022	0.5	<0.00198	<0.00396	<49.9	<49.9	<49.9	<49.9	<49.9	5,390		
SS02	09/27/2022	0.5	<0.00199	<0.00398	<49.9	<49.9	<49.9	<49.9	<49.9	18,100		
SS03	09/27/2022	0.5	<0.00202	<0.00403	<50.0	4960	<50.0	<49.9	<49.9	1,060		
				Preliminary Sc	oil Samples (NA	PP2214342255)						
SS01	09/27/2022	0.5	<0.00199	<0.00398	<49.9	70.7	<49.9	70.7	70.7	3,770		
SS02	09/27/2022	0.5	<0.00201	<0.00402	<49.9	137	<49.9	137	137	330		
				Delir	neation Soil Sa	mples						
PH01	10/05/2022	1	<0.00200	<0.00401	<50.0	<50.0	<50.0	<50.0	<50.0	3,500		
PH01A	10/05/2022	2	<0.00201	<0.00402	<49.9	<49.9	<49.9	<49.9	<49.9	1,110		
PH02	10/05/2022	1	<0.00200	<0.00399	<50.0	<50.0	<50.0	<50.0	<50.0	2,070		
PH02A	10/05/2022	2	< 0.00199	<0.00398	<50.0	<50.0	<50.0	<50.0	<50.0	1,470		
PH03	10/05/2022	1	<0.00199	<0.00398	<50.0	<50.0	<50.0	<50.0	<50.0	4,340		
PH03A	10/05/2022	2	< 0.00199	<0.00398	<50.0	<50.0	<50.0	<50.0	<50.0	7,200		
PH04	10/05/2022	1	<0.00199	<0.00398	<49.8	<49.8	<49.8	<49.8	<49.8	8,250		
PH04A	10/05/2022	2	< 0.00199	<0.00398	<49.9	<49.9	<49.9	<49.9	<49.9	8,390		
SS04	11/07/2022	0.2	<0.00199	<0.00398	<49.9	<49.9	<49.9	<49.9	<49.9	14.0		
SS05	11/07/2022	0.2	<0.00200	<0.00401	<49.8	<49.8	<49.8	<49.8	<49.8	301		
SS06	11/07/2022	0.2	<0.00198	<0.00396	55.1	<50.0	14.4	55.1	69.5	195		
SS07	11/07/2022	0.2	<0.00199	<0.00398	<50.0	<50.0	<50.0	<50.0	<50.0	35.8		

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 NMAC: New Mexico Administrative Code



APPENDIX A

Referenced Well Records



USGS Home Contact USGS Search USGS

National Water Information System: Web Interface

USGS Water Resources

Data Category:	Geographic Area:		
Groundwater ~	United States	~	GO

Click to hideNews Bulletins

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

Groundwater levels for the Nation

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

Search Results -- 1 sites found

site_no list =

320629103533002

Minimum number of levels = 1

Save file of selected sites to local disk for future upload

USGS 320629103533002 25S.30E.21.33342 A

Available data for this site Groundwater: Field measurements

GO

Eddy County, New Mexico

Hydrologic Unit Code 13060011

Latitude 32°06'29", Longitude 103°53'30" NAD27

Land-surface elevation 3,209 feet above NAVD88

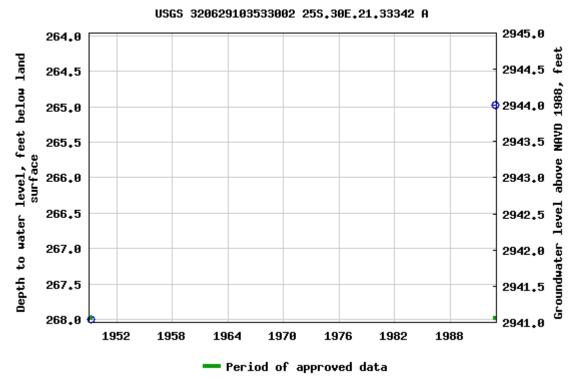
The depth of the well is 280 feet below land surface.

This well is completed in the Pecos River Basin alluvial aquifer (N100PCSRVR) national aquifer.

This well is completed in the Alluvium, Bolson Deposits and Other Surface Deposits (110AVMB) local aquifer.

Output formats

Table of data	
<u>Tab-separated data</u>	
Graph of data	
Reselect period	



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

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

Accessibility

FOIA

Privacy

Policies and Notices

U.S. Department of the Interior | U.S. Geological Survey

Title: Groundwater for USA: Water Levels

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

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

Page Last Modified: 2022-07-05 17:04:41 EDT

0.7 0.64 nadww01





APPENDIX B

Lithologic Soil Sampling Logs

Site Name: PLU 21 BD 126H/905H Incident Number: NAPP2214342255 Job Number: 03E1558070 Logged By: Kase Parker Method: Backhoe Hole Diameter: "3" Total Depth: 2 Total Depth: 3 Total Depth: 2 Total Depth: 3 Total Depth: 3 Total Depth: 3 Total Depth: 4 Total Depth: 5 T									Sample Name: PH01	Date: 10/5/22
Job Number: 03E1558070 LithOLOGIC / SOIL SAMPLING LOG Logged By: Kase Parker Method: Backhoe Total Depth: 2 Total Depth: 2 Comments: Field screening conducted with HACH Chloride Test Strips and PID for chloride and vapor, respectively. Chloride test performed with 1:4 dilution factor of soil to distilled water. No correction factors included. Depth Total Depth: 2 Total Depth: 2 Total Depth: 2 Total Depth: 2 Total Depth: 3 Total Depth: 4 Total Depth: 4 Total Depth: 5 Total Depth: 5 Total Depth: 5 Total Depth: 5 Total Depth: 6 Total Depth: 6 Total Depth: 6 Total Depth: 6 Total Depth: 7 Total Dept	1							B .4	·	
Job Number: 03E1558070 LithOLOGIC / SOIL SAMPLING LOG Logged By: Kase Parker Method: Backhoe Total Depth: 2 Total Depth: 2 Comments: Field screening conducted with HACH Chloride Test Strips and PID for chloride and vapor, respectively. Chloride test performed with 1:4 dilution factor of soil to distilled water. No correction factors included. Depth Total Depth: 2 Total Depth: 2 Total Depth: 2 Total Depth: 2 Total Depth: 3 Total Depth: 4 Total Depth: 4 Total Depth: 5 Total Depth: 5 Total Depth: 5 Total Depth: 5 Total Depth: 6 Total Depth: 6 Total Depth: 6 Total Depth: 6 Total Depth: 7 Total Dept				N	3	UL	. U	IVI		
LithoLogic / Soil SAMPLING LOG Logged By: Kase Parker Method: Backhoe										
Coordinates: 32.10939, -103.88361 Comments: Field screening conducted with HACH Chloride Test Strips and PID for chloride and vapor, respectively. Chloride test performed with 1:4 dilution factor of soil to distilled water. No correction factors included. Page 1 of 1 o		ı	ITHOLO	OGIC	: / SOIL S	AMPLING	LOG			Method: Backhoe
Comments: Field screening conducted with HACH Chloride Test Strips and PID for chloride and vapor, respectively. Chloride test performed with 1:4 dilution factor of soil to distilled water. No correction factors included. 1	Coord					, <u></u>				
performed with 1.4 dilution factor of soil to distilled water. No correction factors included. 1						th HACH Chlo	oride Test St	rips and F		·
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3,847 0 N PH01 1' 1 GM Well graded stilty caliche 929 0 N PH01A 2' 2 GM Well graded stilty caliche 3 3 5 6 6 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7	Moisture Content	Moisture Content Chloride (ppm) Vapor (ppm) Sample ID Sample ID OSS/Rock Symbol					Lithologic De	escriptions		
					PH01	-	1	GM		

Site Name: PLU 21 BD 126H/905H Incident Number: NAPP2214342255 Job Number: 03E1558070 Light Number: 03E1558070 Total Depth: 2 Comments: Field screening conducted with HACH Chloride Test Strips and PID for chloride and vapor, respectively. Chloride test performed with 1:4 dilution factor of soil to distilled water. No correction factors included. Page 1									Sample Name: PH02	Date: 10/5/22
Job Number: 03E1558070 LiTHOLOGIC / SOIL SAMPLING LOG Logged By: Kase Parker Method: Backhoe Coordinates: 32.10939, 103.88361 Hole Diameter: "3" Total Depth: 2 Comments: Field screening conducted with HACH Chloride Test Strips and PID for chloride and vapor, respectively. Chloride test performed with 1-4 dilution factor of soil to distilled water. No correction factors included. Total Depth: 2 Comments: Field screening conducted with HACH Chloride Test Strips and PID for chloride and vapor, respectively. Chloride test performed with 1-4 dilution factor of soil to distilled water. No correction factors included. Total Depth: 2 Comments: Field screening conducted with 1-4 dilution factor of soil to distilled water. No correction factors included. Total Depth: 2 Comments: Field screening conducted with 1-4 dilution factor of soil to distilled water. No correction factors included. Total Depth: 2 Comments: Field screening conducted with 1-4 dilution factor of soil to distilled water. No correction factors included. Total Depth: 2 Comments: Field screening conducted with 1-4 dilution factor of soil to distilled water. No correction factors included. Total Depth: 2 Comments: Field screening conducted with 1-4 dilution factor of soil to distilled water. No correction factors included. Total Depth: 2 Comments: Field screening conducted with 1-4 dilution factor of soil to distilled water. No correction factors included. Total Depth: 2 Comments: Field screening conducted with 1-4 dilution factor of soil to distilled water. No correction factors included. Total Depth: 2 Comments: Field screening conducted with 1-4 dilution factor of soil to distilled water. No correction factors included. Total Depth: 2 Comments: 2 Commen	1	7						B .4	·	
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performed with 1:4 dilution factor of soil to distilled water. No correction factors included. 1						th HACH Chlo	oride Test St	rips and F		·
2,296										
2,296						Depth	Lithologic De	escriptions		
		2,296		N	PH02	1' -	1	GM		

								Sample Name: PH03	Date: 10/5/22
			N	5	OL	M	Site Name: PLU 21 BD 126H/905H Incident Number: NAPP2214342255		
						Job Number: 03E1558070	1342233		
LITHOLOGIC / SOIL SAMPLING LOG								Logged By: Kase Parker	Method: Backhoe
Coord	dinates: 32.				AIVII LIIVO	100		Hole Diameter: ~3'	Total Depth: 2
					th HACH Chlo	oride Test St	rips and P	PID for chloride and vapor, res	·
								actors included.	.,
Moisture	Content Content Chloride (ppm) Samble Debth (tt pgs) USCS/Rock Symbol								
	6,249 8,596	0	N N	PH03A	1'	0 - 1 - 1 - 5 - 6 - 7 - 8 - 9 - 10 - 11 - 12	GM GM	Well graded stilty calich	

								Sample Name: PH04	Date: 10/5/22	
			N	5	OL	. U	M	Site Name: PLU 21 BD 126H/ Incident Number: NAPP2214		
							Job Number: 03E1558070			
LITHOLOGIC / SOIL SAMPLING LOG								Logged By: Kase Parker	Method: Backhoe	
Coordinates: 32.10939, -103.88361								Hole Diameter: ~3'	Total Depth: 2	
Comments: Field screening conducted with HACH Chloride Test Strips and P									·	
performed with 1:4 dilution factor of soil to distilled water. No correction factors included.										
Moisture	Chloride (ppm)	Vapor (ppm)	Staining	Sample ID	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithologic Descriptions		
	8,596	0	N N	PH04A	1'	1 0 - 1 1 - 1 1 1 1 1 1 1 1 1 1 1 1 1 1	GM GM	Well graded stilty calich	ne	



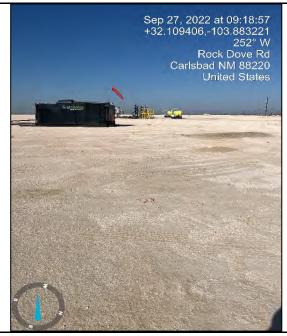
APPENDIX C

Photographic Log



Photographic Log

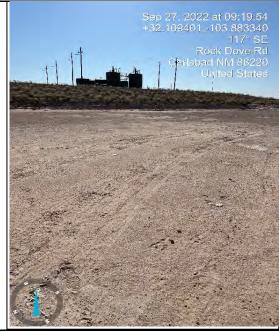
XTO Energy, Inc.
PLU 21 Brushy Draw 126H / 905H
Eddy County, New Mexico



Photograph: 1 Date: 9/27/2022

Description: View of release areas.

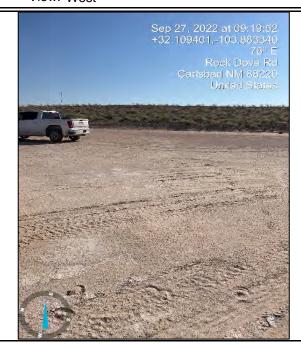
View: West



Photograph: 2 Date: 9/27/2022

Description: View of release areas.

View: West



Photograph: 3 Date: 9/27/2022 Description: View of release areas.

View: East



Photograph: 4 Date: 10/05/2022

Description: View during delineation activities

View: Southeast



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: 890-3074-1

Laboratory Sample Delivery Group: 03E1558070

Client Project/Site: PLU 21 BD 126H

For:

eurofins

Received by OCD: 12/7/2022 1:45:27 PM

Ensolum 705 W. Wadley Suite 210 Midland, Texas 79701

Attn: Kalei Jennings



Authorized for release by: 10/8/2022 8:40:04 AM

Jessica Kramer, Project Manager (432)704-5440

Jessica.Kramer@et.eurofinsus.com

.....LINKS

Review your project results through

EOL

Have a Question?

www.eurofinsus.com/Env

Released to Imaging: 3/13/2023 10:02:15 AM

Visit us at:

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
 Laboratory Job ID: 890-3074-1

 Project/Site: PLU 21 BD 126H
 SDG: 03E1558070

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Surrogate Summary	8
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QC Association Summary	13
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Certification Summary	16
Method Summary	17
Sample Summary	18
Chain of Custody	19
Receipt Checklists	20

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6

8

10

12

13

Definitions/Glossary

Job ID: 890-3074-1 Client: Ensolum Project/Site: PLU 21 BD 126H

SDG: 03E1558070

Qualifiers

GC VOA

Qualifier **Qualifier Description** F1 MS and/or MSD recovery exceeds control limits. F2 MS/MSD RPD exceeds control limits Indicates the analyte was analyzed for but not detected.

GC Semi VOA

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

HPLC/IC

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

Glossary

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

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

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

Duplicate Error Ratio (normalized absolute difference) DER

Dil Fac **Dilution Factor**

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) Limit of Quantitation (DoD/DOE) LOQ

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 MOI Method Quantitation Limit

NC Not Calculated

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

NEG Negative / Absent POS Positive / Present **Practical Quantitation Limit PQL**

PRES Presumptive **Quality Control** QC

Relative Error Ratio (Radiochemistry) **RER**

Reporting Limit or Requested Limit (Radiochemistry) RL

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 21 BD 126H

Job ID: 890-3074-1 SDG: 03E1558070

Job ID: 890-3074-1

Laboratory: Eurofins Carlsbad

Narrative

Job Narrative 890-3074-1

Receipt

The samples were received on 9/27/2022 2:51 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

Method 8021B: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 880-36296 and analytical batch 880-36323 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.

Method 8021B: Surrogate recovery for the following sample was outside control limits: (890-3068-A-1-H). Evidence of matrix interferences is not obvious.

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

GC Semi VOA

Method 8015MOD_NM: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 880-35711 and analytical batch 880-35736 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.

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

HPLC/IC

Method 300_ORGFM_28D: The matrix spike / matrix spike duplicate (MS/MSD) recoveries and precision for preparation batch 880-35680 and analytical batch 880-35721 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample / laboratory sample control duplicate (LCS/LCSD) precision was within acceptance limits.

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

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Matrix: Solid

Lab Sample ID: 890-3074-1

Client Sample Results

 Client: Ensolum
 Job ID: 890-3074-1

 Project/Site: PLU 21 BD 126H
 SDG: 03E1558070

Client Sample ID: SS01

Date Collected: 09/27/22 09:50 Date Received: 09/27/22 14:51

Sample Depth: 0 - 3

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00198	U	0.00198	mg/Kg		10/06/22 16:44	10/07/22 23:14	1
Toluene	<0.00198	U	0.00198	mg/Kg		10/06/22 16:44	10/07/22 23:14	1
Ethylbenzene	<0.00198	U	0.00198	mg/Kg		10/06/22 16:44	10/07/22 23:14	1
m-Xylene & p-Xylene	<0.00396	U	0.00396	mg/Kg		10/06/22 16:44	10/07/22 23:14	1
o-Xylene	<0.00198	U	0.00198	mg/Kg		10/06/22 16:44	10/07/22 23:14	1
Xylenes, Total	<0.00396	U	0.00396	mg/Kg		10/06/22 16:44	10/07/22 23:14	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	115		70 - 130			10/06/22 16:44	10/07/22 23:14	1
1,4-Difluorobenzene (Surr)	75		70 - 130			10/06/22 16:44	10/07/22 23:14	1
Method: TAL SOP Total BTEX - T	Total BTEX Cald	culation						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00396	U	0.00396	mg/Kg			10/08/22 09:02	1
Method: SW846 8015 NM - Diese	l Bango Organ	· (DDO) (
Method. 544040 0015 MM - Diese	i Kange Organ	ICS (DRO) (GC)					
Analyte		Qualifier	GC) RL	Unit	D	Prepared	Analyzed	Dil Fac
		Qualifier	•	Unit mg/Kg	<u>D</u>	Prepared	Analyzed 10/03/22 11:24	Dil Fac
Analyte	Result <49.9	Qualifier U	RL 49.9		<u>D</u>	Prepared		Dil Fac
Analyte Total TPH Method: SW846 8015B NM - Dies	Result <49.9	Qualifier U	RL 49.9		<u>D</u>	Prepared Prepared		Dil Fac Dil Fac
Analyte Total TPH Method: SW846 8015B NM - Dies Analyte Gasoline Range Organics	Result <49.9	Qualifier Unics (DRO) Qualifier	RL 49.9	mg/Kg			10/03/22 11:24	1
Analyte Total TPH Method: SW846 8015B NM - Dies Analyte Gasoline Range Organics	Result <49.9 sel Range Orga Result	Qualifier U nics (DRO) Qualifier U	RL 49.9 (GC)	mg/Kg		Prepared	10/03/22 11:24 Analyzed	1 Dil Fac
Analyte Total TPH Method: SW846 8015B NM - Dies Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over	Result <49.9 sel Range Orga Result <49.9	Qualifier U nics (DRO) Qualifier U	(GC) RL 49.9	mg/Kg Unit mg/Kg		Prepared 09/29/22 13:24	10/03/22 11:24 Analyzed 10/01/22 02:19	Dil Fac
Analyte Total TPH Method: SW846 8015B NM - Dies Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28)	Result <49.9 sel Range Orga Result <49.9	Qualifier U nics (DRO) Qualifier U	(GC) RL 49.9	mg/Kg Unit mg/Kg		Prepared 09/29/22 13:24	10/03/22 11:24 Analyzed 10/01/22 02:19	Dil Fac
Analyte Total TPH 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 <49.9	Qualifier U nics (DRO) Qualifier U U	RL 49.9 (GC) RL 49.9 49.9	mg/Kg Unit mg/Kg mg/Kg		Prepared 09/29/22 13:24 09/29/22 13:24	10/03/22 11:24 Analyzed 10/01/22 02:19 10/01/22 02:19	1 Dil Fac 1
Analyte Total TPH Method: SW846 8015B NM - Dies Analyte Gasoline Range Organics (GRO)-C6-C10	Result	Qualifier U nics (DRO) Qualifier U U	RL 49.9 (GC) RL 49.9 49.9	mg/Kg Unit mg/Kg mg/Kg		Prepared 09/29/22 13:24 09/29/22 13:24	Analyzed 10/01/22 02:19 10/01/22 02:19	1 Dil Fac 1 1

Client Sample ID: SS02

Method: MCAWW 300.0 - Anions, Ion Chromatography - Soluble

Result Qualifier

5390

Date Collected: 09/27/22 09:55 Date Received: 09/27/22 14:51

Sample Depth: 0 - 3

Analyte

Chloride

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199	mg/Kg		10/06/22 16:44	10/07/22 23:34	1
Toluene	<0.00199	U	0.00199	mg/Kg		10/06/22 16:44	10/07/22 23:34	1
Ethylbenzene	<0.00199	U	0.00199	mg/Kg		10/06/22 16:44	10/07/22 23:34	1
m-Xylene & p-Xylene	<0.00398	U	0.00398	mg/Kg		10/06/22 16:44	10/07/22 23:34	1
o-Xylene	<0.00199	U	0.00199	mg/Kg		10/06/22 16:44	10/07/22 23:34	1
Xylenes, Total	<0.00398	U	0.00398	mg/Kg		10/06/22 16:44	10/07/22 23:34	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)			70 - 130			10/06/22 16:44	10/07/22 23:34	1

RL

49.8

Unit

mg/Kg

D

Prepared

Analyzed

09/29/22 22:46

Lab Sample ID: 890-3074-2

Dil Fac

Matrix: Solid

Job ID: 890-3074-1

Client: Ensolum SDG: 03E1558070 Project/Site: PLU 21 BD 126H

Client Sample ID: SS02 Lab Sample ID: 890-3074-2

Date Collected: 09/27/22 09:55 Matrix: Solid Date Received: 09/27/22 14:51

Sample Depth: 0 - 3

Method: SW846 8021E	: - Volatile Organic	Compounds ((GC) (Continued)
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Surrogate	%Recovery Qualifier	Limits	Prepared	Analyzed	Dil Fac
1 4-Difluorobenzene (Surr)	101	70 130	10/06/22 16:44	10/07/22 23:34	1

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398 U	0.00398	ma/Ka			10/08/22 09:02	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
Total TPH	<49.9	U	49.9	ma/Ka			10/03/22 11:24	1	

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

	rungo organico (Erro) (Oo)							
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics	<49.9	U	49.9	mg/Kg		09/29/22 13:24	10/01/22 02:41	1
(GRO)-C6-C10								
Diesel Range Organics (Over	<49.9	U	49.9	mg/Kg		09/29/22 13:24	10/01/22 02:41	1
C10-C28)								
Oll Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg		09/29/22 13:24	10/01/22 02:41	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	123		70 - 130	09/29/22 13:2	10/01/22 02:41	1
o-Terphenyl	121		70 - 130	09/29/22 13:2	10/01/22 02:41	1

Method: MCAWW 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	18100		250	mg/Kg			09/29/22 22:51	50

Lab Sample ID: 890-3074-3 **Client Sample ID: SS03**

Date Collected: 09/27/22 10:00 Date Received: 09/27/22 14:51

Sample Depth: 0 - 3

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00202	U	0.00202	mg/Kg		10/06/22 16:44	10/07/22 23:55	1
Toluene	<0.00202	U	0.00202	mg/Kg		10/06/22 16:44	10/07/22 23:55	1
Ethylbenzene	<0.00202	U	0.00202	mg/Kg		10/06/22 16:44	10/07/22 23:55	1
m-Xylene & p-Xylene	<0.00403	U	0.00403	mg/Kg		10/06/22 16:44	10/07/22 23:55	1
o-Xylene	<0.00202	U	0.00202	mg/Kg		10/06/22 16:44	10/07/22 23:55	1
Xylenes, Total	<0.00403	U	0.00403	mg/Kg		10/06/22 16:44	10/07/22 23:55	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	98		70 - 130			10/06/22 16:44	10/07/22 23:55	1

4-Bromofluorobenzene (Surr)	98	70 - 130	10/06/22 16:44	10/07/22 23:55	1
1,4-Difluorobenzene (Surr)	103	70 - 130	10/06/22 16:44	10/07/22 23:55	1

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00403	U	0.00403	mg/Kg		_	10/08/22 09:02	1

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

Analyte	Result Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0 U	50.0	mg/Kg		<u>.</u>	10/03/22 11:24	1

Eurofins Carlsbad

Matrix: Solid

Matrix: Solid

Lab Sample ID: 890-3074-3

09/29/22 22:55

Client Sample Results

 Client: Ensolum
 Job ID: 890-3074-1

 Project/Site: PLU 21 BD 126H
 SDG: 03E1558070

Client Sample ID: SS03

Date Collected: 09/27/22 10:00 Date Received: 09/27/22 14:51

Sample Depth: 0 - 3

Chloride

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0	mg/Kg		09/29/22 13:24	10/01/22 03:02	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		09/29/22 13:24	10/01/22 03:02	1
Oll Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		09/29/22 13:24	10/01/22 03:02	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	113		70 - 130			09/29/22 13:24	10/01/22 03:02	1
o-Terphenyl	105		70 - 130			09/29/22 13:24	10/01/22 03:02	1
Method: MCAWW 300.0 - Anions	Ion Chromato	graphy - S	oluble					
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac

4.97

mg/Kg

1060

9

11

12

Surrogate Summary

 Client: Ensolum
 Job ID: 890-3074-1

 Project/Site: PLU 21 BD 126H
 SDG: 03E1558070

Method: 8021B - Volatile Organic Compounds (GC)

Matrix: Solid Prep Type: Total/NA

		BFB1	DFBZ1	Percent Surrogate Recovery (Acceptance Limits)
_ab Sample ID	Client Sample ID	(70-130)	(70-130)	
390-3068-A-1-F MS	Matrix Spike	92	76	
390-3068-A-1-G MSD	Matrix Spike Duplicate	105	96	
390-3074-1	SS01	115	75	
390-3074-2	SS02	127	101	
390-3074-3	SS03	98	103	
CS 880-36296/1-A	Lab Control Sample	94	97	
CSD 880-36296/2-A	Lab Control Sample Dup	95	95	
MB 880-36284/5-A	Method Blank	98	82	
MB 880-36296/5-A	Method Blank	102	83	
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 Limits)
		1CO1	OTPH1	
Lab Sample ID	Client Sample ID	(70-130)	(70-130)	
890-3074-1	SS01	111	112	
890-3074-2	SS02	123	121	
890-3074-3	SS03	113	105	
890-3080-A-21-C MS	Matrix Spike	106	89	
890-3080-A-21-D MSD	Matrix Spike Duplicate	96	80	
LCS 880-35711/2-A	Lab Control Sample	118	103	
LCSD 880-35711/3-A	Lab Control Sample Dup	109	110	
MB 880-35711/1-A	Method Blank	119	109	

1CO = 1-Chlorooctane

OTPH = o-Terphenyl

Eurofins Carlsbad

Released to Imaging: 3/13/2023 10:02:15 AM

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Client: Ensolum Job ID: 890-3074-1 SDG: 03E1558070 Project/Site: PLU 21 BD 126H

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-36284/5-A

Matrix: Solid Analysis Batch: 36323 Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 36284

	MB	MB						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		10/06/22 15:09	10/07/22 10:37	1
Toluene	<0.00200	U	0.00200	mg/Kg		10/06/22 15:09	10/07/22 10:37	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		10/06/22 15:09	10/07/22 10:37	1
m-Xylene & p-Xylene	<0.00400	U	0.00400	mg/Kg		10/06/22 15:09	10/07/22 10:37	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		10/06/22 15:09	10/07/22 10:37	1
Xylenes, Total	<0.00400	U	0.00400	mg/Kg		10/06/22 15:09	10/07/22 10:37	1

MB MB

Surrogate	%Recovery	Qualifier	Limits	Prep	pared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	98		70 - 130	10/06/2	22 15:09	10/07/22 10:37	1
1,4-Difluorobenzene (Surr)	82		70 - 130	10/06/2	22 15:09	10/07/22 10:37	1

Lab Sample ID: MB 880-36296/5-A

Matrix: Solid

Analysis Batch: 36323

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

Prep Batch: 36296

	INID	IVID						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		10/06/22 16:44	10/07/22 21:29	•
Toluene	<0.00200	U	0.00200	mg/Kg		10/06/22 16:44	10/07/22 21:29	
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		10/06/22 16:44	10/07/22 21:29	
m-Xylene & p-Xylene	<0.00400	U	0.00400	mg/Kg		10/06/22 16:44	10/07/22 21:29	•
o-Xylene	<0.00200	U	0.00200	mg/Kg		10/06/22 16:44	10/07/22 21:29	
Xylenes, Total	<0.00400	U	0.00400	mg/Kg		10/06/22 16:44	10/07/22 21:29	

мв мв

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	102		70 - 130	10/06/22 16:44	10/07/22 21:29	1
1,4-Difluorobenzene (Surr)	83		70 - 130	10/06/22 16:44	10/07/22 21:29	1

Lab Sample ID: LCS 880-36296/1-A

Matrix: Solid

Analysis Batch: 36323

Client Sample ID: Lab Control Sample

Prep Type: Total/NA Prep Batch: 36296

	Spike	LCS	LCS				%Rec	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Benzene	0.100	0.1000		mg/Kg		100	70 - 130	
Toluene	0.100	0.1030		mg/Kg		103	70 - 130	
Ethylbenzene	0.100	0.09760		mg/Kg		98	70 - 130	
m-Xylene & p-Xylene	0.200	0.2073		mg/Kg		104	70 - 130	
o-Xylene	0.100	0.1060		mg/Kg		106	70 - 130	

LCS LCS

Surrogate	%Recovery Qualifier	Limits
4-Bromofluorobenzene (Surr)	94	70 _ 130
1.4-Difluorobenzene (Surr)	97	70 - 130

Lab Sample ID: LCSD 880-36296/2-A

Matrix: Solid

Analysis Batch: 36323

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

Prep Batch: 36296

Spike LCSD LCSD RPD %Rec Result Qualifier Analyte Added Unit %Rec Limits RPD Limit Benzene 0.100 0.1015 mg/Kg 101 70 - 130

QC Sample Results

Client: Ensolum Job ID: 890-3074-1 Project/Site: PLU 21 BD 126H SDG: 03E1558070

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

Lab Sample ID: LCSD 880-36296/2-A

Matrix: Solid Analysis Batch: 36323 Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA Prep Batch: 36296

Spike LCSD LCSD %Rec RPD Analyte Added Result Qualifier Unit %Rec Limits **RPD** Limit D Toluene 0.100 0.1107 111 70 - 130 35 mg/Kg 7 Ethylbenzene 0.100 0.1022 mg/Kg 102 70 - 130 0.200 m-Xylene & p-Xylene 0.2208 mg/Kg 110 70 - 130 35 6 o-Xylene 0.100 0.1109 mg/Kg 111 70 - 130

LCSD LCSD

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

Lab Sample ID: 890-3068-A-1-F MS Client Sample ID: Matrix Spike

Matrix: Solid

Analysis Batch: 36323

Prep Type: Total/NA

Prep Batch: 36296

	Sample	Sample	Spike	MS	MS				%Rec	
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Benzene	<0.00200	U F1 F2	0.100	0.02395	F1	mg/Kg		24	70 - 130	
Toluene	<0.00200	U F1 F2	0.100	0.03824	F1	mg/Kg		37	70 - 130	
Ethylbenzene	<0.00200	U F1	0.100	0.03719	F1	mg/Kg		37	70 - 130	
m-Xylene & p-Xylene	<0.00399	U F1 F2	0.201	0.06673	F1	mg/Kg		33	70 - 130	
o-Xylene	<0.00200	U F1 F2	0.100	0.03598	F1	mg/Kg		36	70 - 130	

MS MS

Surrogate	%Recovery Qualifier	Limits
4-Bromofluorobenzene (Surr)	92	70 - 130
1,4-Difluorobenzene (Surr)	76	70 - 130

Lab Sample ID: 890-3068-A-1-G MSD

Matrix: Solid

Analysis Batch: 36323

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 36296

	Sample	Sample	Spike	MSD	MSD				%Rec		RPD
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Benzene	<0.00200	U F1 F2	0.0990	0.06384	F1 F2	mg/Kg		64	70 - 130	91	35
Toluene	<0.00200	U F1 F2	0.0990	0.06418	F1 F2	mg/Kg		64	70 - 130	51	35
Ethylbenzene	<0.00200	U F1	0.0990	0.05261	F1	mg/Kg		53	70 - 130	34	35
m-Xylene & p-Xylene	<0.00399	U F1 F2	0.198	0.1138	F1 F2	mg/Kg		57	70 - 130	52	35
o-Xylene	<0.00200	U F1 F2	0.0990	0.05730	F1 F2	mg/Kg		58	70 - 130	46	35

MSD MSD

Surrogate	%Recovery	Qualifier	Limits
4-Bromofluorobenzene (Surr)	105		70 - 130
1,4-Difluorobenzene (Surr)	96		70 - 130

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

Lab Sample ID: MB 880-35711/1-A

Matrix: Solid

Analysis Batch: 35736

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

Prep Batch: 35711

мв мв Result Qualifier RL Unit Prepared Gasoline Range Organics <50.0 U 50.0 mg/Kg 09/29/22 13:24 09/30/22 19:10 (GRO)-C6-C10

o-Terphenyl

 Client: Ensolum
 Job ID: 890-3074-1

 Project/Site: PLU 21 BD 126H
 SDG: 03E1558070

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

Lab Sample ID: MB 880-35711/1-A

Matrix: Solid
Analysis Batch: 35736

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 35711

	MR	MB						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		09/29/22 13:24	09/30/22 19:10	1
Oll Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		09/29/22 13:24	09/30/22 19:10	1
	MB	МВ						
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	119		70 - 130			09/29/22 13:24	09/30/22 19:10	1
o-Terphenyl	109		70 - 130			09/29/22 13:24	09/30/22 19:10	1

Lab Sample ID: LCS 880-35711/2-A **Client Sample ID: Lab Control Sample Matrix: Solid** Prep Type: Total/NA Prep Batch: 35711 Analysis Batch: 35736 LCS LCS Spike Analyte Added Result Qualifier Unit %Rec Limits Gasoline Range Organics 1000 825.2 83 70 - 130 mg/Kg (GRO)-C6-C10 Diesel Range Organics (Over 1000 990.0 mg/Kg 99 70 - 130 C10-C28) LCS LCS %Recovery Qualifier Limits Surrogate 1-Chlorooctane 70 - 130 118

Lab Sample ID: LCSD 880-35711/3-A

Matrix: Solid

Analysis Batch: 35736

Spike LCSD LCSD

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 35711
Spike LCSD LCSD

RPD

70 - 130

PD
mit
20
20
n

	LCSD	LCSD	
Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane	109		70 - 130
o-Terphenyl	110		70 - 130

103

Lab Sample ID: 890-3080-A-21-C MS

Matrix: Solid

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

Analysis Batch: 35736 Prep Batch: 35711

	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 F1	998	661.8	F1	mg/Kg		66	70 - 130	
Diesel Range Organics (Over C10-C28)	<50.0	U	998	955.8		mg/Kg		93	70 - 130	

	MS	MS	
Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane	106		70 - 130
o-Terphenyl	89		70 - 130

Client: Ensolum Job ID: 890-3074-1 Project/Site: PLU 21 BD 126H SDG: 03E1558070

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

Lab Sample ID: 890-3080-A-21-D MSD Client Sample ID: Matrix Spike Duplicate

Matrix: Solid

Prep Type: Total/NA Analysis Batch: 35736 Prep Batch: 35711

	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	693.2	F1	mg/Kg		69	70 - 130	5	20
(GRO)-C6-C10											
Diesel Range Organics (Over	<50.0	U	999	867.0		mg/Kg		84	70 - 130	10	20
C10-C28)											

C10-C28)

	MSD M	ISD	
Surrogate	%Recovery Q	ualifier	Limits
1-Chlorooctane	96		70 - 130
o-Terphenvl	80		70 - 130

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-35680/1-A Client Sample ID: Method Blank **Prep Type: Soluble**

Matrix: Solid

Analysis Batch: 35721

мв мв

Analyte	Result Qualifie		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.00 U	5.00	mg/Kg			09/29/22 21:43	1

Lab Sample ID: LCS 880-35680/2-A **Client Sample ID: Lab Control Sample Prep Type: Soluble**

Matrix: Solid

Analysis Batch: 35721

	Spike	LCS	LCS				%Rec	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Chloride	250	247.4	-	mg/Kg		99	90 - 110	

Lab Sample ID: LCSD 880-35680/3-A Client Sample ID: Lab Control Sample Dup **Prep Type: Soluble**

Matrix: Solid

Analysis Batch: 35721

	Spike	LCSD	LCSD				%Rec		RPD	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit	
Chloride	250	248.0		mg/Kg		99	90 - 110	0	20	

Lab Sample ID: 890-3068-A-1-B MS Client Sample ID: Matrix Spike **Prep Type: Soluble**

Matrix: Solid

Analysis Batch: 35721

	Sample	Sample	Spike	MS	MS				%Rec	
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Chloride	531	F1	252	753.4	F1	ma/Ka		88	90 110	

Lab Sample ID: 890-3068-A-1-C MSD

Matrix: Solid

Analysis Ratch: 35721

Analysis batch: 35721											
	Sample	Sample	Spike	MSD	MSD				%Rec		RPD
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Chloride	531	F1	252	756.9		mg/Kg		90	90 - 110	0	20

Eurofins Carlsbad

Prep Type: Soluble

Client Sample ID: Matrix Spike Duplicate

QC Association Summary

Client: Ensolum

Job ID: 890-3074-1 Project/Site: PLU 21 BD 126H SDG: 03E1558070

GC VOA

Prep Batch: 36284

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 880-36284/5-A	Method Blank	Total/NA	Solid	5035	

Prep Batch: 36296

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3074-1	SS01	Total/NA	Solid	5035	
890-3074-2	SS02	Total/NA	Solid	5035	
890-3074-3	SS03	Total/NA	Solid	5035	
MB 880-36296/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-36296/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-36296/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
890-3068-A-1-F MS	Matrix Spike	Total/NA	Solid	5035	
890-3068-A-1-G MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	

Analysis Batch: 36323

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3074-1	SS01	Total/NA	Solid	8021B	36296
890-3074-2	SS02	Total/NA	Solid	8021B	36296
890-3074-3	SS03	Total/NA	Solid	8021B	36296
MB 880-36284/5-A	Method Blank	Total/NA	Solid	8021B	36284
MB 880-36296/5-A	Method Blank	Total/NA	Solid	8021B	36296
LCS 880-36296/1-A	Lab Control Sample	Total/NA	Solid	8021B	36296
LCSD 880-36296/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	36296
890-3068-A-1-F MS	Matrix Spike	Total/NA	Solid	8021B	36296
890-3068-A-1-G MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	36296

Analysis Batch: 36429

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3074-1	SS01	Total/NA	Solid	Total BTEX	
890-3074-2	SS02	Total/NA	Solid	Total BTEX	
890-3074-3	SS03	Total/NA	Solid	Total BTEX	

GC Semi VOA

Prep Batch: 35711

[an	01: 40 1 15			•• (1)	
Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3074-1	SS01	Total/NA	Solid	8015NM Prep	
890-3074-2	SS02	Total/NA	Solid	8015NM Prep	
890-3074-3	SS03	Total/NA	Solid	8015NM Prep	
MB 880-35711/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-35711/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-35711/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
890-3080-A-21-C MS	Matrix Spike	Total/NA	Solid	8015NM Prep	
890-3080-A-21-D MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	

Analysis Batch: 35736

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3074-1	SS01	Total/NA	Solid	8015B NM	35711
890-3074-2	SS02	Total/NA	Solid	8015B NM	35711
890-3074-3	SS03	Total/NA	Solid	8015B NM	35711
MB 880-35711/1-A	Method Blank	Total/NA	Solid	8015B NM	35711
LCS 880-35711/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	35711

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QC Association Summary

Client: Ensolum Job ID: 890-3074-1 Project/Site: PLU 21 BD 126H SDG: 03E1558070

GC Semi VOA (Continued)

Analysis Batch: 35736 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCSD 880-35711/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	35711
890-3080-A-21-C MS	Matrix Spike	Total/NA	Solid	8015B NM	35711
890-3080-A-21-D MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	35711

Analysis Batch: 35965

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3074-1	SS01	Total/NA	Solid	8015 NM	
890-3074-2	SS02	Total/NA	Solid	8015 NM	
890-3074-3	SS03	Total/NA	Solid	8015 NM	

HPLC/IC

Leach Batch: 35680

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3074-1	SS01	Soluble	Solid	DI Leach	
890-3074-2	SS02	Soluble	Solid	DI Leach	
890-3074-3	SS03	Soluble	Solid	DI Leach	
MB 880-35680/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-35680/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-35680/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
890-3068-A-1-B MS	Matrix Spike	Soluble	Solid	DI Leach	
890-3068-A-1-C MSD	Matrix Spike Duplicate	Soluble	Solid	DI Leach	

Analysis Batch: 35721

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3074-1	SS01	Soluble	Solid	300.0	35680
890-3074-2	SS02	Soluble	Solid	300.0	35680
890-3074-3	SS03	Soluble	Solid	300.0	35680
MB 880-35680/1-A	Method Blank	Soluble	Solid	300.0	35680
LCS 880-35680/2-A	Lab Control Sample	Soluble	Solid	300.0	35680
LCSD 880-35680/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	35680
890-3068-A-1-B MS	Matrix Spike	Soluble	Solid	300.0	35680
890-3068-A-1-C MSD	Matrix Spike Duplicate	Soluble	Solid	300.0	35680

Project/Site: PLU 21 BD 126H

Date Received: 09/27/22 14:51

Client: Ensolum

Job ID: 890-3074-1 SDG: 03E1558070

Client Sample ID: SS01 Lab Sample ID: 890-3074-1 Date Collected: 09/27/22 09:50

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 5.05 g 5 mL 36296 10/06/22 16:44 MNR **EET MID** Total/NA Analysis 8021B 1 5 mL 5 mL 36323 10/07/22 23:14 MNR EET MID Total/NA Analysis Total BTEX 36429 10/08/22 09:02 ΑJ **EET MID** 8015 NM 35965 10/03/22 11:24 Total/NA Analysis 1 SM **EET MID** 35711 09/29/22 13:24 EET MID Total/NA 8015NM Prep 10.02 g 10 mL DM Prep Total/NA Analysis 8015B NM 1 uL 1 uL 35736 10/01/22 02:19 ΑJ **EET MID** Soluble 5.02 g 50 mL 35680 09/29/22 12:00 SMC Leach DI Leach FFT MID

10

Lab Sample ID: 890-3074-2

СН

09/29/22 22:46

Client Sample ID: SS02 Date Collected: 09/27/22 09:55 Matrix: Solid

35721

EET MID

Date Received: 09/27/22 14:51

Analysis

300.0

Soluble

Dil Initial Final Batch Batch Batch Prepared Prep Type Туре Method Run Factor Amount Amount Number or Analyzed Lab **Analyst** Total/NA Prep 5035 5.03 g 5 mL 36296 10/06/22 16:44 MNR EET MID 8021B Total/NA Analysis 1 5 mL 5 mL 36323 10/07/22 23:34 MNR **EET MID** Total/NA Total BTEX 10/08/22 09:02 Analysis 1 36429 A.I **EET MID** Total/NA Analysis 8015 NM 35965 10/03/22 11:24 SM **EET MID** Total/NA 8015NM Prep 10.03 g 10 mL 35711 09/29/22 13:24 DM **EET MID** Prep Total/NA Analysis 8015B NM 1 uL 1 uL 35736 10/01/22 02:41 ΑJ **EET MID** Soluble DI Leach 5 g 50 mL 35680 09/29/22 12:00 SMC **EET MID** Leach Soluble Analysis 300.0 50 35721 09/29/22 22:51 СН **EET MID**

Client Sample ID: SS03 Lab Sample ID: 890-3074-3

Date Collected: 09/27/22 10:00 Date Received: 09/27/22 14:51

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.96 g	5 mL	36296	10/06/22 16:44	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	36323	10/07/22 23:55	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			36429	10/08/22 09:02	AJ	EET MID
Total/NA	Analysis	8015 NM		1			35965	10/03/22 11:24	SM	EET MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	35711	09/29/22 13:24	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	35736	10/01/22 03:02	AJ	EET MID
Soluble	Leach	DI Leach			5.03 g	50 mL	35680	09/29/22 12:00	SMC	EET MID
Soluble	Analysis	300.0		1			35721	09/29/22 22:55	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: 890-3074-1

 Project/Site: PLU 21 BD 126H
 SDG: 03E1558070

Laboratory: Eurofins Midland

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

		ogram	Identification Number	Expiration Date	
		ELAP	T104704400-22-24	06-30-23	
The following analytes	are included in this report hi	it the laboratory is not certific	ed by the governing authority. This list ma	y include analytes for y	
the agency does not of	. ,	it the laboratory is not contin	ou by the governing additionty. This list the	ay include analytes for t	
0 ,	. ,	Matrix	Analyte	y include analytes for v	
the agency does not of	fer certification.	•	, , ,		

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Method Summary

Job ID: 890-3074-1 Client: Ensolum Project/Site: PLU 21 BD 126H

SDG: 03E1558070

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

Protocol References:

ASTM = ASTM International

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

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

TAL SOP = TestAmerica Laboratories, Standard Operating Procedure

Laboratory References:

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

Sample Summary

Client: Ensolum

Project/Site: PLU 21 BD 126H

Job ID: 890-3074-1

SDG: 03E1558070

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	
890-3074-1	SS01	Solid	09/27/22 09:50	09/27/22 14:51	
890-3074-2	SS02	Solid	09/27/22 09:55	09/27/22 14:51	
890-3074-3	SS03	Solid	09/27/22 10:00	09/27/22 14:51	0

www.xenco.com

Work Order No:

Date/Time

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Chain of Custody

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

Environment Testing

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Xenco

Company Name: XTO Except St Address: 3104 E Greent St Email: K_jeanings @ carsciums . Carl Signation of City. State of Project: The position of the state of Project: Carl Signation of City. State of Project: The position of the state of Project: Carl Signation of City. State of Project: Email: K_jeanings @ carsciums . Carl The position of the state of Project: Carl Signation of City. State of Project: Carl Signation of City. Signature: For Dapt and Carl Signature: For Dapt of Carl Signature: For D		SIGNAL SIGNAL	Bill to: (if different)	いないということに		
Signature		C Wallosh	Company Name:		UST/PST PRP] Superfund □
Cartistical NM 58276 Email: Elecanings (Cartistical NM 88210) Deliverables: EDD Abapt Deliverables: Cartistical NM 88210 Deliverables: Elecanings (Cartistical NM 88210) Elecaning (Cartistical NM 88210) Elecanings (Cartistica		22 Nary Parks Hough	Address:	3104 E Greene St	State of Project:	
E11-682-3503 Email: K_leanings @ Carecium. Can Deliverables: EDD Abart Avartasis Recursors Avart		TSEED, NM BBZZZ		Carlsbad, NM 88210	Reporting: Level Level PST/UST TRRP	revel IV
PLACE PLACE PLACE Promotion Processor		17 683 3503 Eme	#	gs @ enselum . com	EDD	
Thousage Care Car			m Around	ANALYSIS REQUE	ST Preservative Codes	e Codes
1- FRECEIPT Temp Blank: Yes No With Sampled Sampled Conditions: Sample Identification Matrix Sampled Sampled Conditions: SSSO SSSO SSSO SSSO SSSO SSSO SSSO SS			Rush		None: NO	DI Water: H ₂ O
The same that the state of the					Cool: Cool	МеОН: Ме
The lab, if received by 430pm The lab, if received by 430pm Less Received intact: Yes No Wet/ce: (Yes) No Seceived intact: Yes No W/A Correction Factor: -D, 0 Coursody Seals: Yes No W/A Correction Factor: -D, 0 Coursody Seals: Yes No W/A Corrected Temperature Reading: -D, 0 Coursody Seals: Yes No W/A Temperature Reading: -D, 0 Coursody Seals: Yes No W/A Temperature Reading: -D, 0 Coursody Seals: Yes No W/A Temperature Reading: -D, 0 Coursody Seals: Yes No W/A Temperature Reading: -D, 0 Coursody Seals:		_	the day received by	_	HCL: HC	HNO 3: HN
Temp Blank: Yes No Wet Ke: (Yes) No Yes No With Correction Factor: —Discontinuo Per No With Corrected Temperature: 5.0 The Moost of Table Sampled Sampled Control Corrected Temperature: 5.0 The Corrected Temperature: 5					H ₂ SO ₄ : H ₂	NaOH: Na
Ves No WA Temperature Reading: 5.3	SAMPLE RECEIPT	Yes No	(Yes) No		H ₃ PO ₄ : HP	
Wes No (N/A) Temperature feading: 5.3	Samples Received Intact:	2		?	NAHSO 4: NABIS	
Yes No N/A Temperature Reading: 5.0 The Corrected Temperature Reading: 5.0 The Corrected Temperature Company of Corrected Temperature Company (Corrected Temperature Corrected Temperature Corre	Cooler Custody Seals:	1			Na ₂ S ₂ O ₃ : NaSO 3	
Corrected Temperature: S - D	Sample Custody Seals:	N/A	I 1 7 1	_		1: Zn
Matrix Date Time Depth Grab/ # of Line S Time Comp Cont Line S Time Comp Cont X X X X X X X X X	Total Containers:	Corrected Temperature			NaOH+Ascorbic Acid: SAPC	cid: SAPC
\$ 127120150 0-3" C. 1 × × × × × × × × × × × × × × × × × ×	Sample Identification	Date	Depth Grab/	14) 14)	Sample Comments	mments
S 1/21/22/0755 0-3" G 1 x x x x x x x x x x x x x x x x x x	5501	5 74271230150	0.3"	×	Incident #:	. 4
S 4/24/23/CCC 0-3" C 1 × × ×	2025	S 71.24 CIT S	0-3"	×	WAFFZZI	MAPP2214342255
	5503	S distinct		X		
1991				35/	Cost Center	ster:
					166643/00	3001
	\					
	1					

Received by: (Signature) FELIOFINS 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. TCLP / SPLP 6010 : 8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Tl U votice. 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 fravier. 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 Relinquished by: (Signature) Date/Time Received by: Signature) Circle Method(s) and Metal(s) to be analyzed Relinquished by: (Signature)

9-27.22

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10/8/2022

Login Sample Receipt Checklist

Client: Ensolum Job Number: 890-3074-1 SDG Number: 03E1558070

Login Number: 3074 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 ampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
s the Field Sampler's name present on COC?	True	
here 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	
ppropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
here 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: 890-3074-1 SDG Number: 03E1558070

Login Number: 3074
List Source: Eurofins Midland
List Number: 2
List Creation: 09/29/22 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 <6mm (1/4").	N/A	

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Environment Testing America

ANALYTICAL REPORT

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

Laboratory Job ID: 890-3078-1

Laboratory Sample Delivery Group: 03E1558065

Client Project/Site: PLU 21 BD 905H

For:

Ensolum 705 W. Wadley Suite 210 Midland, Texas 79701

Attn: Kalei Jennings

RAMER

Authorized for release by: 10/8/2022 8:41:25 AM

Jessica Kramer, Project Manager (432)704-5440

Jessica.Kramer@et.eurofinsus.com

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten

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

 Client: Ensolum
 Laboratory Job ID: 890-3078-1

 Project/Site: PLU 21 BD 905H
 SDG: 03E1558065

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Definitions/Glossary

Job ID: 890-3078-1 Client: Ensolum Project/Site: PLU 21 BD 905H

SDG: 03E1558065

Qualifiers

GC VOA Qualifier

F1 MS and/or MSD recovery exceeds control limits.

Qualifier Description F2 MS/MSD RPD exceeds control limits

Indicates the analyte was analyzed for but not detected.

GC Semi VOA

Qualifier **Qualifier Description**

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

HPLC/IC

Qualifier **Qualifier Description**

U Indicates the analyte was analyzed for but not detected.

Glossary

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

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

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

Duplicate Error Ratio (normalized absolute difference) DER

Dil Fac **Dilution Factor**

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) Limit of Quantitation (DoD/DOE) LOQ

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 MOI Method Quantitation Limit

NC Not Calculated

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

NEG Negative / Absent POS Positive / Present **Practical Quantitation Limit PQL**

PRES Presumptive **Quality Control** QC

Relative Error Ratio (Radiochemistry) **RER**

Reporting Limit or Requested Limit (Radiochemistry) RL

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 21 BD 905H

Job ID: 890-3078-1 SDG: 03E1558065

Job ID: 890-3078-1

Laboratory: Eurofins Carlsbad

Narrative

Job Narrative 890-3078-1

Receipt

The samples were received on 9/27/2022 2:51 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

Method 8021B: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 880-36296 and analytical batch 880-36323 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.

Method 8021B: Surrogate recovery for the following sample was outside control limits: (890-3068-A-1-H). Evidence of matrix interferences is not obvious.

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

GC Semi VOA

Method 8015MOD_NM: Surrogate recovery for the following samples were outside control limits: (890-3075-A-1-B), (890-3075-A-1-C MS) and (890-3075-A-1-D MSD). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

Method 8015MOD_NM: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 880-35805 and analytical batch 880-35863 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.

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

HPLC/IC

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

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Matrix: Solid

Client Sample Results

 Client: Ensolum
 Job ID: 890-3078-1

 Project/Site: PLU 21 BD 905H
 SDG: 03E1558065

Client Sample ID: SS01 Lab Sample ID: 890-3078-1

Date Collected: 09/27/22 12:35
Date Received: 09/27/22 14:51

Sample Depth: 0' - 3'

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199	mg/Kg		10/06/22 16:44	10/08/22 03:02	1
Toluene	< 0.00199	U	0.00199	mg/Kg		10/06/22 16:44	10/08/22 03:02	1
Ethylbenzene	< 0.00199	U	0.00199	mg/Kg		10/06/22 16:44	10/08/22 03:02	1
m-Xylene & p-Xylene	<0.00398	U	0.00398	mg/Kg		10/06/22 16:44	10/08/22 03:02	1
o-Xylene	< 0.00199	U	0.00199	mg/Kg		10/06/22 16:44	10/08/22 03:02	1
Xylenes, Total	<0.00398	U	0.00398	mg/Kg		10/06/22 16:44	10/08/22 03:02	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	123		70 - 130			10/06/22 16:44	10/08/22 03:02	1
1,4-Difluorobenzene (Surr)	103		70 - 130			10/06/22 16:44	10/08/22 03:02	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			10/08/22 09:02	1
Method: SW846 8015 NM - Diese Analyte		ics (DRO) (Qualifier	GC) RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	70.7		49.9	mg/Kg			10/03/22 11:31	1
Method: SW846 8015B NM - Die:	sel Range Orga	nics (DRO)	(GC)					
Analyte	Desuit	Qualifier						
	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
5 5	<49.9		49.9	mg/Kg	<u>D</u>	Prepared 09/30/22 11:17	Analyzed 10/01/22 14:23	Dil Fac
(GRO)-C6-C10 Diesel Range Organics (Over					<u>D</u>	<u>·</u>		1
Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) Oll Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg	<u>D</u>	09/30/22 11:17	10/01/22 14:23	1
(GRO)-C6-C10 Diesel Range Organics (Over C10-C28)	<49.9 70. 7	U	49.9	mg/Kg	<u>D</u>	09/30/22 11:17 09/30/22 11:17	10/01/22 14:23	1
(GRO)-C6-C10 Diesel Range Organics (Over C10-C28) Oll Range Organics (Over C28-C36)	<49.9 70.7 <49.9	U	49.9 49.9 49.9	mg/Kg	<u>D</u>	09/30/22 11:17 09/30/22 11:17 09/30/22 11:17	10/01/22 14:23 10/01/22 14:23 10/01/22 14:23	1 1 1 Dil Fac
(GRO)-C6-C10 Diesel Range Organics (Over C10-C28) Oll Range Organics (Over C28-C36) Surrogate 1-Chlorooctane	<49.9 70.7 <49.9 %Recovery	U	49.9 49.9 49.9 <i>Limits</i>	mg/Kg	<u>D</u>	09/30/22 11:17 09/30/22 11:17 09/30/22 11:17 <i>Prepared</i>	10/01/22 14:23 10/01/22 14:23 10/01/22 14:23 Analyzed	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
(GRO)-C6-C10 Diesel Range Organics (Over C10-C28) Oll Range Organics (Over C28-C36) Surrogate 1-Chlorooctane o-Terphenyl	<49.9 70.7 <49.9 %Recovery 88 78	U Qualifier	49.9 49.9 49.9 Limits 70 - 130 70 - 130	mg/Kg	<u>D</u>	09/30/22 11:17 09/30/22 11:17 09/30/22 11:17 Prepared 09/30/22 11:17	10/01/22 14:23 10/01/22 14:23 10/01/22 14:23 Analyzed 10/01/22 14:23	
(GRO)-C6-C10 Diesel Range Organics (Over C10-C28) Oll Range Organics (Over C28-C36) Surrogate	<49.9 70.7 <49.9 %Recovery 88 78 s, lon Chromato	U Qualifier	49.9 49.9 49.9 Limits 70 - 130 70 - 130	mg/Kg	<u>D</u>	09/30/22 11:17 09/30/22 11:17 09/30/22 11:17 Prepared 09/30/22 11:17	10/01/22 14:23 10/01/22 14:23 10/01/22 14:23 Analyzed 10/01/22 14:23	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1

Client Sample ID: SS02

Date Collected: 09/27/22 12:40

Lab Sample ID: 890-3078-2

Matrix: Solid

Date Collected: 09/27/22 12:40 Date Received: 09/27/22 14:51

Sample Depth: 0' - 3'

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00201	U	0.00201	mg/Kg		10/06/22 16:44	10/08/22 03:23	1
Toluene	<0.00201	U	0.00201	mg/Kg		10/06/22 16:44	10/08/22 03:23	1
Ethylbenzene	<0.00201	U	0.00201	mg/Kg		10/06/22 16:44	10/08/22 03:23	1
m-Xylene & p-Xylene	<0.00402	U	0.00402	mg/Kg		10/06/22 16:44	10/08/22 03:23	1
o-Xylene	<0.00201	U	0.00201	mg/Kg		10/06/22 16:44	10/08/22 03:23	1
Xylenes, Total	<0.00402	U	0.00402	mg/Kg		10/06/22 16:44	10/08/22 03:23	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	119		70 - 130			10/06/22 16:44	10/08/22 03:23	

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10/9/2022

Client Sample Results

 Client: Ensolum
 Job ID: 890-3078-1

 Project/Site: PLU 21 BD 905H
 SDG: 03E1558065

Client Sample ID: SS02 Lab Sample ID: 890-3078-2

Date Collected: 09/27/22 12:40
Date Received: 09/27/22 14:51

Matrix: Solid

Sample Depth: 0' - 3'

Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fa
1,4-Difluorobenzene (Surr)	100		70 - 130			10/06/22 16:44	10/08/22 03:23	
· Method: TAL SOP Total BTEX - 1	Total BTEX Cald	culation						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fa
Total BTEX	<0.00402	U	0.00402	mg/Kg			10/08/22 09:02	
Method: SW846 8015 NM - Diese	el Range Organ	ics (DRO) (3C)					
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fa
Total TPH	137		49.9	mg/Kg			10/03/22 11:31	-
Analyte Gasoline Range Organics (GRO)-C6-C10	<49.9	Qualifier U	RL 49.9	Mnit mg/Kg	<u>D</u>	Prepared 09/30/22 11:17	Analyzed 10/01/22 14:44	Dil Fa
Gasoline Range Organics					_ =			
Diesel Range Organics (Over C10-C28)	137		49.9	mg/Kg		09/30/22 11:17	10/01/22 14:44	
C10-C20)								
,	<49.9	U	49.9	mg/Kg		09/30/22 11:17	10/01/22 14:44	
Oll Range Organics (Over C28-C36)	<49.9 %Recovery		49.9 Limits	mg/Kg		09/30/22 11:17 Prepared	10/01/22 14:44 Analyzed	Dil Fa
Oll Range Organics (Over C28-C36) Surrogate				mg/Kg				Dil Fa
Oll Range Organics (Over C28-C36) Surrogate 1-Chlorooctane o-Terphenyl	%Recovery		Limits	mg/Kg		Prepared	Analyzed	Dil Fa
Oll Range Organics (Over C28-C36) Surrogate 1-Chloroctane o-Terphenyl	%Recovery 97 85	Qualifier	Limits 70 - 130 70 - 130	mg/Kg		Prepared 09/30/22 11:17	Analyzed 10/01/22 14:44	Dil Fa
Oll Range Organics (Over C28-C36) Surrogate 1-Chlorooctane	%Recovery 97 85	Qualifier	Limits 70 - 130 70 - 130	mg/Kg Unit	D	Prepared 09/30/22 11:17	Analyzed 10/01/22 14:44	Dil Fa

Surrogate Summary

Job ID: 890-3078-1 Client: Ensolum Project/Site: PLU 21 BD 905H SDG: 03E1558065

Method: 8021B - Volatile Organic Compounds (GC)

Matrix: Solid Prep Type: Total/NA

				Percent Surrogate Reco
		BFB1	DFBZ1	
Lab Sample ID	Client Sample ID	(70-130)	(70-130)	
890-3068-A-1-F MS	Matrix Spike	92	76	
890-3068-A-1-G MSD	Matrix Spike Duplicate	105	96	
890-3078-1	SS01	123	103	
890-3078-2	SS02	119	100	
LCS 880-36296/1-A	Lab Control Sample	94	97	
LCSD 880-36296/2-A	Lab Control Sample Dup	95	95	
MB 880-36284/5-A	Method Blank	98	82	
MB 880-36296/5-A	Method Blank	102	83	
Surrogate Legend				
BFB = 4-Bromofluorobenze	ene (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)
890-3075-A-1-C MS	Matrix Spike	69 S1-	62 S1-
890-3075-A-1-D MSD	Matrix Spike Duplicate	68 S1-	62 S1-
890-3078-1	SS01	88	78
890-3078-2	SS02	97	85
LCS 880-35805/2-A	Lab Control Sample	95	91
LCSD 880-35805/3-A	Lab Control Sample Dup	109	103
MB 880-35805/1-A	Method Blank	109	99

Surrogate Legend

1CO = 1-Chlorooctane

OTPH = o-Terphenyl

Job ID: 890-3078-1 Client: Ensolum Project/Site: PLU 21 BD 905H SDG: 03E1558065

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-36284/5-A

Matrix: Solid

Analysis Batch: 36323

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 36284

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	MB	MB						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		10/06/22 15:09	10/07/22 10:37	1
Toluene	<0.00200	U	0.00200	mg/Kg		10/06/22 15:09	10/07/22 10:37	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		10/06/22 15:09	10/07/22 10:37	1
m-Xylene & p-Xylene	<0.00400	U	0.00400	mg/Kg		10/06/22 15:09	10/07/22 10:37	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		10/06/22 15:09	10/07/22 10:37	1
Xylenes, Total	<0.00400	U	0.00400	mg/Kg		10/06/22 15:09	10/07/22 10:37	1

MB MB

MR MR

<0.00200 U

<0.00200 U

Result Qualifier

Surrogate	%Recovery Qualific	er Limits
4-Bromofluorobenzene (Surr)	98	70 - 130
1,4-Difluorobenzene (Surr)	82	70 - 130

Prepared Analyzed Dil Fac 10/06/22 15:09 10/07/22 10:37 10/06/22 15:09 10/07/22 10:37

Prepared

10/06/22 16:44

10/06/22 16:44

Client Sample ID: Method Blank

Lab Sample ID: MB 880-36296/5-A

Matrix: Solid

Analyte

Benzene

Toluene

Analysis Batch: 36323

Prep Type: Total/NA

Analyzed

10/07/22 21:29

10/07/22 21:29

Prep Batch: 36296

Dil Fac

mg/Kg Ethylbenzene <0.00200 U 0.00200 10/06/22 16:44 10/07/22 21:29 10/06/22 16:44 10/07/22 21:29 m-Xylene & p-Xylene <0.00400 U 0.00400 mg/Kg 10/07/22 21:29 o-Xylene <0.00200 U 0.00200 mg/Kg 10/06/22 16:44 <0.00400 U Xylenes, Total 0.00400 10/06/22 16:44 10/07/22 21:29 mg/Kg мв мв

RL

0.00200

0.00200

Unit

mg/Kg

mg/Kg

Surrogate	%Recovery Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	102	70 - 130	10/06/22 16:44	10/07/22 21:29	1
1.4-Difluorobenzene (Surr)	83	70 - 130	10/06/22 16:44	10/07/22 21:29	1

Lab Sample ID: LCS 880-36296/1-A

Matrix: Solid

Analysis Batch: 36323

Client Sample ID: Lab Control Sample

Prep Type: Total/NA Prep Batch: 36296

Spike LCS LCS %Rec Analyte Added Result Qualifier Unit %Rec Limits Benzene 0.100 0.1000 mg/Kg 100 70 - 130 Toluene 0.100 0.1030 mg/Kg 103 70 - 130 Ethylbenzene 0.100 0.09760 mg/Kg 98 70 - 130 m-Xylene & p-Xylene 0.200 0.2073 mg/Kg 104 70 - 130 0.100 0.1060 o-Xylene mg/Kg 106 70 - 130

LCS LCS

Surrogate	%Recovery Qualifier	Limits
4-Bromofluorobenzene (Surr)	94	70 - 130
1.4-Difluorobenzene (Surr)	97	70 - 130

Lab Sample ID: LCSD 880-36296/2-A

Matrix: Solid

Analysis Batch: 36323

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 36296

	Бріке	LCSD LCSD				%Rec		RPD
Analyte	Added	Result Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Benzene	0.100	0.1015	mg/Kg		101	70 - 130	1	35

Client: Ensolum Project/Site: PLU 21 BD 905H Job ID: 890-3078-1

SDG: 03E1558065

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

Lab Sample ID: LCSD 880-36296/2-A **Matrix: Solid**

Analysis Batch: 36323

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA Prep Batch: 36296

Spike LCSD LCSD %Rec RPD Analyte Added Result Qualifier Unit %Rec Limits **RPD** Limit D Toluene 0.100 0.1107 111 70 - 130 35 mg/Kg 7 Ethylbenzene 0.100 0.1022 mg/Kg 102 70 - 130 0.200 m-Xylene & p-Xylene 0.2208 mg/Kg 110 70 - 130 35 6 o-Xylene 0.100 0.1109 mg/Kg 111 70 - 130

LCSD LCSD

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

Lab Sample ID: 890-3068-A-1-F MS

Matrix: Solid

Analysis Batch: 36323

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

Prep Batch: 36296

	Sample	Sample	Spike	MS	MS				%Rec	
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Benzene	<0.00200	U F1 F2	0.100	0.02395	F1	mg/Kg		24	70 - 130	
Toluene	<0.00200	U F1 F2	0.100	0.03824	F1	mg/Kg		37	70 - 130	
Ethylbenzene	<0.00200	U F1	0.100	0.03719	F1	mg/Kg		37	70 - 130	
m-Xylene & p-Xylene	<0.00399	U F1 F2	0.201	0.06673	F1	mg/Kg		33	70 - 130	
o-Xylene	<0.00200	U F1 F2	0.100	0.03598	F1	mg/Kg		36	70 - 130	

MS MS

Surrogate	%Recovery Qualifier	Limits
4-Bromofluorobenzene (Surr)	92	70 - 130
1,4-Difluorobenzene (Surr)	76	70 - 130

Lab Sample ID: 890-3068-A-1-G MSD

Matrix: Solid

Analysis Batch: 36323

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 36296

	Sample	Sample	Spike	MSD	MSD				%Rec		RPD
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Benzene	<0.00200	U F1 F2	0.0990	0.06384	F1 F2	mg/Kg		64	70 - 130	91	35
Toluene	<0.00200	U F1 F2	0.0990	0.06418	F1 F2	mg/Kg		64	70 - 130	51	35
Ethylbenzene	<0.00200	U F1	0.0990	0.05261	F1	mg/Kg		53	70 - 130	34	35
m-Xylene & p-Xylene	<0.00399	U F1 F2	0.198	0.1138	F1 F2	mg/Kg		57	70 - 130	52	35
o-Xylene	<0.00200	U F1 F2	0.0990	0.05730	F1 F2	mg/Kg		58	70 - 130	46	35

MSD MSD

Surrogate	%Recovery	Qualifier	Limits
4-Bromofluorobenzene (Surr)	105		70 - 130
1,4-Difluorobenzene (Surr)	96		70 - 130

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

Lab Sample ID: MB 880-35805/1-A

Matrix: Solid

Analysis Batch: 35863

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

Prep Batch: 35805

мв мв Result Qualifier RL Unit Prepared <50.0 U 50.0 mg/Kg 09/30/22 11:17 10/01/22 11:52 Gasoline Range Organics (GRO)-C6-C10

Client: Ensolum

Job ID: 890-3078-1

SDG: 03E1558065

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

Lab Sample ID: MB 880-35805/1-A

Lab Sample ID: LCS 880-35805/2-A

Matrix: Solid

Matrix: Solid

Analysis Batch: 35863

Project/Site: PLU 21 BD 905H

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 35805

	IIID	IVID						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics (Over	<50.0	U	50.0	mg/Kg		09/30/22 11:17	10/01/22 11:52	1
C10-C28)	50.0		50.0			00/00/00 44 47	10/01/00 11 50	
Oll Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		09/30/22 11:17	10/01/22 11:52	1

MB MB

MR MR

	Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
	1-Chlorooctane	109		70 - 130	09/30/22 11:17	10/01/22 11:52	1
l	o-Terphenyl	99		70 - 130	09/30/22 11:17	10/01/22 11:52	1

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 35805

Analysis Batch: 35863 LCS LCS Spike Analyte Added Result Qualifier Unit %Rec Limits Gasoline Range Organics 1000 812.7 81 70 - 130 mg/Kg (GRO)-C6-C10 1000 888.2 Diesel Range Organics (Over mg/Kg 89 70 - 130 C10-C28)

LCS LCS

Surrogate	%Recovery Quality	fier Limits
1-Chlorooctane	95	70 - 130
o-Terphenyl	91	70 - 130

Lab Sample ID: LCSD 880-35805/3-A

Matrix: Solid

Analysis Batch: 35863

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 35805

	Spike	LCSD	LCSD				%Rec		RPD	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit	
Gasoline Range Organics	1000	956.4		mg/Kg		96	70 - 130	16	20	
(GRO)-C6-C10										
Diesel Range Organics (Over	1000	991.8		mg/Kg		99	70 - 130	11	20	
C10-C28)										

	LCSD	LCSD	
Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane	109		70 - 130
o-Terphenyl	103		70 - 130

Lab Sample ID: 890-3075-A-1-C MS

Matrix: Solid

Analysis Batch: 35863

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 35805

Sample Sample Spike MS MS %Rec Analyte Result Qualifier Added Result Qualifier Unit %Rec Limits <50.0 U F1 998 603.9 F1 61 70 - 130 Gasoline Range Organics mg/Kg (GRO)-C6-C10 188 F1 998 466.6 F1 28 Diesel Range Organics (Over mg/Kg 70 - 130

C10-C28)

	MS	MS	
Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane	69	S1-	70 - 130
o-Terphenyl	62	S1-	70 - 130

Project/Site: PLU 21 BD 905H

Analysis Batch: 35863

Job ID: 890-3078-1

SDG: 03E1558065

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

Lab Sample ID: 890-3075-A-1-D MSD

Matrix: Solid

Client Sample ID: Matrix Spike Duplicate

Client Sample ID: Lab Control Sample Dup

Prep Type: Soluble

Prep Type: Soluble

Prep Type: Soluble

Client Sample ID: Matrix Spike

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA Prep Batch: 35805

Sample Sample Spike MSD MSD RPD Result Qualifier RPD Limit Analyte Added Result Qualifier Unit %Rec Limits Gasoline Range Organics <50.0 U F1 999 573.3 F1 mg/Kg 57 70 - 130 5 20 (GRO)-C6-C10 999 Diesel Range Organics (Over 188 F1 464.2 F1 28 70 - 130 mg/Kg

C10-C28)

Client: Ensolum

MSD MSD

Surrogate	%Recovery	Qualifier	Limits		
1-Chlorooctane	68	S1-	70 - 130		
o-Terphenyl	62	S1-	70 - 130		

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-35680/1-A Client Sample ID: Method Blank **Prep Type: Soluble**

Matrix: Solid

Analysis Batch: 35721

мв мв

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.00	U	5.00	mg/Kg			09/29/22 21:43	1

Lab Sample ID: LCS 880-35680/2-A **Client Sample ID: Lab Control Sample Prep Type: Soluble**

Matrix: Solid

Analysis Batch: 35721

	Spike	LCS I	LCS			%Rec	
Analyte	Added	Result (Qualifier Unit	D	%Rec	Limits	
Chloride	250	247.4	mg/Kg		99	90 - 110	-

Lab Sample ID: LCSD 880-35680/3-A

Matrix: Solid

Analysis Batch: 35721

	Spike	LCSD	LCSD				%Rec		RPD
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Chloride	250	248.0		ma/Ka		99	90 - 110		20

Lab Sample ID: 890-3076-A-1-B MS

Matrix: Solid

Analysis Batch: 35721

	Sample	Sample	Spike	MS	MS				%Rec	
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Chloride	56.2		248	304.2		ma/Ka		100	90 - 110	

Lab Sample ID: 890-3076-A-1-C MSD

Matrix: Solid

Analysis Batch: 35721

	Sample	Sample	Spike	MSD	MSD				%Rec		RPD
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Chloride	56.2		248	303.8		mg/Kg		100	90 - 110	0	20

QC Association Summary

Client: Ensolum

Project/Site: PLU 21 BD 905H

Job ID: 890-3078-1 SDG: 03E1558065

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GC VOA

Prep Batch: 36284

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 880-36284/5-A	Method Blank	Total/NA	Solid	5035	

4

Prep Batch: 36296

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3078-1	SS01	Total/NA	Solid	5035	
890-3078-2	SS02	Total/NA	Solid	5035	
MB 880-36296/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-36296/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-36296/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
890-3068-A-1-F MS	Matrix Spike	Total/NA	Solid	5035	
890-3068-A-1-G MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	

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Analysis Batch: 36323

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3078-1	SS01	Total/NA	Solid	8021B	36296
890-3078-2	SS02	Total/NA	Solid	8021B	36296
MB 880-36284/5-A	Method Blank	Total/NA	Solid	8021B	36284
MB 880-36296/5-A	Method Blank	Total/NA	Solid	8021B	36296
LCS 880-36296/1-A	Lab Control Sample	Total/NA	Solid	8021B	36296
LCSD 880-36296/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	36296
890-3068-A-1-F MS	Matrix Spike	Total/NA	Solid	8021B	36296
890-3068-A-1-G MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	36296

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Analysis Batch: 36433

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3078-1	SS01	Total/NA	Solid	Total BTEX	
890-3078-2	SS02	Total/NA	Solid	Total BTEX	

GC Semi VOA

Prep Batch: 35805

Lab Sample ID 890-3078-1	Client Sample ID SS01	Prep Type Total/NA	Matrix Solid	Method 8015NM Prep	Prep Batch
890-3078-2	SS02	Total/NA	Solid	8015NM Prep	
MB 880-35805/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-35805/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-35805/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
890-3075-A-1-C MS	Matrix Spike	Total/NA	Solid	8015NM Prep	
890-3075-A-1-D MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	

Analysis Batch: 35863

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3078-1	SS01	Total/NA	Solid	8015B NM	35805
890-3078-2	SS02	Total/NA	Solid	8015B NM	35805
MB 880-35805/1-A	Method Blank	Total/NA	Solid	8015B NM	35805
LCS 880-35805/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	35805
LCSD 880-35805/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	35805
890-3075-A-1-C MS	Matrix Spike	Total/NA	Solid	8015B NM	35805
890-3075-A-1-D MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	35805

QC Association Summary

Client: Ensolum

Project/Site: PLU 21 BD 905H

Job ID: 890-3078-1 SDG: 03E1558065

GC Semi VOA

Analysis Batch: 35969

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3078-1	SS01	Total/NA	Solid	8015 NM	
890-3078-2	SS02	Total/NA	Solid	8015 NM	

HPLC/IC

Leach Batch: 35680

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3078-1	SS01	Soluble	Solid	DI Leach	
890-3078-2	SS02	Soluble	Solid	DI Leach	
MB 880-35680/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-35680/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-35680/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
890-3076-A-1-B MS	Matrix Spike	Soluble	Solid	DI Leach	
890-3076-A-1-C MSD	Matrix Spike Duplicate	Soluble	Solid	DI Leach	

Analysis Batch: 35721

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3078-1	SS01	Soluble	Solid	300.0	35680
890-3078-2	SS02	Soluble	Solid	300.0	35680
MB 880-35680/1-A	Method Blank	Soluble	Solid	300.0	35680
LCS 880-35680/2-A	Lab Control Sample	Soluble	Solid	300.0	35680
LCSD 880-35680/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	35680
890-3076-A-1-B MS	Matrix Spike	Soluble	Solid	300.0	35680
890-3076-A-1-C MSD	Matrix Snike Dunlicate	Soluble	Solid	300.0	35680

Eurofins Carlsbad

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Client: Ensolum

Project/Site: PLU 21 BD 905H

Job ID: 890-3078-1 SDG: 03E1558065

Client Sample ID: SS01

Lab Sample ID: 890-3078-1

Matrix: Solid

Date Collected: 09/27/22 12:35 Date Received: 09/27/22 14:51

	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	36296	10/06/22 16:44	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	36323	10/08/22 03:02	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			36433	10/08/22 09:02	AJ	EET MID
Total/NA	Analysis	8015 NM		1			35969	10/03/22 11:31	SM	EET MID
Total/NA	Prep	8015NM Prep			10.03 g	10 mL	35805	09/30/22 11:17	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	35863	10/01/22 14:23	SM	EET MID
Soluble	Leach	DI Leach			5.02 g	50 mL	35680	09/29/22 12:00	SMC	EET MID
Soluble	Analysis	300.0		10			35721	09/29/22 23:44	CH	EET MID

Client Sample ID: SS02 Lab Sample ID: 890-3078-2

Date Collected: 09/27/22 12:40 Date Received: 09/27/22 14:51 Matrix: Solid

Batch Dil Initial Final Batch Batch Prepared Prep Type Туре Method Run Factor Amount Amount Number or Analyzed Analyst Lab 5035 Total/NA Prep 4.97 g 5 mL 36296 10/06/22 16:44 MNR EET MID 8021B Total/NA 5 mL 36323 10/08/22 03:23 **EET MID** Analysis 1 5 mL MNR Total/NA Total BTEX 36433 10/08/22 09:02 Analysis 1 AJ **EET MID** Total/NA Analysis 8015 NM 35969 10/03/22 11:31 SM **EET MID** Prep 10.02 g 35805 Total/NA 8015NM Prep 10 mL 09/30/22 11:17 DM EET MID Total/NA Analysis 8015B NM 1 uL 1 uL 35863 10/01/22 14:44 SM **EET MID** Soluble Leach DI Leach 4.95 g 50 mL 35680 09/29/22 12:00 SMC **EET MID** Soluble Analysis 300.0 35721 09/29/22 23:49 СН **EET MID**

Laboratory References:

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

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Accreditation/Certification Summary

 Client: Ensolum
 Job ID: 890-3078-1

 Project/Site: PLU 21 BD 905H
 SDG: 03E1558065

Laboratory: Eurofins Midland

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

Authority Program Identification Number Expiration Date Texas NELAP T104704400-22-24 06-30-23

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

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

Method Summary

Client: Ensolum

Job ID: 890-3078-1 Project/Site: PLU 21 BD 905H

SDG: 03E1558065

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

Protocol References:

ASTM = ASTM International

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

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

TAL SOP = TestAmerica Laboratories, Standard Operating Procedure

Laboratory References:

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

Sample Summary

Client: Ensolum

Project/Site: PLU 21 BD 905H

Job ID: 890-3078-1

SDG: 03E1558065

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depti
890-3078-1	SS01	Solid	09/27/22 12:35	09/27/22 14:51	0' - 3'
890-3078-2	SS02	Solid	09/27/22 12:40	09/27/22 14:51	0' - 3'

Chain of Custody

Date/Time

Superfund Level IV DI Water: H₂O NAPP2215H752 1666321001 MeOH: Me HNO 3: HN NaOH: Na ost Center NaOH+Ascorbic Acid: SAPC Sample Comments Preservative Codes Incident Zn Acetate+NaOH: Zn PST/UST TRRP RRC Na 25 20 3: Na SO 3 Other: NaHSO 4: NABIS H3PO 4: HP UST/PST | PRP | Brownfields | None: NO H₂SO₄: H₂ Cool: Cool Page HCL: HC Work Order Comments ADaPT www.xenco.com Work Order No: Reporting: Level II | Level III EDD State of Project: Deliverables: Program: 890-3078 Chain of Custody ANALYSIS REQUES arlshad, NM 88220 Sarrett Green Kjennings (edensolven 16017) Midland, TX (432) 704-5440, San Antonio, TX (210) 509-3334 breces Hobbs, NM (575) 392-7550, Carlsbad, NM (575) 988-3199 Houston, TX (281) 240-4200, Dallas, TX (214) 902-0300 EL Paso, TX (915) 585-3443, Lubbock, TX (806) 794-1296 3104 E Greene 5 Chlorides BIEX HOLL Cont Pres. # of Parameters Bill to: (if different) Comp Company Name: Grab/ 5 0 City, State ZIP: TAT starts the day received by the lab, if received by 4:30pm Nes) No 0.34 Rush 1.5-0 Address: Depth N rum Around Email: Doutine 32, 10941, 703, 88323 Due Date: Corrected Temperature: Sampled 427/20 1335 Wet Ice: 1127 1440 Time Temperature Reading: 下文 **Environment Testing** Correction Factor: Thermometer ID: Meredith Roberts Sampled 3122 Nati Parks 34 MM Judithe Nes No Kalei Jennings 200 CB 16 W10 Date 817-683-2503 03E1558065 Matrix Xenco Insolum. S S Temp Blank: les No Š 9 Yes Yes eurofins ... Sample Identification Samples Received Intact: Sample Custody Seals: 502 Cooler Custody Seals: 5502 SAMPLE RECEIPT Total Containers: Project Manager: Project Number Sampler's Name: Company Name: Project Location: City, State ZIP: roject Name Address: Phone: PO #:

Received by: (Signature) Eurofins Xenco. A minimum change of \$55.00 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. otice. Signature of this document and relinquishment of samples constitutes a valid purchase order from client company to Eurofins Xenco, its affiliates and subcontractors. It assigns standard terms and conditions 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 Relinquished by: (Signature) 145 Date/Time 127/30 0 Received by: (Signature) AND SAR Refinquished by: (Signature)

8RCRA 13PPM Texas 11 Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag SiO₂ Na Sr Tl Sn U V Zn

TCLP / SPLP 6010 : 8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Tl U

Circle Method(s) and Metal(s) to be analyzed

200.8 / 6020

Total 200.7 / 6010

Hg: 1631 / 245.1 / 7470 / 7471

Page 18 of 20

Login Sample Receipt Checklist

Client: Ensolum Job Number: 890-3078-1 SDG Number: 03E1558065

Login Number: 3078 List Source: Eurofins Carlsbad

List Number: 1

Creator: Stutzman, Amanda

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

Login Sample Receipt Checklist

Client: Ensolum Job Number: 890-3078-1 SDG Number: 03E1558065

List Source: Eurofins Midland

Login Number: 3078 List Number: 2 List Creation: 09/29/22 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 <6mm (1/4").	N/A	

10/8/2022



Environment Testing America

ANALYTICAL REPORT

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

Laboratory Job ID: 890-3153-1

Laboratory Sample Delivery Group: 03E1558070 Client Project/Site: PLU 21 BD 126H/905H

For:

Ensolum 705 W. Wadley Suite 210 Midland, Texas 79701

Attn: Kalei Jennings

RAMER

Authorized for release by: 10/13/2022 10:49:56 AM

Jessica Kramer, Project Manager (432)704-5440

Jessica.Kramer@et.eurofinsus.com

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten

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

 Client: Ensolum
 Laboratory Job ID: 890-3153-1

 Project/Site: PLU 21 BD 126H/905H
 SDG: 03E1558070

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Definitions/Glossary

Job ID: 890-3153-1 Client: Ensolum Project/Site: PLU 21 BD 126H/905H SDG: 03E1558070

Qualifiers

GC VOA

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

F2 MS/MSD RPD exceeds control limits

Indicates the analyte was analyzed for but not detected.

GC Semi VOA

Qualifier **Qualifier Description**

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 21 BD 126H/905H

Job ID: 890-3153-1

SDG: 03E1558070

Job ID: 890-3153-1

Laboratory: Eurofins Carlsbad

Narrative

Job Narrative 890-3153-1

Receipt

The samples were received on 10/5/2022 3:25 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 21.2°C

Receipt Exceptions

The following samples were received and analyzed from an unpreserved bulk soil jar: PH04 (890-3153-1) and PH04A (890-3153-2).

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 method blank for preparation batch 880-36322 and analytical batch 880-36315 contained Diesel Range Organics (Over C10-C28) above the method detection limit. This target analyte concentration was less than the reporting limit (RL); therefore, re-extraction and/or re-analysis of samples was not performed.

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: 890-3153-1

Client Sample Results

 Client: Ensolum
 Job ID: 890-3153-1

 Project/Site: PLU 21 BD 126H/905H
 SDG: 03E1558070

Client Sample ID: PH04

Date Collected: 10/05/22 09:30 Date Received: 10/05/22 15:25

Sample Depth: 1'

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199	mg/Kg		10/10/22 13:52	10/13/22 03:51	1
Toluene	<0.00199	U	0.00199	mg/Kg		10/10/22 13:52	10/13/22 03:51	1
Ethylbenzene	<0.00199	U	0.00199	mg/Kg		10/10/22 13:52	10/13/22 03:51	1
m-Xylene & p-Xylene	<0.00398	U	0.00398	mg/Kg		10/10/22 13:52	10/13/22 03:51	1
o-Xylene	<0.00199	U	0.00199	mg/Kg		10/10/22 13:52	10/13/22 03:51	1
Xylenes, Total	<0.00398	U	0.00398	mg/Kg		10/10/22 13:52	10/13/22 03:51	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	109		70 - 130			10/10/22 13:52	10/13/22 03:51	1
1,4-Difluorobenzene (Surr)	82		70 - 130			10/10/22 13:52	10/13/22 03:51	1
- Method: TAL SOP Total BTEX	- Total BTEX Cald	culation						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	11	0.00398	mg/Kg			10/13/22 11:29	1

Method: 500846 8015 NM - Diesei R	ange Organ	ICS (DRO) (GC	~)					
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.8	U	49.8	mg/Kg			10/10/22 12:14	1
Mothod: SW846 8015B NM - Diosol	Pango Orga	nice (DPO) (C	3C)					

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.8	U	49.8	mg/Kg		10/07/22 07:42	10/07/22 14:25	1
Diesel Range Organics (Over C10-C28)	<49.8	U	49.8	mg/Kg		10/07/22 07:42	10/07/22 14:25	1
Oll Range Organics (Over C28-C36)	<49.8	U	49.8	mg/Kg		10/07/22 07:42	10/07/22 14:25	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	96		70 - 130			10/07/22 07:42	10/07/22 14:25	1
o-Terphenyl	108		70 - 130			10/07/22 07:42	10/07/22 14:25	1

Method: MCAWW 300.0 - Anions, le	on Chromatography	/ - Soluble					
Analyte	Result Qualifie	r RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	8250	99.2	mg/Kg			10/10/22 23:13	20

Client Sample ID: PH04A

Date Collected: 10/05/22 09:35

Lab Sample ID: 890-3153-2

Matrix: Solid

Date Received: 10/05/22 15:25

Sample Depth: 2'

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199	mg/Kg		10/10/22 13:52	10/13/22 04:11	1
Toluene	<0.00199	U	0.00199	mg/Kg		10/10/22 13:52	10/13/22 04:11	1
Ethylbenzene	<0.00199	U	0.00199	mg/Kg		10/10/22 13:52	10/13/22 04:11	1
m-Xylene & p-Xylene	<0.00398	U	0.00398	mg/Kg		10/10/22 13:52	10/13/22 04:11	1
o-Xylene	<0.00199	U	0.00199	mg/Kg		10/10/22 13:52	10/13/22 04:11	1
Xylenes, Total	<0.00398	U	0.00398	mg/Kg		10/10/22 13:52	10/13/22 04:11	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)			70 - 130			10/10/22 13:52	10/13/22 04:11	1

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Client Sample Results

Client: Ensolum Job ID: 890-3153-1 Project/Site: PLU 21 BD 126H/905H SDG: 03E1558070

Client Sample ID: PH04A Date Collected: 10/05/22 09:35 Lab Sample ID: 890-3153-2

Date Received: 10/05/22 15:25

Matrix: Solid

Sample Depth: 2'

Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1,4-Difluorobenzene (Surr)	77		70 - 130			10/10/22 13:52	10/13/22 04:11	1
Method: TAL SOP Total BTEX - T	otal BTEX Cald	culation						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398	mg/Kg			10/13/22 11:29	1
Method: SW846 8015 NM - Diese	I Range Organ	ics (DRO) (GC)					
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9	mg/Kg			10/10/22 12:14	1
Analyte Gasoline Range Organics		Qualifier	RL 49.9	Unit mg/Kg	<u>D</u>	Prepared 10/07/22 07:42	Analyzed 10/07/22 14:46	Dil Fac
Method: SW846 8015B NM - Dies Analyte				Unit	D	Prepared	Analyzed	Dil Fac
(GRO)-C6-C10	\49.9	U	49.9	mg/Kg		10/07/22 07.42	10/07/22 14.40	
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9	mg/Kg		10/07/22 07:42	10/07/22 14:46	,
Oll Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg		10/07/22 07:42	10/07/22 14:46	•
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	86		70 - 130			10/07/22 07:42	10/07/22 14:46	1
o-Terphenyl	98		70 - 130			10/07/22 07:42	10/07/22 14:46	1
Method: MCAWW 300.0 - Anions	, Ion Chromato	graphy - So	oluble					
Analyte		Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac

Surrogate Summary

Job ID: 890-3153-1 Client: Ensolum Project/Site: PLU 21 BD 126H/905H SDG: 03E1558070

Method: 8021B - Volatile Organic Compounds (GC)

Matrix: Solid Prep Type: Total/NA

				Percent Surrogate Re
		BFB1	DFBZ1	
Lab Sample ID	Client Sample ID	(70-130)	(70-130)	
890-3144-A-1-D MS	Matrix Spike	117	97	
890-3144-A-1-E MSD	Matrix Spike Duplicate	85	95	
890-3153-1	PH04	109	82	
890-3153-2	PH04A	111	77	
LCS 880-36591/1-A	Lab Control Sample	96	104	
LCSD 880-36591/2-A	Lab Control Sample Dup	96	100	
MB 880-36589/5-A	Method Blank	90	94	
MB 880-36591/5-A	Method Blank	88	94	
Surrogate Legend BFB = 4-Bromofluorobe				

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)	
890-3153-1	PH04	96	108	
890-3153-2	PH04A	86	98	
890-3171-A-1-C MS	Matrix Spike	79	78	
890-3171-A-1-D MSD	Matrix Spike Duplicate	80	79	
LCS 880-36322/2-A	Lab Control Sample	97	110	
LCSD 880-36322/3-A	Lab Control Sample Dup	98	110	
MB 880-36322/1-A	Method Blank	85	97	

Surrogate Legend

1CO = 1-Chlorooctane

OTPH = o-Terphenyl

Client: Ensolum Job ID: 890-3153-1 Project/Site: PLU 21 BD 126H/905H

SDG: 03E1558070

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-36589/5-A

Matrix: Solid

Analysis Batch: 36716

Client Sample ID: Method Blank

	Prep Type: Total/NA
	Prep Batch: 36589
MR MR	

	IVID I	IVID						
Analyte	Result (Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		10/10/22 13:30	10/12/22 11:31	1
Toluene	<0.00200 l	U	0.00200	mg/Kg		10/10/22 13:30	10/12/22 11:31	1
Ethylbenzene	<0.00200 l	U	0.00200	mg/Kg		10/10/22 13:30	10/12/22 11:31	1
m-Xylene & p-Xylene	<0.00400 l	U	0.00400	mg/Kg		10/10/22 13:30	10/12/22 11:31	1
o-Xylene	<0.00200 l	U	0.00200	mg/Kg		10/10/22 13:30	10/12/22 11:31	1
Xylenes, Total	<0.00400 l	U	0.00400	mg/Kg		10/10/22 13:30	10/12/22 11:31	1

MB MB

Surrogate	%Recovery Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	90	70 - 130	10/10/22 13:30	10/12/22 11:31	1
1.4-Difluorobenzene (Surr)	94	70 - 130	10/10/22 13:30	10/12/22 11:31	1

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

Prep Batch: 36591

Matrix: Solid **Analysis Batch: 36716**

Lab Sample ID: MB 880-36591/5-A

	IIID	1410						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		10/10/22 13:52	10/12/22 23:04	1
Toluene	<0.00200	U	0.00200	mg/Kg		10/10/22 13:52	10/12/22 23:04	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		10/10/22 13:52	10/12/22 23:04	1
m-Xylene & p-Xylene	<0.00400	U	0.00400	mg/Kg		10/10/22 13:52	10/12/22 23:04	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		10/10/22 13:52	10/12/22 23:04	1
Xylenes, Total	<0.00400	U	0.00400	mg/Kg		10/10/22 13:52	10/12/22 23:04	1

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Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	88		70 - 130	10/10/22 13:52	10/12/22 23:04	1
1,4-Difluorobenzene (Surr)	94		70 - 130	10/10/22 13:52	10/12/22 23:04	1

Lab Sample ID: LCS 880-36591/1-A

Matrix: Solid

Analysis Batch: 36716

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

Prep Batch: 36591

	Spike	LCS	LCS				%Rec	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Benzene	0.100	0.1109		mg/Kg		111	70 - 130	
Toluene	0.100	0.09785		mg/Kg		98	70 - 130	
Ethylbenzene	0.100	0.09422		mg/Kg		94	70 - 130	
m-Xylene & p-Xylene	0.200	0.1941		mg/Kg		97	70 - 130	
o-Xylene	0.100	0.1122		mg/Kg		112	70 - 130	

LCS LCS

Surrogate	%Recovery Qualifier	Limits
4-Bromofluorobenzene (Surr)	96	70 - 130
1.4-Difluorobenzene (Surr)	104	70 - 130

Lab Sample ID: LCSD 880-36591/2-A

Released to Imaging: 3/13/2023 10:02:15 AM

Matrix: Solid

Analysis Batch: 36716

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
B B () 00704

Prep Batch: 36591

	Spike	LCSD LCSD				%Rec		RPD	
Analyte	Added	Result Qualifier	Unit	D	%Rec	Limits	RPD	Limit	
Benzene	0.100	0.09337	mg/Kg		93	70 - 130	17	35	

QC Sample Results

 Client: Ensolum
 Job ID: 890-3153-1

 Project/Site: PLU 21 BD 126H/905H
 SDG: 03E1558070

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

Lab Sample ID: LCSD 880-36591/2-A

Matrix: Solid

Analysis Batch: 36716

Spike LCSD LCSD Spike LCSD LCSD Rec RPD

Analyte Added Result Qualifier Unit D Rec Limits RPD Limit

	Spike	LCSD	LCSD				%Rec		RPD
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Toluene	0.100	0.08557		mg/Kg		86	70 - 130	13	35
Ethylbenzene	0.100	0.08075		mg/Kg		81	70 - 130	15	35
m-Xylene & p-Xylene	0.200	0.1627		mg/Kg		81	70 - 130	18	35
o-Xylene	0.100	0.09260		mg/Kg		93	70 - 130	19	35

	LCSD	LCSD	
Surrogate	%Recovery	Qualifier	Limits
4-Bromofluorobenzene (Surr)	96		70 - 130
1,4-Difluorobenzene (Surr)	100		70 - 130

Lab Sample ID: 890-3144-A-1-D MS

Client Sample ID: Matrix Spike

Matrix: Solid Prep Type: Total/NA
Analysis Batch: 36716 Prep Batch: 36591

	Sample	Sample	Spike	MS	MS				%Rec	
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Benzene	<0.00201	U F1 F2	0.100	0.07974		mg/Kg		79	70 - 130	
Toluene	<0.00201	U F1	0.100	0.08047		mg/Kg		80	70 - 130	
Ethylbenzene	<0.00201	U F1	0.100	0.08454		mg/Kg		84	70 - 130	
m-Xylene & p-Xylene	<0.00402	U F1	0.201	0.1817		mg/Kg		91	70 - 130	
o-Xylene	<0.00201	U F1	0.100	0.1046		mg/Kg		104	70 - 130	

	MS	MS	
Surrogate	%Recovery	Qualifier	Limits
4-Bromofluorobenzene (Surr)	117		70 - 130
1,4-Difluorobenzene (Surr)	97		70 - 130

Lab Sample ID: 890-3144-A-1-E MSD

Client Sample ID: Matrix Spike Duplicate

Matrix: Solid Prep Type: Total/NA
Analysis Batch: 36716 Prep Batch: 36591

	Sample	Sample	Spike	MSD	MSD				%Rec		RPD
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Benzene	<0.00201	U F1 F2	0.0990	<0.00198	U F1 F2	mg/Kg		0.4	70 - 130	198	35
Toluene	<0.00201	U F1	0.0990	<0.00198	U F1	mg/Kg		0	70 - 130	NC	35
Ethylbenzene	<0.00201	U F1	0.0990	<0.00198	U F1	mg/Kg		0	70 - 130	NC	35
m-Xylene & p-Xylene	<0.00402	U F1	0.198	<0.00396	U F1	mg/Kg		0	70 - 130	NC	35
o-Xylene	<0.00201	U F1	0.0990	<0.00198	U F1	mg/Kg		0	70 - 130	NC	35

	IIIOD I	WOD.	
Surrogate	%Recovery	Qualifier	Limits
4-Bromofluorobenzene (Surr)	85		70 - 130
1,4-Difluorobenzene (Surr)	95		70 - 130

MSD MSD

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

Lab Sample ID: MB 880-36322/1-A

Client Sample ID: Method Blank

Matrix: Solid

Prep Type: Total/NA

Analysis Batch: 36315

MB MB

Prep Batch: 36322

	MID	IVID						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics	<50.0	U	50.0	mg/Kg		10/07/22 07:42	10/07/22 09:54	1
(CDO) C6 C40								

(GRO)-C6-C10

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Client: Ensolum

Job ID: 890-3153-1

SDG: 03E1558070

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

Lab Sample ID: MB 880-36322/1-A **Matrix: Solid**

Project/Site: PLU 21 BD 126H/905H

Analysis Batch: 36315

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

Prep Batch: 36322

Analyte Result Qualifier RL Unit Prepared Analyzed Dil Fac <50.0 U 50.0 10/07/22 07:42 10/07/22 09:54 Diesel Range Organics (Over mg/Kg C10-C28) 50.0 10/07/22 07:42 10/07/22 09:54 Oll Range Organics (Over C28-C36) <50.0 U mg/Kg

MB MB

MB MB

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	85		70 - 130	10/07/22 07:42	10/07/22 09:54	1
o-Terphenyl	97		70 - 130	10/07/22 07:42	10/07/22 09:54	1

Client Sample ID: Lab Control Sample

Client Sample ID: Lab Control Sample Dup

Lab Sample ID: LCS 880-36322/2-A **Matrix: Solid** Prep Type: Total/NA

Prep Batch: 36322 Analysis Batch: 36315 LCS LCS

Spike Analyte Added Result Qualifier Unit D %Rec Limits Gasoline Range Organics 1000 920.4 92 70 - 130 mg/Kg (GRO)-C6-C10 1000 985.5 Diesel Range Organics (Over mg/Kg 99 70 - 130C10-C28)

LCS LCS

Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane	97		70 - 130
o-Terphenyl	110		70 - 130

Lab Sample ID: LCSD 880-36322/3-A

Matrix: Solid Analysis Batch: 36315

Prep Batch: 36322 Spike LCSD LCSD %Rec **RPD** Added Result Qualifier %Rec Limits RPD Limit Analyte Unit D Gasoline Range Organics 1000 992.9 99 70 - 130 8 20 mg/Kg (GRO)-C6-C10 Diesel Range Organics (Over 1000 982.2 mg/Kg 98 70 - 130 O 20

C10-C28)

LCSD LCSD Surrogate %Recovery Qualifier Limits 1-Chlorooctane 98 70 - 130 o-Terphenyl 110 70 - 130

Lab Sample ID: 890-3171-A-1-C MS Client Sample ID: Matrix Spike

998

Matrix: Solid

Analysis Batch: 36315 Prep Batch: 36322 Spike MS MS %Rec Sample Sample Result Qualifier Added Result Qualifier %Rec Analyte Unit Limits <50.0 U 998 70 - 130 Gasoline Range Organics 787.0 77 mg/Kg

877.5

mg/Kg

76

70 - 130

(GRO)-C6-C10 Diesel Range Organics (Over C10-C28)

	MS	MS	
Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane	79		70 - 130
o-Terphenyl	78		70 - 130

115

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Prep Type: Total/NA

Prep Type: Total/NA

Lab Sample ID: 890-3171-A-1-D MSD

Job ID: 890-3153-1 Client: Ensolum Project/Site: PLU 21 BD 126H/905H SDG: 03E1558070

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

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 36322

	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	999	776.9		mg/Kg		76	70 - 130	1	20
(GRO)-C6-C10											
Diesel Range Organics (Over	115		999	976.6		mg/Kg		86	70 - 130	11	20

C10-C28)

Matrix: Solid

Analysis Batch: 36315

MSD MSD

Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane	80		70 - 130
o-Terphenyl	79		70 - 130

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-36392/1-A Client Sample ID: Method Blank **Prep Type: Soluble**

Matrix: Solid

Analysis Batch: 36601

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	Analyte	Result Qualifier	RL	Unit		Prepared	Analyzed	Dil Fac
l	Chloride	<5.00 U	5.00	mg/Kg			10/10/22 21:11	1

Lab Sample ID: LCS 880-36392/2-A **Client Sample ID: Lab Control Sample Matrix: Solid Prep Type: Soluble**

Analysis Batch: 36601

	Spike	LCS	LCS				%Rec	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Chloride	250	243.6		mg/Kg		97	90 - 110	

Lab Sample ID: LCSD 880-36392/3-A Client Sample ID: Lab Control Sample Dup **Prep Type: Soluble**

Matrix: Solid

Analysis Batch: 36601

	Spike	LCSD	LCSD				%Rec		RPD	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit	
Chloride	250	258.4		mg/Kg		103	90 - 110	6	20	

Lab Sample ID: 890-3151-A-31-C MS Client Sample ID: Matrix Spike **Prep Type: Soluble**

Matrix: Solid

Analysis Batch: 36601

	Sample	Sample	Spike	MS	MS				%Rec	
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Chloride	185		250	458.5		mg/Kg		110	90 - 110	

Lab Sample ID: 890-3151-A-31-D MSD Client Sample ID: Matrix Spike Duplicate

Matrix: Solid Analysis Batch: 36601

Sample Sample Spike MSD MSD %Rec %Rec Limits Unit

RPD Result Qualifier Added Result Qualifier Limit Analyte RPD 250 432.4 Chloride 185 90 - 110 mg/Kg

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Prep Type: Soluble

QC Association Summary

Client: Ensolum

Project/Site: PLU 21 BD 126H/905H

Job ID: 890-3153-1 SDG: 03E1558070

GC VOA

Prep Batch: 36589

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 880-36589/5-A	Method Blank	Total/NA	Solid	5035	

Prep Batch: 36591

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3153-1	PH04	Total/NA	Solid	5035	
890-3153-2	PH04A	Total/NA	Solid	5035	
MB 880-36591/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-36591/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-36591/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
890-3144-A-1-D MS	Matrix Spike	Total/NA	Solid	5035	
890-3144-A-1-E MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	

Analysis Batch: 36716

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3153-1	PH04	Total/NA	Solid	8021B	36591
890-3153-2	PH04A	Total/NA	Solid	8021B	36591
MB 880-36589/5-A	Method Blank	Total/NA	Solid	8021B	36589
MB 880-36591/5-A	Method Blank	Total/NA	Solid	8021B	36591
LCS 880-36591/1-A	Lab Control Sample	Total/NA	Solid	8021B	36591
LCSD 880-36591/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	36591
890-3144-A-1-D MS	Matrix Spike	Total/NA	Solid	8021B	36591
890-3144-A-1-E MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	36591

Analysis Batch: 36862

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3153-1	PH04	Total/NA	Solid	Total BTEX	
890-3153-2	PH04A	Total/NA	Solid	Total BTEX	

GC Semi VOA

Analysis Batch: 36315

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3153-1	PH04	Total/NA	Solid	8015B NM	36322
890-3153-2	PH04A	Total/NA	Solid	8015B NM	36322
MB 880-36322/1-A	Method Blank	Total/NA	Solid	8015B NM	36322
LCS 880-36322/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	36322
LCSD 880-36322/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	36322
890-3171-A-1-C MS	Matrix Spike	Total/NA	Solid	8015B NM	36322
890-3171-A-1-D MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	36322

Prep Batch: 36322

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3153-1	PH04	Total/NA	Solid	8015NM Prep	
890-3153-2	PH04A	Total/NA	Solid	8015NM Prep	
MB 880-36322/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-36322/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-36322/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
890-3171-A-1-C MS	Matrix Spike	Total/NA	Solid	8015NM Prep	
890-3171-A-1-D MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	

QC Association Summary

Client: Ensolum

Job ID: 890-3153-1 Project/Site: PLU 21 BD 126H/905H

SDG: 03E1558070

GC Semi VOA

Analysis Batch: 36581

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3153-1	PH04	Total/NA	Solid	8015 NM	
890-3153-2	PH04A	Total/NA	Solid	8015 NM	

HPLC/IC

Leach Batch: 36392

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3153-1	PH04	Soluble	Solid	DI Leach	_
890-3153-2	PH04A	Soluble	Solid	DI Leach	
MB 880-36392/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-36392/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-36392/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
890-3151-A-31-C MS	Matrix Spike	Soluble	Solid	DI Leach	
890-3151-A-31-D MSD	Matrix Spike Duplicate	Soluble	Solid	DI Leach	

Analysis Batch: 36601

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3153-1	PH04	Soluble	Solid	300.0	36392
890-3153-2	PH04A	Soluble	Solid	300.0	36392
MB 880-36392/1-A	Method Blank	Soluble	Solid	300.0	36392
LCS 880-36392/2-A	Lab Control Sample	Soluble	Solid	300.0	36392
LCSD 880-36392/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	36392
890-3151-A-31-C MS	Matrix Spike	Soluble	Solid	300.0	36392
890-3151-A-31-D MSD	Matrix Spike Duplicate	Soluble	Solid	300.0	36392

Client: Ensolum Project/Site: PLU 21 BD 126H/905H Job ID: 890-3153-1 SDG: 03E1558070

Lab Sample ID: 890-3153-1

Matrix: Solid

Date Collected: 10/05/22 09:30 Date Received: 10/05/22 15:25

Client Sample ID: PH04

	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	36591	10/10/22 13:52	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	36716	10/13/22 03:51	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			36862	10/13/22 11:29	AJ	EET MID
Total/NA	Analysis	8015 NM		1			36581	10/10/22 12:14	SM	EET MID
Total/NA	Prep	8015NM Prep			10.05 g	10 mL	36322	10/07/22 07:42	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	36315	10/07/22 14:25	SM	EET MID
Soluble	Leach	DI Leach			5.04 g	50 mL	36392	10/07/22 15:09	СН	EET MID
Soluble	Analysis	300.0		20			36601	10/10/22 23:13	CH	EET MID

Client Sample ID: PH04A Date Collected: 10/05/22 09:35

Date Received: 10/05/22 15:25

Lab Sample ID: 890-3153-2

Matrix: Solid

Dil Initial Final Batch Batch Batch Prepared Prep Type Туре Method Run Factor Amount Amount Number or Analyzed Analyst Lab 5035 Total/NA Prep 5.03 g 5 mL 36591 10/10/22 13:52 MNR EET MID 8021B Total/NA 5 mL 10/13/22 04:11 **EET MID** Analysis 1 5 mL 36716 MNR Total/NA Total BTEX 36862 10/13/22 11:29 Analysis 1 AJ **EET MID** Total/NA Analysis 8015 NM 36581 10/10/22 12:14 SM **EET MID** Total/NA 36322 10/07/22 07:42 Prep 8015NM Prep 10.03 g 10 mL DM EET MID Total/NA Analysis 8015B NM 1 uL 1 uL 36315 10/07/22 14:46 SM **EET MID** 10/07/22 15:09 Soluble **EET MID** Leach DI Leach 4.96 g 50 mL 36392 CH Soluble Analysis 300.0 10 36601 10/10/22 23:31 СН **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: 890-3153-1 Project/Site: PLU 21 BD 126H/905H SDG: 03E1558070

Laboratory: Eurofins Midland

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

Authority	Pr	ogram	Identification Number	Expiration Date
Texas	NI	ELAP	T104704400-22-24	06-30-23
The following analytes the agency does not o		ut the laboratory is not certifi	ed by the governing authority. This list ma	ay include analytes for which
Analysis Method	Prep Method	Matrix	Analyte	
8015 NM		Solid	Total TPH	
00.0				

Method Summary

Client: Ensolum

Project/Site: PLU 21 BD 126H/905H

Job ID: 890-3153-1 SDG: 03E1558070

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

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Sample Summary

Client: Ensolum

Project/Site: PLU 21 BD 126H/905H

Job ID: 890-3153-1

SDG: 03E1558070

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-3153-1	PH04	Solid	10/05/22 09:30	10/05/22 15:25	1'
890-3153-2	PH04A	Solid	10/05/22 09:35	10/05/22 15:25	2'

Address:

3122 National Parks Hwy

Project Manager: Company Name:

Kalie Jennings Ensolum

Bill to: (if different)
Company Name:

Garret Green
XTO Energy
3104 E. Green St.

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Chain of Custody

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

Environment Testing

Order No:		11
Work Order No: www.xenco.com Page of Work Order Comments	Deliverables: EDD ADaPT Other:	- 1
Work Order No: www.xenco.com Page of Of Work Order Comments Work Order Comments Program: UST/PST PRP Brownfields RRC Superfund State of Project:	Reporting: Level II Level III PST/UST TRRP Level IV	- 1
Work Order No: www.xenco.com Page of Order Comments Work Order Comments Program: UST/PST PRP Brownfields RRC Superfund	State of Project:	
www.xenco.com Page of work Order Comments	Program: UST/PST ☐ PRP ☐ Brownfields ☐ RRC ☐ Superfund ☐	1 1
	Work Order Comments	
Work Order No:		l
	Work Order No:	

PLU 21 BD 126H/905H Turn Around	Ellan, Gallet Greenwat Avon Woon, com	COII. COIII				
			ANALYSIS REQUEST	•	Preserva	Preservative Codes
☑ Routine ☐ Rush	sh Pres.				None: NO	DI Water: H ₂ O
Due Date:					Cool: Cool	MeOH: Me
TAT starts the day rec	eived by		-	_	HCL: HC	HNO ₃ : HN
the lab, if received by					H₂S0₄: H₂	NaOH: Na
Yes No Wet Ice: Yes	o nete	.0)			H₃PO₄: HP	
ter ID:	7 iran	300			NaHSO ₄ : NABI	ั้
Korrection Factor: - €	Pa	PA:			Na ₂ S ₂ O ₃ : NaSC	္မ
) (E		And the second s	Zn Acetate+Na	OH: Zn
	90	15)		-	NaOH+Ascorbi	ic Acid: SA
Time	Grab/ # of	PH (80			Sample	Sample Comments
Campion		Т			incident ID.	
9:30	-	×			microciii. D.	10000
10/5/2022 9:35 2'	G 1	×			NAPP2	NAPP2214342255
					Cost Center:	
					1666	1666431001
					AFE:	
/	B					
		1				
8RCRA 13PPM T	Al Sb	As Ba Be B	Ca Cr Co Cu Fe	n Mo Ni K Se Ag S	SIO2 Na Sr TI Sn U V Zn	NZ V
TCLP / SPLP 60	010: 8RCRA St	o As Ba Be Cd (11		1631 / 245.1 / 7470	17471
ples constitutes a valid purchase mples and shall not assume any r	order from client com responsibility for any l	pany to Eurofins Xenco, osses or expenses incur		ins standard terms and condition of the conditions of the conditions of the conforced unless previously ne	tions ontrol gotiated.	
eceived by: (Signature)	Da	ate/Time	Relinquished by: (Signature)	Received by: (S	Signature)	Date/Time
Anala Stit	10/9/	15:				
"		4				
		6			Revised Da	ate 08/25/20
	103.88361 Due Date: TAT starts the day recthe lab, if received by the lab, if	Due Date: Due Date: TAT starts the day received by the lab, if received by 4:30pm Proposed by the lab, if received by 4:30pm The commometer ID: Cition Factor: Cition Factor: Cition Factor: Proposed Sampled Sampled Sampled Depth Comp Cont Comp Proposed 4 of Comp Cont Comp Proposed 4 of Comp Cont Comp Con	Due Date: Due Date: Due D	Project Location: Rose Parker Code	Custody Custody Custody Pb Mg Mn Mo Ni K Se A Mo Ni Se Ag Tl U Mo Ni Se Ag Tl U sees are due to circumstances beyond terms will be enforced unless previous gnature) Received by	Custody Custody Custody Custody Custody Custody Custody Custody Custody Cost Nacional Structure Pb Mg Mn Mo Ni K Se Ag SiO ₂ Na Sr Pb Mg Mn Mo Ni K Se Ag SiO ₂ Na Sr Mo Ni Se Ag Ti U Hg: 1631 / 245. Cost Cost Received by: (Signature) Genature) Received by: (Signature)

Login Sample Receipt Checklist

Client: Ensolum Job Number: 890-3153-1 SDG Number: 03E1558070

Login Number: 3153 List Source: Eurofins Carlsbad

List Number: 1

Creator: Stutzman, Amanda

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

Job Number: 890-3153-1 SDG Number: 03E1558070

Login Number: 3153
List Source: Eurofins Midland
List Number: 2
List Creation: 10/07/22 11:00 AM

Creator: Rodriguez, Leticia

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

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<6mm (1/4").



Environment Testing America

ANALYTICAL REPORT

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

Laboratory Job ID: 890-3154-1

Laboratory Sample Delivery Group: 03E1558070 Client Project/Site: PLU 21 BD 126H/905H

For:

Ensolum 705 W. Wadley Suite 210 Midland, Texas 79701

Attn: Kalei Jennings

RAMER

Authorized for release by: 10/13/2022 10:50:00 AM

Jessica Kramer, Project Manager (432)704-5440

Jessica.Kramer@et.eurofinsus.com

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten

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

 Client: Ensolum
 Laboratory Job ID: 890-3154-1

 Project/Site: PLU 21 BD 126H/905H
 SDG: 03E1558070

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Definitions/Glossary

Job ID: 890-3154-1 Client: Ensolum Project/Site: PLU 21 BD 126H/905H

SDG: 03E1558070

Qualifiers

GC	VOA
Qual	ifier

Qualifier Description F1 MS and/or MSD recovery exceeds control limits. F2 MS/MSD RPD exceeds control limits Indicates the analyte was analyzed for but not detected.

GC Semi VOA

*1 LCS/LCSD RPD exceeds control limits. S1-Surrogate recovery exceeds control limits, low biased. Indicates the analyte was analyzed for but not detected.

Qualifier Description

HPLC/IC Qualifier

Qualifier

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

Glossary

Abbreviation These commonly used abbreviations may or may not be present in this report. ¤ Listed under the "D" column to designate that the result is reported on a dry weight basis %R Percent Recovery CFL Contains Free Liquid CFU Colony Forming Unit Contains No Free Liquid **CNF** Duplicate Error Ratio (normalized absolute difference) DER Dil Fac Dilution Factor 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) Limit of Quantitation (DoD/DOE) LOQ

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

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

NC Not Calculated

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

NEG Negative / Absent POS Positive / Present Practical Quantitation Limit **PQL**

PRES Presumptive **Quality Control** QC

Relative Error Ratio (Radiochemistry) **RER**

Reporting Limit or Requested Limit (Radiochemistry) RL

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 21 BD 126H/905H

Job ID: 890-3154-1

SDG: 03E1558070

Job ID: 890-3154-1

Laboratory: Eurofins Carlsbad

Narrative

Job Narrative 890-3154-1

Receipt

The samples were received on 10/5/2022 3:33 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 21.2°C

Receipt Exceptions

The following samples were received and analyzed from an unpreserved bulk soil jar: PH02 (890-3154-1) and PH02A (890-3154-2).

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 surrogate recovery for the blank associated with preparation batch 880-36387 and analytical batch 880-36315 was outside the upper control limits.

Method 8015MOD NM: The RPD of the laboratory control sample (LCS) and laboratory control sample duplicate (LCSD) for preparation batch 880-36387 and analytical batch 880-36315 recovered outside control limits for the following analytes: Gasoline Range Organics (GRO)-C6-C10.

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: 890-3154-1

Client Sample Results

 Client: Ensolum
 Job ID: 890-3154-1

 Project/Site: PLU 21 BD 126H/905H
 SDG: 03E1558070

Client Sample ID: PH02

Date Collected: 10/05/22 09:10 Date Received: 10/05/22 15:33

Sample Depth: 1'

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		10/10/22 13:52	10/13/22 04:32	1
Toluene	<0.00200	U	0.00200	mg/Kg		10/10/22 13:52	10/13/22 04:32	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		10/10/22 13:52	10/13/22 04:32	1
m-Xylene & p-Xylene	<0.00399	U	0.00399	mg/Kg		10/10/22 13:52	10/13/22 04:32	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		10/10/22 13:52	10/13/22 04:32	1
Xylenes, Total	<0.00399	U	0.00399	mg/Kg		10/10/22 13:52	10/13/22 04:32	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	111		70 - 130			10/10/22 13:52	10/13/22 04:32	1
1,4-Difluorobenzene (Surr)	78		70 - 130			10/10/22 13:52	10/13/22 04:32	1
Method: TAL SOP Total BTEX - T	otal BTEX Cald	culation						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00399		0.00399	mg/Kg			10/13/22 11:29	1
: Method: SW846 8015 NM - Diese	l Range Organ			mg/Kg		Prepared		Dil Fac
Method: SW846 8015 NM - Diese Analyte	l Range Organ	ics (DRO) (GC)		<u>D</u>	Prepared	10/13/22 11:29 Analyzed 10/10/22 12:14	Dil Fac
Method: SW846 8015 NM - Diese Analyte Total TPH	Range Organ Result <50.0	ics (DRO) (Gualifier	GC) RL 50.0	Unit	<u>D</u>	Prepared	Analyzed	
Method: SW846 8015 NM - Diese Analyte Total TPH Method: SW846 8015B NM - Dies	Range Organ Result <50.0 sel Range Organ	ics (DRO) (Gualifier	GC) RL 50.0	Unit	<u>D</u>	Prepared Prepared	Analyzed	1
Method: SW846 8015 NM - Diese Analyte Total TPH Method: SW846 8015B NM - Diese Analyte Gasoline Range Organics	Range Organ Result <50.0 sel Range Organ	Qualifier Unics (DRO) Qualifier	GC) RL 50.0	Unit mg/Kg			Analyzed 10/10/22 12:14	Dil Fac
Method: SW846 8015 NM - Diese Analyte	Range Organ Result <50.0 sel Range Organ Result	ics (DRO) (Qualifier U unics (DRO) Qualifier U *1	GC) RL 50.0 (GC) RL	Unit mg/Kg		Prepared	Analyzed 10/10/22 12:14 Analyzed	Dil Fac
Method: SW846 8015 NM - Diese Analyte Total TPH Method: SW846 8015B NM - Diese Analyte Gasoline Range Organics (GR0)-C6-C10 Diesel Range Organics (Over C10-C28)	Result sel Range Organ Result <50.0 sel Range Organ Result <50.0 <50.0	ics (DRO) (Qualifier U Inics (DRO) Qualifier U *1	GC) RL 50.0 (GC) RL 50.0 50.0	Unit mg/Kg Unit mg/Kg mg/Kg		Prepared 10/07/22 13:17 10/07/22 13:17	Analyzed 10/10/22 12:14 Analyzed 10/08/22 00:50 10/08/22 00:50	Dil Fac
Method: SW846 8015 NM - Diese Analyte Total TPH Method: SW846 8015B NM - Diese Analyte Gasoline Range Organics (GR0)-C6-C10 Diesel Range Organics (Over C10-C28)	Result sel Range Organ Result <50.0 sel Range Organ Result <50.0	ics (DRO) (Qualifier U Inics (DRO) Qualifier U *1	GC) RL 50.0 (GC) RL 50.0	Unit mg/Kg Unit mg/Kg		Prepared 10/07/22 13:17	Analyzed 10/10/22 12:14 Analyzed 10/08/22 00:50	Dil Fac
Method: SW846 8015 NM - Diese Analyte Total TPH Method: SW846 8015B NM - Diese Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) Oll Range Organics (Over C28-C36)	Result sel Range Organ Result <50.0 sel Range Organ Result <50.0 <50.0	ics (DRO) (Qualifier U nnics (DRO) Qualifier U *1 U	GC) RL 50.0 (GC) RL 50.0 50.0	Unit mg/Kg Unit mg/Kg mg/Kg		Prepared 10/07/22 13:17 10/07/22 13:17	Analyzed 10/10/22 12:14 Analyzed 10/08/22 00:50 10/08/22 00:50	Dil Fac
Method: SW846 8015 NM - Diese Analyte Total TPH Method: SW846 8015B NM - Diese Analyte Gasoline Range Organics (GRO)-C6-C10	sel Range Organ Result <50.0 sel Range Orga Result <50.0 <50.0 <50.0	ics (DRO) (Qualifier U nnics (DRO) Qualifier U *1 U	GC) RL 50.0 (GC) RL 50.0 50.0 50.0	Unit mg/Kg Unit mg/Kg mg/Kg		Prepared 10/07/22 13:17 10/07/22 13:17	Analyzed 10/10/22 12:14 Analyzed 10/08/22 00:50 10/08/22 00:50 10/08/22 00:50	

Client Sample ID: PH02A

Date Collected: 10/05/22 09:15 Date Received: 10/05/22 15:33

Sample Depth: 2'

Analyte

Chloride

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199	mg/Kg		10/10/22 13:52	10/13/22 04:52	1
Toluene	<0.00199	U	0.00199	mg/Kg		10/10/22 13:52	10/13/22 04:52	1
Ethylbenzene	<0.00199	U	0.00199	mg/Kg		10/10/22 13:52	10/13/22 04:52	1
m-Xylene & p-Xylene	<0.00398	U	0.00398	mg/Kg		10/10/22 13:52	10/13/22 04:52	1
o-Xylene	<0.00199	U	0.00199	mg/Kg		10/10/22 13:52	10/13/22 04:52	1
Xylenes, Total	<0.00398	U	0.00398	mg/Kg		10/10/22 13:52	10/13/22 04:52	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	94		70 - 130			10/10/22 13:52	10/13/22 04:52	1

RL

24.9

Unit

mg/Kg

D

Prepared

Analyzed

10/10/22 23:37

Lab Sample ID: 890-3154-2

Dil Fac

Matrix: Solid

Result Qualifier

2070

Eurofins Carlsbad

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10

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13

Jiii Joan Jaa

Matrix: Solid

Lab Sample ID: 890-3154-2

10/10/22 23:43

Client Sample Results

 Client: Ensolum
 Job ID: 890-3154-1

 Project/Site: PLU 21 BD 126H/905H
 SDG: 03E1558070

Client Sample ID: PH02A

Date Collected: 10/05/22 09:15 Date Received: 10/05/22 15:33

Sample Depth: 2'

Chloride

Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1,4-Difluorobenzene (Surr)	91		70 - 130			10/10/22 13:52	10/13/22 04:52	1
Method: TAL SOP Total BTEX - 1	otal PTEV Cale	vulation						
Analyte		Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398		0.00398	mg/Kg	— <u>-</u>		10/13/22 11:29	1
Method: SW846 8015 NM - Diese	l Range Organ	ics (DRO) (GC)					
Analyte	•	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0	mg/Kg			10/10/22 12:14	1
Analyte		Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Method: SW846 8015B NM - Dies	sol Rango Orga	nics (DRO)	(GC)					
Gasoline Range Organics (GRO)-C6-C10	<50.0	U *1	50.0	mg/Kg		10/07/22 13:17	10/08/22 01:12	1
Diesel Range Organics (Over	<50.0	U	50.0	mg/Kg		10/07/22 13:17	10/08/22 01:12	1
C10-C28)								
Oll Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		10/07/22 13:17	10/08/22 01:12	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	76		70 - 130			10/07/22 13:17	10/08/22 01:12	1
o-Terphenyl	82		70 - 130			10/07/22 13:17	10/08/22 01:12	1
Method: MCAWW 300.0 - Anions	. Ion Chromato	graphy - S	oluble					

25.0

mg/Kg

1470

Surrogate Summary

Job ID: 890-3154-1 Client: Ensolum Project/Site: PLU 21 BD 126H/905H SDG: 03E1558070

Method: 8021B - Volatile Organic Compounds (GC)

Matrix: Solid Prep Type: Total/NA

-				Percent Surrogate F
		BFB1	DFBZ1	
Lab Sample ID	Client Sample ID	(70-130)	(70-130)	
890-3144-A-1-D MS	Matrix Spike	117	97	
890-3144-A-1-E MSD	Matrix Spike Duplicate	85	95	
890-3154-1	PH02	111	78	
890-3154-2	PH02A	94	91	
LCS 880-36591/1-A	Lab Control Sample	96	104	
LCSD 880-36591/2-A	Lab Control Sample Dup	96	100	
MB 880-36589/5-A	Method Blank	90	94	
MB 880-36591/5-A	Method Blank	88	94	
Surrogate Legend				
BFB = 4-Bromofluorober	nzene (Surr)			

DFBZ = 1,4-Difluorobenzene (Surr)

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

Matrix: Solid Prep Type: Total/NA

		1001	OTPH1
Lab Sample ID	Client Sample ID	(70-130)	(70-130)
890-3148-A-1-C MS	Matrix Spike	94	92
890-3148-A-1-D MSD	Matrix Spike Duplicate	91	92
890-3154-1	PH02	82	88
890-3154-2	PH02A	76	82
LCS 880-36387/2-A	Lab Control Sample	110	119
LCSD 880-36387/3-A	Lab Control Sample Dup	95	108
MB 880-36387/1-A	Method Blank	7 S1-	7 S1-

Surrogate Legend

1CO = 1-Chlorooctane

OTPH = o-Terphenyl

Eurofins Carlsbad

Released to Imaging: 3/13/2023 10:02:15 AM

Client: Ensolum Job ID: 890-3154-1 Project/Site: PLU 21 BD 126H/905H

SDG: 03E1558070

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-36589/5-A

Lab Sample ID: MB 880-36591/5-A

Analysis Batch: 36716

Matrix: Solid

Matrix: Solid

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

Prep Batch: 36589

	11110	1410						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		10/10/22 13:30	10/12/22 11:31	1
Toluene	<0.00200	U	0.00200	mg/Kg		10/10/22 13:30	10/12/22 11:31	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		10/10/22 13:30	10/12/22 11:31	1
m-Xylene & p-Xylene	<0.00400	U	0.00400	mg/Kg		10/10/22 13:30	10/12/22 11:31	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		10/10/22 13:30	10/12/22 11:31	1
Xylenes, Total	<0.00400	U	0.00400	mg/Kg		10/10/22 13:30	10/12/22 11:31	1

мв мв

MR MR

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	90		70 - 130	10/10/22 13:3	10/12/22 11:31	1
1,4-Difluorobenzene (Surr)	94		70 - 130	10/10/22 13:3	0 10/12/22 11:31	1

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 36591

Analysis Batch: 36716 мв мв

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		10/10/22 13:52	10/12/22 23:04	1
Toluene	<0.00200	U	0.00200	mg/Kg		10/10/22 13:52	10/12/22 23:04	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		10/10/22 13:52	10/12/22 23:04	1
m-Xylene & p-Xylene	<0.00400	U	0.00400	mg/Kg		10/10/22 13:52	10/12/22 23:04	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		10/10/22 13:52	10/12/22 23:04	1
Xylenes, Total	<0.00400	U	0.00400	mg/Kg		10/10/22 13:52	10/12/22 23:04	1

мв мв

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	88		70 - 130	10/10/22 13:52	10/12/22 23:04	1
1,4-Difluorobenzene (Surr)	94		70 - 130	10/10/22 13:52	10/12/22 23:04	1

Lab Sample ID: LCS 880-36591/1-A

Matrix: Solid

Analysis Batch: 36716

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 36591

	Spike	LCS	LCS				%Rec	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Benzene	0.100	0.1109		mg/Kg		111	70 - 130	
Toluene	0.100	0.09785		mg/Kg		98	70 - 130	
Ethylbenzene	0.100	0.09422		mg/Kg		94	70 - 130	
m-Xylene & p-Xylene	0.200	0.1941		mg/Kg		97	70 - 130	
o-Xylene	0.100	0.1122		mg/Kg		112	70 - 130	

LCS LCS

Surrogate	%Recovery Qualifier	Limits
4-Bromofluorobenzene (Surr)	96	70 - 130
1.4-Difluorobenzene (Surr)	104	70 - 130

Lab Sample ID: LCSD 880-36591/2-A

Matrix: Solid

Analysis Batch: 36716

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 36591

	Spike	LCSD	LCSD				%Rec		RPD
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Benzene	0.100	0.09337		mg/Kg		93	70 - 130	17	35

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QC Sample Results

Job ID: 890-3154-1 Client: Ensolum Project/Site: PLU 21 BD 126H/905H SDG: 03E1558070

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

Lab Sample ID: LCSD 880-36591/2-A **Matrix: Solid**

Analysis Batch: 36716

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 36591 %Rec **RPD** %Rec Limits **RPD** Limit D

Spike LCSD LCSD Analyte Added Result Qualifier Unit Toluene 0.100 0.08557 86 70 - 130 35 mg/Kg 13 Ethylbenzene 0.100 0.08075 mg/Kg 81 70 - 130 15 35 0.200 m-Xylene & p-Xylene 0.1627 mg/Kg 81 70 - 130 35 18 o-Xylene 0.100 0.09260 mg/Kg 93 70 - 130 19

LCSD LCSD

Surrogate	%Recovery	Qualifier	Limits
4-Bromofluorobenzene (Surr)	96		70 - 130
1,4-Difluorobenzene (Surr)	100		70 - 130

Lab Sample ID: 890-3144-A-1-D MS Client Sample ID: Matrix Spike

Matrix: Solid

Analysis Batch: 36716

Prep Type: Total/NA

Prep Batch: 36591

	Sample	Sample	Spike	MS	MS				%Rec	
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Benzene	<0.00201	U F1 F2	0.100	0.07974		mg/Kg		79	70 - 130	
Toluene	<0.00201	U F1	0.100	0.08047		mg/Kg		80	70 - 130	
Ethylbenzene	<0.00201	U F1	0.100	0.08454		mg/Kg		84	70 - 130	
m-Xylene & p-Xylene	<0.00402	U F1	0.201	0.1817		mg/Kg		91	70 - 130	
o-Xylene	<0.00201	U F1	0.100	0.1046		mg/Kg		104	70 - 130	

MS MS

Surrogate	%Recovery Qualifier	Limits
4-Bromofluorobenzene (Surr)	117	70 - 130
1,4-Difluorobenzene (Surr)	97	70 - 130

Lab Sample ID: 890-3144-A-1-E MSD Client Sample ID: Matrix Spike Duplicate

Matrix: Solid

Analysis Batch: 36716

Prep Type: Total/NA Prep Batch: 36591

	Sample	Sample	Spike	MSD	MSD				%Rec		RPD
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Benzene	<0.00201	U F1 F2	0.0990	<0.00198	U F1 F2	mg/Kg		0.4	70 - 130	198	35
Toluene	<0.00201	U F1	0.0990	<0.00198	U F1	mg/Kg		0	70 - 130	NC	35
Ethylbenzene	<0.00201	U F1	0.0990	<0.00198	U F1	mg/Kg		0	70 - 130	NC	35
m-Xylene & p-Xylene	<0.00402	U F1	0.198	<0.00396	U F1	mg/Kg		0	70 - 130	NC	35
o-Xylene	<0.00201	U F1	0.0990	<0.00198	U F1	mg/Kg		0	70 - 130	NC	35

MSD MSD

Surrogate	%Recovery	Qualifier	Limits
4-Bromofluorobenzene (Surr)	85		70 - 130
1,4-Difluorobenzene (Surr)	95		70 - 130

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

Lab Sample ID: MB 880-36387/1-A

Matrix: Solid

Analysis Batch: 36315

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

Prep Batch: 36387

мв мв Result Qualifier RL Unit Prepared Gasoline Range Organics <50.0 U 50.0 mg/Kg 10/07/22 13:17 10/07/22 19:44

(GRO)-C6-C10

Client: Ensolum

Job ID: 890-3154-1 SDG: 03E1558070

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

Project/Site: PLU 21 BD 126H/905H

Lab Sample ID: MB 880-36387/1-A **Matrix: Solid**

Analysis Batch: 36315

Client Sample ID: Method Blank

Prep Type: Total/NA Prep Batch: 36387

	MB	MB						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics (Over	<50.0	U	50.0	mg/Kg		10/07/22 13:17	10/07/22 19:44	1
C10-C28)								
Oll Range Organics (Over C28-C36)	<50.0	П	50.0	ma/Ka		10/07/22 13:17	10/07/22 19:44	1

MB MB

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	7	S1-	70 - 130	10/07/22 13:17	10/07/22 19:44	1
o-Terphenyl	7	S1-	70 - 130	10/07/22 13:17	10/07/22 19:44	1

Client Sample ID: Lab Control Sample

Lab Sample ID: LCS 880-36387/2-A **Matrix: Solid** Prep Type: Total/NA Analysis Batch: 36315 Prep Batch: 36387

LCS LCS Spike Analyte Added Result Qualifier Unit %Rec Limits Gasoline Range Organics 1000 1166 117 70 - 130 mg/Kg (GRO)-C6-C10 1000 1038 Diesel Range Organics (Over mg/Kg 104 70 - 130 C10-C28)

LCS LCS

Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane	110		70 - 130
o-Terphenyl	119		70 - 130

Lab Sample ID: LCSD 880-36387/3-A

Matrix: Solid Analysis Batch: 36315 Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA Prep Batch: 36387

	Spike	LCSD	LCSD				%Rec		RPD
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Gasoline Range Organics	1000	913.9	*1	mg/Kg		91	70 - 130	24	20
(GRO)-C6-C10									
Diesel Range Organics (Over	1000	907.1		mg/Kg		91	70 - 130	13	20
C10-C28)									

LCSD LCSD Surrogate %Recovery Qualifier Limits 1-Chlorooctane 95 70 - 130 o-Terphenyl 108 70 - 130

Lab Sample ID: 890-3148-A-1-C MS

Matrix: Solid

Analysis Batch: 36315

Client Sample ID: Matrix Spike

Prep Type: Total/NA Prep Batch: 36387

	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 *1	998	824.5		mg/Kg		80	70 - 130	
Diesel Range Organics (Over	118		998	928.0		mg/Kg		81	70 - 130	

C10-C28)

	IVIS	IVIS	
Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane	94		70 - 130
o-Terphenyl	92		70 - 130

Client: Ensolum Job ID: 890-3154-1 Project/Site: PLU 21 BD 126H/905H SDG: 03E1558070

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

Lab Sample ID: 890-3148-A-1-D MSD Client Sample ID: Matrix Spike Duplicate **Matrix: Solid** Prep Type: Total/NA

Analysis Batch: 36315

Analysis Batch: 36315									Prep	Batch:	36387
	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 *1	999	796.9		mg/Kg		77	70 - 130	3	20
Diesel Range Organics (Over C10-C28)	118		999	917.1		mg/Kg		80	70 - 130	1	20

MSD MSD

Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane	91		70 - 130
o-Terphenyl	92		70 - 130

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-36392/1-A Client Sample ID: Method Blank **Prep Type: Soluble**

Matrix: Solid

Analysis Batch: 36601

мв мв

Analyte	Result Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.00 U	5.00	mg/Kg			10/10/22 21:11	1

Lab Sample ID: LCS 880-36392/2-A **Client Sample ID: Lab Control Sample Matrix: Solid Prep Type: Soluble**

Analysis Batch: 36601

	Spike	LCS	LCS				%Rec	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Chloride	250	243.6	-	mg/Kg		97	90 - 110	

Lab Sample ID: LCSD 880-36392/3-A

Matrix: Solid

Analysis Batch: 36601

	Spike	LCSD	LCSD				%Rec		RPD	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit	
Chloride	250	258.4		ma/Ka		103	90 - 110	6	20	

Lab Sample ID: 890-3151-A-21-E MS Client Sample ID: Matrix Spike

Matrix: Solid

Analysis Batch: 36601

	Sample	Sample	Spike	MS	MS				%Rec	
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Chloride	919		1250	2234		ma/Ka	_	106	90 110	

Lab Sample ID: 890-3151-A-21-F MSD

Matrix: Solid

Analysis Ratch: 36601

Alialysis batch, 30001											
	Sample	Sample	Spike	MSD	MSD				%Rec		RPD
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Chloride	919		1250	2105		mg/Kg		95	90 - 110	6	20

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Client Sample ID: Lab Control Sample Dup

Client Sample ID: Matrix Spike Duplicate

Prep Type: Soluble

Prep Type: Soluble

Prep Type: Soluble

QC Association Summary

Client: Ensolum

Project/Site: PLU 21 BD 126H/905H

Job ID: 890-3154-1 SDG: 03E1558070

GC VOA

Prep Batch: 36589

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 880-36589/5-A	Method Blank	Total/NA	Solid	5035	

Prep Batch: 36591

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3154-1	PH02	Total/NA	Solid	5035	
890-3154-2	PH02A	Total/NA	Solid	5035	
MB 880-36591/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-36591/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-36591/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
890-3144-A-1-D MS	Matrix Spike	Total/NA	Solid	5035	
890-3144-A-1-E MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	

Analysis Batch: 36716

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3154-1	PH02	Total/NA	Solid	8021B	36591
890-3154-2	PH02A	Total/NA	Solid	8021B	36591
MB 880-36589/5-A	Method Blank	Total/NA	Solid	8021B	36589
MB 880-36591/5-A	Method Blank	Total/NA	Solid	8021B	36591
LCS 880-36591/1-A	Lab Control Sample	Total/NA	Solid	8021B	36591
LCSD 880-36591/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	36591
890-3144-A-1-D MS	Matrix Spike	Total/NA	Solid	8021B	36591
890-3144-A-1-E MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	36591

Analysis Batch: 36863

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3154-1	PH02	Total/NA	Solid	Total BTEX	
890-3154-2	PH02A	Total/NA	Solid	Total BTEX	

GC Semi VOA

Analysis Batch: 36315

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3154-1	PH02	Total/NA	Solid	8015B NM	36387
890-3154-2	PH02A	Total/NA	Solid	8015B NM	36387
MB 880-36387/1-A	Method Blank	Total/NA	Solid	8015B NM	36387
LCS 880-36387/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	36387
LCSD 880-36387/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	36387
890-3148-A-1-C MS	Matrix Spike	Total/NA	Solid	8015B NM	36387
890-3148-A-1-D MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	36387

Prep Batch: 36387

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3154-1	PH02	Total/NA	Solid	8015NM Prep	
890-3154-2	PH02A	Total/NA	Solid	8015NM Prep	
MB 880-36387/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-36387/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-36387/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
890-3148-A-1-C MS	Matrix Spike	Total/NA	Solid	8015NM Prep	
890-3148-A-1-D MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	

QC Association Summary

Client: Ensolum

Job ID: 890-3154-1 Project/Site: PLU 21 BD 126H/905H SDG: 03E1558070

GC Semi VOA

Analysis Batch: 36585

	Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
	890-3154-1	PH02	Total/NA	Solid	8015 NM	
Į	890-3154-2	PH02A	Total/NA	Solid	8015 NM	

HPLC/IC

Leach Batch: 36392

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3154-1	PH02	Soluble	Solid	DI Leach	_
890-3154-2	PH02A	Soluble	Solid	DI Leach	
MB 880-36392/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-36392/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-36392/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
890-3151-A-21-E MS	Matrix Spike	Soluble	Solid	DI Leach	
890-3151-A-21-F MSD	Matrix Spike Duplicate	Soluble	Solid	DI Leach	

Analysis Batch: 36601

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3154-1	PH02	Soluble	Solid	300.0	36392
890-3154-2	PH02A	Soluble	Solid	300.0	36392
MB 880-36392/1-A	Method Blank	Soluble	Solid	300.0	36392
LCS 880-36392/2-A	Lab Control Sample	Soluble	Solid	300.0	36392
LCSD 880-36392/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	36392
890-3151-A-21-E MS	Matrix Spike	Soluble	Solid	300.0	36392
890-3151-A-21-F MSD	Matrix Spike Duplicate	Soluble	Solid	300.0	36392

Job ID: 890-3154-1 SDG: 03E1558070

Project/Site: PLU 21 BD 126H/905H

Client Sample ID: PH02

Lab Sample ID: 890-3154-1

Matrix: Solid

Date Collected: 10/05/22 09:10 Date Received: 10/05/22 15:33

Client: Ensolum

	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	36591	10/10/22 13:52	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	36716	10/13/22 04:32	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			36863	10/13/22 11:29	AJ	EET MID
Total/NA	Analysis	8015 NM		1			36585	10/10/22 12:14	SM	EET MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	36387	10/07/22 13:17	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	36315	10/08/22 00:50	SM	EET MID
Soluble	Leach	DI Leach			5.03 g	50 mL	36392	10/07/22 15:09	CH	EET MID
Soluble	Analysis	300.0		5			36601	10/10/22 23:37	CH	EET MID

Client Sample ID: PH02A Lab Sample ID: 890-3154-2

Date Collected: 10/05/22 09:15

Date Received: 10/05/22 15:33

Matrix: Solid

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.02 g	5 mL	36591	10/10/22 13:52	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	36716	10/13/22 04:52	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			36863	10/13/22 11:29	AJ	EET MID
Total/NA	Analysis	8015 NM		1			36585	10/10/22 12:14	SM	EET MID
Total/NA	Prep	8015NM Prep			10.00 g	10 mL	36387	10/07/22 13:17	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	36315	10/08/22 01:12	SM	EET MID
Soluble	Leach	DI Leach			5.01 g	50 mL	36392	10/07/22 15:09	СН	EET MID
Soluble	Analysis	300.0		5			36601	10/10/22 23:43	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: 890-3154-1

 Project/Site: PLU 21 BD 126H/905H
 SDG: 03E1558070

Laboratory: Eurofins Midland

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

Authority		ogram	Identification Number	Expiration Date
Texas	NI	ELAP	T104704400-22-24	06-30-23
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the agency does not of	. ,	ut the laboratory is not certili	ed by the governing authority. This list ma	ay include analytes for
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the agency does not of	fer certification.	•	, , ,	ay include analytes for

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Method Summary

Client: Ensolum

Project/Site: PLU 21 BD 126H/905H

Job ID: 890-3154-1 SDG: 03E1558070

Method	Method Description	Protocol	Laboratory
3021B	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

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Sample Summary

Client: Ensolum

Project/Site: PLU 21 BD 126H/905H

Job ID: 890-3154-1

SDG: 03E1558070

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-3154-1	PH02	Solid	10/05/22 09:10	10/05/22 15:33	1'
890-3154-2	PH02A	Solid	10/05/22 09:15	10/05/22 15:33	2'

Chain of Custody

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]		www	www.xenco.com	m Page	ge /	of
Project Manager: Kal	Kalie Jennings			В	Bill to: (if different)	ent)	Garret Green	reen					5	Vork Orde	Work Order Comments	ents	
	Ensolum			0	Company Name:	me:	XTO Energy	ergy			P.	Program: UST/PST ☐ PRP ☐ Brownfields ☐	T/PST	PRP Bro	ownfields [☐ RRC ☐	Superfund [
	3122 National Parks Hwy	rks Hwy		Þ	Address:		3104 E. Green St	Green St.			St	State of Project:	ect:				
le ZIP:	Carlsbad, NM 88220	220		C	City, State ZIP:	٩.	Carlsbad	Carlsbad, NM 88220	ŏ		R	eporting: Le	vel II 🗆 Le	evel III 🔲	ST/UST [Reporting: Level II Level III PST/UST TRRP	Level IV
	303-887-2946			Email:	Email: Garret.Green@ExxonMobil.com	n@Exxc	nMobil.c	mom				Deliverables:	EBO	AD	ADaPT 🗆	Other:	
Project Name:	PLU 21 BD 126H/905H	126H/905I	I	Turn A	Turn Around					ANALYSIS R	SIS REQUEST	ST			P	Preservative Codes	ve Codes
Project Number:	03E1558070	58070		✓ Routine	Rush	Code									None: NO		DI Water: H ₂ O
Project Location:	32.10939, -103.88361	103.8836		Due Date:											Coot: Cool		MeOH: Me
Sampler's Name:	Kase Parker	arker		T starts the	day received t	ьу									HCL: HC		HNO3: HN
PO#:			=	e lab, if recei	the lab, if received by 4:30pm	4	Ī			_	-	-		ŀ	H ₂ S0 ₄ : H ₂		NaOH: Na
SAMPLE RECEIPT	Temp Blank:	nk: Res	8 N	Wet ice:	(Yes) No	nete	.0)								H ₃ PO ₄ : HP	#	
Samples Received Intact:			Thermometer ID:		TAMPA	Y arar	300								NaHSC	NaHSO4: NABIS	
Cooler Custody Seals:	Yes No	1	Correction Factor:		-0.0	Pa	PA:								Na ₂ S ₂ C	Na ₂ S ₂ O ₃ : NaSO ₃	
Sample Custody Seals:	Yes No	Tem	Temperature Reading:	eading:	2.4	L				890-3154 Ch	54 Chain of	ain of Custody			Zn Ace	Zn Acetate+NaOH: Zn	4: 41
Total Containers.	-	Colli	Collected Lettiberature.	perature.	41.	+-							-	-			
Sample Identification		Matrix Sar	Date Sampled S	Time Sampled	Depth Grab/	np Cont	CHLO	TPH (8							S	Sample Comments	omments
PH02		S 10/5	10/5/2022	9:10	ا 1-		×	×							Incident ID:	nt ID:	
PH02A		_	10/5/2022	9:15	2′ G	1	×	×							-	NAPP2214342255	4342255
f											_				Cost Center:	Center:	
	1	H														1666431001	31001
			1												AFE:		
					/		071										
										\parallel	#						
						+	1			1	+			1	1		
Total 200.7 / 6010	200.8 / 6020:	Ö	8RCRA	RA 13PPM	M Texas 11	≥	Sb As B	Ba Be B	Cd Ca C	Cr Co Cu	Fe Pb Mg	Mn Mo	N. 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	analyzed		TCLP / SP	TCLP / SPLP 6010: 8RCRA			Ba Be C	d Cr Co	Sb As Ba Be Cd Cr Co Cu Pb Mn Mo	n Mo Ni	Ni Se Ag TI U		Hg: 163	1/245.1/	Hg: 1631 / 245.1 / 7470 / 7471	471
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 \$8 for each sample submitted to Eurofins Xenco, but not analyzed. These terms will be enforced unless previously negotiat	ument and relinquis	hment of sam the cost of sa will be applie	ples constitu amples and s	ites a valid pu hall not assun	rchase order for eany respons	rom client : sibility for a ach sample	company to uny losses o	Eurofins Xe or expenses to Eurofins	nco, its affilia incurred by ti Xenco, but n	ites and subco he client if suc ot analyzed. Ti	der from client company to Eurofins Xenco, its affiliates and subcontractors. It assigns standard terms and conditions ponsibility for any losses or expenses incurred by the client if such losses are due to circumstances beyond the control for each sample submitted to Eurofins Xenco, but not analyzed. These terms will be enforced unless previously negotiated.	ssigns standa ue to circumst be enforced u	rd terms and tances beyon unless previo	d conditions id the control usly negotiat	ed.		
Rejinquijshed by: (S	(Signature)	Z	eceived b	Received by: (Signature)	ıre)		Date/Time	me	Reling	Relinquished by:	(Signature)		Received	Received by: (Signature)	ature)	D	Date/Time
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•					0				4								
									6								

Login Sample Receipt Checklist

Client: Ensolum

Job Number: 890-3154-1

SDG Number: 03E1558070

Login Number: 3154 List Source: Eurofins Carlsbad

List Number: 1

Creator: Stutzman, Amanda

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

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4.0

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Login Sample Receipt Checklist

Client: Ensolum

Job Number: 890-3154-1

SDG Number: 03E1558070

List Source: Eurofins Midland List Creation: 10/07/22 11:00 AM

Creator: Rodriguez, Leticia

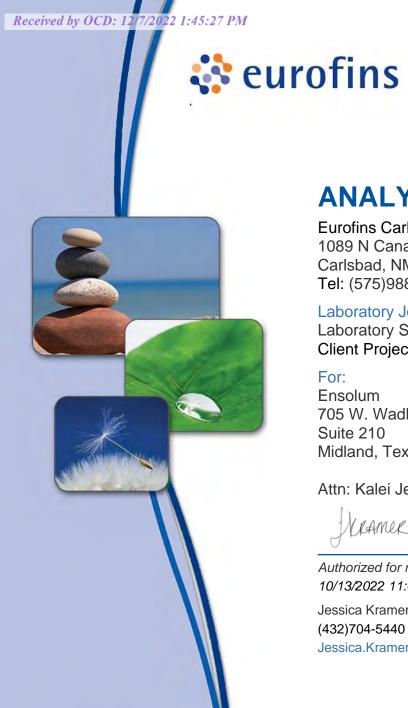
Login Number: 3154

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	

<6mm (1/4").





.....LINKS

Review your project results through

EOL

Have a Question?

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ANALYTICAL REPORT

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

Laboratory Job ID: 890-3155-1

Laboratory Sample Delivery Group: 03E1558070 Client Project/Site: PLU 21 BD 126H/905H

For:

Ensolum 705 W. Wadley Suite 210 Midland, Texas 79701

Attn: Kalei Jennings

RAMER

Authorized for release by: 10/13/2022 11:08:23 AM

Jessica Kramer, Project Manager (432)704-5440

Jessica.Kramer@et.eurofinsus.com

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten

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

 Client: Ensolum
 Laboratory Job ID: 890-3155-1

 Project/Site: PLU 21 BD 126H/905H
 SDG: 03E1558070

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Definitions/Glossary

Job ID: 890-3155-1 Client: Ensolum Project/Site: PLU 21 BD 126H/905H

SDG: 03E1558070

Qualifiers

GC VOA Qualifier

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

F2 MS/MSD RPD exceeds control limits

Indicates the analyte was analyzed for but not detected.

GC Semi VOA

Qualifier **Qualifier Description**

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

HPLC/IC

Qualifier **Qualifier Description**

Indicates the analyte was analyzed for but not detected.

Glossary

Abbreviation These commonly used abbreviations may or may not be present in this report. Listed under the "D" column to designate that the result is reported on a dry weight basis

%R Percent Recovery CFL Contains Free Liquid CFU Colony Forming Unit

CNF Contains No Free Liquid

DFR Duplicate Error Ratio (normalized absolute difference)

Dil Fac **Dilution Factor**

DL Detection Limit (DoD/DOE)

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

Decision Level Concentration (Radiochemistry) DLC

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

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 21 BD 126H/905H

Job ID: 890-3155-1

SDG: 03E1558070

Job ID: 890-3155-1

Laboratory: Eurofins Carlsbad

Narrative

Job Narrative 890-3155-1

Receipt

The samples were received on 10/5/2022 3:25 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 21.2°C

Receipt Exceptions

The following samples were received and analyzed from an unpreserved bulk soil jar: PH03 (890-3155-1) and PH03A (890-3155-2).

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 method blank for preparation batch 880-36395 and analytical batch 880-36488 contained Diesel Range Organics (Over C10-C28) above the method detection limit. This target analyte concentration was less than the reporting limit (RL); therefore, re-extraction and/or re-analysis of samples was not performed.

Method 8015MOD NM: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 880-36395 and analytical batch 880-36488 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.

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

HPLC/IC

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

 Client: Ensolum
 Job ID: 890-3155-1

 Project/Site: PLU 21 BD 126H/905H
 SDG: 03E1558070

Client Sample ID: PH03 Lab Sample ID: 890-3155-1

Date Collected: 10/05/22 09:20 Matrix: Solid
Date Received: 10/05/22 15:25

Sample Depth: 1'

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199	mg/Kg		10/11/22 16:29	10/12/22 19:28	1
Toluene	<0.00199	U	0.00199	mg/Kg		10/11/22 16:29	10/12/22 19:28	1
Ethylbenzene	<0.00199	U	0.00199	mg/Kg		10/11/22 16:29	10/12/22 19:28	1
m-Xylene & p-Xylene	<0.00398	U	0.00398	mg/Kg		10/11/22 16:29	10/12/22 19:28	1
o-Xylene	<0.00199	U	0.00199	mg/Kg		10/11/22 16:29	10/12/22 19:28	1
Xylenes, Total	<0.00398	U	0.00398	mg/Kg		10/11/22 16:29	10/12/22 19:28	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	108		70 - 130			10/11/22 16:29	10/12/22 19:28	1
1,4-Difluorobenzene (Surr)	99		70 - 130			10/11/22 16:29	10/12/22 19:28	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			10/13/22 11:47	
	•	, , ,	•	Unit	п	Propared	Analyzod	Dil Fa
Method: SW846 8015 NM - Diese Analyte	•	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
	•	Qualifier	•	Unit mg/Kg	<u>D</u>	Prepared	Analyzed 10/11/22 09:32	
Analyte		Qualifier U	RL 50.0		<u>D</u>	Prepared		
Analyte Total TPH	Result <50.0 sel Range Orga Result	Qualifier U nics (DRO) Qualifier	RL 50.0		<u>D</u>	Prepared Prepared		1
Analyte Total TPH Method: SW846 8015B NM - Dies Analyte	Result <50.0	Qualifier U nics (DRO) Qualifier	RL 50.0	mg/Kg	-		10/11/22 09:32	Dil Fac
Analyte Total TPH Method: SW846 8015B NM - Dies Analyte Gasoline Range Organics	Result <50.0 sel Range Orga Result	Qualifier U nics (DRO) Qualifier U	RL 50.0 (GC)	mg/Kg	-	Prepared	10/11/22 09:32 Analyzed	Dil Fa
Analyte Total TPH Method: SW846 8015B NM - Dies Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over	Result <50.0 sel Range Orga Result <50.0	Qualifier U nics (DRO) Qualifier U U F1	RL 50.0 (GC) RL 50.0	mg/Kg Unit mg/Kg	-	Prepared 10/07/22 15:16	10/11/22 09:32 Analyzed 10/10/22 12:02	Dil Fac
Analyte Total TPH Method: SW846 8015B NM - Dies Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28)	Result <50.0 sel Range Orga Result <50.0 <50.0	Qualifier U nics (DRO) Qualifier U U F1	RL 50.0 (GC) RL 50.0 50.0	mg/Kg Unit mg/Kg mg/Kg	-	Prepared 10/07/22 15:16 10/07/22 15:16	10/11/22 09:32 Analyzed 10/10/22 12:02 10/10/22 12:02	Dil Fac
Analyte Total TPH 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	Qualifier U nics (DRO) Qualifier U U F1	RL 50.0 (GC) RL 50.0 50.0 50.0	mg/Kg Unit mg/Kg mg/Kg	-	Prepared 10/07/22 15:16 10/07/22 15:16 10/07/22 15:16	Analyzed 10/10/22 12:02 10/10/22 12:02	Dil Fac
Analyte Total TPH Method: SW846 8015B NM - Dies Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) Oll Range Organics (Over C28-C36) Surrogate	Result	Qualifier U nics (DRO) Qualifier U U F1	RL 50.0 (GC) RL 50.0 50.0 50.0 Limits	mg/Kg Unit mg/Kg mg/Kg	-	Prepared 10/07/22 15:16 10/07/22 15:16 10/07/22 15:16 Prepared	Analyzed 10/10/22 12:02 10/10/22 12:02 10/10/22 12:02 Analyzed	Dil Fac
Analyte Total TPH Method: SW846 8015B NM - Dies Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) OII Range Organics (Over C28-C36) Surrogate 1-Chlorooctane	Result	Qualifier U nics (DRO) Qualifier U U F1 U Qualifier	RL 50.0 (GC) RL 50.0 50.0 50.0 Limits 70 - 130 70 - 130	mg/Kg Unit mg/Kg mg/Kg	-	Prepared 10/07/22 15:16 10/07/22 15:16 10/07/22 15:16 Prepared 10/07/22 15:16	Analyzed 10/10/22 12:02 10/10/22 12:02 10/10/22 12:02 Analyzed 10/10/22 12:02	Dil Fac
Analyte Total TPH Method: SW846 8015B NM - Dies 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 nics (DRO) Qualifier U U F1 U Qualifier	RL 50.0 (GC) RL 50.0 50.0 50.0 Limits 70 - 130 70 - 130	mg/Kg Unit mg/Kg mg/Kg	-	Prepared 10/07/22 15:16 10/07/22 15:16 10/07/22 15:16 Prepared 10/07/22 15:16	Analyzed 10/10/22 12:02 10/10/22 12:02 10/10/22 12:02 Analyzed 10/10/22 12:02	Dil Fac

Client Sample ID: PH03A Lab Sample ID: 890-3155-2

Date Collected: 10/05/22 09:25 Date Received: 10/05/22 15:25

Sample Depth: 2'

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199	mg/Kg		10/11/22 16:29	10/12/22 19:49	1
Toluene	<0.00199	U	0.00199	mg/Kg		10/11/22 16:29	10/12/22 19:49	1
Ethylbenzene	<0.00199	U	0.00199	mg/Kg		10/11/22 16:29	10/12/22 19:49	1
m-Xylene & p-Xylene	<0.00398	U	0.00398	mg/Kg		10/11/22 16:29	10/12/22 19:49	1
o-Xylene	<0.00199	U	0.00199	mg/Kg		10/11/22 16:29	10/12/22 19:49	1
Xylenes, Total	<0.00398	U	0.00398	mg/Kg		10/11/22 16:29	10/12/22 19:49	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	105		70 - 130			10/11/22 16:29	10/12/22 19:49	1

Eurofins Carlsbad

Matrix: Solid

2

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Matrix: Solid

Client Sample Results

 Client: Ensolum
 Job ID: 890-3155-1

 Project/Site: PLU 21 BD 126H/905H
 SDG: 03E1558070

Client Sample ID: PH03A Lab Sample ID: 890-3155-2

Date Collected: 10/05/22 09:25
Date Received: 10/05/22 15:25

7200

Sample Depth: 2'

Chloride

Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1,4-Difluorobenzene (Surr)	99		70 - 130			10/11/22 16:29	10/12/22 19:49	1
Method: TAL SOP Total BTEX - T	otal BTEX Cald	culation						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398	mg/Kg			10/13/22 11:47	1
Method: SW846 8015 NM - Diese	l Range Organ	ics (DRO) (GC)					
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0	mg/Kg			10/11/22 09:32	1
Analyte	Result	Qualifier	RL	Unit	<u>D</u>	Prepared	Analyzed	Dil Fac
Method: SW846 8015B NM - Dies	el Range Orga	nics (DRO)	(GC)					
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0	mg/Kg		10/07/22 15:16	10/10/22 13:04	1
Diesel Range Organics (Over	<50.0	U	50.0	mg/Kg		10/07/22 15:16	10/10/22 13:04	1
C10-C28)				99				
Oll Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		10/07/22 15:16	10/10/22 13:04	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	100		70 - 130			10/07/22 15:16	10/10/22 13:04	1
o-Terphenyl	106		70 - 130			10/07/22 15:16	10/10/22 13:04	1
Method: MCAWW 300.0 - Anions	, Ion Chromato	graphy - So	oluble					

50.0

mg/Kg

Eurofins Carlsbad

10/10/22 23:54

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1 /

Surrogate Summary

 Client: Ensolum
 Job ID: 890-3155-1

 Project/Site: PLU 21 BD 126H/905H
 SDG: 03E1558070

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)	
880-20232-A-1-A MS	Matrix Spike	99	107	
880-20232-A-1-B MSD	Matrix Spike Duplicate	77	109	
890-3155-1	PH03	108	99	
890-3155-2	PH03A	105	99	
LCS 880-36699/1-A	Lab Control Sample	100	97	
LCSD 880-36699/2-A	Lab Control Sample Dup	103	104	
MB 880-36699/5-A	Method Blank	90	112	
Surrogate Legend				

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)
890-3155-1	PH03	98	105
890-3155-1 MS	PH03	82	78
890-3155-1 MSD	PH03	82	78
890-3155-2	PH03A	100	106
LCS 880-36395/2-A	Lab Control Sample	107	117
LCSD 880-36395/3-A	Lab Control Sample Dup	106	113
MB 880-36395/1-A	Method Blank	112	121

Surrogate Legend

1CO = 1-Chlorooctane

OTPH = o-Terphenyl

Eurofins Carlsbad

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QC Sample Results

Client: Ensolum Job ID: 890-3155-1 Project/Site: PLU 21 BD 126H/905H SDG: 03E1558070

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-36699/5-A

Matrix: Solid

Analyte Benzene Toluene Ethylbenzene m-Xylene & p-Xylene

o-Xylene

Xylenes, Total

Analysis Batch: 36717

Client Sample ID: Method Blank

10/12/22 11:29

10/12/22 11:29

Prep Type: Total/NA

Prep Batch: 36699

MB	MB						
Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
<0.00200	U	0.00200	mg/Kg		10/11/22 16:29	10/12/22 11:29	1
<0.00200	U	0.00200	mg/Kg		10/11/22 16:29	10/12/22 11:29	1
<0.00200	U	0.00200	mg/Kg		10/11/22 16:29	10/12/22 11:29	1
<0.00400	U	0.00400	mg/Kg		10/11/22 16:29	10/12/22 11:29	1

mg/Kg

mg/Kg

MB MB

<0.00200 U

<0.00400 U

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	90		70 - 130	10/11/22 16:29	10/12/22 11:29	1
1,4-Difluorobenzene (Surr)	112		70 - 130	10/11/22 16:29	10/12/22 11:29	1

0.00200

0.00400

Lab Sample ID: LCS 880-36699/1-A

Matrix: Solid

Analysis Batch: 36717

Client Sample ID: Lab Control Sample

10/11/22 16:29

10/11/22 16:29

Prep Type: Total/NA

Prep Batch: 36699

	Бріке	LCS	LCS				%Rec	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Benzene	0.100	0.08151		mg/Kg		82	70 - 130	
Toluene	0.100	0.08917		mg/Kg		89	70 - 130	
Ethylbenzene	0.100	0.07884		mg/Kg		79	70 - 130	
m-Xylene & p-Xylene	0.200	0.1575		mg/Kg		79	70 - 130	
o-Xylene	0.100	0.07833		mg/Kg		78	70 - 130	

LCS LCS

Surrogate	%Recovery	Qualifier	Limits
4-Bromofluorobenzene (Surr)	100		70 - 130
1,4-Difluorobenzene (Surr)	97		70 - 130

Lab Sample ID: LCSD 880-36699/2-A

Matrix: Solid

Analysis Batch: 36717

Client Sample ID: Lab Control Sample Dup	Client Sam	ple ID: Lab	Control San	nple Dup
--	------------	-------------	--------------------	----------

Prep Type: Total/NA

Prep Batch: 36699

RPD LCSD LCSD Spike %Rec Analyte Added Result Qualifier Unit %Rec Limits RPD Limit 0.09035 90 Benzene 0.100 mg/Kg 70 - 130 10 35 Toluene 0.100 0.09725 mg/Kg 97 70 - 130 9 35 Ethylbenzene 0.100 0.08683 mg/Kg 87 70 - 130 10 35 0.200 0.1722 m-Xylene & p-Xylene mg/Kg 86 70 - 130 35 0.100 0.08568 o-Xylene mg/Kg 70 - 130 35

LCSD LCSD

Surrogate	%Recovery	Qualifier	Limits
4-Bromofluorobenzene (Surr)	103		70 - 130
1.4-Difluorobenzene (Surr)	104		70 - 130

Lab Sample ID: 880-20232-A-1-A MS

Matrix: Solid

Analysis Batch: 36717

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 36699

_	Sample	Sample	Spike	MS	MS				%Rec	
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Benzene	<0.00201	U	0.100	0.09214		mg/Kg	_	92	70 - 130	
Toluene	<0.00201	U F1	0.100	0.09307		mg/Kg		93	70 - 130	

Client: Ensolum

Project/Site: PLU 21 BD 126H/905H

Job ID: 890-3155-1

SDG: 03E1558070

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

Lab Sample ID: 880-20232-A-1-A MS

Lab Sample ID: 880-20232-A-1-B MSD

Matrix: Solid

Analysis Batch: 36717

Client Sample ID: Matrix Spike

Prep Type: Total/NA Prep Batch: 36699

Sample Sample Spike MS MS %Rec Analyte Result Qualifier Added Result Qualifier Unit %Rec Limits D Ethylbenzene <0.00201 U F1 F2 0.100 0.07772 77 70 - 130 mg/Kg m-Xylene & p-Xylene <0.00402 U F1 F2 0.201 0.1563 mg/Kg 78 70 - 130 <0.00201 U F1 F2 0.100 0.07596 75 70 - 130 o-Xylene mg/Kg

MS MS

Surrogate %Recovery Qualifier Limits 70 - 130 4-Bromofluorobenzene (Surr) 99 1,4-Difluorobenzene (Surr) 107 70 - 130

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 36699

Matrix: Solid Analysis Batch: 36717

Sample Sample Spike MSD MSD RPD Result Qualifier %Rec RPD Limit Analyte babbA Result Qualifier Limits Unit Benzene <0.00201 U 0.0998 0.07929 mg/Kg 79 70 - 130 15 35 Toluene <0.00201 UF1 0.0998 0.06564 F1 mg/Kg 66 70 - 130 35 35 Ethylbenzene <0.00201 UF1F2 0.0998 0.05281 F1 F2 53 70 - 130 38 35 mg/Kg 0.200 47 m-Xylene & p-Xylene <0.00402 U F1 F2 0.09464 F1 F2 mg/Kg 70 - 130 49 35 <0.00201 U F1 F2 0.0998 0.04674 F1 F2 46 70 - 130 48 o-Xylene mg/Kg

MSD MSD

Surrogate	%Recovery	Qualifier	Limits
4-Bromofluorobenzene (Surr)	77		70 - 130
1,4-Difluorobenzene (Surr)	109		70 - 130

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

Lab Sample ID: MB 880-36395/1-A

Matrix: Solid

Analysis Batch: 36488

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 36395

	MB	MR						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics	<50.0	U	50.0	mg/Kg		10/07/22 15:16	10/10/22 10:59	1
(GRO)-C6-C10								
Diesel Range Organics (Over	<50.0	U	50.0	mg/Kg		10/07/22 15:16	10/10/22 10:59	1
C10-C28)								
OII Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		10/07/22 15:16	10/10/22 10:59	1

MB MB

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	112		70 - 130	10/07/22 15:16	10/10/22 10:59	1
o-Terphenyl	121		70 - 130	10/07/22 15:16	10/10/22 10:59	1

Lab Sample ID: LCS 880-36395/2-A

Matrix: Solid

Analysis Batch: 36488

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

Prep Batch: 36395

	Spike	LCS	LCS				%Rec	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Gasoline Range Organics	1000	996.9		mg/Kg		100	70 - 130	
(GRO)-C6-C10								
Diesel Range Organics (Over	1000	946.9		mg/Kg		95	70 - 130	
C10 C28)								

Job ID: 890-3155-1 Client: Ensolum Project/Site: PLU 21 BD 126H/905H SDG: 03E1558070

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

LCS LCS

Lab Sample ID: LCS 880-36395/2-A Client Sample ID: Lab Control Sample

Matrix: Solid

Analysis Batch: 36488

Prep Type: Total/NA

Prep Batch: 36395

Surrogate %Recovery Qualifier Limits 1-Chlorooctane 107 70 - 130 o-Terphenyl 117 70 - 130

Lab Sample ID: LCSD 880-36395/3-A Client Sample ID: Lab Control Sample Dup

Matrix: Solid

Analysis Batch: 36488

Prep Type: Total/NA

Prep Batch: 36395

Spike LCSD LCSD %Rec RPD Analyte Added Result Qualifier Unit D %Rec Limits **RPD** Limit 1000 1023 102 70 - 1303 20 Gasoline Range Organics mg/Kg (GRO)-C6-C10 Diesel Range Organics (Over 1000 992.6 99 mg/Kg 70 - 1305 20 C10-C28)

LCSD LCSD Surrogate %Recovery Qualifier Limits 106 70 - 130 1-Chlorooctane 113 70 - 130 o-Terphenyl

Lab Sample ID: 890-3155-1 MS **Client Sample ID: PH03**

Matrix: Solid Prep Type: Total/NA

Analysis Batch: 36488 Prep Batch: 36395 Sample Sample MS MS

Spike Added Analyte Result Qualifier Result Qualifier Unit %Rec Limits D Gasoline Range Organics <50.0 U 998 983.4 mg/Kg 96 70 - 130 (GRO)-C6-C10 <50.0 U F1 Diesel Range Organics (Over 998 671.0 F1 mg/Kg 66 70 - 130

C10-C28)

MS MS %Recovery Qualifier Surrogate Limits 70 - 130 1-Chlorooctane 82 o-Terphenyl 78 70 - 130

Lab Sample ID: 890-3155-1 MSD **Client Sample ID: PH03**

Matrix: Solid Prep Type: Total/NA Analysis Batch: 36488 Prep Batch: 36395

Sample Sample MSD MSD RPD Spike %Rec Analyte Result Qualifier Added Result Qualifier Unit %Rec Limits RPD Limit <50.0 U 999 1010 99 Gasoline Range Organics 70 - 130 20 mg/Kg (GRO)-C6-C10

687.0 F1

mg/Kg

67

70 - 130

999

Diesel Range Organics (Over

C10-C28)

MSD MSD %Recovery Qualifier Surrogate Limits 1-Chlorooctane 82 70 - 130 78 70 - 130 o-Terphenyl

<50.0 U F1

Eurofins Carlsbad

2

20

10/13/2022

Job ID: 890-3155-1

Prep Type: Soluble

Client Sample ID: Matrix Spike

Client Sample ID: Matrix Spike

Client Sample ID: Method Blank

Client Sample ID: Lab Control Sample

Client Sample ID: Lab Control Sample Dup

Client Sample ID: Matrix Spike Duplicate

Client Sample ID: Matrix Spike Duplicate

Client: Ensolum Project/Site: PLU 21 BD 126H/905H SDG: 03E1558070

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-36392/1-A

Matrix: Solid

Analysis Batch: 36601

мв мв

Analyte Result Qualifier RLUnit D Prepared Analyzed Dil Fac Chloride <5.00 U 5.00 mg/Kg 10/10/22 21:11

Lab Sample ID: LCS 880-36392/2-A

Matrix: Solid

Analysis Batch: 36601

Spike LCS LCS %Rec Added Analyte Result Qualifier Unit D %Rec Limits Chloride 250 243.6 mg/Kg 97 90 - 110

Lab Sample ID: LCSD 880-36392/3-A

Matrix: Solid

Analysis Batch: 36601

Spike LCSD LCSD RPD %Rec Analyte Added Result Qualifier Unit %Rec Limits RPD Limit Chloride 250 258.4 mg/Kg 103 90 - 110

Lab Sample ID: 890-3151-A-21-E MS

Matrix: Solid

Analysis Batch: 36601

MS MS Spike %Rec Sample Sample Added Analyte Result Qualifier Result Qualifier Unit %Rec Limits Chloride 919 1250 2234 106 90 - 110 mg/Kg

Lab Sample ID: 890-3151-A-21-F MSD

Matrix: Solid

Analysis Batch: 36601

Sample Sample Spike MSD MSD %Rec RPD Analyte Result Qualifier Added Result Qualifier Unit %Rec Limits RPD Limit Chloride 919 1250 2105 mg/Kg 95 90 - 110

Lab Sample ID: 890-3151-A-31-C MS

Matrix: Solid

Analysis Batch: 36601

Sample Sample Spike MS MS %Rec Result Qualifier Added Analyte Result Qualifier Unit D %Rec Limits Chloride 185 250 458.5 mg/Kg 110 90 - 110

Lab Sample ID: 890-3151-A-31-D MSD

Released to Imaging: 3/13/2023 10:02:15 AM

Matrix: Solid

Analysis Batch: 36601

MSD MSD %Rec RPD Sample Sample Spike Analyte Result Qualifier Added Result Qualifier Limits RPD Limit Unit D %Rec Chloride 185 250 432.4 mg/Kg 99 90 - 110 20

QC Association Summary

Client: Ensolum Project/Site: PLU 21 BD 126H/905H

Job ID: 890-3155-1

SDG: 03E1558070

GC VOA

Prep Batch: 36699

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3155-1	PH03	Total/NA	Solid	5035	
890-3155-2	PH03A	Total/NA	Solid	5035	
MB 880-36699/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-36699/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-36699/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
880-20232-A-1-A MS	Matrix Spike	Total/NA	Solid	5035	
880-20232-A-1-B MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	

Analysis Batch: 36717

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3155-1	PH03	Total/NA	Solid	8021B	36699
890-3155-2	PH03A	Total/NA	Solid	8021B	36699
MB 880-36699/5-A	Method Blank	Total/NA	Solid	8021B	36699
LCS 880-36699/1-A	Lab Control Sample	Total/NA	Solid	8021B	36699
LCSD 880-36699/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	36699
880-20232-A-1-A MS	Matrix Spike	Total/NA	Solid	8021B	36699
880-20232-A-1-B MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	36699

Analysis Batch: 36876

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3155-1	PH03	Total/NA	Solid	Total BTEX	
890-3155-2	PH03A	Total/NA	Solid	Total BTEX	

GC Semi VOA

Prep Batch: 36395

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3155-1	PH03	Total/NA	Solid	8015NM Prep	
890-3155-2	PH03A	Total/NA	Solid	8015NM Prep	
MB 880-36395/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-36395/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-36395/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
890-3155-1 MS	PH03	Total/NA	Solid	8015NM Prep	
890-3155-1 MSD	PH03	Total/NA	Solid	8015NM Prep	

Analysis Batch: 36488

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3155-1	PH03	Total/NA	Solid	8015B NM	36395
890-3155-2	PH03A	Total/NA	Solid	8015B NM	36395
MB 880-36395/1-A	Method Blank	Total/NA	Solid	8015B NM	36395
LCS 880-36395/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	36395
LCSD 880-36395/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	36395
890-3155-1 MS	PH03	Total/NA	Solid	8015B NM	36395
890-3155-1 MSD	PH03	Total/NA	Solid	8015B NM	36395

Analysis Batch: 36648

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3155-1	PH03	Total/NA	Solid	8015 NM	
890-3155-2	PH03A	Total/NA	Solid	8015 NM	

QC Association Summary

Client: Ensolum

Project/Site: PLU 21 BD 126H/905H

Job ID: 890-3155-1

SDG: 03E1558070

HPLC/IC

Leach Batch: 36392

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3155-1	PH03	Soluble	Solid	DI Leach	
890-3155-2	PH03A	Soluble	Solid	DI Leach	
MB 880-36392/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-36392/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-36392/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
890-3151-A-21-E MS	Matrix Spike	Soluble	Solid	DI Leach	
890-3151-A-21-F MSD	Matrix Spike Duplicate	Soluble	Solid	DI Leach	
890-3151-A-31-C MS	Matrix Spike	Soluble	Solid	DI Leach	
890-3151-A-31-D MSD	Matrix Spike Duplicate	Soluble	Solid	DI Leach	

Analysis Batch: 36601

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3155-1	PH03	Soluble	Solid	300.0	36392
890-3155-2	PH03A	Soluble	Solid	300.0	36392
MB 880-36392/1-A	Method Blank	Soluble	Solid	300.0	36392
LCS 880-36392/2-A	Lab Control Sample	Soluble	Solid	300.0	36392
LCSD 880-36392/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	36392
890-3151-A-21-E MS	Matrix Spike	Soluble	Solid	300.0	36392
890-3151-A-21-F MSD	Matrix Spike Duplicate	Soluble	Solid	300.0	36392
890-3151-A-31-C MS	Matrix Spike	Soluble	Solid	300.0	36392
890-3151-A-31-D MSD	Matrix Spike Duplicate	Soluble	Solid	300.0	36392

Client: Ensolum

Project/Site: PLU 21 BD 126H/905H

Job ID: 890-3155-1 SDG: 03E1558070

Lab Sample ID: 890-3155-1

Matrix: Solid

Client Sample ID: PH03 Date Collected: 10/05/22 09:20

Date Received: 10/05/22 15:25

	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	36699	10/11/22 16:29	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	36717	10/12/22 19:28	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			36876	10/13/22 11:47	AJ	EET MID
Total/NA	Analysis	8015 NM		1			36648	10/11/22 09:32	SM	EET MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	36395	10/07/22 15:16	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	36488	10/10/22 12:02	SM	EET MID
Soluble	Leach	DI Leach			5 g	50 mL	36392	10/07/22 15:09	СН	EET MID
Soluble	Analysis	300.0		5			36601	10/10/22 23:48	CH	EET MID

Client Sample ID: PH03A Lab Sample ID: 890-3155-2 Matrix: Solid

Date Collected: 10/05/22 09:25

Date Received: 10/05/22 15:25

	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	36699	10/11/22 16:29	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	36717	10/12/22 19:49	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			36876	10/13/22 11:47	AJ	EET MID
Total/NA	Analysis	8015 NM		1			36648	10/11/22 09:32	SM	EET MID
Total/NA	Prep	8015NM Prep			10.00 g	10 mL	36395	10/07/22 15:16	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	36488	10/10/22 13:04	SM	EET MID
Soluble	Leach	DI Leach			5 g	50 mL	36392	10/07/22 15:09	СН	EET MID
Soluble	Analysis	300.0		10			36601	10/10/22 23:54	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: 890-3155-1

 Project/Site: PLU 21 BD 126H/905H
 SDG: 03E1558070

Laboratory: Eurofins Midland

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

Authority Texas		ogram	Identification Number	Expiration Date 06-30-23
		ELAP	T104704400-22-24	
The following analytes the agency does not of	' '	it the laboratory is not certifi	ed by the governing authority. This list ma	ay include analytes fo
Analysis Method	Prep Method	Matrix	Analyte	
Analysis Method 8015 NM		Matrix Solid	Analyte Total TPH	

Eurofins Carlsbad

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Method Summary

Client: Ensolum Project/Site: PLU 21 BD 126H/905H Job ID: 890-3155-1

SDG: 03E1558070

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

Protocol References:

ASTM = ASTM International

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

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

TAL SOP = TestAmerica Laboratories, Standard Operating Procedure

Laboratory References:

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

Sample Summary

Client: Ensolum

Project/Site: PLU 21 BD 126H/905H

Job ID: 890-3155-1

SDG: 03E1558070

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-3155-1	PH03	Solid	10/05/22 09:20	10/05/22 15:25	1'
890-3155-2	PH03A	Solid	10/05/22 09:25	10/05/22 15:25	2'

eurofins

Environment Testing

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on, TX (281) 240-4200, Dallas, TX (214) 902-0300	-
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as, TX (JOIC
214) 90	y
02-0300	

Midland, TX (432) 704-5440, San Antonio, TX (210) 509-3334 EL Paso, TX (915) 585-3443, Lubbock, TX (806) 79 Hobbs, NM (575) 392-7550, Carlsbad, NM (575) 98

Work Order No:

DI Water: H ₂ O	None: NO			
Preservative Codes	Preserva		QUEST	NALYSIS REQUEST
	□ Other:	ADaPT 🗆	Deliverables: EDD	
☐ Level IV☐	/UST TRRP	III PST	Reporting: Level II	
ļ.			State of Project:	
☐ Superfund ☐	fields RRC	RP ☐ Brown	Program: UST/PST ☐ PRP ☐ Brownfields ☐ RRC ☐ Superfund [
	omments	Work Order Comments	Wo	
of _	Page /	www.xenco.com	X.WWW	
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Date/Time	Received by: (Signature)	Relinquished by: (Signature)	Date/Time	Received by: (Signature)	Relinguished by: (Signature)
	umstances beyond the control ced unless previously negotiated.	Incurred by the client if such losses are due to circu Xenco, but not analyzed. These terms will be enforced	sibility for any losses or expenses each sample submitted to Eurofins	of samples and shall not assume any respo oplied to each project and a charge of \$5 for	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 enforced unless previously negotiated
	andard terms and conditions	enco, its affiliates and subcontractors. It assigns st	from client company to Eurofins Xe	samples constitutes a valid purchase order	Notice: Signature of this document and relinquishment of samples constitutes a valid purchase order from client company to Eurothis Xenco, its affiliates and subcontractors. It assigns standard terms and conditions
470 / 7471	TI U Hg: 1631 / 245.1 / 7470 / 7471	TCLP / SPLP 6010: 8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Tl U	8RCRA Sb As Ba Be C		Circle Method(s) and Metal(s) to be analyzed
Sn U V Zn	Pb Mg Mn Mo Ni K Se Ag SiO2 Na Sr II Sn U V Zn	Cd Ca Cr Co Cu Fe Pb Mg Mn N	8RCRA 13PPM Texas 11 Al Sb As Ba Be B Cd Ca Cr Co Cu Fe	8RCRA 13PPM Texa	Total 200.7 / 6010 200.8 / 6020:

NaOH+Ascorbic Acid: SAPC

Sample Comments

SAMPLE RECEIPT

emp Blank:

(es) No Wet ice:

Yas No

Parameters

10 W 003

N_O

Samples Received Intact:

Cooler Custody Seals: ample Custody Seals:

Yes Yes No

NO THIA

Temperature Reading: Correction Factor: Thermometer ID:

Corrected Temperature:

Ø

CHLORIDES (EPA: 300.0)

890-3155 Chain of Custody

Sample Identification

Matrix

Date Sampled

Time Sampled

Depth

Comp Grab/

Cont # of

TPH (8015)

BTEX (8021

9:20 9:25

PH03A PH03

S S

10/5/2022 10/5/2022

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G ၈

AFE:

Cost Center:

1666431001

Incident ID:

NAPP2214342255

Sampler's Name:

Project Location:

32.10939, -103.88361

Due Date: ☑ Routine

TAT starts the day received by the lab, if received by 4:30pm

HCL: HC H₂S0₄: H₂

Cool: Coo

MeOH: Me HNO₃: HN NaOH: Na

NaHSO₄: NABIS

H3PO4: HP

Na₂S₂O₃: NaSO₃

Zn Acetate+NaOH: Zn

Kase Parker

Project Number:

Project Name:

PLU 21 BD 126H/905H

Turn Around

Rush

Pres.

03E1558070

City, State ZIP:

303-887-2946

Email: Garret. Green@ExxonMobil.com

City, State ZIP:

Company Name: Bill to: (if different)

3104 E. Green St. XTO Energy Garret Green

Carlsbad, NM 88220

ddress: ompany Name:

3122 National Parks Hwy Carlsbad, NM 88220

Project Manager:

Kalie Jennings

Login Sample Receipt Checklist

Client: Ensolum Job Number: 890-3155-1 SDG Number: 03E1558070

Login Number: 3155 List Source: Eurofins Carlsbad

List Number: 1 Creator: Stutzman, Amanda

Sample Preservation Verified.

MS/MSDs

<6mm (1/4").

There is sufficient vol. for all requested analyses, incl. any requested

Containers requiring zero headspace have no headspace or bubble is

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

N/A

True

N/A

Login Sample Receipt Checklist

Client: Ensolum

Job Number: 890-3155-1

SDG Number: 03E1558070

List Source: Eurofins Midland List Creation: 10/07/22 11:00 AM

List Number: 2 Creator: Rodriguez, Leticia

Login Number: 3155

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

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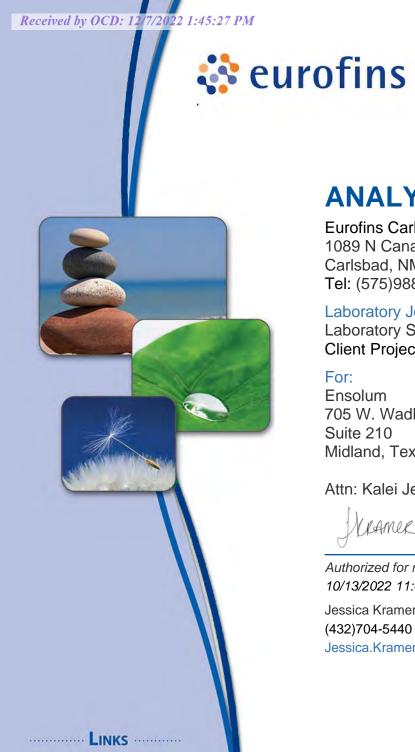
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<6mm (1/4").





Review your project results through

EOL

Have a Question?

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ANALYTICAL REPORT

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

Laboratory Job ID: 890-3156-1

Laboratory Sample Delivery Group: 03E1558070 Client Project/Site: PLU 21 BD 126H/905H

For:

Ensolum 705 W. Wadley Suite 210 Midland, Texas 79701

Attn: Kalei Jennings

RAMER

Authorized for release by: 10/13/2022 11:08:37 AM

Jessica Kramer, Project Manager (432)704-5440

Jessica.Kramer@et.eurofinsus.com

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten

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

 Client: Ensolum
 Laboratory Job ID: 890-3156-1

 Project/Site: PLU 21 BD 126H/905H
 SDG: 03E1558070

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Definitions/Glossary

Job ID: 890-3156-1 Client: Ensolum Project/Site: PLU 21 BD 126H/905H

SDG: 03E1558070

Qualifiers

GC VOA

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

Indicates the analyte was analyzed for but not detected.

GC Semi VOA

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

HPLC/IC

Qualifier **Qualifier Description**

Indicates the analyte was analyzed for but not detected.

Glossary

Abbreviation These commonly used abbreviations may or may not be present in this report. Listed under the "D" column to designate that the result is reported on a dry weight basis

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

DFR Duplicate Error Ratio (normalized absolute difference)

Dil Fac **Dilution Factor**

DL Detection Limit (DoD/DOE)

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

Decision Level Concentration (Radiochemistry) DLC

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

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

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

NC Not Calculated

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

NEG Negative / Absent POS Positive / Present

PQL Practical Quantitation Limit

PRES Presumptive QC **Quality Control**

RER Relative Error Ratio (Radiochemistry)

RL Reporting Limit or Requested Limit (Radiochemistry)

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

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

TNTC Too Numerous To Count

Case Narrative

Client: Ensolum

Project/Site: PLU 21 BD 126H/905H

Job ID: 890-3156-1

SDG: 03E1558070

Job ID: 890-3156-1

Laboratory: Eurofins Carlsbad

Narrative

Job Narrative 890-3156-1

Receipt

The samples were received on 10/5/2022 3:25 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 21.2°C

Receipt Exceptions

The following samples were received and analyzed from an unpreserved bulk soil jar: PH01 (890-3156-1) and PH01A (890-3156-2).

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 method blank for preparation batch 880-36395 and analytical batch 880-36488 contained Diesel Range Organics (Over C10-C28) above the method detection limit. This target analyte concentration was less than the reporting limit (RL); therefore, re-extraction and/or re-analysis of samples was not performed.

Method 8015MOD NM: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 880-36395 and analytical batch 880-36488 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.

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

HPLC/IC

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

Matrix: Solid

Lab Sample ID: 890-3156-1

10/12/22 20:09

10/11/22 16:29

Client Sample Results

 Client: Ensolum
 Job ID: 890-3156-1

 Project/Site: PLU 21 BD 126H/905H
 SDG: 03E1558070

Client Sample ID: PH01

Date Collected: 10/05/22 09:00 Date Received: 10/05/22 15:25

Sample Depth: 1'

1,4-Difluorobenzene (Surr)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		10/11/22 16:29	10/12/22 20:09	1
Toluene	<0.00200	U	0.00200	mg/Kg		10/11/22 16:29	10/12/22 20:09	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		10/11/22 16:29	10/12/22 20:09	1
m-Xylene & p-Xylene	<0.00401	U	0.00401	mg/Kg		10/11/22 16:29	10/12/22 20:09	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		10/11/22 16:29	10/12/22 20:09	1
Xylenes, Total	<0.00401	U	0.00401	mg/Kg		10/11/22 16:29	10/12/22 20:09	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	104		70 - 130			10/11/22 16:29	10/12/22 20:09	1

Method: TAL SOP Total BTEX - Total BTEX Calculation									
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
Total BTEX	<0.00401	U	0.00401	mg/Kg			10/13/22 11:47	1	

70 - 130

108

Method: SW846 8015 NM - Diesel Ra	ange Organi	cs (DRO) (G	iC)					
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0	mg/Kg			10/11/22 09:32	1

Method: SW846 8015B NM - Dies	el Range Orga	nics (DRO) (GC)					
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0	mg/Kg		10/07/22 15:16	10/10/22 13:25	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		10/07/22 15:16	10/10/22 13:25	1
Oll Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		10/07/22 15:16	10/10/22 13:25	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	99		70 - 130			10/07/22 15:16	10/10/22 13:25	1

o-Terphenyl	104	70 - 130			10/07/22 15:16	10/10/22 13:25	1
Method: MCAWW 300.0 - Anions, Ion	Chromatography - So	oluble					
Analyte	Result Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac

Chloride 3500 49.8 mg/Kg 10/11/22 00:00 10

Client Sample ID: PH01A Lab Sample ID: 890-3156-2

Date Collected: 10/05/22 09:05 Date Received: 10/05/22 15:25

Sample Depth: 2'

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00201	U	0.00201	mg/Kg		10/11/22 16:29	10/12/22 20:30	1
Toluene	<0.00201	U	0.00201	mg/Kg		10/11/22 16:29	10/12/22 20:30	1
Ethylbenzene	<0.00201	U	0.00201	mg/Kg		10/11/22 16:29	10/12/22 20:30	1
m-Xylene & p-Xylene	<0.00402	U	0.00402	mg/Kg		10/11/22 16:29	10/12/22 20:30	1
o-Xylene	<0.00201	U	0.00201	mg/Kg		10/11/22 16:29	10/12/22 20:30	1
Xylenes, Total	<0.00402	U	0.00402	mg/Kg		10/11/22 16:29	10/12/22 20:30	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	103		70 - 130			10/11/22 16:29	10/12/22 20:30	

Eurofins Carlsbad

Matrix: Solid

Matrix: Solid

Lab Sample ID: 890-3156-2

Client Sample Results

Client: Ensolum Job ID: 890-3156-1 Project/Site: PLU 21 BD 126H/905H SDG: 03E1558070

Client Sample ID: PH01A

Date Collected: 10/05/22 09:05 Date Received: 10/05/22 15:25

Chloride

	Organic Comp	ounus (oo)						
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1,4-Difluorobenzene (Surr)	107		70 - 130			10/11/22 16:29	10/12/22 20:30	1
Method: TAL SOP Total BTEX - T	otal BTEX Cald	culation						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00402	U	0.00402	mg/Kg			10/13/22 11:47	1
Method: SW846 8015 NM - Diese	l Range Organ	ics (DRO) (GC)					
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
-				•	_			
Total TPH	<49.9	U	49.9	mg/Kg			10/11/22 09:32	1
Total TPH Method: SW846 8015B NM - Dies	sel Range Orga	U nics (DRO)	49.9 (GC)	mg/Kg				Dil Fac
Total TPH Method: SW846 8015B NM - Dies Analyte	sel Range Orga Result	nics (DRO) Qualifier	49.9 (GC)	mg/Kg Unit	 	Prepared	Analyzed	Dil Fac
Total TPH Method: SW846 8015B NM - Dies	sel Range Orga	nics (DRO) Qualifier	49.9 (GC)	mg/Kg				Dil Fac
Method: SW846 8015B NM - Dies Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over	sel Range Orga Result	nics (DRO) Qualifier	49.9 (GC)	mg/Kg Unit	<u>D</u>	Prepared	Analyzed	1 Dil Fac
Total TPH Method: SW846 8015B NM - Dies Analyte Gasoline Range Organics	sel Range Orga Result <49.9	nics (DRO) Qualifier U	(GC) RL 49.9	mg/Kg Unit mg/Kg	<u>D</u>	Prepared 10/07/22 15:16	Analyzed 10/10/22 13:45	1
Method: SW846 8015B NM - Dies Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) Oll Range Organics (Over C28-C36)	sel Range Orga Result <49.9	nics (DRO) Qualifier U	(GC) RL 49.9 49.9	mg/Kg Unit mg/Kg mg/Kg	<u>D</u>	Prepared 10/07/22 15:16 10/07/22 15:16	Analyzed 10/10/22 13:45 10/10/22 13:45	1
Method: SW846 8015B NM - Dies Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28)	Result <49.9 <49.9	Oualifier U	49.9 (GC) RL 49.9 49.9 49.9	mg/Kg Unit mg/Kg mg/Kg	<u>D</u>	Prepared 10/07/22 15:16 10/07/22 15:16 10/07/22 15:16	Analyzed 10/10/22 13:45 10/10/22 13:45 10/10/22 13:45	1 1

49.7

Unit

mg/Kg

Prepared

Analyzed

10/11/22 00:06

Dil Fac

Result Qualifier

1110

DFBZ = 1,4-Difluorobenzene (Surr)

Surrogate Summary

 Client: Ensolum
 Job ID: 890-3156-1

 Project/Site: PLU 21 BD 126H/905H
 SDG: 03E1558070

Method: 8021B - Volatile Organic Compounds (GC)

Matrix: Solid Prep Type: Total/NA

-				Percent Surrogate R
		BFB1	DFBZ1	
Lab Sample ID	Client Sample ID	(70-130)	(70-130)	
880-20232-A-1-A MS	Matrix Spike	99	107	
880-20232-A-1-B MSD	Matrix Spike Duplicate	77	109	
890-3156-1	PH01	104	108	
890-3156-2	PH01A	103	107	
LCS 880-36699/1-A	Lab Control Sample	100	97	
LCSD 880-36699/2-A	Lab Control Sample Dup	103	104	
MB 880-36699/5-A	Method Blank	90	112	
Surrogate Legend				
BFB = 4-Bromofluorober	zene (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)
890-3155-A-1-C MS	Matrix Spike	82	78
890-3155-A-1-D MSD	Matrix Spike Duplicate	82	78
890-3156-1	PH01	99	104
890-3156-2	PH01A	105	112
LCS 880-36395/2-A	Lab Control Sample	107	117
LCSD 880-36395/3-A	Lab Control Sample Dup	106	113
MB 880-36395/1-A	Method Blank	112	121

Surrogate Legend

1CO = 1-Chlorooctane

OTPH = o-Terphenyl

QC Sample Results

Client: Ensolum Job ID: 890-3156-1 SDG: 03E1558070 Project/Site: PLU 21 BD 126H/905H

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-36699/5-A

Matrix: Solid

Analysis Batch: 36717

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 36699

	MB	MB						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		10/11/22 16:29	10/12/22 11:29	1
Toluene	<0.00200	U	0.00200	mg/Kg		10/11/22 16:29	10/12/22 11:29	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		10/11/22 16:29	10/12/22 11:29	1
m-Xylene & p-Xylene	<0.00400	U	0.00400	mg/Kg		10/11/22 16:29	10/12/22 11:29	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		10/11/22 16:29	10/12/22 11:29	1
Xylenes, Total	<0.00400	U	0.00400	mg/Kg		10/11/22 16:29	10/12/22 11:29	1

MB MB

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	90		70 - 130	10/11/22 16.	29 10/12/22 11:29	1
1,4-Difluorobenzene (Surr)	112		70 - 130	10/11/22 16.	29 10/12/22 11:29	1

Lab Sample ID: LCS 880-36699/1-A

Matrix: Solid

Analysis Batch: 36717

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 36699

	Spike	LCS	LCS				%Rec	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Benzene	0.100	0.08151		mg/Kg		82	70 - 130	
Toluene	0.100	0.08917		mg/Kg		89	70 - 130	
Ethylbenzene	0.100	0.07884		mg/Kg		79	70 - 130	
m-Xylene & p-Xylene	0.200	0.1575		mg/Kg		79	70 - 130	
o-Xylene	0.100	0.07833		mg/Kg		78	70 - 130	

LCS LCS

Surrogate	%Recovery Qualifier	Limits
4-Bromofluorobenzene (Surr)	100	70 - 130
1,4-Difluorobenzene (Surr)	97	70 - 130

Lab Sample ID: LCSD 880-36699/2-A

Matrix: Solid

Analysis Batch: 36717

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA Prep Batch: 36699

	Spike	LCSD	LCSD				%Rec		RPD	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit	
Benzene	0.100	0.09035		mg/Kg		90	70 - 130	10	35	
Toluene	0.100	0.09725		mg/Kg		97	70 - 130	9	35	
Ethylbenzene	0.100	0.08683		mg/Kg		87	70 - 130	10	35	
m-Xylene & p-Xylene	0.200	0.1722		mg/Kg		86	70 - 130	9	35	
o-Xylene	0.100	0.08568		mg/Kg		86	70 - 130	9	35	

LCSD LCSD

Surrogate	%Recovery Qualifi	er Limits
4-Bromofluorobenzene (Surr)	103	70 - 130
1,4-Difluorobenzene (Surr)	104	70 - 130

Lab Sample ID: 880-20232-A-1-A MS

Matrix: Solid

Analysis Batch: 36717

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

Prep Batch: 36699

	Sample	Sample	Spike	MS	MS				%Rec	
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Benzene	<0.00201	U	0.100	0.09214		mg/Kg		92	70 - 130	
Toluene	<0.00201	U F1	0.100	0.09307		mg/Kg		93	70 - 130	

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QC Sample Results

 Client: Ensolum
 Job ID: 890-3156-1

 Project/Site: PLU 21 BD 126H/905H
 SDG: 03E1558070

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

Lab Sample ID: 880-20232-A-1-A MS

Client Sample ID: Matrix Spike

Matrix: Solid
Analysis Batch: 36717

Sample Sample Sample Spike MS MS WS %Rec

Gampio	Cumpic	Opino						701100
Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits
<0.00201	U F1 F2	0.100	0.07772		mg/Kg		77	70 - 130
<0.00402	U F1 F2	0.201	0.1563		mg/Kg		78	70 - 130
<0.00201	U F1 F2	0.100	0.07596		mg/Kg		75	70 - 130
	Result <0.00201 <0.00402	Result Qualifier	Result Qualifier Added <0.00201	Result Qualifier Added Result <0.00201	Result Qualifier Added Result Qualifier <0.00201	Result Qualifier Added Result Qualifier Unit <0.00201	Result Qualifier Added Result Qualifier Unit D <0.00201	<0.00201

 Surrogate
 %Recovery
 Qualifier
 Limits

 4-Bromofluorobenzene (Surr)
 99
 70 - 130

 1,4-Difluorobenzene (Surr)
 107
 70 - 130

Lab Sample ID: 880-20232-A-1-B MSD

Client Sample ID: Matrix Spike Duplicate

Matrix: Solid Prep Type: Total/NA Analysis Batch: 36717 Prep Batch: 36699

Sample	Sample	Spike	MSD	MSD				%Rec		RPD
Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
<0.00201	U	0.0998	0.07929		mg/Kg		79	70 - 130	15	35
<0.00201	U F1	0.0998	0.06564	F1	mg/Kg		66	70 - 130	35	35
<0.00201	U F1 F2	0.0998	0.05281	F1 F2	mg/Kg		53	70 - 130	38	35
<0.00402	U F1 F2	0.200	0.09464	F1 F2	mg/Kg		47	70 - 130	49	35
<0.00201	U F1 F2	0.0998	0.04674	F1 F2	mg/Kg		46	70 - 130	48	35
	Result <0.00201 <0.00201 <0.00201 <0.00201 <0.00402	<0.00201 U F1 <0.00201 U F1 F2 <0.00402 U F1 F2	Result Qualifier Added <0.00201	Result Qualifier Added Result <0.00201	Result Qualifier Added Result Qualifier <0.00201	Result Qualifier Added Result Qualifier Unit <0.00201	Result Qualifier Added Result Qualifier Unit D <0.00201	Result Qualifier Added Result Qualifier Unit D %Rec <0.00201	Result Qualifier Added Result Qualifier Unit D %Rec Limits <0.00201	Result Qualifier Added Result Qualifier Unit D %Rec Limits RPD <0.00201

 Surrogate
 %Recovery
 Qualifier
 Limits

 4-Bromofluorobenzene (Surr)
 77
 70 - 130

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

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

Lab Sample ID: MB 880-36395/1-A

Matrix: Solid

Analysis Batch: 36488

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 36395

An An

	MB	MB						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0	mg/Kg		10/07/22 15:16	10/10/22 10:59	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		10/07/22 15:16	10/10/22 10:59	1
Oll Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		10/07/22 15:16	10/10/22 10:59	1

	MB	MB				
Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	112		70 - 130	10/07/22 15:	10/10/22 10:59	1
o-Terphenyl	121		70 - 130	10/07/22 15:	16 10/10/22 10:59	1

Lab Sample ID: LCS 880-36395/2-A Client Sample ID: Lab Control Sample

Matrix: Solid Prep Type: Total/NA
Analysis Batch: 36488 Prep Batch: 36395

	Spike	LCS	LCS				%Rec	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Gasoline Range Organics	1000	996.9		mg/Kg		100	70 - 130	
(GRO)-C6-C10								
Diesel Range Organics (Over	1000	946.9		mg/Kg		95	70 - 130	
C10-C28)								

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Job ID: 890-3156-1 Client: Ensolum Project/Site: PLU 21 BD 126H/905H SDG: 03E1558070

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

LCS LCS

%Recovery Qualifier

107

Lab Sample ID: LCS 880-36395/2-A Client Sample ID: Lab Control Sample

Limits

70 - 130

Matrix: Solid

Surrogate

1-Chlorooctane

Analysis Batch: 36488

Prep Type: Total/NA

Prep Batch: 36395

o-Terphenyl 117 70 - 130

Lab Sample ID: LCSD 880-36395/3-A

Analysis Batch: 36488

Matrix: Solid

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 36395

Spike LCSD LCSD %Rec RPD Analyte Added Result Qualifier Unit D %Rec Limits **RPD** Limit 1000 1023 102 70 - 1303 20 Gasoline Range Organics mg/Kg (GRO)-C6-C10 Diesel Range Organics (Over 1000 992.6 99 mg/Kg 70 - 1305 20 C10-C28)

LCSD LCSD

Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane	106		70 - 130
o-Terphenyl	113		70 - 130

Lab Sample ID: 890-3155-A-1-C MS Client Sample ID: Matrix Spike

Matrix: Solid

Analysis Batch: 36488

Prep Type: Total/NA

Prep Batch: 36395

Sample Sample MS MS Spike Analyte Added Result Qualifier Result Qualifier Unit D %Rec Limits Gasoline Range Organics <50.0 U 998 983.4 mg/Kg 96 70 - 130 (GRO)-C6-C10 <50.0 U F1 Diesel Range Organics (Over 998 671.0 F1 mg/Kg 66 70 - 130 C10-C28)

MS MS %Recovery Qualifier Surrogate Limits 70 - 130 1-Chlorooctane 82 o-Terphenyl 78 70 - 130

Lab Sample ID: 890-3155-A-1-D MSD Client Sample ID: Matrix Spike Duplicate **Matrix: Solid**

Analysis Batch: 36488

Prep Type: Total/NA Prep Batch: 36395

> RPD %Rec Limits **RPD** Limit

Sample Sample MSD MSD Spike Analyte Result Qualifier Added Result Qualifier Unit %Rec Gasoline Range Organics <50.0 U 999 1010 99 mg/Kg 70 - 130 20 (GRO)-C6-C10 Diesel Range Organics (Over <50.0 U F1 999 687.0 F1 mg/Kg 67 70 - 130 20 C10-C28)

MSD MSD

Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane	82		70 - 130
o-Terphenyl	78		70 - 130

Client Sample ID: Method Blank

Client Sample ID: Lab Control Sample

Client Sample ID: Lab Control Sample Dup

Prep Type: Soluble

Client Sample ID: Matrix Spike

Client Sample ID: Matrix Spike Duplicate

Client: Ensolum Job ID: 890-3156-1 Project/Site: PLU 21 BD 126H/905H SDG: 03E1558070

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-36392/1-A

Matrix: Solid

Analysis Batch: 36601

MB MB

Dil Fac Analyte Result Qualifier RL Unit D Prepared Analyzed Chloride <5.00 U 5.00 mg/Kg 10/10/22 21:11

Lab Sample ID: LCS 880-36392/2-A

Matrix: Solid

Analysis Batch: 36601

Spike LCS LCS %Rec Added Analyte Result Qualifier Unit D %Rec Limits Chloride 250 243.6 mg/Kg 97 90 - 110

Lab Sample ID: LCSD 880-36392/3-A

Matrix: Solid Analysis Batch: 36601

LCSD LCSD RPD Spike %Rec Analyte Added Result Qualifier Unit %Rec Limits RPD Limit Chloride 250 258.4 mg/Kg 103 90 - 110

Lab Sample ID: 890-3151-A-31-C MS

Matrix: Solid

Analysis Batch: 36601

MS MS Sample Sample Spike %Rec Analyte Result Qualifier Added Result Qualifier Unit %Rec Limits Chloride 185 250 458.5 110 90 - 110 mg/Kg

Lab Sample ID: 890-3151-A-31-D MSD

Released to Imaging: 3/13/2023 10:02:15 AM

Matrix: Solid

Analysis Batch: 36601

Sample Sample Spike MSD MSD %Rec RPD Analyte Result Qualifier Added Result Qualifier Unit %Rec Limits RPD Limit Chloride 185 250 432.4 mg/Kg 99 90 - 110 6 20

QC Association Summary

Client: Ensolum

Project/Site: PLU 21 BD 126H/905H

Job ID: 890-3156-1

SDG: 03E1558070

GC VOA

Prep Batch: 36699

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3156-1	PH01	Total/NA	Solid	5035	
890-3156-2	PH01A	Total/NA	Solid	5035	
MB 880-36699/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-36699/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-36699/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
880-20232-A-1-A MS	Matrix Spike	Total/NA	Solid	5035	
880-20232-A-1-B MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	

Analysis Batch: 36717

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3156-1	PH01	Total/NA	Solid	8021B	36699
890-3156-2	PH01A	Total/NA	Solid	8021B	36699
MB 880-36699/5-A	Method Blank	Total/NA	Solid	8021B	36699
LCS 880-36699/1-A	Lab Control Sample	Total/NA	Solid	8021B	36699
LCSD 880-36699/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	36699
880-20232-A-1-A MS	Matrix Spike	Total/NA	Solid	8021B	36699
880-20232-A-1-B MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	36699

Analysis Batch: 36877

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3156-1	PH01	Total/NA	Solid	Total BTEX	
890-3156-2	PH01A	Total/NA	Solid	Total BTEX	

GC Semi VOA

Prep Batch: 36395

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3156-1	PH01	Total/NA	Solid	8015NM Prep	
890-3156-2	PH01A	Total/NA	Solid	8015NM Prep	
MB 880-36395/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-36395/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-36395/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
890-3155-A-1-C MS	Matrix Spike	Total/NA	Solid	8015NM Prep	
890-3155-A-1-D MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	

Analysis Batch: 36488

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3156-1	PH01	Total/NA	Solid	8015B NM	36395
890-3156-2	PH01A	Total/NA	Solid	8015B NM	36395
MB 880-36395/1-A	Method Blank	Total/NA	Solid	8015B NM	36395
LCS 880-36395/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	36395
LCSD 880-36395/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	36395
890-3155-A-1-C MS	Matrix Spike	Total/NA	Solid	8015B NM	36395
890-3155-A-1-D MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	36395

Analysis Batch: 36649

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3156-1	PH01	Total/NA	Solid	8015 NM	
890-3156-2	PH01A	Total/NA	Solid	8015 NM	

QC Association Summary

 Client: Ensolum
 Job ID: 890-3156-1

 Project/Site: PLU 21 BD 126H/905H
 SDG: 03E1558070

HPLC/IC

Leach Batch: 36392

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3156-1	PH01	Soluble	Solid	DI Leach	
890-3156-2	PH01A	Soluble	Solid	DI Leach	
MB 880-36392/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-36392/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-36392/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
890-3151-A-31-C MS	Matrix Spike	Soluble	Solid	DI Leach	
890-3151-A-31-D MSD	Matrix Spike Duplicate	Soluble	Solid	DI Leach	

Analysis Batch: 36601

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3156-1	PH01	Soluble	Solid	300.0	36392
890-3156-2	PH01A	Soluble	Solid	300.0	36392
MB 880-36392/1-A	Method Blank	Soluble	Solid	300.0	36392
LCS 880-36392/2-A	Lab Control Sample	Soluble	Solid	300.0	36392
LCSD 880-36392/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	36392
890-3151-A-31-C MS	Matrix Spike	Soluble	Solid	300.0	36392
890-3151-A-31-D MSD	Matrix Spike Duplicate	Soluble	Solid	300.0	36392

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Client: Ensolum

Project/Site: PLU 21 BD 126H/905H

Job ID: 890-3156-1 SDG: 03E1558070

sh Cample ID: 000 24EC 4

Lab Sample ID: 890-3156-1

Lab Sample ID: 890-3156-2

Matrix: Solid

Matrix: Solid

Client Sample ID: PH01
Date Collected: 10/05/22 09:00

Date Received: 10/05/22 15:25

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.99 g	5 mL	36699	10/11/22 16:29	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	36717	10/12/22 20:09	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			36877	10/13/22 11:47	AJ	EET MID
Total/NA	Analysis	8015 NM		1			36649	10/11/22 09:32	SM	EET MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	36395	10/07/22 15:16	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	36488	10/10/22 13:25	SM	EET MID
Soluble	Leach	DI Leach			5.02 g	50 mL	36392	10/07/22 15:09	CH	EET MID
Soluble	Analysis	300.0		10			36601	10/11/22 00:00	CH	EET MID

Client Sample ID: PH01A

Date Collected: 10/05/22 09:05

Date Received: 10/05/22 15:25

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.98 g	5 mL	36699	10/11/22 16:29	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	36717	10/12/22 20:30	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			36877	10/13/22 11:47	AJ	EET MID
Total/NA	Analysis	8015 NM		1			36649	10/11/22 09:32	SM	EET MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	36395	10/07/22 15:16	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	36488	10/10/22 13:45	SM	EET MID
Soluble	Leach	DI Leach			5.03 g	50 mL	36392	10/07/22 15:09	CH	EET MID
Soluble	Analysis	300.0		10			36601	10/11/22 00:06	CH	EET MID

Laboratory References:

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

Eurofins Carlsbad

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Accreditation/Certification Summary

 Client: Ensolum
 Job ID: 890-3156-1

 Project/Site: PLU 21 BD 126H/905H
 SDG: 03E1558070

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 englytes	and the street and the state of a contract that			
the agency does not of	• '	it the laboratory is not certifi	ed by the governing authority. This list ma	ay include analytes for
,	• '	t the laboratory is not certifi Matrix	ed by the governing authority. This list ma	ay include analytes for
the agency does not of	fer certification.	•	, , ,	ay include analytes for

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Method Summary

Client: Ensolum Project/Site: PLU 21 BD 126H/905H Job ID: 890-3156-1

SDG: 03E1

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

Protocol References:

ASTM = ASTM International

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

TAL SOP = TestAmerica Laboratories, Standard Operating Procedure

Laboratory References:

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

Sample Summary

Client: Ensolum

Project/Site: PLU 21 BD 126H/905H

Job ID: 890-3156-1

SDG: 03E1558070

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-3156-1	PH01	Solid	10/05/22 09:00	10/05/22 15:25	1'
890-3156-2	PH01A	Solid	10/05/22 09:05	10/05/22 15:25	2'

Rejinquished by 18 ignature)

Received by: (Signature)

et/2/01

Date/Time

Relinquished by: (Signature)

Received by: (Signature)

Date/Time

Revised Date 08/25/2020 Rev 2020 2

Environment Testing

eurofins

Chain of Custody

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

Work Order No:

www.xenco.com

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Project Manager:	Kalie Jennings		Bill to: (if different)	=	Garre	Garret Green	'n		Work Orde	Work Order Comments	
Company Name:	Ensolum		Company Name:		хто	XTO Energy	×		Program: UST/PST PRP Bro] PRP Brownfields RRC Superfund	
Address:	3122 National Parks Hwy		Address:		3104	E. Gr	3104 E. Green St.		State of Project:		
City, State ZIP:	Carlsbad, NM 88220		City, State ZIP:		Carls	bad, N	Carlsbad, NM 88220		Reporting: Level II Level III PST/UST TRRP	ST/UST TRRP Level IV	
Phone:	303-887-2946	Email:	Email: Garret.Green@ExxonMobil.com	DExx	nMot	oil.cor	ID		Deliverables: EDD ADa	ADaPT Other:	
Project Name:	PLU 21 BD 126H/905H	Turn	Turn Around					ANALYSIS REQ	QUEST	Preservative Codes	
Project Number:	03E1558070	☑ Routine	Rush	Pres. Code						None: NO DI Water: H ₂ O	
Project Location:	32.10939, -103.88361	Due Date:								⊆	
Sampler's Name:	Kase Parker	TAT starts the	TAT starts the day received by				_		_		
PO #:		the lab, if rece	the lab, if received by 4:30pm	rs						H ₂ SO ₄ : H ₂ NaOH: Na	
SAMPLE RECEIPT	PT Temp Blank: Yes No	o Wet Ice:	(Yes) No	nete	.0)					H ₃ PO ₄ : HP	
Samples Received Intact:	ntact: (Yes) No Thermometer ID:	neter ID:	the co	ırar	300					NaHSO4: NABIS	20
Cooler Custody Seals:	Y	n Factor:	0.0	Pa	PA:					Na ₂ S ₂ O ₃ : NaSO ₃	٠ŧ ،
Sample Custody Seals:	als: Yes No N/A Temperature Reading:	ture Reading:	カンプ		S (E		1	890-3156 Chain of	of Custody	Zn Acetate+NaOH: Zn	0 /
Total Containers:	Correcte	Corrected Temperature:	から		RIDE	015)	8021	-	-	NaOH+Ascorbic Acid: SAPC	o 1
Sample Identification	ntification Matrix Sampled	Time d Sampled	Depth Grab/	# of Cont	CHLOR	TPH (8	втех (Sample Comments	Dog
PH01	s 10/5/2022	22 9:00	1' G	1	×	×	×			Incident ID:	
PH01A	S	22 9:05	2' G	1	×	×	×			NAPP2214342255	
,										Cost Center:	
	/									1666431001	
										AFE:	
				•	>						
			/	K	P						
				T		V	1				
									7		
Total 200 7 / 6010	110 200.8 / 6020:	8RCRA 13P	13PPM Texas 11 Al Sb As Ba	≥	Sb A	s Ba	Ве в Са	Ca Cr Co Cu Fe Pb	b Mg Mn Mo Ni K Se Ag SiO ₂	Na St TI Sn U V Zn	
Circle Method(s) a	≦ et	TCLP / SI	TCLP / SPLP 6010: BRCRA		Sb /	As Ba	Be Cd	Sb As Ba Be Cd Cr Co Cu Pb Mn Mo N		Hg: 1631 / 245.1 / 7470 / 7471	
Notice: Signature of this	Notice: Signature of this document and relinquishment of samples constitutes a valid purchase order from client company to Eurofins Xenco, its affiliates and subcontracto	constitutes a valid p	ourchase order from	client	compan	y to Eu	rofins Xenco	s affiliates and subcontractors.	rs. It assigns standard terms and conditions		
of service. Eurofins Xen of Eurofins Xenco. A mir	co will be liable only for the cost of sample num charge of \$85.00 will be applied to the sample of \$85.00 will be applied to	es and shall not assu	ume any responsibi harge of \$5 for each	lity for a	ny loss	es or e	xpenses inci	ed by the client if such losses ar , but not analyzed. These terms	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 \$55.00 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.	ed.	
				-			-				

Login Sample Receipt Checklist

Client: Ensolum

Job Number: 890-3156-1

SDG Number: 03E1558070

Login Number: 3156 List Source: Eurofins Carlsbad

List Number: 1 Creator: Stutzman, Amanda

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

N/A

True

N/A

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Sample Preservation Verified.

MS/MSDs

<6mm (1/4").

There is sufficient vol. for all requested analyses, incl. any requested

Containers requiring zero headspace have no headspace or bubble is

Login Sample Receipt Checklist

Client: Ensolum Job Number: 890-3156-1 SDG Number: 03E1558070

> **List Source: Eurofins Midland** List Creation: 10/07/22 11:00 AM

List Number: 2 Creator: Rodriguez, Leticia

Login Number: 3156

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

<6mm (1/4").

Environment Testing

ANALYTICAL REPORT

PREPARED FOR

Attn: Kalei Jennings Ensolum 705 W. Wadley Suite 210 Midland Texas 79701

Generated 11/21/2022 2:58:31 PM Revision 1

JOB DESCRIPTION

PLU 21 BD 125H SDG NUMBER 03E1558068

JOB NUMBER

890-3402-1

Eurofins Carlsbad 1089 N Canal St. Carlsbad NM 88220



 Client: Ensolum
 Laboratory Job ID: 890-3402-1

 Project/Site: PLU 21 BD 125H
 SDG: 03E1558068

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Definitions/Glossary

Client: Ensolum Job ID: 890-3402-1 Project/Site: PLU 21 BD 125H

SDG: 03E1558068

Qualifiers

GC VOA

Qualifier **Qualifier Description**

Indicates the analyte was analyzed for but not detected.

GC Semi VOA

Qualifier **Qualifier Description**

*1 LCS/LCSD RPD exceeds control limits.

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

HPLC/IC

Qualifier **Qualifier Description**

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

Duplicate Error Ratio (normalized absolute difference) **DER**

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) Minimum Detectable Concentration (Radiochemistry) MDC

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

Practical Quantitation Limit PQL

PRES Presumptive QC **Quality Control**

RER Relative Error Ratio (Radiochemistry)

RI Reporting Limit or Requested Limit (Radiochemistry)

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

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

TNTC Too Numerous To Count

Case Narrative

Client: Ensolum

Job ID: 890-3402-1 Project/Site: PLU 21 BD 125H SDG: 03E1558068

Job ID: 890-3402-1

Laboratory: Eurofins Carlsbad

Narrative

Job Narrative 890-3402-1

REVISION

The report being provided is a revision of the original report sent on 11/14/2022. The report (revision 1) is being revised due to Per client email, requesting sample ID name edit.

Report revision history

Receipt

The sample was received on 11/7/2022 2:17 PM. Unless otherwise noted below, the sample arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 5.8°C

Receipt Exceptions

The following sample was received and analyzed from an unpreserved bulk soil jar: SS06 (890-3402-1).

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 880-39172 and analytical batch 880-39269 was outside the upper control limits.

Method 8015MOD NM: The RPD of the laboratory control sample (LCS) and laboratory control sample duplicate (LCSD) for preparation batch 880-39172 and analytical batch 880-39269 recovered outside control limits for the following analytes: Gasoline Range Organics (GRO)-C6-C10.

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

HPLC/IC

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

Eurofins Carlsbad 11/21/2022 (Rev. 1)

Client Sample Results

Client: Ensolum Job ID: 890-3402-1 Project/Site: PLU 21 BD 125H SDG: 03E1558068

Lab Sample ID: 890-3402-1 **Client Sample ID: SS06** Date Collected: 11/07/22 12:05

Date Received: 11/07/22 14:17

Matrix: Solid

Sample Depth: 0.2'

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00198	U	0.00198	mg/Kg		11/09/22 13:56	11/10/22 13:00	1
Toluene	<0.00198	U	0.00198	mg/Kg		11/09/22 13:56	11/10/22 13:00	1
Ethylbenzene	<0.00198	U	0.00198	mg/Kg		11/09/22 13:56	11/10/22 13:00	
m-Xylene & p-Xylene	< 0.00396	U	0.00396	mg/Kg		11/09/22 13:56	11/10/22 13:00	1
o-Xylene	<0.00198	U	0.00198	mg/Kg		11/09/22 13:56	11/10/22 13:00	
Xylenes, Total	<0.00396	U	0.00396	mg/Kg		11/09/22 13:56	11/10/22 13:00	,
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	109		70 - 130			11/09/22 13:56	11/10/22 13:00	
1,4-Difluorobenzene (Surr)	107		70 - 130			11/09/22 13:56	11/10/22 13:00	•
Method: TAL SOP Total BT	EX - Total BTE	X Calculat	ion					
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00396	U	0.00396	mg/Kg			11/10/22 13:49	•
Total TPH	69.5		50.0	mg/Kg			11/11/22 14:06	
Method: SW846 8015B NM			(DRO) (GC)					
Analyte					_			
_ ` 		Qualifier	RL	Unit	<u>D</u>	Prepared	Analyzed	
	55.1			mg/Kg	<u>D</u>	Prepared 11/10/22 08:48	Analyzed 11/11/22 11:58	
(GRO)-C6-C10 Diesel Range Organics (Over		*1			<u>D</u>			
(GRO)-C6-C10 Diesel Range Organics (Over C10-C28) Oll Range Organics (Over	55.1	*1	50.0	mg/Kg	<u> </u>	11/10/22 08:48 11/10/22 08:48	11/11/22 11:58	
(GRO)-C6-C10 Diesel Range Organics (Over C10-C28) OII Range Organics (Over C28-C36) Surrogate	55.1 <50.0 14.4 %Recovery	*1 U	50.0 50.0 50.0 <i>Limits</i>	mg/Kg	<u>D</u>	11/10/22 08:48 11/10/22 08:48 11/10/22 08:48 Prepared	11/11/22 11:58 11/11/22 11:58 11/11/22 11:58 11/11/22 11:58 Analyzed	1
(GRO)-C6-C10 Diesel Range Organics (Over C10-C28) OII Range Organics (Over C28-C36) Surrogate 1-Chlorooctane	55.1 <50.0 14.4 %Recovery 109	*1 U	50.0 50.0 50.0 Limits 70 - 130	mg/Kg	<u> </u>	11/10/22 08:48 11/10/22 08:48 11/10/22 08:48 Prepared 11/10/22 08:48	11/11/22 11:58 11/11/22 11:58 11/11/22 11:58 11/11/22 11:58 Analyzed 11/11/22 11:58	Dil Fac
(GRO)-C6-C10 Diesel Range Organics (Over C10-C28) Oll Range Organics (Over C28-C36) Surrogate 1-Chlorooctane	55.1 <50.0 14.4 %Recovery	*1 U	50.0 50.0 50.0 <i>Limits</i>	mg/Kg	<u>D</u>	11/10/22 08:48 11/10/22 08:48 11/10/22 08:48 Prepared	11/11/22 11:58 11/11/22 11:58 11/11/22 11:58 11/11/22 11:58 Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) Oll Range Organics (Over C28-C36) Surrogate 1-Chlorooctane o-Terphenyl Method: MCAWW 300.0 - A	55.1 <50.0 14.4 %Recovery 109 118 Anions, Ion Chr	*1 Qualifier omatograp	50.0 50.0 50.0 Limits 70 - 130 70 - 130	mg/Kg	<u>D</u>	11/10/22 08:48 11/10/22 08:48 11/10/22 08:48 Prepared 11/10/22 08:48	11/11/22 11:58 11/11/22 11:58 11/11/22 11:58 11/11/22 11:58 Analyzed 11/11/22 11:58	Dil Fac
(GRO)-C6-C10 Diesel Range Organics (Over C10-C28) Oll Range Organics (Over C28-C36) Surrogate 1-Chlorooctane o-Terphenyl	55.1 <50.0 14.4 %Recovery 109 118 Anions, Ion Chr	*1 U Qualifier	50.0 50.0 50.0 Limits 70 - 130 70 - 130	mg/Kg	<u>D</u>	11/10/22 08:48 11/10/22 08:48 11/10/22 08:48 Prepared 11/10/22 08:48	11/11/22 11:58 11/11/22 11:58 11/11/22 11:58 11/11/22 11:58 Analyzed 11/11/22 11:58	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1

Surrogate Summary

Client: Ensolum Job ID: 890-3402-1 Project/Site: PLU 21 BD 125H SDG: 03E1558068

Method: 8021B - Volatile Organic Compounds (GC)

Matrix: Solid Prep Type: Total/NA

		DED4			
		BFB1	DFBZ1		
Lab Sample ID	Client Sample ID	(70-130)	(70-130)		
890-3374-A-1-C MS	Matrix Spike	117	94		
890-3374-A-1-D MSD	Matrix Spike Duplicate	115	100		
890-3402-1	SS06	109	107		
LCS 880-39013/1-A	Lab Control Sample	119	99		
LCSD 880-39013/2-A	Lab Control Sample Dup	112	96		
MB 880-39013/5-A	Method Blank	87	96		
MB 880-39079/5-A	Method Blank	83	100		

DFBZ = 1,4-Difluorobenzene (Surr)

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

Matrix: Solid Prep Type: Total/NA

			Perce	nt Surrogate Recovery (Acceptance Limits)
		1CO1	OTPH1	
Lab Sample ID	Client Sample ID	(70-130)	(70-130)	
890-3402-1	SS06	70	118	
890-3402-1 MS	SS06	86	79	
890-3402-1 MSD	SS06	82	73	
LCS 880-39172/2-A	Lab Control Sample	94	97	
LCSD 880-39172/3-A	Lab Control Sample Dup	107	109	
MB 880-39172/1-A	Method Blank	119	134 S1+	

1CO = 1-Chlorooctane

OTPH = o-Terphenyl

Client: Ensolum Job ID: 890-3402-1 Project/Site: PLU 21 BD 125H SDG: 03E1558068

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-39013/5-A

Matrix: Solid

Analysis Batch: 39086

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 39013

	MB	MB						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		11/08/22 13:56	11/10/22 03:41	1
Toluene	<0.00200	U	0.00200	mg/Kg		11/08/22 13:56	11/10/22 03:41	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		11/08/22 13:56	11/10/22 03:41	1
m-Xylene & p-Xylene	<0.00400	U	0.00400	mg/Kg		11/08/22 13:56	11/10/22 03:41	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		11/08/22 13:56	11/10/22 03:41	1
Xylenes, Total	<0.00400	U	0.00400	mg/Kg		11/08/22 13:56	11/10/22 03:41	1

MB MB

Surrogate	%Recovery Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	87	70 - 130	11/08/22 13:56	11/10/22 03:41	1
1,4-Difluorobenzene (Surr)	96	70 - 130	11/08/22 13:56	11/10/22 03:41	1

Lab Sample ID: LCS 880-39013/1-A

Matrix: Solid

Analysis Batch: 39086

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 39013

	Spike	LCS	LCS				%Rec	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Benzene	0.100	0.09861		mg/Kg		99	70 - 130	
Toluene	0.100	0.1075		mg/Kg		107	70 - 130	
Ethylbenzene	0.100	0.1070		mg/Kg		107	70 - 130	
m-Xylene & p-Xylene	0.200	0.1883		mg/Kg		94	70 - 130	
o-Xylene	0.100	0.09621		mg/Kg		96	70 - 130	

LCS LCS

Surrogate	%Recovery	Qualifier	Limits
4-Bromofluorobenzene (Surr)	119		70 - 130
1,4-Difluorobenzene (Surr)	99		70 - 130

Lab Sample ID: LCSD 880-39013/2-A

Matrix: Solid

Analysis Batch: 39086

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA Prep Batch: 39013

	Spike	LCSD	LCSD				%Rec		RPD
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Benzene	0.100	0.09159		mg/Kg		92	70 - 130	7	35
Toluene	0.100	0.1006		mg/Kg		101	70 - 130	7	35
Ethylbenzene	0.100	0.09712		mg/Kg		97	70 - 130	10	35
m-Xylene & p-Xylene	0.200	0.1715		mg/Kg		86	70 - 130	9	35
o-Xylene	0.100	0.08615		mg/Kg		86	70 - 130	11	35

LCSD LCSD

Surrogate	%Recovery Qualifier	Limits
4-Bromofluorobenzene (Surr)	112	70 - 130
1,4-Difluorobenzene (Surr)	96	70 - 130

Lab Sample ID: 890-3374-A-1-C MS

Matrix: Solid

Analysis Batch: 39086

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

Prep Batch: 39013

_	Sample	Sample	Spike	MS	MS				%Rec	
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Benzene	<0.00200	U	0.0996	0.07004		mg/Kg		70	70 - 130	
Toluene	<0.00200	U	0.0996	0.08341		mg/Kg		84	70 - 130	

75

70 - 130

mg/Kg

QC Sample Results

Client: Ensolum Job ID: 890-3402-1 SDG: 03E1558068 Project/Site: PLU 21 BD 125H

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

<0.00200 U

Client Sample ID: Matrix Spike Lab Sample ID: 890-3374-A-1-C MS **Matrix: Solid** Prep Type: Total/NA **Analysis Batch: 39086** Prep Batch: 39013

MS MS Sample Sample Spike %Rec Result Qualifier Added Result Qualifier Unit %Rec Limits Ethylbenzene <0.00200 U 0.0996 0.08100 mg/Kg 81 70 - 130 m-Xylene & p-Xylene <0.00401 U 0.199 0.1464 mg/Kg 73 70 - 130

0.07491

0.0996

MS MS Surrogate %Recovery Qualifier Limits 4-Bromofluorobenzene (Surr) 70 - 130 117 1,4-Difluorobenzene (Surr) 70 - 130 94

Lab Sample ID: 890-3374-A-1-D MSD **Client Sample ID: Matrix Spike Duplicate Matrix: Solid** Prep Type: Total/NA

Analysis Batch: 39086

o-Xylene

Analysis Batch: 39086									Prep E	atch: 3	39013
-	Sample	Sample	Spike	MSD	MSD				%Rec		RPD
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Benzene	<0.00200	U	0.0994	0.09453		mg/Kg		95	70 - 130	30	35
Toluene	<0.00200	U	0.0994	0.1030		mg/Kg		104	70 - 130	21	35
Ethylbenzene	<0.00200	U	0.0994	0.09726		mg/Kg		98	70 - 130	18	35
m-Xylene & p-Xylene	<0.00401	U	0.199	0.1707		mg/Kg		86	70 - 130	15	35
o-Xylene	<0.00200	U	0.0994	0.08657		mg/Kg		87	70 - 130	14	35

MSD MSD Surrogate %Recovery Qualifier Limits 4-Bromofluorobenzene (Surr) 70 - 130 115 1,4-Difluorobenzene (Surr) 100 70 - 130

Lab Sample ID: MB 880-39079/5-A Client Sample ID: Method Blank **Matrix: Solid** Prep Type: Total/NA

Analysis Batch: 39086

	MB	MB						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		11/09/22 09:54	11/09/22 15:45	1
Toluene	<0.00200	U	0.00200	mg/Kg		11/09/22 09:54	11/09/22 15:45	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		11/09/22 09:54	11/09/22 15:45	1
m-Xylene & p-Xylene	<0.00400	U	0.00400	mg/Kg		11/09/22 09:54	11/09/22 15:45	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		11/09/22 09:54	11/09/22 15:45	1
Xylenes, Total	<0.00400	U	0.00400	mg/Kg		11/09/22 09:54	11/09/22 15:45	1
	МВ	MB						

Dil Fac Surrogate %Recovery Qualifier Limits Analyzed Prepared 4-Bromofluorobenzene (Surr) 70 - 130 11/09/22 09:54 11/09/22 15:45 83 100 70 - 130 11/09/22 09:54 11/09/22 15:45 1,4-Difluorobenzene (Surr)

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

Lab Sample ID: MB 880-39172/1-A **Client Sample ID: Method Blank Matrix: Solid** Prep Type: Total/NA

Analysis Batch: 39269 Prep Batch: 39172 MB MB

Result Qualifier Analyte RL Unit Prepared Analyzed Dil Fac Gasoline Range Organics <50.0 U 50.0 mg/Kg 11/10/22 08:48 11/11/22 09:30 (GRO)-C6-C10

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Prep Batch: 39079

11/21/2022 (Rev. 1)

QC Sample Results

 Client: Ensolum
 Job ID: 890-3402-1

 Project/Site: PLU 21 BD 125H
 SDG: 03E1558068

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

Lab Sample ID: MB 880-39172/1-A

Matrix: Solid

Analysis Batch: 39269

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 39172

-	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		11/10/22 08:48	11/11/22 09:30	1
Oll Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		11/10/22 08:48	11/11/22 09:30	1
	MB	MB						
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	119		70 - 130			11/10/22 08:48	11/11/22 09:30	1
o-Terphenyl	134	S1+	70 - 130			11/10/22 08:48	11/11/22 09:30	1

Lab Sample ID: LCS 880- Matrix: Solid Analysis Batch: 39269	391 <i>721</i> 2-A		Spike	LCS	LCS	Cilen	t Sai	mpie iD	Prep Type: Total/NA Prep Batch: 39172 %Rec
Analyte			Added	_	Qualifier	Unit	D	%Rec	Limits
Gasoline Range Organics (GRO)-C6-C10			1000	815.5		mg/Kg		82	70 - 130
Diesel Range Organics (Over C10-C28)			1000	846.7		mg/Kg		85	70 - 130
	LCS	LCS							
Surrogate	%Recovery	Qualifier	Limits						
1-Chlorooctane	94		70 - 130						
o-Terphenyl	97		70 - 130						

Lab Sample ID. LOSD 000-39172/3-A	Daniple ID. LOOD 000-33172/3-A				IIIPIE	ID. Lat	Control	Janipi	Dup
Matrix: Solid							Prep Ty	pe: Tot	al/NA
Analysis Batch: 39269							Prep E	atch:	39172
	Spike	LCSD	LCSD				%Rec		RPD
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Gasoline Range Organics (GRO)-C6-C10	1000	1003	*1	mg/Kg		100	70 - 130	21	20
Diesel Range Organics (Over C10-C28)	1000	950.2		mg/Kg		95	70 - 130	12	20
1000 1000									

	LCSD	LCSD	
Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane	107		70 - 130
o-Terphenyl	109		70 - 130

Lab Sample ID: 890-3402-1 MS **Client Sample ID: SS06 Matrix: Solid** Prep Type: Total/NA **Analysis Batch: 39269** Prep Batch: 39172 Sample Sample Spike MS MS %Rec Analyte Result Qualifier Added Result Qualifier Unit %Rec Limits Gasoline Range Organics 55.1 *1 997 1007 95 70 - 130 mg/Kg (GRO)-C6-C10 Diesel Range Organics (Over <50.0 U 997 861.7 mg/Kg 70 - 130 C10-C28) MS MS %Recovery Qualifier Limits Surrogate 1-Chlorooctane 86 70 - 130 o-Terphenyl 79 70 - 130

Client: Ensolum Job ID: 890-3402-1 Project/Site: PLU 21 BD 125H

SDG: 03E1558068

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

Lab Sample ID: 890-3402-1 MSD Client Sample ID: SS06

Matrix: Solid Prep Type: Total/NA **Analysis Batch: 39269** Prep Batch: 39172

Sample Sample Spike MSD MSD %Rec **RPD** Result Qualifier Added Result Qualifier Unit D %Rec Limits **RPD** Limit Analyte 55.1 *1 Gasoline Range Organics 999 978.6 mg/Kg 92 70 - 130 3 20 (GRO)-C6-C10 999 Diesel Range Organics (Over <50.0 U 796.8 77 70 - 130 mg/Kg 8 20

C10-C28)

	MSD	MSD	
Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane	82		70 - 130
o-Terphenyl	73		70 - 130

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-39126/1-A **Client Sample ID: Method Blank Prep Type: Soluble**

Matrix: Solid

Analysis Batch: 39335

MB MB

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.00	U	5.00	mg/Kg			11/12/22 02:56	1

Lab Sample ID: LCS 880-39126/2-A **Client Sample ID: Lab Control Sample Prep Type: Soluble Matrix: Solid**

Analysis Batch: 39335

	Spike	LCS	LCS				%Rec	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Chloride	250	266.1	-	ma/Ka		106	90 - 110	

Lab Sample ID: LCSD 880-39126/3-A **Client Sample ID: Lab Control Sample Dup Prep Type: Soluble**

Matrix: Solid

Analysis Batch: 39335

-	Spike	LCSD	LCSD				%Rec		RPD	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit	
Chloride	250	258.9		ma/Ka		104	90 - 110	3	20	

Lab Sample ID: 890-3402-1 MS Client Sample ID: SS06 **Prep Type: Soluble**

Matrix: Solid

Analysis Batch: 39335

	Sample	Sample	Spike	MS	MS				%Rec	
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Chloride	195		249	466.5		ma/Ka		109	90 - 110	

Lab Sample ID: 890-3402-1 MSD **Client Sample ID: SS06 Prep Type: Soluble**

Matrix: Solid

Analysis Batch: 39335

Alialysis Datell. 33333											
	Sample	Sample	Spike	MSD	MSD				%Rec		RPD
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Chloride	195		249	456.2		mg/Kg		105	90 - 110	2	20

QC Association Summary

Client: Ensolum

Job ID: 890-3402-1 Project/Site: PLU 21 BD 125H SDG: 03E1558068

GC VOA

Prep Batch: 39013

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3402-1	SS06	Total/NA	Solid	5035	
MB 880-39013/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-39013/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-39013/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
890-3374-A-1-C MS	Matrix Spike	Total/NA	Solid	5035	
890-3374-A-1-D MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	

Prep Batch: 39079

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 880-39079/5-A	Method Blank	Total/NA	Solid	5035	

Analysis Batch: 39086

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3402-1	SS06	Total/NA	Solid	8021B	39013
MB 880-39013/5-A	Method Blank	Total/NA	Solid	8021B	39013
MB 880-39079/5-A	Method Blank	Total/NA	Solid	8021B	39079
LCS 880-39013/1-A	Lab Control Sample	Total/NA	Solid	8021B	39013
LCSD 880-39013/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	39013
890-3374-A-1-C MS	Matrix Spike	Total/NA	Solid	8021B	39013
890-3374-A-1-D MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	39013

Analysis Batch: 39248

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3402-1	SS06	Total/NA	Solid	Total BTEX	

GC Semi VOA

Prep Batch: 39172

Lab Sample ID 890-3402-1	Client Sample ID SS06	Prep Type Total/NA	Matrix Solid	Method Prep	rep Batch
MB 880-39172/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-39172/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-39172/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
890-3402-1 MS	SS06	Total/NA	Solid	8015NM Prep	
890-3402-1 MSD	SS06	Total/NA	Solid	8015NM Prep	

Analysis Batch: 39269

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3402-1	SS06	Total/NA	Solid	8015B NM	39172
MB 880-39172/1-A	Method Blank	Total/NA	Solid	8015B NM	39172
LCS 880-39172/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	39172
LCSD 880-39172/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	39172
890-3402-1 MS	SS06	Total/NA	Solid	8015B NM	39172
890-3402-1 MSD	SS06	Total/NA	Solid	8015B NM	39172

Analysis Batch: 39337

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3402-1	SS06	Total/NA	Solid	8015 NM	

QC Association Summary

 Client: Ensolum
 Job ID: 890-3402-1

 Project/Site: PLU 21 BD 125H
 SDG: 03E1558068

HPLC/IC

Leach Batch: 39126

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3402-1	SS06	Soluble	Solid	DI Leach	
MB 880-39126/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-39126/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-39126/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
890-3402-1 MS	SS06	Soluble	Solid	DI Leach	
890-3402-1 MSD	SS06	Soluble	Solid	DI Leach	

Analysis Batch: 39335

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3402-1	SS06	Soluble	Solid	300.0	39126
MB 880-39126/1-A	Method Blank	Soluble	Solid	300.0	39126
LCS 880-39126/2-A	Lab Control Sample	Soluble	Solid	300.0	39126
LCSD 880-39126/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	39126
890-3402-1 MS	SS06	Soluble	Solid	300.0	39126
890-3402-1 MSD	SS06	Soluble	Solid	300.0	39126

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Lab Chronicle

Client: Ensolum Job ID: 890-3402-1 Project/Site: PLU 21 BD 125H SDG: 03E1558068

Client Sample ID: SS06 Lab Sample ID: 890-3402-1 Date Collected: 11/07/22 12:05

Matrix: Solid

Date Received: 11/07/22 14:17

	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	39013	11/09/22 13:56	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	39086	11/10/22 13:00	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			39248	11/10/22 13:49	SM	EET MID
Total/NA	Analysis	8015 NM		1			39337	11/11/22 14:06	SM	EET MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	39172	11/10/22 08:48	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	39269	11/11/22 11:58	SM	EET MID
Soluble	Leach	DI Leach			5.03 g	50 mL	39126	11/09/22 15:04	KS	EET MID
Soluble	Analysis	300.0		1	0 mL	1.0 mL	39335	11/12/22 03:11	CH	EET MID

Laboratory References:

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

Accreditation/Certification Summary

Client: Ensolum
Project/Site: PLU 21 BD 125H
SDG: 0

Job ID: 890-3402-1 SDG: 03E1558068

Laboratory: Eurofins Midland

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

Authority Texas		ogram ELAP	Identification Number	Expiration Date 06-30-23
The following analyte	•	ort, but the laboratory is r	not certified by the governing authority.	This list may include analytes for
J -,	oner certification.			
Analysis Method	Prep Method	Matrix	Analyte	
0 ,		Matrix Solid	Analyte Total TPH	

5

7

10

12

4 4

15

Method Summary

Client: Ensolum

Project/Site: PLU 21 BD 125H

Job ID: 890-3402-1

SDG: 03E1558068

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

Protocol References:

ASTM = ASTM International

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

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

TAL SOP = TestAmerica Laboratories, Standard Operating Procedure

Laboratory References:

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

Sample Summary

Client: Ensolum

Project/Site: PLU 21 BD 125H

Job ID: 890-3402-1

SDG: 03E1558068

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-3402-1	SS06	Solid	11/07/22 12:05	11/07/22 14:17	0.2'

13 14

Chain of Custody

Xenco **Environment Testing** Bill to: (if different) Midland, TX (432) 704-5440, San Antonio, TX (210) 509-3334 EL Paso, TX (915) 585-3443, Lubbock, TX (806) 794-1296 Hobbs, NM (575) 392-7550, Carlsbad, NM (575) 988-3199 Houston, TX (281) 240-4200, Dallas, TX (214) 902-0300 Garret Green Work Order No: www.xenco.com **Work Order Comments**

Company Name: XTO Energy, Inc. Address: 3104 E. Greene Street City, State ZIP: Carlsbad, NM 88220 Email: kiennings@ensolum.com, bbelill@ensolum.com Turn Around Pres. Routine Rush Code Routine Rush Code TAT starts the day received by the lab, if received by 4:30pm Wet loe: Yes No ID: Tyrn Around Pres.
1 1 113 1 1

Page

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Login Sample Receipt Checklist

Client: Ensolum Job Number: 890-3402-1 SDG Number: 03E1558068

Login Number: 3402 **List Source: Eurofins Carlsbad**

List Number: 1

Creator: Stutzman, Amanda

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

Released to Imaging: 3/13/2023 10:02:15 AM

Login Sample Receipt Checklist

Client: Ensolum Job Number: 890-3402-1 SDG Number: 03E1558068

Login Number: 3402 **List Source: Eurofins Midland** List Creation: 11/09/22 10:47 AM List Number: 2

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").

Eurofins Carlsbad

Job Notes

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

Authorization

Generated 11/21/2022 2:58:31 PM

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

Revision 1

Eurofins Carlsbad is a laboratory within Eurofins Environment Testing South Central, LLC, a company within Eurofins Environment Testing Group of Companies

Environment Testing

ANALYTICAL REPORT

PREPARED FOR

Attn: Kalei Jennings Ensolum 705 W. Wadley Suite 210 Midland Texas 79701

Generated 11/21/2022 2:59:29 PM Revision 1

JOB DESCRIPTION

PLU 21 BD 125H SDG NUMBER 03E1558068

JOB NUMBER

890-3403-1

Eurofins Carlsbad 1089 N Canal St. Carlsbad NM 88220



 Client: Ensolum
 Laboratory Job ID: 890-3403-1

 Project/Site: PLU 21 BD 125H
 SDG: 03E1558068

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Eurofins Carlsbad 11/21/2022 (Rev. 1)

Definitions/Glossary

Client: Ensolum Job ID: 890-3403-1 Project/Site: PLU 21 BD 125H

SDG: 03E1558068

Qualifiers

GC VOA Qualifier **Qualifier Description**

Indicates the analyte was analyzed for but not detected.

GC Semi VOA

Qualifier **Qualifier Description**

*1 LCS/LCSD RPD exceeds control limits.

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

HPLC/IC

Qualifier **Qualifier Description**

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

Duplicate Error Ratio (normalized absolute difference) **DER**

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) Minimum Detectable Concentration (Radiochemistry) MDC

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

Practical Quantitation Limit PQL

PRES Presumptive QC **Quality Control**

RER Relative Error Ratio (Radiochemistry)

RI Reporting Limit or Requested Limit (Radiochemistry)

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

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

TNTC Too Numerous To Count

Case Narrative

Client: Ensolum

Job ID: 890-3403-1 Project/Site: PLU 21 BD 125H SDG: 03E1558068

Job ID: 890-3403-1

Laboratory: Eurofins Carlsbad

Narrative

Job Narrative 890-3403-1

REVISION

The report being provided is a revision of the original report sent on 11/14/2022. The report (revision 1) is being revised due to Per client email, requesting sample ID name edit.

Report revision history

Receipt

The sample was received on 11/7/2022 2:17 PM. Unless otherwise noted below, the sample arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 5.8°C

Receipt Exceptions

The following sample was received and analyzed from an unpreserved bulk soil jar: SS05 (890-3403-1).

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 880-39172 and analytical batch 880-39269 was outside the upper control limits.

Method 8015MOD NM: The RPD of the laboratory control sample (LCS) and laboratory control sample duplicate (LCSD) for preparation batch 880-39172 and analytical batch 880-39269 recovered outside control limits for the following analytes: Gasoline Range Organics (GRO)-C6-C10.

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: 890-3403-1 Project/Site: PLU 21 BD 125H SDG: 03E1558068

Client Sample ID: SS05 Date Collected: 11/07/22 12:00

Lab Sample ID: 890-3403-1

Matrix: Solid

Date Received: 11/07/22 14:17 Sample Depth: 0.2'

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		11/09/22 13:56	11/10/22 13:21	1
Toluene	<0.00200	U	0.00200	mg/Kg		11/09/22 13:56	11/10/22 13:21	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		11/09/22 13:56	11/10/22 13:21	1
m-Xylene & p-Xylene	<0.00401	U	0.00401	mg/Kg		11/09/22 13:56	11/10/22 13:21	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		11/09/22 13:56	11/10/22 13:21	1
Xylenes, Total	<0.00401	U	0.00401	mg/Kg		11/09/22 13:56	11/10/22 13:21	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	105		70 - 130			11/09/22 13:56	11/10/22 13:21	1
1,4-Difluorobenzene (Surr)	96		70 - 130			11/09/22 13:56	11/10/22 13:21	1
Method: TAL SOP Total BTEX	(- Total BTE	X Calculat	ion					
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00401	U	0.00401	mg/Kg			11/10/22 14:19	1
		Qualifier	RL 10.0	Unit	<u>D</u>	Prepared	Analyzed	Dil Fac
Analyte Total TPH	Result		RL 49.8	mg/Kg	<u>D</u>	Prepared	Analyzed 11/14/22 09:30	Dil Fac
Total TPH	<49.8	U	49.8		<u>D</u>	Prepared		Dil Fac
Total TPH Method: SW846 8015B NM - E Analyte	<49.8 Diesel Range	U	49.8		<u>D</u>	Prepared Prepared		1
Total TPH Method: SW846 8015B NM - Description Analyte Gasoline Range Organics	<49.8 Diesel Range	Organics Qualifier	49.8 (DRO) (GC)	mg/Kg			11/14/22 09:30	1
Total TPH Method: SW846 8015B NM - DANAINTE Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over	<49.8 Diesel Range Result	Organics Qualifier U*1	49.8 (DRO) (GC)	mg/Kg Unit		Prepared	11/14/22 09:30 Analyzed	Dil Fac
Total TPH Method: SW846 8015B NM - DANAINTE Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28)	<49.8 Diesel Range Result <49.8	Organics Qualifier U *1	49.8 (DRO) (GC) RL 49.8	mg/Kg Unit mg/Kg		Prepared 11/10/22 08:48 11/10/22 08:48	11/14/22 09:30 Analyzed 11/11/22 15:07	Dil Fac
Total TPH Method: SW846 8015B NM - DANAINTE Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) Oll Range Organics (Over C28-C36)	<49.8 Diesel Range Result <49.8 <49.8	Organics Qualifier U*1 U	49.8 (DRO) (GC) RL 49.8 49.8	mg/Kg Unit mg/Kg mg/Kg		Prepared 11/10/22 08:48 11/10/22 08:48	Analyzed 11/11/22 15:07 11/11/22 15:07	Dil Fac
Total TPH Method: SW846 8015B NM - E Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) Oll Range Organics (Over C28-C36) Surrogate	<49.8 Diesel Range Result <49.8 <49.8 <49.8	Organics Qualifier U*1 U	49.8 (DRO) (GC) RL 49.8 49.8 49.8	mg/Kg Unit mg/Kg mg/Kg		Prepared 11/10/22 08:48 11/10/22 08:48 11/10/22 08:48	Analyzed 11/11/22 15:07 11/11/22 15:07 11/11/22 15:07	Dil Face
Method: SW846 8015B NM - EANAINTE Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) OII Range Organics (Over C28-C36) Surrogate 1-Chlorooctane	<49.8 Diesel Range Result <49.8 <49.8 <49.8 %Recovery	Organics Qualifier U*1 U	49.8 (DRO) (GC) RL 49.8 49.8 49.8 Limits	mg/Kg Unit mg/Kg mg/Kg		Prepared 11/10/22 08:48 11/10/22 08:48 11/10/22 08:48 Prepared 11/10/22 08:48	Analyzed 11/11/22 15:07 11/11/22 15:07 11/11/22 15:07 Analyzed	Dil Fac
	<49.8 Diesel Range Result <49.8 <49.8 <49.8 <49.8 %Recovery 96 95	Organics Qualifier U*1 U Qualifier	49.8 (DRO) (GC) RL 49.8 49.8 49.8 49.8 Limits 70 - 130 70 - 130	mg/Kg Unit mg/Kg mg/Kg		Prepared 11/10/22 08:48 11/10/22 08:48 11/10/22 08:48 Prepared 11/10/22 08:48	Analyzed 11/11/22 15:07 11/11/22 15:07 11/11/22 15:07 Analyzed 11/11/22 15:07	Dil Face
Total TPH Method: SW846 8015B NM - E Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) OII Range Organics (Over C28-C36) Surrogate 1-Chlorooctane o-Terphenyl	<49.8 Piesel Range Result <49.8 <49.8 <49.8 %Recovery 96 95 ons, Ion Chr	Organics Qualifier U*1 U Qualifier	49.8 (DRO) (GC) RL 49.8 49.8 49.8 49.8 Limits 70 - 130 70 - 130	mg/Kg Unit mg/Kg mg/Kg		Prepared 11/10/22 08:48 11/10/22 08:48 11/10/22 08:48 Prepared 11/10/22 08:48	Analyzed 11/11/22 15:07 11/11/22 15:07 11/11/22 15:07 Analyzed 11/11/22 15:07	Dil Face 1 Dil Face 1 Dil Face 1 Dil Face 1 Dil Face 1

Surrogate Summary

Client: Ensolum Job ID: 890-3403-1 Project/Site: PLU 21 BD 125H SDG: 03E1558068

Method: 8021B - Volatile Organic Compounds (GC)

Matrix: Solid Prep Type: Total/NA

			Perce	nt Surrogate Recovery (Acceptance Limits)
		BFB1	DFBZ1	
Lab Sample ID	Client Sample ID	(70-130)	(70-130)	
890-3374-A-1-C MS	Matrix Spike		94	
890-3374-A-1-D MSD	Matrix Spike Duplicate	115	100	
890-3403-1	SS05	105	96	
LCS 880-39013/1-A	Lab Control Sample	119	99	
LCSD 880-39013/2-A	Lab Control Sample Dup	112	96	
MB 880-39013/5-A	Method Blank	87	96	
MB 880-39079/5-A	Method Blank	83	100	

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

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

Matrix: Solid Prep Type: Total/NA

			Percer	t Surrogate Recovery (Acceptance Limits)
		1CO1	OTPH1	
Lab Sample ID	Client Sample ID	(70-130)	(70-130)	
890-3402-A-1-G MS	Matrix Spike	86	79	
890-3402-A-1-H MSD	Matrix Spike Duplicate	82	73	
890-3403-1	SS05	96	95	
LCS 880-39172/2-A	Lab Control Sample	94	97	
LCSD 880-39172/3-A	Lab Control Sample Dup	107	109	
MB 880-39172/1-A	Method Blank	119	134 S1+	

1CO = 1-Chlorooctane

OTPH = o-Terphenyl

Client: Ensolum Job ID: 890-3403-1 Project/Site: PLU 21 BD 125H SDG: 03E1558068

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-39013/5-A

Matrix: Solid

Analysis Batch: 39086

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 39013

	MB	MB						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		11/08/22 13:56	11/10/22 03:41	1
Toluene	<0.00200	U	0.00200	mg/Kg		11/08/22 13:56	11/10/22 03:41	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		11/08/22 13:56	11/10/22 03:41	1
m-Xylene & p-Xylene	<0.00400	U	0.00400	mg/Kg		11/08/22 13:56	11/10/22 03:41	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		11/08/22 13:56	11/10/22 03:41	1
Xylenes, Total	<0.00400	U	0.00400	mg/Kg		11/08/22 13:56	11/10/22 03:41	1

MB MB

Surrogate	%Recovery Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	87	70 - 130	11/08/22 13:56	11/10/22 03:41	1
1,4-Difluorobenzene (Surr)	96	70 - 130	11/08/22 13:56	11/10/22 03:41	1

Lab Sample ID: LCS 880-39013/1-A

Matrix: Solid

Analysis Batch: 39086

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 39013

	Spike	LCS	LCS				%Rec	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Benzene	0.100	0.09861		mg/Kg		99	70 - 130	
Toluene	0.100	0.1075		mg/Kg		107	70 - 130	
Ethylbenzene	0.100	0.1070		mg/Kg		107	70 - 130	
m-Xylene & p-Xylene	0.200	0.1883		mg/Kg		94	70 - 130	
o-Xylene	0.100	0.09621		mg/Kg		96	70 - 130	

LCS LCS

Surrogate	%Recovery	Qualifier	Limits
4-Bromofluorobenzene (Surr)	119		70 - 130
1,4-Difluorobenzene (Surr)	99		70 - 130

Lab Sample ID: LCSD 880-39013/2-A

Matrix: Solid

Analysis Batch: 39086

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

Prep Batch: 39013

	Spike	LCSD	LCSD				%Rec		RPD
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Benzene	0.100	0.09159		mg/Kg		92	70 - 130	7	35
Toluene	0.100	0.1006		mg/Kg		101	70 - 130	7	35
Ethylbenzene	0.100	0.09712		mg/Kg		97	70 - 130	10	35
m-Xylene & p-Xylene	0.200	0.1715		mg/Kg		86	70 - 130	9	35
o-Xylene	0.100	0.08615		mg/Kg		86	70 - 130	11	35

LCSD LCSD

<0.00200 U

Surrogate	%Recovery	Qualifier	Limits
4-Bromofluorobenzene (Surr)	112		70 - 130
1.4-Difluorobenzene (Surr)	96		70 - 130

Lab Sample ID: 890-3374-A-1-C MS

Matrix: Solid

Toluene

Analysis Batch: 39086

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

70 - 130

84

Prep Batch: 39013

MS MS %Rec Sample Sample Spike Analyte Result Qualifier Added Result Qualifier Unit %Rec Limits mg/Kg Benzene <0.00200 U 0.0996 0.07004 70 70 - 130

0.0996

Eurofins Carlsbad

0.08341

mg/Kg

Client: Ensolum

Job ID: 890-3403-1

SDG: 03E1558068

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

Lab Sample ID: 890-3374-A-1-C MS

Lab Sample ID: 890-3374-A-1-D MSD

Matrix: Solid

Analysis Batch: 39086

Project/Site: PLU 21 BD 125H

Client Sample ID: Matrix Spike

Prep Type: Total/NA Prep Batch: 39013

	Sample	Sample	Spike	MS	MS				%Rec	
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Ethylbenzene	<0.00200	U	0.0996	0.08100		mg/Kg		81	70 - 130	
m-Xylene & p-Xylene	<0.00401	U	0.199	0.1464		mg/Kg		73	70 - 130	
o-Xylene	<0.00200	U	0.0996	0.07491		mg/Kg		75	70 - 130	

MS MS

Surrogate	%Recovery Qualifier	Limits
4-Bromofluorobenzene (Surr)	117	70 - 130
1,4-Difluorobenzene (Surr)	94	70 - 130

Client Sample ID: Matrix Spike Duplicate

Matrix: Solid

Analysis Batch: 39086

Prep Type: Total/NA

Prep Batch: 39013

Sample Sample Spike MSD MSD %Rec **RPD** Analyte Result Qualifier Added Result Qualifier Unit D %Rec Limits RPD Limit 0.0994 Benzene <0.00200 U 0.09453 mg/Kg 95 70 - 130 30 35 Toluene <0.00200 U 0.0994 0.1030 104 70 - 130 21 35 mg/Kg 0.0994 Ethylbenzene <0.00200 U 0.09726 mg/Kg 98 70 - 130 18 35 m-Xylene & p-Xylene <0.00401 U 0.199 0.1707 mg/Kg 86 70 - 130 15 35 <0.00200 U 0.0994 0.08657 87 70 - 130 o-Xylene mg/Kg 14

MSD MSD

Surrogate	%Recovery	Qualifier	Limits
4-Bromofluorobenzene (Surr)	115		70 - 130
1,4-Difluorobenzene (Surr)	100		70 - 130

Lab Sample ID: MB 880-39079/5-A

Matrix: Solid

Analysis Batch: 39086

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 39079

	IVID	IVID						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		11/09/22 09:54	11/09/22 15:45	1
Toluene	<0.00200	U	0.00200	mg/Kg		11/09/22 09:54	11/09/22 15:45	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		11/09/22 09:54	11/09/22 15:45	1
m-Xylene & p-Xylene	<0.00400	U	0.00400	mg/Kg		11/09/22 09:54	11/09/22 15:45	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		11/09/22 09:54	11/09/22 15:45	1
Xylenes, Total	<0.00400	U	0.00400	mg/Kg		11/09/22 09:54	11/09/22 15:45	1

MB MB

MR MR

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	83		70 - 130	11/09/22 09:54	11/09/22 15:45	1
1,4-Difluorobenzene (Surr)	100		70 - 130	11/09/22 09:54	11/09/22 15:45	1

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

Lab Sample ID: MB 880-39172/1-A

Matrix: Solid

Analysis Batch: 39269

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

Prep Batch: 39172

	мв мв						
Analyte	Result Qualifie	r RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics	<50.0 U	50.0	mg/Kg		11/10/22 08:48	11/11/22 09:30	1

(GRO)-C6-C10

Client: Ensolum Job ID: 890-3403-1 Project/Site: PLU 21 BD 125H SDG: 03E1558068

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

Lab Sample ID: MB 880-39172/1-A **Client Sample ID: Method Blank** Matrix: Solid **Prep Type: Total/NA Analysis Batch: 39269** Prep Batch: 39172

							•	
	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		11/10/22 08:48	11/11/22 09:30	1
Oll Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		11/10/22 08:48	11/11/22 09:30	1
	МВ	МВ						
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	119		70 - 130			11/10/22 08:48	11/11/22 09:30	1
o-Terphenyl	134	S1+	70 - 130			11/10/22 08:48	11/11/22 09:30	1

Lab Sample ID: LCS 880-3 Matrix: Solid Analysis Batch: 39269	9172/2-A					Clier	nt Sai	mple ID	: Lab Control Sample Prep Type: Total/NA Prep Batch: 39172
			Spike	LCS	LCS				%Rec
Analyte			Added	Result	Qualifier	Unit	D	%Rec	Limits
Gasoline Range Organics (GRO)-C6-C10			1000	815.5		mg/Kg		82	70 - 130
Diesel Range Organics (Over C10-C28)			1000	846.7		mg/Kg		85	70 - 130
	LCS	LCS							
Surrogate	%Recovery	Qualifier	Limits						
1-Chlorooctane	94		70 - 130						
o-Terphenyl	97		70 - 130						

Lab Sample ID: LCSD 880-39172/3-A		Client Sample ID: Lab Control Sample Dup										
Matrix: Solid							Prep Ty	pe: Tot	al/NA			
Analysis Batch: 39269							Prep E	Batch: 3	39172			
	Spike	LCSD	LCSD				%Rec		RPD			
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit			
Gasoline Range Organics (GRO)-C6-C10	1000	1003	*1	mg/Kg		100	70 - 130	21	20			
Diesel Range Organics (Over C10-C28)	1000	950.2		mg/Kg		95	70 - 130	12	20			
LCSD LCSD												

	LCSD LC	SD	
Surrogate	%Recovery Qι	ıalifier	Limits
1-Chlorooctane	107		70 - 130
o-Terphenyl	109		70 - 130

Lab Sample ID: 890-3402 Matrix: Solid Analysis Batch: 39269		Sample	Spike	MS	MS		CI	lient Sa	mple ID: Matrix S Prep Type: Tota Prep Batch: 3 %Rec	al/NA
Analyte	•	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Gasoline Range Organics (GRO)-C6-C10	55.1	*1	997	1007		mg/Kg		95	70 - 130	
Diesel Range Organics (Over C10-C28)	<50.0	U	997	861.7		mg/Kg		84	70 - 130	
	MS	MS								
Surrogate	%Recovery	Qualifier	Limits							
1-Chlorooctane	86		70 - 130							
o-Terphenyl	79		70 - 130							

Client: Ensolum Job ID: 890-3403-1 Project/Site: PLU 21 BD 125H SDG: 03E1558068

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

Lab Sample ID: 890-3402-A-1-H MSD

Matrix: Solid

Analysis Batch: 39269

Client Sample ID: Matrix Spike Duplicate Prep Type: Total/NA Prep Batch: 39172

	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	55.1	*1	999	978.6		mg/Kg		92	70 - 130	3	20
Diesel Range Organics (Over C10-C28)	<50.0	U	999	796.8		mg/Kg		77	70 - 130	8	20

	MSD	MSD	
Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane	82		70 - 130
o-Terphenyl	73		70 - 130

Method: 300.0 - Anions, Ion Chromatography

Client Sample ID: Method Blank Lab Sample ID: MB 880-39126/1-A **Matrix: Solid Prep Type: Soluble**

Analysis Batch: 39335

MB MB Analyte Result Qualifier RL Unit Prepared Analyzed Dil Fac 5.00 11/12/22 02:56 Chloride <5.00 U mg/Kg

Lab Sample ID: LCS 880-39126/2-A **Client Sample ID: Lab Control Sample Prep Type: Soluble**

Matrix: Solid

Analysis Batch: 39335

	Spike	LCS	LCS				%Rec	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Chloride	250	266.1		mg/Kg		106	90 - 110	

Lab Sample ID: LCSD 880-39126/3-A **Client Sample ID: Lab Control Sample Dup Prep Type: Soluble**

Matrix: Solid

Analysis Batch: 39335

-	Spike	LCSD	LCSD				%Rec		RPD	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit	
Chloride	250	258.9		ma/Ka		104	90 - 110	3	20	

Lab Sample ID: 890-3402-A-1-D MS **Client Sample ID: Matrix Spike Prep Type: Soluble**

Matrix: Solid

Analysis Batch: 39335

	Sample Sample	Spike	MS MS				%Rec	
Analyte	Result Qualifier	Added	Result Qualifie	r Unit	D	%Rec	Limits	
Chloride	195	249	466.5	ma/Ka		109	90 - 110	

Lab Sample ID: 890-3402-A-1-E MSD **Client Sample ID: Matrix Spike Duplicate Prep Type: Soluble**

Matrix: Solid

Analysis Batch: 39335

Analysis Dateil. 00000												
	Sample	Sample	Spike	MSD	MSD				%Rec		RPD	
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit	
Chloride	195		249	456.2		mg/Kg		105	90 - 110	2	20	

QC Association Summary

Client: Ensolum Job ID: 890-3403-1 Project/Site: PLU 21 BD 125H SDG: 03E1558068

GC VOA

Prep Batch: 39013

Lab Sample ID 890-3403-1	Client Sample ID SS05	Prep Type Total/NA	Matrix Solid	Method 5035	Prep Batch
MB 880-39013/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-39013/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-39013/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
890-3374-A-1-C MS	Matrix Spike	Total/NA	Solid	5035	
890-3374-A-1-D MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	

Prep Batch: 39079

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 880-39079/5-A	Method Blank	Total/NA	Solid	5035	

Analysis Batch: 39086

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3403-1	SS05	Total/NA	Solid	8021B	39013
MB 880-39013/5-A	Method Blank	Total/NA	Solid	8021B	39013
MB 880-39079/5-A	Method Blank	Total/NA	Solid	8021B	39079
LCS 880-39013/1-A	Lab Control Sample	Total/NA	Solid	8021B	39013
LCSD 880-39013/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	39013
890-3374-A-1-C MS	Matrix Spike	Total/NA	Solid	8021B	39013
890-3374-A-1-D MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	39013

Analysis Batch: 39252

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3403-1	SS05	Total/NA	Solid	Total BTEX	

GC Semi VOA

Prep Batch: 39172

Lab Sample ID 890-3403-1	Client Sample ID SS05	Prep Type Total/NA	Matrix Solid	Method Prep	p Batch
MB 880-39172/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-39172/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-39172/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
890-3402-A-1-G MS	Matrix Spike	Total/NA	Solid	8015NM Prep	
890-3402-A-1-H MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	

Analysis Batch: 39269

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3403-1	SS05	Total/NA	Solid	8015B NM	39172
MB 880-39172/1-A	Method Blank	Total/NA	Solid	8015B NM	39172
LCS 880-39172/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	39172
LCSD 880-39172/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	39172
890-3402-A-1-G MS	Matrix Spike	Total/NA	Solid	8015B NM	39172
890-3402-A-1-H MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	39172

Analysis Batch: 39399

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3403-1	SS05	Total/NA	Solid	8015 NM	

QC Association Summary

Client: Ensolum Job ID: 890-3403-1 Project/Site: PLU 21 BD 125H SDG: 03E1558068

HPLC/IC

Leach Batch: 39126

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3403-1	SS05	Soluble	Solid	DI Leach	
MB 880-39126/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-39126/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-39126/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
890-3402-A-1-D MS	Matrix Spike	Soluble	Solid	DI Leach	
890-3402-A-1-E MSD	Matrix Spike Duplicate	Soluble	Solid	DI Leach	

Analysis Batch: 39335

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3403-1	SS05	Soluble	Solid	300.0	39126
MB 880-39126/1-A	Method Blank	Soluble	Solid	300.0	39126
LCS 880-39126/2-A	Lab Control Sample	Soluble	Solid	300.0	39126
LCSD 880-39126/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	39126
890-3402-A-1-D MS	Matrix Spike	Soluble	Solid	300.0	39126
890-3402-A-1-E MSD	Matrix Spike Duplicate	Soluble	Solid	300.0	39126

Lab Chronicle

Client: Ensolum Job ID: 890-3403-1 Project/Site: PLU 21 BD 125H SDG: 03E1558068

Client Sample ID: SS05 Lab Sample ID: 890-3403-1

Date Collected: 11/07/22 12:00 **Matrix: Solid** Date Received: 11/07/22 14:17

	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	39013	11/09/22 13:56	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	39086	11/10/22 13:21	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			39252	11/10/22 14:19	SM	EET MID
Total/NA	Analysis	8015 NM		1			39399	11/14/22 09:30	SM	EET MID
Total/NA	Prep	8015NM Prep			10.04 g	10 mL	39172	11/10/22 08:48	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	39269	11/11/22 15:07	SM	EET MID
Soluble	Leach	DI Leach			5.04 g	50 mL	39126	11/09/22 15:04	KS	EET MID
Soluble	Analysis	300.0		1	0 mL	1.0 mL	39335	11/12/22 03:25	CH	EET MID

Laboratory References:

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

Accreditation/Certification Summary

Client: Ensolum
Project/Site: PLU 21 BD 125H

SDG:

Job ID: 890-3403-1 SDG: 03E1558068

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	NE	ELAP	T104704400-22-24	06-30-23
The following analyte	s are included in this repu	ort, but the laboratory is r		
., , , ,	•	,,,,	iot coranica by and governing dualionty.	Triis list may molade an
the agency does not	•	,,,,	iot contined by the governing admenty.	This list may include an
the agency does not of Analysis Method	•	Matrix	Analyte	Triio ilot may molado an
0 ,	offer certification.	•	, , ,	

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Method Summary

Client: Ensolum

Project/Site: PLU 21 BD 125H

Job ID: 890-3403-1

SDG: 03E1558068

0000000	

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

Protocol References:

ASTM = ASTM International

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

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

TAL SOP = TestAmerica Laboratories, Standard Operating Procedure

Laboratory References:

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

Sample Summary

Client: Ensolum

Project/Site: PLU 21 BD 125H

Job ID: 890-3403-1

SDG: 03E1558068

 Lab Sample ID
 Client Sample ID
 Matrix
 Collected
 Received
 Depth

 890-3403-1
 SS05
 Solid
 11/07/22 12:00
 11/07/22 14:17
 0.2'

3

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eurofins				Hou	ston, TX	Houston, TX (281) 240-4200, Dallas, TX (214) 902-0300	200, Dallas,	TX (214) 90	2-0300					
		Environment lesting	Sus	Midlan EL P	d, TX (43	Midland, TX (432) 704-5440, San Antonio, TX (210) 509-3334 EL Paso, TX (915) 585-3443, Lubbock, TX (806) 794-1296), San Anton 43, Lubbock	io, TX (210) . TX (806) 7	509-3334 94-1296		Work	Work Order No:	0:	
				Hobb	os, NM (5	Hobbs, NM (575) 392-7550, Carlsbad, NM (575) 988-3199	0, Cartsbad	NM (575) 9	88-3199			Venco co	Page	o,
												Work Orde	Con	
Project Manager:	Kalei Jennings		a	Bill to: (if different)		Garret Green	en					0.7		
Company Name:	Ensolum, LLC		0	Company Name:		XTO Energy, Inc	y, Inc.			Prog	Program: UST/PST [PRP Brownfields	PRP Brc	ownfields LRC	uperfund
	601 N. Marienfeld Street,	Street, Suite 400	Þ	Address:		3104 E. Greene Street	eene Stree	*		State	State of Project: NM]	
te ZIP:	Midland, TX 79701		C	City, State ZIP:		Carlsbad, NM 88220	VM 88220			Repo	orting: Level II L	evel III F	Reporting: Level III Level III PST/UST TRRP	Level IV
	817-683-2503		Email: k	Email: kjennings@ensolum.com, bbelill@ensolum.com	solum.	com, bbel	ill@ensol	um.com		Deliv	Deliverables: EDD [AD	ADaPT Other:	
Namo:	PI II 21 BD 125H	125H	Turn A	Turn Around					ANALYSIS	REQUEST	7		Preserva	Preservative Codes
Project Number:	03E1558068		☑ Routine	Rush	Code								None: NO	DI Water: H ₂ O
Project Location:	32.10974, -103.88422		Due Date:				_						Cool: Cool	MeOH: Me
Sampler's Name:	Julianna Falcomata		TAT starts the	TAT starts the day received by							_	_	HCL: HC	HNO ₃ : HN
PO#:		>	the lab, if received by 4:30pm	ved by 4:30pm	ers								H ₂ SO ₄ : H ₂	NaOH: Na
SAMPLE RECEIPT	Temp Blank:	Yes No	Wet Ice:	Yes No	nete	+	-						H ₃ PO ₄ : HP	
Samples Received Intact:	1	Thermometer ID:	D	LM OOL	ага								Na SO NASIS	
Cooler Custody Seals:	Yes No	K	ictor:	0	P				890-3403	Chain of Custody	Custody		Za Appletat Nacos	U. 72
Sample Custody Seals:	Yes No	N/A Temperature Reading:	Reading	ic			ES	_	_	-			Machine Acid: SAPC	Acid: SAPC
Total Containers:		Corrected Lemperature	mperature:	0,0			RIDI							
Sample Identification		Matrix Sampled	Time Sampled	Depth Comp	# of	BTEX TPH	CHLO						Sample	Sample Comments
25	2	11672	200	'z' C	٢		×			+				
						+							Cost Cente	Cost Center: 1666421001
													nAPP2	nAPP2214547737
										-				
Total 200.7 / 6010	10 200.8 / 6020:		BRCRA 13F	13PPM Texas 11	11 Al Sb	Sb As Ba	a Be B	Cd Ca C		e Pb Mg	Mn Mo Ni K	Se Ag SiC	Se Ag SiO ₂ Na Sr Tl Sn U Ha: 1631/245.1/7470/7	U V Zn 7471
Cilcle Method(s) and Metal(s) to be analyzed	וט ועופנמו(ט) נט טפ מוו	alyceu	- 0	CELL OF FE COSTS. CHACKET OF THE DE CAR OF THE CAR OF THE COSTS.	0.0	200	000						11/14	
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 negotiat	document and relinquishn o will be liable only for th imum charge of \$85.00 wi	nent of samples consi e cost of samples and il be applied to each p	titutes a valid pu shall not assur project and a cha	rchase order from te any responsibil rge of \$5 for each	client co lity for an	mpany to Eu y losses or e submitted to	rofins Xenco xpenses inco Eurofins Xeo	o, its affiliates arred by the o arco, but not a	and subcontra client if such los malyzed. These	ctors. It assigness are due to terms will be	ctors. It assigns standard terms and conditions ses are due to circumstances beyond the control terms will be enforced unless previously negotiated	nd conditions and the control iously negotiat	ted.	
Relinquished by: (Signature)	(Signature)), Received	Received by: (Signature)	ire)		Date/Time	е	Relinqui	Relinquished by: (Signature)	gnature)	Received	Received by: (Signature)	ature)	Date/Time
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11/21/2022 (Rev. 1)

Login Sample Receipt Checklist

Client: Ensolum

Job Number: 890-3403-1

SDG Number: 03E1558068

Login Number: 3403 List Source: Eurofins Carlsbad

List Number: 1

Creator: Stutzman, Amanda

Question	Answer	Comment
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	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: 890-3403-1 SDG Number: 03E1558068

Login Number: 3403 **List Source: Eurofins Midland** List Creation: 11/09/22 10:47 AM List Number: 2

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	

Eurofins Carlsbad

Released to Imaging: 3/13/2023 10:02:15 AM

<6mm (1/4").

Eurofins Carlsbad

Job Notes

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

Authorization

Generated 11/21/2022 2:59:29 PM

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

Revision 1

Eurofins Carlsbad is a laboratory within Eurofins Environment Testing South Central, LLC, a company within Eurofins Environment Testing Group of Companies

Environment Testing

ANALYTICAL REPORT

PREPARED FOR

Attn: Kalei Jennings Ensolum 705 W. Wadley Suite 210 Midland Texas 79701

Generated 11/21/2022 3:00:35 PM Revision 1

JOB DESCRIPTION

PLU 21 BD 125H SDG NUMBER 03E1558068

JOB NUMBER

890-3404-1

Eurofins Carlsbad 1089 N Canal St. Carlsbad NM 88220



 Client: Ensolum
 Laboratory Job ID: 890-3404-1

 Project/Site: PLU 21 BD 125H
 SDG: 03E1558068

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Definitions/Glossary

Client: Ensolum Job ID: 890-3404-1 Project/Site: PLU 21 BD 125H

SDG: 03E1558068

Qualifiers

GC VOA

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

GC Semi VOA Qualifier

Qualifier	Qualifier Description
*1	LCS/LCSD RPD exceeds control limits.
S1+	Surrogate recovery exceeds control limits, high biased.
U	Indicates the analyte was analyzed for but not detected.

HPLC/IC

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

POS

PQL

PRES

QC

RER RL

RPD

TEF

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

Toxicity Equivalent Quotient (Dioxin) TEQ **TNTC** Too Numerous To Count

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

Reporting Limit or Requested Limit (Radiochemistry)

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Positive / Present

Presumptive

Quality Control

Practical Quantitation Limit

Relative Error Ratio (Radiochemistry)

Toxicity Equivalent Factor (Dioxin)

Case Narrative

Client: Ensolum

Project/Site: PLU 21 BD 125H

Job ID: 890-3404-1

SDG: 03E1558068

Job ID: 890-3404-1

Laboratory: Eurofins Carlsbad

Narrative

Job Narrative 890-3404-1

REVISION

The report being provided is a revision of the original report sent on 11/14/2022. The report (revision 1) is being revised due to Per client email, requesting sample ID name edit.

Report revision history

Receipt

The sample was received on 11/7/2022 2:17 PM. Unless otherwise noted below, the sample arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 5.8°C

Receipt Exceptions

The following sample was received and analyzed from an unpreserved bulk soil jar: SS04 (890-3404-1).

GC VOA

Method 8021B: Surrogate recovery for the following samples were outside control limits: (LCS 880-38960/1-A) and (LCSD 880-38960/2-A). Evidence of matrix interferences is not obvious.

Method 8021B: Surrogate recovery for the following samples were outside control limits: (880-21141-A-21-E MS) and (880-21141-A-21-F MSD). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

Method 8021B: Surrogate recovery for the following sample was outside control limits: (MB 880-38960/5-A). Evidence of matrix interferences is not obvious.

Method 8021B: Surrogate recovery for the following sample was outside control limits: (880-21141-A-21-G). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

Method 8021B: Surrogate recovery for the following sample was outside control limits: SS04 (890-3404-1). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

Method 8021B: The surrogate recovery for the blank associated with preparation batch 880-39022 and analytical batch 880-39343 was outside the upper control limits.

Method 8021B: The surrogate recovery for the blank associated with preparation batch 880-39138 and analytical batch 880-39343 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.

GC Semi VOA

Method 8015MOD_NM: The surrogate recovery for the blank associated with preparation batch 880-39172 and analytical batch 880-39269 was outside the upper control limits.

Method 8015MOD NM: The RPD of the laboratory control sample (LCS) and laboratory control sample duplicate (LCSD) for preparation batch 880-39172 and analytical batch 880-39269 recovered outside control limits for the following analytes: Gasoline Range Organics (GRO)-C6-C10.

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

Case Narrative

Client: Ensolum

Project/Site: PLU 21 BD 125H

Job ID: 890-3404-1

SDG: 03E1558068

Job ID: 890-3404-1 (Continued)

Laboratory: Eurofins Carlsbad (Continued)

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: 890-3404-1

 Project/Site: PLU 21 BD 125H
 SDG: 03E1558068

Client Sample ID: SS04 Lab Sample ID: 890-3404-1

Date Collected: 11/07/22 11:55 Matrix: Solid
Date Received: 11/07/22 14:17

Sample Depth: 0.2'

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199	mg/Kg		11/08/22 09:56	11/10/22 22:29	1
Toluene	< 0.00199	U	0.00199	mg/Kg		11/08/22 09:56	11/10/22 22:29	1
Ethylbenzene	< 0.00199	U	0.00199	mg/Kg		11/08/22 09:56	11/10/22 22:29	1
m-Xylene & p-Xylene	<0.00398	U	0.00398	mg/Kg		11/08/22 09:56	11/10/22 22:29	1
o-Xylene	< 0.00199	U	0.00199	mg/Kg		11/08/22 09:56	11/10/22 22:29	1
Xylenes, Total	<0.00398	U	0.00398	mg/Kg		11/08/22 09:56	11/10/22 22:29	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	238	S1+	70 - 130			11/08/22 09:56	11/10/22 22:29	1
1,4-Difluorobenzene (Surr)	69	S1-	70 - 130			11/08/22 09:56	11/10/22 22:29	1
Method: TAL SOP Total BTEX	- Total BTE	X Calculat	ion					
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398	mg/Kg			11/11/22 09:54	1
			DRO) (GC)					
				Unit	n	Propared	Analyzod	Dil Esc
Analyte		Qualifier	DRO) (GC) RL 49.9	Unit mg/Kg	<u>D</u>	Prepared	Analyzed 11/14/22 09:30	Dil Fac
Analyte Total TPH	Result <49.9	Qualifier U	RL 49.9		<u>D</u>	Prepared		Dil Fac
Analyte Total TPH Method: SW846 8015B NM - E	Result <49.9 Diesel Range	Qualifier U Organics	RL 49.9	mg/Kg	<u>D</u>	<u> </u>	11/14/22 09:30	1
Analyte Total TPH Method: SW846 8015B NM - C Analyte	Result <49.9 Diesel Range Result	Qualifier U Organics Qualifier	RL 49.9 (DRO) (GC) RL	mg/Kg Unit	<u>D</u>	Prepared	11/14/22 09:30 Analyzed	1
Analyte Total TPH Method: SW846 8015B NM - Description Analyte Gasoline Range Organics	Result <49.9 Diesel Range	Qualifier U Organics Qualifier	RL 49.9 (DRO) (GC)	mg/Kg	_ =	<u> </u>	11/14/22 09:30	1
Analyte Total TPH Method: SW846 8015B NM - E Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over	Result <49.9 Diesel Range Result	Qualifier U Organics Qualifier U *1	RL 49.9 (DRO) (GC) RL	mg/Kg Unit	_ =	Prepared	11/14/22 09:30 Analyzed	Dil Fac
Analyte Total TPH Method: SW846 8015B NM - E Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28)	Result <49.9 Diesel Range Result <49.9	Qualifier U Organics Qualifier U *1	RL 49.9 (DRO) (GC) RL 49.9	mg/Kg Unit mg/Kg	_ =	Prepared 11/10/22 08:48 11/10/22 08:48	11/14/22 09:30 Analyzed 11/11/22 15:28	Dil Fac
Analyte Total TPH Method: SW846 8015B NM - E Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) Oll Range Organics (Over C28-C36)	Result <49.9	Qualifier U Organics Qualifier U *1 U	RL 49.9 (DRO) (GC) RL 49.9	mg/Kg Unit mg/Kg mg/Kg	_ =	Prepared 11/10/22 08:48 11/10/22 08:48	11/14/22 09:30 Analyzed 11/11/22 15:28 11/11/22 15:28	Dil Fac
Analyte Total TPH Method: SW846 8015B NM - E Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) Oll Range Organics (Over C28-C36) Surrogate	Result	Qualifier U Organics Qualifier U *1 U	RL 49.9 (DRO) (GC) RL 49.9 49.9	mg/Kg Unit mg/Kg mg/Kg	_ =	Prepared 11/10/22 08:48 11/10/22 08:48 11/10/22 08:48	Analyzed 11/11/22 15:28 11/11/22 15:28 11/11/22 15:28	Dil Fac
Analyte Total TPH Method: SW846 8015B NM - E Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) OII Range Organics (Over C28-C36) Surrogate 1-Chlorooctane	Result <49.9	Qualifier U Organics Qualifier U *1 U	RL 49.9 (DRO) (GC) RL 49.9 49.9 Limits	mg/Kg Unit mg/Kg mg/Kg	_ =	Prepared 11/10/22 08:48 11/10/22 08:48 11/10/22 08:48 Prepared 11/10/22 08:48	Analyzed 11/11/22 15:28 11/11/22 15:28 11/11/22 15:28 Analyzed	Dil Fa
Method: SW846 8015 NM - Did Analyte Total TPH Method: SW846 8015B NM - E Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) OII Range Organics (Over C28-C36) Surrogate 1-Chlorooctane o-Terphenyl Method: MCAWW 300.0 - Anice	Result <49.9	Qualifier U Organics Qualifier U *1 U Qualifier	RL 49.9 (DRO) (GC) RL 49.9 49.9 49.9 Limits 70 - 130 70 - 130	mg/Kg Unit mg/Kg mg/Kg	_ =	Prepared 11/10/22 08:48 11/10/22 08:48 11/10/22 08:48 Prepared 11/10/22 08:48	Analyzed 11/11/22 15:28 11/11/22 15:28 11/11/22 15:28 Analyzed 11/11/22 15:28	Dil Face
Analyte Total TPH Method: SW846 8015B NM - E 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 Organics Qualifier U *1 U Qualifier	RL 49.9 (DRO) (GC) RL 49.9 49.9 49.9 Limits 70 - 130 70 - 130	mg/Kg Unit mg/Kg mg/Kg	_ =	Prepared 11/10/22 08:48 11/10/22 08:48 11/10/22 08:48 Prepared 11/10/22 08:48	Analyzed 11/11/22 15:28 11/11/22 15:28 11/11/22 15:28 Analyzed 11/11/22 15:28	Dil Fac

Surrogate Summary

Client: Ensolum Job ID: 890-3404-1 Project/Site: PLU 21 BD 125H SDG: 03E1558068

Method: 8021B - Volatile Organic Compounds (GC)

Matrix: Solid Prep Type: Total/NA

		BFB1	DFBZ1	
Lab Sample ID	Client Sample ID	(70-130)	(70-130)	
880-21141-A-21-E MS	Matrix Spike	227 S1+	87	
880-21141-A-21-F MSD	Matrix Spike Duplicate	216 S1+	92	
890-3392-A-1-C MS	Matrix Spike	95	111	
890-3392-A-1-D MSD	Matrix Spike Duplicate	89	115	
890-3404-1	SS04	238 S1+	69 S1-	
LCS 880-38960/1-A	Lab Control Sample	171 S1+	72	
LCS 880-39138/1-A	Lab Control Sample	93	112	
LCSD 880-38960/2-A	Lab Control Sample Dup	156 S1+	70	
LCSD 880-39138/2-A	Lab Control Sample Dup	108	112	
MB 880-38960/5-A	Method Blank	140 S1+	74	
MB 880-39022/5-A	Method Blank	60 S1-	99	
MB 880-39138/5-A	Method Blank	59 S1-	99	

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)					
890-3402-A-1-G MS	Matrix Spike	86	79					
890-3402-A-1-H MSD	Matrix Spike Duplicate	82	73					
890-3404-1	SS04	91	94					
LCS 880-39172/2-A	Lab Control Sample	94	97					
LCSD 880-39172/3-A	Lab Control Sample Dup	107	109					
MB 880-39172/1-A	Method Blank	119	134 S1+					

urrogate Legend

1CO = 1-Chlorooctane

OTPH = o-Terphenyl

Client: Ensolum Job ID: 890-3404-1 SDG: 03E1558068 Project/Site: PLU 21 BD 125H

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-38960/5-A

Matrix: Solid

Analyte

Benzene Toluene Ethylbenzene m-Xylene & p-Xylene

o-Xylene

Xylenes, Total

Analysis Batch: 39229

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 38960

MB	MB						
Result	Qualifier	RL	Unit D)	Prepared	Analyzed	Dil Fac
<0.00200	U	0.00200	mg/Kg	-	11/08/22 09:56	11/10/22 15:54	1
<0.00200	U	0.00200	mg/Kg		11/08/22 09:56	11/10/22 15:54	1
<0.00200	U	0.00200	mg/Kg		11/08/22 09:56	11/10/22 15:54	1
<0.00400	U	0.00400	mg/Kg		11/08/22 09:56	11/10/22 15:54	1

mg/Kg

mg/Kg

MB MB

<0.00200 U

<0.00400 U

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	140	S1+	70 - 130	11/08/22 09:56	11/10/22 15:54	1
1,4-Difluorobenzene (Surr)	74		70 - 130	11/08/22 09:56	11/10/22 15:54	1

0.00200

0.00400

Lab Sample ID: LCS 880-38960/1-A

Matrix: Solid

Analysis Batch: 39229

Client Sample ID: Lab Control Sample

11/08/22 09:56 11/10/22 15:54

11/08/22 09:56 11/10/22 15:54

Prep Type: Total/NA Prep Batch: 38960

Spike LCS LCS %Rec Analyte Added Result Qualifier Unit %Rec Limits Benzene 0.100 0.1206 mg/Kg 121 70 - 130 Toluene 0.100 0.1189 mg/Kg 70 - 130 119 Ethylbenzene 0.100 0.1271 mg/Kg 127 70 - 130 0.200 128 m-Xylene & p-Xylene 0.2552 mg/Kg 70 - 130 0.100 0.1256 126 70 - 130 o-Xylene mg/Kg

LCS LCS

Surrogate	%Recovery	Qualifier	Limits
4-Bromofluorobenzene (Surr)	171	S1+	70 - 130
1,4-Difluorobenzene (Surr)	72		70 - 130

Lab Sample ID: LCSD 880-38960/2-A

Matrix: Solid

Analysis Batch: 39229

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA Prep Batch: 38960

	Spike	LCSD	LCSD				%Rec		RPD
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Benzene	0.100	0.1171		mg/Kg		117	70 - 130	3	35
Toluene	0.100	0.1087		mg/Kg		109	70 - 130	9	35
Ethylbenzene	0.100	0.1197		mg/Kg		120	70 - 130	6	35
m-Xylene & p-Xylene	0.200	0.2402		mg/Kg		120	70 - 130	6	35
o-Xylene	0.100	0.1216		mg/Kg		122	70 - 130	3	35

LCSD LCSD

Surrogate	%Recovery	Qualifier	Limits
4-Bromofluorobenzene (Surr)	156	S1+	70 - 130
1,4-Difluorobenzene (Surr)	70		70 - 130

Lab Sample ID: 880-21141-A-21-E MS

Matrix: Solid

Analysis Batch: 39229

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

Prep Batch: 38960

MS MS Sample Sample Spike %Rec Result Qualifier Added Result Qualifier Unit %Rec Limits

Analyte Benzene <0.00201 UF1 0.100 0.1425 F1 142 70 - 130 mg/Kg Toluene <0.00201 U 0.100 0.1263 mg/Kg 126 70 - 130

Client: Ensolum Job ID: 890-3404-1 Project/Site: PLU 21 BD 125H SDG: 03E1558068

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

Lab Sample ID: 880-21141-A-21-E MS Client Sample ID: Matrix Spike

Matrix: Solid Prep Type: Total/NA **Analysis Batch: 39229** Prep Batch: 38960 Spike MS MS Sample Sample

-1		Campic	Campic	Opine		141.0				/01100	
	Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	
	Ethylbenzene	<0.00201	U F1	0.100	0.1354	F1	mg/Kg		135	70 - 130	 _
	m-Xylene & p-Xylene	<0.00402	U F1	0.200	0.2734	F1	mg/Kg		136	70 - 130	
	o-Xylene	<0.00201	U F1	0.100	0.1399	F1	mg/Kg		140	70 - 130	

MS MS Surrogate %Recovery Qualifier Limits 4-Bromofluorobenzene (Surr) 227 S1+ 70 - 130 1,4-Difluorobenzene (Surr) 70 - 130 87

Lab Sample ID: 880-21141-A-21-F MSD **Client Sample ID: Matrix Spike Duplicate** Prep Type: Total/NA

Matrix: Solid Analysis Batch: 39229

Prep Batch: 38960 Sample Sample Spike MSD MSD %Rec **RPD** Analyte Result Qualifier Added Result Qualifier Unit D %Rec Limits RPD Limit Benzene <0.00201 U F1 0.0990 0.1280 70 - 130 35 mg/Kg 129 11 Toluene <0.00201 U 0.0990 0.1220 123 70 - 130 35 mg/Kg Ethylbenzene <0.00201 UF1 0.0990 0.1185 mg/Kg 120 70 - 130 13 35 m-Xylene & p-Xylene <0.00402 UF1 0.198 0.2403 mg/Kg 121 70 - 130 13 35 <0.00201 UF1 0.0990 128 10 o-Xylene 0.1268 mg/Kg 70 - 130

MSD MSD Surrogate %Recovery Qualifier Limits 4-Bromofluorobenzene (Surr) 216 S1+ 70 - 130 70 - 130 1,4-Difluorobenzene (Surr) 92

Lab Sample ID: MB 880-39022/5-A **Client Sample ID: Method Blank Matrix: Solid** Prep Type: Total/NA

Prep Batch: 39022 **Analysis Batch: 39343** MB MB

Analyte	Result C	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200 U	U	0.00200	mg/Kg		11/08/22 15:10	11/11/22 18:42	1
Toluene	<0.00200 L	U	0.00200	mg/Kg		11/08/22 15:10	11/11/22 18:42	1
Ethylbenzene	<0.00200 L	U	0.00200	mg/Kg		11/08/22 15:10	11/11/22 18:42	1
m-Xylene & p-Xylene	<0.00400 L	Ú	0.00400	mg/Kg		11/08/22 15:10	11/11/22 18:42	1
o-Xylene	<0.00200 L	U	0.00200	mg/Kg		11/08/22 15:10	11/11/22 18:42	1
Xylenes, Total	<0.00400 L	U	0.00400	mg/Kg		11/08/22 15:10	11/11/22 18:42	1

	MB	MB				
Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	60	S1-	70 - 130	11/08/22 15:10	11/11/22 18:42	1
1,4-Difluorobenzene (Surr)	99		70 - 130	11/08/22 15:10	11/11/22 18:42	1

Lab Sample ID: MB 880-39138/5-A Client Sample ID: Method Blank **Matrix: Solid** Prep Type: Total/NA

Analysis Batch: 39343 Prep Batch: 39138

MB MB

ш									
	Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
	Benzene	<0.00200	U	0.00200	mg/Kg	_	11/09/22 15:29	11/12/22 08:23	1
	Toluene	<0.00200	U	0.00200	mg/Kg		11/09/22 15:29	11/12/22 08:23	1
	Ethylbenzene	<0.00200	U	0.00200	mg/Kg		11/09/22 15:29	11/12/22 08:23	1
	m-Xylene & p-Xylene	<0.00400	U	0.00400	mg/Kg		11/09/22 15:29	11/12/22 08:23	1

Client: Ensolum Job ID: 890-3404-1 SDG: 03E1558068 Project/Site: PLU 21 BD 125H

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

Lab Sample ID: MB 880-39138/5-A

Matrix: Solid

Analysis Batch: 39343

Client Sample ID: Method Blank

Prep Type: Total/NA Prep Batch: 39138

MB MB Analyte Result Qualifier RL Unit Prepared Analyzed Dil Fac o-Xylene <0.00200 U 0.00200 mg/Kg 11/09/22 15:29 11/12/22 08:23 <0.00400 U 0.00400 Xylenes, Total mg/Kg 11/09/22 15:29 11/12/22 08:23

MB MB

Surrogate %Recovery Qualifier Limits Prepared Analyzed Dil Fac 4-Bromofluorobenzene (Surr) 59 S1-70 - 130 11/09/22 15:29 11/12/22 08:23 1,4-Difluorobenzene (Surr) 99 70 - 130 11/09/22 15:29 11/12/22 08:23

Lab Sample ID: LCS 880-39138/1-A Client Sample ID: Lab Control Sample

Matrix: Solid

Analysis Batch: 39343

Prep Type: Total/NA Prep Batch: 39138 Spike LCS LCS %Rec

Analyte Added Result Qualifier Unit D %Rec Limits Benzene 0.100 0.09491 mg/Kg 95 70 - 130 Toluene 0.100 mg/Kg 95 70 - 130 0.09455 0.08730 mg/Kg 87 70 - 130 Ethylbenzene 0.100 96 m-Xylene & p-Xylene 0.200 0.1927 mg/Kg 70 - 130 o-Xylene 0.100 0.09563 mg/Kg 96 70 - 130

LCS LCS

Surrogate	%Recovery Qualifi	ier Limits
4-Bromofluorobenzene (Surr)	93	70 - 130
1.4-Difluorobenzene (Surr)	112	70 - 130

Lab Sample ID: LCSD 880-39138/2-A

Matrix: Solid

m-Xylene & p-Xylene

o-Xylene

Analysis Batch: 39343

Client Sample ID: Lab Control Sample Dup

103

110

Prep Type: Total/NA Prep Batch: 39138

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Spike LCSD LCSD %Rec **RPD** Analyte Added Result Qualifier Unit %Rec Limits **RPD** Limit Benzene 0.100 70 - 130 0.08952 mg/Kg 90 6 35 Toluene 0.100 0.09075 mg/Kg 91 70 - 130 4 35 Ethylbenzene 0.100 0.08974 mg/Kg 90 70 - 130 3 35

0.2057

0.1104

mg/Kg

mg/Kg

0.200

0.100

LCSD LCSD

Surrogate	%Recovery Qualifier	r Limits
4-Bromofluorobenzene (Surr)	108	70 - 130
1,4-Difluorobenzene (Surr)	112	70 - 130

Lab Sample ID: 890-3392-A-1-C MS

Matrix: Solid

Analysis Batch: 39343

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

70 - 130

70 - 130

Prep Batch: 39138

•	Sample	Sample	Spike	MS	MS				%Rec	
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Benzene	<0.00201	U	0.100	0.08927		mg/Kg		89	70 - 130	
Toluene	< 0.00201	U	0.100	0.08382		mg/Kg		83	70 - 130	
Ethylbenzene	< 0.00201	U	0.100	0.07488		mg/Kg		75	70 - 130	
m-Xylene & p-Xylene	<0.00402	U	0.201	0.1635		mg/Kg		81	70 - 130	
o-Xylene	< 0.00201	U	0.100	0.08493		mg/Kg		85	70 - 130	

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Client: Ensolum Job ID: 890-3404-1 SDG: 03E1558068 Project/Site: PLU 21 BD 125H

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

MS MS

Client Sample ID: Matrix Spike Lab Sample ID: 890-3392-A-1-C MS

Matrix: Solid

Analysis Batch: 39343

Prep Type: Total/NA

Prep Batch: 39138

%Recovery Qualifier Limits Surrogate 4-Bromofluorobenzene (Surr) 95 70 - 130 1,4-Difluorobenzene (Surr) 111 70 - 130

Client Sample ID: Matrix Spike Duplicate Lab Sample ID: 890-3392-A-1-D MSD

Matrix: Solid

Analysis Batch: 39343

Prep Type: Total/NA

Prep Batch: 39138

MSD MSD %Rec **RPD** Sample Sample Spike Analyte Result Qualifier Added Result Qualifier Unit %Rec Limits RPD Limit Benzene <0.00201 U 0.0990 0.07916 mg/Kg 80 70 - 130 12 35 Toluene <0.00201 U 0.0990 0.07843 mg/Kg 79 70 - 130 7 35 Ethylbenzene <0.00201 U 0.0990 0.07188 mg/Kg 73 70 - 130 35 m-Xylene & p-Xylene <0.00402 U 0.198 0.1570 mg/Kg 79 70 - 130 35 o-Xylene <0.00201 U 0.0990 0.08045 mg/Kg 70 - 130 35

MSD MSD

%Recovery Qualifier Surrogate Limits 4-Bromofluorobenzene (Surr) 89 70 - 130 70 - 130 1,4-Difluorobenzene (Surr) 115

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

Matrix: Solid

Analysis Batch: 39269

Lab Sample ID: MB 880-39172/1-A

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

Prep Batch: 39172

	IVID	IVID							
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0	mg/Kg	_	11/10/22 08:48	11/11/22 09:30	1	
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		11/10/22 08:48	11/11/22 09:30	1	
Oll Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		11/10/22 08:48	11/11/22 09:30	1	

MB MB

MED MED

Surrogate %Recovery Qualifier Limits Prepared Analyzed Dil Fac 1-Chlorooctane 119 70 - 130 11/10/22 08:48 11/11/22 09:30 o-Terphenyl 134 S1+ 70 - 130 11/10/22 08:48 11/11/22 09:30

LCS LCS

Lab Sample ID: LCS 880-39172/2-A

Matrix: Solid

Analysis Batch: 39269

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 39172 %Rac

	Opine	LOO	LUU				/01 10 C	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Gasoline Range Organics	1000	815.5		mg/Kg		82	70 - 130	
(GRO)-C6-C10								
Diesel Range Organics (Over	1000	846.7		mg/Kg		85	70 - 130	

Snika

C10-C28)

	LUS LUS	
Surrogate	%Recovery Quality	fier Limits
1-Chlorooctane	94	70 - 130
o-Terphenyl	97	70 - 130

Client: Ensolum Job ID: 890-3404-1 Project/Site: PLU 21 BD 125H SDG: 03E1558068

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

Lab Sample ID: LCSD 880-39172/3-A

Matrix: Solid

Analysis Batch: 39269

Client Sample ID: Lab Control Sample Dup

Client Sample ID: Matrix Spike Duplicate

70 - 130

Prep Type: Total/NA

Prep Batch: 39172

Prep Batch: 39172 %Rec **RPD** Limit

Spike LCSD LCSD Added Result Qualifier Limits **RPD** Analyte Unit D %Rec 1003 *1 Gasoline Range Organics 1000 mg/Kg 100 70 - 130 21 20 (GRO)-C6-C10 Diesel Range Organics (Over 1000 950.2 mg/Kg 95 70 - 130 12 20

C10-C28)

LCSD LCSD Surrogate %Recovery Qualifier Limits 1-Chlorooctane 70 - 130 107 70 - 130 o-Terphenyl 109

Lab Sample ID: 890-3402-A-1-G MS **Client Sample ID: Matrix Spike** Prep Type: Total/NA

Matrix: Solid

Analysis Batch: 39269

•	Sample	Sample	Spike	MS	MS				%Rec	
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Gasoline Range Organics (GRO)-C6-C10	55.1	*1	997	1007		mg/Kg		95	70 - 130	
Diesel Range Organics (Over C10-C28)	<50.0	U	997	861.7		mg/Kg		84	70 - 130	

MS MS Surrogate %Recovery Qualifier Limits 1-Chlorooctane 86 70 - 130 o-Terphenyl 79 70 - 130

Lab Sample ID: 890-3402-A-1-H MSD

Matrix: Solid Analysis Batch: 39269							Ċ		Prep Ty Prep E	pe: Tot Batch: 3	
•	Sample	Sample	Spike	MSD	MSD				%Rec		RPD
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Gasoline Range Organics	55.1	*1	999	978.6		mg/Kg		92	70 - 130	3	20

796.8

mg/Kg

999

(GRO)-C6-C10 Diesel Range Organics (Over C10-C28)

	MSD	MSD	
Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane	82		70 - 130
o-Terphenyl	73		70 - 130

<50.0 U

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-39126/1-A **Client Sample ID: Method Blank Prep Type: Soluble**

Matrix: Solid

Analysis Batch: 39335

	MB	MB						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.00	U	5.00	mg/Kg			11/12/22 02:56	1

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Client: Ensolum Job ID: 890-3404-1 Project/Site: PLU 21 BD 125H

SDG: 03E1558068

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: LCS 880-39126/2-A **Client Sample ID: Lab Control Sample Matrix: Solid Prep Type: Soluble**

Analysis Batch: 39335 LCS LCS Spike %Rec Analyte Added Result Qualifier Unit Limits D %Rec

Chloride 250 266.1 mg/Kg 106 90 - 110 Lab Sample ID: LCSD 880-39126/3-A Client Sample ID: Lab Control Sample Dup

Matrix: Solid **Prep Type: Soluble Analysis Batch: 39335** Spike LCSD LCSD %Rec **RPD**

Analyte Added Result Qualifier Unit D %Rec Limits RPD Limit 250 104 90 - 110 Chloride 258.9 mg/Kg 3

Lab Sample ID: 890-3402-A-1-D MS **Client Sample ID: Matrix Spike**

Matrix: Solid Prep Type: Soluble Analysis Batch: 39335

Sample Sample Spike MS MS %Rec Result Qualifier Added Result Qualifier Limits **Analyte** Unit %Rec Chloride 195 249 466.5 mg/Kg

Lab Sample ID: 890-3402-A-1-E MSD **Client Sample ID: Matrix Spike Duplicate**

Matrix: Solid Prep Type: Soluble

Analysis Batch: 39335

Spike MSD MSD %Rec **RPD** Sample Sample Analyte Result Qualifier Added Result Qualifier Unit %Rec Limits RPD Limit Chloride 195 249 456.2 mg/Kg 105 90 - 110

QC Association Summary

Client: Ensolum Job ID: 890-3404-1 Project/Site: PLU 21 BD 125H SDG: 03E1558068

GC VOA

Prep Batch: 38960

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3404-1	SS04	Total/NA	Solid	5035	
MB 880-38960/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-38960/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-38960/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
880-21141-A-21-E MS	Matrix Spike	Total/NA	Solid	5035	
880-21141-A-21-F MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	

Prep Batch: 39022

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 880-39022/5-A	Method Blank	Total/NA	Solid	5035	

Prep Batch: 39138

Lab Sample ID MB 880-39138/5-A	Client Sample ID Method Blank	Prep Type Total/NA	Matrix Solid	Method 5035	Prep Batch
LCS 880-39138/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-39138/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
890-3392-A-1-C MS	Matrix Spike	Total/NA	Solid	5035	
890-3392-A-1-D MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	

Analysis Batch: 39229

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3404-1	SS04	Total/NA	Solid	8021B	38960
MB 880-38960/5-A	Method Blank	Total/NA	Solid	8021B	38960
LCS 880-38960/1-A	Lab Control Sample	Total/NA	Solid	8021B	38960
LCSD 880-38960/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	38960
880-21141-A-21-E MS	Matrix Spike	Total/NA	Solid	8021B	38960
880-21141-A-21-F MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	38960

Analysis Batch: 39309

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3404-1	SS04	Total/NA	Solid	Total BTEX	

Analysis Batch: 39343

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 880-39022/5-A	Method Blank	Total/NA	Solid	8021B	39022
MB 880-39138/5-A	Method Blank	Total/NA	Solid	8021B	39138
LCS 880-39138/1-A	Lab Control Sample	Total/NA	Solid	8021B	39138
LCSD 880-39138/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	39138
890-3392-A-1-C MS	Matrix Spike	Total/NA	Solid	8021B	39138
890-3392-A-1-D MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	39138

GC Semi VOA

Prep Batch: 39172

Lab Sample ID 890-3404-1	Client Sample ID SS04	Prep Type Total/NA	Matrix Solid	Method 8015NM Prep	Prep Batch
MB 880-39172/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-39172/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-39172/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
890-3402-A-1-G MS	Matrix Spike	Total/NA	Solid	8015NM Prep	
890-3402-A-1-H MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	

QC Association Summary

Client: Ensolum Job ID: 890-3404-1 Project/Site: PLU 21 BD 125H SDG: 03E1558068

GC Semi VOA

Analysis Batch: 39269

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3404-1	SS04	Total/NA	Solid	8015B NM	39172
MB 880-39172/1-A	Method Blank	Total/NA	Solid	8015B NM	39172
LCS 880-39172/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	39172
LCSD 880-39172/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	39172
890-3402-A-1-G MS	Matrix Spike	Total/NA	Solid	8015B NM	39172
890-3402-A-1-H MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	39172

Analysis Batch: 39400

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3404-1	SS04	Total/NA	Solid	8015 NM	

HPLC/IC

Leach Batch: 39126

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3404-1	SS04	Soluble	Solid	DI Leach	
MB 880-39126/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-39126/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-39126/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
890-3402-A-1-D MS	Matrix Spike	Soluble	Solid	DI Leach	
890-3402-A-1-E MSD	Matrix Spike Duplicate	Soluble	Solid	DI Leach	

Analysis Batch: 39335

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3404-1	SS04	Soluble	Solid	300.0	39126
MB 880-39126/1-A	Method Blank	Soluble	Solid	300.0	39126
LCS 880-39126/2-A	Lab Control Sample	Soluble	Solid	300.0	39126
LCSD 880-39126/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	39126
890-3402-A-1-D MS	Matrix Spike	Soluble	Solid	300.0	39126
890-3402-A-1-E MSD	Matrix Spike Duplicate	Soluble	Solid	300.0	39126

Lab Chronicle

 Client: Ensolum
 Job ID: 890-3404-1

 Project/Site: PLU 21 BD 125H
 SDG: 03E1558068

Client Sample ID: SS04 Lab Sample ID: 890-3404-1

Matrix: Solid

Date Collected: 11/07/22 11:55 Date Received: 11/07/22 14:17

	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	38960	11/08/22 09:56	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	39229	11/10/22 22:29	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			39309	11/11/22 09:54	SM	EET MID
Total/NA	Analysis	8015 NM		1			39400	11/14/22 09:30	SM	EET MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	39172	11/10/22 08:48	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	39269	11/11/22 15:28	SM	EET MID
Soluble	Leach	DI Leach			5 g	50 mL	39126	11/09/22 15:04	KS	EET MID
Soluble	Analysis	300.0		1	0 mL	1.0 mL	39335	11/12/22 03:30	CH	EET MID

Laboratory References:

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

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Accreditation/Certification Summary

 Client: Ensolum
 Job ID: 890-3404-1

 Project/Site: PLU 21 BD 125H
 SDG: 03E1558068

Laboratory: Eurofins Midland

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

Authority	Pro	ogram	Identification Number	Expiration Date
Texas	NE	ELAP	T104704400-22-24	06-30-23
The following analyte	s are included in this rend	ort but the laboratory is r	not certified by the governing authority.	This list may include analytes for y
the agency does not	•	ore, but the laboratory is i	iot certified by the governing authority.	This list may include analytes for v
,	•	Matrix	Analyte	This list may include analytes for v
the agency does not	offer certification.	•		This list may include analytes for v

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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

Method Summary

Client: Ensolum

Method

Total BTEX

8015 NM

8015B NM

8015NM Prep

DI Leach

300.0

5035

8021B

Project/Site: PLU 21 BD 125H

Job ID: 890-3404-1

SDG: 03E1558068

Protocol	Laboratory
FIOLOCOI	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 21 BD 125H

Job ID: 890-3404-1

SDG: 03E1558068

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-3404-1	SS04	Solid	11/07/22 11:55	11/07/22 14:17	0.2'

Relinquished by: (Signature)

Received by: (Signature)

11-7-22/417

Date/Time

Relinquished by: (Signature)

Received by: (Signature)

Date/Time

Revised Date: 08/25/2020 Rev. 2020.2

eurofins :

Chain of Custody

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

Environment Testing	Renco Bill to: (if different) S Bill to: (if different) Company Name: Company Name: Company Name: Company Name: XTO Energy, Inc. 1558068 Bank: Yeb No Thermometer ID: No Thermometer ID: No Thermometer ID: Corrected Temperature: Sampled Sampled Sampled Matrix Sampled Matrix Sampled Matrix Sampled Matrix Midand, TX (432) 704-5440, San Antonio, TX (210) 508 EL Paso, TX (915) 585-3443, Lubbock, TX (906) 794. Hobbs, NM (575) 392-7550, Carlsbad, NM (575) 988: Company Name: XTO Energy, Inc. Carlsbad, NM 88220 Carlsbad, NM 88220 Email: Kjennings@ensolum.com, bbelili@ensolum.com AN Turn Around Pras. Carlsbad, NM 88220 AN AN Code Matrix Sampled Comp Com
Bill to: (if different) Garret Green	Bill to: (if different) Garret Green
nd, TX (432) 704-5440, San Antonio, TX (210) 509-3334 Paso, TX (915) 585-3443, Lubbock, TX (806) 794-1296 abs, NM (575) 392-7550, Carlsbad, NM (575) 988-3199 Bolum, Com, belili@ensolum.com Parameters Parameters ANALYSIS REQUIRED BOUND BY HEAD OF THE H	nd, TX (432) 704-5440, San Antonio, TX (210) 509-3334 Paso, TX (915) 585-3443, Lubbock, TX (806) 794-1296 abs, NM (575) 392-7550, Carlsbad, NM (575) 988-3199 Bolum, Com, belili@ensolum.com Parameters Parameters ANALYSIS REQUIRED BOUND BY HEAD OF THE H
ANALYSIS REQUESTION OF CIT Co Cu Fe Pb	ANALYSIS REQUEST ANALYSIS REQUEST ANALYSIS ROUSTON B90-3404 Chain of Custody Reporting: Level II L
3404 Chair	SIS REQ
	www.x www.x wam: UST/PST PP of Project: NM rables: EDD

Login Sample Receipt Checklist

Client: Ensolum Job Number: 890-3404-1 SDG Number: 03E1558068

Login Number: 3404 **List Source: Eurofins Carlsbad**

List Number: 1

Creator: Stutzman, Amanda

Question	Answer	Comment
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	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: 890-3404-1 SDG Number: 03E1558068

Login Number: 3404 **List Source: Eurofins Midland** List Creation: 11/09/22 10:47 AM List Number: 2

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").

Eurofins Carlsbad

Job Notes

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

Authorization

Generated 11/21/2022 3:00:35 PM Revision 1

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

Eurofins Carlsbad is a laboratory within Eurofins Environment Testing South Central, LLC, a company within Eurofins Environment Testing Group of Companies

Environment Testing

ANALYTICAL REPORT

PREPARED FOR

Attn: Kalei Jennings Ensolum 705 W. Wadley Suite 210 Midland Texas 79701

Generated 11/23/2022 9:17:53 AM Revision 1

JOB DESCRIPTION

PLU 21 BD 125H SDG NUMBER 03E1558068

JOB NUMBER

890-3405-1

Eurofins Carlsbad 1089 N Canal St. Carlsbad NM 88220



 Client: Ensolum
 Laboratory Job ID: 890-3405-1

 Project/Site: PLU 21 BD 125H
 SDG: 03E1558068

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Definitions/Glossary

Client: Ensolum Job ID: 890-3405-1 Project/Site: PLU 21 BD 125H

SDG: 03E1558068

Qualifiers

GC VOA

Qualifier **Qualifier Description**

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

GC Semi VOA

Qualifier **Qualifier Description**

*1 LCS/LCSD RPD exceeds control limits.

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

HPLC/IC

Qualifier **Qualifier Description**

Indicates the analyte was analyzed for but not detected.

Glossary

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

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

CFL Contains Free Liquid **CFU** Colony Forming Unit **CNF** Contains No Free Liquid

DER Duplicate Error Ratio (normalized absolute difference)

Dil Fac **Dilution Factor**

DL Detection Limit (DoD/DOE)

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

DLC Decision Level Concentration (Radiochemistry)

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

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

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

NC Not Calculated

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

NEG Negative / Absent POS Positive / Present PQL **Practical Quantitation Limit**

PRES Presumptive QC **Quality Control**

RER Relative Error Ratio (Radiochemistry)

RL Reporting Limit or Requested Limit (Radiochemistry)

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

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

TNTC Too Numerous To Count

Case Narrative

Client: Ensolum

Job ID: 890-3405-1 SDG: 03E1558068 Project/Site: PLU 21 BD 125H

Job ID: 890-3405-1

Laboratory: Eurofins Carlsbad

Narrative

Job Narrative 890-3405-1

REVISION

The report being provided is a revision of the original report sent on 11/14/2022. The report (revision 1) is being revised due to Per client email, requesting sample ID name edit.

Report revision history

Receipt

The sample was received on 11/7/2022 2:17 PM. Unless otherwise noted below, the sample arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 5.8°C

Receipt Exceptions

The following sample was received and analyzed from an unpreserved bulk soil jar: SS07 (890-3405-1).

GC VOA

Method 8021B: The surrogate recovery for the blank associated with preparation batch 880-39022 and analytical batch 880-39343 was outside the upper control limits.

Method 8021B: The surrogate recovery for the blank associated with preparation batch 880-39138 and analytical batch 880-39343 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.

GC Semi VOA

Method 8015MOD_NM: The surrogate recovery for the blank associated with preparation batch 880-39172 and analytical batch 880-39269 was outside the upper control limits.

Method 8015MOD NM: The RPD of the laboratory control sample (LCS) and laboratory control sample duplicate (LCSD) for preparation batch 880-39172 and analytical batch 880-39269 recovered outside control limits for the following analytes: Gasoline Range Organics (GRO)-C6-C10.

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

HPLC/IC

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

 Client: Ensolum
 Job ID: 890-3405-1

 Project/Site: PLU 21 BD 125H
 SDG: 03E1558068

Client Sample ID: SS07 Lab Sample ID: 890-3405-1

Date Collected: 11/07/22 12:10 Matrix: Solid
Date Received: 11/07/22 14:17

Sample Depth: 0.2'

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fa
Benzene	<0.00199	U	0.00199	mg/Kg		11/09/22 15:29	11/12/22 17:37	
Toluene	< 0.00199	U	0.00199	mg/Kg		11/09/22 15:29	11/12/22 17:37	
Ethylbenzene	< 0.00199	U	0.00199	mg/Kg		11/09/22 15:29	11/12/22 17:37	
m-Xylene & p-Xylene	<0.00398	U	0.00398	mg/Kg		11/09/22 15:29	11/12/22 17:37	
o-Xylene	< 0.00199	U	0.00199	mg/Kg		11/09/22 15:29	11/12/22 17:37	
Xylenes, Total	<0.00398	U	0.00398	mg/Kg		11/09/22 15:29	11/12/22 17:37	
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fa
4-Bromofluorobenzene (Surr)	93		70 - 130			11/09/22 15:29	11/12/22 17:37	
1,4-Difluorobenzene (Surr)	104		70 - 130			11/09/22 15:29	11/12/22 17:37	
Method: TAL SOP Total BTEX	. Total BTE	X Calculat	ion					
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fa
Total BTEX	<0.00398	U	0.00398	mg/Kg		·	11/14/22 12:31	
	_	•	DRO) (GC)	0 0				
	_	Organics (Qualifier	DRO) (GC) RL	Unit	D	Prepared	Analyzed	Dil Fa
Method: SW846 8015 NM - Did Analyte Total TPH	_	Qualifier	, , ,	0 0	<u>D</u>	Prepared	Analyzed 11/14/22 09:30	Dil Fa
Analyte Total TPH	Result < 50.0	Qualifier U	RL 50.0	Unit	<u>D</u>	Prepared		Dil Fa
Analyte Total TPH Method: SW846 8015B NM - D	Result <50.0	Qualifier U	RL 50.0	Unit	<u>D</u>	Prepared Prepared		
Analyte Total TPH Method: SW846 8015B NM - Description Analyte Gasoline Range Organics	Result <50.0	Qualifier U Organics Qualifier	FRL 50.0 (DRO) (GC)	Unit mg/Kg	_ =	<u> </u>	11/14/22 09:30	
Analyte Total TPH Method: SW846 8015B NM - DANALYTE Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over	Result <50.0 Diesel Range Result	Qualifier U Organics Qualifier U *1	70.0 (DRO) (GC) RL	Unit mg/Kg	_ =	Prepared	11/14/22 09:30 Analyzed	
Analyte Total TPH Method: SW846 8015B NM - DANALYTE Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28)	Result <50.0 Diesel Range Result <50.0	Qualifier U Organics Qualifier U *1	RL	Unit mg/Kg Unit mg/Kg	_ =	Prepared 11/10/22 08:48 11/10/22 08:48	11/14/22 09:30 Analyzed 11/11/22 15:50	
Analyte Total TPH Method: SW846 8015B NM - DANALYTE Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) Oll Range Organics (Over C28-C36)	Result <50.0 Ciesel Range Result <50.0 <50.0	Qualifier U Organics Qualifier U *1 U	RL 50.0 (DRO) (GC) RL 50.0 50.0	Unit mg/Kg Unit mg/Kg mg/Kg mg/Kg	_ =	Prepared 11/10/22 08:48 11/10/22 08:48	11/14/22 09:30 Analyzed 11/11/22 15:50 11/11/22 15:50	Dil Fa
Analyte Total TPH Method: SW846 8015B NM - E Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) OII Range Organics (Over C28-C36) Surrogate	Result <50.0	Qualifier U Organics Qualifier U *1 U	RL 50.0 (DRO) (GC) RL 50.0 50.0 50.0	Unit mg/Kg Unit mg/Kg mg/Kg mg/Kg	_ =	Prepared 11/10/22 08:48 11/10/22 08:48 11/10/22 08:48	Analyzed 11/11/22 15:50 11/11/22 15:50 11/11/22 15:50	Dil Fa
Analyte Total TPH Method: SW846 8015B NM - E 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 Organics Qualifier U *1 U	RL 50.0 (DRO) (GC) RL 50.0 50.0 Limits	Unit mg/Kg Unit mg/Kg mg/Kg mg/Kg	_ =	Prepared 11/10/22 08:48 11/10/22 08:48 11/10/22 08:48 Prepared 11/10/22 08:48	Analyzed 11/11/22 15:50 11/11/22 15:50 11/11/22 15:50 Analyzed	Dil Fa
Analyte	Result <50.0	Qualifier U Organics Qualifier U *1 U Qualifier	RL 50.0 (DRO) (GC) RL 50.0 50.0 50.0 Limits 70 - 130 70 - 130	Unit mg/Kg Unit mg/Kg mg/Kg mg/Kg	_ =	Prepared 11/10/22 08:48 11/10/22 08:48 11/10/22 08:48 Prepared 11/10/22 08:48	Analyzed 11/11/22 15:50 11/11/22 15:50 11/11/22 15:50 Analyzed 11/11/22 15:50	Dil Fa
Analyte Total TPH Method: SW846 8015B NM - E 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 <50.0	Qualifier U Organics Qualifier U *1 U Qualifier	RL 50.0 (DRO) (GC) RL 50.0 50.0 50.0 Limits 70 - 130 70 - 130	Unit mg/Kg Unit mg/Kg mg/Kg mg/Kg	_ =	Prepared 11/10/22 08:48 11/10/22 08:48 11/10/22 08:48 Prepared 11/10/22 08:48	Analyzed 11/11/22 15:50 11/11/22 15:50 11/11/22 15:50 Analyzed 11/11/22 15:50	Dil Fa

Surrogate Summary

Client: Ensolum Job ID: 890-3405-1 Project/Site: PLU 21 BD 125H SDG: 03E1558068

Method: 8021B - Volatile Organic Compounds (GC)

Matrix: Solid Prep Type: Total/NA

			Perc	ent Surrogate Recovery (Acceptance Limits)
		BFB1	DFBZ1	
Lab Sample ID	Client Sample ID	(70-130)	(70-130)	
890-3392-A-1-C MS	Matrix Spike	95	111	
890-3392-A-1-D MSD	Matrix Spike Duplicate	89	115	
890-3405-1	SS07	93	104	
LCS 880-39138/1-A	Lab Control Sample	93	112	
LCSD 880-39138/2-A	Lab Control Sample Dup	108	112	
MB 880-39022/5-A	Method Blank	60 S1-	99	
MB 880-39138/5-A	Method Blank	59 S1-	99	

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

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

Matrix: Solid Prep Type: Total/NA

		4004		nt Surrogate Recovery (Acceptance Limits)
		1CO1	OTPH1	
Lab Sample ID	Client Sample ID	(70-130)	(70-130)	
890-3402-A-1-G MS	Matrix Spike	86	79	
890-3402-A-1-H MSD	Matrix Spike Duplicate	82	73	
890-3405-1	SS07	93	96	
LCS 880-39172/2-A	Lab Control Sample	94	97	
LCSD 880-39172/3-A	Lab Control Sample Dup	107	109	
MB 880-39172/1-A	Method Blank	119	134 S1+	

1CO = 1-Chlorooctane OTPH = o-Terphenyl

Job ID: 890-3405-1 Client: Ensolum Project/Site: PLU 21 BD 125H SDG: 03E1558068

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-39022/5-A

Lab Sample ID: MB 880-39138/5-A

Matrix: Solid

Analysis Batch: 39343

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 39022

	MB	MB						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		11/08/22 15:10	11/11/22 18:42	1
Toluene	<0.00200	U	0.00200	mg/Kg		11/08/22 15:10	11/11/22 18:42	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		11/08/22 15:10	11/11/22 18:42	1
m-Xylene & p-Xylene	<0.00400	U	0.00400	mg/Kg		11/08/22 15:10	11/11/22 18:42	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		11/08/22 15:10	11/11/22 18:42	1
Xylenes, Total	<0.00400	U	0.00400	mg/Kg		11/08/22 15:10	11/11/22 18:42	1

MB MB

%Recovery Qualifier Surrogate Limits 60 S1-70 - 130 4-Bromofluorobenzene (Surr) 1,4-Difluorobenzene (Surr) 99 70 - 130

Prepared Analyzed Dil Fac 11/08/22 15:10 11/11/22 18:42 11/08/22 15:10 11/11/22 18:42

Client Sample ID: Method Blank

Prep Batch: 39138

Matrix: Solid Prep Type: Total/NA Analysis Batch: 39343 MR MR

		AID.						
Analyte	Result C	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200 U	J	0.00200	mg/Kg		11/09/22 15:29	11/12/22 08:23	1
Toluene	<0.00200 L	J	0.00200	mg/Kg		11/09/22 15:29	11/12/22 08:23	1
Ethylbenzene	<0.00200 L	J	0.00200	mg/Kg		11/09/22 15:29	11/12/22 08:23	1
m-Xylene & p-Xylene	<0.00400 L	j	0.00400	mg/Kg		11/09/22 15:29	11/12/22 08:23	1
o-Xylene	<0.00200 L	J	0.00200	mg/Kg		11/09/22 15:29	11/12/22 08:23	1
Xylenes, Total	<0.00400 L	J	0.00400	mg/Kg		11/09/22 15:29	11/12/22 08:23	1

MB MB

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	59	S1-	70 - 130	11/09/22 15:29	11/12/22 08:23	1
1,4-Difluorobenzene (Surr)	99		70 - 130	11/09/22 15:29	11/12/22 08:23	1

Lab Sample ID: LCS 880-39138/1-A

Matrix: Solid

Analysis Batch: 39343

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

Client Sample ID: Lab Control Sample Dup

Prep Batch: 39138

	Spike	LCS	LCS				%Rec	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Benzene	0.100	0.09491		mg/Kg		95	70 - 130	
Toluene	0.100	0.09455		mg/Kg		95	70 - 130	
Ethylbenzene	0.100	0.08730		mg/Kg		87	70 - 130	
m-Xylene & p-Xylene	0.200	0.1927		mg/Kg		96	70 - 130	
o-Xylene	0.100	0.09563		mg/Kg		96	70 - 130	

LCS LCS

Surrogate	%Recovery Qualit	ier Limits
4-Bromofluorobenzene (Surr)	93	70 - 130
1.4-Difluorobenzene (Surr)	112	70 - 130

Lab Sample ID: LCSD 880-39138/2-A

Matrix: Solid

Analyte Benzene

Analysis Batch: 39343

						Prep Ty	pe: Tot	al/NA
						Prep E	atch: 3	39138
Spike	LCSD	LCSD				%Rec		RPD
Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
0.100	0.08952		mg/Kg		90	70 - 130	6	35

QC Sample Results

Client: Ensolum Job ID: 890-3405-1 Project/Site: PLU 21 BD 125H SDG: 03E1558068

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

Lab Sample ID: LCSD 880-39138/2-A

Matrix: Solid

Analysis Batch: 39343

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA Prep Batch: 39138

LCSD LCSD Spike %Rec **RPD** Analyte Added Result Qualifier Unit %Rec Limits RPD Limit Toluene 0.100 0.09075 mg/Kg 91 70 - 130 4 35 0.100 0.08974 Ethylbenzene mg/Kg 90 70 - 1303 35 m-Xylene & p-Xylene 0.200 0.2057 mg/Kg 70 - 130 7 35 103 0.100 0.1104 70 - 130 35 o-Xylene mg/Kg 110 14

LCSD LCSD

Surrogate	%Recovery (Qualifier	Limits
4-Bromofluorobenzene (Surr)	108		70 - 130
1,4-Difluorobenzene (Surr)	112		70 - 130

Lab Sample ID: 890-3392-A-1-C MS **Client Sample ID: Matrix Spike**

Matrix: Solid

Analysis Batch: 39343

Prep Type: Total/NA

Prep Batch: 39138

-	Sample	Sample	Spike	MS	MS				%Rec	
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Benzene	<0.00201	U	0.100	0.08927		mg/Kg		89	70 - 130	
Toluene	<0.00201	U	0.100	0.08382		mg/Kg		83	70 - 130	
Ethylbenzene	<0.00201	U	0.100	0.07488		mg/Kg		75	70 - 130	
m-Xylene & p-Xylene	<0.00402	U	0.201	0.1635		mg/Kg		81	70 - 130	
o-Xylene	<0.00201	U	0.100	0.08493		mg/Kg		85	70 - 130	

MS MS

Surrogate	%Recovery Qualifier	Limits
4-Bromofluorobenzene (Surr)	95	70 - 130
1,4-Difluorobenzene (Surr)	111	70 - 130

Lab Sample ID: 890-3392-A-1-D MSD

Matrix: Solid

Analysis Batch: 39343

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 39138

Alluly 313 Butolli 00040									I ICP L	outon. c	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,
	Sample	Sample	Spike	MSD	MSD				%Rec		RPD
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Benzene	<0.00201	U	0.0990	0.07916		mg/Kg		80	70 - 130	12	35
Toluene	<0.00201	U	0.0990	0.07843		mg/Kg		79	70 - 130	7	35
Ethylbenzene	<0.00201	U	0.0990	0.07188		mg/Kg		73	70 - 130	4	35
m-Xylene & p-Xylene	<0.00402	U	0.198	0.1570		mg/Kg		79	70 - 130	4	35
o-Xylene	<0.00201	U	0.0990	0.08045		mg/Kg		81	70 - 130	5	35

MSD MSD

Surrogate	%Recovery Qualifie	er Limits
4-Bromofluorobenzene (Surr)	89	70 - 130
1,4-Difluorobenzene (Surr)	115	70 - 130

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

Lab Sample ID: MB 880-39172/1-A

Matrix: Solid

Analysis Batch: 39269

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

Prep Batch: 39172

MB MB Result Qualifier RL Unit Analyte Prepared Analyzed Gasoline Range Organics <50.0 U 50.0 mg/Kg 11/10/22 08:48 11/11/22 09:30

(GRO)-C6-C10

QC Sample Results

Client: Ensolum Job ID: 890-3405-1 Project/Site: PLU 21 BD 125H SDG: 03E1558068

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

Lab Sample ID: MB 880-39172/1-A **Client Sample ID: Method Blank** Matrix: Solid **Prep Type: Total/NA** Prep Batch: 39172 **Analysis Batch: 39269**

	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		11/10/22 08:48	11/11/22 09:30	1
Oll Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		11/10/22 08:48	11/11/22 09:30	1
	МВ	МВ						
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	119		70 - 130			11/10/22 08:48	11/11/22 09:30	1
o-Terphenyl	134	S1+	70 - 130			11/10/22 08:48	11/11/22 09:30	1

- Terprienyi		134 31+	70 - 130				1 1/ 1	0/22 00.4	0 11/11/22 09.30
Lab Sample ID: LCS 880-3 Matrix: Solid Analysis Batch: 39269	99172/2-A					Clier	nt Sai	mple ID	: Lab Control Sample Prep Type: Total/NA Prep Batch: 39172
			Spike	LCS	LCS				%Rec
Analyte			Added	Result	Qualifier	Unit	D	%Rec	Limits
Gasoline Range Organics (GRO)-C6-C10			1000	815.5		mg/Kg		82	70 - 130
Diesel Range Organics (Over			1000	846.7		mg/Kg		85	70 - 130
C10-C28)									
	LCS	LCS							
Surrogate	%Recovery	Qualifier	Limits						
1-Chlorooctane	94		70 - 130						
o-Terphenyl	97		70 - 130						

Lab Sample ID: LCSD 880-39172/3-A	Sample ID: LCSD 880-39172/3-A					Client Sample ID: Lab Control Sample Dup									
Matrix: Solid	x: Solid						Prep Ty	pe: Tot	al/NA						
Analysis Batch: 39269							Prep E	atch:	39172						
	Spike	LCSD	LCSD				%Rec		RPD						
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit						
Gasoline Range Organics (GRO)-C6-C10	1000	1003	*1	mg/Kg		100	70 - 130	21	20						
Diesel Range Organics (Over C10-C28)	1000	950.2		mg/Kg		95	70 - 130	12	20						
LCSD LCSD															

	LCSD	LCSD	
Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane	107		70 - 130
o-Terphenyl	109		70 - 130

Lab Sample ID: 890-3402 Matrix: Solid Analysis Batch: 39269		Sample	Sample Spike	MS	MS		CI	lient Sa	mple ID: Matrix S Prep Type: Tota Prep Batch: 3 %Rec	al/NA
Analyte	•	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Gasoline Range Organics (GRO)-C6-C10	55.1	*1	997	1007		mg/Kg		95	70 - 130	
Diesel Range Organics (Over C10-C28)	<50.0	U	997	861.7		mg/Kg		84	70 - 130	
	MS	MS								
Surrogate	%Recovery	Qualifier	Limits							
1-Chlorooctane	86		70 - 130							
o-Terphenyl	79		70 - 130							

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Released to Imaging: 3/13/2023 10:02:15 AM

Client: Ensolum Job ID: 890-3405-1 Project/Site: PLU 21 BD 125H SDG: 03E1558068

999

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

Lab Sample ID: 890-3402-A-1-H MSD

Matrix: Solid

Analysis Batch: 39269

Gasoline Range Organics

Diesel Range Organics (Over

Client Sample ID: Matrix Spike Duplicate

77

70 - 130

Client Sample ID: Lab Control Sample

Client Sample ID: Lab Control Sample Dup

Client Sample ID: Matrix Spike Duplicate

Prep Type: Soluble

Prep Type: Soluble

Prep Type: Soluble

Prep Type: Soluble

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 39172

8

Spike MSD MSD %Rec **RPD** Added Result Qualifier D %Rec Limits **RPD** Limit Unit 999 978.6 mg/Kg 92 70 - 130 3 20

mg/Kg

C10-C28)

(GRO)-C6-C10

Analyte

MSD MSD

Sample Sample

55.1 *1

<50.0 U

Result Qualifier

Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane	82		70 - 130
o-Terphenyl	73		70 - 130

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-39126/1-A **Client Sample ID: Method Blank Prep Type: Soluble**

796.8

Matrix: Solid

Analysis Batch: 39335

MB MB

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.00	U	5.00	mg/Kg	_		11/12/22 02:56	1

Lab Sample ID: LCS 880-39126/2-A **Matrix: Solid**

Analysis Batch: 39335

	Spike	LCS	LCS				%Rec	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Chloride	250	266 1	-	ma/Ka		106	90 - 110	-

Lab Sample ID: LCSD 880-39126/3-A

Matrix: Solid

Analysis Batch: 39335

	Spike	LCSD	LCSD				%Rec		RPD	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit	
Chloride	250	258.9		ma/Ka		104	90 - 110	3	20	

Lab Sample ID: 890-3402-A-1-D MS

Matrix: Solid

Analysis Batch: 39335

	Sample S	Sample	Spike	MS	MS				%Rec	
Analyte	Result (Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Chloride	195		249	466.5		mg/Kg		109	90 - 110	

Lab Sample ID: 890-3402-A-1-E MSD

Matrix: Solid

Analysis Batch: 39335

Alialysis Dalcii. 33333											
	Sample	Sample	Spike	MSD	MSD				%Rec		RPD
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Chloride	195		249	456.2		mg/Kg		105	90 - 110	2	20

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QC Association Summary

Client: Ensolum

Project/Site: PLU 21 BD 125H

Job ID: 890-3405-1

SDG: 03E1558068

GC VOA

Prep Batch: 39022

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 880-39022/5-A	Method Blank	Total/NA	Solid	5035	

Prep Batch: 39138

Lab Sample ID 890-3405-1	Client Sample ID SS07	Prep Type Total/NA	Solid	Method 5035	Prep Batch
MB 880-39138/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-39138/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-39138/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
890-3392-A-1-C MS	Matrix Spike	Total/NA	Solid	5035	
890-3392-A-1-D MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	

Analysis Batch: 39343

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3405-1	SS07	Total/NA	Solid	8021B	39138
MB 880-39022/5-A	Method Blank	Total/NA	Solid	8021B	39022
MB 880-39138/5-A	Method Blank	Total/NA	Solid	8021B	39138
LCS 880-39138/1-A	Lab Control Sample	Total/NA	Solid	8021B	39138
LCSD 880-39138/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	39138
890-3392-A-1-C MS	Matrix Spike	Total/NA	Solid	8021B	39138
890-3392-A-1-D MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	39138

Analysis Batch: 39481

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3405-1	SS07	Total/NA	Solid	Total BTEX	

GC Semi VOA

Prep Batch: 39172

Lab Sample ID 890-3405-1	Client Sample ID SS07	Prep Type Total/NA	Matrix Solid	Method Prep Bat 8015NM Prep	tch
MB 880-39172/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-39172/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-39172/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
890-3402-A-1-G MS	Matrix Spike	Total/NA	Solid	8015NM Prep	
890-3402-A-1-H MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	

Analysis Batch: 39269

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3405-1	SS07	Total/NA	Solid	8015B NM	39172
MB 880-39172/1-A	Method Blank	Total/NA	Solid	8015B NM	39172
LCS 880-39172/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	39172
LCSD 880-39172/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	39172
890-3402-A-1-G MS	Matrix Spike	Total/NA	Solid	8015B NM	39172
890-3402-A-1-H MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	39172

Analysis Batch: 39401

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3405-1	SS07	Total/NA	Solid	8015 NM	

QC Association Summary

Client: Ensolum Job ID: 890-3405-1 Project/Site: PLU 21 BD 125H SDG: 03E1558068

HPLC/IC

Leach Batch: 39126

Lab Sample ID 890-3405-1	Client Sample ID SS07	Prep Type Soluble	Matrix Solid	Method DI Leach	Prep Batch
MB 880-39126/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-39126/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-39126/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
890-3402-A-1-D MS	Matrix Spike	Soluble	Solid	DI Leach	
890-3402-A-1-E MSD	Matrix Spike Duplicate	Soluble	Solid	DI Leach	

Analysis Batch: 39335

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3405-1	SS07	Soluble	Solid	300.0	39126
MB 880-39126/1-A	Method Blank	Soluble	Solid	300.0	39126
LCS 880-39126/2-A	Lab Control Sample	Soluble	Solid	300.0	39126
LCSD 880-39126/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	39126
890-3402-A-1-D MS	Matrix Spike	Soluble	Solid	300.0	39126
890-3402-A-1-E MSD	Matrix Spike Duplicate	Soluble	Solid	300.0	39126

Lab Chronicle

Client: Ensolum Job ID: 890-3405-1 Project/Site: PLU 21 BD 125H SDG: 03E1558068

Client Sample ID: SS07 Lab Sample ID: 890-3405-1

Date Collected: 11/07/22 12:10 **Matrix: Solid** Date Received: 11/07/22 14:17

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.02 g	5 mL	39138	11/09/22 15:29	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	39343	11/12/22 17:37	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			39481	11/14/22 12:31	SM	EET MID
Total/NA	Analysis	8015 NM		1			39401	11/14/22 09:30	SM	EET MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	39172	11/10/22 08:48	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	39269	11/11/22 15:50	SM	EET MID
Soluble	Leach	DI Leach			4.97 g	50 mL	39126	11/09/22 15:04	KS	EET MID
Soluble	Analysis	300.0		1	0 mL	1.0 mL	39335	11/12/22 03:35	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: 890-3405-1 Project/Site: PLU 21 BD 125H SDG: 03E1558068

Laboratory: Eurofins Midland

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

Authority	Pro	ogram	Identification Number	Expiration Date
Texas	NE	LAP	T104704400-22-24	06-30-23
The following analyte:	s are included in this reno	ort but the laboratory is r	not certified by the governing authority.	This list may include analytes for
	•	it, but the laboratory is i	lot certified by the governing authority.	This list may include analytes for t
the agency does not d	•	Matrix	Analyte	This list may include analytes for t
the agency does not o	offer certification.	•	, , ,	This list may include analytes for t

Method Summary

Client: Ensolum

Project/Site: PLU 21 BD 125H

Job ID: 890-3405-1

SDG: 03E1558068

/lethod	Method Description	Protocol	Laboratory
3021B	Volatile Organic Compounds (GC)	SW846	EET MID
otal BTEX	Total BTEX Calculation	TAL SOP	EET MID
015 NM	Diesel Range Organics (DRO) (GC)	SW846	EET MID
015B NM	Diesel Range Organics (DRO) (GC)	SW846	EET MID
800.0	Anions, Ion Chromatography	MCAWW	EET MID
6035	Closed System Purge and Trap	SW846	EET MID
015NM Prep	Microextraction	SW846	EET MID
Ol Leach	Deionized Water Leaching Procedure	ASTM	EET MID

Protocol References:

ASTM = ASTM International

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

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

TAL SOP = TestAmerica Laboratories, Standard Operating Procedure

Laboratory References:

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

Sample Summary

Client: Ensolum

Project/Site: PLU 21 BD 125H

Job ID: 890-3405-1

SDG: 03E1558068

Lab Sample ID Client Sample ID Collected Matrix Received Depth 890-3405-1 SS07 Solid 11/07/22 12:10 11/07/22 14:17 0.2'

Relinquished by: (Signature)

Received by: (Signature)

1.32 1413

Date/Time

Notice: Signature of this docu Circle Method(s) and N

eurofins 🔆

Xenco

Environment Testing

Phone:

City, State ZIP

Midland, TX 79701

City, State ZIP:

Carlsbad, NM 88220 3104 E. Greene Street

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

Level IV

Program: UST/PST ☐PRP ☐Brownfields ☐RC

□superfund

www.xenco.com

Work Order Comments

State of Project: NM

601 N. Marienfeld Street, Suite 400

ddress:

Company Name

Ensolum, LLC Kalei Jennings

Bill to: (if different)

Company Name

XTO Energy, Inc.

Garret Green

Project Number: Project Name:

Sampler's Name:

Samples Received Intact SAMPLE RECEIPT

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

Midland, TX (432) 704-5440, San Antonio, TX (210) 509-3334 EL Paso, TX (915) 585-3443, Lubbock, TX (806) 794-1296 Hobbs, NM (575) 392-7550, Carlsbad, NM (575) 988-3199

hone: 817-6	817-683-2503	Email:	Email: kjennings@ensolum.com, bbelill@ensolum.com	olum.	com, b	belill@		Deliverables. EDD	ADAT Color
roject Name:	PLU 21 BD 125H	Turn	Turn Around				ANALYSIS REQUEST	EST	Preservative Codes
roject Number:	03E1558068	∇ Routine	Rush	Pres. Code					None: NO DI Water: H ₂ O
roject Location:	32.10974, -103.88422	Due Date:							¥
ampler's Name:	Julianna Falcomata	TAT starts the	TAT starts the day received by		_				
Ŏ #		the lab, if rec	the lab, if received by 4:30pm	rs					H ₂ SU ₄ : H ₂ NaOH: Na
AMPLE RECEIPT	Temp Blank: (Kes) No	Wet Ice:	(Yes) No	nete		4			H₃PO₄: HP
amples Received Intact:	Yes No Thermometer ID:	eter ID:	TW MOOT	ıran					NaHSO4: NABIS
ooler Custody Seals:	Yes No N/A Correction Factor:	n Factor:	- a . ව	Pa					Na ₂ S ₂ O ₃ : NaSO ₃
ample Custody Seals:	Yes No WIA Temperal	Temperature Reading:	10.0				890-3405 Chain of Custody	Custody	Zn Acetate+NaOH: Zn
otal Containers:	Corrected	Corrected Temperature:	8.8			_			NaOH+Ascorbic Acid: SAPC
Sample Identification	ion Matrix Date	Time d Sampled	Depth Comp	# of Cont	втех	TPH	CHLOR		Sample Comments
1607	5 11-72	002 2	.2' C	1	×	×	×		1
									Cost Center: 1666421001
						_			nAPP2214547737
						\parallel			
Total 200.7 / 6010	200.8 / 6020:	8RCRA 13	13PPM Texas 11 Al Sb	<u>2</u>	Sb As	As Ba	Be B Cd Ca Cr Co Cu Fe Pb	Mg Mn Mo Ni K Se Ag	g SiO ₂ Na Sr TI Sn U V Zn
ircle Method(s) and Metal(s) to be analyzed	tal(s) to be analyzed	TCLP / S	PLP 6010: 8R0	CRA	Sb As	Ва В	TCLP / SPLP 6010: 8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni	Ni Se Ag TI U Hg:	Hg: 1631 / 245.1 / 7470 / 7471
tice: Signature of this docume service. Eurofins Xenco will b	e liable only for the cost of samples on the cost of samples only for the cost of samples	constitutes a valid p	urchase order from ime any responsibili	client co	mpany t y losses	o Eurofir	otice: Signature of this document and relinquishment of samples constitutes a valid purchase order from client company to Eurofins Xenco, its affiliates and subcontractors. It assigns standard terms and conditions 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 and the control of 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 the cost	assigns standard terms and condidue to circumstances beyond the collections of the collec	litions control
Relinquished by: (Sign	nature) A Recei	ved by: (Signa	ture)		Date/Time	ime	Relinquished by: (Signature)	e) Received by: (Signature)	Signature) Date/Time
Relinquished by: (Signature)	>	Received by: (Signature)	(ure)		Date/	-	Remiquisited by. (Signature		

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

Login Sample Receipt Checklist

Client: Ensolum

Job Number: 890-3405-1

SDG Number: 03E1558068

Login Number: 3405 List Source: Eurofins Carlsbad

List Number: 1

Creator: Stutzman, Amanda

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

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Login Sample Receipt Checklist

Client: Ensolum

Job Number: 890-3405-1

SDG Number: 03E1558068

List Source: Eurofins Midland
List Number: 2
List Creation: 11/09/22 10:47 AM

Creator: Rodriguez, Leticia

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

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<6mm (1/4").

Eurofins Carlsbad

Job Notes

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

Authorization

11/23/2022 9:17:53 AM

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

Generated Revision 1

Eurofins Carlsbad is a laboratory within Eurofins Environment Testing South Central, LLC, a company within Eurofins Environment Testing Group of Companies



APPENDIX E

NMOCD Notifications

From: Tacoma Morrissey

garrett.green@exxonmobil.com; Collins, Melanie To:

DelawareSpills@exxonmobil.com; Ashley Ager; Ben Belill; Kalei Jennings; Stuart Hyde Cc:

RE: XTO - Sampling Notification (Week of 10/17/22 - 10/21/22) Subject:

Date: Sunday, October 16, 2022 10:30:26 AM image001.png

> image002.png image003.png image004.png

Hi Garrett,

Attachments:

Please see the below email for NMOCD sampling notification for the week of Oct 17, 2022, if you would like to provide an update.

All,

XTO plans to complete final sampling activities at the following sites the week of Oct 17, 2022.

Monday

BEU 29W Vader 100H / nAPP2102831345

Tuesday

- BEU 29W Vader 100H / nAPP2102831345
- PLU 21 BD 125H/ nAPP2214547737

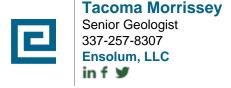
Wednesday

- BEU 29W Vader 100H / nAPP2102831345
- PLU 30 Big Sinks/ nAPP2209137379, nAPP2208351954, nAPP2206853301

Thursday

- PLU 30 Big Sinks/ nAPP2209137379, nAPP2208351954, nAPP2206853301
- JRU 108 / nAPP2217931599
- JRU 106 / nAPP2212344322

Thank you!





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

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Revision Date 01-Aug-2019

Appearance Opaque Physical state Liquid Odor Mineral Oil

Precautionary Statements - Prevention

Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking Wear protective gloves/protective clothing/eye protection/face protection

Precautionary Statements - Response

In case of fire: Use CO2, dry chemical, or foam for extinction

Precautionary Statements - Storage Store in a well-ventilated place. Keep cool

Precautionary Statements - Disposal

Dispose of contents/container to an approved waste disposal plant

Other Information

May be harmful in contact with skin Harmful to aquatic life

3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance

Chemical name	CAS No	Weight-%	Trade secret
Petroleum distillates, hydrotreated light	64742-47-8	40 - 70	

^{*}The exact percentage (concentration) of composition has been withheld as a trade secret.

4. FIRST AID MEASURES

Description of first aid measures

Inhalation Remove to fresh air.

Eye contact Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Keep

eye wide open while rinsing. Do not rub affected area. Remove contact lenses, if present

and easy to do. Continue rinsing.

Skin contact Wash off immediately with soap and plenty of water while removing all contaminated

clothes and shoes.

Ingestion Clean mouth with water and drink afterwards plenty of water.

Self-protection of the first aider Remove all sources of ignition. Ensure that medical personnel are aware of the material(s)

involved, take precautions to protect themselves and prevent spread of contamination.

Wear personal protective clothing (see section 8).

Most important symptoms and effects, both acute and delayed

Symptoms No information available.

Indication of any immediate medical attention and special treatment needed

Note to physicians Treat symptomatically.

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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

Special protective equipment for

fire-fighters

Firefighters should wear self-contained breathing apparatus and full firefighting turnout gear. Use personal protection equipment.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Personal precautions Evacuate personnel to safe areas. Use personal protective equipment as required. See

section 8 for more information. Take precautionary measures against static discharges. Do

not touch or walk through spilled material.

Environmental precautions

Environmental precautions Refer to protective measures listed in Sections 7 and 8. Prevent further leakage or spillage

if safe to do so.

Methods and material for containment and cleaning up

Methods for containment Stop leak if you can do it without risk. Do not touch or walk through spilled material. Dike far

ahead of liquid spill for later disposal.

Methods for cleaning up Take precautionary measures against static discharges. Dam up. Soak up with inert

absorbent material. Pick up and transfer to properly labeled containers.

Prevention of secondary hazards Clean contaminated objects and areas thoroughly observing environmental regulations.

7. HANDLING AND STORAGE

Precautions for safe handling

Advice on safe handling Use personal protection equipment. Do not breathe vapor or mist. Keep away from heat,

> hot surfaces, sparks, open flames and other ignition sources. No smoking, Take precautionary measures against static discharges. Use with local exhaust ventilation.

Conditions for safe storage, including any incompatibilities

Storage Conditions Keep containers tightly closed in a dry, cool and well-ventilated place. Keep away from

heat, sparks, flame and other sources of ignition (i.e., pilot lights, electric motors and static electricity). Keep in properly labeled containers. Store in accordance with the particular

national regulations. Store in accordance with local regulations.

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8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

Exposure Limits The following ingredients are the only ingredients of the product above the cut-off level (or

level that contributes to the hazard classification of the mixture) which have an exposure

limit applicable in the region for which this safety data sheet is intended or other

recommended limit. At this time, the other relevant constituents have no known exposure

limits from the sources listed here.

Appropriate engineering controls

Engineering controls Showers

Eyewash stations Ventilation systems.

Individual protection measures, such as personal protective equipment

Eye/face protection Tight sealing safety goggles.

Skin and body protection No special protective equipment required.

Respiratory protection No protective equipment is needed under normal use conditions. If exposure limits are

exceeded or irritation is experienced, ventilation and evacuation may be required.

General hygiene considerations Do not eat, drink or smoke when using this product. Contaminated work clothing should not

be allowed out of the workplace. Regular cleaning of equipment, work area and clothing is recommended. Wash hands before breaks and immediately after handling the product.

9. PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Physical state Liquid
Appearance Opaque

Color Milky white to yellow

Odor Mineral Oil

Odor threshold No information available

Property Values Remarks • Method

pH No data available None known
Melting point / freezing point No data available None known
Boiling point / boiling range No data available None known

Flash point >= 67 °C / 153 °F

Evaporation rate No data available None known Flammability (solid, gas) No data available None known

Flammability Limit in Air None known

Upper flammability limit: No data available
Lower flammability limit: No data available

Vapor pressureNo data availableNone knownVapor densityNo data availableNone known

Relative density 0.97 - 1.03
Water solubility Miscible in water

Solubility in other solvents
Partition coefficient
Autoignition temperature
No data available
No data available
None known

Kinematic viscosity ≥150 mm²/s

Dynamic viscosity No data available None known

Explosive properties

Oxidizing properties

No data available

No information available

No information available

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Other Information

Softening point

Molecular weight

VOC Content (%)

Liquid Density

No information available

10. STABILITY AND REACTIVITY

Reactivity No information available.

Chemical stability Stable under normal conditions.

Possibility of hazardous reactions None under normal processing.

Conditions to avoid Heat, flames and sparks.

Incompatible materials None known based on information supplied.

Hazardous decomposition products None known based on information supplied.

11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure

Product Information

Inhalation Specific test data for the substance or mixture is not available.

Eye contact Specific test data for the substance or mixture is not available.

Skin contact Specific test data for the substance or mixture is not available.

Ingestion Specific test data for the substance or mixture is not available.

Symptoms related to the physical, chemical and toxicological characteristics

Symptoms No information available.

Numerical measures of toxicity

Acute toxicity

The following values are calculated based on chapter 3.1 of the GHS document.

ATEmix (oral) 5,005.00 mg/kg
ATEmix (dermal) 2,002.00 mg/kg
ATEmix (inhalation-dust/mist) 5.20 mg/l

Component Information

Chemical name	Oral LD50	Dermal LD50	Inhalation LC50
Petroleum distillates, hydrotreated light 64742-47-8	> 5000 mg/kg (Rat)	> 2000 mg/kg (Rabbit)	> 5.2 mg/L (Rat)4 h

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Skin corrosion/irritation No information available.

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Serious eye damage/eye irritation No information available.

Respiratory or skin sensitization No information available.

Germ cell mutagenicity No information available.

Carcinogenicity No information available.

Reproductive toxicity No information available.

STOT - single exposure No information available.

STOT - repeated exposure No information available.

Aspiration hazard No information available.

12. ECOLOGICAL INFORMATION

Ecotoxicity

Chemical name	Algae/aquatic plants	Fish	Toxicity to microorganisms	Crustacea
Petroleum distillates, hydrotreated light 64742-47-8		2.4: 96 h Oncorhynchus mykiss mg/L LC50 static 45: 96 h Pimephales promelas mg/L LC50 flow-through 2.2: 96 h Lepomis macrochirus mg/L LC50 static		4720: 96 h Den-dronereides heteropoda mg/L LC50

Persistence and degradability No information available.

Bioaccumulation There is no data for this product.

Other adverse effects No information available.

13. DISPOSAL CONSIDERATIONS

Waste treatment methods

Waste from residues/unused

products

Dispose of in accordance with local regulations. Dispose of waste in accordance with

environmental legislation.

Contaminated packaging Do not reuse empty containers.

14. TRANSPORT INFORMATION

DOT Not regulated. Product does not sustain combustion (49 CFR 173.120(b)(3))

15. REGULATORY INFORMATION

International Inventories

TSCA Complies
DSL/NDSL Complies
EINECS/ELINCS Complies
ENCS Does not comply
IECSC Complies
KECL Complies

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PICCS Complies
AICS Complies

Legend:

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory

DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List

EINECS/ELINCS - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances

ENCS - Japan Existing and New Chemical Substances

IECSC - China Inventory of Existing Chemical Substances

KECL - Korean Existing and Evaluated Chemical Substances

PICCS - Philippines Inventory of Chemicals and Chemical Substances

AICS - Australian Inventory of Chemical Substances

US Federal Regulations

SARA 313

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product does not contain any chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372.

SARA 311/312 Hazard Categories

Acute health hazard	No
Chronic Health Hazard	No
Fire hazard	Yes
Sudden release of pressure hazard	No
Reactive Hazard	No

CWA (Clean Water Act)

This product does not contain any substances regulated as pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42).

CERCLA

This material, as supplied, does not contain any substances regulated as hazardous substances under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302) or the Superfund Amendments and Reauthorization Act (SARA) (40 CFR 355). There may be specific reporting requirements at the local, regional, or state level pertaining to releases of this material.

US State Regulations

California Proposition 65

This product does not contain any Proposition 65 chemicals.

U.S. State Right-to-Know Regulations

US State Regulations

This product does not contain any substances regulated by state right-to-know regulations

U.S. EPA Label Information

EPA Pesticide Registration Number Not applicable

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16. OTHER INFORMATION, INCLUDING DATE OF PREPARATION OF THE LAST REVISION

NFPA Health hazards 2 Flammability 2 Instability 0 Physical and chemical

properties -

HMIS Health hazards 2 Flammability 2 Physical hazards 0 Personal protection X

Issuing Date 01-Aug-2019

Revision Date 01-Aug-2019

Revision Note No information available.

Disclaimer

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End of Safety Data Sheet

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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 164984

CONDITIONS

Operator:	OGRID:
XTO ENERGY, INC	5380
6401 Holiday Hill Road	Action Number:
Midland, TX 79707	164984
	Action Type:
	[C-141] Release Corrective Action (C-141)

CONDITIONS

Created By	Condition	Condition Date
rhamlet	We have received your closure report and final C-141 for Incident #NAPP2214342255 PLU 21 BRUSHY DRAW 126H, thank you. This closure is approved. Please be aware that any contaminants left on pad above reclamation standards will need to be addressed at the time the site/facility is plugged and abandoned.	3/13/2023