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	NAPP2218238639
District RP	
Facility ID	
Application ID	

# **Release Notification**

# **Responsible Party**

				•	ν
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 maili	ing address	3104 E. Greene St	reet, Carlsbad, Nev	w Mexico, 88220	
			Location	of Release So	ource
Latitude 32.2	5466			Longitude	-103.60874
Latitude			(NAD 83 in dec	imal degrees to 5 decim	nal places)
Site Name	Mis Amigos	: Battery		Site Type	Tank Battery
Date Release		06/23/2022		API# (if app.	
Unit Letter	Section	Township	Range	Coun	<u>ity</u>
О	31	23S	33E	Lea	a
Surface Owner				Volume of F	Release  c justification for the volumes provided below)
Crude Oil		Volume Release		curculations of specific	Volume Recovered (bbls)
× Produced	Water	Volume Release	ed (bbls) 70.00	)	Volume Recovered (bbls) 70.00
Is the concentration of total dissolved so in the produced water >10,000 mg/l?			Yes X No		
Condensat	te	Volume Release	d (bbls)		Volume Recovered (bbls)
☐ Natural Gas Volume Released (Mcf)			Volume Recovered (Mcf)		
Other (describe) Volume/Weight Released (provide units)		units)	Volume/Weight Recovered (provide units)		
Cause of Rele	A 48-h	our advance liner i	nspection notice w	as sent to NMOCI	s to impermeable containment. All fluids were recovered. D District 1. Liner was visually inspected and tractor has been retained for remediation purposes,

Received by OCD: 9/21/2022/3:21:46 PM State of New Mexico
Page 2 Oil Conservation Division

	Page 2cof 12	9
Incident ID	NAPP2218238639	
District RP		
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Application ID		

Was this a major	If YES, for what reason(s) does the respor	nsible party consider this a major release?
release as defined by	A release greater than 25 barrels.	
19.15.29.7(A) NMAC?		
🗶 Yes 🗌 No		
If YES, was immediate n	otice given to the OCD? By whom? To wh	om? When and by what means (phone, email, etc)?
Yes, by Garrett Green to o	ocd.enviro@state.nm.us, Mike Bratcher, Ro	bert Hamlet, Jennifer Nobui on 6/23/22 via email.
	Initial Ro	esponse
The responsible		-
The responsible	party must undertake the following actions immediatel	y unless they could create a safety hazard that would result in injury
	ease has been stopped.	
	as been secured to protect human health and	
Released materials ha	ave been contained via the use of berms or d	ikes, absorbent pads, or other containment devices.
★ All free liquids and re	ecoverable materials have been removed and	d managed appropriately.
If all the actions describe	d above have <u>not</u> been undertaken, explain v	why:
NA		
Per 19 15 29 8 B (4) NM	AC the responsible party may commence r.	emediation immediately after discovery of a release. If remediation
		efforts have been successfully completed or if the release occurred
within a lined containment area (see 19.15.29.11(A)(5)(a) NMAC), please attach all information needed for closure evaluation.		
I hereby certify that the info	rmation given above is true and complete to the	pest of my knowledge and understand that pursuant to OCD rules and
		fications and perform corrective actions for releases which may endanger
public health or the environment. The acceptance of a C-141 report by the OCD does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In		
	f a C-141 report does not relieve the operator of	responsibility for compliance with any other federal, state, or local laws
and/or regulations.		COLUE O III
Printed Name: Garrett G	reen	Title: SSHE Coordinator
Signature:	A Sun	Date: 07/01/2022
	1.1	
email: garrett.green@exx	KOHIHODH.COM	Telephone: 575-200-0729
OCD Only		
Received by: Jocelyn H	arimon	Date: 07/01/2022

Location:	Mis Amigos Battery	
Spill Date:	6/23/2022	
	Area 1	
Approximate A	rea = 393.02	cu.ft.
	VOLUME OF LEAK	
Total Crude Oil	= 0.00	bbls
Total Produced Water = 70.00 bbls		bbls
	TOTAL VOLUME OF LEAK	
Total Crude Oi	= 0.00	bbls
Total Produced	I Water = 70.00	bbls
TOTAL VOLUME RECOVERED		
<b>Total Crude Oi</b>	Total Crude Oil = 0.00 bbls	
<b>Total Produced</b>	Water = 70.00	bbls

District I
1625 N. French Dr., Hobbs, NM 88240
Phone: (575) 393-6161 Fax: (575) 393-0720 District II

811 S. First St., Artesia, NM 88210 Phone:(575) 748-1283 Fax:(575) 748-9720

District III 1000 Rio Brazos Rd., Aztec, NM 87410 Phone:(505) 334-6178 Fax:(505) 334-6170

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

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

CONDITIONS

Action 122306

# **CONDITIONS**

Operator:	OGRID:
XTO ENERGY, INC	5380
6401 Holiday Hill Road	Action Number:
Midland, TX 79707	122306
	Action Type:
	[C-141] Release Corrective Action (C-141)

#### CONDITIONS

Created By		Condition Date
jharimon	None	7/1/2022

New Mexico Page 5 of 129

No Mexico No Decident ID No Decident ID

Incident ID	NAPP2218238639
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# **Site Assessment/Characterization**

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

What is the shallowest depth to groundwater beneath the area affected by the release?	> 100 (ft bgs)	
Did this release impact groundwater or surface water?	☐ Yes ⊠ No	
Are the lateral extents of the release within 300 feet of a continuously flowing watercourse or any other significant watercourse?	☐ Yes ⊠ No	
Are the lateral extents of the release within 200 feet of any lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark)?	☐ Yes ⊠ No	
Are the lateral extents of the release within 300 feet of an occupied permanent residence, school, hospital, institution, or church?	☐ Yes ⊠ No	
Are the lateral extents of the release within 500 horizontal feet of a spring or a private domestic fresh water well used by less than five households for domestic or stock watering purposes?	☐ Yes ⊠ No	
Are the lateral extents of the release within 1000 feet of any other fresh water well or spring?	☐ Yes ⊠ No	
Are the lateral extents of the release within incorporated municipal boundaries or within a defined municipal fresh water well field?	☐ Yes ⊠ No	
Are the lateral extents of the release within 300 feet of a wetland?	☐ Yes ⊠ No	
Are the lateral extents of the release overlying a subsurface mine?	☐ Yes ⊠ No	
Are the lateral extents of the release overlying an unstable area such as karst geology?	☐ Yes ⊠ No	
Are the lateral extents of the release within a 100-year floodplain?	☐ Yes ⊠ No	
Did the release impact areas <b>not</b> 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.		
<ul> <li>         \infty Scaled site map showing impacted area, surface features, subsurface features, delineation points, and monitoring well         \infty Field data     </li> </ul>	ls.	
Data table of soil contaminant concentration data		
Depth to water determination  Determination of water sources and significant watercourses within ½-mile of the lateral extents of the release		
Boring or excavation logs		
Photographs including date and GIS information		
☐ Topographic/Aerial maps		
☐ Laboratory data including chain of custody		

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

Received by OCD: 9/21/2022 3:21:46 PM Form C-141 State of New Mexico Page 4 Oil Conservation Division

Page 4

Oil Conservation Division

District RP
Facility ID
Application ID

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to OCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger multiple health or the anxiety ment. The acceptance of a C-141 report by the OCD does not reliave the appropriate their expertises have

regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the OCD does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In addition, OCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.		
Printed Name: _Garrett Green	Title: _Environmental Coordinator	
Signature: Sath Sur	Date:09/21/2022	
email: _garrett.green@exxonmobil.com	Telephone:575-200-0729	
OCD Only		
Received by: Jocelyn Harimon	Date: 09/22/2022	

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Incident ID	NAPP2218238639
District RP	
Facility ID	
Application ID	

# **Remediation Plan**

Remediation Plan Checklist: Each of the following items must b	e included in the plan.	
<ul> <li>□ Detailed description of proposed remediation technique</li> <li>□ Scaled sitemap with GPS coordinates showing delineation points</li> <li>□ Estimated volume of material to be remediated</li> <li>□ Closure criteria is to Table 1 specifications subject to 19.15.29.12(C)(4) NMAC</li> <li>□ Proposed schedule for remediation (note if remediation plan timeline is more than 90 days OCD approval is required)</li> </ul>		
Deferral Requests Only: Each of the following items must be con	nfirmed as part of any request for deferral of remediation.	
Contamination must be in areas immediately under or around prodeconstruction.	roduction equipment where remediation could cause a major facility	
X Extents of contamination must be fully delineated.		
X Contamination does not cause an imminent risk to human health	n, the environment, or groundwater.	
I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to OCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the OCD does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In addition, OCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.		
Printed Name: Garrett Green	Title: Environmental Coordinator	
Signature:Satt Surr	Date: _09/21/2022	
email:garrett.green@exxonmobil.com	Telephone: 575-200-0729	
OCD Only		
Received by:Jocelyn Harimon	Date:09/22/2022	
☐ Approved ☐ Approved with Attached Conditions of	Approval Denied Deferral Approved	
Signature: Johnifor Nobili	Date: 09/26/2022	



September 21, 2022

District I New Mexico Oil Conservation Division 1625 N. French Dr. Hobbs. New Mexico 88240

Re: Deferral Request

Mis Amigos Battery

**Incident Number NAPP2218238639** 

Lea County, New Mexico

# To Whom It May Concern:

Ensolum, LLC (Ensolum), on behalf of XTO Energy, Inc. (XTO), has prepared this Deferral Request to document site assessment and soil sampling activities at the Mis Amigos Battery (Site). The purpose of the site assessment and soil sampling activities was to assess for the presence or absence of impacts to soil following a release of produced water within lined containment at the Site. Based on field observations, field screening activities, and soil sample laboratory analytical results, XTO is submitting this Deferral Request for Incident Number NAPP2218238639.

# SITE DESCRIPTION AND RELEASE SUMMARY

The Site is located in Unit O, Section 31, Township 23 South, Range 33 East, in Lea County, New Mexico (32.25466° N, 103.60874°W) and is associated with oil and gas exploration and production operations on New Mexico State Land.

On June 23, 2022, internal corrosion of a produced water dump line resulted in the release of approximately 70 barrels (bbls) of produced water into the lined tank battery containment. A vacuum truck was immediately dispatched to the Site to recover free-standing fluids; all 70 bbls of released produced water were recovered from within the lined containment. A 48-hour advance notice of liner inspection was provided via email to the New Mexico Oil Conservation Division (NMOCD) District I office. A liner integrity inspection was conducted by XTO personnel following fluid recovery. Upon inspection, the liner was determined to be insufficient. XTO reported the release to the NMOCD via email on June 23, 2022 and submitted a Release Notification Form C-141 (Form C-141) on July 1, 2022. The release was assigned Incident Number NAPP2218238639. NMOCD notifications are included in Appendix A.

# SITE CHARACTERIZATION AND CLOSURE CRITERIA

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

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



Depth to groundwater at the Site is greater than 100 feet below ground surface (bgs) based on a recent soil boring drilled for determination of regional groundwater depth. On July 20, 2021, a soil boring (C-04551) was drilled 0.21 miles west of the Site utilizing a truck-mounted hollow-stem auger rig. Soil boring C-4551 was drilled to a depth of 108 feet bgs. A field geologist logged and described soils continuously. No moisture or groundwater was encountered during drilling activites. The borehole was left open for over 72 hours to allow for potential slow infill of groundwater. After the 72-hour waiting period without observing groundwater, it was confirmed that groundwater beneath the Site is greater than 108 feet bgs. The borehole was properly abandoned with drill cuttings and hydrated bentonite chips. All wells used to determine depth to groundwater are depicted on Figure 1. The Well Record and Log is included in Appendix B.

The closest continuously flowing or significant watercourse to the Site is a seasonal dry wash, located approximately 8,868 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). Potential site receptors are identified on Figure 1.

Based on the results of the Site Characterization, the following NMOCD Table 1 Closure Criteria (Closure Criteria) apply:

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

### SITE ASSESSMENT ACTIVITIES

On August 3, 2022 and August 17, 2022, Ensolum personnel visited the Site to evaluate the potential release extent based on information provided on the Form C-141 and conduct site assessment activities. One borehole (BH01) was advanced via hand auger near the location of the tear in the containment liner to assess the vertical extent of any impacted soil. Three delineation soil samples (BH01/BH01A/BH01B) were collected from the borehole at depths of approximately 0.5 feet, 1-foot, and 2 feet bgs, respectively. Four additional lateral delineation soil samples (SS01 through SS04) were collected around the lined containment at a depth of 0.5 feet bgs to confirm the a release did not extend outside the lined containment. The release extent/containment and preliminary soil sample locations were mapped utilizing a handheld Global Positioning System (GPS) unit and are depicted on Figure 2. The delineation soil samples were field screened for volatile organic compounds (VOCs) utilizing a calibrated photoionization detector (PID) and chloride using Hach® chloride QuanTab® test strips. Field screening results and observations from the borehole were documented on lithologic/soil sampling logs, which are included in Appendix C. The borehole BH01 was backfilled with the soil removed and XTO repaired the tear in the liner. The delineation soil sample locations are depicted on Figure 2. Photographic documentation is included in Appendix D.

The soil samples were placed directly into pre-cleaned glass jars, labeled with the location, date, time, sampler name, method of analysis, and immediately placed on ice. The soil samples were transported



at or below 4 degrees Celsius (°C) under strict chain-of-custody (COC) procedures to Eurofins Laboratories (Eurofins) in Carlsbad, New Mexico, for analysis of BTEX following United States Environmental Protection Agency (EPA) Method 8021B; TPH-GRO, TPH-DRO, and TPH-oil range organics (ORO) following EPA Method 8015M/D; and chloride following EPA Method 300.0.

### LABORATORY ANALYTICAL RESULTS

Laboratory analytical results for the delineation soil sample BH01 at 0.5 feet bgs indicated that TPH-GRO/TPH-DRO and TPH concentrations exceeded the Closure Criteria. Laboratory analytical results for delineation soil sample BH01A collected at 1 foot bgs indicated TPH-GRO/TPH-DRO concentrations exceeded the Closure Criteria.

Laboratory analytical results for all other soil samples, including sample BH01B collected 2 feet below the tear in the liner and all lateral delineation samples, indicated that benzene, BTEX, TPH-GRO/TPH-DRO, TPH, and chloride concentrations were compliant with the Closure Criteria. Additionally, lateral delineation soil samples SS01 through SS04 were compliant with the most stringent Table 1 Closure Criteria. Laboratory analytical results are summarized in Table 1 and the complete laboratory analytical reports are included as Appendix E.

# **DEFERRAL REQUEST**

XTO is requesting deferral of final remediation due to the presence of active production equipment and surface pipelines within the lined containment preventing the removal of impacted soil. The impacted soil is limited to the area immediately beneath the lined containment, where remediation would require a major facility deconstruction. The impacted soil remaining in place is delineated vertically by delineation soil sample BH01B collected at 2 feet bgs. The soil is laterally delineated by delineation soil samples SS01 through SS04. A maximum of 60 cubic yards of TPH impacted soil remains in place beneath the liner assuming a maximum 2-foot depth based on the delineation soil samples listed above, that were compliant with the Closure Criteria.

XTO does not believe deferment will result in imminent risk to human health, the environment, or groundwater. Depth to groundwater was determined to be greater than 100 feet bgs, the release was contained laterally by the lined containment, and the impacted soil remaining in place is limited to the area immediately beneath the liner. The liner has been repaired by XTO and will limit future vertical migration of residual impacts.

Based on the presence of active production equipment within the release area and the complete lateral and vertical delineation of impacted soil remaining in place, XTO requests deferral of final remediation for Incident Number NAPP2218238639 until final reclamation of the well pad or major construction, whichever comes first.

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

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

Ashley L. Ager

Br.J. Delill



Benjamin J. Belill Project Geologist Ashley L. Ager, M.S., P.G. Program Director

cc: Garrett Green, XTO Shelby Pennington, XTO New Mexico State Land Office

# Appendices:

Figure 1 Site Receptor Map

Figure 2 Delineation Soil Sample Locations
Table 1 Soil Sample Analytical Results

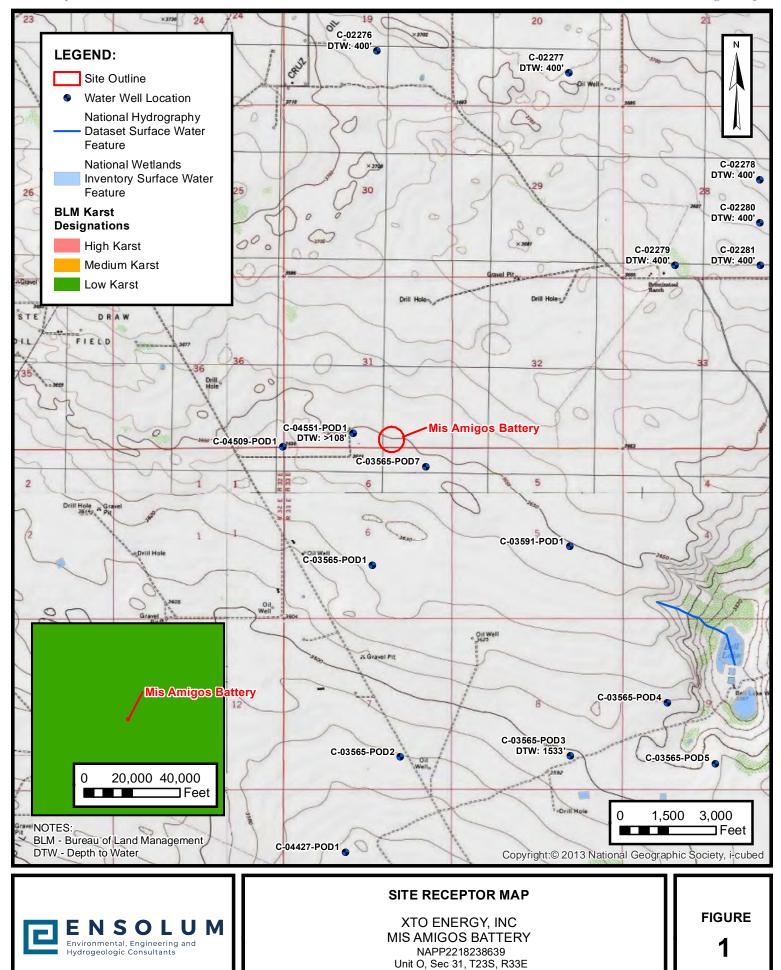
Appendix A NMOCD Notifications
Appendix B Referenced Well Records
Appendix C Lithology Soil Sampling Logs

Appendix D Photographic Log

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

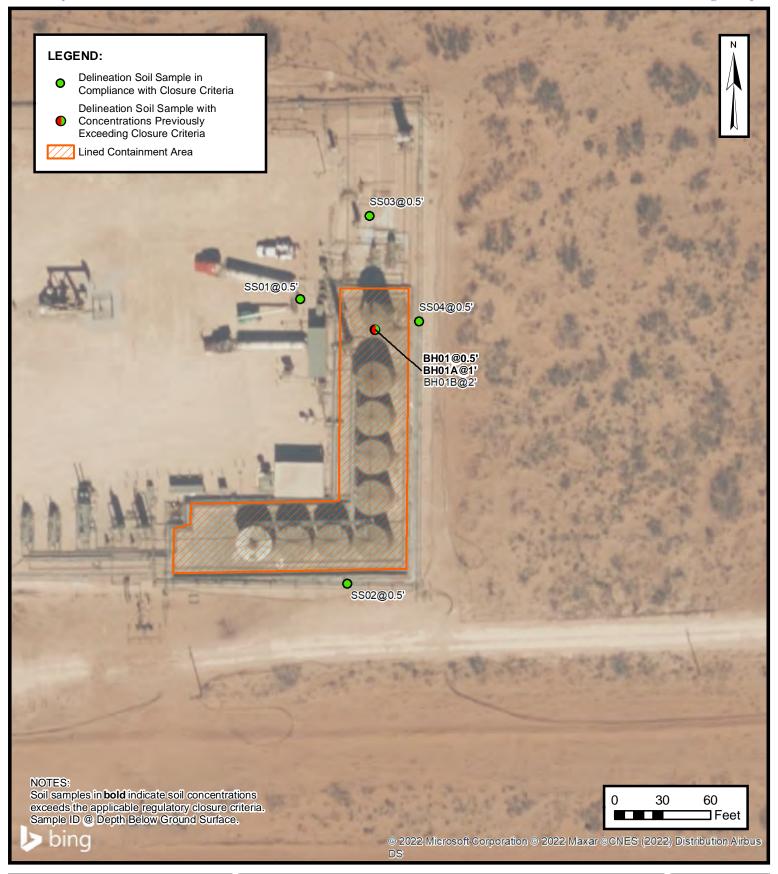


**FIGURES** 



Lea County, New Mexico

Released to Imaging: 9/26/2022 2:13:05 PM





# **DELINEATION SOIL SAMPLE LOCATIONS**

XTO ENERGY, INC MIS AMIGOS BATTERY NAPP2218238639 Unit O. Sec 31, T23S, R33F

Unit O, Sec 31, T23S, R33E Lea County, New Mexico FIGURE 2



**TABLES** 



# TABLE 1 **SOIL SAMPLE ANALYTICAL RESULTS Mis Amigos Battery** XTO Energy, Inc. Lea County, New Mexico

Sample I.D.	Sample Date	Sample Depth (feet bgs)	Benzene (mg/kg)	Total BTEX (mg/kg)	TPH GRO (mg/kg)	TPH DRO (mg/kg)	TPH ORO (mg/kg)	GRO+DRO (mg/kg)	Total TPH (mg/kg)	Chloride (mg/kg)
NMOCD Table 1 Closure Criteria (NMAC 19.15.29)		10	50	NE	NE	NE	1,000	2,500	20,000	
				Deli	neation Soil Sai	mples				
SS01	08/03/2022	0.5	<0.00199	<0.00398	<49.8	<49.8	<49.8	<49.8	<49.8	362
SS02	08/03/2022	0.5	<0.00199	0.0110	<49.9	<49.9	<49.9	<49.9	<49.9	15.2
SS03	08/03/2022	0.5	<0.00200	<0.00401	<50.0	<50.0	<50.0	<50.0	<50.0	<4.95
SS04	08/03/2022	0.5	<0.00201	<0.00402	<50.0	<50.0	<50.0	<50.0	<50.0	<5.02
BH01	08/17/2022	0.5	<0.00199	0.0525	471	4,670	<49.9	5,141	5,140	479
BH01A	08/17/2022	1	<0.00201	<0.00402	101	1,240	<50.0	1,340	1,340	517
BH01B	08/17/2022	2	<0.00202	<0.00404	<50.0	126	<50.0	126	126	89.9

#### Notes:

bgs: below ground surface

mg/kg: milligrams per kilogram

NMOCD: New Mexico Oil Conservation Division

BTEX: Benzene, Toluene, Ethylbenzene, and Xylenes

Concentrations in bold exceed the NMOCD Table 1 Closure Criteria or reclamation

standard where applicable.

GRO: Gasoline Range Organics

DRO: Diesel Range Organics

ORO: Oil Range Organics

TPH: Total Petroleum Hydrocarbon

**Ensolum** 1 of 1



**APPENDIX A** 

**NMOCD Notifications** 

# Collins, Melanie

From: Green, Garrett J

**Sent:** Thursday, June 23, 2022 5:02 PM

To: ocd.enviro@state.nm.us; Bratcher, Mike, EMNRD; Hamlet, Robert, EMNRD; Nobui,

Jennifer, EMNRD

**Cc:** DelawareSpills /SM

**Subject:** XTO 24 Hour Notification - Mis Amigos Battery - Released on 6/23/22

All,

This is notification of a release greater than 25 barrels that occurred today at the Mis Amigos Battery near the GPS coordinates given below. All of the fluids remained in containment and all standing fluids were recovered by vacuum truck. Details will be provided with a form C-141. Please contact us with any questions or concerns.

GPS: 32.25466, -103.60874

Thank you,

#### **Garrett Green**

Environmental Coordinator
Delaware Business Unit
(575) 200-0729
Garrett.Green@ExxonMobil.com

XTO Energy, Inc.

3104 E. Greene Street | Carlsbad, NM 88220 | M: (575)200-0729

# Collins, Melanie

From: Green, Garrett J

**Sent:** Monday, June 27, 2022 2:20 PM

To: ocd.enviro@state.nm.us; Bratcher, Mike, EMNRD; Hamlet, Robert, EMNRD; Nobui,

Jennifer, EMNRD

**Cc:** DelawareSpills /SM

**Subject:** XTO 48 Hour Liner Inpsection - Mis Amigos Battery - Released on 6/23/22

Good afternoon,

This is sent as a 48-hour notification, XTO is scheduled to inspect the lined containment at Mis Amigos Battery released on (6/23/22), on Wednesday, June 29, 2022, at 1:00pm MST. A 24 hour release notification was sent out on Thursday, June 23, 2022 5:02 PM since the release was greater than 25 barrels in volume. Please call us with any questions or concerns.

GPS Coordinates: (32.25466, -103.60874)

Thank you,

### **Garrett Green**

Environmental Coordinator Delaware Business Unit (575) 200-0729 Garrett.Green@ExxonMobil.com

XTO Energy, Inc.

3104 E. Greene Street | Carlsbad, NM 88220 | M: (575)200-0729



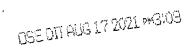
**APPENDIX B** 

Referenced Well Records

PAGE 1 OF 2

WELL TAG ID NO.





z	OSE POD NO. POD1 (BI	•	.)	· · · · · · · · · · · · · · · · · · ·	WELL TAG ID NO. n/a			OSE FILE NO( C-4551	S).			
GENERAL AND WELL LOCATION	WELL OWNE	٠,		<u></u>		·····	····································	PHONE (OPTI	ONAL)			
LLC	WELL OWNE	R MAILING	ADDRESS					CITY		STATE		ZIP
WEL	6401 Holid	lay Hill D	т.					Midland		TX	79707	
AND	WELL		DE	EGREES 32	MINUTES 15	SECONI 18.3						
Ĭ	LOCATION		TITUDE				N		' REQUIRED: ONE TEN' QUIRED: WGS 84	TH OF A SEC	COND	
NE	(FROM GP	LOI	NGITUDE	103	36	46.0					<del></del>	
1. G	SE SW Sec		NG WELL LOCATION TO R33E	STREET ADDR	ESS AND COMMON	N LANDMA	RKS – PLS	s (section, to	WNSHJIP, RANGE) WH	ERE AVAIL	ABLE	
	LICENSE NO		NAME OF LICENSED	DRILLER				***	NAME OF WELL DR	ILLING COM	(PANY	
	124	19		J	ackie D. Atkins	}			Atkins Eng	ineering A	ssociates, I	nc.
	DRILLING ST 07/20/2		DRILLING ENDED 07/20/2021		MPLETED WELL (France) ary well materia			LE DEPTH (FT) 108	DEPTH WATER FIRE	n/a	TERED (FT)	
, , ,	COMPLETED	WELL IS:	ARTESIAN	DRY HOL	E SHALLO	W (UNCON	IFINED)		STATIC WATER LEV	/EL IN COMI n/a	PLETED WE	LL (FT)
CASING INFORMATION	DRILLING FI	LUID:	☐ AIR	☐ MUD	ADDITIV	/ES – SPECI	IFY:					
RMA	DRILLING M	ETHOD:	ROTARY	HAMMER	CABLE T	rool	✓ OTHE	R – SPECIFY:	Hollo	w Stem A	uger	
NFO	DEPTH (feet bgl)		BORE HOLE	CASING 1	MATERIAL AND	D/OR		ASING	CASING	CASINI	G WALL	SLOT
SG I	FROM TO		DIAM	(include e	GRADE	and	CON	NECTION	INSIDE DIAM.	THICE	KNESS	SIZE
CASI			(inches)	(inches) (include each casing string, and note sections of screen)				YPE ling diameter)	(inches)	`	hes)	(inches)
38.5	0	108	±6.5	1	Boring- HSA					•		-
DRILLING &				1		-+				-		
RE				<del> </del>								<del> </del>
2. D						1						
				<del> </del>								
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ŀ					'							
				l								
	DEPTH	(feet bgl)	BORE HOLE	LIS	ST ANNULAR SI	EAL MAT	TERIAL A	AND	AMOUNT		метно	D OF
₹	FROM	то	DIAM. (inches)	GRA	VEL PACK SIZE	-RANGE	BY INTE	RVAL	(cubic feet)		PLACEM	MENT
E												
¥												
AR												
5							-					
3. ANNULAR MATERIAL												
ب												
L									<u> </u>			
	OSE INTER	NAL USE			POD NO	<u> </u>	,		0 WELL RECORD	& LOG (V	ersion 06/3	0/17)
FILI	E NO. (	455	) [		POD NO	D. <b>1</b>		TRN	NO. GAGL	ソン		1

LOCATION

	DEPTH (	feet bgl)					Ī			ESTIMATED
	FROM	то	THICKNESS (feet)	INCLUDE WATE	ID TYPE OF MATERIAL E ER-BEARING CAVITIES C pplemental sheets to fully d	R FRACTURE ZON	ES	WAT BEARI (YES /	NG?	YIELD FOR WATER- BEARING ZONES (gpm)
	0	15	15	Sand, fine	grain, poorly graded, moist,	Reddish Brown		Y	√ N	
	15	40	25	Calic	che, poorly consolidated, Tar	n-Off White		Y	√N	
:	40	45	5	Sand,medium-fi	ne grain, poorly graded, trac	e caliche, Light Brow	n	Y	√N	
	45	50	5	Clayey Sand, fine- n	nedium grain , poorly graded	l, cohesive, Reddish B	rown	Y	√N	
	50	55	5	Sandy Clay, fine- m	edium grain , poorly graded	, cohesive, Reddish B	rown	Y	√N	
T	55	70	15	Claystone	, poorly cemented, cohesive	,Reddish brown,		Y	√N	
HYDROGEOLOGIC LOG OF WELL	70	75	5	Clayey Sand, me	edium grain , poorly graded,	cohesive, Light Brow	n	Y	√N	
OF	75	80	5	Silty Sand, fine- v	ery finegrain, poorly grade	l, cohesive, Light Bro	wn	Y	√N	
00	80	85	5	Clayey Sand, fine-	medium grain , poorly grad	ed, cohesive, Light Bro	own	Y	√N	
:CI	85	100	15	Sandy Cl	ay, poorly graded, cohesive,	Reddish Brown		Y	√N	
907	100	105	5	Clay, low p	plasticity, cohesive, Brown-l	Blueish Gray, Dry		Y	√N	
3EO	105	108	3	Claystone,	poorly cemented, cohesive,I	Reddish brown,dry		Y	√N	
RO								Y	N	
HXD								Y	N	
4								Y	N	
					<del></del>			Y	N	
								Y	N	
:								Y	N	<del></del>
								Y	N	
		<u> </u>						Y	N	
							ĺ	Y	N	
	METHOD U	SED TO ES	TIMATE YIELD	OF WATER-BEARIN	G STRATA:		TOTA	AL ESTIM	ATED	
	PUM	P A	IR LIFT	BAILER O	THER - SPECIFY:		WEL	L YIELD	(gpm):	0.00
SION	WELL TES				TA COLLECTED DURING HOWING DISCHARGE AT					
test; rig supervisi	MISCELLA	NEOUS INF	fe		als removed and the soil ace, then hydrated benton P on-site geologist.					
EST;	PRINT NAN	(E(S) OF D	RILL RIG STIPE	VISOR(S) THAT PPO	OVIDED ONSITE SUPERV	ISION OF WELL CO	NSTRIK	TION O	ньв лл	AN LICENSEE
5. T			elo Trevino, Can		VIDED ONSITE SOI ERV	BION OF WELL CO	NSTRO		TILK III	AN LICENSEE.
SIGNATURE	CORRECT I	RECORD O	F THE ABOVE I	DESCRIBED HOLE AN	BEST OF HIS OR HER KN ND THAT HE OR SHE WII IPLETION OF WELL DRII	L FILE THIS WELL				
6. SIG	Jack A				ckie D. Atkins			08/13		
		SIGNAT	URE OF DRILLE	ER / PRINT SIGNEE	NAME				DATE	
FOI	R OSE INTER	NAL USE				WR-20 W	ELL REC	CORD & I	LOG (Ver	sion 06/30/2017)
FIL	E NO. ( _	455			POD NO.	TRN NO.	60	194	28	·
LO	CATION 2	35-3	33E-3	1 443		WELL TAG ID NO	).			PAGE 2 OF 2



APPENDIX C

Lithologic Soil Sampling Logs

							<b>D</b> 4	Sample Name: BH01	Date: 8/17/2022
		Е	N	S	OL	_ U	M	Site Name: Mis Amigos Battery	Butc. 0/11/2022
					ngineer			Incident Number: NAPP22182386	39
					onsultar			Job Number: 03E1558092	
		LITHOL	OGI	C / SOIL S	AMPLING	LOG		Logged By: KP	Method: Hand Auger
Coordi		2.254857,		_				Hole Diameter: 3.5"	Total Depth: 3'
					ith HACH Ch	loride Test S	Strips and	PID for chloride and vapor, respec	tively. Chloride test
perfor	med with	1:4 dilut	ion fa	actor of soi	l to distilled	water.			
Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample ID	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithologic De	
М	520	136	Υ	BH01	0.5	0	CCHE (fill)	0-1', CALICHE, moist, tan, v unconsolidated, light br mild H/C odor, fill.	ery sandy, own-brown stain,
М	520	108	N	BH01A	1 _	1	SP	1-3', SAND, moist, reddish be poorly graded, no stain,	orown, fine grain, trace H/C odor.
М	<112	18.0	N	BH01B	2	2		1.5'-3', no odor.	
М	<112	0.2	N		3	- - - _ 3			
IVI	~11Z	0.2	IN		3 <u>-</u>	_ 3 -	TD	Total depth at 3' bgs.	
					-	4			
					-	<u> </u>			
					-	- - - 6			
						- - -			
					-	- 7 -			
					- - -	8			
					-	- - 9			
					-	- - 10			
					-	- -			
					-	11 			
					-	12			



APPENDIX D

Photographic Log

# ENSOLU M Environmental, Engineering and Hydrogeologic Consultants

# Photographic Log

XTO Energy, Inc Mis Amigos Battery Incident Number: NAPP2218238639



Photograph 1
Date: June 29, 2022

Description: Liner Inspection Activities



Photograph 2
Date: June 29, 2022

Description: Liner Inspection Activities



Photograph 3
Date: August 17, 2022

Description: Delineation Activities



Photograph 4

Date: August 17, 2022

Description: Patched Liner



APPENDIX E

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: 890-2719-1

Laboratory Sample Delivery Group: 03E1558092

Client Project/Site: Mis Amigos CTB

For:

Ensolum 705 W. Wadley Suite 210 Midland, Texas 79701

Attn: Tacoma Morrissey

MAMER

Authorized for release by: 8/15/2022 10:48:03 AM

Jessica Kramer, Project Manager (432)704-5440

Jessica.Kramer@et.eurofinsus.com

LINKS

Review your project results through

**Have a Question?** 



www.eurofinsus.com/Env

Visit us at:

Released to Imaging: 9/26/2022 2:13:05 PM

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

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Client: Ensolum
Project/Site: Mis Amigos CTB
Laboratory Job ID: 890-2719-1
SDG: 03E1558092

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# **Definitions/Glossary**

Job ID: 890-2719-1 Client: Ensolum Project/Site: Mis Amigos CTB

SDG: 03E1558092

### **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** 

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

## **Glossary**

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

%R Percent Recovery CFL Contains Free Liquid

CFU Colony Forming Unit **CNF** Contains No Free Liquid

DFR Duplicate Error Ratio (normalized absolute difference)

Dil Fac **Dilution Factor** 

DL Detection Limit (DoD/DOE)

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

Decision Level Concentration (Radiochemistry) DLC

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

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

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

NC Not Calculated

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

NEG Negative / Absent POS Positive / Present

PQL Practical Quantitation Limit

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

RER Relative Error Ratio (Radiochemistry)

RL Reporting Limit or Requested Limit (Radiochemistry)

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

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

**TNTC** Too Numerous To Count

**Eurofins Carlsbad** 

# Case Narrative

Client: Ensolum

Project/Site: Mis Amigos CTB

Job ID: 890-2719-1

SDG: 03E1558092

Job ID: 890-2719-1

**Laboratory: Eurofins Carlsbad** 

Narrative

Job Narrative 890-2719-1

#### Receipt

The sample was received on 8/4/2022 7:44 AM. Unless otherwise noted below, the sample arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 5.6°C

#### **GC VOA**

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

#### GC Semi VOA

Method 8015MOD NM: Surrogate recovery for the following sample was outside control limits: (LCS 880-31570/2-A). Evidence of matrix interferences is not obvious.

Method 8015MOD\_NM: The RPD of the laboratory control sample (LCS) and laboratory control sample duplicate (LCSD) for preparation batch 880-31570 and analytical batch 880-31633 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

Method 300\_ORGFM\_28D: The matrix spike (MS) recoveries for preparation batch 880-31649 and analytical batch 880-31933 were outside control limits. Non-homogeneity is suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.

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

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# **Client Sample Results**

Client: Ensolum Job ID: 890-2719-1 Project/Site: Mis Amigos CTB SDG: 03E1558092

**Client Sample ID: SS01** Lab Sample ID: 890-2719-1

Date Collected: 08/03/22 13:00 Matrix: Solid Date Received: 08/04/22 07:44

Sample Depth: 0.5'

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fa
Benzene	<0.00199	U	0.00199	mg/Kg		08/08/22 13:23	08/10/22 23:09	
Toluene	< 0.00199	U	0.00199	mg/Kg		08/08/22 13:23	08/10/22 23:09	
Ethylbenzene	< 0.00199	U	0.00199	mg/Kg		08/08/22 13:23	08/10/22 23:09	
m-Xylene & p-Xylene	<0.00398	U	0.00398	mg/Kg		08/08/22 13:23	08/10/22 23:09	
o-Xylene	< 0.00199	U	0.00199	mg/Kg		08/08/22 13:23	08/10/22 23:09	
Xylenes, Total	<0.00398	U	0.00398	mg/Kg		08/08/22 13:23	08/10/22 23:09	
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fa
4-Bromofluorobenzene (Surr)	113		70 - 130			08/08/22 13:23	08/10/22 23:09	
1,4-Difluorobenzene (Surr)	103		70 - 130			08/08/22 13:23	08/10/22 23:09	
Method: Total BTEX - Total BTEX	( Calculation							
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fa
Total BTEX	<0.00398	U	0.00398	mg/Kg			08/11/22 10:28	
Method: 8015 NM - Diesel Range Analyte	Result	Qualifier	RL	Unit	<u>D</u>	Prepared	Analyzed	Dil Fa
Total TPH	<49.8		49.8	mg/Kg			08/08/22 11:44	
: Method: 8015B NM - Diesel Rang	ne Organics (D	RO) (GC)						
Analyte	•	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fa
Gasoline Range Organics	<49.8	U *1	49.8	mg/Kg		08/05/22 10:50	08/06/22 13:48	
(GRO)-C6-C10								
Diesel Range Organics (Over	<49.8	U	49.8	mg/Kg		08/05/22 10:50	08/06/22 13:48	
C10-C28)								
Oll Range Organics (Over C28-C36)	<49.8	U	49.8	mg/Kg		08/05/22 10:50	08/06/22 13:48	
,	<49.8 <b>%Recovery</b>	Qualifier	49.8Limits	mg/Kg		Prepared	08/06/22 13:48  Analyzed	Dil Fa
Surrogate				mg/Kg				
Surrogate 1-Chlorooctane	%Recovery		Limits	mg/Kg		Prepared	Analyzed	Dil Fa
Oll Range Organics (Over C28-C36)  Surrogate  1-Chlorooctane o-Terphenyl  Method: 300.0 - Anions, Ion Chro	%Recovery 101 108	Qualifier	Limits 70 - 130	mg/Kg		Prepared 08/05/22 10:50	Analyzed 08/06/22 13:48	Dil Fa
Surrogate 1-Chlorooctane o-Terphenyl	%Recovery 101 108  pmatography -	Qualifier	Limits 70 - 130	mg/Kg Unit	D	Prepared 08/05/22 10:50	Analyzed 08/06/22 13:48	Dil Fa
Surrogate 1-Chlorooctane o-Terphenyl  Method: 300.0 - Anions, Ion Chro	%Recovery 101 108  pmatography -	Qualifier  Soluble	Limits 70 - 130 70 - 130		<u>D</u>	Prepared 08/05/22 10:50 08/05/22 10:50	Analyzed 08/06/22 13:48 08/06/22 13:48	

# **Surrogate Summary**

Client: Ensolum Job ID: 890-2719-1
Project/Site: Mis Amigos CTB SDG: 03E1558092

Method: 8021B - Volatile Organic Compounds (GC)

Matrix: Solid Prep Type: Total/NA

		DED4	DED 74	Percent Surrogate Recovery (Acceptance Limits)
		BFB1	DFBZ1	
Lab Sample ID	Client Sample ID	(70-130)	(70-130)	
880-17690-A-6-C MS	Matrix Spike	104	95	
880-17690-A-6-D MSD	Matrix Spike Duplicate	105	98	
890-2704-A-9-D MS	Matrix Spike	106	93	
890-2704-A-9-E MSD	Matrix Spike Duplicate	102	103	
890-2719-1	SS01	113	103	
LCS 880-31768/1-A	Lab Control Sample	111	92	
LCS 880-31769/1-A	Lab Control Sample	107	100	
LCSD 880-31768/2-A	Lab Control Sample Dup	104	92	
MB 880-31768/5-A	Method Blank	94	97	
MB 880-31769/5-A	Method Blank	94	102	

Surrogate Legend

BFB = 4-Bromofluorobenzene (Surr)

DFBZ = 1,4-Difluorobenzene (Surr)

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

Matrix: Solid Prep Type: Total/NA

				Percent Surrogate Recovery (Acceptance Limits)
		1CO1	OTPH1	
Lab Sample ID	Client Sample ID	(70-130)	(70-130)	
890-2712-A-1-C MS	Matrix Spike	77	85	
890-2712-A-1-D MSD	Matrix Spike Duplicate	92	101	
890-2719-1	SS01	101	108	
LCS 880-31570/2-A	Lab Control Sample	135 S1+	133 S1+	
LCSD 880-31570/3-A	Lab Control Sample Dup	111	130	
MB 880-31570/1-A	Method Blank	91	105	
Surrogate Legend				

1CO = 1-Chlorooctane

OTPH = o-Terphenyl

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Client: Ensolum Job ID: 890-2719-1 Project/Site: Mis Amigos CTB SDG: 03E1558092

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-31768/5-A

**Matrix: Solid** Analysis Batch: 31904 Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 31768

		MB	MB						
	Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
	Benzene	<0.00200	U	0.00200	mg/Kg		08/08/22 13:11	08/11/22 02:38	1
	Toluene	<0.00200	U	0.00200	mg/Kg		08/08/22 13:11	08/11/22 02:38	1
	Ethylbenzene	<0.00200	U	0.00200	mg/Kg		08/08/22 13:11	08/11/22 02:38	1
	m-Xylene & p-Xylene	<0.00400	U	0.00400	mg/Kg		08/08/22 13:11	08/11/22 02:38	1
	o-Xylene	<0.00200	U	0.00200	mg/Kg		08/08/22 13:11	08/11/22 02:38	1
	Xylenes, Total	<0.00400	U	0.00400	mg/Kg		08/08/22 13:11	08/11/22 02:38	1
ı									

MB MB

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	94		70 - 130	08/08/22 13:11	08/11/22 02:38	1
1,4-Difluorobenzene (Surr)	97		70 - 130	08/08/22 13:11	08/11/22 02:38	1

Lab Sample ID: LCS 880-31768/1-A

**Matrix: Solid** 

Analysis Batch: 31904

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

Prep Batch: 31768

LCS LCS Spike Analyte Added Result Qualifier Unit %Rec Limits Benzene 0.100 0.07179 mg/Kg 72 70 - 130 Toluene 0.100 0.08341 mg/Kg 83 70 - 130 88 Ethylbenzene 0.100 0.08799 mg/Kg 70 - 130 70 - 130 0.200 92 m-Xylene & p-Xylene 0.1838 mg/Kg 0.100 70 - 130 o-Xylene 0.09228 mg/Kg 92

LCS LCS

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

Lab Sample ID: LCSD 880-31768/2-A

**Matrix: Solid** 

Analysis Batch: 31904

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 31768

	Spike	LCSD	LCSD				%Rec		RPD	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit	
Benzene	0.100	0.07256		mg/Kg		73	70 - 130	1	35	
Toluene	0.100	0.08266		mg/Kg		83	70 - 130	1	35	
Ethylbenzene	0.100	0.08687		mg/Kg		87	70 - 130	1	35	
m-Xylene & p-Xylene	0.200	0.1804		mg/Kg		90	70 - 130	2	35	
o-Xylene	0.100	0.09054		mg/Kg		91	70 - 130	2	35	

LCSD LCSD

Surrogate	%Recovery	Qualifier	Limits
4-Bromofluorobenzene (Surr)	104		70 - 130
1.4-Difluorobenzene (Surr)	92		70 - 130

Lab Sample ID: 890-2704-A-9-D MS

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**Matrix: Solid** 

Analysis Batch: 31904

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 31768

Sample Sample Spike MS MS Result Qualifier Analyte Added Result Qualifier Unit %Rec Limits <0.00199 U 0.0998 0.08508 85 Benzene mg/Kg 70 - 130 Toluene <0.00199 U 0.0998 0.09438 mg/Kg 95 70 - 130

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# QC Sample Results

Client: Ensolum Job ID: 890-2719-1 Project/Site: Mis Amigos CTB SDG: 03E1558092

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

Lab Sample ID: 890-2704-A-9-D MS

Lab Sample ID: 890-2704-A-9-E MSD

**Matrix: Solid** 

**Matrix: Solid** 

Analysis Batch: 31904

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 31768

Sample Sample Spike MS MS %Rec Analyte Result Qualifier Added Result Qualifier Unit %Rec Limits Ethylbenzene <0.00199 U 0.0998 0.09810 98 70 - 130 mg/Kg m-Xylene & p-Xylene <0.00398 0.200 0.2010 mg/Kg 101 70 - 130 <0.00199 U 0.0998 o-Xylene 0.09903 mg/Kg 99 70 - 130

MS MS

Surrogate	%Recovery	Qualifier	Limits
4-Bromofluorobenzene (Surr)	106		70 - 130
1,4-Difluorobenzene (Surr)	93		70 - 130

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 31768

Analysis Batch: 31904 Sample Sample Spike MSD MSD RPD Result Qualifier Added Result Qualifier RPD Limit Analyte Unit %Rec Limits 0.100 Benzene <0.00199 U 0.1022 mg/Kg 102 70 - 130 18 35 Toluene <0.00199 0.100 0.09599 35 mg/Kg 96 70 - 130 2 Ethylbenzene <0.00199 U 0.100 0.09685 mg/Kg 96 70 - 130 35 0.201 0.1954 97 70 - 130 35 m-Xylene & p-Xylene <0.00398 U mg/Kg 3 0.100 <0.00199 U 0.09572 95 70 - 130 o-Xylene mg/Kg 3

MSD MSD

Surrogate	%Recovery Qualifier	Limits
4-Bromofluorobenzene (Surr)	102	70 - 130
1,4-Difluorobenzene (Surr)	103	70 - 130

Lab Sample ID: MB 880-31769/5-A

**Matrix: Solid** 

Analysis Batch: 31904

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 31769

MB MB

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		08/08/22 13:23	08/10/22 14:40	1
Toluene	<0.00200	U	0.00200	mg/Kg		08/08/22 13:23	08/10/22 14:40	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		08/08/22 13:23	08/10/22 14:40	1
m-Xylene & p-Xylene	<0.00400	U	0.00400	mg/Kg		08/08/22 13:23	08/10/22 14:40	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		08/08/22 13:23	08/10/22 14:40	1
Xylenes, Total	<0.00400	U	0.00400	mg/Kg		08/08/22 13:23	08/10/22 14:40	1

MB MB

Surrogate	%Recovery Qua	alifier Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	94	70 - 130	08/08/22 13:23	08/10/22 14:40	1
1,4-Difluorobenzene (Surr)	102	70 - 130	08/08/22 13:23	08/10/22 14:40	1

Lab Sample ID: LCS 880-31769/1-A

Released to Imaging: 9/26/2022 2:13:05 PM

**Matrix: Solid** 

Analysis Batch: 31904

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

Prep Batch: 31769

	Spike	LCS	LCS				%Rec	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Benzene	0.100	0.09980		mg/Kg		100	70 - 130	
Toluene	0.100	0.09571		mg/Kg		96	70 - 130	
Ethylbenzene	0.100	0.09946		mg/Kg		99	70 - 130	
m-Xylene & p-Xylene	0.200	0.2046		mg/Kg		102	70 - 130	

**Eurofins Carlsbad** 

# QC Sample Results

Client: Ensolum Job ID: 890-2719-1 SDG: 03E1558092 Project/Site: Mis Amigos CTB

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

Lab Sample ID: LCS 880-31769/1-A **Client Sample ID: Lab Control Sample Matrix: Solid** Prep Type: Total/NA Analysis Batch: 31904 Prep Batch: 31769

	Spike	LCS	LCS				%Rec	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	
o-Xylene	0.100	0.09984		mg/Kg		100	70 - 130	

	LCS	LCS	
Surrogate	%Recovery	Qualifier	Limits
4-Bromofluorobenzene (Surr)	107		70 - 130
1,4-Difluorobenzene (Surr)	100		70 - 130

Lab Sample ID: 880-17690-A-6-C MS Client Sample ID: Matrix Spike **Matrix: Solid** Prep Type: Total/NA

Analysis Batch: 31904 Prep Batch: 31769

	Sample	Sample	Spike	MS	MS				%Rec	
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Benzene	<0.00201	U	0.100	0.09015		mg/Kg		90	70 - 130	
Toluene	<0.00201	U	0.100	0.09789		mg/Kg		97	70 - 130	
Ethylbenzene	<0.00201	U	0.100	0.09981		mg/Kg		99	70 - 130	
m-Xylene & p-Xylene	<0.00402	U	0.201	0.2056		mg/Kg		102	70 - 130	
o-Xylene	<0.00201	U	0.100	0.1003		mg/Kg		100	70 - 130	

	MS	MS	
Surrogate	%Recovery	Qualifier	Limits
4-Bromofluorobenzene (Surr)	104		70 - 130
1,4-Difluorobenzene (Surr)	95		70 - 130

Lab Sample ID: 880-17690-A-6-D MSD Client Sample ID: Matrix Spike Duplicate **Matrix: Solid** Prep Type: Total/NA

**Analysis Batch: 31904** 

Analysis Batch: 31904									Prep	Batch:	31769
	Sample	Sample	Spike	MSD	MSD				%Rec		RPD
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Benzene	<0.00201	U	0.0998	0.08375		mg/Kg		84	70 - 130	7	35
Toluene	<0.00201	U	0.0998	0.08778		mg/Kg		88	70 - 130	11	35
Ethylbenzene	<0.00201	U	0.0998	0.08858		mg/Kg		89	70 - 130	12	35
m-Xylene & p-Xylene	<0.00402	U	0.200	0.1816		mg/Kg		91	70 - 130	12	35
o-Xylene	<0.00201	U	0.0998	0.08941		mg/Kg		90	70 - 130	11	35

	MSD	MSD	
Surrogate	%Recovery	Qualifier	Limits
4-Bromofluorobenzene (Surr)	105		70 - 130
1,4-Difluorobenzene (Surr)	98		70 - 130

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

Lab Sample ID: MB 880-31570/1-A Client Sample ID: Method Blank **Matrix: Solid** Prep Type: Total/NA

**Analysis Batch: 31633** Prep Batch: 31570 MB MB Analyte Result Qualifier RL Unit D Prepared Analyzed Dil Fac <50.0 U 50.0 08/05/22 10:50 08/06/22 10:56 mg/Kg

Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over <50.0 U 50.0 08/05/22 10:50 mg/Kg 08/06/22 10:56 C10-C28) OII Range Organics (Over C28-C36) <50.0 U 50.0 mg/Kg 08/05/22 10:50 08/06/22 10:56

**Eurofins Carlsbad** 

Client: Ensolum Job ID: 890-2719-1 Project/Site: Mis Amigos CTB SDG: 03E1558092

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

MB MB %Recovery Qualifier

Lab Sample ID: MB 880-31570/1-A

**Matrix: Solid** 

Surrogate

**Analysis Batch: 31633** 

Client Sample ID: Method Blank

Analyzed

Client Sample ID: Lab Control Sample Dup

Prepared

Prep Type: Total/NA

Prep Batch: 31570

Dil Fac

1-Chlorooctane 91 70 - 130 08/05/22 10:50 08/06/22 10:56 o-Terphenyl 105 70 - 130 08/05/22 10:50 08/06/22 10:56

Limits

Lab Sample ID: LCS 880-31570/2-A **Client Sample ID: Lab Control Sample** 

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

**Analysis Batch: 31633** Prep Batch: 31570

Spike LCS LCS %Rec Analyte Added Result Qualifier Unit D %Rec Limits 1000 1077 108 70 - 130Gasoline Range Organics mg/Kg (GRO)-C6-C10 Diesel Range Organics (Over 1000 1004 100 mg/Kg 70 - 130C10-C28)

LCS LCS Surrogate %Recovery Qualifier Limits 135 S1+ 70 - 130 1-Chlorooctane 133 S1+ 70 - 130 o-Terphenyl

Lab Sample ID: LCSD 880-31570/3-A

**Matrix: Solid** Prep Type: Total/NA **Analysis Batch: 31633** Prep Batch: 31570 Spike LCSD LCSD

Result Qualifier Analyte Added Unit D %Rec Limits RPD Limit Gasoline Range Organics 1000 860.0 mg/Kg 86 70 - 130 22 20 (GRO)-C6-C10 Diesel Range Organics (Over 1000 967.6 mg/Kg 97 70 - 130 20 C10-C28)

LCSD LCSD %Recovery Qualifier Surrogate Limits 70 - 130 1-Chlorooctane 111 o-Terphenyl 130 70 - 130

Lab Sample ID: 890-2712-A-1-C MS Client Sample ID: Matrix Spike

**Matrix: Solid** 

Camania Camania

Prep Type: Total/NA Analysis Batch: 31633 Prep Batch: 31570

Calle

	Sample	Sample	<b>Spike</b>	IVIO	IVIS				%Rec	
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Gasoline Range Organics	<49.9	U *1	999	994.7		mg/Kg		100	70 - 130	
(GRO)-C6-C10										
Diesel Range Organics (Over	<49.9	U	999	709.9		ma/Ka		71	70 - 130	

C10-C28)

o-Terphenyl

Released to Imaging: 9/26/2022 2:13:05 PM

	MS	MS	
Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane	77		70 - 130
o-Terphenyl	85		70 - 130

Job ID: 890-2719-1

Client: Ensolum Project/Site: Mis Amigos CTB SDG: 03E1558092

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

Lab Sample ID: 890-2712-A-1-D MSD Client Sample ID: Matrix Spike Duplicate

**Matrix: Solid** 

**Analysis Batch: 31633** 

Prep Type: Total/NA Prep Batch: 31570

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

Sample Sample Spike MSD MSD RPD Result Qualifier RPD Limit Analyte Added Result Qualifier Unit %Rec Limits Gasoline Range Organics <49.9 U\*1 999 840.2 mg/Kg 84 70 - 130 17 20 (GRO)-C6-C10 999 Diesel Range Organics (Over <49.9 U 843.5 mg/Kg 84 70 - 130 17

C10-C28)

MSD MSD

Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane	92		70 - 130
o-Terphenyl	101		70 - 130

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-31649/1-A Client Sample ID: Method Blank **Prep Type: Soluble** 

**Matrix: Solid** 

**Analysis Batch: 31933** 

мв мв

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.00	U	5.00	mg/Kg			08/12/22 19:54	1

Lab Sample ID: LCS 880-31649/2-A **Client Sample ID: Lab Control Sample Prep Type: Soluble** 

**Matrix: Solid** 

**Analysis Batch: 31933** 

	Spike	LCS	LCS				%Rec	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Chloride	250	255.8		mg/Kg		102	90 - 110	 

Lab Sample ID: LCSD 880-31649/3-A

**Matrix: Solid** 

**Analysis Batch: 31933** 

	Spike	LCSD	LCSD				%Rec		RPD	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit	
Chloride	250	263.3		mg/Kg	_	105	90 - 110	3	20	

Lab Sample ID: 880-17792-A-11-C MS

**Matrix: Solid** 

**Analysis Batch: 31933** 

	Sample	Sample	Spike	MS	MS				%Rec	
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Chloride	129	F1	253	427.2	F1	ma/Ka	_	118	90 110	 

Lab Sample ID: 880-17792-A-11-D MSD

**Matrix: Solid** 

**Analysis Batch: 31933** 

	Sample	Sample	Spike	MSD	MSD				%Rec		RPD
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Chloride	129	F1	253	405.9		mg/Kg		110	90 - 110	5	20

# **QC Association Summary**

Client: Ensolum

Job ID: 890-2719-1 Project/Site: Mis Amigos CTB SDG: 03E1558092

**GC VOA** 

Prep Batch: 31768

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 880-31768/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-31768/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-31768/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
890-2704-A-9-D MS	Matrix Spike	Total/NA	Solid	5035	
890-2704-A-9-E MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	

Prep Batch: 31769

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2719-1	SS01	Total/NA	Solid	5035	
MB 880-31769/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-31769/1-A	Lab Control Sample	Total/NA	Solid	5035	
880-17690-A-6-C MS	Matrix Spike	Total/NA	Solid	5035	
880-17690-A-6-D MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	

**Analysis Batch: 31904** 

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2719-1	SS01	Total/NA	Solid	8021B	31769
MB 880-31768/5-A	Method Blank	Total/NA	Solid	8021B	31768
MB 880-31769/5-A	Method Blank	Total/NA	Solid	8021B	31769
LCS 880-31768/1-A	Lab Control Sample	Total/NA	Solid	8021B	31768
LCS 880-31769/1-A	Lab Control Sample	Total/NA	Solid	8021B	31769
LCSD 880-31768/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	31768
880-17690-A-6-C MS	Matrix Spike	Total/NA	Solid	8021B	31769
880-17690-A-6-D MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	31769
890-2704-A-9-D MS	Matrix Spike	Total/NA	Solid	8021B	31768
890-2704-A-9-E MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	31768

Analysis Batch: 31984

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2719-1	SS01	Total/NA	Solid	Total BTEX	

### **GC Semi VOA**

Prep Batch: 31570

<b>Lab Sample ID</b> 890-2719-1	Client Sample ID SS01	Prep Type Total/NA	Matrix Solid	Method 8015NM Prep	Prep Batch
MB 880-31570/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-31570/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-31570/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
890-2712-A-1-C MS	Matrix Spike	Total/NA	Solid	8015NM Prep	
890-2712-A-1-D MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	

**Analysis Batch: 31633** 

<b>Lab Sample ID</b> 890-2719-1	Client Sample ID SS01	Prep Type Total/NA	Matrix Solid	Method 8015B NM	Prep Batch 31570
MB 880-31570/1-A	Method Blank	Total/NA	Solid	8015B NM	31570
LCS 880-31570/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	31570
LCSD 880-31570/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	31570
890-2712-A-1-C MS	Matrix Spike	Total/NA	Solid	8015B NM	31570
890-2712-A-1-D MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	31570

# **QC Association Summary**

Client: Ensolum

Project/Site: Mis Amigos CTB

Job ID: 890-2719-1

### SDG: 03E1558092

### GC Semi VOA

### Analysis Batch: 31745

La	ab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
89	90-2719-1	SS01	Total/NA	Solid	8015 NM	

### HPLC/IC

### Leach Batch: 31649

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2719-1	SS01	Soluble	Solid	DI Leach	
MB 880-31649/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-31649/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-31649/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
880-17792-A-11-C MS	Matrix Spike	Soluble	Solid	DI Leach	
880-17792-A-11-D MSD	Matrix Spike Duplicate	Soluble	Solid	DI Leach	

### **Analysis Batch: 31933**

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2719-1	SS01	Soluble	Solid	300.0	31649
MB 880-31649/1-A	Method Blank	Soluble	Solid	300.0	31649
LCS 880-31649/2-A	Lab Control Sample	Soluble	Solid	300.0	31649
LCSD 880-31649/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	31649
880-17792-A-11-C MS	Matrix Spike	Soluble	Solid	300.0	31649
880-17792-A-11-D MSD	Matrix Spike Duplicate	Soluble	Solid	300.0	31649

### **Lab Chronicle**

Client: Ensolum Job ID: 890-2719-1 Project/Site: Mis Amigos CTB SDG: 03E1558092

**Client Sample ID: SS01** Lab Sample ID: 890-2719-1 Date Collected: 08/03/22 13:00

Matrix: Solid

Date Received: 08/04/22 07:44

	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	31769	08/08/22 13:23	MR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	31904	08/10/22 23:09	SM	EET MID
Total/NA	Analysis	Total BTEX		1			31984	08/11/22 10:28	SM	EET MID
Total/NA	Analysis	8015 NM		1			31745	08/08/22 11:44	SM	EET MID
Total/NA	Prep	8015NM Prep			10.04 g	10 mL	31570	08/05/22 10:50	DM	EET MID
Total/NA	Analysis	8015B NM		1			31633	08/06/22 13:48	SM	EET MID
Soluble	Leach	DI Leach			5 g	50 mL	31649	08/06/22 16:57	СН	EET MID
Soluble	Analysis	300.0		1			31933	08/13/22 00:11	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: 890-2719-1 Project/Site: Mis Amigos CTB

SDG: 03E1558092

### **Laboratory: Eurofins Midland**

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

AuthorityProgramTexasNELA		ogram	Identification Number	Expiration Date 06-30-23	
		ELAP	T104704400-22-24		
The following analytes the agency does not of	• •	ut the laboratory is not certifi	ied by the governing authority. This list ma	ay include analytes for	
Analysis Method	Prep Method	Matrix	Analyte		
8015 NM		Solid	Total TPH		
Total BTEX		Solid	Total BTEX		

### **Method Summary**

Client: Ensolum

Project/Site: Mis Amigos CTB

Job ID: 890-2719-1

SDG: 03E1558092

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
015B NM	Diesel Range Organics (DRO) (GC)	SW846	EET MID
00.0	Anions, Ion Chromatography	MCAWW	EET MID
5035	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: Mis Amigos CTB

Job ID: 890-2719-1

SDG: 03E1558092

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-2719-1	SS01	Solid	08/03/22 13:00	08/04/22 07:44	0.5'

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Page

Work Order No:

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

**Environment Testing** 

eurofins 🗞

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

Chain of Custody

Hobbs, NM (575) 392-7550, Carlsbad, NM (575) 988-3199

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

ed Date: 08/25/2020 Rev.

13 14

x -3 -23 165

n APP2218238659 Superfund DI Water: H2O Level IV MeOH: Me HNO :: HN NaOH: Na NaOH+Ascorbic Acid: SAPC Sample Comments 105 5 621 001 Preservative Codes Date/Time Incident 10 Just Center: Zn Acetate+NaOH: Zn PST/UST TRRP RRC Na 2 S 2 O 3: Na SO 3 BRCRA 13PPM Texas 11 Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag SiO<sub>2</sub> Na Sr Tl Sn U V Zn Other: NAHSO 4: NABIS Hg: 1631 / 245.1 / 7470 / 7471 H3PO 4: HP Brownfields 🗌 None: NO H,50 4: H Cool: Cool Work Order Comments HCL: HC ADaPT Received by: (Signature) www.xenco.com Reporting: Level II | Level III | UST/PST | PRP EDD State of Project: of Eurofins Xenco. A minimum charge of \$85.00 will be applied to each project and a charge of \$5 for each sample submitted to Eurofins Xenco, but not analyzed. These terms will be enforced unless previously negotiated Deliverables: 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 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 890-2719 Chain of Custody Relinquished by: (Signature) ANALYSIS REQUEST 3104 E Green Street arisbad, NM 88220 Energy, Inc. Garrett Green tmorriss of enscium com 3 H47 X XTO Chlorides Date/Time BLEX X Cont Pres. Code # of Parameters Sire in Bill to: (if different) NM-ON Company Name: Comp Grab/ City, State ZIP: TAT starts the day received by the lab, if received by 4:30pm -0. a 5 Yes No N. Rush Address: 0,50 Depth Turn Around Received by (Signature) 3122 National Parks Highway Email: 1300 Routine 32. 25466, -103. bc3/4 Due Date: Corrected Temperature: Sampled Wet Ice: Temperature Reading: Time Correction Factor: Thermometer ID: Carlsbad, NM 88220 81312 Mis Amigos CTB Sampled Roberts Ses No Date Tacoms Morrissey 337-257-8307 Circle Method(s) and Metal(s) to be analyzed OSEI558072 Ensolum, LLC Matrix 5 Temp Blank: E. N/A 200.8 / 6020: Yes No Mercelith Yes No Yes No elinquished by: (Signature) Sample Identification Samples Received Intact: Total 200.7 / 6010 Sample Custody Seals: Cooler Custody Seals: 550 SAMPLE RECEIPT Project Manager: Project Number: Project Location: Sampler's Name: Fotal Containers: Company Name: City, State ZIP: Project Name: Address: Phone: PO#:

### **Login Sample Receipt Checklist**

Client: Ensolum Job Number: 890-2719-1 SDG Number: 03E1558092

Login Number: 2719 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

SDC Nu

Job Number: 890-2719-1 SDG Number: 03E1558092

List Source: Eurofins Midland
List Number: 2
List Creation: 08/05/22 10:35 AM

Creator: Rodriguez, Leticia

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

4

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6

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9

11

13

14

<6mm (1/4").

# **Environment Testing America**

# **ANALYTICAL REPORT**

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

Laboratory Job ID: 890-2723-1

Laboratory Sample Delivery Group: 03E1558092

Client Project/Site: Mis Amigos CTB

For:

Ensolum 705 W. Wadley Suite 210 Midland, Texas 79701

Attn: Tacoma Morrissey

RAMER

8/12/2022 7:17:58 AM

Jessica Kramer, Project Manager (432)704-5440

Jessica.Kramer@et.eurofinsus.com

Authorized for release by:

**Review your project** results through EOL **Have a Question?** 

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Visit us at:

www.eurofinsus.com/Env Released to Imaging: 9/26/2022/2:13:05 PM This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten

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

Client: Ensolum
Project/Site: Mis Amigos CTB
Laboratory Job ID: 890-2723-1
SDG: 03E1558092

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### **Definitions/Glossary**

Job ID: 890-2723-1 Client: Ensolum Project/Site: Mis Amigos CTB

SDG: 03E1558092

### **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: Mis Amigos CTB

Job ID: 890-2723-1 SDG: 03E1558092

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Job ID: 890-2723-1

**Laboratory: Eurofins Carlsbad** 

Narrative

Job Narrative 890-2723-1

### Receipt

The sample was received on 8/4/2022 7:55 AM. Unless otherwise noted below, the sample arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was  $5.6^{\circ}$ C

### **GC VOA**

Method 8021B: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 880-31801 and analytical batch 880-31685 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.

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

### GC Semi VOA

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

### HPLC/IC

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

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Matrix: Solid

Lab Sample ID: 890-2723-1

### **Client Sample Results**

Client: Ensolum Job ID: 890-2723-1
Project/Site: Mis Amigos CTB SDG: 03E1558092

Client Sample ID: SS02

Date Collected: 08/03/22 13:05 Date Received: 08/04/22 07:55

Sample Depth: 0.5'

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199	mg/Kg		08/08/22 15:42	08/09/22 04:47	1
Toluene	0.00277		0.00199	mg/Kg		08/08/22 15:42	08/09/22 04:47	1
Ethylbenzene	< 0.00199	U	0.00199	mg/Kg		08/08/22 15:42	08/09/22 04:47	1
m-Xylene & p-Xylene	0.00821		0.00398	mg/Kg		08/08/22 15:42	08/09/22 04:47	1
o-Xylene	<0.00199	U	0.00199	mg/Kg		08/08/22 15:42	08/09/22 04:47	1
Xylenes, Total	0.00821		0.00398	mg/Kg		08/08/22 15:42	08/09/22 04:47	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	105		70 - 130			08/08/22 15:42	08/09/22 04:47	1
1,4-Difluorobenzene (Surr)	89		70 - 130			08/08/22 15:42	08/09/22 04:47	1
Method: Total BTEX - Total BTEX	( Calculation							
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	0.0110		0.00398	mg/Kg			08/09/22 10:34	1
- Method: 8015 NM - Diesel Range	Organics (DR	O) (GC)						
Analyte	•	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9	mg/Kg			08/08/22 12:38	1
- Method: 8015B NM - Diesel Rang	ge Organics (D	RO) (GC)						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9	mg/Kg		08/05/22 11:58	08/06/22 21:42	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9	mg/Kg		08/05/22 11:58	08/06/22 21:42	1
Oll Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg		08/05/22 11:58	08/06/22 21:42	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	87		70 - 130			08/05/22 11:58	08/06/22 21:42	1
o-Terphenyl	97		70 - 130			08/05/22 11:58	08/06/22 21:42	1
Method: 300.0 - Anions, Ion Chro	omatography -	Soluble						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	15.2		5.00	mg/Kg			08/11/22 17:57	

### **Surrogate Summary**

Client: Ensolum Job ID: 890-2723-1
Project/Site: Mis Amigos CTB SDG: 03E1558092

Method: 8021B - Volatile Organic Compounds (GC)

Matrix: Solid Prep Type: Total/NA

		BFB1	DFBZ1
Lab Sample ID	Client Sample ID	(70-130)	(70-130)
880-17833-A-1-A MS	Matrix Spike	106	94
880-17833-A-1-B MSD	Matrix Spike Duplicate	112	92
890-2723-1	SS02	105	89
LCS 880-31801/1-A	Lab Control Sample	103	97
LCSD 880-31801/2-A	Lab Control Sample Dup	106	97
MB 880-31680/5-A	Method Blank	98	90
MB 880-31801/5-A	Method Blank	104	91

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

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

Matrix: Solid Prep Type: Total/NA

				Percent Surrogate Recovery (Acceptance Limits)
		1CO1	OTPH1	
ab Sample ID	Client Sample ID	(70-130)	(70-130)	
0-2723-1	SS02	87	97	
90-2723-1 MS	SS02	89	90	
90-2723-1 MSD	SS02	89	91	
CS 880-31577/2-A	Lab Control Sample	93	96	
CSD 880-31577/3-A	Lab Control Sample Dup	91	95	
/IB 880-31577/1-A	Method Blank	89	107	
Surrogate Legend				
1CO = 1-Chlorooctane				

OTPH = o-Terphenyl

Client: Ensolum

Job ID: 890-2723-1

SDG: 03E1558092

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

Lab Sample ID: MB 880-31680/5-A

**Matrix: Solid** 

Analysis Batch: 31685

Project/Site: Mis Amigos CTB

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 31680

	MB	MB						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		08/08/22 08:17	08/08/22 12:03	1
Toluene	<0.00200	U	0.00200	mg/Kg		08/08/22 08:17	08/08/22 12:03	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		08/08/22 08:17	08/08/22 12:03	1
m-Xylene & p-Xylene	<0.00400	U	0.00400	mg/Kg		08/08/22 08:17	08/08/22 12:03	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		08/08/22 08:17	08/08/22 12:03	1
Xylenes, Total	< 0.00400	U	0.00400	mg/Kg		08/08/22 08:17	08/08/22 12:03	1

MB MB

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	98		70 - 130	08/08/22 08:17	08/08/22 12:03	1
1,4-Difluorobenzene (Surr)	90		70 - 130	08/08/22 08:17	08/08/22 12:03	1

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 31801

Lab Sample ID: MB 880-31801/5-A **Matrix: Solid** 

**Analysis Batch: 31685** 

мв мв

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		08/08/22 15:42	08/08/22 22:58	1
Toluene	<0.00200	U	0.00200	mg/Kg		08/08/22 15:42	08/08/22 22:58	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		08/08/22 15:42	08/08/22 22:58	1
m-Xylene & p-Xylene	<0.00400	U	0.00400	mg/Kg		08/08/22 15:42	08/08/22 22:58	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		08/08/22 15:42	08/08/22 22:58	1
Xylenes, Total	<0.00400	U	0.00400	mg/Kg		08/08/22 15:42	08/08/22 22:58	1

MB MB

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	104		70 - 130	08/08/22 15:42	08/08/22 22:58	1
1,4-Difluorobenzene (Surr)	91		70 - 130	08/08/22 15:42	08/08/22 22:58	1

Lab Sample ID: LCS 880-31801/1-A

**Matrix: Solid** 

**Analysis Batch: 31685** 

**Client Sample ID: Lab Control Sample** 

Prep Type: Total/NA Prep Batch: 31801

Spike LCS LCS %Rec Analyte Added Result Qualifier Unit %Rec Limits Benzene 0.100 0.1012 mg/Kg 101 70 - 130 Toluene 0.100 0.09868 mg/Kg 99 70 - 130

Ethylbenzene 0.100 0.1031 mg/Kg 103 70 - 130 0.200 103 m-Xylene & p-Xylene 0.2069 mg/Kg 70 - 130 0.100 0.1139 70 - 130 o-Xylene mg/Kg 114

LCS LCS

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

Lab Sample ID: LCSD 880-31801/2-A

**Matrix: Solid** 

**Analysis Batch: 31685** 

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 31801

Spike LCSD LCSD RPD %Rec Analyte Added Result Qualifier Unit %Rec Limits **RPD** Limit Benzene 0.100 0.09009 mg/Kg 90 70 - 130 12

**Eurofins Carlsbad** 

### QC Sample Results

Job ID: 890-2723-1 Client: Ensolum Project/Site: Mis Amigos CTB SDG: 03E1558092

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

Lab Sample ID: LCSD 880-31801/2-A

**Matrix: Solid** 

Analysis Batch: 31685

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

Prep Batch: 31801

	Spike	LCSD	LCSD				%Rec		RPD
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Toluene	0.100	0.08972		mg/Kg		90	70 - 130	10	35
Ethylbenzene	0.100	0.09649		mg/Kg		96	70 - 130	7	35
m-Xylene & p-Xylene	0.200	0.1946		mg/Kg		97	70 - 130	6	35
o-Xylene	0.100	0.1077		mg/Kg		108	70 - 130	6	35

LCSD LCSD

Surrogate	%Recovery	Qualifier	Limits
4-Bromofluorobenzene (Surr)	106		70 - 130
1,4-Difluorobenzene (Surr)	97		70 - 130

Lab Sample ID: 880-17833-A-1-A MS

**Matrix: Solid** 

**Analysis Batch: 31685** 

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 31801

MS MS %Rec Sample Sample Spike Analyte Result Qualifier Added Result Qualifier Unit %Rec Limits Benzene <0.00201 U F1 0.0998 0.05435 F1 mg/Kg 54 70 - 130 Toluene <0.00201 UF1 0.0998 0.03513 F1 35 70 - 130 mg/Kg Ethylbenzene 0.0998 70 - 130 <0.00201 UF1 0.02412 F1 mg/Kg 24 m-Xylene & p-Xylene 0.200 0.04804 F1 24 70 - 130 <0.00402 UF1 mg/Kg o-Xylene <0.00201 UF1F2 0.0998 0.02474 F1 mg/Kg 25 70 - 130

MS MS

Surrogate	%Recovery Qualific	er Limits
4-Bromofluorobenzene (Surr)	106	70 - 130
1,4-Difluorobenzene (Surr)	94	70 - 130

Lab Sample ID: 880-17833-A-1-B MSD

**Matrix: Solid** 

**Analysis Batch: 31685** 

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 31801

	Sample	Sample	Spike	MSD	MSD				%Rec		RPD
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Benzene	<0.00201	U F1	0.0996	0.04430	F1	mg/Kg		44	70 - 130	20	35
Toluene	<0.00201	U F1	0.0996	0.02686	F1	mg/Kg		27	70 - 130	27	35
Ethylbenzene	<0.00201	U F1	0.0996	0.01866	F1	mg/Kg		19	70 - 130	26	35
m-Xylene & p-Xylene	<0.00402	U F1	0.199	0.03797	F1	mg/Kg		19	70 - 130	23	35
o-Xylene	<0.00201	U F1 F2	0.0996	0.01578	F1 F2	mg/Kg		16	70 - 130	44	35

MSD MSD

Surrogate	%Recovery Qualifier	Limits
4-Bromofluorobenzene (Surr)	112	70 - 130
1,4-Difluorobenzene (Surr)	92	70 - 130

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

Lab Sample ID: MB 880-31577/1-A

**Matrix: Solid** 

Analysis Batch: 31631

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

Prep Batch: 31577

мв мв Result Qualifier RL Unit Prepared <50.0 U 50.0 mg/Kg 08/05/22 11:58 08/06/22 20:38 Gasoline Range Organics

(GRO)-C6-C10

Client: Ensolum

Job ID: 890-2723-1

SDG: 03E1558092

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

Lab Sample ID: MB 880-31577/1-A

**Matrix: Solid** 

**Analysis Batch: 31631** 

Project/Site: Mis Amigos CTB

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 31577

	MB	MB						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		08/05/22 11:58	08/06/22 20:38	1
Oll Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		08/05/22 11:58	08/06/22 20:38	1

MB MB

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	89		70 - 130	08/05/22 11:58	08/06/22 20:38	1
o-Terphenyl	107		70 - 130	08/05/22 11:58	08/06/22 20:38	1

**Client Sample ID: Lab Control Sample** 

Lab Sample ID: LCS 880-31577/2-A Matrix: Solid Prep Type: Total/NA

Analysis Batch: 31631 Prep Batch: 31577

	Spike	LCS	LCS				%Rec	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Gasoline Range Organics	1000	922.7		mg/Kg		92	70 - 130	
(GRO)-C6-C10								
Diesel Range Organics (Over	1000	901.7		mg/Kg		90	70 - 130	
C10-C28)								

LCS LCS

Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane	93		70 - 130
o-Terphenyl	96		70 - 130

Lab Sample ID: LCSD 880-31577/3-A

**Matrix: Solid** 

Analysis Batch: 31631

Prep Type: Total/NA

Prep Batch: 31577

	Spike	LCSD	LCSD				%Rec		RPD
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Gasoline Range Organics	1000	905.4		mg/Kg		91	70 - 130	2	20
(GRO)-C6-C10									
Diesel Range Organics (Over	1000	879.0		mg/Kg		88	70 - 130	3	20
C10-C28)									

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

Lab Sample ID: 890-2723-1 MS

**Matrix: Solid** 

Analysis Batch: 31631

Client Sample ID: SS02 Prep Type: Total/NA

Prep Batch: 31577

	Sample	Sample	Spike	MS	MS				%Rec
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	999	1016		mg/Kg		100	70 - 130
Diesel Range Organics (Over	<49.9	U	999	962.5		mg/Kg		94	70 - 130

C10-C28)

	IVIS	IVIS	
Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane	89		70 - 130
o-Terphenyl	90		70 - 130

Project/Site: Mis Amigos CTB

Job ID: 890-2723-1

SDG: 03E1558092

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

Lab Sample ID: 890-2723-1 MSD **Client Sample ID: SS02 Matrix: Solid** Prep Type: Total/NA

Analysis Batch: 31631 Prep Batch: 31577

	Sample	Sample	Spike	MSD	MSD				%Rec		RPD
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Gasoline Range Organics	<49.9	U	999	1031		mg/Kg		101	70 - 130	1	20
(GRO)-C6-C10											
Diesel Range Organics (Over	<49.9	U	999	981.9		mg/Kg		96	70 - 130	2	20
0.4.0 0.00\											

C10-C28)

Client: Ensolum

MSD MSD %Recovery Qualifier Limits Surrogate 1-Chlorooctane 70 - 130 89 o-Terphenyl 91 70 - 130

### Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-31560/1-A Client Sample ID: Method Blank **Prep Type: Soluble** 

**Matrix: Solid** 

**Analysis Batch: 31932** 

мв мв

Analyte Result Qualifier RL Unit Prepared Analyzed Dil Fac Chloride <5.00 U 5.00 mg/Kg 08/11/22 13:38

Lab Sample ID: LCS 880-31560/2-A **Client Sample ID: Lab Control Sample Matrix: Solid Prep Type: Soluble** 

**Analysis Batch: 31932** 

	Spike	LCS	LCS				%Rec	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Chloride	250	248.4		mg/Kg		99	90 - 110	

Lab Sample ID: LCSD 880-31560/3-A Client Sample ID: Lab Control Sample Dup **Prep Type: Soluble** 

**Matrix: Solid** 

**Analysis Batch: 31932** 

	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: 890-2722-A-12-B MS Client Sample ID: Matrix Spike **Prep Type: Soluble** 

**Matrix: Solid** 

Analysis Batch: 31932

	Sample	Sample	Spike	MS	MS				%Rec	
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Chloride	200		250	458.6		ma/Ka		104	90 - 110	

Lab Sample ID: 890-2722-A-12-C MSD

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

Analysis Batch: 31932

	Sample	Sample	Spike	MSD	MSD				%Rec		RPD
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Chloride	200		250	475.0		mg/Kg	_	110	90 - 110	4	20

# **QC Association Summary**

Client: Ensolum

Project/Site: Mis Amigos CTB

Job ID: 890-2723-1 SDG: 03E1558092

### **GC VOA**

Prep Batch: 31680

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 880-31680/5-A	Method Blank	Total/NA	Solid	5035	

### Analysis Batch: 31685

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2723-1	SS02	Total/NA	Solid	8021B	31801
MB 880-31680/5-A	Method Blank	Total/NA	Solid	8021B	31680
MB 880-31801/5-A	Method Blank	Total/NA	Solid	8021B	31801
LCS 880-31801/1-A	Lab Control Sample	Total/NA	Solid	8021B	31801
LCSD 880-31801/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	31801
880-17833-A-1-A MS	Matrix Spike	Total/NA	Solid	8021B	31801
880-17833-A-1-B MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	31801

### Prep Batch: 31801

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2723-1	SS02	Total/NA	Solid	5035	
MB 880-31801/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-31801/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-31801/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
880-17833-A-1-A MS	Matrix Spike	Total/NA	Solid	5035	
880-17833-A-1-B MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	

### Analysis Batch: 31844

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2723-1	SS02	Total/NA	Solid	Total BTEX	

### **GC Semi VOA**

### Prep Batch: 31577

<b>Lab Sample ID</b> 890-2723-1	Client Sample ID SS02	Prep Type Total/NA	Matrix Solid	Method 8015NM Prep	Prep Batch
MB 880-31577/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-31577/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-31577/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
890-2723-1 MS	SS02	Total/NA	Solid	8015NM Prep	
890-2723-1 MSD	SS02	Total/NA	Solid	8015NM Prep	

### Analysis Batch: 31631

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2723-1	SS02	Total/NA	Solid	8015B NM	31577
MB 880-31577/1-A	Method Blank	Total/NA	Solid	8015B NM	31577
LCS 880-31577/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	31577
LCSD 880-31577/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	31577
890-2723-1 MS	SS02	Total/NA	Solid	8015B NM	31577
890-2723-1 MSD	SS02	Total/NA	Solid	8015B NM	31577

### **Analysis Batch: 31760**

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2723-1	SS02	Total/NA	Solid	8015 NM	

# **QC Association Summary**

Client: Ensolum
Project/Site: Mis Amigos CTB
Job ID: 890-2723-1
SDG: 03E1558092

HPLC/IC

Leach Batch: 31560

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2723-1	SS02	Soluble	Solid	DI Leach	
MB 880-31560/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-31560/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-31560/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
890-2722-A-12-B MS	Matrix Spike	Soluble	Solid	DI Leach	
890-2722-A-12-C MSD	Matrix Spike Duplicate	Soluble	Solid	DI Leach	

Analysis Batch: 31932

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2723-1	SS02	Soluble	Solid	300.0	31560
MB 880-31560/1-A	Method Blank	Soluble	Solid	300.0	31560
LCS 880-31560/2-A	Lab Control Sample	Soluble	Solid	300.0	31560
LCSD 880-31560/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	31560
890-2722-A-12-B MS	Matrix Spike	Soluble	Solid	300.0	31560
890-2722-A-12-C MSD	Matrix Spike Duplicate	Soluble	Solid	300.0	31560

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### **Lab Chronicle**

Client: Ensolum Job ID: 890-2723-1 Project/Site: Mis Amigos CTB SDG: 03E1558092

**Client Sample ID: SS02** Lab Sample ID: 890-2723-1 Date Collected: 08/03/22 13:05

Matrix: Solid

Date Received: 08/04/22 07:55

	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	31801	08/08/22 15:42	MR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	31685	08/09/22 04:47	MR	EET MID
Total/NA	Analysis	Total BTEX		1			31844	08/09/22 10:34	SM	EET MID
Total/NA	Analysis	8015 NM		1			31760	08/08/22 12:38	SM	EET MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	31577	08/05/22 11:58	DM	EET MID
Total/NA	Analysis	8015B NM		1			31631	08/06/22 21:42	SM	EET MID
Soluble	Leach	DI Leach			5 g	50 mL	31560	08/05/22 10:32	СН	EET MID
Soluble	Analysis	300.0		1			31932	08/11/22 17:57	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: 890-2723-1 Project/Site: Mis Amigos CTB

SDG: 03E1558092

### **Laboratory: Eurofins Midland**

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

Authority	Pr	rogram	Identification Number	Expiration Date	
Texas	NI	ELAP	T104704400-22-24	06-30-23	
The following analytes the agency does not of		ut the laboratory is not certif	ied by the governing authority. This list ma	ay include analytes fo	
Analysis Method	Prep Method	Matrix	Analyte		
8015 NM		Solid	Total TPH		
Total BTEX		Solid	Total BTEX		

### **Method Summary**

Client: Ensolum

Project/Site: Mis Amigos CTB

Job ID: 890-2723-1

SDG: 03E1558092

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: Mis Amigos CTB

Job ID: 890-2723-1

SDG: 03E1558092

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-2723-1	SS02	Solid	08/03/22 13:05	08/04/22 07:55	0.5'

www.xenco.com

Work Order No:

Date/Time

Received by: (Signature)

Relinquished by: (Signature)

Date/Time

Received by: (Signature)

linquished

Eurofins Xenco. A minimum charge of \$85.00 will be applied to each project and a charge of \$5 for each sample submitted to Eurofins Xenco, but not analyzed. These terms will be enforced unless previously negotiated.

# Chain of Custody eurofins Environment Testing

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

Project Manager:	Tacoma Mornissey	Girissi	3	Bill to: (if different)	Garre	Garrett Green	Work Orde	Work Order Comments
Company Name:	Enxim, LLC	רוכ	7	Company Name:	XTO	XTO Energy, Inc.	Program: UST/PST   PRP   Brownfields	Brownfields ☐ RRC ☐ Superfund ☐
Address:	3122 National Parks Inchigay Address:	Inal Pari	ks Indaway	Address:	3104	3104 E Green Street	State of Project:	
City, State ZIP:	Carisback NM 88720	M 88	720	City, State ZIP:	Carlsb	Carlshird NM 88220	Reporting: Level      Level	Reporting: Level    Level    PST/UST TRRP Level IV
Phone:	3371-257-8307	8307	Email:		sen@e	tmorrissey@ensolvm.com	Deliverables: EDD 🗌 A	ADaPT Other:
Project Name:	Mis Americ	CTB	Tum	Turn Around		ANALYSIS REQUEST	EST	Preservative Codes
Project Number:	O3E1558092		Routine	Rush Code	. 40			None: NO DI Water: H <sub>2</sub> O
Project Location:	32 25466 703. 60874 Due Date:	103 POB	The Due Date:					Cool: Cool MeOH: Me
Sampler's Name:	Merchin Riverts	P. bert	TAT starts the	TAT starts the day received by		_		HCL: HC HNO 3: HN
PO #:			$\vdash$	the lab, if received by 4:30pm		100111100111001001001001001001001001001		H <sub>2</sub> SO <sub>4</sub> : H <sub>2</sub> NaOH: Na
SAMPLE RECEIPT	Temp Blank:	(Yes) No	o Wet Ice:	Yes No eters				H <sub>3</sub> PO <sub>4</sub> : HP
Samples Received Intact:			Thermometer ID:	100-MM				NaHSO 4: NABIS
Cooler Custody Seals:	Ye		Correction Factor:	CO:02	Ç.			Na2S2O3: NaSO 3
Sample Custody Seals:	S: Yes No MA		Temperature Reading:	5 × 5	op.	890-2723 Chain of Custody	Custody	Zn Acetate+NaOH: Zn
Total Containers:		Correcte	Corrected Temperature:	5.10	X∈			NaOH+Ascorbic Acid: SAPC
Sample Identification		Matrix Sampled	The	Depth Grab/ # of Cont		47		Sample Comments
5502	67	3 8/3/12	12 1305	0.5' Grab 1	XX	×		Incident 10:
						742		0APP2218258639
				\				Cost Center:
			\	\				1055621001
			\					
	1	1						
		_						
Total 200.7 / 6010	10 200.8 / 6020:		8RCRA 13PPM	I II	b As Ba Be	Texas 11 AI Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag SiO <sub>2</sub> Na Sr TI Sn U V	Ni K Se	a Sr TI Sn U V Zn
Circle Method(s)	Circle Method(s) and Metal(s) to be analyzed	analyzed	TCLP / SPLP	PLP 6010 : 8RCRA	Sb As Ba Be	6010 : 8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Tl U		Hg: 1631 / 245.1 / 7470 / 7471
Notice: Signature of this do	cument and relinquishment of s.	amples constitut.	es a valid purchase ord	ler from client company to Eu	ofins Xenco, its affilia	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	is and conditions	
of service. Eurofins Xenco	will be liable only for the cost of a	samples and shall	Il not assume any respo	onsibility for any losses or expe	enses incurred by the	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	ond the control	

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### **Login Sample Receipt Checklist**

Client: Ensolum Job Number: 890-2723-1 SDG Number: 03E1558092

Login Number: 2723 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	

8/12/2022

### **Login Sample Receipt Checklist**

Client: Ensolum

SDG Number

Job Number: 890-2723-1 SDG Number: 03E1558092

Login Number: 2723 List Source: Eurofins Midland
List Number: 2 List Creation: 08/05/22 10:35 AM

Creator: Rodriguez, Leticia

<6mm (1/4").

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: 9/26/2022 2:13:05 PM

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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: 890-2721-1

Laboratory Sample Delivery Group: 03E1558092

Client Project/Site: Mis Amigos CTB

For:

Ensolum 705 W. Wadley Suite 210 Midland, Texas 79701

Attn: Tacoma Morrissey

RAMER

8/15/2022 10:48:33 AM

Jessica Kramer, Project Manager (432)704-5440

Jessica.Kramer@et.eurofinsus.com

Authorized for release by:

results through EOL **Have a Question?** 

····· Links ······

**Review your project** 

Visit us at:

www.eurofinsus.com/Env Released to Imaging: 9/26/2022/2:13:05 PM signature is intended to be the legally binding equivalent of a traditionally handwritten

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

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

Client: Ensolum
Project/Site: Mis Amigos CTB
Laboratory Job ID: 890-2721-1
SDG: 03E1558092

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### **Definitions/Glossary**

Client: Ensolum Job ID: 890-2721-1 Project/Site: Mis Amigos CTB

SDG: 03E1558092

### **Qualifiers**

### **GC VOA**

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

### **GC Semi VOA**

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

RER

RPD

TEF

TEQ TNTC

RL

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

**Eurofins Carlsbad** 

Relative Error Ratio (Radiochemistry)

Toxicity Equivalent Factor (Dioxin) Toxicity Equivalent Quotient (Dioxin)

Too Numerous To Count

Reporting Limit or Requested Limit (Radiochemistry)

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

### **Case Narrative**

Client: Ensolum

Project/Site: Mis Amigos CTB

Job ID: 890-2721-1 SDG: 03E1558092

Job ID: 890-2721-1

**Laboratory: Eurofins Carlsbad** 

Narrative

Job Narrative 890-2721-1

### Receipt

The sample was received on 8/4/2022 7:52 AM. Unless otherwise noted below, the sample arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 5.6°C

### **GC VOA**

Method 8021B: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 880-31801 and analytical batch 880-31685 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.

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

### GC Semi VOA

Method 8015MOD\_NM: Surrogate recovery for the following sample was outside control limits: (LCS 880-31570/2-A). Evidence of matrix interferences is not obvious.

Method 8015MOD\_NM: The RPD of the laboratory control sample (LCS) and laboratory control sample duplicate (LCSD) for preparation batch 880-31570 and analytical batch 880-31633 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

Method 300\_ORGFM\_28D: The matrix spike (MS) recoveries for preparation batch 880-31649 and analytical batch 880-31933 were outside control limits. Non-homogeneity is suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.

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

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Matrix: Solid

### **Client Sample Results**

Client: Ensolum Job ID: 890-2721-1
Project/Site: Mis Amigos CTB SDG: 03E1558092

Client Sample ID: SS03

Lab Sample ID: 890-2721-1

Date Collected: 08/03/22 13:10
Date Received: 08/04/22 07:52

Sample Depth: 0.5'

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fa
Benzene	<0.00200	U	0.00200	mg/Kg		08/08/22 15:42	08/09/22 04:27	
Toluene	<0.00200	U	0.00200	mg/Kg		08/08/22 15:42	08/09/22 04:27	
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		08/08/22 15:42	08/09/22 04:27	
m-Xylene & p-Xylene	<0.00401	U	0.00401	mg/Kg		08/08/22 15:42	08/09/22 04:27	
o-Xylene	<0.00200	U	0.00200	mg/Kg		08/08/22 15:42	08/09/22 04:27	
Xylenes, Total	<0.00401	U	0.00401	mg/Kg		08/08/22 15:42	08/09/22 04:27	
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fa
4-Bromofluorobenzene (Surr)	127		70 - 130			08/08/22 15:42	08/09/22 04:27	
1,4-Difluorobenzene (Surr)	89		70 - 130			08/08/22 15:42	08/09/22 04:27	
Method: Total BTEX - Total BTE	X Calculation							
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fa
Total BTEX	<0.00401	U	0.00401	mg/Kg			08/09/22 10:34	
Analyte	Organics (DR) Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fa
Analyte	Result	Qualifier			D	Prepared	Analyzed	Dil Fa
Analyte Total TPH	•	Qualifier		Unit mg/Kg	<u>D</u>	Prepared	Analyzed 08/08/22 11:44	
	Result   <50.0	Qualifier U			<u> </u>	Prepared		
Total TPH Method: 8015B NM - Diesel Ranç	Result <50.0	Qualifier U			<u>D</u>	Prepared Prepared		
Total TPH  Method: 8015B NM - Diesel Rang Analyte  Gasoline Range Organics	Result <50.0	Qualifier U RO) (GC) Qualifier	50.0	mg/Kg			08/08/22 11:44	Dil Fa
Total TPH  Method: 8015B NM - Diesel Rang Analyte  Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over	Result <50.0  Ge Organics (Dige Result	Qualifier U  RO) (GC) Qualifier U *1	50.0	mg/Kg		Prepared	08/08/22 11:44  Analyzed	Dil Fa
Method: 8015B NM - Diesel Rang Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28)	Result   <50.0	Qualifier U  RO) (GC) Qualifier U *1	50.0  RL  50.0  50.0	mg/Kg  Unit  mg/Kg  mg/Kg		Prepared 08/05/22 10:50 08/05/22 10:50	08/08/22 11:44  Analyzed  08/06/22 14:31  08/06/22 14:31	Dil Fa
Method: 8015B NM - Diesel Rang Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28)	Result <50.0  ge Organics (Dige Result <50.0)	Qualifier U  RO) (GC) Qualifier U *1	50.0 RL 50.0	mg/Kg  Unit  mg/Kg		Prepared 08/05/22 10:50	08/08/22 11:44  Analyzed  08/06/22 14:31	Dil Fa
Total TPH  Method: 8015B NM - Diesel Rang Analyte  Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) Oll Range Organics (Over C28-C36)  Surrogate	Result	Qualifier U  RO) (GC) Qualifier U *1 U	50.0  RL 50.0  50.0  50.0  Limits	mg/Kg  Unit  mg/Kg  mg/Kg		Prepared 08/05/22 10:50 08/05/22 10:50 08/05/22 10:50 Prepared	08/08/22 11:44  Analyzed  08/06/22 14:31  08/06/22 14:31  Analyzed	Dil Fa
Total TPH  Method: 8015B NM - Diesel Rang Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) Oll Range Organics (Over C28-C36)  Surrogate	Result   <50.0	Qualifier U  RO) (GC) Qualifier U *1 U	50.0  RL  50.0  50.0  50.0	mg/Kg  Unit  mg/Kg  mg/Kg		Prepared 08/05/22 10:50 08/05/22 10:50 08/05/22 10:50	08/08/22 11:44  Analyzed 08/06/22 14:31 08/06/22 14:31	Dil Fa
Total TPH  Method: 8015B NM - Diesel Rang Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) Oll Range Organics (Over C28-C36)  Surrogate 1-Chlorooctane	Result	Qualifier U  RO) (GC) Qualifier U *1 U	50.0  RL 50.0  50.0  50.0  Limits	mg/Kg  Unit  mg/Kg  mg/Kg		Prepared 08/05/22 10:50 08/05/22 10:50 08/05/22 10:50 Prepared	08/08/22 11:44  Analyzed  08/06/22 14:31  08/06/22 14:31  Analyzed	Dil Fa
Total TPH	Result   <50.0	Qualifier U  RO) (GC) Qualifier U*1 U  Qualifier	50.0  RL 50.0  50.0  50.0  Limits 70 - 130	mg/Kg  Unit  mg/Kg  mg/Kg		Prepared 08/05/22 10:50 08/05/22 10:50 08/05/22 10:50  Prepared 08/05/22 10:50	08/08/22 11:44  Analyzed 08/06/22 14:31  08/06/22 14:31  Analyzed 08/06/22 14:31	Dil Fa
Total TPH  Method: 8015B NM - Diesel Rang Analyte  Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) OII Range Organics (Over C28-C36)  Surrogate 1-Chlorooctane o-Terphenyl	Result	Qualifier U  RO) (GC) Qualifier U*1  U  Qualifier  Soluble Qualifier	50.0  RL 50.0  50.0  50.0  Limits 70 - 130	mg/Kg  Unit  mg/Kg  mg/Kg		Prepared 08/05/22 10:50 08/05/22 10:50 08/05/22 10:50  Prepared 08/05/22 10:50	08/08/22 11:44  Analyzed 08/06/22 14:31  08/06/22 14:31  Analyzed 08/06/22 14:31	Dil Fa

### **Surrogate Summary**

Client: Ensolum Job ID: 890-2721-1
Project/Site: Mis Amigos CTB SDG: 03E1558092

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)	
880-17833-A-1-A MS	Matrix Spike	106	94	
880-17833-A-1-B MSD	Matrix Spike Duplicate	112	92	
890-2721-1	SS03	127	89	
LCS 880-31801/1-A	Lab Control Sample	103	97	
LCSD 880-31801/2-A	Lab Control Sample Dup	106	97	
MB 880-31680/5-A	Method Blank	98	90	
MB 880-31801/5-A	Method Blank	104	91	

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

OTPH = o-Terphenyl

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

Matrix: Solid Prep Type: Total/NA

				Percent Surrogate Recovery (Acceptance Limits)
		1001	OTPH1	
Lab Sample ID	Client Sample ID	(70-130)	(70-130)	
890-2712-A-1-C MS	Matrix Spike	77	85	
890-2712-A-1-D MSD	Matrix Spike Duplicate	92	101	
890-2721-1	SS03	96	106	
LCS 880-31570/2-A	Lab Control Sample	135 S1+	133 S1+	
LCSD 880-31570/3-A	Lab Control Sample Dup	111	130	
MB 880-31570/1-A	Method Blank	91	105	
Surrogate Legend				
1CO = 1-Chlorooctane				

**Eurofins Carlsbad** 

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Client: Ensolum Job ID: 890-2721-1
Project/Site: Mis Amigos CTB SDG: 03E1558092

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-31680/5-A

Matrix: Solid

**Analysis Batch: 31685** 

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 31680

	MB	MB						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		08/08/22 08:17	08/08/22 12:03	1
Toluene	<0.00200	U	0.00200	mg/Kg		08/08/22 08:17	08/08/22 12:03	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		08/08/22 08:17	08/08/22 12:03	1
m-Xylene & p-Xylene	<0.00400	U	0.00400	mg/Kg		08/08/22 08:17	08/08/22 12:03	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		08/08/22 08:17	08/08/22 12:03	1
Xylenes, Total	<0.00400	U	0.00400	mg/Kg		08/08/22 08:17	08/08/22 12:03	1

MB MB

Surrogate	%Recovery	Qualifier	Limits
4-Bromofluorobenzene (Surr)	98		70 - 130
1,4-Difluorobenzene (Surr)	90		70 - 130

 08/08/22 08:17
 08/08/22 12:03

 08/08/22 08:17
 08/08/22 12:03

Prepared

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

Analyzed

Prep Batch: 31801

Analysis Batch: 31685

Lab Sample ID: MB 880-31801/5-A

MR MR

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		08/08/22 15:42	08/08/22 22:58	1
Toluene	<0.00200	U	0.00200	mg/Kg		08/08/22 15:42	08/08/22 22:58	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		08/08/22 15:42	08/08/22 22:58	1
m-Xylene & p-Xylene	<0.00400	U	0.00400	mg/Kg		08/08/22 15:42	08/08/22 22:58	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		08/08/22 15:42	08/08/22 22:58	1
Xylenes, Total	<0.00400	U	0.00400	mg/Kg		08/08/22 15:42	08/08/22 22:58	1

MB MB

Surrogate	%Recovery	Qualifier	Limits	Prepare	d Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	104		70 - 130	08/08/22 13	5:42 08/08/22 22:5	8 1
1,4-Difluorobenzene (Surr)	91		70 - 130	08/08/22 1	5:42 08/08/22 22:5	i8 1

Lab Sample ID: LCS 880-31801/1-A

Matrix: Solid

Matrix: Solid

**Analysis Batch: 31685** 

Client Sample ID: Lab Control Sample

Prep Type: Total/NA Prep Batch: 31801

	Spike	LCS	LCS				%Rec	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Benzene	0.100	0.1012		mg/Kg		101	70 - 130	
Toluene	0.100	0.09868		mg/Kg		99	70 - 130	
Ethylbenzene	0.100	0.1031		mg/Kg		103	70 - 130	
m-Xylene & p-Xylene	0.200	0.2069		mg/Kg		103	70 - 130	
o-Xylene	0.100	0.1139		mg/Kg		114	70 - 130	

LCS LCS

Surrogate	%Recovery Quali	fier Limits
4-Bromofluorobenzene (Surr)	103	70 - 130
1,4-Difluorobenzene (Surr)	97	70 - 130

Lab Sample ID: LCSD 880-31801/2-A

Matrix: Solid

Analysis Batch: 31685

Client Sample ID: Lab	Control Sample Dup
	Donner Towner Translation

Prep Type: Total/NA

Prep Batch: 31801

	<b>Бріке</b>	LCSD LCSD				%Rec		KPD	
Analyte	Added	Result Qualif	fier Unit	D	%Rec	Limits	RPD	Limit	
Benzene	0.100	0.09009	mg/Kg		90	70 - 130	12	35	

**Eurofins Carlsbad** 

Page 7 of 19

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Dil Fac

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## QC Sample Results

Client: Ensolum Job ID: 890-2721-1 Project/Site: Mis Amigos CTB SDG: 03E1558092

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

Lab Sample ID: LCSD 880-31801/2-A

**Matrix: Solid** 

Analysis Batch: 31685

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 31801

	Spike	LCSD	LCSD				%Rec		RPD
alyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
uene	0.100	0.08972		mg/Kg		90	70 - 130	10	35
nylbenzene	0.100	0.09649		mg/Kg		96	70 - 130	7	35
Xylene & p-Xylene	0.200	0.1946		mg/Kg		97	70 - 130	6	35
Cylene	0.100	0.1077		mg/Kg		108	70 - 130	6	35
	uene nylbenzene Xylene & p-Xylene	alyte         Added           uene         0.100           nylbenzene         0.100           Xylene & p-Xylene         0.200	alyte         Added         Result           uene         0.100         0.08972           tylbenzene         0.100         0.09649           Xylene & p-Xylene         0.200         0.1946	alyte         Added uene         Result Qualifier         Qualifier           uene         0.100         0.08972           nylbenzene         0.100         0.09649           xylene & p-Xylene         0.200         0.1946	alyte         Added         Result unit         Qualifier         Unit           uene         0.100         0.08972         mg/Kg           nylbenzene         0.100         0.09649         mg/Kg           Xylene & p-Xylene         0.200         0.1946         mg/Kg	Added         Result         Qualifier         Unit         D           uene         0.100         0.08972         mg/Kg           nylbenzene         0.100         0.09649         mg/Kg           Xylene & p-Xylene         0.200         0.1946         mg/Kg	Added         Result Qualifier         Unit         D         %Rec           uene         0.100         0.08972         mg/Kg         90           nylbenzene         0.100         0.09649         mg/Kg         96           Xylene & p-Xylene         0.200         0.1946         mg/Kg         97	Added         Result Qualifier         Unit         D         %Rec Mec         Limits           uene         0.100         0.08972         mg/Kg         90         70 - 130           nylbenzene         0.100         0.09649         mg/Kg         96         70 - 130           Xylene & p-Xylene         0.200         0.1946         mg/Kg         97         70 - 130	Added         Result Qualifier         Unit         D         %Rec         Limits         RPD           uene         0.100         0.08972         mg/Kg         90         70 - 130         10           nylbenzene         0.100         0.09649         mg/Kg         96         70 - 130         7           Xylene & p-Xylene         0.200         0.1946         mg/Kg         97         70 - 130         6

LCSD LCSD

Surrogate	%Recovery C	Qualifier	Limits
4-Bromofluorobenzene (Surr)	106		70 - 130
1,4-Difluorobenzene (Surr)	97		70 - 130

Lab Sample ID: 880-17833-A-1-A MS Client Sample ID: Matrix Spike

**Matrix: Solid** 

Analysis Batch: 31685

Prep Type: Total/NA

Prep Batch: 31801

MS MS %Rec Sample Sample Spike Analyte Result Qualifier Added Result Qualifier Unit %Rec Limits Benzene U F1 0.0998 0.05435 F1 <0.00201 ma/Ka 54 70 - 130 Toluene <0.00201 UF1 0.0998 0.03513 F1 35 70 - 130 mg/Kg Ethylbenzene 0.0998 70 - 130 <0.00201 UF1 0.02412 F1 mg/Kg 24 <0.00402 U F1 0.200 0.04804 F1 24 70 - 130 m-Xylene & p-Xylene mg/Kg o-Xylene <0.00201 UF1F2 0.0998 0.02474 F1 mg/Kg 25 70 - 130

MS MS

Surrogate	%Recovery Qualifier	Limits
4-Bromofluorobenzene (Surr)	106	70 - 130
1,4-Difluorobenzene (Surr)	94	70 - 130

Lab Sample ID: 880-17833-A-1-B MSD Client Sample ID: Matrix Spike Duplicate

**Matrix: Solid** 

**Analysis Batch: 31685** 

Prep Type: Total/NA

Prep Batch: 31801

MSD MSD %Rec RPD Sample Sample Spike Analyte Result Qualifier Added Result Qualifier Unit %Rec Limits RPD Limit Benzene <0.00201 U F1 0.0996 0.04430 F1 mg/Kg 44 70 - 130 20 35 Toluene <0.00201 UF1 0.0996 0.02686 F1 mg/Kg 27 70 - 130 27 35 Ethylbenzene <0.00201 UF1 0.0996 0.01866 F1 mg/Kg 19 70 - 130 26 35 0.199 0.03797 F1 19 70 - 130 23 m-Xylene & p-Xylene <0.00402 UF1 mg/Kg 35 0.0996 o-Xylene <0.00201 UF1F2 0.01578 F1 F2 mg/Kg 16 70 - 130 35

MSD MSD

MB MB

Surrogate	%Recovery	Qualifier	Limits
4-Bromofluorobenzene (Surr)	112		70 - 130
1,4-Difluorobenzene (Surr)	92		70 - 130

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

Lab Sample ID: MB 880-31570/1-A

**Matrix: Solid** 

**Analysis Batch: 31633** 

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

Prep Batch: 31570

Analyte Result Qualifier RL Unit Prepared <50.0 U 50.0 mg/Kg 08/05/22 10:50 08/06/22 10:56 Gasoline Range Organics (GRO)-C6-C10

Client: Ensolum Project/Site: Mis Amigos CTB Job ID: 890-2721-1 SDG: 03E1558092

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

Client Sample ID: Method Blank Lab Sample ID: MB 880-31570/1-A **Matrix: Solid Analysis Batch: 31633** 

Prep Type: Total/NA Prep Batch: 31570

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics (Over	<50.0	U	50.0	mg/Kg	_	08/05/22 10:50	08/06/22 10:56	1
C10-C28)								
Oll Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		08/05/22 10:50	08/06/22 10:56	1

MB MB

MB MB

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	91		70 - 130	08/05/22 10:50	08/06/22 10:56	1
o-Terphenyl	105		70 - 130	08/05/22 10:50	08/06/22 10:56	1

Client Sample ID: Lab Control Sample

Lab Sample ID: LCS 880-31570/2-A **Matrix: Solid** 

Analysis Batch: 31633

Prep Type: Total/NA Prep Batch: 31570

LCS LCS Spike Analyte Added Result Qualifier Unit %Rec Limits Gasoline Range Organics 1000 1077 108 70 - 130 mg/Kg (GRO)-C6-C10 1000 1004 Diesel Range Organics (Over mg/Kg 100 70 - 130

C10-C28)

LCS LCS

Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane	135	S1+	70 - 130
o-Terphenyl	133	S1+	70 - 130

Client Sample ID: Lab Control Sample Dup

**Matrix: Solid** 

Analysis Batch: 31633

Lab Sample ID: LCSD 880-31570/3-A

Prep Type: Total/NA Prep Batch: 31570

	Spike	LCSD	LCSD				%Rec		RPD
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Gasoline Range Organics	1000	860.0	*1	mg/Kg		86	70 - 130	22	20
(GRO)-C6-C10									
Diesel Range Organics (Over	1000	967.6		mg/Kg		97	70 - 130	4	20
040,000)									

C10-C28)

LCSD LCSD Surrogate %Recovery Qualifier Limits 1-Chlorooctane 111 70 - 130 o-Terphenyl 130 70 - 130

Lab Sample ID: 890-2712-A-1-C MS Client Sample ID: Matrix Spike

**Matrix: Solid** 

Analysis Batch: 31633

Prep Type: Total/NA Prep Batch: 31570

MS MS Sample Sample Spike %Rec Result Qualifier Added Result Qualifier Unit %Rec Limits Analyte 994.7 <49.9 U \*1 999 70 - 130 Gasoline Range Organics 100 mg/Kg (GRO)-C6-C10 999 709.9 Diesel Range Organics (Over <49.9 U mg/Kg 71 70 - 130

C10-C28)

	IVIS	IVIS	
Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane	77		70 - 130
o-Terphenyl	85		70 - 130

Client: Ensolum Job ID: 890-2721-1 Project/Site: Mis Amigos CTB SDG: 03E1558092

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

Lab Sample ID: 890-2712-A-1-D MSD Client Sample ID: Matrix Spike Duplicate

**Matrix: Solid** 

Prep Type: Total/NA Analysis Batch: 31633 Prep Batch: 31570

	Sample	Sample	Spike	MSD	MSD				%Rec		RPD
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Gasoline Range Organics	<49.9	U *1	999	840.2		mg/Kg		84	70 - 130	17	20
(GRO)-C6-C10											
Diesel Range Organics (Over	<49.9	U	999	843.5		mg/Kg		84	70 - 130	17	20
C10-C28)											

MSD MSD Surrogate %Recovery Qualifier Limits 1-Chlorooctane 70 - 130 92 o-Terphenyl 101 70 - 130

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-31649/1-A Client Sample ID: Method Blank **Prep Type: Soluble** 

**Matrix: Solid** 

**Analysis Batch: 31933** 

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Result Qualifier Unit Analyte RL Prepared Analyzed Dil Fac Chloride <5.00 5.00 mg/Kg 08/12/22 19:54

Lab Sample ID: LCS 880-31649/2-A **Client Sample ID: Lab Control Sample Prep Type: Soluble** 

**Matrix: Solid** 

**Analysis Batch: 31933** 

	Spike	LCS	LCS				%Rec	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Chloride	 250	255.8	-	mg/Kg		102	90 - 110	 

Lab Sample ID: LCSD 880-31649/3-A Client Sample ID: Lab Control Sample Dup

**Matrix: Solid** 

**Analysis Batch: 31933** 

	Spike	LCSD	LCSD				%Rec		RPD	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit	
Chloride	250	263.3		ma/Ka		105	90 - 110	3	20	

Lab Sample ID: 880-17792-A-11-C MS Client Sample ID: Matrix Spike **Prep Type: Soluble** 

**Matrix: Solid** 

**Analysis Batch: 31933** 

	Sample	Sample	Spike	MS	MS				%Rec	
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Chloride	129	F1	253	427.2	F1	ma/Ka		118	90 _ 110	

Lab Sample ID: 880-17792-A-11-D MSD

**Matrix: Solid** 

**Analysis Batch: 31933** 

	Sample	Sample	Spike	MSD	MSD				%Rec		RPD
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Chloride	129	F1	253	405.9		mg/Kg		110	90 - 110	5	20

**Eurofins Carlsbad** 

**Prep Type: Soluble** 

Client Sample ID: Matrix Spike Duplicate

**Prep Type: Soluble** 

## **QC Association Summary**

Client: Ensolum

Project/Site: Mis Amigos CTB

Job ID: 890-2721-1 SDG: 03E1558092

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#### **GC VOA**

Prep Batch: 31680	)
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Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 880-31680/5-A	Method Blank	Total/NA	Solid	5035	

## Analysis Batch: 31685

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2721-1	SS03	Total/NA	Solid	8021B	31801
MB 880-31680/5-A	Method Blank	Total/NA	Solid	8021B	31680
MB 880-31801/5-A	Method Blank	Total/NA	Solid	8021B	31801
LCS 880-31801/1-A	Lab Control Sample	Total/NA	Solid	8021B	31801
LCSD 880-31801/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	31801
880-17833-A-1-A MS	Matrix Spike	Total/NA	Solid	8021B	31801
880-17833-A-1-B MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	31801

#### Prep Batch: 31801

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2721-1	SS03	Total/NA	Solid	5035	
MB 880-31801/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-31801/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-31801/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
880-17833-A-1-A MS	Matrix Spike	Total/NA	Solid	5035	
880-17833-A-1-B MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	

#### Analysis Batch: 31843

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2721-1	SS03	Total/NA	Solid	Total BTEX	

#### **GC Semi VOA**

#### Prep Batch: 31570

<b>Lab Sample ID</b> 890-2721-1	Client Sample ID SS03	Prep Type Total/NA	Matrix Solid	Method 8015NM Prep	Prep Batch
MB 880-31570/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-31570/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-31570/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
890-2712-A-1-C MS	Matrix Spike	Total/NA	Solid	8015NM Prep	
890-2712-A-1-D MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	

#### Analysis Batch: 31633

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2721-1	SS03	Total/NA	Solid	8015B NM	31570
MB 880-31570/1-A	Method Blank	Total/NA	Solid	8015B NM	31570
LCS 880-31570/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	31570
LCSD 880-31570/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	31570
890-2712-A-1-C MS	Matrix Spike	Total/NA	Solid	8015B NM	31570
890-2712-A-1-D MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	31570

#### Analysis Batch: 31747

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2721-1	SS03	Total/NA	Solid	8015 NM	

## **QC Association Summary**

Client: Ensolum Job ID: 890-2721-1 Project/Site: Mis Amigos CTB SDG: 03E1558092

HPLC/IC

Leach Batch: 31649

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2721-1	SS03	Soluble	Solid	DI Leach	
MB 880-31649/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-31649/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-31649/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
880-17792-A-11-C MS	Matrix Spike	Soluble	Solid	DI Leach	
880-17792-A-11-D MSD	Matrix Spike Duplicate	Soluble	Solid	DI Leach	

Analysis Batch: 31933

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2721-1	SS03	Soluble	Solid	300.0	31649
MB 880-31649/1-A	Method Blank	Soluble	Solid	300.0	31649
LCS 880-31649/2-A	Lab Control Sample	Soluble	Solid	300.0	31649
LCSD 880-31649/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	31649
880-17792-A-11-C MS	Matrix Spike	Soluble	Solid	300.0	31649
880-17792-A-11-D MSD	Matrix Spike Duplicate	Soluble	Solid	300.0	31649

## **Lab Chronicle**

Client: Ensolum Job ID: 890-2721-1
Project/Site: Mis Amigos CTB SDG: 03E1558092

Client Sample ID: SS03 Lab Sample ID: 890-2721-1

Date Collected: 08/03/22 13:10 Matrix: Solid

Date Received: 08/04/22 07:52

	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	31801	08/08/22 15:42	MR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	31685	08/09/22 04:27	MR	EET MID
Total/NA	Analysis	Total BTEX		1			31843	08/09/22 10:34	SM	EET MID
Total/NA	Analysis	8015 NM		1			31747	08/08/22 11:44	SM	EET MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	31570	08/05/22 10:50	DM	EET MID
Total/NA	Analysis	8015B NM		1			31633	08/06/22 14:31	SM	EET MID
Soluble	Leach	DI Leach			5.05 g	50 mL	31649	08/06/22 16:57	CH	EET MID
Soluble	Analysis	300.0		1			31933	08/13/22 00:20	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
Project/Site: Mis Amigos CTB
Job ID: 890-2721-1
SDG: 03E1558092

## **Laboratory: Eurofins Midland**

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

Authority	Pr	ogram	Identification Number	<b>Expiration Date</b>
Texas	NI	ELAP	T104704400-22-24	06-30-23
The fellowing analytes			and the contract of the contra	
the agency does not of		at the laboratory is not certific	ed by the governing authority. This list ma	ay include analytes for
0 ,		Matrix	ed by the governing authority. This list ma	ay include analytes for
the agency does not of	fer certification.	•	, , ,	ay include analytes for

Released to Imaging: 9/26/2022 2:13:05 PM

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## **Method Summary**

Client: Ensolum

Project/Site: Mis Amigos CTB

Job ID: 890-2721-1

SDG: 03E1558092

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: Mis Amigos CTB

Job ID: 890-2721-1 SDG: 03E1558092

 Lab Sample ID
 Client Sample ID
 Matrix
 Collected
 Received
 Depth

 890-2721-1
 SS03
 Solid
 08/03/22 13:10
 08/04/22 07:52
 0.5'

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Work Order No:

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

**Environment Testing** Xenco

💸 eurofins

Chain of Custody

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

Revised Date: 08/25/2020 Rev. 2020.2

8-3-33 1656

Received by: (Signature)

Relinquished by: (Signature

Problem Name   Taleana Mark State   Problem   Taleana Mark State   Talean
Hobbs, NM (575):  Company Name:  Turn Around  Fres.  Tar starts the day received by 4:30pm  Wet Ice:  Wet Ice:  Wet Ice:  Time Sampled  Comp  Cont Sampled  Cont Sa
Purki B822 8822 827 7 827 7 827 7 827 7 827 827

8/15/2022

## **Login Sample Receipt Checklist**

Client: Ensolum Job Number: 890-2721-1 SDG Number: 03E1558092

Login Number: 2721 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: 890-2721-1

SDG Number: 03E1558092

List Source: Eurofins Midland List Creation: 08/05/22 10:35 AM

Creator: Rodriguez, Leticia

Login Number: 2721

List Number: 2

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

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<6mm (1/4").

# **Environment Testing America**

## **ANALYTICAL REPORT**

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

Laboratory Job ID: 890-2720-1

Laboratory Sample Delivery Group: 03E1558092

Client Project/Site: Mis Amigos CTB

For:

Ensolum 705 W. Wadley Suite 210 Midland, Texas 79701

Attn: Tacoma Morrissey

JURAMER

Authorized for release by: 8/16/2022 8:56:03 AM

Jessica Kramer, Project Manager (432)704-5440

Jessica.Kramer@et.eurofinsus.com

8/16/2022 8:56:03 essica Kramer P

Review your project results through EO L.

Have a Question?

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The

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

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Client: Ensolum
Project/Site: Mis Amigos CTB
Laboratory Job ID: 890-2720-1
SDG: 03E1558092

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## **Definitions/Glossary**

Client: Ensolum Job ID: 890-2720-1 Project/Site: Mis Amigos CTB

SDG: 03E1558092

#### **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** 

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

## **Glossary**

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

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

**CFL** Contains Free Liquid **CFU** Colony Forming Unit **CNF** Contains No Free Liquid

**DER** Duplicate Error Ratio (normalized absolute difference)

Dil Fac **Dilution Factor** 

DL Detection Limit (DoD/DOE)

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

DLC Decision Level Concentration (Radiochemistry)

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

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

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

NC Not Calculated

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

NEG Negative / Absent POS Positive / Present

**Practical Quantitation Limit** PQL

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

**RER** Relative Error Ratio (Radiochemistry)

RL Reporting Limit or Requested Limit (Radiochemistry)

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

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

**TNTC** Too Numerous To Count

#### Case Narrative

Client: Ensolum

Project/Site: Mis Amigos CTB

Job ID: 890-2720-1

SDG: 03E1558092

Job ID: 890-2720-1

**Laboratory: Eurofins Carlsbad** 

**Narrative** 

Job Narrative 890-2720-1

#### Receipt

The sample was received on 8/4/2022 7:48 AM. Unless otherwise noted below, the sample arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 5.6°C

#### **GC VOA**

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

#### GC Semi VOA

Method 8015MOD NM: Surrogate recovery for the following sample was outside control limits: (LCS 880-31570/2-A). Evidence of matrix interferences is not obvious.

Method 8015MOD\_NM: The RPD of the laboratory control sample (LCS) and laboratory control sample duplicate (LCSD) for preparation batch 880-31570 and analytical batch 880-31633 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

Method 300\_ORGFM\_28D: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 880-31559 and analytical batch 880-31937 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.

**Matrix: Solid** 

Lab Sample ID: 890-2720-1

## **Client Sample Results**

Client: Ensolum Job ID: 890-2720-1 Project/Site: Mis Amigos CTB SDG: 03E1558092

Client Sample ID: SS04

Date Collected: 08/03/22 13:15 Date Received: 08/04/22 07:48

Sample Depth: 0.5'

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00201	U	0.00201	mg/Kg		08/08/22 13:23	08/10/22 23:29	
Toluene	< 0.00201	U	0.00201	mg/Kg		08/08/22 13:23	08/10/22 23:29	•
Ethylbenzene	< 0.00201	U	0.00201	mg/Kg		08/08/22 13:23	08/10/22 23:29	
m-Xylene & p-Xylene	<0.00402	U	0.00402	mg/Kg		08/08/22 13:23	08/10/22 23:29	
o-Xylene	< 0.00201	U	0.00201	mg/Kg		08/08/22 13:23	08/10/22 23:29	
Xylenes, Total	<0.00402	U	0.00402	mg/Kg		08/08/22 13:23	08/10/22 23:29	
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fa
4-Bromofluorobenzene (Surr)	105		70 - 130			08/08/22 13:23	08/10/22 23:29	
1,4-Difluorobenzene (Surr)	100		70 - 130			08/08/22 13:23	08/10/22 23:29	
Method: Total BTEX - Total B	ΓEX Calcula	tion						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fa
Total BTEX	<0.00402	U	0.00402	mg/Kg			08/11/22 10:28	
	nge Organic	s (DRO) (G	SC)			_		
	nge Organic			Unit	D	Prepared	Analyzed	Dil Fa
Method: 8015 NM - Diesel Rai Analyte Total TPH	nge Organic	s (DRO) (G Qualifier	SC)		<u>D</u>	Prepared		Dil Fa
Analyte Total TPH	nge Organic Result <50.0	s (DRO) (G Qualifier U	RL 50.0	Unit	<u>D</u>	Prepared	Analyzed	Dil Fa
Analyte Total TPH Method: 8015B NM - Diesel R	nge Organic Result <50.0	s (DRO) (G Qualifier U	RL 50.0	Unit	<u>D</u>	Prepared Prepared	Analyzed	
Analyte Total TPH  Method: 8015B NM - Diesel Ranalyte Gasoline Range Organics	nge Organic Result <50.0	S (DRO) (G Qualifier U	RL 50.0	<b>Unit</b> mg/Kg		<u> </u>	Analyzed 08/08/22 11:44	
Analyte Total TPH  Method: 8015B NM - Diesel Re Analyte  Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over	nge Organic Result <50.0 ange Organ Result	S (DRO) (O Qualifier U ics (DRO) Qualifier U *1	RL 50.0 (GC)	Unit mg/Kg		Prepared 08/05/22 10:50	Analyzed 08/08/22 11:44  Analyzed	Dil Fa
Analyte Total TPH  Method: 8015B NM - Diesel Re Analyte  Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28)	rige Organic Result <50.0 ange Organ Result <50.0	S (DRO) (G Qualifier U ics (DRO) Qualifier U*1	(GC)  RL  50.0  RL  50.0	Unit mg/Kg  Unit mg/Kg		Prepared 08/05/22 10:50 08/05/22 10:50	Analyzed 08/08/22 11:44  Analyzed 08/06/22 14:09	Dil Fa
Analyte Total TPH  Method: 8015B NM - Diesel Ranalyte  Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) Oll Range Organics (Over C28-C36)	nge Organic Result <50.0 ange Organ Result <50.0 <50.0	s (DRO) (G Qualifier U ics (DRO) Qualifier U*1	(GC) RL 50.0  RL 50.0  50.0	Unit mg/Kg  Unit mg/Kg mg/Kg		Prepared 08/05/22 10:50 08/05/22 10:50	Analyzed 08/08/22 11:44  Analyzed 08/06/22 14:09 08/06/22 14:09	Dil Fa
Analyte Total TPH  Method: 8015B NM - Diesel Ranalyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) Oll Range Organics (Over C28-C36)  Surrogate	rige Organic Result <50.0  ange Organ Result <50.0 <50.0 <50.0	s (DRO) (G Qualifier U ics (DRO) Qualifier U*1	GC) RL 50.0  (GC) RL 50.0  50.0  50.0	Unit mg/Kg  Unit mg/Kg mg/Kg		Prepared 08/05/22 10:50 08/05/22 10:50 08/05/22 10:50	Analyzed 08/08/22 11:44  Analyzed 08/06/22 14:09 08/06/22 14:09 08/06/22 14:09 Analyzed	Dil Fa
Analyte Total TPH  Method: 8015B NM - Diesel Ranalyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) OII Range Organics (Over C28-C36)  Surrogate 1-Chlorooctane	nge Organic Result <50.0 ange Organ Result <50.0 <50.0 <50.0	s (DRO) (G Qualifier U ics (DRO) Qualifier U*1	RL 50.0  (GC)  RL 50.0  50.0  50.0  Limits	Unit mg/Kg  Unit mg/Kg mg/Kg		Prepared 08/05/22 10:50 08/05/22 10:50 08/05/22 10:50 Prepared	Analyzed 08/08/22 11:44  Analyzed 08/06/22 14:09 08/06/22 14:09  Analyzed 08/06/22 14:09	Dil Fa
Analyte	nge Organic	s (DRO) (G Qualifier U ics (DRO) Qualifier U*1 U	GC) RL 50.0  (GC) RL 50.0  50.0  50.0  Limits 70 - 130 70 - 130	Unit mg/Kg  Unit mg/Kg mg/Kg		Prepared 08/05/22 10:50 08/05/22 10:50 08/05/22 10:50  Prepared 08/05/22 10:50	Analyzed 08/08/22 11:44  Analyzed 08/06/22 14:09 08/06/22 14:09  Analyzed 08/06/22 14:09	Dil Fa
Analyte Total TPH  Method: 8015B NM - Diesel Ranalyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) OII Range Organics (Over C28-C36)  Surrogate 1-Chlorooctane o-Terphenyl	result <pre></pre>	s (DRO) (G Qualifier U ics (DRO) Qualifier U*1 U	GC) RL 50.0  (GC) RL 50.0  50.0  50.0  Limits 70 - 130 70 - 130	Unit mg/Kg  Unit mg/Kg mg/Kg		Prepared 08/05/22 10:50 08/05/22 10:50 08/05/22 10:50  Prepared 08/05/22 10:50	Analyzed 08/08/22 11:44  Analyzed 08/06/22 14:09 08/06/22 14:09  Analyzed 08/06/22 14:09	Dil Fa

## **Surrogate Summary**

Client: Ensolum Job ID: 890-2720-1 Project/Site: Mis Amigos CTB SDG: 03E1558092

Method: 8021B - Volatile Organic Compounds (GC)

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

_			Pe
		BFB1	DFBZ1
Lab Sample ID	Client Sample ID	(70-130)	(70-130)
880-17690-A-6-C MS	Matrix Spike	104	95
880-17690-A-6-D MSD	Matrix Spike Duplicate	105	98
890-2704-A-9-D MS	Matrix Spike	106	93
890-2704-A-9-E MSD	Matrix Spike Duplicate	102	103
890-2720-1	SS04	105	100
LCS 880-31768/1-A	Lab Control Sample	111	92
LCS 880-31769/1-A	Lab Control Sample	107	100
LCSD 880-31768/2-A	Lab Control Sample Dup	104	92
MB 880-31768/5-A	Method Blank	94	97
MB 880-31769/5-A	Method Blank	94	102
MB 880-31769/5-A Surrogate Legend	Method Blank	94	102

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

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

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

			Percent	Surrogate Recovery (Acceptance Limits)
		1CO1	OTPH1	
Lab Sample ID	Client Sample ID	(70-130)	(70-130)	
890-2712-A-1-C MS	Matrix Spike	77	85	
890-2712-A-1-D MSD	Matrix Spike Duplicate	92	101	
890-2720-1	SS04	100	111	
LCS 880-31570/2-A	Lab Control Sample	135 S1+	133 S1+	
LCSD 880-31570/3-A	Lab Control Sample Dup	111	130	
MB 880-31570/1-A	Method Blank	91	105	

1CO = 1-Chlorooctane OTPH = o-Terphenyl

Client: Ensolum

Job ID: 890-2720-1

SDG: 03E1558092

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

Lab Sample ID: MB 880-31768/5-A

Lab Sample ID: LCS 880-31768/1-A

**Matrix: Solid** 

**Matrix: Solid** 

**Analysis Batch: 31904** 

**Analysis Batch: 31904** 

Project/Site: Mis Amigos CTB

**Client Sample ID: Method Blank** 

Prep Type: Total/NA

Prep Batch: 31768

	MB	MB						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		08/08/22 13:11	08/11/22 02:38	1
Toluene	<0.00200	U	0.00200	mg/Kg		08/08/22 13:11	08/11/22 02:38	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		08/08/22 13:11	08/11/22 02:38	1
m-Xylene & p-Xylene	<0.00400	U	0.00400	mg/Kg		08/08/22 13:11	08/11/22 02:38	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		08/08/22 13:11	08/11/22 02:38	1
Xylenes, Total	<0.00400	U	0.00400	mg/Kg		08/08/22 13:11	08/11/22 02:38	1
	MR	MR						

мв мв

Surrogate	%Recovery Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	94	70 - 130	08/08/22 13:11	08/11/22 02:38	1
1,4-Difluorobenzene (Surr)	97	70 - 130	08/08/22 13:11	08/11/22 02:38	1

**Client Sample ID: Lab Control Sample** 

**Prep Type: Total/NA** 

Prep Batch: 31768

**Prep Type: Total/NA** 

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Spike LCS LCS %Rec Analyte Added Result Qualifier Unit %Rec Limits Benzene 70 - 130 0.100 0.07179 mg/Kg 72 Toluene 0.100 mg/Kg 70 - 130 0.08341 83 Ethylbenzene 0.100 0.08799 mg/Kg 88 70 - 130 0.200 92 m-Xylene & p-Xylene 0.1838 mg/Kg 70 - 130 o-Xylene 0.100 0.09228 92 70 - 130 mg/Kg

LCS LCS

Surrogate	%Recovery Qualifier	Limits
4-Bromofluorobenzene (Surr)	111	70 - 130
1,4-Difluorobenzene (Surr)	92	70 - 130

**Client Sample ID: Lab Control Sample Dup** 

90

70 - 130

70 - 130

**Client Sample ID: Matrix Spike** 

**Matrix: Solid** 

m-Xylene & p-Xylene

o-Xylene

**Analysis Batch: 31904** 

Lab Sample ID: LCSD 880-31768/2-A

Prep Batch: 31768 Spike LCSD LCSD %Rec **RPD** Analyte Added Result Qualifier Unit %Rec Limits **RPD** Limit Benzene 0.100 0.07256 mg/Kg 73 70 - 130 35 Toluene 0.100 0.08266 mg/Kg 83 70 - 130 35 Ethylbenzene 0.100 0.08687 mg/Kg 87 70 - 130 35

0.1804

0.09054

mg/Kg

mg/Kg

0.200

0.100

LCSD LCSD

Surrogate	%Recovery	Qualifier	Limits
4-Bromofluorobenzene (Surr)	104		70 - 130
1,4-Difluorobenzene (Surr)	92		70 - 130

Lab Sample ID: 890-2704-A-9-D MS

Matrix: Solid Analysis Batch: 31904										e: Total/NA atch: 31768
	Sample	Sample	Spike	MS	MS				%Rec	
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Benzene	<0.00199	U	0.0998	0.08508		mg/Kg		85	70 - 130	
Toluene	<0.00199	U	0.0998	0.09438		mg/Kg		95	70 - 130	

**Eurofins Carlsbad** 

Released to Imaging: 9/26/2022 2:13:05 PM

Client: Ensolum

Project/Site: Mis Amigos CTB

Job ID: 890-2720-1

SDG: 03E1558092

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

Lab Sample ID: 890-2704-A-9-D MS

Lab Sample ID: 890-2704-A-9-E MSD

**Matrix: Solid** 

**Analysis Batch: 31904** 

Client Sample ID: Matrix Spike

**Prep Type: Total/NA** 

Prep Batch: 31768

		Sample	Sample	Spike	MS	MS				%Rec	
A	Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Ē	Ethylbenzene	<0.00199	U	0.0998	0.09810		mg/Kg		98	70 - 130	
n	n-Xylene & p-Xylene	<0.00398	U	0.200	0.2010		mg/Kg		101	70 - 130	
o	o-Xylene	<0.00199	U	0.0998	0.09903		mg/Kg		99	70 - 130	

MS MS

Surrogate	%Recovery	Qualifier	Limits
4-Bromofluorobenzene (Surr)	106		70 - 130
1,4-Difluorobenzene (Surr)	93		70 - 130

Client Sample ID: Matrix Spike Duplicate

**Matrix: Solid** 

**Analysis Batch: 31904** 

**Prep Type: Total/NA** 

Prep Batch: 31768

	Sample	Sample	Spike	MSD	MSD				%Rec		RPD
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Benzene	<0.00199	U	0.100	0.1022		mg/Kg		102	70 - 130	18	35
Toluene	< 0.00199	U	0.100	0.09599		mg/Kg		96	70 - 130	2	35
Ethylbenzene	< 0.00199	U	0.100	0.09685		mg/Kg		96	70 - 130	1	35
m-Xylene & p-Xylene	<0.00398	U	0.201	0.1954		mg/Kg		97	70 - 130	3	35
o-Xylene	< 0.00199	U	0.100	0.09572		mg/Kg		95	70 - 130	3	35

MSD MSD

Surrogate	%Recovery Qualifie	r Limits
4-Bromofluorobenzene (Surr)	102	70 - 130
1,4-Difluorobenzene (Surr)	103	70 - 130

Lab Sample ID: MB 880-31769/5-A

**Matrix: Solid** 

**Analysis Batch: 31904** 

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

Prep Batch: 31769

	IVID	IVID						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		08/08/22 13:23	08/10/22 14:40	1
Toluene	<0.00200	U	0.00200	mg/Kg		08/08/22 13:23	08/10/22 14:40	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		08/08/22 13:23	08/10/22 14:40	1
m-Xylene & p-Xylene	<0.00400	U	0.00400	mg/Kg		08/08/22 13:23	08/10/22 14:40	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		08/08/22 13:23	08/10/22 14:40	1
Xylenes, Total	< 0.00400	U	0.00400	mg/Kg		08/08/22 13:23	08/10/22 14:40	1

MB MB

MR MR

Surrogate	%Recovery	Qualifier	Limits	Prepared A	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	94		70 - 130	08/08/22 13:23 08/	10/22 14:40	1
1,4-Difluorobenzene (Surr)	102		70 - 130	08/08/22 13:23 08/	10/22 14:40	1

Lab Sample ID: LCS 880-31769/1-A

**Matrix: Solid** 

**Analysis Batch: 31904** 

**Client Sample ID: Lab Control Sample** 

Prep Type: Total/NA

Prep Batch: 31769

	Spike	LCS	LCS				%Rec	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Benzene	0.100	0.09980		mg/Kg		100	70 - 130	
Toluene	0.100	0.09571		mg/Kg		96	70 - 130	
Ethylbenzene	0.100	0.09946		mg/Kg		99	70 - 130	
m-Xylene & p-Xylene	0.200	0.2046		mg/Kg		102	70 - 130	

## QC Sample Results

Client: Ensolum Job ID: 890-2720-1 SDG: 03E1558092 Project/Site: Mis Amigos CTB

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

Lab Sample ID: LCS 880-31769/1-A **Client Sample ID: Lab Control Sample** 

**Matrix: Solid** 

Prep Type: Total/NA **Analysis Batch: 31904** Prep Batch: 31769

LCS LCS %Rec Spike Analyte Added Result Qualifier Unit %Rec Limits o-Xylene 0 100 0.09984 mg/Kg 100 70 - 130

LCS LCS Surrogate %Recovery Qualifier Limits 4-Bromofluorobenzene (Surr) 107 70 - 130 1,4-Difluorobenzene (Surr) 100 70 - 130

Lab Sample ID: 880-17690-A-6-C MS **Client Sample ID: Matrix Spike** Prep Type: Total/NA

**Matrix: Solid** 

**Analysis Batch: 31904** Prep Batch: 31769

Sample Sample Spike MS MS %Rec Result Qualifier Added Result Qualifier Limits **Analyte** Unit D %Rec <0.00201 U Benzene 0.100 0.09015 mg/Kg 90 70 - 130 Toluene <0.00201 U 0.100 0.09789 mg/Kg 97 70 - 130 Ethylbenzene 0.100 0.09981 mg/Kg 99 70 - 130 <0.00201 U m-Xylene & p-Xylene <0.00402 U 0.201 0.2056 102 70 - 130 mg/Kg o-Xylene <0.00201 U 0.100 0.1003 mg/Kg 100 70 - 130

MS MS Surrogate %Recovery Qualifier Limits 4-Bromofluorobenzene (Surr) 104 70 - 130 1,4-Difluorobenzene (Surr) 95 70 - 130

Lab Sample ID: 880-17690-A-6-D MSD

**Matrix: Solid** 

**Analysis Batch: 31904** 

Prep Batch: 31769 Sample Sample Spike MSD MSD %Rec **RPD** Result Qualifier Added Result Qualifier %Rec Limits RPD Limit Analyte Unit D <0.00201 U Benzene 0.0998 0.08375 mg/Kg 84 70 - 130 7 35 Toluene <0.00201 U 0.0998 0.08778 mg/Kg 88 70 - 130 11 35 Ethylbenzene <0.00201 U 0.0998 0.08858 mg/Kg 89 70 - 130 12 35 m-Xylene & p-Xylene <0.00402 U 0.200 0.1816 mg/Kg 91 70 - 130 12 35 o-Xylene <0.00201 U 0.0998 0.08941 mg/Kg 90 70 - 130 11 35

MSD MSD Surrogate %Recovery Qualifier Limits 70 - 130 4-Bromofluorobenzene (Surr) 105 1,4-Difluorobenzene (Surr) 98 70 - 130

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

Lab Sample ID: MB 880-31570/1-A

**Matrix: Solid** 

Analysis Batch: 31633						Prep Batch	: 31570
-	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	08/05/22 10:50	08/06/22 10:56	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg	08/05/22 10:50	08/06/22 10:56	1
Oll Range Organics (Over C28-C36)	<50.0	U	50.0	ma/Ka	08/05/22 10:50	08/06/22 10:56	1

**Eurofins Carlsbad** 

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

Prep Type: Total/NA

Client Sample ID: Matrix Spike Duplicate

Client: Ensolum

Job ID: 890-2720-1

SDG: 03E1558092

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

Lab Sample ID: MB 880-31570/1-A

Lab Sample ID: LCS 880-31570/2-A

Lab Sample ID: LCSD 880-31570/3-A

**Matrix: Solid** 

**Analysis Batch: 31633** 

Project/Site: Mis Amigos CTB

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 31570

MB MB

Surrogate	%Recovery	Qualifier	Limits	Prepared Analyzed	Dil Fac
1-Chlorooctane	91		70 - 130	08/05/22 10:50 08/06/22 10:56	1
o-Terphenyl	105		70 - 130	08/05/22 10:50 08/06/22 10:56	1

**Client Sample ID: Lab Control Sample** 

**Prep Type: Total/NA** 

Prep Batch: 31570

**Matrix: Solid Analysis Batch: 31633** 

%Rec Spike LCS LCS Analyte Added Result Qualifier Unit %Rec Limits Gasoline Range Organics 1000 1077 mg/Kg 108 70 - 130 (GRO)-C6-C10 1000 Diesel Range Organics (Over 1004 mg/Kg 100 70 - 130 C10-C28)

LCS LCS

Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane	135	S1+	70 - 130
o-Terphenyl	133	S1+	70 - 130

**Client Sample ID: Lab Control Sample Dup** 

Prep Type: Total/NA

**Matrix: Solid Analysis Batch: 31633** Prep Batch: 31570 Spike LCSD LCSD %Rec **RPD** 

Added Result Qualifier Unit Limits RPD Limit Analyte D %Rec 860.0 \*1 Gasoline Range Organics 1000 mg/Kg 86 70 - 130 22 20 (GRO)-C6-C10 Diesel Range Organics (Over 1000 967.6 mg/Kg 97 70 - 130 20

C10-C28)

LCSD LCSD Surrogate %Recovery Qualifier Limits 1-Chlorooctane 70 - 130 111 o-Terphenyl 130 70 - 130

Lab Sample ID: 890-2712-A-1-C MS **Client Sample ID: Matrix Spike** 

**Matrix: Solid** 

Prep Type: Total/NA **Analysis Batch: 31633** Prep Batch: 31570 Sample Sample Spike MS MS %Rec

Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Gasoline Range Organics (GRO)-C6-C10	<49.9	U *1	999	994.7		mg/Kg		100	70 - 130	
Diesel Range Organics (Over	<49.9	U	999	709.9		mg/Kg		71	70 - 130	

C10-C28)

MS MS

Surrogate	%Recovery Qualifier	Limits
1-Chlorooctane	77	70 - 130
o-Terphenyl	85	70 - 130

Client: Ensolum Job ID: 890-2720-1 SDG: 03E1558092 Project/Site: Mis Amigos CTB

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

Lab Sample ID: 890-2712-A-1-D MSD **Client Sample ID: Matrix Spike Duplicate** Prep Type: Total/NA

**Matrix: Solid** 

**Analysis Batch: 31633** Prep Batch: 31570 Sample Sample Spike MSD MSD %Rec **RPD** Result Qualifier Result Qualifier Added %Rec Limits RPD Limit Analyte Unit <49.9 U \*1 Gasoline Range Organics 999 840.2 mg/Kg 84 70 - 130 17 20 (GRO)-C6-C10 Diesel Range Organics (Over 999 843.5 84 <49.9 U mg/Kg 70 - 13017 20

C10-C28)

MSD MSD Surrogate %Recovery Qualifier Limits 1-Chlorooctane 70 - 130 92 101 70 - 130 o-Terphenyl

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-31559/1-A Client Sample ID: Method Blank **Prep Type: Soluble** 

**Matrix: Solid** 

**Analysis Batch: 31937** 

MB MB Result Qualifier RL Unit Analyte Prepared Analyzed Dil Fac 5.00 Chloride <5.00 U mg/Kg 08/12/22 03:46

Lab Sample ID: LCS 880-31559/2-A **Client Sample ID: Lab Control Sample Prep Type: Soluble** 

**Matrix: Solid** 

**Analysis Batch: 31937** 

Spike LCS LCS %Rec Analyte Added Result Qualifier Limits Unit D %Rec Chloride 250 245.2 98 90 - 110 mg/Kg

Lab Sample ID: LCSD 880-31559/3-A Client Sample ID: Lab Control Sample Dup **Prep Type: Soluble** 

**Matrix: Solid** 

**Analysis Batch: 31937** 

LCSD LCSD RPD Spike %Rec **Analyte** Added Result Qualifier Unit D %Rec Limits RPD Limit Chloride 250 247.1 90 - 110 mg/Kg

Lab Sample ID: 890-2706-A-3-C MS Client Sample ID: Matrix Spike

**Matrix: Solid** 

**Analysis Batch: 31937** 

MS MS Sample Sample Spike %Rec Analyte Result Qualifier Added Result Qualifier Unit %Rec Limits mg/Kg Chloride 198 F1 250 448.2 100 90 - 110

Lab Sample ID: 890-2706-A-3-D MSD **Client Sample ID: Matrix Spike Duplicate Prep Type: Soluble** 

**Matrix: Solid** 

**Analysis Batch: 31937** 

MSD MSD %Rec **RPD** Sample Sample Spike Analyte Result Qualifier Added Result Qualifier Unit D %Rec Limits RPD Limit Chloride 198 F1 250 480.5 F1 113 90 - 110 mg/Kg

**Eurofins Carlsbad** 

**Prep Type: Soluble** 

## **QC Association Summary**

Client: Ensolum

Project/Site: Mis Amigos CTB

Job ID: 890-2720-1 SDG: 03E1558092

## **GC VOA**

## Prep Batch: 31768

Lab Sample ID MB 880-31768/5-A	Client Sample ID  Method Blank	Prep Type Total/NA	Matrix Solid	Method 5035	Prep Batch
LCS 880-31768/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-31768/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
890-2704-A-9-D MS	Matrix Spike	Total/NA	Solid	5035	
890-2704-A-9-E MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	

#### Prep Batch: 31769

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2720-1	SS04	Total/NA	Solid	5035	
MB 880-31769/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-31769/1-A	Lab Control Sample	Total/NA	Solid	5035	
880-17690-A-6-C MS	Matrix Spike	Total/NA	Solid	5035	
880-17690-A-6-D MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	

#### **Analysis Batch: 31904**

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2720-1	SS04	Total/NA	Solid	8021B	31769
MB 880-31768/5-A	Method Blank	Total/NA	Solid	8021B	31768
MB 880-31769/5-A	Method Blank	Total/NA	Solid	8021B	31769
LCS 880-31768/1-A	Lab Control Sample	Total/NA	Solid	8021B	31768
LCS 880-31769/1-A	Lab Control Sample	Total/NA	Solid	8021B	31769
LCSD 880-31768/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	31768
880-17690-A-6-C MS	Matrix Spike	Total/NA	Solid	8021B	31769
880-17690-A-6-D MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	31769
890-2704-A-9-D MS	Matrix Spike	Total/NA	Solid	8021B	31768
890-2704-A-9-E MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	31768

## **Analysis Batch: 31985**

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2720-1	SS04	Total/NA	Solid	Total BTEX	

## **GC Semi VOA**

## Prep Batch: 31570

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2720-1	SS04	Total/NA	Solid	8015NM Prep	
MB 880-31570/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-31570/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-31570/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
890-2712-A-1-C MS	Matrix Spike	Total/NA	Solid	8015NM Prep	
890-2712-A-1-D MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	

#### **Analysis Batch: 31633**

<b>Lab Sample ID</b> 890-2720-1	Client Sample ID SS04	Prep Type Total/NA	Matrix Solid	Method 8015B NM	Prep Batch 31570
MB 880-31570/1-A	Method Blank	Total/NA	Solid	8015B NM	31570
LCS 880-31570/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	31570
LCSD 880-31570/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	31570
890-2712-A-1-C MS	Matrix Spike	Total/NA	Solid	8015B NM	31570
890-2712-A-1-D MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	31570

## **QC Association Summary**

Client: Ensolum

Project/Site: Mis Amigos CTB

Job ID: 890-2720-1

SDG: 03E1558092

## **GC Semi VOA**

## **Analysis Batch: 31746**

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2720-1	SS04	Total/NA	Solid	8015 NM	

## HPLC/IC

#### Leach Batch: 31559

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2720-1	SS04	Soluble	Solid	DI Leach	
MB 880-31559/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-31559/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-31559/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
890-2706-A-3-C MS	Matrix Spike	Soluble	Solid	DI Leach	
890-2706-A-3-D MSD	Matrix Spike Duplicate	Soluble	Solid	DI Leach	

#### **Analysis Batch: 31937**

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2720-1	SS04	Soluble	Solid	300.0	31559
MB 880-31559/1-A	Method Blank	Soluble	Solid	300.0	31559
LCS 880-31559/2-A	Lab Control Sample	Soluble	Solid	300.0	31559
LCSD 880-31559/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	31559
890-2706-A-3-C MS	Matrix Spike	Soluble	Solid	300.0	31559
890-2706-A-3-D MSD	Matrix Spike Duplicate	Soluble	Solid	300.0	31559

## **Lab Chronicle**

Client: Ensolum Job ID: 890-2720-1 Project/Site: Mis Amigos CTB SDG: 03E1558092

Client Sample ID: SS04 Lab Sample ID: 890-2720-1 Date Collected: 08/03/22 13:15

**Matrix: Solid** 

Dute	Conceted.	00/00/22	10.10
<b>Date</b>	Received:	08/04/22	07:48

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.97 g	5 mL	31769	08/08/22 13:23	MR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	31904	08/10/22 23:29	SM	EET MID
Total/NA	Analysis	Total BTEX		1			31985	08/11/22 10:28	SM	EET MID
Total/NA	Analysis	8015 NM		1			31746	08/08/22 11:44	SM	EET MID
Total/NA	Prep	8015NM Prep			10.00 g	10 mL	31570	08/05/22 10:50	DM	EET MID
Total/NA	Analysis	8015B NM		1			31633	08/06/22 14:09	SM	EET MID
Soluble	Leach	DI Leach			4.98 g	50 mL	31559	08/05/22 10:29	CH	EET MID
Soluble	Analysis	300.0		1			31937	08/12/22 08:23	AJ	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: 890-2720-1
Project/Site: Mis Amigos CTB SDG: 03E1558092

## **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	NELAP		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 o	•	ore, but the laboratory is i	lot 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 o	offer certification.	•	, , ,	This list may include analytes for v	

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## **Method Summary**

Client: Ensolum

Project/Site: Mis Amigos CTB

Job ID: 890-2720-1

SDG: 03E1558092

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: Mis Amigos CTB

Job ID: 890-2720-1 SDG: 03E1558092

SDG: 03E 1558092

 Lab Sample ID
 Client Sample ID
 Matrix
 Collected
 Received
 Depth

 890-2720-1
 SS04
 Solid
 08/03/22 13:15
 08/04/22 07:48
 0.5'

3

4

7

0

10

12

13

114

Revised Date 08/25/2020 Rev 2020 2

Date/Time

Received by: (Signature)

Relinquished by: (Signature)

8-3-22 16GE Date/Time

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

Received by: (Signature)

Relinquished by: (Signature)

Chain of Custody

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

**Environment Testing** Xenco

💸 eurofins

Work Order No:

Project Manager:	Tacoma Morrissea	rissen	Bill to: (if different)	_	Barret	Garrett Green	Work Order	Work Order Comments
Company Name:	Enselum, LLC	Ĵ	Company Name:	×	To End	may Inc	Program: UST/PST	UST/PST
Address: 3,	3:22 National Parks Highway Address:	Parks Hahw	Address:	3	O4 E G	3104 E Green Sirect	State of Project:	
City, State ZIP:	arishad NM 88220	83220	City, State ZIP:	S	rispact	Carlsbar, NM 88220	Reporting: Level      Level	Reporting: Level III   PST/UST   TRRP   Level IV
Phone: 3	337-257-8307		Email: +Throressey Censorum-com	Seyle	ensoim	m-60:m	Deliverables: EDD A	ADaPT Other:
Project Name:	Mis Amigos CTB		Turn Around			ANALYSIS REQUEST	LEST	Preservative Codes
er:	05E1558092	Routi	Rush	Pres. Code				None: NO DI Water: H <sub>2</sub> O
Project Location: 32	32.254 66, -103, 60274 Due Date:	3. vorld Due Date	e:					Cool: Cool MeOH: Me
Sampler's Name:	Mercelith Roberts		TAT starts the day received by					HCL: HC HNO 3: HN
PO #:			the lab, if received by 4:30pm					H <sub>2</sub> SO <sub>4</sub> : H <sub>2</sub> NaOH: Na
SAMPLE RECEIPT	Temp Blank:	Yes No Wet Ice:	:: (Yes) No	eters				H <sub>3</sub> PO <sub>4</sub> : HP
Samples Received Intact:	on sex	Thermometer ID:	TOW ODY	mer				NaHSO 4: NABIS
Cooler Custody Seals:	Yes No, KIA	Correction Factor:	0	Pai	ç	SOCIAL STATE OF STATE	in of Constant	Na <sub>2</sub> S <sub>2</sub> O <sub>3</sub> : NaSO <sub>3</sub>
Sample Custody Seals:	Yes No N/A	Temperature Reading:	10		.51	200027-080	650000000000000000000000000000000000000	Zn Acetate+NaOH: Zn
Total Containers:	)	Corrected Temperature:	e. 5.6	×	1111 H			NaOH+Ascorbic Acid: SAPC
Sample Identification	on Matrix	Date Time	Depth Grab/	o d W	0h0 197			Sample Comments
4006	6/1	813171 1315	0.5	×	X			Incident 10
				1	1	3		NAPP1218238639
			1					
			\					Cost Center
		\						1055621001
	1							
)								

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8/16/2022

## **Login Sample Receipt Checklist**

Client: Ensolum

Job Number: 890-2720-1

SDG Number: 03E1558092

Login Number: 2720 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	

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## **Login Sample Receipt Checklist**

 Client: Ensolum
 Job Number: 890-2720-1

 SDG Number: 03E1558092

List Source: Eurofins Midland
List Number: 2
List Creation: 08/05/22 10:35 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	

e 103 0j 127

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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: 890-2775-1

Laboratory Sample Delivery Group: 03E1558092

Client Project/Site: Mis Amigos Battery

For:

Ensolum 705 W. Wadley Suite 210 Midland, Texas 79701

Attn: Ben Belill

RAMER

8/30/2022 2:07:49 PM

Jessica Kramer, Project Manager (432)704-5440

Jessica.Kramer@et.eurofinsus.com

Authorized for release by:

**Have a Question?** 

EOL

····· Links ······

**Review your project** results through

Visit us at:

www.eurofinsus.com/Env Released to Imaging: 9/26/2022/2:13:05 PM This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten

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

Client: Ensolum
Project/Site: Mis Amigos Battery

Laboratory Job ID: 890-2775-1
SDG: 03E1558092

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## **Definitions/Glossary**

Job ID: 890-2775-1 Client: Ensolum Project/Site: Mis Amigos Battery

SDG: 03E1558092

#### **Qualifiers**

**GC VOA** 

Qualifier **Qualifier Description** LCS and/or LCSD is outside acceptance limits, high biased. F1 MS and/or MSD recovery exceeds control limits.

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

**GC Semi VOA** 

Qualifier **Qualifier Description** 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.

F2

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

**Glossary** 

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

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

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

DER Duplicate Error Ratio (normalized absolute difference)

Dil Fac **Dilution Factor** 

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)

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

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

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

NC Not Calculated

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

NEG Negative / Absent POS Positive / Present

Practical Quantitation Limit **PQL PRES** Presumptive

**Quality Control** QC

RER Relative Error Ratio (Radiochemistry)

RL Reporting Limit or Requested Limit (Radiochemistry)

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

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

**TNTC** Too Numerous To Count

#### **Case Narrative**

Client: Ensolum

Project/Site: Mis Amigos Battery

Job ID: 890-2775-1 SDG: 03E1558092

Job ID: 890-2775-1

**Laboratory: Eurofins Carlsbad** 

Narrative

Job Narrative 890-2775-1

#### Receipt

The samples were received on 8/17/2022 4:13 PM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 5.2°C

#### GC VOA

Method 8021B: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 880-32855 and analytical batch 880-33040 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.

Method 8021B: The laboratory control sample (LCS) associated with preparation batch 880-33066 and analytical batch 880-33149 was outside acceptance criteria. Re-extraction and/or re-analysis could not be performed; therefore, the data have been reported. The batch matrix spike/matrix spike duplicate (MS/MSD) was within acceptance limits and may be used to evaluate matrix performance.

Method 8021B: Surrogate recovery for the following sample was outside control limits: (LCS 880-33066/1-A). Evidence of matrix interferences is not obvious.

Method 8021B: Surrogate recovery for the following samples were outside control limits: (890-2764-A-4-E MS) and (890-2764-A-4-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: (LCS 880-33066/1-A). Evidence of matrix interferences is not obvious.

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

#### GC Semi VOA

Method 8015MOD\_NM: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 880-32518 and analytical batch 880-32549 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 880-32575 and analytical batch 880-32882 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. The associated samples are: (880-18347-A-5-A), (880-18347-A-5-B MS) and (880-18347-A-5-C MSD).

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

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Eurofins Carlsbad 8/30/2022

Matrix: Solid

Lab Sample ID: 890-2775-1

Client: Ensolum Job ID: 890-2775-1 Project/Site: Mis Amigos Battery SDG: 03E1558092

**Client Sample ID: BH01** 

Date Collected: 08/17/22 09:20 Date Received: 08/17/22 16:13

Sample Depth: 0.5

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199	mg/Kg		08/26/22 13:57	08/29/22 13:26	1
Toluene	< 0.00199	U	0.00199	mg/Kg		08/26/22 13:57	08/29/22 13:26	1
Ethylbenzene	< 0.00199	U	0.00199	mg/Kg		08/26/22 13:57	08/29/22 13:26	1
m-Xylene & p-Xylene	0.0297		0.00398	mg/Kg		08/26/22 13:57	08/29/22 13:26	1
o-Xylene	0.0228	*+	0.00199	mg/Kg		08/26/22 13:57	08/29/22 13:26	1
Xylenes, Total	0.0525		0.00398	mg/Kg		08/26/22 13:57	08/29/22 13:26	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	116		70 - 130			08/26/22 13:57	08/29/22 13:26	1
1,4-Difluorobenzene (Surr)	96		70 - 130			08/26/22 13:57	08/29/22 13:26	1
Method: Total BTEX - Total BTE	X Calculation							
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	0.0525		0.00398	mg/Kg			08/29/22 12:44	1
Analyte Total TPH		Qualifier	RL 49.9	Unit	D	Prepared	Analyzed 08/22/22 12:32	Dil Fac
Total TPH	5140		49.9	mg/Kg			08/22/22 12:32	1
Method: 8015B NM - Diesel Ran	ge Organics (D	RO) (GC)						
Analyte	• •	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	471		49.9	mg/Kg		08/19/22 15:00	08/21/22 04:23	1
Diesel Range Organics (Over C10-C28)	4670		49.9	mg/Kg		08/19/22 15:00	08/21/22 04:23	1
Oll Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg		08/19/22 15:00	08/21/22 04:23	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	101		70 - 130			08/19/22 15:00	08/21/22 04:23	1
1 Officiociane						08/19/22 15:00	08/21/22 04:23	
o-Terphenyl	94		70 - 130			00/19/22 15.00	00/21/22 04.23	1
	• ·	Soluble	70 - 130			00/19/22 13.00	06/21/22 04.23	1
o-Terphenyl	omatography -	Soluble Qualifier	70 <sub>-</sub> 130 RL	Unit	D	Prepared	Analyzed	Dil Fac

**Client Sample ID: BH01A** 

Date Collected: 08/17/22 09:25 Date Received: 08/17/22 16:13

Sample Depth: 1

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00201	U	0.00201	mg/Kg		08/24/22 14:35	08/27/22 14:48	1
Toluene	<0.00201	U	0.00201	mg/Kg		08/24/22 14:35	08/27/22 14:48	1
Ethylbenzene	<0.00201	U	0.00201	mg/Kg		08/24/22 14:35	08/27/22 14:48	1
m-Xylene & p-Xylene	<0.00402	U	0.00402	mg/Kg		08/24/22 14:35	08/27/22 14:48	1
o-Xylene	<0.00201	U	0.00201	mg/Kg		08/24/22 14:35	08/27/22 14:48	1
Xylenes, Total	<0.00402	U	0.00402	mg/Kg		08/24/22 14:35	08/27/22 14:48	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	<u></u>		70 - 130			08/24/22 14:35	08/27/22 14:48	

**Eurofins Carlsbad** 

Lab Sample ID: 890-2775-2

**Matrix: Solid** 

Matrix: Solid

Lab Sample ID: 890-2775-2

Job ID: 890-2775-1

Client: Ensolum Project/Site: Mis Amigos Battery SDG: 03E1558092

Client Sample ID: BH01A

Date Collected: 08/17/22 09:25 Date Received: 08/17/22 16:13

Sample Depth: 1

Method: 8021B - Volatile Organic Compo	ounds (GC)	(Continued)
motification to a gaine compa	Julius (33)	( Continuou,

Surrogate	%Recovery Qua	ualifier Limits	Prepared	Analyzed	Dil Fac
1,4-Difluorobenzene (Surr)	129	70 - 130	08/24/22 14:35	08/27/22 14:48	1

Method: Total	BTEX -	Total BTEX	Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00402	U	0.00402	mg/Kg			08/29/22 12:44	1

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

Analyte	Result Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	1340	50.0	mg/Kg			08/22/22 12:32	1

	Method: 8015B NM -	Diesel Ra	ange Organ	ics (DRO)	(GC)
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Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	101		50.0	mg/Kg		08/19/22 15:00	08/21/22 04:45	1
Diesel Range Organics (Over C10-C28)	1240		50.0	mg/Kg		08/19/22 15:00	08/21/22 04:45	1
Oll Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		08/19/22 15:00	08/21/22 04:45	1
Surrogate	%Recovery	Qualifier	l imits			Prenared	Analyzed	Dil Fac

Surrogate	%Recovery	Qualifier	Limits	
1-Chlorooctane	97		70 - 130	08/
o-Terphenyl	82		70 - 130	08/

1-Chlorooctane	97	70 - 130	08/19/22 15:00	08/21/22 04:45	1
o-Terphenyl	82	70 - 130	08/19/22 15:00	08/21/22 04:45	1

Method: 300.0 - Anions, Ion	Chromatography - Soluble
	D 11 0 110

Analyte	Result Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	517	5.04	mg/Kg			08/25/22 09:50	1

Client Sample ID: BH01B Lab Sample ID: 890-2775-3 **Matrix: Solid** 

Date Collected: 08/17/22 09:30 Date Received: 08/17/22 16:13

Sample Depth: 2

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

		()						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00202	U	0.00202	mg/Kg		08/24/22 14:35	08/27/22 15:09	1
Toluene	<0.00202	U	0.00202	mg/Kg		08/24/22 14:35	08/27/22 15:09	1
Ethylbenzene	<0.00202	U	0.00202	mg/Kg		08/24/22 14:35	08/27/22 15:09	1
m-Xylene & p-Xylene	<0.00404	U	0.00404	mg/Kg		08/24/22 14:35	08/27/22 15:09	1
o-Xylene	<0.00202	U	0.00202	mg/Kg		08/24/22 14:35	08/27/22 15:09	1
Xylenes, Total	<0.00404	U	0.00404	mg/Kg		08/24/22 14:35	08/27/22 15:09	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	71		70 - 130			08/24/22 14:35	08/27/22 15:09	1
1 4 Diffusionahan-ana (Cum)	110		70 120			09/04/00 14:05	00/07/00 45:00	1

4-Bromofluorobenzene (Surr)	71	70 - 130	08/24/22 14:35	08/27/22 15:09	1
1,4-Difluorobenzene (Surr)	119	70 - 130	08/24/22 14:35	08/27/22 15:09	1

#### Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00404	U	0.00404	mg/Kg	<u></u>		08/29/22 12:44	1

Method: 8015 NM - Diesel	Range Organ	nics (DRO)	(GC)
Method. 0013 MM - Diesei	Range Organ	iics (DICO)	(GC)

Analyte	Result Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	126	50.0	mg/Kg			08/22/22 12:32	1

Matrix: Solid

Lab Sample ID: 890-2775-3

# **Client Sample Results**

Client: Ensolum Job ID: 890-2775-1
Project/Site: Mis Amigos Battery SDG: 03E1558092

Client Sample ID: BH01B

Date Collected: 08/17/22 09:30 Date Received: 08/17/22 16:13

Sample Depth: 2

Method: 8015B NM - Diesel Rang	e Organics (D	RO) (GC)						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0	mg/Kg		08/19/22 15:00	08/21/22 05:06	1
Diesel Range Organics (Over C10-C28)	126		50.0	mg/Kg		08/19/22 15:00	08/21/22 05:06	1
Oll Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		08/19/22 15:00	08/21/22 05:06	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	124		70 - 130			08/19/22 15:00	08/21/22 05:06	1
o-Terphenyl	102		70 - 130			08/19/22 15:00	08/21/22 05:06	1
Method: 300.0 - Anions, Ion Chro	matography -	Soluble						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	89.9		5.05	mg/Kg			08/25/22 09:58	1

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# **Surrogate Summary**

Client: Ensolum Job ID: 890-2775-1
Project/Site: Mis Amigos Battery SDG: 03E1558092

Method: 8021B - Volatile Organic Compounds (GC)

Matrix: Solid Prep Type: Total/NA

				Percent Surrogate Recovery (A
		BFB1	DFBZ1	
Lab Sample ID	Client Sample ID	(70-130)	(70-130)	
890-2764-A-4-E MS	Matrix Spike	131 S1+	102	
890-2764-A-4-F MSD	Matrix Spike Duplicate	135 S1+	107	
890-2774-A-1-H MS	Matrix Spike	92	101	
890-2774-A-1-I MSD	Matrix Spike Duplicate	91	109	
890-2775-1	BH01	116	96	
890-2775-2	BH01A	75	129	
890-2775-3	BH01B	71	119	
LCS 880-32855/1-A	Lab Control Sample	88	104	
LCS 880-33066/1-A	Lab Control Sample	136 S1+	107	
LCSD 880-32855/2-A	Lab Control Sample Dup	93	100	
LCSD 880-33066/2-A	Lab Control Sample Dup	129	103	
MB 880-32705/5-B	Method Blank	80	118	
MB 880-32855/5-A	Method Blank	78	123	
MB 880-33066/5-A	Method Blank	104	97	
Cuma mata Laman d				
Surrogate Legend				

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

Matrix: Solid Prep Type: Total/NA

			Percent Surrogate Recovery (Acceptance Limits)
	1001	OTPH1	
Client Sample ID	(70-130)	(70-130)	
Matrix Spike	97	81	
Matrix Spike Duplicate	99	84	
BH01	101	94	
BH01A	97	82	
BH01B	124	102	
Lab Control Sample	88	77	
Lab Control Sample Dup	99	85	
Method Blank	102	92	
	Matrix Spike Matrix Spike Duplicate BH01 BH01A BH01B Lab Control Sample Lab Control Sample Dup	Client Sample ID         (70-130)           Matrix Spike         97           Matrix Spike Duplicate         99           BH01         101           BH01A         97           BH01B         124           Lab Control Sample         88           Lab Control Sample Dup         99	Client Sample ID         (70-130)         (70-130)           Matrix Spike         97         81           Matrix Spike Duplicate         99         84           BH01         101         94           BH01A         97         82           BH01B         124         102           Lab Control Sample         88         77           Lab Control Sample Dup         99         85

OTPH = o-Terphenyl

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Released to Imaging: 9/26/2022 2:13:05 PM Page 8 of 23

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Job ID: 890-2775-1

SDG: 03E1558092

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-32705/5-B

Lab Sample ID: MB 880-32855/5-A

Project/Site: Mis Amigos Battery

Analysis Batch: 33040

**Matrix: Solid** 

Matrix: Solid

Analysis Batch: 33040

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 32705

	MB	MB						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		08/22/22 15:07	08/27/22 01:22	1
Toluene	<0.00200	U	0.00200	mg/Kg		08/22/22 15:07	08/27/22 01:22	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		08/22/22 15:07	08/27/22 01:22	1
m-Xylene & p-Xylene	<0.00400	U	0.00400	mg/Kg		08/22/22 15:07	08/27/22 01:22	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		08/22/22 15:07	08/27/22 01:22	1
Xylenes, Total	<0.00400	U	0.00400	mg/Kg		08/22/22 15:07	08/27/22 01:22	1

MB MB

MB MB

Surrogate	%Recovery Qu	ualifier Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	80	70 - 130	08/22/22 15:07	08/27/22 01:22	1
1,4-Difluorobenzene (Surr)	118	70 - 130	08/22/22 15:07	08/27/22 01:22	1

**Client Sample ID: Method Blank** 

Prep Type: Total/NA

Prep Batch: 32855

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	DII Fac
Benzene	<0.00200	U	0.00200	mg/Kg		08/24/22 14:35	08/27/22 13:18	1
Toluene	<0.00200	U	0.00200	mg/Kg		08/24/22 14:35	08/27/22 13:18	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		08/24/22 14:35	08/27/22 13:18	1
m-Xylene & p-Xylene	<0.00400	U	0.00400	mg/Kg		08/24/22 14:35	08/27/22 13:18	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		08/24/22 14:35	08/27/22 13:18	1
Xylenes, Total	<0.00400	U	0.00400	mg/Kg		08/24/22 14:35	08/27/22 13:18	1

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Surrogate	%Recovery	Qualifier	Limits	Prepa	red	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	78		70 - 130	08/24/22	14:35	08/27/22 13:18	1
1,4-Difluorobenzene (Surr)	123		70 - 130	08/24/22	14:35	08/27/22 13:18	1

Lab Sample ID: LCS 880-32855/1-A

**Matrix: Solid** 

Analysis Batch: 33040

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

Prep Batch: 32855

	Spike	LCS	LCS				%Rec	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Benzene	0.100	0.1054		mg/Kg		105	70 - 130	
Toluene	0.100	0.09762		mg/Kg		98	70 - 130	
Ethylbenzene	0.100	0.09054		mg/Kg		91	70 - 130	
m-Xylene & p-Xylene	0.200	0.1665		mg/Kg		83	70 - 130	
o-Xylene	0.100	0.08925		mg/Kg		89	70 - 130	

LCS LCS

Surrogate	%Recovery Qualifier	Limits
4-Bromofluorobenzene (Surr)	88	70 - 130
1.4-Difluorobenzene (Surr)	104	70 - 130

Lab Sample ID: LCSD 880-32855/2-A

**Matrix: Solid** 

Analysis Batch: 33040

Client Sample II	D: Lab Control	Sample Dup
	Danie T	T-4-1/NIA

Prep Type: Total/NA

Prep Batch: 32855

	Spike	LCSD LCSD				%Rec		RPD
Analyte	Added	Result Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Benzene	0.100	0.09749	mg/Kg		97	70 - 130	8	35

Job ID: 890-2775-1

SDG: 03E1558092

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

Lab Sample ID: LCSD 880-32855/2-A

**Matrix: Solid** 

Analysis Batch: 33040

Project/Site: Mis Amigos Battery

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA Prep Batch: 32855

Spike LCSD LCSD %Rec **RPD** Analyte Added Result Qualifier Unit %Rec Limits **RPD** Limit D Toluene 0.100 0.09902 99 70 - 130 35 mg/Kg Ethylbenzene 0.100 0.09664 mg/Kg 97 70 - 130 35 0.200 m-Xylene & p-Xylene 0.1774 mg/Kg 89 70 - 130 35 6 o-Xylene 0.100 0.09451 mg/Kg 95 70 - 130 35

LCSD LCSD

Surrogate	%Recovery	Qualifier	Limits
4-Bromofluorobenzene (Surr)	93		70 - 130
1,4-Difluorobenzene (Surr)	100		70 - 130

Lab Sample ID: 890-2774-A-1-H MS Client Sample ID: Matrix Spike

o-Xylene

Analysis Batch: 33040

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

Prep Batch: 32855

MS MS %Rec Sample Sample Spike Qualifier Analyte Result Added Result Qualifier Unit %Rec Limits Benzene <0.00200 U 0.1002 0.100 mg/Kg 100 70 - 130 Toluene <0.00200 U 0.100 0.08603 86 70 - 130 mg/Kg Ethylbenzene 0.100 0.06428 F1 70 - 130 <0.00200 UF1 mg/Kg 64 <0.00401 UF1 m-Xylene & p-Xylene 0.201 0.09212 F1 46 70 - 130 mg/Kg

0.06101 F1

mg/Kg

MS MS

<0.00200 UF1

Surrogate	%Recovery Qualifier	Limits
4-Bromofluorobenzene (Surr)	92	70 - 130
1,4-Difluorobenzene (Surr)	101	70 - 130

Lab Sample ID: 890-2774-A-1-I MSD

0.100

**Matrix: Solid** 

**Analysis Batch: 33040** 

Client Sample ID: Matrix Spike Duplicate

70 - 130

61

Prep Type: Total/NA Prep Batch: 32855

MSD MSD %Rec RPD Sample Sample Spike Analyte Result Qualifier Added Result Qualifier Unit %Rec Limits RPD Limit Benzene <0.00200 U 0.0998 0.1123 mg/Kg 113 70 - 130 11 35 Toluene <0.00200 U 0.0998 0.09676 mg/Kg 97 70 - 130 12 35 Ethylbenzene <0.00200 UF1 0.0998 0.07774 mg/Kg 78 70 - 130 19 35 0.200 0.1288 F1 65 70 - 130 35 m-Xylene & p-Xylene <0.00401 UF1 mg/Kg 33 0.0998 o-Xylene <0.00200 UF1 0.07397 mg/Kg 74 70 - 130 19 35

MSD MSD

Surrogate	%Recovery Qualifier	Limits
4-Bromofluorobenzene (Surr)	91	70 - 130
1,4-Difluorobenzene (Surr)	109	70 - 130

Lab Sample ID: MB 880-33066/5-A

**Matrix: Solid** 

**Analysis Batch: 33149** 

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 33066

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	Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
	Benzene	<0.00200	U	0.00200	mg/Kg	_	08/26/22 13:57	08/29/22 10:40	1
	Toluene	<0.00200	U	0.00200	mg/Kg		08/26/22 13:57	08/29/22 10:40	1
ı	Ethylbenzene	<0.00200	U	0.00200	mg/Kg		08/26/22 13:57	08/29/22 10:40	1
	m-Xylene & p-Xylene	<0.00400	U	0.00400	mg/Kg		08/26/22 13:57	08/29/22 10:40	1

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Project/Site: Mis Amigos Battery

Job ID: 890-2775-1

SDG: 03E1558092

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

Lab Sample ID: MB 880-33066/5-A

**Matrix: Solid** 

Analysis Batch: 33149

Client Sample ID: Method Blank

**Prep Type: Total/NA** 

Prep Batch: 33066

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
o-Xylene	<0.00200	U	0.00200	mg/Kg		08/26/22 13:57	08/29/22 10:40	1
Xvlenes Total	<0.00400	U	0.00400	ma/Ka		08/26/22 13:57	08/29/22 10:40	1

MB MB

MR MR

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	104		70 - 130	08/26/22 13:57	08/29/22 10:40	1
1,4-Difluorobenzene (Surr)	97		70 - 130	08/26/22 13:57	08/29/22 10:40	1

Lab Sample ID: LCS 880-33066/1-A **Client Sample ID: Lab Control Sample** 

**Matrix: Solid** 

Prep Type: Total/NA Prep Batch: 33066 Analysis Batch: 33149

	Spike	LCS	LCS				%Rec	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Benzene	0.100	0.09853		mg/Kg		99	70 - 130	
Toluene	0.100	0.09518		mg/Kg		95	70 - 130	
Ethylbenzene	0.100	0.1064		mg/Kg		106	70 - 130	
m-Xylene & p-Xylene	0.200	0.2309		mg/Kg		115	70 - 130	
o-Xylene	0.100	0.1327	*+	mg/Kg		133	70 - 130	

LCS LCS

Surrogate	%Recovery	Qualifier	Limits
4-Bromofluorobenzene (Surr)	136	S1+	70 - 130
1,4-Difluorobenzene (Surr)	107		70 - 130

Lab Sample ID: LCSD 880-33066/2-A

Matrix: Solid

Analysis Batch: 33149

Prep Type: Total/NA

Prep Batch: 33066

	Spike	LCSD	LCSD				%Rec		RPD
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Benzene	0.100	0.08926		mg/Kg		89	70 - 130	10	35
Toluene	0.100	0.08870		mg/Kg		89	70 - 130	7	35
Ethylbenzene	0.100	0.09570		mg/Kg		96	70 - 130	11	35
m-Xylene & p-Xylene	0.200	0.2062		mg/Kg		103	70 - 130	11	35
o-Xylene	0.100	0.1188		mg/Kg		119	70 - 130	11	35

LCSD LCSD

Surrogate	%Recovery Qualifier	Limits
4-Bromofluorobenzene (Surr)	129	70 - 130
1.4-Difluorobenzene (Surr)	103	70 - 130

Lab Sample ID: 890-2764-A-4-E MS

**Matrix: Solid** 

**Analysis Batch: 33149** 

Client Sample ID: Matrix Spil	(e
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Prep Type: Total/NA

Prep Batch: 33066

,										
	Sample	Sample	Spike	MS	MS				%Rec	
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Benzene	<0.00200	U	0.0998	0.08168		mg/Kg		82	70 - 130	
Toluene	<0.00200	U	0.0998	0.07833		mg/Kg		78	70 - 130	
Ethylbenzene	<0.00200	U	0.0998	0.08599		mg/Kg		86	70 - 130	
m-Xylene & p-Xylene	<0.00401	U	0.200	0.1844		mg/Kg		92	70 - 130	
o-Xylene	<0.00200	U *+	0.0998	0.1055		mg/Kg		106	70 - 130	

Limits

Client: Ensolum

Job ID: 890-2775-1 Project/Site: Mis Amigos Battery SDG: 03E1558092

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

MS MS

%Recovery Qualifier

Lab Sample ID: 890-2764-A-4-E MS

**Matrix: Solid** 

Surrogate

Analysis Batch: 33149

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 33066

4-Bromofluorobenzene (Surr) 131 S1+ 70 - 130 1,4-Difluorobenzene (Surr) 102 70 - 130

Lab Sample ID: 890-2764-A-4-F MSD

**Matrix: Solid** 

Analysis Batch: 33149

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 33066

Sample Sample Spike MSD MSD %Rec RPD Analyte Result Qualifier Added Result Qualifier Unit D %Rec Limits RPD Limit U 0.100 0.08570 85 70 - 1305 35 Benzene <0.00200 mg/Kg Toluene <0.00200 U 0.100 0.07939 mg/Kg 79 70 - 130 35 <0.00200 U 0.100 0.08984 mg/Kg 89 70 - 130 35 Ethylbenzene 4 m-Xylene & p-Xylene <0.00401 U 0.201 0.1878 mg/Kg 94 70 - 130 2 35 o-Xylene <0.00200 U\*+ 0.100 0.1073 mg/Kg 107 70 - 130 35

MSD MSD

%Recovery Qualifier Surrogate Limits 4-Bromofluorobenzene (Surr) 135 S1+ 70 - 130 1,4-Difluorobenzene (Surr) 107 70 - 130

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

Lab Sample ID: MB 880-32518/1-A

**Matrix: Solid** 

**Analysis Batch: 32549** 

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 32518

Analyte Result Qualifier RL Unit Prepared Analyzed Dil Fac Gasoline Range Organics <50.0 U 50.0 mg/Kg 08/19/22 15:00 08/20/22 20:12 (GRO)-C6-C10 Diesel Range Organics (Over <50.0 U 50.0 mg/Kg 08/19/22 15:00 08/20/22 20:12 C10-C28) OII Range Organics (Over C28-C36) <50.0 U 50.0 08/19/22 15:00 08/20/22 20:12 mg/Kg

MB MB

MB MB

Surrogate %Recovery Qualifier Limits Prepared Analyzed Dil Fac 1-Chlorooctane 102 70 130 08/19/22 15:00 08/20/22 20:12 o-Terphenyl 92 08/19/22 15:00 08/20/22 20:12 70 - 130

LCS LCS

Lab Sample ID: LCS 880-32518/2-A

**Matrix: Solid** 

**Analysis Batch: 32549** 

Client Sample ID: Lab Control Sample

%Rec

Prep Type: Total/NA

Prep Batch: 32518

Analyte Added Result Qualifier Unit %Rec Limits Gasoline Range Organics 1000 795.1 mg/Kg 80 70 - 130 (GRO)-C6-C10 Diesel Range Organics (Over 1000 711.8 mg/Kg 71 70 - 130

Spike

C10-C28)

LCS LCS Qualifier Surrogate %Recovery Limits 1-Chlorooctane 88 70 - 130 77 o-Terphenyl 70 - 130

Job ID: 890-2775-1

Client: Ensolum Project/Site: Mis Amigos Battery SDG: 03E1558092

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

Lab Sample ID: LCSD 880-32518/3-A Client Sample ID: Lab Control Sample Dup

**Matrix: Solid** Prep Type: Total/NA Analysis Batch: 32549 Prep Batch: 32518

	<b>Spike</b>	LCSD	LCSD				%Rec		RPD	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit	
Gasoline Range Organics	1000	874.5		mg/Kg		87	70 - 130	10	20	
(GRO)-C6-C10										
Diesel Range Organics (Over	1000	795.9		mg/Kg		80	70 - 130	11	20	
C10-C28)										

LCSD LCSD %Recovery Qualifier Limits Surrogate 70 - 130 1-Chlorooctane 99 o-Terphenyl 85 70 - 130

Lab Sample ID: 890-2761-A-1-C MS Client Sample ID: Matrix Spike

**Matrix: Solid** 

Prep Type: Total/NA **Analysis Batch: 32549** Prep Batch: 32518

MS MS %Rec Sample Sample Spike Analyte Result Qualifier Added Result Qualifier Unit D %Rec Limits 999 103 Gasoline Range Organics <49.9 U 1062 mg/Kg 70 - 130 (GRO)-C6-C10 Diesel Range Organics (Over 684 F1 999 723.0 F1 mg/Kg 70 - 130 C10-C28)

MS MS Surrogate %Recovery Qualifier Limits 1-Chlorooctane 97 70 - 130

81

Lab Sample ID: 890-2761-A-1-D MSD Client Sample ID: Matrix Spike Duplicate

70 - 130

**Matrix: Solid** Prep Type: Total/NA Analysis Batch: 32549 Prep Batch: 32518

Sample Sample Spike MSD MSD %Rec **RPD** Analyte Result Qualifier Added Result Qualifier Unit %Rec Limits RPD Limit <49.9 U 998 106 20 Gasoline Range Organics 1094 70 - 130 3 mg/Kg (GRO)-C6-C10 684 F1 998 731.6 F1 5 Diesel Range Organics (Over mg/Kg 70 - 130 20 C10-C28)

MSD MSD Qualifier Limits Surrogate %Recovery

1-Chlorooctane 99 70 - 130 84 70 - 130 o-Terphenyl

### Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-32575/1-A Client Sample ID: Method Blank Matrix: Solid **Prep Type: Soluble** 

**Analysis Batch: 32882** 

o-Terphenyl

MB MB Analyte Result Qualifier RL Unit Dil Fac D Prepared Analyzed Chloride <5.00 U 5.00 08/25/22 06:18 mg/Kg

### QC Sample Results

Client: Ensolum Job ID: 890-2775-1 Project/Site: Mis Amigos Battery

SDG: 03E1558092

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: LCS 880-32575/2-A **Client Sample ID: Lab Control Sample Matrix: Solid Prep Type: Soluble** 

Analysis Batch: 32882

Spike LCS LCS %Rec Analyte Added Result Qualifier Unit %Rec Limits Chloride 250 237.6 mg/Kg 95 90 - 110

Lab Sample ID: LCSD 880-32575/3-A Client Sample ID: Lab Control Sample Dup **Matrix: Solid Prep Type: Soluble** 

**Analysis Batch: 32882** 

Spike LCSD LCSD %Rec RPD Added Result Qualifier Limit Analyte Unit D %Rec Limits RPD Chloride 250 237.7 mg/Kg 95 90 - 110 0

Lab Sample ID: 880-18347-A-5-B MS Client Sample ID: Matrix Spike

**Matrix: Solid Prep Type: Soluble** 

Analysis Batch: 32882

MS MS %Rec Sample Sample Spike Analyte Result Qualifier Added Result Qualifier Unit Limits Chloride 222 F1 F2 249 354.8 F1 90 - 110 mg/Kg

Lab Sample ID: 880-18347-A-5-C MSD Client Sample ID: Matrix Spike Duplicate **Prep Type: Soluble** 

**Matrix: Solid** 

**Analysis Batch: 32882** 

MSD MSD RPD Sample Sample Spike %Rec Analyte Result Qualifier Added Result Qualifier Unit %Rec RPD Limit Limits 222 F1 F2 Chloride 249 464.4 F2 98 90 - 110 27 20 mg/Kg

# **QC Association Summary**

Client: Ensolum

Project/Site: Mis Amigos Battery

Job ID: 890-2775-1 SDG: 03E1558092

### **GC VOA**

### Prep Batch: 32705

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 880-32705/5-B	Method Blank	Total/NA	Solid	5035	

### Prep Batch: 32855

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2775-2	BH01A	Total/NA	Solid	5035	
890-2775-3	BH01B	Total/NA	Solid	5035	
MB 880-32855/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-32855/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-32855/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
890-2774-A-1-H MS	Matrix Spike	Total/NA	Solid	5035	
890-2774-A-1-I MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	

### Analysis Batch: 33040

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2775-2	BH01A	Total/NA	Solid	8021B	32855
890-2775-3	BH01B	Total/NA	Solid	8021B	32855
MB 880-32705/5-B	Method Blank	Total/NA	Solid	8021B	32705
MB 880-32855/5-A	Method Blank	Total/NA	Solid	8021B	32855
LCS 880-32855/1-A	Lab Control Sample	Total/NA	Solid	8021B	32855
LCSD 880-32855/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	32855
890-2774-A-1-H MS	Matrix Spike	Total/NA	Solid	8021B	32855
890-2774-A-1-I MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	32855

#### Prep Batch: 33066

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Bato
890-2775-1	BH01	Total/NA	Solid	5035	
MB 880-33066/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-33066/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-33066/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
890-2764-A-4-E MS	Matrix Spike	Total/NA	Solid	5035	
890-2764-A-4-F MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	

### Analysis Batch: 33149

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2775-1	BH01	Total/NA	Solid	8021B	33066
MB 880-33066/5-A	Method Blank	Total/NA	Solid	8021B	33066
LCS 880-33066/1-A	Lab Control Sample	Total/NA	Solid	8021B	33066
LCSD 880-33066/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	33066
890-2764-A-4-E MS	Matrix Spike	Total/NA	Solid	8021B	33066
890-2764-A-4-F MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	33066

### Analysis Batch: 33225

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2775-1	BH01	Total/NA	Solid	Total BTEX	
890-2775-2	BH01A	Total/NA	Solid	Total BTEX	
890-2775-3	BH01B	Total/NA	Solid	Total BTEX	

# **QC Association Summary**

Client: Ensolum

Project/Site: Mis Amigos Battery

Job ID: 890-2775-1 SDG: 03E1558092

### GC Semi VOA

### Prep Batch: 32518

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2775-1	BH01	Total/NA	Solid	8015NM Prep	
890-2775-2	BH01A	Total/NA	Solid	8015NM Prep	
890-2775-3	BH01B	Total/NA	Solid	8015NM Prep	
MB 880-32518/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-32518/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-32518/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
890-2761-A-1-C MS	Matrix Spike	Total/NA	Solid	8015NM Prep	
890-2761-A-1-D MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	

### Analysis Batch: 32549

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2775-1	BH01	Total/NA	Solid	8015B NM	32518
890-2775-2	BH01A	Total/NA	Solid	8015B NM	32518
890-2775-3	BH01B	Total/NA	Solid	8015B NM	32518
MB 880-32518/1-A	Method Blank	Total/NA	Solid	8015B NM	32518
LCS 880-32518/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	32518
LCSD 880-32518/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	32518
890-2761-A-1-C MS	Matrix Spike	Total/NA	Solid	8015B NM	32518
890-2761-A-1-D MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	32518

#### Analysis Batch: 32653

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2775-1	BH01	Total/NA	Solid	8015 NM	
890-2775-2	BH01A	Total/NA	Solid	8015 NM	
890-2775-3	BH01B	Total/NA	Solid	8015 NM	

### HPLC/IC

#### Leach Batch: 32575

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2775-1	BH01	Soluble	Solid	DI Leach	
890-2775-2	BH01A	Soluble	Solid	DI Leach	
890-2775-3	BH01B	Soluble	Solid	DI Leach	
MB 880-32575/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-32575/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-32575/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
880-18347-A-5-B MS	Matrix Spike	Soluble	Solid	DI Leach	
880-18347-A-5-C MSD	Matrix Spike Duplicate	Soluble	Solid	DI Leach	

### Analysis Batch: 32882

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2775-1	BH01	Soluble	Solid	300.0	32575
890-2775-2	BH01A	Soluble	Solid	300.0	32575
890-2775-3	BH01B	Soluble	Solid	300.0	32575
MB 880-32575/1-A	Method Blank	Soluble	Solid	300.0	32575
LCS 880-32575/2-A	Lab Control Sample	Soluble	Solid	300.0	32575
LCSD 880-32575/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	32575
880-18347-A-5-B MS	Matrix Spike	Soluble	Solid	300.0	32575
880-18347-A-5-C MSD	Matrix Spike Duplicate	Soluble	Solid	300.0	32575

Project/Site: Mis Amigos Battery

Job ID: 890-2775-1

SDG: 03E1558092

Lab Sample ID: 890-2775-1

Lab Sample ID: 890-2775-2

Matrix: Solid

**Client Sample ID: BH01** 

Date Collected: 08/17/22 09:20 Date Received: 08/17/22 16:13

	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	33066	08/26/22 13:57	MR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	33149	08/29/22 13:26	EL	EET MID
Total/NA	Analysis	Total BTEX		1			33225	08/29/22 12:44	SM	EET MID
Total/NA	Analysis	8015 NM		1			32653	08/22/22 12:32	SM	EET MID
Total/NA	Prep	8015NM Prep			10.03 g	10 mL	32518	08/19/22 15:00	DM	EET MID
Total/NA	Analysis	8015B NM		1			32549	08/21/22 04:23	SM	EET MID
Soluble	Leach	DI Leach			5.02 g	50 mL	32575	08/21/22 17:21	SMC	EET MID
Soluble	Analysis	300.0		1	0 mL	0 mL	32882	08/25/22 09:42	SMC	EET MID

Client Sample ID: BH01A

Date Collected: 08/17/22 09:25

Matrix: Solid

Date Received: 08/17/22 16:13

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.97 g	5 mL	32855	08/24/22 14:35	MR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	33040	08/27/22 14:48	MR	EET MID
Total/NA	Analysis	Total BTEX		1			33225	08/29/22 12:44	SM	EET MID
Total/NA	Analysis	8015 NM		1			32653	08/22/22 12:32	SM	EET MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	32518	08/19/22 15:00	DM	EET MID
Total/NA	Analysis	8015B NM		1			32549	08/21/22 04:45	SM	EET MID
Soluble	Leach	DI Leach			4.96 g	50 mL	32575	08/21/22 17:21	SMC	EET MID
Soluble	Analysis	300.0		1	0 mL	0 mL	32882	08/25/22 09:50	SMC	EET MID

**Client Sample ID: BH01B** 

Date Collected: 08/17/22 09:30 Date Received: 08/17/22 16:13

Lab Sample ID: 890-2775-3
Matrix: Solid

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.95 g	5 mL	32855	08/24/22 14:35	MR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	33040	08/27/22 15:09	MR	EET MID
Total/NA	Analysis	Total BTEX		1			33225	08/29/22 12:44	SM	EET MID
Total/NA	Analysis	8015 NM		1			32653	08/22/22 12:32	SM	EET MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	32518	08/19/22 15:00	DM	EET MID
Total/NA	Analysis	8015B NM		1			32549	08/21/22 05:06	SM	EET MID
Soluble	Leach	DI Leach			4.95 g	50 mL	32575	08/21/22 17:21	SMC	EET MID
Soluble	Analysis	300.0		1	0 mL	0 mL	32882	08/25/22 09:58	SMC	EET MID

Laboratory References:

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

# **Accreditation/Certification Summary**

Client: Ensolum Job ID: 890-2775-1 Project/Site: Mis Amigos Battery SDG: 03E1558092

# **Laboratory: Eurofins Midland**

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

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

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

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

# **Method Summary**

Client: Ensolum

Project/Site: Mis Amigos Battery

Job ID: 890-2775-1

SDG: 03E1558092

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: Mis Amigos Battery

Job ID: 890-2775-1

SDG: 03E1558092

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-2775-1	BH01	Solid	08/17/22 09:20	08/17/22 16:13	0.5
890-2775-2	BH01A	Solid	08/17/22 09:25	08/17/22 16:13	1
890-2775-3	BH01B	Solid	08/17/22 09:30	08/17/22 16:13	2

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City, State ZIP: Address:

Carlsbad, NM 88220 3122 National Parks Hwy

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

State of Project:

**Work Order Comments** 

www.xenco.com

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Company Name: Bill to: (if different)

Project Manager: Company Name:

Ben Belill

Ensolum

Chain of Custody

ston, TX (281) 240-4200, Dallas, TX (214) 902-0300
d, TX (432) 704-5440, San Antonio, TX (210) 509-3334
aso, TX (915) 585-3443, Lubbock, TX (806) 794-1296
0 NIM (676) 200 7660 Cadebad NIM (676) 088-3100

Work Order No:

Midland EL Pa Hobbs, NM (575) 392-Hous

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Date/Time	Received by: (Signature)	Relinquished by: (Signature)	ie .	Date/Time		re)	- Received by: (Signature	Received	ane)	8	Retinquished by: (S)
	forced unless previously negotiated.	of Eurofins Xence-A minimum charge of \$65.00 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	o Eurofins Xe	ubmitted to	sample s	ge of \$5 for each	project and a char	e applied to each	arge of \$85.00 will b	minimum cha	of Eurofins Xencer
	standard terms and conditions ircumstances beyond the control	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 samples and shall not assume any responsibility for any losses for expenses incurred by the client if such losses are due to circumstances beyond the control	urofins Xenc	npany to E	client cor	chase order from	titutes a valid pur	t of samples cons	and relinquishmen	this document	Notice: Signature of
5.1 / 7470 / 7471	Ng Ti U Hg: 1631 / 245.1 / 7470	Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Tl U	a Be Cd	b As E		TCLP / SPLP 6010: 8RCRA	TCLP / SPL	/zed	al(s) to be anal	s) and Meta	Circle Method(s) and Metal(s) to be analyzed
1-	Mn Mo Ni K Se Ag SiO2 Na St	Ca Cr Co Cu Fe Pb Mg	Ba Be B Cd	AS	Al Sb	M Texas 11	8RCRA 13PPM	81	200.8 / 6020:		Total 200.7 / 6010
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1055621001			×	×		ယ္	9:35	8/17/2022	s	BH01C (HOLD)	BH01
Cost Center:	S		×	×		12	9:30	8/17/2022	s	BH01B	В
nAPP2218238639	n <sub>A</sub>		×	×			9:25	8/17/2022	S	ВН01А	8
Incident ID:	Inc		×	×		0.5'	9:20	8/17/2022	s	BH01	1
Sample Comments			BTEX	TPH (8	# of Cont	Depth Comp	Time [	Date Sampled	on Matrix	Sample Identification	Sample
NaOH+Ascorbic Acid: SAPC	Na	-				2.0	mperature:	Corrected Temperature:			Total Containers:
Zn Acetate+NaOH: Zn		890-2775 Chain of Custody		S (E		2.0	Reading:	Temperature Reading:	Yes No NIA		Sample Custody Seals:
Na <sub>2</sub> S <sub>2</sub> O <sub>3</sub> : NaSO <sub>3</sub>	Za			PA:	P	らい	actor:	Correction Factor:	Yes No (NIA		Cooler Custody Seals:
NaHSO4: NABIS	Za Za			300	ara	FCO. WM	1	Thermometer ID:	Yes) No	ed Intact:	Samples Received Intact:
H <sub>3</sub> PO <sub>4</sub> : HP	13.			).0)	nete	Yes (No)	Wet Ice:	Yes (No)	Temp Blank:	CEIPT	SAMPLE RECEIPT
H <sub>2</sub> SO <sub>4</sub> : H <sub>2</sub> NaCH: Na	H <sub>2</sub> :				ers	ed by 4:30pm	the lab, if received by 4:30pm				PO#:
				-		ay received by	TAT starts the day received by	er	Kase Parker		Sampler's Name
<u>~</u>	S						Due Date:		32.25466,-103.60874	(a)	Project Location:
None: NO DI Water: H <sub>2</sub> O	No				Code	Rush	Routine [	)2	03E1558092		Project Number:
Preservative Codes		ANALYSIS REQUEST				round	Turn Around	attery	Mis Amigos Battery		Project Name:
Other:	Deliverables: EDD L ADaP1 L	Deliver	m	Mobil.cc	0Exxon	Email: Garret.Green@ExxonMobil.com	Email: G		303-887-2946	303-88	Phone:
ST CEVELVE	Level III	Report	Carlsbad, NM 88220	arisbad,	C	City, State ZIP:	C		Carisbad, NM 88220	Carlsba	City, State ZIP:
	]							111		0.11	1 10000

## **Login Sample Receipt Checklist**

 Client: Ensolum
 Job Number: 890-2775-1

 SDG Number: 03E1558092

List Source: Eurofins Carlsbad

Login Number: 2775 List Number: 1 Creator: Clifton, Cloe

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

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## **Login Sample Receipt Checklist**

 Client: Ensolum
 Job Number: 890-2775-1

 SDG Number: 03E1558092

List Source: Eurofins Midland List Creation: 08/19/22 10:36 AM

Creator: Rodriguez, Leticia

Login Number: 2775

List Number: 2

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

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0

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12

14

<6mm (1/4").

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 145426

#### **CONDITIONS**

Operator:	OGRID:
XTO ENERGY, INC	5380
6401 Holiday Hill Road	Action Number:
Midland, TX 79707	145426
	Action Type:
	[C-141] Release Corrective Action (C-141)

#### CONDITIONS

Created By	Condition	Condition Date
jnobui	Deferral Request Approved. The Deferral Request and C-141 will be accepted for record and marked accordingly. The release will remain open in OCD database files and reflect an open environmental issue. The OCD will not close a release, where contaminants are left in place, due to close proximity to equipment. The incident will only be closed after all contaminated soil has been remediated to meet OCD Spill Rule Standards.	9/26/2022