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	nAPP2315148242
District RP	
Facility ID	
Application ID	

Release Notification

Responsible Party

Responsible Party XTO Energy	OGRID 5380		
Contact Name Garrett Green	Contact Telephone 575-200-0729		
Contact email garrett.green@exxonmobil.com Incident # (assigned by OCD)			
Contact mailing address 3104 E. Greene Street, Carlsbad,	New Mexico, 88220		

Location of Release Source

Latitude 32.208754°

Site Name PLU 15 Twin Wells Ranch CTB	Site Type Tank Battery
Date Release Discovered 05/17/2023	API# (if applicable)

Unit Letter	Section	Township	Range	County
D	22	24S	31E	Eddy

Surface Owner: State 🗴 Federal 🗌 Tribal 🗌 Private (Name: ____

Nature and Volume of Release

Materia	l(s) Released (Select all that apply and attach calculations or specific	justification for the volumes provided below)
Crude Oil	Volume Released (bbls)	Volume Recovered (bbls)
► Produced Water	Volume Released (bbls) 6.18	Volume Recovered (bbls) 0.00
	Is the concentration of total dissolved solids (TDS) in the produced water >10,000 mg/l?	Yes No
Condensate	Volume Released (bbls)	Volume Recovered (bbls)
Natural Gas	Volume Released (Mcf)	Volume Recovered (Mcf)
Other (describe)	Volume/Weight Released (provide units)	Volume/Weight Recovered (provide units)
	developed on the main water liner on the pipe rack due covered. A third-party contractor has been retained for	e to internal corrosion, releasing fluids to pad. No fluids remediation purposes.

ceived by OCD: 8/15/202	^{3 11:37:55} ^M State of New Mexico		Page 2 of			
		Incident ID	nAPP2315148242			
ige 2	Oil Conservation Division	District RP				
		Facility ID				
		Application ID				
Was this a major release as defined by 19.15.29.7(A) NMAC?	If YES, for what reason(s) does the responsible par N/A					
If YES, was immediate n N/A	otice given to the OCD? By whom? To whom? Wh	en and by what means (phone, e	email, etc)?			

Initial Response

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

 \checkmark The source of the release has been stopped.

NA

The impacted area has been secured to protect human health and the environment.

x Released materials have been contained via the use of berms or dikes, absorbent pads, or other containment devices.

All free liquids and recoverable materials have been removed and managed appropriately.

If all the actions described above have <u>not</u> been undertaken, explain why:

Per 19.15.29.8 B. (4) NMAC the responsible party may commence remediation immediately after discovery of a release. If remediation has begun, please attach a narrative of actions to date. If remedial efforts have been successfully completed or if the release occurred within a lined containment area (see 19.15.29.11(A)(5)(a) NMAC), please attach all information needed for closure evaluation.

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

Printed Name: Garrett Green Signature: Garrett.green@exxonmobil.com	Title:
OCD Only Received by:	Date:

Received by OCD: 8/15/2023 11:37:55 AM Form C-141 State of New Mexico

Page 3

Oil Conservation Division

	Page 3 of 120
Incident ID	nAPP2315148242
District RP	
Facility ID	
Application ID	

Site Assessment/Characterization

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

What is the shallowest depth to groundwater beneath the area affected by the release?	<u>>110 (</u> ft bgs)
Did this release impact groundwater or surface water?	🗌 Yes 🛛 No
Are the lateral extents of the release within 300 feet of a continuously flowing watercourse or any other significant watercourse?	🗌 Yes 🛛 No
Are the lateral extents of the release within 200 feet of any lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark)?	🗌 Yes 🛛 No
Are the lateral extents of the release within 300 feet of an occupied permanent residence, school, hospital, institution, or church?	🗌 Yes 🛛 No
Are the lateral extents of the release within 500 horizontal feet of a spring or a private domestic fresh water well used by less than five households for domestic or stock watering purposes?	🗌 Yes 🛛 No
Are the lateral extents of the release within 1000 feet of any other fresh water well or spring?	🗌 Yes 🛛 No
Are the lateral extents of the release within incorporated municipal boundaries or within a defined municipal fresh water well field?	🗌 Yes 🛛 No
Are the lateral extents of the release within 300 feet of a wetland?	🗌 Yes 🛛 No
Are the lateral extents of the release overlying a subsurface mine?	🗌 Yes 🛛 No
Are the lateral extents of the release overlying an unstable area such as karst geology?	🗌 Yes 🛛 No
Are the lateral extents of the release within a 100-year floodplain?	🗌 Yes 🛛 No
Did the release impact areas not on an exploration, development, production, or storage site?	🗌 Yes 🔀 No

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

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

- Scaled site map showing impacted area, surface features, subsurface features, delineation points, and monitoring wells.
- Field data
- Data table of soil contaminant concentration data
- \boxtimes 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: 8/15/2023 11: Form C-141	37:55 AM			Page 4 of 126
Form C-141			Incident ID	nAPP2315148242
Page 4	Oil Conservation Division		District RP	
			Facility ID	
			Application ID	
regulations all operators are require public health or the environment. T failed to adequately investigate and	n given above is true and complete to the ed to report and/or file certain release noti The acceptance of a C-141 report by the C remediate contamination that pose a three 41 report does not relieve the operator of Sum	ifications and perform co DCD does not relieve the eat to groundwater, surfac	rrective actions for rele operator of liability sho ce water, human health iance with any other feo hator	eases which may endanger ould their operations have or the environment. In
OCD Only Received by: Shelly Wells		Date: <u>8/15/2</u>	023	

Received by OCD: 8/15/2023 11:37:55 AM Form C-141 State of New Mexico

Oil Conservation Division

Remediation Plan Checklist: Each of the following items must be included in the plan.

	Page 5 of 12
Incident ID	nAPP2315148242
District RP	
Facility ID	
Application ID	

Remediation Plan

Detailed description of proposed remediation technique Scaled sitemap with GPS coordinates showing delineation points Estimated volume of material to be remediated Closure criteria is to Table 1 specifications subject to 19.15.29.12(C)(4) NMAC Proposed schedule for remediation (note if remediation plan timeline is more than 90 days OCD approval is required) Deferral Requests Only: Each of the following items must be confirmed as part of any request for deferral of remediation. Contamination must be in areas immediately under or around production equipment where remediation could cause a major facility deconstruction. Extents of contamination must be fully delineated. Contamination does not cause an imminent risk to human health, 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: SSHE Coordinator In Signature: Date: 08/11/2023 email: garrett.green@exxonmobil.com Telephone: 575-200-0729 **OCD Only** Received by: Shelly Wells Date: 8/15/2023 Approved Approved with Attached Conditions of Approval Denied Deferral Approved Signature: Date:

August 11, 2023

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

Re: Deferral Request PLU 15 Twin Wells Ranch Central Tank Battery Incident Number NAPP2315148242 Eddy 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 excavation and soil sampling activities at the PLU 15 Twin Wells Ranch Central Tank Battery (CTB; Site). The purpose of the site assessment and soil sampling activities was to address impacts to soil following a release of produced water onto the wellpad. Based on field observations, field screening activities, and soil sample laboratory analytical results, XTO is submitting this *Deferral Request*, describing site assessment and excavation activities that have occurred and requesting deferral of final remediation for Incident Number NAPP2315148242 until the Site is reconstructed, and/or the well pad is abandoned.

SITE DESCRIPTION AND RELEASE SUMMARY

The Site is located in in Unit D, Section 22, Township 24 South, Range 31 East, in Eddy County, New Mexico (32.208754°, -103.770761°) and is associated with oil and gas exploration and production operations on federal land managed by the Bureau of Land Management (BLM).

On May 17, 2023, a hole developed on the main water line on the pipe rack due to internal corrosion. This resulted in the release of approximately 6.18 barrels (bbls) of produced water onto the pad. The release occurred near active production equipment and beneath active surface piping; no fluid was recovered. XTO submitted a Release Notification Form C-141 (Form C-141) on May 31, 2023. The release was assigned Incident Number NAPP2315148242.

SITE CHARACTERIZATION AND CLOSURE CRITERIA

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

The closest permitted groundwater well with depth to groundwater data is New Mexico Office of the State Engineer (NMOSE) well C-4508 with a depth to water measurement greater than 110 feet below ground surface (bgs). The well is located 0.31 miles northeast of the Site and the most recent

XTO Energy, Inc. Deferral Request PLU 15 Twin Wells Ranch CTB

documented water level measurement was collected on December 29, 2020. All wells used for depth to groundwater determination are depicted on Figure 1 and the referenced well records are included in Appendix A.

The closest continuously flowing or significant watercourse to the Site is an intermitten dry wash, located approximately 2.8 miles northwest 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 I Closure Criteria (Closure Criteria) apply:

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

DELINEATION SOIL SAMPLING ACTIVITIES

On June 16, 2023, Ensolum personnel visited the Site to evaluate the release extent based on information provided on the Form C-141 and visual observations. Five delineation soil samples (SS01 through SS05) were collected around and within the release extent at a depth 0.5 feet bgs to assess the lateral extent of impacted soil. The soil samples were field screened for volatile aromatic hydrocarbons and chloride utilizing a calibrated photoionization detector (PID) and Hach[®] chloride QuanTab[®] test strips, respectively. The release extent and soil sample locations were mapped utilizing a handheld Global Positioning System (GPS) unit and are depicted on Figure 2. Photographic documentation was collected and a photographic log is included in Appendix B.

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

Laboratory analytical results from preliminary soil sample SS01 indicated that TPH concentrations exceeded the Closure Criteria at 0.5 feet bgs. Based on visible staining in the release area, elevated field screening results, and laboratory analytical results for the soil samples, additional remediation activities were warranted.

EXCAVATION ACTIVITIES

Between July 12, 2023 and July 13, 2023, Ensolum personnel were onsite to conduct delineation soil sampling and oversee the removal of impacted soils. One borehole (SS01A) was advanced via hand auger to determine the vertical extent of the impacted soil in the vicinity of delineation soil sample SS01.



XTO Energy, Inc. Deferral Request PLU 15 Twin Wells Ranch CTB

Soil sample SS01A was advanced to a depth of 5 feet bgs. Four additional boreholes were advanced to a depth of 5 feet bgs in the vicinity of sample locations (SS02 through SS05). Samples (SS02A through SS05A) were collected at 5 feet bgs. Soil from the boreholes was field screened for VOCs and chloride. Field screening results and observations from the boreholes were logged on a lithologic/soil sampling log, which is included in Appendix C, and the locations of the boreholes are depicted on Figure 2.

This release occurred on the well pad near active production equipment and beneath active surface piping. XTO safety policy restricts soil disturbing activities within a 2-foot radius of any on-site, active production equipment; however, the accessile spill area was excavated to the maximum extent possible (MEP) with a hydrovac and hand tools. Following the removal of impacted soil, 5-point composite excavation confirmation soil samples were collected every 200 square feet from the floor of the excavation. The 5-point composite samples were collected by placing five equivalent aliquots of soil into a 1-gallon, resealable plastic bag and homogenizing the samples by thouroughly mixing. Due to the shallow nature of the excavation, the composite floor samples included soil from the sidewalls and floors Ensolum personnel collected two composite floor samples from the excavated area (FS01 and FS02) at a depth ranging from ground surface to 1.5 feet bgs. Confirmation soil samples were handled and analyzed in the same manner as described above.

The excavation area measured approximately 109 square feet. A total of approximately 6 cubic yards of impacted soil was removed during excavation activities and was properly disposed of at the R360 Facility in Hobbs, New Mexico.

Laboratory analytical results for delineation soil sample SS01 collected at a depth of 0.5 feet bgs indicated TPH concentrations exceeded the applicable Closure Criteria, however, the terminal sample collected at 5 feet bgs indicated all COC concentrations were compliant with the Closure Criteria, vertically defining the release extent. Laboratory analytical results for all confirmation soil samples indicated concentrations of all COCs were in compliance with the Closure Criteria. Confirmation sample locations are identified on Figure 3, laboratory analytical results summarized in Table 1, and laboratory analytical reports are included in Appendix D. NMOCD notifications are provided in Appendix E.

The estimated area of remaining impacted soil measures approximately 344 square feet and assuming a depth of 5 feet based on the analytical results for delineation borehole SS01A, a total of approximately 64 cubic yards of impacted soil remains in place. The deferral area and delineation soil samples are depicted on Figure 4.

DEFFERAL REQUEST

XTO is requesting deferral of final remediation due to the presence of active production equipment and process piping preventing full excavation of impacted soil. The impacted soil is limited to the area beneath production equipment and surface piping, where remediation would require a major facility deconstruction. The impacted soil remaining in place is delineated vertically by soil sample SS01A, collected at 5 feet bgs and by soil samples SS02A through SS05A collected at 5 feet bgs. The soil is laterally delineated by delineation soil samples SS02 through SS05 at 0.5 feet bgs.

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 110 feet, and the entirety of the release remained on pad. Any gross impacts were removed via scraping of the surface soils.

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 NAPP2315148242 until final reclamation of the well pad or major construction, whichever comes first.



XTO Energy, Inc. Deferral Request PLU 15 Twin Wells Ranch CTB

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

Sincerely, **Ensolum, LLC**

Ashley Giovengo Senior Engineer

Ashley L. ager

Ashley L. Ager, MS, PG Principal

cc: Garrett Green, XTO Shelby Pennington, XTO Bureau of Land Management

Appendices:

- Figure 1 Site Receptor Map
- Figure 2 Delineation Soil Sample Locations
- Figure 3 Confirmation Soil Sample Locations
- Figure 4 Deferral Area Map
- Table 1Soil Sample Analytical Results
- Appendix A Referenced Well Records
- Appendix B Photographic Log
- Appendix C Lithologic / Soil Sampling Logs
- Appendix D Laboratory Analytical Reports & Chain-of-Custody Documentation
- Appendix E NMOCD Sample Notification





FIGURES







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TABLES

.

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ENSOLUM

TABLE 1 SOIL SAMPLE ANALYTICAL RESULTS PLU Twin Wells Ranch CTB XTO Energy, Inc. Eddy County, New Mexico

Sample I.D.	Sample Date	Sample Depth (feet bgs)	Benzene (mg/kg)	Total BTEX (mg/kg)	TPH GRO (mg/kg)	TPH DRO (mg/kg)	TPH ORO (mg/kg)	GRO+DRO (mg/kg)	Total TPH (mg/kg)	Chloride (mg/kg)
NMOCD Table I C	losure Criteria (l	NMAC 19.15.29)	10	50	NE	NE	NE	1,000	2,500	20,000
				Deli	neation Soil Sa	mples				
SS01	06/16/2023	0.5	<0.002	1.22	724	4,960	<49.9	5, 684	5,680	4,660
SS01A	07/12/2023	5	<0.002	<0.004	<50.1	<50.1	<50.1	<50.1	<50.1	75.9
SS02	06/16/2023	0.5	<0.002	<0.004	<49.9	<49.9	<49.9	<49.9	<49.9	131
SS02A	07/12/2023	5	<0.002	<0.004	<49.7	<49.7	<49.7	<49.7	<49.7	87.8
SS03	06/16/2023	0.5	<0.001	<0.003	<49.8	52	<49.8	52	51.6	115
SS03A	07/12/2023	5	<0.002	<0.004	<50.3	<50.3	<50.3	<50.3	<50.3	81.1
SS04	06/16/2023	0.5	<0.001	< 0.003	<49.9	<49.9	<49.9	<49.9	<49.9	79.9
SS04A	07/12/2023	5	<0.002	<0.004	<50.0	<50.0	<50.0	<50.0	<50.0	90.8
SS05	06/16/2023	0.5	<0.001	<0.003	<49.9	<49.9	<49.9	<49.9	<49.9	94.6
SS05A	07/12/2023	5	<0.002	<0.004	<49.6	<49.6	<49.6	<49.6	<49.6	56.0
	• •			Conf	irmation Soil Sa	mples	·		- 	·
FS01	07/12/2023	1.5	<0.002	<0.003	<49.7	<49.7	<49.7	<49.7	<49.7	213
FS02	07/13/2023	1.5	<0.002	<0.004	<49.8	<49.8	<49.8	<49.8	<49.8	160

Notes:

bgs: below ground surface

mg/kg: milligrams per kilogram

NMOCD: New Mexico Oil Conservation Division

BTEX: Benzene, Toluene, Ethylbenzene, and Xylenes

TPH: Total Petroleum Hydrocarbon n NMAC: New Mexico Administrative Code

GRO: Gasoline Range Organics

DRO: Diesel Range Organics

ORO: Oil Range Organics

Concentrations in **bold** exceed the NMOCD Table I Closure Criteria or reclamation requirement where applicable.

Grey text indicates soil sample removed during excavation activities



APPENDIX A

Referenced Well Records



WELL RECORD & LOG

OFFICE OF THE STATE ENGINEER

www.ose.state.nm.us

NOI	OSE POD NO POD1 (B	H-01)		-		WELL TAG ID NO. n/a			ose file no(s). C-4508					
LOCAT	WELL OWN	gy (Ky	le Li	-					PHONE (OPTIONAL)					
MELL 1	WELL OWN 6401 Holid								CITY Midland		state TX	79707	ZIP	
GENERAL AND WELL LOCATION	WELL LOCATIO (FROM GP			TUDE	GREES 32° -103°	32° 12' 46.69"		" N		ACCURACY REQUIRED: ONE TENTH OF A SECOND ADTUM REQUIRED: WGS 84				
1. GENE	DESCRIPTIO	DESCRIPTION RELATING WELL LOCATION TO STREET ADDRESS AND COMMON LANDMARKS – PLSS (SECTION, TOWNSHJIP, RANGE) WHERE AVAILABLE SW SE Sec. 15 T24S R31E												
	LICENSE NO. NAME OF LICENSED DRILLER 1249 Jackie D. Atkins								NAME OF WELL DRILLING COMPANY Atkins Engineering Associates, Inc.					
	DRILLING STARTED 12/29/2020			DRILLING ENDED 12/29/2020		OMPLETED WELL (FI rary well materia			le depth (ft) 110	DEPTH WATER FIRS	T ENCO n/a			
N	COMPLETED WELL IS:			ARTESIAN	🗾 DRY HO		STATIC WATER LEV	el in co n/a		L (FT)				
ATIC	DRILLING F	LUID:			MUD ADDITTVES - SPECIFY:									
ORM	DRILLING M	IETHOD	r:	ROTARY	HAMME	R 🗍 CABLE TO	DOL	✓ OTHE	R - SPECIFY:	Hollo	w Stem	Auger		
2. DRILLING & CASING INFORMATION	DEPTH (feet bgl) FROM TO			BORE HOLE DIAM (inches)	(include each casing string, and			CONN T	ASING NECTION YPE ling diameter)	CASING INSIDE DIAM. (inches)	f. CASING WALL THICKNESS (inches)		SLOT SIZE (inches)	
¢ C/	0	11	0	±8.5	Boring- HSA			(and conbi						
ŊG														
ILLL														
DR.									<u>. </u>					
7														
				+		<u> </u>								
AL	DEPTH FROM	(feet bg T(BORE HOLE DIAM. (inches)		ST ANNULAR SE				AMOUNT (cubic feet)		METHOI PLACEM		
TERI					1									
LAM														
AR														
3. ANNULAR MATERIAL														
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÷					<u> </u>							· · · · · · · · · · · · · · · · · · ·		
FOR	OSE INTER	NAL U	ISE						WR-20	WELL RECORD &	I	Version 06/30)/17)	

FILE NO. 7-4508		POI) NO. /		TRN NO.	1186651	
LOCATION Expl 2	45.31E.	15.344	1	WELL	, TAG ID NO.		PAGE 1 OF 2

	DEPTH (1 FROM	eet bgl) TO	THICKNESS (feet)	INCLUDE WATE	D TYPE OF MATERIA R-BEARING CAVITI plemental sheets to fu	ES OI	R FRAC	TURE ZONE	5	WAT BEAR (YES)	ING?	ESTIMATED YIELD FOR WATER- BEARING ZONES (gpm)
	0	14	14	SAND, medium-fine grain, poorly graded, someclaiche, light-brown-tan, dry							√ N	
	14	15	1	· · · · · · · · · · · · · · · · · · ·	n, poorly graded, some					Y	√ N	
	15	25	5	CALICHE, moderately consolidated, silty, some gravel, off-white-tan, dry						Y	√ N	
	25	46	21	SILTSTONE, mod. consolidated, some sand, red-brown, dry							√ N	
	46	64	18	CLAYSTONE, mod. consolidated, cohesive, few sand, red-brown, dry						Y	√ N	
L	64	72	8	SANDSTONE, high co	nsolidated, medium-gr	ain, w	ell grade	d,white/lighth	rown	Y	√ N	
VEL	72	90	18	CLAYSTONE, high co			-			Y	√ N	
4. HYDROGEOLOGIC LOG OF WELL	90	101	11	· · · · · · · · · · · · · · · · · · ·	igh consolidated, fine g		•			Y	√ N	
	101	108	7	CLAYSTONE, high co						Y	√ N	
CL	108	111	3	· •	consolidated, fine grai		•	••		Y	√ N	
Ū			_							Y	N	
EOL										<u>-</u> Y	N	
SOG										Y	N	
XDE	<u> </u>										N	
4. H										Y	N	
										Y		
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		_	_							L YIELD		0.00
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NOIS	WELL TES			ACH A COPY OF DAT ME, AND A TABLE SH								
	MISCELLA	NEOUS INF	16	emporary well materia et below ground surfa ogs adapted from WSI	ce, then hydrated be	soil b ntoni	oring ba te chips	ackfilled usin from ten fee	ng dril et belo	l cuttings w ground	from tot I surface	al depth to ten to surface.
TEST; RIG SUPERV			2.		on one protogram							
TES	PRINT NAM	IE(S) OF DI	ULL RIG SUPER	VISOR(S) THAT PRO	VIDED ONSITE SUPP	ERVIS	SION OF	WELL CON	STRU	CTION O	THER TH	AN LICENSEE:
,	Shane Eldrid	ige										
TURE	CORRECT I	ECORD O	F THE ABOVE I	TIES THAT, TO THE B DESCRIBED HOLE AN DO DAYS AFTER COMI	D THAT HE OR SHE	WIL	L FILE 1					
SIGNATURE	Jack Atk	ins		Jac	ckie D. Atkins					02/1	/2021	
Ŷ		SIGNAT	URE OF DRILLE	R / PRINT SIGNEE	NAME						DATE	
EO												mion 06/20/2017
	<u>R OSE INTERI</u> E NO.		509		POD NO.			TRN NO.		V K G G		rsion 06/30/2017)
	CATION		10		/		WELL	TAG ID NO.		·····	-	PAGE 2 OF 2

.



APPENDIX B

Photographic Log









APPENDIX C

Lithologic Soil Sampling Logs

								Sample Name: SS01	Date:07/12/2023	
				•				Site Name: PLU 15 Twin Wells Rai		
			N	5	ΟΙ		M	Incident Number: nAPP23151482		
-								Job Number: 03C1558247	-TL	
			0610		SAMPLING	Logged By: Mariaha O'Dell Method: Hand Auger				
Coord		2.208751		-				Hole Diameter: 6"	Total Depth: 5'	
					vith HACH Ch	loride Test S	Strips and	PID for chloride and vapor, respec		
								asurements done with a +40% cor		
Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample ID	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithologic De	scriptions	
	F 010	1 1 2 0	v	6604		0	COLIE	CCUE Ded meterial		
D		1,130	Y	SS01	0.5	<u>-</u>	CUTE	CCHE. Pad material		
D	3,366	2,170	Ν		1 _	_ 1				
					-	-				
D	<174	40.5	N		2	2	SP	Sand. Reddish brown, vf-f g	rainad	
	\1/4	40.5	IN		<u> </u>		Эг	poorly graded, dry.	granieu,	
					_	-				
D	<174	0	Ν		3	3	SP			
					_	-				
					_	-				
D	<174	18.3	Ν		4	4	SP			
					-	-				
	<174	0	NI	SS01A		5	SP			
	<1/4	0	Ν	3301A	5	-	epth @	l 5' høs		
						Total D	cptil @	5 653.		
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1								Sample Name: SS02	Date:07/12/2023	
					•			Site Name: PLU 15 Twin Wells Ran		
			N	5	ΟΙ		Μ	Incident Number: nAPP231514824		
									2	
					SAMPLING	Job Number: 03C1558247				
Coordi				-	SAIVIPLING			Logged By: Mariaha O'Dell Hole Diameter: 6"	Method: Hand Auger Total Depth: 5'	
	inates: 32					le viele Test (
								PID for chloride and vapor, respect asurements done with a +40% corr		
Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample ID	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithologic Des	criptions	
					L	0				
D	<179	0	Ν	SS02	0.5	-	CCHE	CCHE. Pad material with gra	vel.	
D	700	0.1	N		1 _	1	SP	Sand. Reddish brown, vf-fg drv.	rained, poorly graded,	
D	<174	0	N		2	2				
D	<174	0	N		3_	3				
D	<174	0	N		4	4				
	<174	0	N	SS02A	5	5				
	<1/4	0	IN	330ZA	5		epth @	L 5' høs		
						rotar D	eptil e	5 653.		
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	_							Sample Name: SS03	Date:07/12/2023	
				C				Site Name: PLU 15 Twin Wells Ra		
				2	ΟΙ			Incident Number: nAPP23151482		
						Job Number: 03C1558247				
		LITHOL	OGI		SAMPLING	Logged By: Mariaha O'Dell Method: Hand Auger				
Coordi		2.208666		-				Hole Diameter: 6"	Total Depth: 5'	
Comm	ents: Fiel	ld screen	ing co	nducted w	ith HACH Ch	loride Test S	Strips and	PID for chloride and vapor, respec	ctively. Chloride test	
perfor	med with	n 1:4 dilut	ion fa	actor of soi	l to distilled	water. All ch	nloride me	easurements done with a +40% co	rrection factor.	
Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample ID	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithologic De	escriptions	
					L	LO				
D	258	0	Ν	SS03	0.5	-	CCHE	CCHE. Pad material with br	own sand.	
D	<174	0	Ν		1	1				
						-				
					_	-				
D	<174	0	Ν		2	2	SP	Sand. Reddish brown, vf- f dry.	grained, poorly graded,	
					-	-		ury.		
D	<174	0	NI		3	3				
U	<1/4	0	Ν		5_	_ 3				
					_	-				
D	<174	0	Ν		4	4				
						-				
					_	-				
D	<174	0	Ν	SS03A	5	5				
						Total D	epth @	5' bgs.		
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								Sample Name: SS04	Data:07/12/2022
								Site Name: PLU 15 Twin Wells Rand	Date:07/12/2023
		E	N	S	ΟΙ		Μ	Incident Number: nAPP231514824	
					SAMPLING	Job Number: 03C1558247			
Coordi		2.208785		-	SAIVIPLING	100		Logged By: Mariaha O'Dell Hole Diameter: 6"	Method: Hand Auger Total Depth: 5'
						lorido Tost 9	tring and	PID for chloride and vapor, respecti	
								easurements done with a +40% corre	
Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample ID	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithologic Des	criptions
D	<174	0	N	SS04	0.5	0	CCHE	CCHE. Pad material with bro	wn sand.
D	<174	0	N		1	1	SP	Sand. Reddish brown, vf-fgi dry.	rained, poorly graded,
					-	-		ury.	
D	<174	0	Ν		2	2			
D	<174	0	N		3 _	3			
D	<174	0	N		4 _	4			
D	<174	0	N	SS04A	5	- 5			
$\overline{\ }$	N1/4	0	IN	3304A	5		epth @	5' bgs.	
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								Sample Name: SS05	Data:07/12/2022
								Site Name: PLU 15 Twin Wells Rand	Date:07/12/2023
		E	N	S	ΟΙ		Μ	Incident Number: nAPP231514824	
-									
					SAMPLING	Job Number: 03C1558247			
Coordi	inates: 32			-	SAIVIPLING	100		Logged By: Mariaha O'Dell Hole Diameter: 6"	Method: Hand Auger Total Depth: 5'
						lorido Tost 9	tring and	PID for chloride and vapor, respecti	
								easurements done with a +40% corre	
Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample ID	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithologic Des	criptions
D	<174	0	N	SS05	0.5	LO	CCHE	CCHE. Pad material with bro	wn sand.
D	<174	0	N		1	- 1	SP	Sand. Reddish brown, vf- f gi	
	\ 1/4	U	IN		<u>+</u> _		JĽ	dry.	anica, poorry grauca,
					-	-			
D	<174	0	Ν		2	2			
					-	-			
D	<174	0	N		3	3			
U	N 1/4	0	IN		<u>з</u>				
					-	-			
D	<174	0	Ν		4	4			
					-	-			
D	<174	0	Ν	SS05A	5	5 Total D	epth @	E' bac	
						TOLATD	eptil @	Jugs.	
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APPENDIX D

Laboratory Analytical Reports & Chain of Custody Documentation



Environment Testing

ANALYTICAL REPORT

PREPARED FOR

Attn: Tacoma Morrissey Ensolum 601 N. Marienfeld St. Suite 400 Midland, Texas 79701 Generated 6/23/2023 10:45:49 AM Revision 1

JOB DESCRIPTION

PLU 15 TWIN WELLS RANCH CTB SDG NUMBER 03C1558247

JOB NUMBER

890-4830-1

Eurofins Carlsbad 1089 N Canal St. Carlsbad NM 88220

See page two for job notes and contact information



Eurofins Carlsbad

Job Notes

This report may not be reproduced except in full, and with written approval from the laboratory. The results relate only to the samples tested. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

Analytical test results meet all requirements of the associated regulatory program (i.e., NELAC (TNI), DoD, and ISO 17025) unless otherwise noted under the individual analysis.

Authorization

AMER

Generated 6/23/2023 10:45:49 AM Revision 1

Authorized for release by Jessica Kramer, Project Manager Jessica.Kramer@et.eurofinsus.com (432)704-5440

Eurofins Carlsbad is a laboratory within Eurofins Environment Testing South Central, LLC, a company within Eurofins Environment Testing Group of Companies

Laboratory Job ID: 890-4830-1

SDG: 03C1558247

Table of Contents

Cover Page	1
Table of Contents	3
Definitions/Glossary	4
Case Narrative	5
Client Sample Results	6
Surrogate Summary	10
QC Sample Results	11
QC Association Summary	18
Lab Chronicle	21
Certification Summary	23
Method Summary	24
Sample Summary	25
Chain of Custody	26
Receipt Checklists	27

Definitions/Glossary

Client: Ensolum Project/Site: PLU 15 TWIN WELLS RANCH CTB

Q

Qualifiers		- 3
GC VOA Qualifier	Qualifier Description	4
*+	LCS and/or LCSD is outside acceptance limits, high biased.	_
S1-	Surrogate recovery exceeds control limits, low biased.	5
S1+	Surrogate recovery exceeds control limits, high biased.	
U	Indicates the analyte was analyzed for but not detected.	
GC Semi VC	Α	
Qualifier	Qualifier Description	
S1+	Surrogate recovery exceeds control limits, high biased.	_
U	Indicates the analyte was analyzed for but not detected.	8
HPLC/IC		
Qualifier	Qualifier Description	9
U	Indicates the analyte was analyzed for but not detected.	_
Glossary		- 10
Abbreviation	These commonly used abbreviations may or may not be present in this report.	4.4
¤	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	4.0
CNF	Contains No Free Liquid	13

G

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

Job ID: 890-4830-1

SDG: 03C1558247

Case Narrative

Client: Ensolum Project/Site: PLU 15 TWIN WELLS RANCH CTB

Job ID: 890-4830-1

Laboratory: Eurofins Carlsbad

Narrative

Job Narrative 890-4830-1

REVISION

The report being provided is a revision of the original report sent on 6/21/2023. The report (revision 1) is being revised due to Per client email, requesting TPH rer un on SS02.

Receipt

The samples were received on 6/16/2023 1:11 PM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 5.0°C

Receipt Exceptions

The following samples were received and analyzed from an unpreserved bulk soil jar: SS01 (890-4830-1), SS02 (890-4830-2), SS03 (890-4830-3), SS04 (890-4830-4) and SS05 (890-4830-5).

GC VOA

Method 8021B: The laboratory control sample (LCS) associated with preparation batch 880-55932 and analytical batch 880-55895 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: (MB 880-55932/5-A). Evidence of matrix interferences is not obvious.

Method 8021B: CCV was biased low for the m,p and o-xylenes. Another CCV was analyzed and acceptable within the 12 hour period; therefore, the data was qualified and reported. (CCV 880-55895/64)

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: Su	rrogate recovery for the following samples were outside control limits: (890-4844-A-1-G), (890-4844-A-1-H MS)	
and (890-4844-A-1-I MSD)	. Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.	

Method 8015MOD_NM: The surrogate recovery for the blank associated with preparation batch 880-56095 and analytical batch 880-56039 was outside the upper control limits.

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

HPLC/IC

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

Job ID: 890-4830-1 SDG: 03C1558247

Client Sample Results

Client: Ensolum Project/Site: PLU 15 TWIN WELLS RANCH CTB

Client Sample ID: SS01 Date Collected: 06/16/23 11:05 Date Received: 06/16/23 13:11 Sample Depth: 0.5

Method: SW846 8021B - Volati			ls (GC)					
Analyte		Qualifier		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.00232		0.00199	mg/Kg		06/19/23 13:47	06/20/23 14:30	1
Toluene	0.227		0.00199	mg/Kg		06/19/23 13:47	06/20/23 14:30	1
Ethylbenzene	0.0383		0.00199	mg/Kg		06/19/23 13:47	06/20/23 14:30	1
m-Xylene & p-Xylene	0.755		0.00398	mg/Kg		06/19/23 13:47	06/20/23 14:30	1
o-Xylene	0.197		0.00199	mg/Kg		06/19/23 13:47	06/20/23 14:30	1
Xylenes, Total	0.952		0.00398	mg/Kg		06/19/23 13:47	06/20/23 14:30	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)			70 - 130			06/19/23 13:47	06/20/23 14:30	1
1,4-Difluorobenzene (Surr)	97		70 - 130			06/19/23 13:47	06/20/23 14:30	1
Method: TAL SOP Total BTEX	- Total BTF	X Calculati	ion					
Analyte		Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	1.22		0.00398	mg/Kg	— -		06/20/23 16:09	1
∑ Method: SW846 8015 NM - Die	sel Range (Organice (
Analyte		Qualifier	RL (GC)	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	5680		49.9	onit mg/Kg			06/20/23 16:16	1
-				my/rxy			JULUIZU 10.10	I
Method: SW846 8015B NM - Di		-		110:4	~	Droport	Analyzed	
Analyte		Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	724		49.9	mg/Kg		06/19/23 09:05	06/19/23 18:13	1
Diesel Range Organics (Over C10-C28)	4960		49.9	mg/Kg		06/19/23 09:05	06/19/23 18:13	1
Oll Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg		06/19/23 09:05	06/19/23 18:13	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	121		70 - 130			06/19/23 09:05	06/19/23 18:13	1
o-Terphenyl	101		70 - 130			06/19/23 09:05	06/19/23 18:13	1
Method: EPA 300.0 - Anions, Io	on Chromat	tography -	Soluble					
Analyte		Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	4660		49.6	mg/Kg			06/20/23 22:03	10
Client Sample ID: SS02 Lab Sample ID: 89 Date Collected: 06/16/23 11:15 Ma Ma ample Depth: 0.5								1830-2 c: Solid
Method: SW846 8021B - Volati		Compours						
Analyte		Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		06/19/23 13:47		1
Toluene	<0.00200		0.00200	mg/Kg				1
Ethylbenzene	<0.00200		0.00200	mg/Kg		06/19/23 13:47		1
m-Xylene & p-Xylene	0.00420		0.00401	mg/Kg		06/19/23 13:47		1
o-Xylene	< 0.00200	U	0.00200	mg/Kg		06/19/23 13:47		1
Xylenes, Total	0.00420		0.00401	mg/Kg		06/19/23 13:47		1
Surrogato	%Pocovory		Limite					

Job ID: 890-4830-1 SDG: 03C1558247

Lab Sample ID: 890-4830-1

Matrix: Solid

5

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		06/19/23 13:47	06/20/23 14:51	1
Toluene	<0.00200	U	0.00200	mg/Kg		06/19/23 13:47	06/20/23 14:51	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		06/19/23 13:47	06/20/23 14:51	1
m-Xylene & p-Xylene	0.00420		0.00401	mg/Kg		06/19/23 13:47	06/20/23 14:51	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		06/19/23 13:47	06/20/23 14:51	1
Xylenes, Total	0.00420		0.00401	mg/Kg		06/19/23 13:47	06/20/23 14:51	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)			70 - 130			06/19/23 13:47	06/20/23 14:51	1

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Client Sample Results

Client: Ensolum Project/Site: PLU 15 TWIN WELLS RANCH CTB

Client Sample ID: SS02

Lab Sample ID: 890-4830-2

Job ID: 890-4830-1 SDG: 03C1558247

Matrix: Solid

Date Collected: 06/16/23 11:15 Date Received: 06/16/23 13:11

Sample Depth: 0.5

Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1,4-Difluorobenzene (Surr)	106		70 - 130			06/19/23 13:47	06/20/23 14:51	1
Method: TAL SOP Total BTEX	- Total BTE	X Calculat	ion					
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	0.00420		0.00401	mg/Kg			06/20/23 16:09	1
Method: SW846 8015 NM - Die	esel Range (Organics (DRO) (GC)					
Analyte		Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9	mg/Kg			06/20/23 16:16	1
Method: SW846 8015B NM - D)iesel Range	Organics	(DRO) (GC)					
Analyte		Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9	mg/Kg		06/22/23 12:52	06/23/23 07:08	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9	mg/Kg		06/22/23 12:52	06/23/23 07:08	1
Oll Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg		06/22/23 12:52	06/23/23 07:08	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	125		70 - 130			06/22/23 12:52	06/23/23 07:08	1
o-Terphenyl	117		70 - 130			06/22/23 12:52	06/23/23 07:08	1
Method: EPA 300.0 - Anions,	Ion Chroma	tography -	Soluble					
Analyte		Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	131		4.99	mg/Kg			06/20/23 22:21	1

Client Sample ID: SS03 Date Collected: 06/16/23 11:20

Date Received: 06/16/23 13:11 Sample Depth: 0.5

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U *+	0.00199	mg/Kg		06/20/23 14:04	06/21/23 03:32	1
Toluene	<0.00199	U	0.00199	mg/Kg		06/20/23 14:04	06/21/23 03:32	1
Ethylbenzene	<0.00199	U	0.00199	mg/Kg		06/20/23 14:04	06/21/23 03:32	1
m-Xylene & p-Xylene	<0.00398	U	0.00398	mg/Kg		06/20/23 14:04	06/21/23 03:32	1
o-Xylene	<0.00199	U	0.00199	mg/Kg		06/20/23 14:04	06/21/23 03:32	1
Xylenes, Total	<0.00398	U	0.00398	mg/Kg		06/20/23 14:04	06/21/23 03:32	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	86		70 - 130			06/20/23 14:04	06/21/23 03:32	1
1,4-Difluorobenzene (Surr)	82		70 - 130			06/20/23 14:04	06/21/23 03:32	1
- Method: TAL SOP Total BT	EX - Total BTE	X Calculat	ion					
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398	mg/Kg			06/21/23 09:57	1
- Method: SW846 8015 NM -	Diesel Range	Organics (DRO) (GC)					
Analyte		Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac

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Matrix: Solid

Page 37 of 126

5

Client Sample Results

Client: Ensolum Project/Site: PLU 15 TWIN WELLS RANCH CTB

Client Sample ID: SS03 Date Collected: 06/16/23 11:20

Date Received: 06/16/23 13:11 Sample Depth: 0.5

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.8	U	49.8	mg/Kg		06/19/23 09:05	06/19/23 19:04	1
Diesel Range Organics (Over C10-C28)	51.6		49.8	mg/Kg		06/19/23 09:05	06/19/23 19:04	1
Oll Range Organics (Over C28-C36)	<49.8	U	49.8	mg/Kg		06/19/23 09:05	06/19/23 19:04	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	92		70 - 130			06/19/23 09:05	06/19/23 19:04	1
o-Terphenyl	101		70 - 130			06/19/23 09:05	06/19/23 19:04	1
Method: EPA 300.0 - Anions, I	on Chromat	tography -	Soluble					
Analyte		Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	115		4.95	mg/Kg			06/20/23 22:27	1
Client Sample ID: SS04						Lab Samp	le ID: 890-4	830-4
ate Collected: 06/16/23 11:25								: Solid
ate Received: 06/16/23 13:11								

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00198	U *+	0.00198	mg/Kg		06/20/23 14:04	06/21/23 03:52	1
Toluene	<0.00198	U	0.00198	mg/Kg		06/20/23 14:04	06/21/23 03:52	1
Ethylbenzene	<0.00198	U	0.00198	mg/Kg		06/20/23 14:04	06/21/23 03:52	1
m-Xylene & p-Xylene	<0.00396	U	0.00396	mg/Kg		06/20/23 14:04	06/21/23 03:52	1
o-Xylene	<0.00198	U	0.00198	mg/Kg		06/20/23 14:04	06/21/23 03:52	1
Xylenes, Total	<0.00396	U	0.00396	mg/Kg		06/20/23 14:04	06/21/23 03:52	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	92		70 - 130			06/20/23 14:04	06/21/23 03:52	1
1,4-Difluorobenzene (Surr)	78		70 - 130			06/20/23 14:04	06/21/23 03:52	1
Total BTEX	<0.00396	U	0.00396	mg/Kg			06/21/23 09:57	1
_ Method: SW846 8015 NM - Die	esel Range	Organics (DRO) (GC)					1
Method: SW846 8015 NM - Die Analyte	esel Range Result	Organics (Qualifier	DRO) (GC) RL	mg/Kg	D	Prepared	Analyzed	1 Dil Fac
_ Method: SW846 8015 NM - Die	esel Range	Organics (Qualifier	DRO) (GC)		D	Prepared		
Method: SW846 8015 NM - Die Analyte Total TPH Method: SW846 8015B NM - D	esel Range (Result <49.9 Diesel Range	Organics (Qualifier U	DRO) (GC) <u>RL</u> <u>49.9</u> (DRO) (GC)	Unit mg/Kg			Analyzed 06/20/23 16:16	Dil Fac
Method: SW846 8015 NM - Die Analyte Total TPH	esel Range (Result <49.9 Diesel Range Result	Organics (Qualifier U e Organics Qualifier	DRO) (GC) RL 49.9	Unit	D	Prepared	Analyzed	Dil Fac
Method: SW846 8015 NM - Die Analyte Total TPH Method: SW846 8015B NM - D Analyte Gasoline Range Organics	esel Range (Result <49.9 Diesel Range	Organics (Qualifier U e Organics Qualifier	DRO) (GC) <u>RL</u> <u>49.9</u> (DRO) (GC)	Unit mg/Kg			Analyzed 06/20/23 16:16	Dil Fac
Method: SW846 8015 NM - Die Analyte Total TPH Method: SW846 8015B NM - D Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over	esel Range (Result <49.9 Diesel Range Result	Drganics (Qualifier U e Organics Qualifier U	DRO) (GC) <u>RL</u> <u>49.9</u> (DRO) (GC) <u>RL</u>	Unit mg/Kg		Prepared	Analyzed 06/20/23 16:16 Analyzed 06/19/23 19:29	Dil Fac
Method: SW846 8015 NM - Die Analyte Total TPH Method: SW846 8015B NM - D Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28)	esel Range Result <49.9 Diesel Range Result <49.9	Drganics (Qualifier U e Organics Qualifier U	DRO) (GC) <u>RL</u> <u>49.9</u> (DRO) (GC) <u>RL</u> <u>49.9</u>	Unit mg/Kg Unit mg/Kg		Prepared 06/19/23 09:05	Analyzed 06/20/23 16:16 Analyzed 06/19/23 19:29 06/19/23 19:29	Dil Fac
Method: SW846 8015 NM - Die Analyte Total TPH Method: SW846 8015B NM - D	esel Range Result <49.9 Diesel Range Result <49.9 <49.9	Drganics (Qualifier U e Organics Qualifier U U U	DRO) (GC) <u>RL</u> <u>49.9</u> (DRO) (GC) <u>RL</u> <u>49.9</u> <u>49.9</u>	Unit mg/Kg Unit mg/Kg mg/Kg		Prepared 06/19/23 09:05 06/19/23 09:05	Analyzed 06/20/23 16:16 Analyzed 06/19/23 19:29 06/19/23 19:29	Dil Fac

06/19/23 09:05 06/19/23 19:29

5

Job ID: 890-4830-1 SDG: 03C1558247

Lab Sample ID: 890-4830-3 Matrix: Solid

o-Terphenyl

70 - 130

101

1

Page 39 of 126

		Clien	t Sample Res	sults				
lient: Ensolum			-				Job ID: 890-	4830-1
roject/Site: PLU 15 TWIN WELL	S RANCH C	СТВ					SDG: 03C1	558247
Client Sample ID: SS04						Lab Samp	le ID: 890-4	830-4
ate Collected: 06/16/23 11:25							Matrix	: Solid
ate Received: 06/16/23 13:11								
ample Depth: 0.5								
Method: EPA 300.0 - Anions, I	on Chroma	tography	- Soluble					
Analyte		Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	79.9		4.99	mg/Kg			06/20/23 22:33	1
light Sample ID: SS05						Lob Somn	le ID: 890-4	020 E
Client Sample ID: SS05						Lab Samp		
ate Collected: 06/16/23 11:30							Matrix	: Solid
ate Received: 06/16/23 13:11 ample Depth: 0.5								
Method: SW846 8021B - Volati	ile Organic	Compour	ıds (GC)					
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U *+	0.00199	mg/Kg		06/20/23 14:04	06/21/23 04:13	1
Toluene	<0.00199	U	0.00199	mg/Kg		06/20/23 14:04	06/21/23 04:13	1
Ethylbenzene	<0.00199	U	0.00199	mg/Kg		06/20/23 14:04	06/21/23 04:13	1
m-Xylene & p-Xylene	<0.00398	U	0.00398	mg/Kg		06/20/23 14:04	06/21/23 04:13	1
o-Xylene	<0.00199		0.00199	mg/Kg		06/20/23 14:04	06/21/23 04:13	1
Xylenes, Total	<0.00398	U	0.00398	mg/Kg		06/20/23 14:04	06/21/23 04:13	1
Surrogate	%Recovery		Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	89		70 - 130			06/20/23 14:04	06/21/23 04:13	1
1,4-Difluorobenzene (Surr)	76		70 - 130			06/20/23 14:04	06/21/23 04:13	1
Method: TAL SOP Total BTEX	- Total BTE	X Calcula	tion					
Analyte		Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398	mg/Kg			06/21/23 09:57	1
Mothod: SW946 9045 NM Di	a al Danna	Ormaniaa						
Method: SW846 8015 NM - Die Analyte		Qualifier		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9		49.9	mg/Kg			06/20/23 16:16	1
		0	10.0	mgritg			00/20/20 10:10	·
Method: SW846 8015B NM - D	iesel Range	• Organic	s (DRO) (GC)					
Analyte		Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9	mg/Kg		06/19/23 09:05	06/19/23 19:54	1
Diesel Range Organics (Over	<49.9	U	49.9	mg/Kg		06/19/23 09:05	06/19/23 19:54	1
C10-C28)								
	<49.9	U	49.9	mg/Kg		06/19/23 09:05	06/19/23 19:54	1
Oll Range Organics (Over C28-C36)						Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier	Limits				Analyzea	
Oll Range Organics (Over C28-C36) Surrogate 1-Chlorooctane	%Recovery 91		Limits 70 - 130			<u> </u>	06/19/23 19:54	1
Surrogate 1-Chlorooctane						06/19/23 09:05		1 1
Surrogate 1-Chlorooctane o-Terphenyl	91 100		70 - 130 70 - 130			06/19/23 09:05	06/19/23 19:54	
Surrogate	91 100 on Chromat		70 - 130 70 - 130	Unit	D	06/19/23 09:05	06/19/23 19:54	

Surrogate Summary

Client: Ensolum Project/Site: PLU 15 TWIN WELLS RANCH CTB

Method: 8021B - Volatile Organic Compounds (GC) Matrix: Solid

			Per	cent Surrogate Recovery (Acceptance Limits)
		BFB1	DFBZ1	
Lab Sample ID	Client Sample ID	(70-130)	(70-130)	
880-29650-A-31-D MS	Matrix Spike	104	110	
880-29650-A-31-E MSD	Matrix Spike Duplicate	101	107	
880-29657-A-1-D MS	Matrix Spike	111	92	
880-29657-A-1-E MSD	Matrix Spike Duplicate	110	91	
890-4830-1	SS01	137 S1+	97	
890-4830-2	SS02	115	106	
890-4830-3	SS03	86	82	
890-4830-4	SS04	92	78	
890-4830-5	SS05	89	76	
LCS 880-55838/1-A	Lab Control Sample	109	91	
LCS 880-55932/1-A	Lab Control Sample	123	114	
LCSD 880-55838/2-A	Lab Control Sample Dup	119	91	
LCSD 880-55932/2-A	Lab Control Sample Dup	103	108	
MB 880-55809/5-A	Method Blank	70	98	
MB 880-55838/5-A	Method Blank	99	91	
MB 880-55932/5-A	Method Blank	67 S1-	97	
Ourse mater Lawrend				
Surrogate Legend BFB = 4-Bromofluorobe				

DFBZ = 1,4-Difluorobenzene (Surr)

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

Percent Surrogate Recovery (Acceptance Limits) 1CO1 OTPH1 (70-130) (70-130) Lab Sample ID **Client Sample ID** 880-29650-A-97-C MS Matrix Spike 94 91 880-29650-A-97-D MSD Matrix Spike Duplicate 92 89 890-4830-1 SS01 121 101 890-4830-2 SS02 125 117 SS03 890-4830-3 92 101 890-4830-4 SS04 90 101 SS05 890-4830-5 91 100 104 890-4844-A-1-H MS Matrix Spike 135 S1+ 890-4844-A-1-I MSD Matrix Spike Duplicate 136 S1+ 107 Lab Control Sample LCS 880-55784/2-A 84 95 LCS 880-56095/2-A Lab Control Sample 117 107 LCSD 880-55784/3-A Lab Control Sample Dup 78 81 LCSD 880-56095/3-A Lab Control Sample Dup 117 105 MB 880-55784/1-A Method Blank 103 93 MB 880-56095/1-A Method Blank 141 S1+ 130

Surrogate Legend

1CO = 1-Chlorooctane

OTPH = o-Terphenyl

Page 40 of 126

5

6

Job ID: 890-4830-1 SDG: 03C1558247

Prep Type: Total/NA

Prep Type: Total/NA

Client: Ensolum Project/Site: PLU 15 TWIN WELLS RANCH CTB

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-55 Matrix: Solid Analysis Batch: 55895		МВ					Client Samp	ole ID: Method Prep Type: T Prep Batch	otal/NA
Analyte		Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200		0.00200		mg/K		06/19/23 10:08	06/20/23 11:59	1
Toluene	< 0.00200		0.00200		mg/K		06/19/23 10:08	06/20/23 11:59	1
Ethylbenzene	< 0.00200		0.00200		mg/K	-	06/19/23 10:08	06/20/23 11:59	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/K		06/19/23 10:08	06/20/23 11:59	1
o-Xylene	<0.00200		0.00200		mg/K	-	06/19/23 10:08	06/20/23 11:59	1
Xylenes, Total	<0.00400	U	0.00400		mg/K	•	06/19/23 10:08	06/20/23 11:59	1
	MB	МВ							
Surrogate	%Recovery		Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	70		70 - 130				06/19/23 10:08	06/20/23 11:59	1
1,4-Difluorobenzene (Surr)	98		70 - 130				06/19/23 10:08	06/20/23 11:59	1
Lab Sample ID: MB 880-55 Matrix: Solid Analysis Batch: 55884	838/5-A						Client Samp	ole ID: Method Prep Type: T Prep Batch	otal/NA
	МВ	МВ							
Analyte		Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/K	g	06/19/23 13:47	06/20/23 11:21	1
Toluene	<0.00200	U	0.00200		mg/K	•	06/19/23 13:47	06/20/23 11:21	1
Ethylbenzene	<0.00200	U	0.00200		mg/K	g	06/19/23 13:47	06/20/23 11:21	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/K	-	06/19/23 13:47	06/20/23 11:21	1
o-Xylene	<0.00200		0.00200		mg/K	-		06/20/23 11:21	1
Xylenes, Total	<0.00400	U	0.00400		mg/K	g	06/19/23 13:47	06/20/23 11:21	1
	MB	МВ							
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	99		70 - 130				06/19/23 13:47	06/20/23 11:21	1
1,4-Difluorobenzene (Surr)	91		70 - 130				06/19/23 13:47	06/20/23 11:21	1
Lab Sample ID: LCS 880-5 Matrix: Solid Analysis Batch: 55884	5838/1-A		Spike	LCS	LCS	Clien	t Sample ID:	Lab Control S Prep Type: T Prep Batch %Rec	otal/NA
Analyte			Added	Result	Qualifier	Unit	D %Rec	Limits	
Benzene			0.100	0.09463		mg/Kg	95	70 - 130	
Toluene			0.100	0.1109		mg/Kg	111	70 - 130	
Ethylbenzene			0.100	0.1078		mg/Kg	108	70 - 130	

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

Lab Sample ID: LCSD 880)-55838/2-A		C	Client Sa	mple	ID: Lab	o Control		
Matrix: Solid							Prep Ty	pe: Tot	al/NA
Analysis Batch: 55884							Prep E	Batch: {	55838
	Spike	LCSD	LCSD				%Rec		RPD
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Benzene	0.100	0.09383		mg/Kg		94	70 - 130	1	35

0.2236

0.1075

mg/Kg

mg/Kg

112

107

70 - 130

70 - 130

0.200

0.100

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Job ID: 890-4830-1 SDG: 03C1558247

m-Xylene & p-Xylene

o-Xylene

Client: Ensolum Project/Site: PLU 15 TWIN WELLS RANCH CTB

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

Lab Sample ID: LCSD 880-55838/2-A Matrix: Solid Analysis Batch: 55884			C	Client Sai	nple	ID: Lab	Control S Prep Ty Prep B	pe: Tot	al/NA
	Spike	LCSD	LCSD				%Rec		RPD
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Toluene	0.100	0.1138		mg/Kg		114	70 - 130	3	35
Ethylbenzene	0.100	0.1128		mg/Kg		113	70 - 130	5	35
m-Xylene & p-Xylene	0.200	0.2368		mg/Kg		118	70 - 130	6	35
o-Xylene	0.100	0.1139		mg/Kg		114	70 - 130	6	35

	LCSD	LCSD	
Surrogate	%Recovery	Qualifier	Limits
4-Bromofluorobenzene (Surr)	119		70 - 130
1,4-Difluorobenzene (Surr)	91		70 - 130

Lab Sample ID: 880-29657-A-1-D MS Matrix: Solid Analysis Batch: 55884

Analysis Batch: 55884									Prep Batch: 55838
	Sample	Sample	Spike	MS	MS				%Rec
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits
Benzene	<0.00199	U	0.0996	0.07763		mg/Kg		77	70 - 130
Toluene	<0.00199	U	0.0996	0.08681		mg/Kg		87	70 - 130
Ethylbenzene	<0.00199	U	0.0996	0.07981		mg/Kg		80	70 - 130
m-Xylene & p-Xylene	<0.00398	U	0.199	0.1648		mg/Kg		83	70 - 130
o-Xylene	<0.00199	U	0.0996	0.08049		mg/Kg		80	70 - 130

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

Lab Sample ID: 880-29657-A-1-E MSD Matrix: Solid Analysis Batch: 55884

-	Sample	Sample	Spike	MSD	MSD				%Rec		RPD
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Benzene	<0.00199	U	0.0998	0.07862		mg/Kg		78	70 - 130	1	35
Toluene	<0.00199	U	0.0998	0.08779		mg/Kg		88	70 - 130	1	35
Ethylbenzene	<0.00199	U	0.0998	0.07943		mg/Kg		80	70 - 130	0	35
m-Xylene & p-Xylene	<0.00398	U	0.200	0.1627		mg/Kg		82	70 - 130	1	35
o-Xylene	<0.00199	U	0.0998	0.07912		mg/Kg		79	70 - 130	2	35

	MSD	MSD	
Surrogate	%Recovery	Qualifier	Limits
4-Bromofluorobenzene (Surr)	110		70 - 130
1,4-Difluorobenzene (Surr)	91		70 - 130

Lab Sample ID: MB 880-55932/5-A Matrix: Solid Analysis Batch: 55895

MB MB Analyte **Result Qualifier** RL Unit D Prepared Analyzed Dil Fac 0.00200 06/20/23 14:04 06/20/23 22:42 Benzene <0.00200 U mg/Kg 1 1 06/20/23 14:04 06/20/23 22:42 Toluene <0.00200 U 0.00200 mg/Kg Ethylbenzene <0.00200 U 0.00200 mg/Kg 06/20/23 14:04 06/20/23 22:42 1 m-Xylene & p-Xylene <0.00400 U 0.00400 mg/Kg 06/20/23 14:04 06/20/23 22:42 1

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SDG: 03C1558247

Client Sample ID: Matrix Spike

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Type: Total/NA

Prep Batch: 55838

Job ID: 890-4830-1

7

Prep Type: Total/NA

Prep Batch: 55932

Client Sample ID: Method Blank

Released to Imaging: 1/12/2024 4:13:55 PM

Lab Sample ID: MB 880-55932/5-A

QC Sample Results

Client: Ensolum Project/Site: PLU 15 TWIN WELLS RANCH CTB

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

SDG: 03C1558247 **Client Sample ID: Method Blank** Prep Type: Total/NA Prep Batch: 55932 **Result Qualifier** RL Unit D Prepared Analyzed Dil Fac

Matrix: Solid		
Analysis Batch: 55895		
-	MB	MB
Analyte	Result	Qualifier

o-Xylene	<0.00200	U	0.00200	mg/Kg	06/20/23 14:04	06/20/23 22:42	1
Xylenes, Total	<0.00400	U	0.00400	mg/Kg	06/20/23 14:04	06/20/23 22:42	1
	МВ	МВ					
Surrogate	%Recovery	Qualifier	Limits		Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	67	S1-	70 - 130		06/20/23 14:04	06/20/23 22:42	1
1,4-Difluorobenzene (Surr)	97		70 - 130		06/20/23 14:04	06/20/23 22:42	1

Lab Sample ID: LCS 880-55932/1-A Matrix: Solid -----

Analysis Batch: 55895							Prep Batch: 55932	
	Spike	LCS	LCS				%Rec	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Benzene	0.100	0.1370	*+	mg/Kg		137	70 - 130	
Toluene	0.100	0.1164		mg/Kg		116	70 - 130	
Ethylbenzene	0.100	0.1150		mg/Kg		115	70 - 130	
m-Xylene & p-Xylene	0.200	0.2396		mg/Kg		120	70 - 130	
o-Xylene	0.100	0.1210		mg/Kg		121	70 - 130	1

	LCS	LCS	
Surrogate	%Recovery	Qualifier	Limits
4-Bromofluorobenzene (Surr)	123		70 - 130
1,4-Difluorobenzene (Surr)	114		70 - 130

Lab Sample ID: LCSD 880-55932/2-A Matrix: Solid Analysis Batch: 55895

Client Sample ID: Lab Control Sample Dup Prep Type: Total/NA Prep Batch: 55932

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

					1100		
	Spike	LCSD LC	CSD		%Rec		RPD
Analyte	Added	Result Qu	ualifier Unit	D %Rec	Limits	RPD	Limit
Benzene	0.100	0.1239	mg/Kg	124	70 - 130	10	35
Toluene	0.100	0.1039	mg/Kg	104	70 - 130	11	35
Ethylbenzene	0.100	0.1013	mg/Kg	101	70 - 130	13	35
m-Xylene & p-Xylene	0.200	0.2070	mg/Kg	104	70 - 130	15	35
o-Xylene	0.100	0.1010	mg/Kg	101	70 - 130	18	35

	LCSD	LCSD	
Surrogate	%Recovery	Qualifier	Limits
4-Bromofluorobenzene (Surr)	103		70 - 130
1,4-Difluorobenzene (Surr)	108		70 - 130

Lab Sample ID: 880-29650-A-31-D MS Matrix: Solid

Analysis Batch: 55895									Prep E	Batch: 55932
	Sample	Sample	Spike	MS	MS				%Rec	
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Benzene	<0.00198	U *+	0.0996	0.1179		mg/Kg		118	70 - 130	
Toluene	<0.00198	U	0.0996	0.1014		mg/Kg		101	70 - 130	
Ethylbenzene	<0.00198	U	0.0996	0.1018		mg/Kg		102	70 - 130	
m-Xylene & p-Xylene	<0.00396	U	0.199	0.2085		mg/Kg		105	70 - 130	
o-Xylene	<0.00198	U	0.0996	0.1016		mg/Kg		102	70 - 130	

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Client Sample ID: Matrix Spike

Prep Type: Total/NA

Job ID: 890-4830-1

6/23/2023 (Rev. 1)

Client: Ensolum Project/Site: PLU 15 TWIN WELLS RANCH CTB

Lab Sample ID: 880-29650-A-31-D MS

Matrix: Solid

Surrogate

Analysis Batch: 55895

4-Bromofluorobenzene (Surr)

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

MS MS

%Recovery Qualifier

104

1,4-Difluorobenzene (Surr)	110		70 - 130								
	0-A-31-E MS	D				Client S	Samp	le ID: N	latrix Spil	ce Dup	licate
Matrix: Solid									Prep Ty	pe: Tot	al/NA
Analysis Batch: 55895									Prep E	atch:	55932
	Sample	Sample	Spike	MSD	MSD				%Rec		RPD
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Benzene	<0.00198	U *+	0.0992	0.1107		mg/Kg		112	70 - 130	6	35
Toluene	<0.00198	U	0.0992	0.09764		mg/Kg		97	70 - 130	4	35
Ethylbenzene	<0.00198	U	0.0992	0.09924		mg/Kg		100	70 - 130	3	35
m-Xylene & p-Xylene	<0.00396	U	0.198	0.2021		mg/Kg		102	70 - 130	3	35
o-Xylene	<0.00198	U	0.0992	0.09803		mg/Kg		99	70 - 130	4	35
	MSD	MSD									
Surrogate	%Recovery	Qualifier	Limits								
4-Bromofluorobenzene (Surr)	101		70 - 130								
1,4-Difluorobenzene (Surr)	107		70 - 130								

Limits

70 - 130

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

Lab Sample ID: MB 880-55784	4/1-A						Clie	ent Samp	ole ID: Method	l Blank
Matrix: Solid Analysis Batch: 55770									Prep Type: To Prep Batch:	
-	MB	MB								
Analyte	Result	Qualifier	R	L	Unit	0) Р	repared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50	0	mg/K	g	06/1	9/23 08:00	06/19/23 08:22	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50	0	mg/K	g	06/1	9/23 08:00	06/19/23 08:22	1
Oll Range Organics (Over C28-C36)	<50.0	U	50	0	mg/K	g	06/1	9/23 08:00	06/19/23 08:22	1
	МВ	MB								
Surrogate	%Recovery	Qualifier	Limits				P	repared	Analyzed	Dil Fac
1-Chlorooctane	93		70 - 130	1			06/1	9/23 08:00	06/19/23 08:22	1
o-Terphenyl	103		70 - 130)			06/1	9/23 08:00	06/19/23 08:22	1
Lab Sample ID: LCS 880-5578	34/2-A					Clier	nt Sa	mple ID:	Lab Control S	Sample
Matrix: Solid						-			Prep Type: To	
Analysis Batch: 55770									Prep Batch:	
			Spike	LCS	LCS				%Rec	
Analyte			Added	Result	Qualifier	Unit	D	%Rec	Limits	
Gasoline Range Organics			1000	856.5		ma/Ka		86	70 - 130	

Analyte	Added	Result	Quaimer Un	נ ט	%Rec	Limits	
Gasoline Range Organics	1000	856.5	mg	/Kg	86	70 - 130	
(GRO)-C6-C10							
Diesel Range Organics (Over	1000	882.6	mg	′Kg	88	70 - 130	
C10-C28)							
	S 1.05						
LC	S LCS						

Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane	84		70 - 130
o-Terphenyl	95		70 - 130

Job ID: 890-4830-1

SDG: 03C1558247

Prep Type: Total/NA

Prep Batch: 55932

Client Sample ID: Matrix Spike

Client: Ensolum Project/Site: PLU 15 TWIN WELLS RANCH CTB

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

Lab Sample ID: LCSD 880-55784/3-A Matrix: Solid Analysis Batch: 55770			C	Client Sai	nple	ID: Lat	Control S Prep Ty Prep B	pe: Tot	
	Spike	LCSD	LCSD				%Rec		RPD
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Gasoline Range Organics (GRO)-C6-C10	1000	901.0		mg/Kg		90	70 - 130	5	20
Diesel Range Organics (Over C10-C28)	1000	944.0		mg/Kg		94	70 - 130	7	20
LCSD LCSD									

	LCSD	LCSD	
Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane	78		70 - 130
o-Terphenyl	81		70 - 130

Lab Sample ID: 880-29650-A-97-C MS **Matrix: Solid** Analysis Batch: 55770

Analysis Batch: 55770									Prep Batch: 5578
	Sample	Sample	Spike	MS	MS				%Rec
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits
Gasoline Range Organics (GRO)-C6-C10	<49.8	U	998	992.2		mg/Kg		97	70 - 130
Diesel Range Organics (Over C10-C28)	<49.8	U	998	972.0		mg/Kg		95	70 - 130
	MS	MS							

	MS	MS	
Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane	94		70 - 130
o-Terphenyl	91		70 - 130

Lab Sample ID: 880-29650-A-97-D MSD Matrix: Solid Analysia Rotaby 55770

Analysis Batch: 55770									Prep E	satch: t	5784
	Sample	Sample	Spike	MSD	MSD				%Rec		RPD
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Gasoline Range Organics (GRO)-C6-C10	<49.8	U	997	963.3		mg/Kg		94	70 - 130	3	20
Diesel Range Organics (Over C10-C28)	<49.8	U	997	947.5		mg/Kg		92	70 - 130	3	20

	MSD	MSD	
Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane	92		70 - 130
o-Terphenyl	89		70 - 130

Lab Sample ID: MB 880-56095/1-A Matrix: Solid Analysis Batch: 56039

	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		06/22/23 12:52	06/22/23 19:41	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		06/22/23 12:52	06/22/23 19:41	1
Oll Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		06/22/23 12:52	06/22/23 19:41	1

5 6 7

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

Drop Botoby 55794

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Client Sample ID: Method Blank

Prep Type: Total/NA Prep Batch: 56095

Client: Ensolum Project/Site: PLU 15 TWIN WELLS RANCH CTB

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

ethod E be: Tota	Blank
pe: Tota	
atch: 5	56095
ed l	Dil Fac
19:41	1
19:41	1
trol Sa	ample
atch: 5	
Sample	e Dup
atch: 5	
	RPD
RPD	Limit
8	20
6	20
atch: 5	56095
	19:41 19:41 atrol Sa pe: Tot atch: { Sample pe: Tot atch: {

Page 46 of 126

Job ID: 890-4830-1 SDG: 03C1558247

Lab Sample ID: MB 880-55807/1-A

QC Sample Results

Client: Ensolum Project/Site: PLU 15 TWIN WELLS RANCH CTB

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

Lab Sample ID: 890-4844	-A-1-I MSD					Client S	Samp	le ID: N	latrix Spil	ce Dup	licate
Matrix: Solid Analysis Batch: 56039									Prep Ty Prep B	•	
-	Sample	Sample	Spike	MSD	MSD				%Rec		RPD
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	998	1200		mg/Kg		118	70 - 130	6	20
Diesel Range Organics (Over C10-C28)	<49.9	U	998	1245		mg/Kg		125	70 - 130	1	20
	MSD	MSD									
Surrogate	%Recovery	Qualifier	Limits								
1-Chlorooctane	136	S1+	70 - 130								
o-Terphenyl	107		70 - 130								

Matrix: Solid										Prep Type:	
Analysis Batch: 55936	MD	MD									
	MB										
Analyte	Result	Qualifier		RL		Unit		<u>D</u> P	repared	Analyzed	Dil Fac
Chloride	<5.00	U		5.00		mg/K	g			06/20/23 21:46	1
Lab Sample ID: LCS 880-55807 Matrix: Solid	/ 2-A						Cli	ent Sa	mple ID	: Lab Control : Prep Type: :	
Analysis Batch: 55936											
			Spike		LCS	LCS				%Rec	
Analyte			Added		Result	Qualifier	Unit	D	%Rec	Limits	
Chloride			250		249.2		mg/Kg		100	90 - 110	
Lab Sample ID: LCSD 880-5580 Matrix: Solid Analysis Batch: 55936)7/3-A					C	Client S	ample	ID: Lat	Control Sam Prep Type:	
			• ••								

	Spike	LCSD	LCSD				%Rec		RPD
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Chloride	250	249.5		mg/Kg		100	90 - 110	0	20

Lab Sample ID: 890-4830-1 MS **Client Sample ID: SS01 Prep Type: Soluble** MS MS %Rec Sample Sample Spike **Result Qualifier** Added Result Qualifier Unit D %Rec Limits 4660 2480 6046 ma/Ka 92 90 _ 110

Chloride	4660		2480	6946		mg/Kg		92	90 - 110		
Lab Sample ID: 890-4830 Matrix: Solid Analysis Batch: 55936	-1 MSD							С	lient Sam Prep T	-	
	Sample	Sample	Spike	MSD	MSD				%Rec		RPD
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Chloride	4660		2480	6941		mg/Kg		92	90 - 110	0	20

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5

7

Job ID: 890-4830-1

SDG: 03C1558247

Client Sample ID: Method Blank

Matrix: Solid

Analyte

Analysis Batch: 55936

Client: Ensolum Project/Site: PLU 15 TWIN WELLS RANCH CTB Job ID: 890-4830-1 SDG: 03C1558247

GC VOA

Prep Batch: 55809

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch	
MB 880-55809/5-A	Method Blank	Total/NA	Solid	5035		5
rep Batch: 55838						
Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch	
890-4830-1	SS01	Total/NA	Solid	5035		
890-4830-2	SS02	Total/NA	Solid	5035		
MB 880-55838/5-A	Method Blank	Total/NA	Solid	5035		_
LCS 880-55838/1-A	Lab Control Sample	Total/NA	Solid	5035		8
LCSD 880-55838/2-A	Lab Control Sample Dup	Total/NA	Solid	5035		
880-29657-A-1-D MS	Matrix Spike	Total/NA	Solid	5035		9
880-29657-A-1-E MSD	Matrix Spike Duplicate	Total/NA	Solid	5035		

Analysis Batch: 55884

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch	
890-4830-1	SS01	Total/NA	Solid	8021B	55838	
890-4830-2	SS02	Total/NA	Solid	8021B	55838	
MB 880-55838/5-A	Method Blank	Total/NA	Solid	8021B	55838	
LCS 880-55838/1-A	Lab Control Sample	Total/NA	Solid	8021B	55838	
LCSD 880-55838/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	55838	
880-29657-A-1-D MS	Matrix Spike	Total/NA	Solid	8021B	55838	
880-29657-A-1-E MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	55838	

Analysis Batch: 55895

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4830-3	SS03	Total/NA	Solid	8021B	55932
890-4830-4	SS04	Total/NA	Solid	8021B	55932
890-4830-5	SS05	Total/NA	Solid	8021B	55932
MB 880-55809/5-A	Method Blank	Total/NA	Solid	8021B	55809
MB 880-55932/5-A	Method Blank	Total/NA	Solid	8021B	55932
LCS 880-55932/1-A	Lab Control Sample	Total/NA	Solid	8021B	55932
LCSD 880-55932/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	55932
880-29650-A-31-D MS	Matrix Spike	Total/NA	Solid	8021B	55932
880-29650-A-31-E MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	55932

Prep Batch: 55932

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4830-3	SS03	Total/NA	Solid	5035	
890-4830-4	SS04	Total/NA	Solid	5035	
890-4830-5	SS05	Total/NA	Solid	5035	
MB 880-55932/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-55932/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-55932/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
880-29650-A-31-D MS	Matrix Spike	Total/NA	Solid	5035	
880-29650-A-31-E MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	

Analysis Batch: 55947

Lab Sample ID	Client Sample ID	Ргер Туре	Matrix	Method	Prep Batch
890-4830-1	SS01	Total/NA	Solid	Total BTEX	
890-4830-2	SS02	Total/NA	Solid	Total BTEX	
890-4830-3	SS03	Total/NA	Solid	Total BTEX	
890-4830-4	SS04	Total/NA	Solid	Total BTEX	

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Page 48 of 126

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Client: Ensolum Project/Site: PLU 15 TWIN WELLS RANCH CTB

GC VOA (Continued)

Analysis Batch: 55947 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4830-5	SS05	Total/NA	Solid	Total BTEX	
GC Semi VOA					

Analysis Batch: 55770

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4830-1	SS01	Total/NA	Solid	8015B NM	55784
890-4830-3	SS03	Total/NA	Solid	8015B NM	55784
890-4830-4	SS04	Total/NA	Solid	8015B NM	55784
890-4830-5	SS05	Total/NA	Solid	8015B NM	55784
MB 880-55784/1-A	Method Blank	Total/NA	Solid	8015B NM	55784
LCS 880-55784/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	55784
LCSD 880-55784/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	55784
880-29650-A-97-C MS	Matrix Spike	Total/NA	Solid	8015B NM	55784
880-29650-A-97-D MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	55784

Prep Batch: 55784

Lab Sample ID	Client Sample ID	Ргер Туре	Matrix	Method	Prep Batch
890-4830-1	SS01	Total/NA	Solid	8015NM Prep	
890-4830-3	SS03	Total/NA	Solid	8015NM Prep	
890-4830-4	SS04	Total/NA	Solid	8015NM Prep	
890-4830-5	SS05	Total/NA	Solid	8015NM Prep	
MB 880-55784/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-55784/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-55784/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
880-29650-A-97-C MS	Matrix Spike	Total/NA	Solid	8015NM Prep	
880-29650-A-97-D MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	

Analysis Batch: 55950

Lab Sample ID 890-4830-1	Client Sample ID SS01	Prep Type Total/NA	Matrix Solid	Method 8015 NM	Prep Batch
890-4830-2	SS02	Total/NA	Solid	8015 NM	
890-4830-3	SS03	Total/NA	Solid	8015 NM	
890-4830-4	SS04	Total/NA	Solid	8015 NM	
890-4830-5	SS05	Total/NA	Solid	8015 NM	

Analysis Batch: 56039

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4830-2	SS02	Total/NA	Solid	8015B NM	56095
MB 880-56095/1-A	Method Blank	Total/NA	Solid	8015B NM	56095
LCS 880-56095/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	56095
LCSD 880-56095/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	56095
890-4844-A-1-H MS	Matrix Spike	Total/NA	Solid	8015B NM	56095
890-4844-A-1-I MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	56095

Prep Batch: 56095

Lab Sample ID 890-4830-2	Client Sample ID SS02	Prep Type Total/NA	Matrix Solid	Method 8015NM Prep	Prep Batch
MB 880-56095/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-56095/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-56095/3-	A Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	

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Page 49 of 126

5

8

Job ID: 890-4830-1 SDG: 03C1558247

Client: Ensolum Project/Site: PLU 15 TWIN WELLS RANCH CTB

GC Semi VOA (Continued)

Prep Batch: 56095 (Continued)

Lab Sample ID 890-4844-A-1-H MS	Client Sample ID Matrix Spike	Prep Type Total/NA	Matrix Solid	Method 8015NM Prep	Prep Batch
890-4844-A-1-I MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	

HPLC/IC

Leach Batch: 55807

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4830-1	SS01	Soluble	Solid	DI Leach	
890-4830-2	SS02	Soluble	Solid	DI Leach	
890-4830-3	SS03	Soluble	Solid	DI Leach	
890-4830-4	SS04	Soluble	Solid	DI Leach	
890-4830-5	SS05	Soluble	Solid	DI Leach	
MB 880-55807/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-55807/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-55807/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
890-4830-1 MS	SS01	Soluble	Solid	DI Leach	
890-4830-1 MSD	SS01	Soluble	Solid	DI Leach	

Analysis Batch: 55936

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4830-1	SS01	Soluble	Solid	300.0	55807
890-4830-2	SS02	Soluble	Solid	300.0	55807
890-4830-3	SS03	Soluble	Solid	300.0	55807
890-4830-4	SS04	Soluble	Solid	300.0	55807
890-4830-5	SS05	Soluble	Solid	300.0	55807
MB 880-55807/1-A	Method Blank	Soluble	Solid	300.0	55807
LCS 880-55807/2-A	Lab Control Sample	Soluble	Solid	300.0	55807
LCSD 880-55807/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	55807
890-4830-1 MS	SS01	Soluble	Solid	300.0	55807
890-4830-1 MSD	SS01	Soluble	Solid	300.0	55807

Page 50 of 126

Job ID: 890-4830-1

SDG: 03C1558247

Released to Imaging: 1/12/2024 4:13:55 PM

Lab Chronicle

Client: Ensolum Project/Site: PLU 15 TWIN WELLS RANCH CTB

Client Sample ID: SS01 Date Collected: 06/16/23 11:05 Date Received: 06/16/23 13:11

_	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	55838	06/19/23 13:47	EL	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	55884	06/20/23 14:30	AJ	EET MID
Total/NA	Analysis	Total BTEX		1			55947	06/20/23 16:09	AJ	EET MID
Total/NA	Analysis	8015 NM		1			55950	06/20/23 16:16	SM	EET MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	55784	06/19/23 09:05	AM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	55770	06/19/23 18:13	SM	EET MID
Soluble	Leach	DI Leach			5.04 g	50 mL	55807	06/19/23 09:52	SMC	EET MID
Soluble	Analysis	300.0		10	10 mL	10 mL	55936	06/20/23 22:03	СН	EET MID

Client Sample ID: SS02 Date Collected: 06/16/23 11:15 Date Received: 06/16/23 13:11

	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	55838	06/19/23 13:47	EL	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	55884	06/20/23 14:51	AJ	EET MID
Total/NA	Analysis	Total BTEX		1			55947	06/20/23 16:09	AJ	EET MID
Total/NA	Analysis	8015 NM		1			55950	06/20/23 16:16	SM	EET MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	56095	06/22/23 12:52	AJ	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	56039	06/23/23 07:08	SM	EET MID
Soluble	Leach	DI Leach			5.01 g	50 mL	55807	06/19/23 09:52	SMC	EET MID
Soluble	Analysis	300.0		1	10 mL	10 mL	55936	06/20/23 22:21	СН	EET MID

Client Sample ID: SS03 Date Collected: 06/16/23 11:20 Date Received: 06/16/23 13:11

	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	55932	06/20/23 14:04	EL	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	55895	06/21/23 03:32	SM	EET MID
Total/NA	Analysis	Total BTEX		1			55947	06/21/23 09:57	AJ	EET MID
Total/NA	Analysis	8015 NM		1			55950	06/20/23 16:16	SM	EET MID
Total/NA	Prep	8015NM Prep			10.05 g	10 mL	55784	06/19/23 09:05	AM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	55770	06/19/23 19:04	SM	EET MID
Soluble	Leach	DI Leach			5.05 g	50 mL	55807	06/19/23 09:52	SMC	EET MID
Soluble	Analysis	300.0		1	10 mL	10 mL	55936	06/20/23 22:27	СН	EET MID

Client Sample ID: SS04 Date Collected: 06/16/23 11:25 Date Received: 06/16/23 13:11

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.05 g	5 mL	55932	06/20/23 14:04	EL	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	55895	06/21/23 03:52	SM	EET MID
Total/NA	Analysis	Total BTEX		1			55947	06/21/23 09:57	AJ	EET MID

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Matrix: Solid

Job ID: 890-4830-1 SDG: 03C1558247

Lab Sample ID: 890-4830-1

Lab Sample ID: 890-4830-2

Lab Sample ID: 890-4830-3

Matrix: Solid

Matrix: Solid

Matrix: Solid

Lab Sample ID: 890-4830-4

Lab Chronicle

Client: Ensolum Project/Site: PLU 15 TWIN WELLS RANCH CTB Job ID: 890-4830-1 SDG: 03C1558247

Client Sample ID: SS04 Date Collected: 06/16/23 11:25 Date Received: 06/16/23 13:11

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Ргер Туре	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	8015 NM		1			55950	06/20/23 16:16	SM	EET MID
Total/NA	Prep	8015NM Prep			10.03 g	10 mL	55784	06/19/23 09:05	AM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	55770	06/19/23 19:29	SM	EET MID
Soluble	Leach	DI Leach			5.01 g	50 mL	55807	06/19/23 09:52	SMC	EET MID
Soluble	Analysis	300.0		1	10 mL	10 mL	55936	06/20/23 22:33	СН	EET MID

Client Sample ID: SS05 Date Collected: 06/16/23 11:30 Date Received: 06/16/23 13:11

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Туре	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.03 g	5 mL	55932	06/20/23 14:04	EL	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	55895	06/21/23 04:13	SM	EET MID
Total/NA	Analysis	Total BTEX		1			55947	06/21/23 09:57	AJ	EET MID
Total/NA	Analysis	8015 NM		1			55950	06/20/23 16:16	SM	EET MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	55784	06/19/23 09:05	AM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	55770	06/19/23 19:54	SM	EET MID
Soluble	Leach	DI Leach			4.98 g	50 mL	55807	06/19/23 09:52	SMC	EET MID
Soluble	Analysis	300.0		1	10 mL	10 mL	55936	06/20/23 22:38	СН	EET MID

Laboratory References:

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

Page 52 of 126

Lab Sample ID: 890-4830-4

Lab Sample ID: 890-4830-5

Matrix: Solid

Matrix: Solid

Accreditation/Certification Summary

Client: Ensolum Project/Site: PLU 15 TWIN WELLS RANCH CTB Job ID: 890-4830-1 SDG: 03C1558247

Laboratory: Eurofins Midland

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

uthority	Pr	ogram	Identification Number	Expiration Date
exas	NE	ELAP	T104704400-22-25	06-30-23
the agency does not o	offer certification.		ot certified by the governing authority.	This list may include analytes for whic
0,	•	ort, but the laboratory is n	ot certified by the governing authorityAnalyte	This list may include analytes for whic
the agency does not o	offer certification.			This list may include analytes for whic

Eurofins Carlsbad

Page 53 of 126

10

Method Summary

Client: Ensolum Project/Site: PLU 15 TWIN WELLS RANCH CTB Job ID: 890-4830-1 SDG: 03C1558247

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	EPA	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

EPA = US Environmental Protection Agency

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

11 12 13

Sample Summary

Client: Ensolum Project/Site: PLU 15 TWIN WELLS RANCH CTB Job ID: 890-4830-1 SDG: 03C1558247

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-4830-1	SS01	Solid	06/16/23 11:05	06/16/23 13:11	0.5
890-4830-2	SS02	Solid	06/16/23 11:15	06/16/23 13:11	0.5
890-4830-3	SS03	Solid	06/16/23 11:20	06/16/23 13:11	0.5
890-4830-4	SS04	Solid	06/16/23 11:25	06/16/23 13:11	0.5
890-4830-5	SS05	Solid	06/16/23 11:30	06/16/23 13:11	0.5

🔅 eurofins		Environment Testing	esting	Housto	Chain of Custody Houston, TX (281) 240-4200, Dallas, TX (214) 902-0300	Illas, TX (214) 902-0300	Work Order No:	br No.
	Xe	Xenco		EL Pasc	Addiana, 17 (452) (04-0444, San Antonio, 17 (110) 500-500 EL Paso, TX (915) 585-3443, Lubbock, TX (806) 794-1296	EL Paso, TX (915) 585-3443, Lubbock, TX (806) 794-1296		
				Hobbs,	Hobbs, NM (575) 392-7550. Cansbad, NM (575) 968-3199	Dad, NM (5/5) 988-3199	www.xenco.com	co.com Page 4 of
Project Manager:	Tacoma Morrissey	sev		Bill to: (if different)	Garrett Green		Work	ò
Company Name:	Ensolum			Company Name:	XTO Energy		Program: UST/PST PRP Brownfields RRC	Brownfields RRC Superfund
Address:	3122 National Parks Hwy	^a rks Hwy		Address:	3104 E. Green St		State of Project:	•
City, State ZIP:	Carlsbad, NM 88220	8220		City, State ZIP:	Carlsbad, NM 88220	220	Reporting: Level II CLevel III PST/UST TRRP	
Phone:	303-887-2946		Email:	Email: Garrett.Green@ExxonMobil.com	ExxonMobil.com		Deliverables: EDD	ADaPT Other:
Project Name:	PLU 15 Twin V	PLU 15 Twin Wells Ranch CTB		Turn Around		ANALYSIS REC	REQUEST	Preservative Codes
Project Number:	030	03C1558247	Rou	Ъ	Pres. Code			None: NO DI Water: H ₂ O
Project Location:			Due Date:					Cool: Cool MeOH: Me
Sampler's Name:	Conno	Connor Whitman	TAT starts the	TAT starts the day received by the tab if received by 4:30pm			-	HCL: HC HNO3: HN
PO #					ers			
SAMPLE RECEIPT	IPT Temp Blank:		o Wet Ice:	Ket No				H ₃ PO ₄ : HP
Cooler Custody Seals:	act: Yes wo	No I nermometer IU:	Factor:	-D. D	Para A: 30			Na ₂ S ₂ O ₃ : NaSO ₃
Sample Custody Seals:	Yes	NA Temperatu	Temperature Reading:	5.0		890-4830 Chain of Custody	Custody	Zn Acetate+NaOH: Zn
Total Containers:		Corrected	Corrected Temperature:	5.0	015)	_	_	NaUH+Ascorbic Acid. SAPC
Sample Identification	ntification	Matrix Date Sampled	Time d Sampled	Depth Comp C	CHLOF TPH (8 BTEX (Sample Comments
1055		5 6/16/23	3 1105	es S				Incident ID:
2055			liis	5 6	1///			nAPP2315148242
5303			1120	5 6				
62504			1125	, s G				Cost Center:
5055		-	1130	5 6	1///			2027711001
								AFE:
		/						
					4110			
Total 200.7 / 6010 200.8 / 6020:	010 200.8 / 6020:)20: analyzed	BRCRA 13PPM	RA 13PPM Texas 11 AI S	I Sb As Ba Be B RA Sb As Ba Be	b As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni i	Mn Mo Ni K Se / Se Ag TI U	Ag SiO ₂ Na Sr TI Sn U V Zn Hg: 1631/245.1/7470 /7471
Notice: Signature of this of service. Eurofins Xen	document and relinqui co will be liable only fo	ishment of samples co or the cost of samples of will be applied to ea	onstitutes a valid pur and shall not assume	chase order from clier e any responsibility fo roe of \$5 for each sam	it company to Eurofins Xen r any losses or expenses in ple submitted to Eurofins X	Notice: Signature of this document and relinquishment of samples constitutes a valid purchase order from client company to Eurofins Xenco, its affiliates and subcontractors. It assigns standard terms and conditions of service. Eurofins Xenco will be liable only for the cost of samples and shall not assume any responsibility for any losses or expenses incurred by the client if such losses are due to circumstances beyond the control of service. A minimum charge of \$5.00 will be applied to acch project and a charge of \$5.00 rands sample submitted to Eurofins Xenco, but not analyzed. These terms will be enforced unless previously regotiated.	assigns standard terms and condition due to circumstances beyond the count the count of the coun	ons ntrol gotiated.
Relinquished by: (Signature)	y: (Signature)	Rece	Received by: (Signature)	ture)	Date/Time	Relinquished by: (Signat	nature) Received by: (Signature)	Signature) Date/Time
- (14-1-		lovel	0		1-16-23 3	72)		
3						4		
G			•			0		Revised Date: 08/25/2020 Rev. 2020

13 14

Login Sample Receipt Checklist

Client: Ensolum

Login Number: 4830 List Number: 1 Creator: Clifton, Cloe

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

List Source: Eurofins Carlsbad

Eurofins Carlsbad Released to Imaging: 1/12/2024 4:13:55 PM

14

Job Number: 890-4830-1 SDG Number: 03C1558247

List Source: Eurofins Midland

List Creation: 06/19/23 08:39 AM

Login Sample Receipt Checklist

Client: Ensolum

<6mm (1/4").

Login Number: 4830 List Number: 2 Creator: Teel, Brianna

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

Received by OCD: 8/15/2023 11:37:55 AM



Environment Testing

ANALYTICAL REPORT

PREPARED FOR

Attn: Ashley Giovengo Ensolum 601 N. Marienfeld St. Suite 400 Midland, Texas 79701 Generated 7/20/2023 12:48:52 PM

JOB DESCRIPTION

PLU 15 TWIN WELLS RANCH CTB SDG NUMBER 03C1558247

JOB NUMBER

890-4939-1

Eurofins Carlsbad 1089 N Canal St. Carlsbad NM 88220

See page two for job notes and contact information



Eurofins Carlsbad

Job Notes

This report may not be reproduced except in full, and with written approval from the laboratory. The results relate only to the samples tested. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

Analytical test results meet all requirements of the associated regulatory program (i.e., NELAC (TNI), DoD, and ISO 17025) unless otherwise noted under the individual analysis.

Authorization

AMER

Generated 7/20/2023 12:48:52 PM

Authorized for release by Jessica Kramer, Project Manager Jessica.Kramer@et.eurofinsus.com (432)704-5440

Eurofins Carlsbad is a laboratory within Eurofins Environment Testing South Central, LLC, a company within Eurofins Environment Testing Group of Companies

Laboratory Job ID: 890-4939-1

SDG: 03C1558247

Table of Contents

Cover Page	1
Table of Contents	3
Definitions/Glossary	4
Case Narrative	5
Client Sample Results	6
Surrogate Summary	7
QC Sample Results	8
QC Association Summary	12
Lab Chronicle	14
Certification Summary	15
Method Summary	16
Sample Summary	17
Chain of Custody	18
Receipt Checklists	19

D: 8/15/2023 11:37:55 AM Page	62 of 12	<u>}6</u>
Definitions/Glossary		
Qualifier Description		
Indicates the analyte was analyzed for but not detected.		
Qualifier Description		ļ
Surrogate recovery exceeds control limits, high biased.		
Indicates the analyte was analyzed for but not detected.		
Qualifier Description		
Indicates the analyte was analyzed for but not detected.		
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		
Percent Recovery		
Contains Free Liquid		
Limit of Quantitation (DoD/DOE)		
	Definitions/Glossary Job ID: 890-4 U 15 TWIN WELLS RANCH CTB Surgate recovery exceeds control limits, high biased. Indicates the analyte was analyzed for but not detected. Qualifier Description Surrogate recovery exceeds control limits, high biased. Indicates the analyte was analyzed for but not detected. Qualifier Description Indicates the analyte was analyzed for but not detected. Qualifier Description Indicates the analyte was analyzed for but not detected. Coulifier Description Indicates the analyte was analyzed for but not detected. Coulifier Description Indicates the analyte was analyzed for but not detected. Coulifier Description Indicates a the analyte was analyzed for but not detected. Ution Free Liquid Contains Free Liquid Contains Free Liquid Contains No Free Liquid Duplicate Error Ratio (normalized absolute difference) Dilution Factor Detection Limit (DoD/DOE) Indicates a Dilution, Reamalysis, Re-extraction, or additional Initial metals/anion analysis of the sample Decision Level Concentration (Radiochemistry) Estimated Detection Limit (DoD/DOE)	Definitions/Glossary Job ID: 890-4939-1 10 15 TWIN WELLS RANCH CTB SDG: 03C1558247 Califier Description SDG: 03C155824 Indicates the analyte was analyzed for but not detected. Califier Description Surrogate recovery exceeds control limits, high biased. Indicates the analyte was analyzed for but not detected. Califier Description Indicates the analyte was analyzed for but not detected. Califier Description Indicates the analyte was analyzed for but not detected. Indicates the analyte was analyzed for but not detected. Indicates the analyte was analyzed for but not detected. Califier Description Indicates the analyte (may analyzed for but not detected. Contains Tree Liquid Contains 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 Percent Recovery Contains No Free Liquid Colory Forming Unit Contains No Free Liquid Dublicate Eror Ratio (normalized absolute difference) Diblicion Factor Diblicion Factor Election Limit (Dob/DOE) Indicates a Dibluton, Re-analysis, Re-extraction, or additional initial metals/anion analysis of the sample Descion Limit (Dob/DOE) Editated Detecton Limit (Dok)/DOE) Indicates a Dibluton, Re-

EPA recommended "Maximum Contaminant Level"

Minimum Detectable Concentration (Radiochemistry)

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

Minimum Detectable Activity (Radiochemistry)

Method Detection Limit

Minimum Level (Dioxin)

Most Probable Number

Not Calculated

Negative / Absent

Positive / Present Practical Quantitation Limit

Presumptive

Quality Control

Method Quantitation Limit

Relative Error Ratio (Radiochemistry)

Toxicity Equivalent Factor (Dioxin)

Too Numerous To Count

Toxicity Equivalent Quotient (Dioxin)

Reporting Limit or Requested Limit (Radiochemistry)

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

MCL

MDA

MDC

MDL ML

MPN

MQL

NC ND

NEG

POS

PQL

PRES QC

RER

RL RPD

TEF

TEQ

TNTC

4

Job ID: 890-4939-1 SDG: 03C1558247

Job ID: 890-4939-1

Laboratory: Eurofins Carlsbad

Narrative

Job Narrative 890-4939-1

Receipt

The sample was received on 7/12/2023 4:22 PM. Unless otherwise noted below, the sample arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 5.4°C

Receipt Exceptions

The following sample was received and analyzed from an unpreserved bulk soil jar: FS01 (890-4939-1).

GC VOA

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

GC Semi VOA

Method 8015MOD_NM: The surrogate recovery for the blank associated with preparation batch 880-57730 and analytical batch 880-57996 was outside the upper control limits.

Method 8015MOD_NM: Surrogate recovery for the following sample was outside control limits: FS01 (890-4939-1). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

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

HPLC/IC

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

Project/Site: PLU 15 TWIN WELLS RANCH CTB

Job ID: 890-4939-1 SDG: 03C1558247

Client Sample ID: FS01

Date Collected: 07/12/23 13:20 Date Received: 07/12/23 16:22

Sample Depth: 1.5

Client: Ensolum

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		07/14/23 09:48	07/14/23 14:05	1
Toluene	<0.00200	U	0.00200	mg/Kg		07/14/23 09:48	07/14/23 14:05	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		07/14/23 09:48	07/14/23 14:05	1
m-Xylene & p-Xylene	<0.00399	U	0.00399	mg/Kg		07/14/23 09:48	07/14/23 14:05	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		07/14/23 09:48	07/14/23 14:05	1
Xylenes, Total	<0.00399	U	0.00399	mg/Kg		07/14/23 09:48	07/14/23 14:05	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	87		70 - 130			07/14/23 09:48	07/14/23 14:05	1
1,4-Difluorobenzene (Surr)	75		70 - 130			07/14/23 09:48	07/14/23 14:05	1
Method: TAL SOP Total BTEX -	Total BTEX Calo	culation						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	< 0.00399	U	0.00399	mg/Kg			07/17/23 14:24	1
				Unit	п	Prenared	Analyzed	Dil Fac
Analyte	Result	Qualifier	RL	Unit	<u>D</u>	Prepared	Analyzed	Dil Fac
Analyte		Qualifier		<mark>Unit</mark> mg/Kg	<u>D</u>	Prepared	Analyzed	Dil Fac
Analyte Total TPH	Result <49.7	Qualifier U	RL 49.7		<u> </u>	Prepared		
Analyte Total TPH Method: SW846 8015B NM - Die	Result <49.7	Qualifier U	RL 49.7		<u>D</u> 	Prepared		
Analyte Total TPH Method: SW846 8015B NM - Die Analyte	Result <49.7	Qualifier U nics (DRO) Qualifier	(GC)	mg/Kg			07/20/23 13:08	1
Analyte Total TPH Method: SW846 8015B NM - Die Analyte Gasoline Range Organics	Result <49.7 Sel Range Orga Result	Qualifier U nics (DRO) Qualifier	(GC)	mg/Kg Unit		Prepared	07/20/23 13:08 Analyzed	1 Dil Fac
Analyte Total TPH Method: SW846 8015B NM - Die Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over	Result <49.7 Sel Range Orga Result	Qualifier U nics (DRO) Qualifier U	(GC)	mg/Kg Unit		Prepared	07/20/23 13:08 Analyzed	1 Dil Fac
Analyte Total TPH Method: SW846 8015B NM - Die Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28)	Result <49.7	Qualifier U nics (DRO) Qualifier U U	RL 49.7 (GC) RL 49.7 49.7	mg/Kg Unit mg/Kg mg/Kg		Prepared 07/14/23 17:17 07/14/23 17:17	07/20/23 13:08 Analyzed 07/19/23 13:44 07/19/23 13:44	1 <u>Dil Fac</u> 1
Analyte Total TPH Method: SW846 8015B NM - Die Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28)	Result 49.7 Sel Range Orga Result <49.7	Qualifier U nics (DRO) Qualifier U U	RL 49.7 (GC) RL 49.7	mg/Kg Unit mg/Kg		Prepared 07/14/23 17:17	07/20/23 13:08 Analyzed 07/19/23 13:44	1 Dil Fac 1
Analyte Total TPH Method: SW846 8015B NM - Die Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) Oll Range Organics (Over C28-C36)	Result <49.7	Qualifier U nics (DRO) Qualifier U U U	RL 49.7 (GC) RL 49.7 49.7	mg/Kg Unit mg/Kg mg/Kg		Prepared 07/14/23 17:17 07/14/23 17:17	07/20/23 13:08 Analyzed 07/19/23 13:44 07/19/23 13:44	1 <u>Dil Fac</u> 1
Analyte Total TPH Method: SW846 8015B NM - Die Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) Oll Range Organics (Over C28-C36) Surrogate	Result <49.7	Qualifier U nics (DRO) Qualifier U U U	RL 49.7 (GC) RL 49.7 49.7 49.7	mg/Kg Unit mg/Kg mg/Kg		Prepared 07/14/23 17:17 07/14/23 17:17 07/14/23 17:17	07/20/23 13:08 Analyzed 07/19/23 13:44 07/19/23 13:44 07/19/23 13:44	1 Dil Fac 1 1
Analyte Total TPH Method: SW846 8015B NM - Die Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) Oll Range Organics (Over C28-C36) Surrogate 1-Chlorooctane	Result <49.7	Qualifier U nics (DRO) Qualifier U U U	RL 49.7 (GC) RL 49.7 49.7 49.7 Limits	mg/Kg Unit mg/Kg mg/Kg		Prepared 07/14/23 17:17 07/14/23 17:17 07/14/23 17:17 Prepared	07/20/23 13:08 Analyzed 07/19/23 13:44 07/19/23 13:44 07/19/23 13:44 Analyzed	1 Dil Fac 1 1 1 Dil Fac
Analyte Total TPH Method: SW846 8015B NM - Die Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) Oll Range Organics (Over C28-C36) Surrogate 1-Chlorooctane o-Terphenyl	Result <49.7	Qualifier U nics (DRO) Qualifier U U U Qualifier S1+	RL 49.7 (GC) RL 49.7 49.7 49.7 1.000 0.7 2.000 0.7 49.7 0.7 1.000 70 - 130 70 - 130	mg/Kg Unit mg/Kg mg/Kg		Prepared 07/14/23 17:17 07/14/23 17:17 07/14/23 17:17 Prepared 07/14/23 17:17	07/20/23 13:08 Analyzed 07/19/23 13:44 07/19/23 13:44 07/19/23 13:44 Analyzed 07/19/23 13:44	1 Dil Fac 1 1 1 1 Dil Fac 1
(GRO)-C6-C10 Diesel Range Organics (Over C10-C28) Oll Range Organics (Over C28-C36) Surrogate	Result <49.7	Qualifier U nics (DRO) Qualifier U U U Qualifier S1+	RL 49.7 (GC) RL 49.7 49.7 49.7 1.000 0.7 2.000 0.7 49.7 0.7 1.000 70 - 130 70 - 130	mg/Kg Unit mg/Kg mg/Kg		Prepared 07/14/23 17:17 07/14/23 17:17 07/14/23 17:17 Prepared 07/14/23 17:17	07/20/23 13:08 Analyzed 07/19/23 13:44 07/19/23 13:44 07/19/23 13:44 Analyzed 07/19/23 13:44	1 Dil Fac 1 1 1 1 Dil Fac 1

Eurofins Carlsbad

Lab Sample ID: 890-4939-1 Matrix: Solid

5

Surrogate Summary

Client: Ensolum Project/Site: PLU 15 TWIN WELLS RANCH CTB

Method: 8021B - Volatile Organic Compounds (GC) Matrix: Solid

Percent Surrogate Recovery (Acceptance Limits) BFB1 DFBZ1 Client Sample ID (70-130) (70-130) Lab Sample ID 880-30733-A-1-B MS Matrix Spike 110 103 880-30733-A-1-C MSD Matrix Spike Duplicate 117 104 890-4939-1 FS01 87 75 LCS 880-57673/1-A Lab Control Sample 111 104 LCSD 880-57673/2-A Lab Control Sample Dup 111 105 Method Blank MB 880-57673/5-A 75 87 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) 890-4939-1 FS01 136 S1+ 129 890-4939-1 MS FS01 109 114 890-4939-1 MSD FS01 125 129 LCS 880-57730/2-A Lab Control Sample 85 90 LCSD 880-57730/3-A Lab Control Sample Dup 84 90 MB 880-57730/1-A Method Blank 161 S1+ 169 S1+

Surrogate Legend

1CO = 1-Chlorooctane

OTPH = o-Terphenyl

Job ID: 890-4939-1 SDG: 03C1558247

Page 65 of 126

Lab Sample ID: MB 880-57673/5-A

QC Sample Results

Client: Ensolum Project/Site: PLU 15 TWIN WELLS RANCH CTB

Method: 8021B - Volatile Organic Compounds (GC)

Matrix: Solid Analysis Batch: 57653							Prep Type: 1 Prep Batch	
	MB	MB						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		07/14/23 09:48	07/14/23 12:21	1
Toluene	<0.00200	U	0.00200	mg/Kg		07/14/23 09:48	07/14/23 12:21	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		07/14/23 09:48	07/14/23 12:21	1
m-Xylene & p-Xylene	<0.00400	U	0.00400	mg/Kg		07/14/23 09:48	07/14/23 12:21	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		07/14/23 09:48	07/14/23 12:21	1
Xylenes, Total	<0.00400	U	0.00400	mg/Kg		07/14/23 09:48	07/14/23 12:21	1
	MB	МВ						
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	75		70 - 130			07/14/23 09:48	07/14/23 12:21	1
1,4-Difluorobenzene (Surr)	87		70 - 130			07/14/23 09:48	07/14/23 12:21	1

Lab Sample ID: LCS 880-57673/1-A Matrix: Solid

Analysis Batch: 57653

	Spike	LCS	LCS				%Rec	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Benzene	0.100	0.1143		mg/Kg		114	70 - 130	
Toluene	0.100	0.09925		mg/Kg		99	70 - 130	
Ethylbenzene	0.100	0.1123		mg/Kg		112	70 - 130	
m-Xylene & p-Xylene	0.200	0.2313		mg/Kg		116	70 - 130	
o-Xylene	0.100	0.1134		mg/Kg		113	70 - 130	

	LCS	LCS	
Surrogate	%Recovery	Qualifier	Limits
4-Bromofluorobenzene (Surr)	111		70 - 130
1,4-Difluorobenzene (Surr)	104		70 - 130

Lab Sample ID: LCSD 880-57673/2-A

Matrix: Solid

Analysis Batch: 57653							Prep	Batch:	57673
	Spike	LCSD	LCSD				%Rec		RPD
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Benzene	0.100	0.1144		mg/Kg		114	70 - 130	0	35
Toluene	0.100	0.09657		mg/Kg		97	70 - 130	3	35
Ethylbenzene	0.100	0.1094		mg/Kg		109	70 - 130	3	35
m-Xylene & p-Xylene	0.200	0.2190		mg/Kg		110	70 - 130	5	35
o-Xylene	0.100	0.1063		mg/Kg		106	70 - 130	6	35

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

Lab Sample ID: 880-30733-A-1-B MS

Matrix: Solid

Analysis Batch: 57653									Pre	o Batch: 57673
	Sample	Sample	Spike	MS	MS				%Rec	
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Benzene	< 0.00202	U	0.101	0.1139		mg/Kg		113	70 - 130	
Toluene	<0.00202	U	0.101	0.09646		mg/Kg		96	70 - 130	

Prep Type: Total/NA

Client Sample ID: Matrix Spike

Client Sample ID: Method Blank

Client Sample ID: Lab Control Sample

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Type: Total/NA

Prep Batch: 57673

13

Released to Imaging: 1/12/2024 4:13:55 PM

7/20/2023

Lab Sample ID: 880-30733-A-1-B MS

Matrix: Solid

Analyte

o-Xylene

Surrogate

Ethylbenzene

m-Xylene & p-Xylene

Analysis Batch: 57653

QC Sample Results

MS MS

0.1070

0.2169

0.1058

Result Qualifier

Unit

mg/Kg

mg/Kg

mg/Kg

Spike

Added

0.101

0.202

0.101

Limits

70 - 130

70 - 130

70 - 130

Client: Ensolum Project/Site: PLU 15 TWIN WELLS RANCH CTB

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

Sample Sample

<0.00202

<0.00404 U

<0.00202 U

110

103

104

%Recovery

Result Qualifier

U

MS MS

Qualifier

Job ID: 890-4939-1 SDG: 03C1558247

Prep Type: Total/NA

Prep Batch: 57673

Client Sample ID: Matrix Spike

%Rec

Limits

70 - 130

70 - 130

70 - 130

%Rec

106

108

105

D

7

Matrix Spike Duplicate Prep Type: Total/NA	
Prep Batch: 57673	

Client Sample ID: N

Matrix: Solid Analysis Batch: 57653

1,4-Difluorobenzene (Surr)

Lab Sample ID: 880-30733-A-1-C MSD

4-Bromofluorobenzene (Surr)

1,4-Difluorobenzene (Surr)

Analysis Datch. 57055									Fieh	Datch.	5/0/5	
	Sample	Sample	Spike	MSD	MSD				%Rec		RPD	
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit	
Benzene	< 0.00202	U	0.0994	0.1255		mg/Kg		126	70 - 130	10	35	
Toluene	<0.00202	U	0.0994	0.1092		mg/Kg		110	70 - 130	12	35	ī
Ethylbenzene	<0.00202	U	0.0994	0.1238		mg/Kg		125	70 - 130	15	35	
m-Xylene & p-Xylene	<0.00404	U	0.199	0.2557		mg/Kg		129	70 - 130	16	35	i
o-Xylene	<0.00202	U	0.0994	0.1256		mg/Kg		126	70 - 130	17	35	
	MSD	MSD										
Surrogate	%Recovery	Qualifier	Limits									
4-Bromofluorobenzene (Surr)			70 _ 130									

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

Lab Sample ID: MB 880-57730/1-A Matrix: Solid Analysis Batch: 57996	ι.					Client Sa	mple ID: Metho Prep Type: 1 Prep Batch	Total/NA
	MB	MB						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics	<50.0	U	50.0	mg/Kg		07/14/23 17:17	07/19/23 10:55	1
(GRO)-C6-C10								
Diesel Range Organics (Over	<50.0	U	50.0	mg/Kg		07/14/23 17:17	07/19/23 10:55	1
C10-C28)								
Oll Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		07/14/23 17:17	07/19/23 10:55	1
	МВ	МВ						
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	161	S1+	70 - 130			07/14/23 17:17	07/19/23 10:55	1
o-Terphenyl	169	S1+	70 - 130			07/14/23 17:17	07/19/23 10:55	1
Lab Sample ID: LCS 880-57730/2- Matrix: Solid	A				C	lient Sample I	D: Lab Control Prep Type: 1	

Analysis Batch: 57996

Analysis Batch: 57996							Prep	Batch: 57730
	Spike	LCS	LCS				%Rec	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Gasoline Range Organics	1000	853.8		mg/Kg		85	70 - 130	
(GRO)-C6-C10								
Diesel Range Organics (Over	1000	812.0		mg/Kg		81	70 - 130	
C10-C28)								

Client: Ensolum Project/Site: PLU 15 TWIN WELLS RANCH CTB

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

Page 68 of 126

Job ID: 890-4939-1 SDG: 03C1558247

Lab Sample ID: LCS 880-57730 Matrix: Solid Analysis Batch: 57996)/2-A						Client	t Sample		ontrol Sa ype: To Batch:	al/NA
	100	LCS									
Summercan	%Recovery		Limits								
Surrogate 1-Chlorooctane		Quanner	70 - 130								
	90		70 - 130 70 - 130								
o-Terphenyl	90		70 - 730								
Lab Sample ID: LCSD 880-5773	30/3-A					Clier	nt Sam	nple ID:	Lab Contro	I Sampl	e Dui
Matrix: Solid										ype: To	
Analysis Batch: 57996										Batch:	
			Spike	LCSD	LCSD				%Rec		RP
Analyte			Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Lim
Gasoline Range Organics			1000	826.1		mg/Kg		83	70 - 130	3	2
(GRO)-C6-C10											
Diesel Range Organics (Over			1000	809.3		mg/Kg		81	70 - 130	0	2
C10-C28)											
	LCSD	LCSD									
Surrogate	%Recovery	Qualifier	Limits								
1-Chlorooctane	84		70 - 130								
o-Terphenyl	90		70 - 130								
Amelia		Sample	Spike	MS	MS	11	-	0/ D	%Rec		
Analyte		Qualifier	Added		Qualifier	Unit	D	%Rec	Limits		
Gasoline Range Organics (GRO)-C6-C10	<49.7	U	1000	904.9		mg/Kg		86	70 - 130		
Diesel Range Organics (Over	<49.7	U	1000	943.3		mg/Kg		91	70 - 130		
C10-C28)	10.1	0	1000	010.0		mgmg		01	10-100		
	MS	MS									
Surrogate	%Recovery	Qualifier	Limits								
1-Chlorooctane	114		70 - 130								
o-Terphenyl	109		70 - 130								
Lab Sample ID: 890-4939-1 MS	D								Client Sar		
Matrix: Solid										ype: To	
									Drop	Detels	
Analysis Batch: 57996									Fieh	Batch:	5//3
	Sample	Sample	Spike	MSD	MSD				%Rec	Batch:	
Analysis Batch: 57996	Result	Qualifier	Added	Result	MSD Qualifier	Unit	D	%Rec		RPD	RP
Analysis Batch: 57996 Analyte Gasoline Range Organics	-	Qualifier	-			_ <mark>Unit</mark> mg/Kg	<u>D</u>	%Rec 98	%Rec		RPI Lim
Analysis Batch: 57996 Analyte	Result	Qualifier U	Added	Result			D_		%Rec Limits	RPD	RP Lim 2
Analysis Batch: 57996 Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over	Result <49.7 <49.7	Qualifier U	Added	Result 1023		mg/Kg	<u>D</u>	98	%Rec Limits 70 - 130	RPD 12	21 21
Analysis Batch: 57996 Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28)	Result <49.7 <49.7 MSD	Qualifier U U	Added	Result 1023		mg/Kg	<u>D</u>	98	%Rec Limits 70 - 130	RPD 12	RPI Limi 2
Analysis Batch: 57996 Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over	Result <49.7 <49.7	Qualifier U U	Added	Result 1023		mg/Kg	<u>D</u>	98	%Rec Limits 70 - 130	RPD 12	RPI Limi 2

125

o-Terphenyl

70 - 130

QC Sample Results

Job ID: 890-4939-1 SDG: 03C1558247

Client: Ensolum Project/Site: PLU 15 TWIN WELLS RANCH CTB

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-57634/1-A									Client	Sample ID:	Method	Blank
Matrix: Solid										Prep	Type: S	oluble
Analysis Batch: 57651												
		MB	MB									
Analyte			Qualifier		RL	Uni	-	D	Prepared	Analy		Dil Fac
Chloride	<	<5.00	U		5.00	mg	/Kg			07/14/23	11:55	1
Lab Sample ID: LCS 880-57634/2-A								Clie	nt Sampl	e ID: Lab C	ontrol S	ample
Matrix: Solid										Prep	Type: S	oluble
Analysis Batch: 57651												
				Spike	LC	S LCS				%Rec		
Analyte				Added	Resu	t Qualifier	Unit		0 %Rec	Limits		
Chloride				250	249.	3	mg/Kg		100	90 _ 110		
Lab Sample ID: LCSD 880-57634/3-	-A						CI	ient Sa	ample ID:	Lab Contro	ol Sampl	e Dup
Matrix: Solid									- C		Type: S	
Analysis Batch: 57651												
-				Spike	LCS	LCSD				%Rec		RPD
Analyte				Added	Resu	t Qualifier	Unit	I	D %Rec	Limits	RPD	Limit
Chloride				250	251.	7	mg/Kg		101	90 - 110	1	20
Lab Sample ID: 890-4939-1 MS										Client Sa	mple ID	: FS01
Matrix: Solid											· Type: S	
Analysis Batch: 57651												
Analysis Batch: 57651	Sample	Sam	ple	Spike	м	S MS				%Rec		
-	Sample Result			Spike Added		5 MS t Qualifier	Unit	I	D %Rec	%Rec Limits		
Analyte				•		t Qualifier	<mark>Unit</mark> mg/Kg	[D <u>%Rec</u> 97			
Analyte	Result			Added	Resu	t Qualifier				Limits 90 - 110		
Analyte Chloride Lab Sample ID: 890-4939-1 MSD	Result			Added	Resu	t Qualifier		<u>I</u>		Limits 90 - 110 Client Sa		
Analyte Chloride Lab Sample ID: 890-4939-1 MSD Matrix: Solid	Result			Added	Resu	t Qualifier		<u> </u>		Limits 90 - 110 Client Sa	Imple ID Type: S	
Analyte Chloride Lab Sample ID: 890-4939-1 MSD Matrix: Solid	Result	Qual	ifier	Added	Resu	t Qualifier		1		Limits 90 - 110 Client Sa		oluble
	Result 213	Qual	ifier	Added 252	Resu 458. MS	t Qualifier	mg/Kg			Limits 90 - 110 Client Sa Prep		

Client: Ensolum Project/Site: PLU 15 TWIN WELLS RANCH CTB

GC VOA

Analysis Batch: 57653

	Job ID:
	SDG: 0

890-4939-1

3C1558247

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4939-1	FS01	Total/NA	Solid	8021B	57673
MB 880-57673/5-A	Method Blank	Total/NA	Solid	8021B	57673
LCS 880-57673/1-A	Lab Control Sample	Total/NA	Solid	8021B	57673
LCSD 880-57673/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	57673
880-30733-A-1-B MS	Matrix Spike	Total/NA	Solid	8021B	57673
880-30733-A-1-C MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	57673
rep Batch: 57673					
Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4939-1	FS01	Total/NA	Solid	5035	
MB 880-57673/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-57673/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-57673/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
880-30733-A-1-B MS	Matrix Spike	Total/NA	Solid	5035	
880-30733-A-1-C MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	
nalysis Batch: 57852					
Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4939-1	FS01	Total/NA	Solid	Total BTEX	·
GC Semi VOA					
Prep Batch: 57730					
Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
Lab Sample ID 890-4939-1	FS01	Total/NA	Solid	8015NM Prep	Prep Batch
Lab Sample ID 890-4939-1 MB 880-57730/1-A	FS01 Method Blank	Total/NA Total/NA	Solid Solid	8015NM Prep 8015NM Prep	Prep Batch
Lab Sample ID 890-4939-1 MB 880-57730/1-A LCS 880-57730/2-A	FS01 Method Blank Lab Control Sample	Total/NA Total/NA Total/NA	Solid Solid Solid	8015NM Prep 8015NM Prep 8015NM Prep	Prep Batch
Lab Sample ID 890-4939-1 MB 880-57730/1-A LCS 880-57730/2-A LCSD 880-57730/3-A	FS01 Method Blank Lab Control Sample Lab Control Sample Dup	Total/NA Total/NA Total/NA Total/NA	Solid Solid Solid Solid	8015NM Prep 8015NM Prep 8015NM Prep 8015NM Prep	Prep Batch
Lab Sample ID 890-4939-1 MB 880-57730/1-A LCS 880-57730/2-A LCSD 880-57730/3-A 890-4939-1 MS	FS01 Method Blank Lab Control Sample Lab Control Sample Dup FS01	Total/NA Total/NA Total/NA Total/NA Total/NA	Solid Solid Solid Solid Solid	8015NM Prep 8015NM Prep 8015NM Prep 8015NM Prep 8015NM Prep	Prep Batch
Lab Sample ID 890-4939-1 MB 880-57730/1-A LCS 880-57730/2-A LCSD 880-57730/3-A 890-4939-1 MS 890-4939-1 MSD	FS01 Method Blank Lab Control Sample Lab Control Sample Dup	Total/NA Total/NA Total/NA Total/NA	Solid Solid Solid Solid	8015NM Prep 8015NM Prep 8015NM Prep 8015NM Prep	Prep Batch
Lab Sample ID 890-4939-1 MB 880-57730/1-A LCS 880-57730/2-A LCSD 880-57730/3-A 890-4939-1 MS 890-4939-1 MSD	FS01 Method Blank Lab Control Sample Lab Control Sample Dup FS01	Total/NA Total/NA Total/NA Total/NA Total/NA	Solid Solid Solid Solid Solid	8015NM Prep 8015NM Prep 8015NM Prep 8015NM Prep 8015NM Prep	Prep Batch
Lab Sample ID 890-4939-1 MB 880-57730/1-A LCS 880-57730/2-A LCSD 880-57730/3-A 890-4939-1 MS 890-4939-1 MSD malysis Batch: 57996	FS01 Method Blank Lab Control Sample Lab Control Sample Dup FS01 FS01 Client Sample ID	Total/NA Total/NA Total/NA Total/NA Total/NA Total/NA Prep Type	Solid Solid Solid Solid Solid Solid Matrix	8015NM Prep 8015NM Prep 8015NM Prep 8015NM Prep 8015NM Prep 8015NM Prep	
Lab Sample ID 890-4939-1 MB 880-57730/1-A LCS 880-57730/2-A LCSD 880-57730/3-A 890-4939-1 MS 890-4939-1 MSD malysis Batch: 57996 Lab Sample ID	FS01 Method Blank Lab Control Sample Lab Control Sample Dup FS01 FS01	Total/NA Total/NA Total/NA Total/NA Total/NA	Solid Solid Solid Solid Solid Solid	8015NM Prep 8015NM Prep 8015NM Prep 8015NM Prep 8015NM Prep 8015NM Prep	Prep Batch
Lab Sample ID 890-4939-1 MB 880-57730/1-A LCS 880-57730/2-A LCSD 880-57730/3-A 890-4939-1 MS 890-4939-1 MSD malysis Batch: 57996 Lab Sample ID 890-4939-1	FS01 Method Blank Lab Control Sample Lab Control Sample Dup FS01 FS01 Client Sample ID	Total/NA Total/NA Total/NA Total/NA Total/NA Total/NA Prep Type	Solid Solid Solid Solid Solid Solid Matrix	8015NM Prep 8015NM Prep 8015NM Prep 8015NM Prep 8015NM Prep 8015NM Prep	Prep Batch
Lab Sample ID 890-4939-1 MB 880-57730/1-A LCS 880-57730/2-A LCSD 880-57730/3-A 890-4939-1 MS 890-4939-1 MSD malysis Batch: 57996 Lab Sample ID 890-4939-1 MB 880-57730/1-A	FS01 Method Blank Lab Control Sample Lab Control Sample Dup FS01 FS01 Client Sample ID FS01	Total/NA Total/NA Total/NA Total/NA Total/NA Prep Type Total/NA	Solid Solid Solid Solid Solid Solid Matrix Solid	8015NM Prep 8015NM Prep 8015NM Prep 8015NM Prep 8015NM Prep 8015NM Prep Method 8015B NM	Prep Batch 57730 57730
Lab Sample ID 890-4939-1 MB 880-57730/1-A LCS 880-57730/2-A LCSD 880-57730/3-A 890-4939-1 MS 890-4939-1 MSD	FS01 Method Blank Lab Control Sample Lab Control Sample Dup FS01 FS01 Client Sample ID FS01 Method Blank	Total/NA	Solid Solid Solid Solid Solid Solid Solid Solid Solid	8015NM Prep	Prep Batch 57730 57730 57730
Lab Sample ID 890-4939-1 MB 880-57730/1-A LCS 880-57730/2-A LCSD 880-57730/3-A 890-4939-1 MS 890-4939-1 MSD malysis Batch: 57996 Lab Sample ID 890-4939-1 MB 880-57730/1-A LCS 880-57730/2-A	FS01 Method Blank Lab Control Sample Lab Control Sample Dup FS01 FS01 Client Sample ID FS01 Method Blank Lab Control Sample	Total/NA	Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid	8015NM Prep 8015NM Prep 8015NM Prep 8015NM Prep 8015NM Prep 8015NM Prep 8015N Prep 8015B NM 8015B NM 8015B NM	Prep Batch 57730 57730 57730 57730
Lab Sample ID 890-4939-1 MB 880-57730/1-A LCS 880-57730/2-A LCSD 880-57730/3-A 890-4939-1 MS 890-4939-1 MSD Analysis Batch: 57996 Lab Sample ID 890-4939-1 MB 880-57730/1-A LCS 880-57730/2-A LCSD 880-57730/3-A	FS01 Method Blank Lab Control Sample Lab Control Sample Dup FS01 FS01 Glient Sample ID FS01 Method Blank Lab Control Sample Dup	Total/NA	Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid	8015NM Prep 8015B NM	Prep Batch 57730 57730 57730 57730 57730
Lab Sample ID 890-4939-1 MB 880-57730/1-A LCS 880-57730/2-A LCSD 880-57730/3-A 890-4939-1 MS analysis Batch: 57996 Lab Sample ID 890-4939-1 MB 880-57730/1-A LCSD 880-57730/2-A LCSD 880-57730/3-A 890-4939-1 MS 890-4939-1 MS	FS01 Method Blank Lab Control Sample Lab Control Sample Dup FS01 FS01 Client Sample ID FS01 Method Blank Lab Control Sample Dup FS01 State Lab Control Sample Dup FS01 FS01 Method Blank Lab Control Sample Lab Control Sample Dup FS01	Total/NA	Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid	8015NM Prep 8015N M 8015B NM 8015B NM 8015B NM 8015B NM 8015B NM 8015B NM	Prep Batch 57730 57730 57730 57730 57730
Lab Sample ID 890-4939-1 MB 880-57730/1-A LCS 880-57730/2-A LCSD 880-57730/3-A 890-4939-1 MS 890-4939-1 MSD Analysis Batch: 57996 Lab Sample ID 890-4939-1 MB 880-57730/1-A LCS 880-57730/2-A LCSD 880-57730/3-A 890-4939-1 MS	FS01 Method Blank Lab Control Sample Lab Control Sample Dup FS01 FS01 Client Sample ID FS01 Method Blank Lab Control Sample Dup FS01 State Lab Control Sample Dup FS01 FS01 Method Blank Lab Control Sample Lab Control Sample Dup FS01	Total/NA	Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid	8015NM Prep 8015N M 8015B NM 8015B NM 8015B NM 8015B NM 8015B NM 8015B NM	Prep Batch 57730 57730 57730 57730 57730 57730 57730
Lab Sample ID 890-4939-1 MB 880-57730/1-A LCS 880-57730/2-A LCSD 880-57730/3-A 890-4939-1 MS 890-4939-1 MSD MB 880-57730/1-A LCS 880-57730/1-A LCSD 880-57730/2-A LCSD 880-57730/3-A 890-4939-1 MS 890-4939-1 MS 890-4939-1 MSD MB 880-57730/3-A	FS01 Method Blank Lab Control Sample Lab Control Sample Dup FS01 FS01 Client Sample ID FS01 Method Blank Lab Control Sample Dup FS01 Method Blank Lab Control Sample Lab Control Sample FS01 FS01 FS01 FS01	Total/NA	Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid	8015NM Prep 8015B NM	Prep Batch 57730 57730 57730 57730 57730 57730 57730
Lab Sample ID 890-4939-1 MB 880-57730/1-A LCS 880-57730/2-A LCSD 880-57730/3-A 890-4939-1 MS 890-4939-1 MSD analysis Batch: 57996 Lab Sample ID 890-4939-1 MB 880-57730/1-A LCSD 880-57730/2-A LCSD 880-57730/2-A LCSD 880-57730/3-A 890-4939-1 MS 890-4939-1 MSD analysis Batch: 58143 Lab Sample ID 890-4939-1	FS01 Method Blank Lab Control Sample Lab Control Sample Dup FS01 FS01 Client Sample ID FS01 Method Blank Lab Control Sample Dup FS01 Method Blank Lab Control Sample Lab Control Sample Lab Control Sample FS01 FS01 FS01 FS01 FS01 FS01 FS01 FS01 Client Sample ID	Total/NA Total/NA	Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid	8015NM Prep 8015B NM 8015B NM	Prep Batch 57730 57730 57730 57730 57730 57730 57730
Lab Sample ID 890-4939-1 MB 880-57730/1-A LCS 880-57730/2-A LCSD 880-57730/3-A 890-4939-1 MS 890-4939-1 MSD malysis Batch: 57996 Lab Sample ID 890-4939-1 MB 880-57730/1-A LCSD 880-57730/2-A LCSD 880-57730/2-A LCSD 880-57730/3-A 890-4939-1 MS 890-4939-1 MSD malysis Batch: 58143 Lab Sample ID 890-4939-1 HPLC/IC	FS01 Method Blank Lab Control Sample Lab Control Sample Dup FS01 FS01 Client Sample ID FS01 Method Blank Lab Control Sample Dup FS01 Method Blank Lab Control Sample Lab Control Sample Lab Control Sample FS01 FS01 FS01 FS01 FS01 FS01 FS01 FS01 Client Sample ID	Total/NA Total/NA	Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid	8015NM Prep 8015B NM 8015B NM	Prep Batch 57730 57730 57730 57730 57730 57730 57730
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Method Blank

Lab Control Sample

Lab Control Sample Dup

MB 880-57634/1-A

LCS 880-57634/2-A

LCSD 880-57634/3-A

Soluble

Soluble

Soluble

Solid

Solid

Solid

DI Leach

DI Leach

DI Leach

Client: Ensolum Project/Site: PLU 15 TWIN WELLS RANCH CTB

HPLC/IC (Continued)

Leach Batch: 57634 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4939-1 MS	FS01	Soluble	Solid	DI Leach	
890-4939-1 MSD	FS01	Soluble	Solid	DI Leach	
Analysis Batch: 576	51				

Lab Sample ID	Client Sample ID	Ргер Туре	Matrix	Method	Prep Batch
890-4939-1	FS01	Soluble	Solid	300.0	57634
MB 880-57634/1-A	Method Blank	Soluble	Solid	300.0	57634
LCS 880-57634/2-A	Lab Control Sample	Soluble	Solid	300.0	57634
LCSD 880-57634/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	57634
890-4939-1 MS	FS01	Soluble	Solid	300.0	57634
890-4939-1 MSD	FS01	Soluble	Solid	300.0	57634

Eurofins Carlsbad

Page 71 of 126

5

Job ID: 890-4939-1 SDG: 03C1558247 Date Received: 07/12/23 16:22

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Ргер Туре	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.01 g	5 mL	57673	07/14/23 09:48	EL	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	57653	07/14/23 14:05	AJ	EET MID
Total/NA	Analysis	Total BTEX		1			57852	07/17/23 14:24	AJ	EET MID
Total/NA	Analysis	8015 NM		1			58143	07/20/23 13:08	SM	EET MID
Total/NA	Prep	8015NM Prep			10.06 g	10 mL	57730	07/14/23 17:17	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	57996	07/19/23 13:44	SM	EET MID
Soluble	Leach	DI Leach			4.97 g	50 mL	57634	07/14/23 11:15	KS	EET MID
Soluble	Analysis	300.0		1			57651	07/14/23 13:23	СН	EET MID

Laboratory References:

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

Job ID: 890-4939-1

Page 72 of 126

SDG: 03C1558247

Lab Sample ID: 890-4939-1

Matrix: Solid
Accreditation/Certification Summary

Client: Ensolum Project/Site: PLU 15 TWIN WELLS RANCH CTB

Laboratory: Eurofins Midland

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

hority		Program	Identification Number	Expiration Date	
as	N	IELAP	T104704400-23-26	06-30-24	
The following analytes the agency does not o	•	out the laboratory is not certif	ied by the governing authority. This list ma	ay include analytes for w	
6 ,		Matrix	Analyte		
Analysis Method 8015 NM	Prep Method	Matrix Solid	Analyte Total TPH		

10

Job ID: 890-4939-1

SDG: 03C1558247

Client: Ensolum Project/Site: PLU 15 TWIN WELLS RANCH CTB Job ID: 890-4939-1 SDG: 03C1558247

lethod	Method Description	Protocol	Laboratory
021B	Volatile Organic Compounds (GC)	SW846	EET MID
otal BTEX	Total BTEX Calculation	TAL SOP	EET MID
015 NM	Diesel Range Organics (DRO) (GC)	SW846	EET MID
015B NM	Diesel Range Organics (DRO) (GC)	SW846	EET MID
00.0	Anions, Ion Chromatography	EPA	EET MID
035	Closed System Purge and Trap	SW846	EET MID
015NM Prep	Microextraction	SW846	EET MID
I Leach	Deionized Water Leaching Procedure	ASTM	EET MID
Protocol Refe	prences:		
ASTM = A	STM International		
EPA = US	Environmental Protection Agency		
SW846 =	"Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edi	tion, November 1986 And Its Updates.	
TAL SOP	= TestAmerica Laboratories, Standard Operating Procedure		
Laboratory R	eferences:		
EET MID :	= Eurofins Midland, 1211 W. Florida Ave, Midland, TX 79701, TEL (432)704-5440		

Laboratory References:

Page 74 of 126

Sample Summary

Client: Ensolum Project/Site: PLU 15 TWIN WELLS RANCH CTB Job ID: 890-4939-1 SDG: 03C1558247

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth	
890-4939-1 FS01	Solid	07/12/23 13:20	07/12/23 16:22	1.5		

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Environment Testing Name: AS, MI, P, M. (DUVP/DQ) Bits to gradewate the second XI (2010) 304-3000, Status, Revent XI (2010) 309-331 Work Order No::::::::::::::::::::::::::::::::::::	U V Zn /7471	Vi K Se Ag SiO ₂ Na Sr Hg: 1631/245.1,	Ca Cr Co Cu Fe Pb Mg Mn N Cr Co Cu Pb Mn Mo Ni Se Ag	b As Ba Be B Cd Sb As Ba Be Cd (1 Texas 11 Al S LP 6010 : 8RCRA	8RCRA 13PPN zed TCLP/SP	200.8 / 6020: nd Metal(s) to be analy	Total 200.7 / 6010 ircle Method(s) ar
Environment Festing Human Krain Web-200 Lank, J Mail Andreas, Link, Mail Web-200 Lank, J Mail Andreas, Link, Mail Statistics, Andreas, RTC 100 200330 Work Order No: whange: AS MIL, W. GLO VG/LO, U. L. Show, MIC 103 355 444, Libox AT, Kito 2004300, Libox Multiply 384-10 Image: Constraint of the statistics, Andreas, RTC 100 200330 Work Order No: Image: Constraint of the statistics, Andreas, RTC 100 200330 Work Order No: Image: Constraint of the statistics, Andreas, RTC 100 200330 Work Order No: Image: Constraint of the statistics, Andreas, RTC 100 200330 Work Order No: Image: Constraint of the statistics, Andreas, RTC 100 200330 Work Order No: Image: Constraint of the statistics, Andreas, RTC 100 200330 Work Order No: Image: Constraint of the statistics, Andreas, RTC 100 200330 Work Order No: Image: Constraint of the statistics, Andreas, RTC 100 200330 Work Order No: Image: Constraint of the statistics, Andreas, RTC 100 200330 Work Order No: Image: Constraint of the statistics, Andreas, RTC 100 200330 Work Order No: Image: Constraint of the statistics, Andreas, RTC 100 200330 Work Order No: Image: Constraint of the statistics, Andreas, RTC 100 200330 Work Order No: Image: Constraint of the statistics, Andreas, RTC 100 200330 Work Order No: Image: Constraint of the statistics, Andreas, RTC 100 200330 Work Order No: Image: Constraint of the statistics, Andreas, RTC 100 200330 Work Order No: <td< td=""><td>6</td><td>C</td><td></td><td></td><td></td><td></td><td></td><td></td></td<>	6	C						
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Environment Testing Houston, TX (281) 240-4200, Dallas, TX (214) 902-0300 Work Order No: Xenco EL Paso, TX (915) 585-3443, Lubbock, TX (806) 794-1296 Work Order No: Hobbs, NM (575) 392-7550, Carlsbad, NM (575) 988-3199 www.xenco.com Page 1	S	Work Order Comment	Green	GALLETT	Sill to: (if different)		nley	Project Manager:
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7/20/2023

Page 76 of 126

Login Sample Receipt Checklist

Client: Ensolum

Login Number: 4939 List Number: 1 Creator: Clifton, Cloe

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

Job Number: 890-4939-1 SDG Number: 03C1558247

List Source: Eurofins Carlsbad

14

Job Number: 890-4939-1 SDG Number: 03C1558247

List Source: Eurofins Midland

List Creation: 07/14/23 11:05 AM

Login Sample Receipt Checklist

Client: Ensolum

Login Number: 4939 List Number: 2 Creator: Rodriguez, Leticia

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

Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").

Received by OCD: 8/15/2023 11:37:55 AM



Environment Testing

ANALYTICAL REPORT

PREPARED FOR

Attn: Ashley Giovengo Ensolum 601 N. Marienfeld St. Suite 400 Midland, Texas 79701 Generated 7/20/2023 12:48:52 PM

JOB DESCRIPTION

PLU 15 TWIN WELLS RANCH CTB SDG NUMBER 03C1558247

JOB NUMBER

890-4941-1

Eurofins Carlsbad 1089 N Canal St. Carlsbad NM 88220

See page two for job notes and contact information



Eurofins Carlsbad

Job Notes

This report may not be reproduced except in full, and with written approval from the laboratory. The results relate only to the samples tested. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

Analytical test results meet all requirements of the associated regulatory program (i.e., NELAC (TNI), DoD, and ISO 17025) unless otherwise noted under the individual analysis.

Authorization

AMER

Generated 7/20/2023 12:48:52 PM

Authorized for release by Jessica Kramer, Project Manager Jessica.Kramer@et.eurofinsus.com (432)704-5440

Eurofins Carlsbad is a laboratory within Eurofins Environment Testing South Central, LLC, a company within Eurofins Environment Testing Group of Companies

Laboratory Job ID: 890-4941-1 SDG: 03C1558247

Table of Contents

Cover Page	1
Table of Contents	3
Definitions/Glossary	4
Case Narrative	5
Client Sample Results	6
Surrogate Summary	7
QC Sample Results	8
QC Association Summary	12
Lab Chronicle	14
Certification Summary	15
Method Summary	16
Sample Summary	17
Chain of Custody	18
Receipt Checklists	19

ceived by OC	D: 8/15/2023 11:37:55 AM Page 82 0	of 126
	Definitions/Glossary	
Client: Ensolu		
Project/Site: F	PLU 15 TWIN WELLS RANCH CTB SDG: 03C155824	+/
Qualifiers		_ 3
GC VOA		
Qualifier	Qualifier Description	
U	Indicates the analyte was analyzed for but not detected.	_
GC Semi VOA	A	5
Qualifier	Qualifier Description	
S1+	Surrogate recovery exceeds control limits, high biased.	- 6
U	Indicates the analyte was analyzed for but not detected.	
HPLC/IC		
Qualifier	Qualifier Description	
U	Indicates the analyte was analyzed for but not detected.	8
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	- 10
%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)	
LUQ	Limit of Quantitation (DoD/DOE)	

MCL EPA recommended "Maximum Contaminant Level"

MDA Minimum Detectable Activity (Radiochemistry)

MDC Minimum Detectable Concentration (Radiochemistry)

Method Detection Limit MDL ML Minimum Level (Dioxin)

MPN Most Probable Number MQL Method Quantitation Limit Not Calculated NC

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

NEG Negative / Absent POS Positive / Present

Practical Quantitation Limit PQL Presumptive PRES

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

Client: Ensolum Project/Site: PLU 15 TWIN WELLS RANCH CTB Job ID: 890-4941-1 SDG: 03C1558247

Job ID: 890-4941-1

Laboratory: Eurofins Carlsbad

Narrative

Job Narrative 890-4941-1

Receipt

The sample was received on 7/13/2023 1:20 PM. Unless otherwise noted below, the sample arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 3.4°C

Receipt Exceptions

The following sample was received and analyzed from an unpreserved bulk soil jar: FS02 (890-4941-1).

GC VOA

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

GC Semi VOA

Method 8015MOD_NM: The surrogate recovery for the blank associated with preparation batch 880-57730 and analytical batch 880-57996 was outside the upper control limits.

Method 8015MOD_NM: Surrogate recovery for the following sample was outside control limits: (890-4939-A-1-F). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

Method 8015MOD_NM: Surrogate recovery for the following sample was outside control limits: FS02 (890-4941-1). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

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

HPLC/IC

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

Project/Site: PLU 15 TWIN WELLS RANCH CTB

Job ID: 890-4941-1 SDG: 03C1558247

Client Sample ID: FS02

Date Collected: 07/13/23 10:15 Date Received: 07/13/23 13:20

Sample Depth: 1.5

Client: Ensolum

Chloride

Lab Sample ID: 890-4941-1

Matrix: Solid

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		07/14/23 09:48	07/14/23 14:25	1
Toluene	<0.00200	U	0.00200	mg/Kg		07/14/23 09:48	07/14/23 14:25	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		07/14/23 09:48	07/14/23 14:25	1
m-Xylene & p-Xylene	<0.00400	U	0.00400	mg/Kg		07/14/23 09:48	07/14/23 14:25	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		07/14/23 09:48	07/14/23 14:25	1
Xylenes, Total	<0.00400	U	0.00400	mg/Kg		07/14/23 09:48	07/14/23 14:25	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	88		70 - 130			07/14/23 09:48	07/14/23 14:25	1
1,4-Difluorobenzene (Surr)	79		70 - 130			07/14/23 09:48	07/14/23 14:25	1
Method: TAL SOP Total BTEX - To	otal BTEX Calo	ulation						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00400	U	0.00400	mg/Kg			07/17/23 14:24	1
Method: SW846 8015 NM - Diesel	Range Organ	ics (DRO) (GC)					
Analyte		Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.8	U	49.8	mg/Kg			07/20/23 13:08	1
Method: SW846 8015B NM - Dies	el Range Orga	nics (DRO)	(60)					
Analyte		Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics	<49.8		49.8	mg/Kg		07/14/23 17:17	07/19/23 14:50	1
(GRO)-C6-C10								
(GRO)-C6-C10 Diesel Range Organics (Over	<49.8	U	49.8	mg/Kg		07/14/23 17:17	07/19/23 14:50	1
(GRO)-C6-C10 Diesel Range Organics (Over C10-C28)	<49.8 <49.8		49.8 49.8	mg/Kg mg/Kg		07/14/23 17:17 07/14/23 17:17	07/19/23 14:50 07/19/23 14:50	1
(GRO)-C6-C10 Diesel Range Organics (Over C10-C28) Oll Range Organics (Over C28-C36)		U						
(GRO)-C6-C10 Diesel Range Organics (Over C10-C28) Oll Range Organics (Over C28-C36) Surrogate	<49.8	U	49.8			07/14/23 17:17	07/19/23 14:50	1
(GRO)-C6-C10 Diesel Range Organics (Over C10-C28) Oll Range Organics (Over C28-C36) Surrogate 1-Chlorooctane	<49.8 %Recovery 146	U Qualifier	49.8 Limits			07/14/23 17:17 Prepared	07/19/23 14:50 Analyzed	1
(GRO)-C6-C10 Diesel Range Organics (Over C10-C28) Oll Range Organics (Over C28-C36) Surrogate	<49.8 %Recovery 146 151	U Qualifier S1+ S1+	49.8 <u>Limits</u> 70 - 130 70 - 130			07/14/23 17:17 Prepared 07/14/23 17:17	07/19/23 14:50 Analyzed 07/19/23 14:50	1

4.97

mg/Kg

160

Eurofins Carlsbad

07/14/23 13:38

Surrogate Summary

Client: Ensolum Project/Site: PLU 15 TWIN WELLS RANCH CTB

Method: 8021B - Volatile Organic Compounds (GC) Matrix: Solid

Percent Surrogate Recovery (Acceptance Limits) BFB1 DFBZ1 Client Sample ID (70-130) (70-130) Lab Sample ID 880-30733-A-1-B MS Matrix Spike 110 103 880-30733-A-1-C MSD Matrix Spike Duplicate 117 104 890-4941-1 FS02 88 79 LCS 880-57673/1-A Lab Control Sample 111 104 LCSD 880-57673/2-A Lab Control Sample Dup 111 105 Method Blank MB 880-57673/5-A 75 87 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 **Client Sample ID** (70-130) (70-130) Lab Sample ID 890-4939-A-1-G MS Matrix Spike 114 109 890-4939-A-1-H MSD Matrix Spike Duplicate 129 125 890-4941-1 FS02 146 S1+ 151 S1+ LCS 880-57730/2-A Lab Control Sample 85 90 LCSD 880-57730/3-A Lab Control Sample Dup 84 90 MB 880-57730/1-A Method Blank 161 S1+ 169 S1+

Surrogate Legend

1CO = 1-Chlorooctane

OTPH = o-Terphenyl

Job ID: 890-4941-1 SDG: 03C1558247

Prep Type: Total/NA

6

Page 85 of 126

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Released to Imaging: 1/12/2024 4:13:55 PM

Lab Sample ID: MB 880-57673/5-A

QC Sample Results

Client: Ensolum Project/Site: PLU 15 TWIN WELLS RANCH CTB

Method: 8021B - Volatile Organic Compounds (GC)

Matrix: Solid Analysis Batch: 57653							Prep Type: 1 Prep Batch	
	MB	MB						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	< 0.00200	U	0.00200	mg/Kg		07/14/23 09:48	07/14/23 12:21	1
Toluene	<0.00200	U	0.00200	mg/Kg		07/14/23 09:48	07/14/23 12:21	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		07/14/23 09:48	07/14/23 12:21	1
m-Xylene & p-Xylene	<0.00400	U	0.00400	mg/Kg		07/14/23 09:48	07/14/23 12:21	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		07/14/23 09:48	07/14/23 12:21	1
Xylenes, Total	<0.00400	U	0.00400	mg/Kg		07/14/23 09:48	07/14/23 12:21	1
	MB	МВ						
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	75		70 - 130			07/14/23 09:48	07/14/23 12:21	1
1,4-Difluorobenzene (Surr)	87		70 - 130			07/14/23 09:48	07/14/23 12:21	1

Lab Sample ID: LCS 880-57673/1-A Matrix: Solid

Analysis Batch: 57653

	Spike	LCS	LCS				%Rec	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Benzene	0.100	0.1143		mg/Kg		114	70 - 130	
Toluene	0.100	0.09925		mg/Kg		99	70 - 130	
Ethylbenzene	0.100	0.1123		mg/Kg		112	70 - 130	
m-Xylene & p-Xylene	0.200	0.2313		mg/Kg		116	70 - 130	
o-Xylene	0.100	0.1134		mg/Kg		113	70 - 130	

	LCS	LCS	
Surrogate	%Recovery	Qualifier	Limits
4-Bromofluorobenzene (Surr)	111		70 - 130
1,4-Difluorobenzene (Surr)	104		70 - 130

Lab Sample ID: LCSD 880-57673/2-A

Matrix: Solid

Analysis Batch: 57653							Prep	Batch:	57673
	Spike	LCSD	LCSD				%Rec		RPD
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Benzene	0.100	0.1144		mg/Kg		114	70 - 130	0	35
Toluene	0.100	0.09657		mg/Kg		97	70 - 130	3	35
Ethylbenzene	0.100	0.1094		mg/Kg		109	70 - 130	3	35
m-Xylene & p-Xylene	0.200	0.2190		mg/Kg		110	70 - 130	5	35
o-Xylene	0.100	0.1063		mg/Kg		106	70 - 130	6	35

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

Lab Sample ID: 880-30733-A-1-B MS

Matrix: Solid

Analysis Batch: 57653									Prep	Batch: 57673
	Sample	Sample	Spike	MS	MS				%Rec	
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Benzene	<0.00202	U	0.101	0.1139		mg/Kg		113	70 - 130	
Toluene	<0.00202	U	0.101	0.09646		mg/Kg		96	70 - 130	

Prep Type: Total/NA

Client Sample ID: Matrix Spike

Client Sample ID: Method Blank

Client Sample ID: Lab Control Sample

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Type: Total/NA

Prep Batch: 57673

QC Sample Results

Client: Ensolum Project/Site: PLU 15 TWIN WELLS RANCH CTB

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

4 5 6

Lab Sample ID: 880-30733-4	A-1-B MS							Client	Sample ID		
Matrix: Solid										Type: To	
Analysis Batch: 57653										Batch:	57673
	•	Sample	Spike		MS				%Rec		
Analyte		Qualifier	Added		Qualifier	Unit	D	%Rec	Limits		
Ethylbenzene	<0.00202	U	0.101	0.1070		mg/Kg		106	70 - 130		
m-Xylene & p-Xylene	<0.00404	U	0.202	0.2169		mg/Kg		108	70 - 130		
o-Xylene	<0.00202	U	0.101	0.1058		mg/Kg		105	70 - 130		
	MS	MS									
Surrogate	%Recovery	Qualifier	Limits								
4-Bromofluorobenzene (Surr)			70 - 130								
1,4-Difluorobenzene (Surr)	103		70 - 130								
Lab Sample ID: 880-30733-4	A-1-C MSD					Cli	ent S	ample IC): Matrix S	pike Dun	olicate
Matrix: Solid										Type: To	
Analysis Batch: 57653										Batch:	
·····,	Sample	Sample	Spike	MSD	MSD				%Rec		RPD
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limi
Benzene	<0.00202	U	0.0994	0.1255		mg/Kg		126	70 - 130	10	35
Toluene	<0.00202	U	0.0994	0.1092		mg/Kg		110	70 - 130	12	35
Ethylbenzene	<0.00202	U	0.0994	0.1238		mg/Kg		125	70 - 130	15	35
m-Xylene & p-Xylene	<0.00404	U	0.199	0.2557		mg/Kg		129	70 - 130	16	35
o-Xylene	<0.00202	U	0.0994	0.1256		mg/Kg		126	70 - 130	17	35
	MSD	MSD									
Surrogate	%Recovery	Qualifier	Limits								
4-Bromofluorobenzene (Surr)			70 - 130								
1,4-Difluorobenzene (Surr)	104		70 - 130								
ethod: 8015B NM - Die	sel Range O	rganics (E	ORO) (GC)								
Lab Sample ID: MB 880-577	30/1-A							Client S	ample ID:	Method	Blank
Matrix: Solid								cheft c		Type: Tot	
Analysis Batch: 57996										Batch:	
Analysis Daten. 57530		МВ МВ							Fieh	Daton.	51150

		=						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics	<50.0	U	50.0	mg/Kg		07/14/23 17:17	07/19/23 10:55	1
(GRO)-C6-C10								
Diesel Range Organics (Over	<50.0	U	50.0	mg/Kg		07/14/23 17:17	07/19/23 10:55	1
C10-C28)								
Oll Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		07/14/23 17:17	07/19/23 10:55	1
	MB	МВ						
Surrogate	%Recovery		Limits			Prepared	Analyzed	Dil Fac
						·		
1-Chlorooctane	161	S1+	70 - 130			07/14/23 17:17	07/19/23 10:55	1

- Lah Sample ID: LCS 880-57730/2-A		
o-Terphenyl	169 S1+	70 - 130
1-Chlorooctane	161 S1+	70 - 130

Lab Sample ID: LCS 880-57730/2-A Matrix: Solid

Analysis Batch: 57996 Prep Batch: 57730 %Rec Spike LCS LCS Analyte Added Result Qualifier Unit D %Rec Limits 1000 853.8 85 70 - 130 Gasoline Range Organics mg/Kg (GRO)-C6-C10 Diesel Range Organics (Over 1000 812.0 mg/Kg 81 70 - 130 C10-C28)

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Prep Type: Total/NA

07/19/23 10:55

Client Sample ID: Lab Control Sample

07/14/23 17:17

QC Sample Results

Client: Ensolum Project/Site: PLU 15 TWIN WELLS RANCH CTB

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

Lab Sample ID: LCS 880-577 Matrix: Solid	'30/2-A						Client	Sample	ID: Lab C		
										Type: To	
Analysis Batch: 57996									Prep	Batch:	5//30
	LCS	LCS									
Surrogate	%Recovery	Qualifier	Limits								
1-Chlorooctane	85		70 - 130								
o-Terphenyl	90		70 - 130								
-											
Lab Sample ID: LCSD 880-57	7730/3-A					Clier	nt San	n <mark>ple ID:</mark> I	Lab Contro	ol Sampl	e Dup
Matrix: Solid									Prep 1	Type: To	tal/NA
Analysis Batch: 57996									Prep	Batch:	57730
			Spike	LCSD	LCSD				%Rec		RPD
Analyte			Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Gasoline Range Organics			1000	826.1		mg/Kg		83	70 - 130	3	20
(GRO)-C6-C10											
Diesel Range Organics (Over			1000	809.3		mg/Kg		81	70 - 130	0	20
C10-C28)											
	LCSD	LCSD									
Surrogate	%Recovery	Qualifier	Limits								
1-Chlorooctane	84		70 - 130								
o-Terphenyl	90		70 - 130								
-											
Lab Sample ID: 890-4939-A-1	1-G MS							Client	Sample ID	: Matrix	Spike
Matrix: Solid									Prep 1	Type: To	tal/NA
Analysis Batch: 57996									Prep	Batch:	57730
	Sample	Sample	Spike	MS	MS				%Rec		
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits		
Gasoline Range Organics	<49.7	U	1000	904.9		mg/Kg		86	70 - 130		
(GRO)-C6-C10											
Diesel Range Organics (Over	<49.7	U	1000	943.3		mg/Kg		91	70 - 130		
C10-C28)											
	MS	MS									
Surrogate	%Recovery	Qualifier	Limits								
1-Chlorooctane			70 - 130								
o-Terphenyl	109		70 - 130								
-											
Lab Sample ID: 890-4939-A-1	1-H MSD					CI	ient Sa	ample IC): Matrix Sp	pike Dup	olicate
Matrix: Solid									Prep 1	Type: To	tal/NA
Analysis Batch: 57996									Prep	Batch:	57730
	Sample	Sample	Spike	MSD	MSD				%Rec		RPD
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Gasoline Range Organics	<49.7	U	1000	1023		mg/Kg		98	70 - 130	12	20
(GRO)-C6-C10											
Diesel Range Organics (Over	<49.7	U	1000	1084		mg/Kg		105	70 - 130	14	20
C10-C28)											
	MSD	MSD									
Surrogate	MSD %Recovery		Limits								
Surrogate 1-Chlorooctane			Limits								

QC Sample Results

Job ID: 890-4941-1 SDG: 03C1558247

Client: Ensolum Project/Site: PLU 15 TWIN WELLS RANCH CTB

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-57634/ Matrix: Solid	1-A							Client	Sample ID:	Method Type: S	
Analysis Batch: 57651									гіер	Type. 5	oluble
Analysis Batch. 57651		MB MB									
Analyte	B	sult Qualifier		RL	Unit		D	Prepared	Analy	Tod	Dil Fac
Chloride		5.00 U		5.00	0mit mg/K		<u> </u>	Fiepaieu			
Chionde		5.00 0		5.00	iliy/K	y			07/14/23	11.55	I
Lab Sample ID: LCS 880-57634	/2-A						Clie	nt Sample	e ID: Lab C	ontrol S	ample
Matrix: Solid										Type: S	
Analysis Batch: 57651											
· · · · · , · · · · · · · · · · · · · · · · · · ·			Spike	LCS	LCS				%Rec		
Analyte			Added	Result	Qualifier	Unit		D %Rec	Limits		
Chloride			250	249.8		mg/Kg		100	90 - 110		
Lab Sample ID: LCSD 880-5763	34/3-A					CI	ient Sa	ample ID:	Lab Contro	ol Sampl	e Dup
Matrix: Solid									Prep	Type: S	oluble
Analysis Batch: 57651											
			Spike	LCSD	LCSD				%Rec		RPD
Analyte			Added	Result	Qualifier	Unit		O %Rec	Limits	RPD	Limit
Chloride			250	251.7		mg/Kg		101	90 - 110	1	20
	MO							Oliont	Complet	Mateix	Calles
Lab Sample ID: 890-4939-A-1-C Matrix: Solid								Client	Sample IE		
									Frep	Type: S	oluble
Analysis Batch: 57651	Sample	Sampla	Spike	Me	MS				%Rec		
Analyte	-	Qualifier	Added		Qualifier	Unit		D %Rec	Limits		
Chloride	213		252	458.0	Quaimer	mg/Kg	L	97	90 - 110		
	215		202	430.0		iiig/itg		51	30 - 110		
Lab Sample ID: 890-4939-A-1-D	MSD						Client	Sample II	D: Matrix S	pike Dup	olicate
Matrix: Solid								•		Type: S	
Analysis Batch: 57651											
-	Sample	Sample	Spike	MSD	MSD				%Rec		RPD
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit		D %Rec	Limits	RPD	Limit
Chloride	213		252	456.5		mg/Kg		97	90 - 110	0	20

QC Association Summa

Client: Ensolum Project/Site: PLU 15 TWIN WELLS RANCH CTB

GC VOA

Analysis Batch: 57653

ary	
	Job ID: 8

SDG: 03C1558247

Page 90 of 126

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4941-1	FS02	Total/NA	Solid	8021B	57673
MB 880-57673/5-A	Method Blank	Total/NA	Solid	8021B	57673
LCS 880-57673/1-A	Lab Control Sample	Total/NA	Solid	8021B	57673
LCSD 880-57673/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	57673
880-30733-A-1-B MS	Matrix Spike	Total/NA	Solid	8021B	57673
880-30733-A-1-C MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	57673
rep Batch: 57673					
Lab Sample ID	Client Sample ID	Ргер Туре	Matrix	Method	Prep Batch
890-4941-1	FS02	Total/NA	Solid	5035	
MB 880-57673/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-57673/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-57673/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
880-30733-A-1-B MS	Matrix Spike	Total/NA	Solid	5035	
880-30733-A-1-C MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	
nalysis Batch: 57853					
Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4941-1	FS02	Total/NA	Solid	Total BTEX	
iC Semi VOA					
rep Batch: 57730					
Lab Sample ID	Client Sample ID	Ргер Туре	Matrix	Method	Prep Batch
Lab Sample ID 890-4941-1	Client Sample ID FS02	Prep Type Total/NA	Matrix Solid	Method 8015NM Prep	Prep Batch
•					Prep Batch
890-4941-1	FS02	Total/NA	Solid	8015NM Prep	Prep Batch
890-4941-1 MB 880-57730/1-A	FS02 Method Blank	Total/NA Total/NA	Solid Solid	8015NM Prep 8015NM Prep	Prep Batch
890-4941-1 MB 880-57730/1-A LCS 880-57730/2-A	FS02 Method Blank Lab Control Sample	Total/NA Total/NA Total/NA	Solid Solid Solid	8015NM Prep 8015NM Prep 8015NM Prep	Prep Batch
890-4941-1 MB 880-57730/1-A LCS 880-57730/2-A LCSD 880-57730/3-A	FS02 Method Blank Lab Control Sample Lab Control Sample Dup	Total/NA Total/NA Total/NA Total/NA	Solid Solid Solid Solid	8015NM Prep 8015NM Prep 8015NM Prep 8015NM Prep	Prep Batch
890-4941-1 MB 880-57730/1-A LCS 880-57730/2-A LCSD 880-57730/3-A 890-4939-A-1-G MS	FS02 Method Blank Lab Control Sample Lab Control Sample Dup Matrix Spike Matrix Spike Duplicate	Total/NA Total/NA Total/NA Total/NA Total/NA	Solid Solid Solid Solid Solid	8015NM Prep 8015NM Prep 8015NM Prep 8015NM Prep 8015NM Prep	Prep Batch
890-4941-1 MB 880-57730/1-A LCS 880-57730/2-A LCSD 880-57730/3-A 890-4939-A-1-G MS 890-4939-A-1-H MSD	FS02 Method Blank Lab Control Sample Lab Control Sample Dup Matrix Spike Matrix Spike Duplicate Client Sample ID	Total/NA Total/NA Total/NA Total/NA Total/NA	Solid Solid Solid Solid Solid Solid Matrix	8015NM Prep 8015NM Prep 8015NM Prep 8015NM Prep 8015NM Prep	Prep Batch
890-4941-1 MB 880-57730/1-A LCS 880-57730/2-A LCSD 880-57730/3-A 890-4939-A-1-G MS 890-4939-A-1-H MSD nalysis Batch: 57996	FS02 Method Blank Lab Control Sample Lab Control Sample Dup Matrix Spike Matrix Spike Duplicate	Total/NA Total/NA Total/NA Total/NA Total/NA Total/NA	Solid Solid Solid Solid Solid Solid	8015NM Prep 8015NM Prep 8015NM Prep 8015NM Prep 8015NM Prep 8015NM Prep	
890-4941-1 MB 880-57730/1-A LCS 880-57730/2-A LCSD 880-57730/3-A 890-4939-A-1-G MS 890-4939-A-1-H MSD nalysis Batch: 57996 Lab Sample ID	FS02 Method Blank Lab Control Sample Lab Control Sample Dup Matrix Spike Matrix Spike Duplicate Client Sample ID	Total/NA Total/NA Total/NA Total/NA Total/NA Total/NA Prep Type	Solid Solid Solid Solid Solid Solid Matrix	8015NM Prep 8015NM Prep 8015NM Prep 8015NM Prep 8015NM Prep 8015NM Prep Method	Prep Batch
890-4941-1 MB 880-57730/1-A LCS 880-57730/2-A LCSD 880-57730/3-A 890-4939-A-1-G MS 890-4939-A-1-H MSD nalysis Batch: 57996 Lab Sample ID 890-4941-1	FS02 Method Blank Lab Control Sample Lab Control Sample Dup Matrix Spike Matrix Spike Duplicate Client Sample ID FS02	Total/NA Total/NA Total/NA Total/NA Total/NA Prep Type Total/NA	Solid Solid Solid Solid Solid Solid Matrix Solid	8015NM Prep 8015NM Prep 8015NM Prep 8015NM Prep 8015NM Prep 8015NM Prep Method 8015B NM	Prep Batch 57730

Analysis Batch: 58144

890-4939-A-1-G MS

890-4939-A-1-H MSD

mple ID Prep Typ	e Matrix	Method	Prep Batch
Total/NA	Solid	8015 NM	
	Total/NA	Total/NA Solid	Total/NA Solid 8015 NM

Total/NA

Total/NA

Solid

Solid

8015B NM

8015B NM

HPLC/IC

Leach Batch: 57634

Lab Sample ID	Client Sample ID	Ргер Туре	Matrix	Method	Prep Batch
890-4941-1	FS02	Soluble	Solid	DI Leach	
MB 880-57634/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-57634/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-57634/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	

Eurofins Carlsbad

Released to Imaging: 1/12/2024 4:13:55 PM

Matrix Spike

Matrix Spike Duplicate

57730

QC Association Summary

Client: Ensolum Project/Site: PLU 15 TWIN WELLS RANCH CTB

HPLC/IC (Continued)

Leach Batch: 57634 (Continued)

Lab Sample ID 890-4939-A-1-C MS	Client Sample ID Matrix Spike	Prep Type Soluble	Matrix Solid	DI Leach	Prep Batch
890-4939-A-1-D MSD	Matrix Spike Duplicate	Soluble	Solid	DI Leach	
Analysis Batch: 57651					

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4941-1	FS02	Soluble	Solid	300.0	57634
MB 880-57634/1-A	Method Blank	Soluble	Solid	300.0	57634
_CS 880-57634/2-A	Lab Control Sample	Soluble	Solid	300.0	57634
_CSD 880-57634/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	57634
390-4939-A-1-C MS	Matrix Spike	Soluble	Solid	300.0	57634
890-4939-A-1-D MSD	Matrix Spike Duplicate	Soluble	Solid	300.0	57634
					1

Job ID: 890-4941-1 SDG: 03C1558247

Eurofins Carlsbad

Page 91 of 126

Date Received: 07/13/23 13:20

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.00 g	5 mL	57673	07/14/23 09:48	EL	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	57653	07/14/23 14:25	AJ	EET MID
Total/NA	Analysis	Total BTEX		1			57853	07/17/23 14:24	AJ	EET MID
Total/NA	Analysis	8015 NM		1			58144	07/20/23 13:08	SM	EET MID
Total/NA	Prep	8015NM Prep			10.04 g	10 mL	57730	07/14/23 17:17	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	57996	07/19/23 14:50	SM	EET MID
Soluble	Leach	DI Leach			5.03 g	50 mL	57634	07/14/23 11:15	KS	EET MID
Soluble	Analysis	300.0		1			57651	07/14/23 13:38	СН	EET MID

Laboratory References:

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

Job ID: 890-4941-1

Page 92 of 126

SDG: 03C1558247

Matrix: Solid

Accreditation/Certification Summary

Client: Ensolum Project/Site: PLU 15 TWIN WELLS RANCH CTB

Laboratory: Eurofins Midland

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

hority	P	rogram	Identification Number	Expiration Date
as	N	ELAP	T104704400-23-26	06-30-24
The fellowing enclutes				
the agency does not o	fer certification.	·	ied by the governing authority. This list ma	ay include analytes for
• •		Matrix Solid	Analyte	ay include analytes for

Page 93 of 126

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Job ID: 890-4941-1

SDG: 03C1558247

Client: Ensolum Project/Site: PLU 15 TWIN WELLS RANCH CTB Job ID: 890-4941-1 SDG: 03C1558247

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	EPA	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 Refe	rences:		
ASTM = A	STM International		
EPA = US	Environmental Protection Agency		
SW846 = '	'Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition	on, November 1986 And Its Updates.	
TAL SOP :	 TestAmerica Laboratories, Standard Operating Procedure 		
Laboratory R	eferences:		
EET MID :	Eurofins Midland, 1211 W. Florida Ave, Midland, TX 79701, TEL (432)704-5440		

Page 94 of 126

12 13 14

Sample Summary

Client: Ensolum Project/Site: PLU 15 TWIN WELLS RANCH CTB Job ID: 890-4941-1 SDG: 03C1558247

		Collected	Received	Depth	
FS02	Solid	07/13/23 10:15	07/13/23 13:20	1.5	

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Environment Testing Houston, TX (281) 240-4200, Dallas, TX (214) 902-0300 Xenco EL Paso, TX (915) 585-3443, Lubbock, TX (806) 794-1296	Page 1	, NM (575) 988-3199	A (575) 392-7550, Carlsbad	Hobbs, N			
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7/20/2023

Page 96 of 126

Job Number: 890-4941-1 SDG Number: 03C1558247

List Source: Eurofins Carlsbad

Login Sample Receipt Checklist

Client: Ensolum

Login Number: 4941 List Number: 1

Creator: Clifton, Cloe

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

14

Job Number: 890-4941-1 SDG Number: 03C1558247

List Source: Eurofins Midland

List Creation: 07/14/23 11:05 AM

Login Sample Receipt Checklist

Client: Ensolum

Login Number: 4941 List Number: 2 Creator: Rodriguez, Leticia

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

Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").

Received by OCD: 8/15/2023 11:37:55 AM



Environment Testing

ANALYTICAL REPORT

PREPARED FOR

Attn: Ashley Giovengo Ensolum 601 N. Marienfeld St. Suite 400 Midland, Texas 79701 Generated 7/31/2023 3:20:26 PM

JOB DESCRIPTION

PLU TWIN WELLS RANCH CTB SDG NUMBER 03C1558247

JOB NUMBER

890-4940-1

Eurofins Carlsbad 1089 N Canal St. Carlsbad NM 88220

See page two for job notes and contact information

Eurofins Carlsbad

Job Notes

This report may not be reproduced except in full, and with written approval from the laboratory. The results relate only to the samples tested. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

Analytical test results meet all requirements of the associated regulatory program (i.e., NELAC (TNI), DoD, and ISO 17025) unless otherwise noted under the individual analysis.

Authorization

AMER

Generated 7/31/2023 3:20:26 PM

Authorized for release by Jessica Kramer, Project Manager Jessica.Kramer@et.eurofinsus.com (432)704-5440

Eurofins Carlsbad is a laboratory within Eurofins Environment Testing South Central, LLC, a company within Eurofins Environment Testing Group of Companies

Laboratory Job ID: 890-4940-1

SDG: 03C1558247

Table of Contents

Cover Page	1
Table of Contents	3
Definitions/Glossary	4
Case Narrative	5
Client Sample Results	6
Surrogate Summary	10
QC Sample Results	11
	15
Lab Chronicle	17
Certification Summary	19
Method Summary	20
Sample Summary	21
Chain of Custody	22
Receipt Checklists	23

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DL, RA, RE, IN

DL

DLC

EDL

LOD

LOQ

MCL

MDA

MDC

MDL

ML MPN

MQL

NC

ND

NEG

POS

PQL

Dilution Factor

Detection Limit (DoD/DOE)

Estimated Detection Limit (Dioxin)

Limit of Detection (DoD/DOE)

Method Detection Limit Minimum Level (Dioxin)

Most Probable Number

Not Calculated

Negative / Absent Positive / Present

Method Quantitation Limit

Practical Quantitation Limit

Limit of Quantitation (DoD/DOE)

Decision Level Concentration (Radiochemistry)

EPA recommended "Maximum Contaminant Level"

Minimum Detectable Concentration (Radiochemistry)

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

Minimum Detectable Activity (Radiochemistry)

	ceived by OCL	D: 8/15/2023 11:37:55 AM	Page 102 of .	126
Project/Site: PLU TWIN WELLS RANCH CTB SDC: 030 Qualifiers		Definitions/Glossary		1
Qualifiers GC VOA Qualifier Qualifier Description U Indicates the analyte was analyzed for but not detected. GC Semi VOA Qualifier Qualifier Description F1 MS and/or MSD recovery exceeds control limits. F2 MS/MSD RPD exceeds control limits. S1- Surrogate recovery exceeds control limits, low biased. S1+ Surrogate recovery exceeds control limits, high biased. U Indicates the analyte was analyzed for but not detected. HPLC/IC Qualifier Description Indicates the analyte was analyzed for but not detected. Glossary Indicates the analyte was analyzed for but not detected. 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	Client: Ensolun	n	Job ID: 890-4940-1	
GC VOA Qualifier Description U Indicates the analyte was analyzed for but not detected. GC Semi VOA Qualifier Description G1 MS and/or MSD recovery exceeds control limits. F1 MS and/or MSD recovery exceeds control limits. F2 MS/MSD RPD exceeds control limits. S1+ Surrogate recovery exceeds control limits, low biased. S1+ Surrogate recovery exceeds control limits, high biased. U Indicates the analyte was analyzed for but not detected. HPLC/IC Qualifier Description U Indicates the analyte was analyzed for but not detected. GBOSSary Abbreviation * Listed under the "D" column to designate that the result is report. * R %R Percent Recovery CFL Contains Free Liquid CFU Colony Forming Unit CNF Contains No Free Liquid	Project/Site: Pl	LU TWIN WELLS RANCH CTB	SDG: 03C1558247	
Qualifier Qualifier Description U Indicates the analyte was analyzed for but not detected. GC Semi VOA Qualifier Description Qualifier Qualifier Description F1 MS and/or MSD recovery exceeds control limits. F2 MS/MSD RPD exceeds control limits S1- Surrogate recovery exceeds control limits, low biased. S1+ Surrogate recovery exceeds control limits, high biased. U Indicates the analyte was analyzed for but not detected. HPLC/IC Qualifier Description U Indicates the analyte was analyzed for but not detected. HPLC/IC Qualifier Description U Indicates the analyte was analyzed for but not detected. Glossary 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 CFN Colony Forming Unit CNF Contains No Free Liquid	Qualifiers			3
GC Semi VOA Qualifier Qualifier Description F1 MS and/or MSD recovery exceeds control limits. F2 MS/MSD RPD exceeds control limits S1- Surrogate recovery exceeds control limits, low biased. S1+ Surrogate recovery exceeds control limits, high biased. U Indicates the analyte was analyzed for but not detected. HPLC/IC Qualifier Description U Indicates the analyte was analyzed for but not detected. Glossary Abbreviation may or may not be present in this report. Abbreviation These commonly used abbreviations may or may not be present in this report. %R Percent Recovery CFL Contains Free Liquid CFU Colony Forming Unit CNF Contains No Free Liquid		Qualifier Description		4
Qualifier Qualifier Description F1 MS and/or MSD recovery exceeds control limits. F2 MS/MSD RPD exceeds control limits S1- Surrogate recovery exceeds control limits, low biased. S1+ Surrogate recovery exceeds control limits, high biased. U Indicates the analyte was analyzed for but not detected. HPLC/IC Qualifier Description U Indicates the analyte was analyzed for but not detected. Glossary Indicates the analyte was analyzed for but not detected. MS 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	U	Indicates the analyte was analyzed for but not detected.		
F1 MS and/or MSD recovery exceeds control limits. F2 MS/MSD RPD exceeds control limits S1- Surrogate recovery exceeds control limits, low biased. S1+ Surrogate recovery exceeds control limits, high biased. U Indicates the analyte was analyzed for but not detected. HPLC/IC Qualifier Description U Indicates the analyte was analyzed for but not detected. Glossary Abbreviation Abbreviation These commonly used abbreviations may or may not be present in this report. a 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	GC Semi VOA			5
F2 MS/MSD RPD exceeds control limits S1- Surrogate recovery exceeds control limits, low biased. S1+ Surrogate recovery exceeds control limits, high biased. U Indicates the analyte was analyzed for but not detected. HPLC/IC Qualifier Description U Indicates the analyte was analyzed for but not detected. HU Indicates the analyte was analyzed for but not detected. Glossary These commonly used abbreviations may or may not be present in this report. x 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	Qualifier	Qualifier Description		
S1- Surrogate recovery exceeds control limits, low biased. S1+ Surrogate recovery exceeds control limits, high biased. U Indicates the analyte was analyzed for but not detected. HPLC/IC Qualifier Description U Indicates the analyte was analyzed for but not detected. U Indicates the analyte was analyzed for but not detected. Glossary Indicates the analyte was analyzed for but not detected. Glossary Indicates the analyte was analyzed for but not detected. S1+ Indicates the analyte was analyzed for but not detected. Glossary Indicates the analyte was analyzed for but not detected. Glossary Indicates the analyte was analyzed for but not detected. S1+ Indicates the analyte was analyzed for but not detected. Glossary Indicates the analyte was analyzed for but not detected. Glossary Indicates the analyte was analyzed for but not detected. S1+ Indicates the analyte was analyzed for but not detected. Glossary Indicates the analyte was analyzed for but not detected. S1+ Indicates the analyte was analyzed for but not detected. S2+ Indicates the analyte was analyzed for but not detected. S2+ Indicates the analyte was analyzed for but not detected. S2+ Indicates the analyte was analyzed for but not detected.	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. HPLC/IC Qualifier Description U Indicates the analyte was analyzed for but not detected. Glossary Indicates the analyte was analyzed for but not detected. Abbreviation These commonly used abbreviations may or may not be present in this report. x 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	F2	MS/MSD RPD exceeds control limits		
U Indicates the analyte was analyzed for but not detected. HPLC/IC Qualifier Description U Indicates the analyte was analyzed for but not detected. Glossary Abbreviation 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	S1-	Surrogate recovery exceeds control limits, low biased.		
HPLC/IC Qualifier Description U Indicates the analyte was analyzed for but not detected. Glossary Indicates the analyte was analyzed for but not detected. 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	S1+	Surrogate recovery exceeds control limits, high biased.		
Qualifier Qualifier Description U Indicates the analyte was analyzed for but not detected. Glossary Indicates the analyte was analyzed for but not detected. 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	U	Indicates the analyte was analyzed for but not detected.		8
U Indicates the analyte was analyzed for but not detected. Glossary Abbreviation Abbreviation These commonly used abbreviations may or may not be present in this report. x 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	HPLC/IC			
Glossary Abbreviation These commonly used abbreviations may or may not be present in this report. n Listed under the "D" column to designate that the result is reported on a dry weight basis %R Percent Recovery CFL Contains Free Liquid CFU Colony Forming Unit CNF Contains No Free Liquid	Qualifier	Qualifier Description		Ç
Abbreviation These commonly used abbreviations may or may not be present in this report. n Listed under the "D" column to designate that the result is reported on a dry weight basis %R Percent Recovery CFL Contains Free Liquid CFU Colony Forming Unit CNF Contains No Free Liquid	U	Indicates the analyte was analyzed for but not detected.		
Isisted 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	Glossary			
%R Percent Recovery CFL Contains Free Liquid CFU Colony Forming Unit CNF Contains No Free Liquid	Abbreviation	These commonly used abbreviations may or may not be present in this report.		
CFL Contains Free Liquid CFU Colony Forming Unit CNF Contains No Free Liquid	¤	Listed under the "D" column to designate that the result is reported on a dry weight basis		
CFU Colony Forming Unit CNF Contains No Free Liquid	%R	Percent Recovery		
CNF Contains No Free Liquid	CFL	Contains Free Liquid		
	CFU	Colony Forming Unit		4
DER Duplicate Error Ratio (normalized absolute difference)	CNF	Contains No Free Liquid		1
	DER	Duplicate Error Ratio (normalized absolute difference)		

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

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 Toxicity Equivalent Factor (Dioxin) TEF TEQ Toxicity Equivalent Quotient (Dioxin) TNTC Too Numerous To Count

Project/Site: PLU TWIN WELLS RANCH CTB

4

Job ID: 890-4940-1 SDG: 03C1558247

Job ID: 890-4940-1

Client: Ensolum

Laboratory: Eurofins Carlsbad

Narrative

Job Narrative 890-4940-1

Receipt

The samples were received on 7/12/2023 4:22 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 5.4°C

Receipt Exceptions

The following samples were received and analyzed from an unpreserved bulk soil jar: SS01A (890-4940-1), SS02A (890-4940-2), SS03A (890-4940-3), SS04A (890-4940-4) and SS05A (890-4940-5).

GC VOA

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

GC Semi VOA

Method 8015MOD_NM: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 880-58356 and analytical batch 880-58682 were outside control limits for one or more analytes. See QC Sample Results for detail. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery is within acceptance limits.

Method 8015MOD_NM: Surrogate recovery for the following sample was outside control limits: (890-4943-A-1-I MSD). Evidence of matrix interferences is not obvious.

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

HPLC/IC

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

Date Collected: 07/12/23 09:35 Date Received: 07/12/23 16:22

Sample Depth: 5

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00202	U	0.00202	mg/Kg		07/14/23 14:36	07/15/23 23:44	
Toluene	<0.00202	U	0.00202	mg/Kg		07/14/23 14:36	07/15/23 23:44	
Ethylbenzene	<0.00202	U	0.00202	mg/Kg		07/14/23 14:36	07/15/23 23:44	
m-Xylene & p-Xylene	<0.00404	U	0.00404	mg/Kg		07/14/23 14:36	07/15/23 23:44	1
o-Xylene	<0.00202	U	0.00202	mg/Kg		07/14/23 14:36	07/15/23 23:44	1
Xylenes, Total	<0.00404	U	0.00404	mg/Kg		07/14/23 14:36	07/15/23 23:44	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fa
4-Bromofluorobenzene (Surr)	92		70 - 130			07/14/23 14:36	07/15/23 23:44	1
1,4-Difluorobenzene (Surr)	95		70 - 130			07/14/23 14:36	07/15/23 23:44	1
Method: TAL SOP Total BTEX -	Total BTEX Calo	culation						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00404	U	0.00404	mg/Kg			07/17/23 13:55	1
Method: SW846 8015 NM - Diese	el Range Organ	ics (DRO) (GC)					
Method: SW846 8015 NM - Diese Analyte		ics (DRO) (Qualifier	GC) RL	Unit	D	Prepared	Analyzed	Dil Fac
		Qualifier		Unit mg/Kg	<u>D</u>	Prepared	Analyzed 07/31/23 16:05	Dil Fac
Analyte	Result <50.1	Qualifier	(GC)	mg/Kg		<u> </u>		1
Analyte Total TPH Method: SW846 8015B NM - Die Analyte	Result <50.1 sel Range Orga Result	Qualifier U nics (DRO) Qualifier	RL 50.1 (GC) RL	mg/Kg Unit	D	Prepared	07/31/23 16:05	-
Analyte Total TPH Method: SW846 8015B NM - Die Analyte Gasoline Range Organics	Result <50.1 sel Range Orga Result	Qualifier U nics (DRO) Qualifier	(GC)	mg/Kg		<u> </u>	07/31/23 16:05	1
Analyte Total TPH Method: SW846 8015B NM - Die Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over	Result <50.1 sel Range Orga Result	Qualifier U nics (DRO) Qualifier U	RL 50.1 (GC) RL	mg/Kg Unit		Prepared	07/31/23 16:05	1 Dil Fac
Analyte Total TPH Method: SW846 8015B NM - Die Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28)	Result <50.1	Qualifier U nics (DRO) Qualifier U U	RL 50.1 (GC) RL 50.1 50.1	mg/Kg Unit mg/Kg mg/Kg		Prepared 07/24/23 12:58 07/24/23 12:58	07/31/23 16:05 Analyzed 07/28/23 17:32 07/28/23 17:32	1 Dil Fac 1
Analyte Total TPH Method: SW846 8015B NM - Die Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28)	Result Sel Range Orga Result <	Qualifier U nics (DRO) Qualifier U U	RL 50.1 (GC) RL 50.1	mg/Kg Unit mg/Kg		Prepared 07/24/23 12:58	07/31/23 16:05 Analyzed 07/28/23 17:32	1 Dil Fac
Analyte Total TPH Method: SW846 8015B NM - Die Analyte	Result <50.1	Qualifier U nics (DRO) Qualifier U U	RL 50.1 (GC) RL 50.1 50.1	mg/Kg Unit mg/Kg mg/Kg		Prepared 07/24/23 12:58 07/24/23 12:58	07/31/23 16:05 Analyzed 07/28/23 17:32 07/28/23 17:32	1 Dil Fac 1
Analyte Total TPH Method: SW846 8015B NM - Die Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) Oll Range Organics (Over C28-C36)	Result <50.1	Qualifier U nics (DRO) Qualifier U U	RL 50.1 (GC) RL 50.1 50.1 50.1 50.1	mg/Kg Unit mg/Kg mg/Kg		Prepared 07/24/23 12:58 07/24/23 12:58 07/24/23 12:58	07/31/23 16:05 Analyzed 07/28/23 17:32 07/28/23 17:32 07/28/23 17:32	1 Dil Fac 1 1
Analyte Total TPH Method: SW846 8015B NM - Die Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) Oll Range Organics (Over C28-C36) Surrogate	Result <50.1	Qualifier U nics (DRO) Qualifier U U	RL 50.1 (GC) RL 50.1 50.1 50.1 Limits	mg/Kg Unit mg/Kg mg/Kg		Prepared 07/24/23 12:58 07/24/23 12:58 07/24/23 12:58 Prepared	07/31/23 16:05 Analyzed 07/28/23 17:32 07/28/23 17:32 07/28/23 17:32 Analyzed	Dil Fac
Analyte Total TPH Method: SW846 8015B NM - Die Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) Oll Range Organics (Over C28-C36) Surrogate 1-Chlorooctane	Result <50.1	Qualifier U nics (DRO) Qualifier U U U Qualifier	RL 50.1 (GC) RL 50.1 50.1 50.1 50.1 70.1 70.130 70.130	mg/Kg Unit mg/Kg mg/Kg		Prepared 07/24/23 12:58 07/24/23 12:58 07/24/23 12:58 Prepared 07/24/23 12:58	07/31/23 16:05 Analyzed 07/28/23 17:32 07/28/23 17:32 07/28/23 17:32 Analyzed 07/28/23 17:32	Dil Fac
Analyte Total TPH Method: SW846 8015B NM - Die Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) Oll Range Organics (Over C28-C36) Surrogate 1-Chlorooctane o-Terphenyl	Result <50.1	Qualifier U nics (DRO) Qualifier U U U Qualifier	RL 50.1 (GC) RL 50.1 50.1 50.1 50.1 70.1 70.130 70.130	mg/Kg Unit mg/Kg mg/Kg		Prepared 07/24/23 12:58 07/24/23 12:58 07/24/23 12:58 Prepared 07/24/23 12:58	07/31/23 16:05 Analyzed 07/28/23 17:32 07/28/23 17:32 07/28/23 17:32 Analyzed 07/28/23 17:32	Dil Fac

Client Sample ID: SS02A Date Collected: 07/12/23 12:20 Date Received: 07/12/23 16:22

Sample Depth: 5

Method: SW846 8021B - Volat	ile Organic Comp	ounds (GC))					
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		07/14/23 14:36	07/16/23 00:04	1
Toluene	<0.00200	U	0.00200	mg/Kg		07/14/23 14:36	07/16/23 00:04	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		07/14/23 14:36	07/16/23 00:04	1
m-Xylene & p-Xylene	<0.00400	U	0.00400	mg/Kg		07/14/23 14:36	07/16/23 00:04	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		07/14/23 14:36	07/16/23 00:04	1
Xylenes, Total	<0.00400	U	0.00400	mg/Kg		07/14/23 14:36	07/16/23 00:04	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	99		70 - 130			07/14/23 14:36	07/16/23 00:04	1

Eurofins Carlsbad

Matrix: Solid

Page 104 of 126

Job ID: 890-4940-1 SDG: 03C1558247

Lab Sample ID: 890-4940-1

Matrix: Solid

Client Sample Results

Client: Ensolum Project/Site: PLU TWIN WELLS RANCH CTB

Client Sample ID: SS02A

Date Collected: 07/12/23 12:20

Date Received: 07/12/23 16:22 Sample Depth: 5

Method: SW846 8021B - Volatile Organic Compounds (GC) (Continued)

Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1,4-Difluorobenzene (Surr)	98		70 - 130			07/14/23 14:36	07/16/23 00:04	
Method: TAL SOP Total BTEX - T	otal BTEX Cale	ulation						
Analyte		Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fa
Total BTEX	<0.00400	U	0.00400	mg/Kg			07/17/23 13:55	·
Method: SW846 8015 NM - Diese	l Range Organ	ics (DRO) (GC)					
Analyte	• •	Qualifier	, RL	Unit	D	Prepared	Analyzed	Dil Fa
Total TPH	<49.7	U	49.7	mg/Kg			07/31/23 16:05	
Method: SW846 8015B NM - Dies	el Range Orga	nics (DRO)	(GC)					
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics	<49.7	U	49.7	mg/Kg		07/24/23 12:58	07/28/23 17:54	
(GRO)-C6-C10								
Diesel Range Organics (Over	<49.7	U	49.7	mg/Kg		07/24/23 12:58	07/28/23 17:54	
C10-C28)								
Oll Range Organics (Over C28-C36)	<49.7	U	49.7	mg/Kg		07/24/23 12:58	07/28/23 17:54	
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fa
1-Chlorooctane	84		70 - 130			07/24/23 12:58	07/28/23 17:54	
o-Terphenyl	96		70 - 130			07/24/23 12:58	07/28/23 17:54	
Method: EPA 300.0 - Anions, Ion	Chromatogram	hy - Solubl	٥					
Analyte		Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fa
			5.00	mg/Kg		<u> </u>	07/17/23 17:12	

Client Sample ID: SS03A

Date Collected: 07/12/23 13:10 Date Received: 07/12/23 16:22 Sample Depth: 5

Method: SW846 8021B - Volatile Organic Compounds (GC) Dil Fac Analyte Result Qualifier RL Unit D Prepared Analyzed Benzene <0.00202 U 0.00202 mg/Kg 07/14/23 14:36 07/16/23 00:25 Toluene <0.00202 U 0.00202 07/14/23 14:36 07/16/23 00:25 mg/Kg Ethylbenzene <0.00202 U 0.00202 mg/Kg 07/14/23 14:36 07/16/23 00:25 0.00403 07/16/23 00:25 m-Xylene & p-Xylene <0.00403 U mg/Kg 07/14/23 14:36 o-Xylene <0.00202 U 0.00202 mg/Kg 07/14/23 14:36 07/16/23 00:25 Xylenes, Total <0.00403 U 0.00403 mg/Kg 07/14/23 14:36 07/16/23 00:25 %Recovery Qualifier Limits Dil Fac Surrogate Prepared Analyzed 70 - 130 07/14/23 14:36 4-Bromofluorobenzene (Surr) 99 07/16/23 00:25 1,4-Difluorobenzene (Surr) 92 70 - 130 07/14/23 14:36 07/16/23 00:25 Method: TAL SOP Total BTEX - Total BTEX Calculation Analyte **Result Qualifier** RL Unit D Dil Fac Prepared Analyzed Total BTEX <0.00403 U 0.00403 07/17/23 13:55 mg/Kg

Method: SW846 8015 NM - Diesel R	ange Organi	ics (DRO) (O	SC)					
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.3	U	50.3	mg/Kg			07/31/23 16:05	1

Eurofins Carlsbad

Job ID: 890-4940-1 SDG: 03C1558247

Lab Sample ID: 890-4940-2

Lab Sample ID: 890-4940-3

Matrix: Solid

1

1

1

1

1

1

1

Matrix: Solid

Project/Site: PLU TWIN WELLS RANCH CTB

Job ID: 890-4940-1 SDG: 03C1558247

Lab Sample ID: 890-4940-4

Matrix: Solid

Client Sample ID: SS03A

Date Collected: 07/12/23 13:10 Date Received: 07/12/23 16:22

Sample Depth: 5

Client: Ensolum

-		
Method: SW846 8015B NM - Di	esel Range Organics (DRO) (GC)	
Analyte	Result Qualifier	RL

Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
<50.3	U	50.3	mg/Kg		07/24/23 12:58	07/28/23 18:16	1
<50.3	U	50.3	mg/Kg		07/24/23 12:58	07/28/23 18:16	1
<50.3	U	50.3	mg/Kg		07/24/23 12:58	07/28/23 18:16	1
%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
71		70 - 130			07/24/23 12:58	07/28/23 18:16	1
85		70 - 130			07/24/23 12:58	07/28/23 18:16	1
	<50.3 <50.3 <50.3 %Recovery 71	71	<50.3	<50.3 U 50.3 mg/Kg <50.3	<50.3 U 50.3 mg/Kg <50.3	<50.3 U 50.3 mg/Kg 07/24/23 12:58 <50.3	<50.3 U 50.3 mg/Kg 07/24/23 12:58 07/28/23 18:16 <50.3

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	81.1	4.96	mg/Kg			07/17/23 17:18	1

Client Sample ID: SS04A

Date Collected: 07/12/23 14:30 Date Received: 07/12/23 16:22

Sample Depth: 5

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00201	U	0.00201	mg/Kg		07/14/23 14:36	07/16/23 00:45	1
Toluene	<0.00201	U	0.00201	mg/Kg		07/14/23 14:36	07/16/23 00:45	1
Ethylbenzene	<0.00201	U	0.00201	mg/Kg		07/14/23 14:36	07/16/23 00:45	1
m-Xylene & p-Xylene	<0.00402	U	0.00402	mg/Kg		07/14/23 14:36	07/16/23 00:45	1
o-Xylene	<0.00201	U	0.00201	mg/Kg		07/14/23 14:36	07/16/23 00:45	1
Xylenes, Total	<0.00402	U	0.00402	mg/Kg		07/14/23 14:36	07/16/23 00:45	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	91		70 - 130			07/14/23 14:36	07/16/23 00:45	1
1,4-Difluorobenzene (Surr)	93		70 - 130			07/14/23 14:36	07/16/23 00:45	1
Method: TAL SOP Total BTEX	- Total BTEX Cald	ulation						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00402	U	0.00402	mg/Kg			07/17/23 13:55	1
- Method: SW846 8015 NM - Die	esel Range Organ	ics (DRO) (GC)					
Analyta	Posult	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Analyte	Result	Quanner		onic		ricparca	Analyzea	Dirruc

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

i i tange ei ga		()					
Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
<50.0	U	50.0	mg/Kg		07/24/23 12:58	07/28/23 18:38	1
<50.0	U	50.0	mg/Kg		07/24/23 12:58	07/28/23 18:38	1
<50.0	U	50.0	mg/Kg		07/24/23 12:58	07/28/23 18:38	1
%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
99		70 - 130			07/24/23 12:58	07/28/23 18:38	1
124		70 - 130			07/24/23 12:58	07/28/23 18:38	1
	Result <50.0	Result Qualifier <50.0	<50.0	Result Qualifier RL Unit <50.0	Result Qualifier RL Unit D <50.0	Result Qualifier RL Unit D Prepared <50.0	Result Qualifier RL Unit D Prepared Analyzed <50.0

		Clien	it Sample Re	sults				
Client: Ensolum							Job ID: 890	
Project/Site: PLU TWIN WELLS RA	ANCH CTB						SDG: 03C1	1558247
Client Sample ID: SS04A						Lab San	nple ID: 890-	4940-4
Date Collected: 07/12/23 14:30							Matri	x: Solic
Date Received: 07/12/23 16:22								
Sample Depth: 5								
-	0		-					
Method: EPA 300.0 - Anions, Ion Analyte		Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fa
Chloride		Quaimer	5.05	0mt mg/Kg			07/17/23 17:24	
-				5, 5				
Client Sample ID: SS05A						Lab San	nple ID: 890-	
Date Collected: 07/12/23 12:45							Matri	x: Solic
Date Received: 07/12/23 16:22								
Sample Depth: 5								
_ Method: SW846 8021B - Volatile	Organic Comp	ounds (GC))					
Analyte		Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fa
Benzene	< 0.00202	U	0.00202	mg/Kg		07/14/23 14:36	07/16/23 01:05	
Toluene	<0.00202	U	0.00202	mg/Kg		07/14/23 14:36	07/16/23 01:05	
Ethylbenzene	<0.00202	U	0.00202	mg/Kg		07/14/23 14:36	07/16/23 01:05	
m-Xylene & p-Xylene	<0.00404	U	0.00404	mg/Kg		07/14/23 14:36	07/16/23 01:05	
o-Xylene	<0.00202	U	0.00202	mg/Kg		07/14/23 14:36	07/16/23 01:05	
Xylenes, Total	<0.00404	U	0.00404	mg/Kg		07/14/23 14:36	07/16/23 01:05	
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fa
4-Bromofluorobenzene (Surr)	91		70 - 130			07/14/23 14:36	07/16/23 01:05	
1,4-Difluorobenzene (Surr)	89		70 - 130			07/14/23 14:36	07/16/23 01:05	
_ Method: TAL SOP Total BTEX - ⁻		ulation						
Analyte		Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fa
Total BTEX	<0.00404		0.00404	mg/Kg			07/17/23 13:55	
-	0.00101	0	0.00101	1119/119			01/11/20 10:00	
Method: SW846 8015 NM - Diese	el Range Organ	ics (DRO) (GC)					
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fa
Total TPH	<49.6	U	49.6	mg/Kg			07/31/23 16:05	
- Method: SW846 8015B NM - Die	sel Range Orga	nice (DRO)						
Analyte		Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fa
Gasoline Range Organics	<49.6		49.6	mg/Kg		07/24/23 12:58	07/28/23 19:00	
(GRO)-C6-C10	.5.0							
Diesel Range Organics (Over	<49.6	U	49.6	mg/Kg		07/24/23 12:58	07/28/23 19:00	
C10-C28)								
Oll Range Organics (Over C28-C36)	<49.6	U	49.6	mg/Kg		07/24/23 12:58	07/28/23 19:00	
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fa
1-Chlorooctane	88		70 - 130			07/24/23 12:58	07/28/23 19:00	
o-Terphenyl	107		70 - 130			07/24/23 12:58	07/28/23 19:00	
Mothody EDA 200.0 Aniors lar	Chrometer	hu Calubi						
- Method: EPA 300.0 - Anions, Ior Analyte		o <mark>hy - Solubl</mark> Qualifier	le RL	Unit	D	Prepared	Analyzed	Dil Fa

07/17/23 17:30 56.0 mg/Kg 1

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Project/Site: PLU TWIN WELLS RANCH CTB

Job ID: 890-4940-1 SDG: 03C1558247

Prep Type: Total/NA

Prep Type: Total/NA

Method: 8021B - Volatile Organic Compounds (GC)

Matrix: Solid

Client: Ensolum

				Percent Surrogate Recovery (Acceptance Limits)
		BFB1	DFBZ1	
ab Sample ID	Client Sample ID	(70-130)	(70-130)	
890-4931-A-1-B MS	Matrix Spike	99	92	
390-4931-A-1-C MSD	Matrix Spike Duplicate	91	93	
890-4940-1	SS01A	92	95	
890-4940-2	SS02A	99	98	
390-4940-3	SS03A	99	92	
890-4940-4	SS04A	91	93	
890-4940-5	SS05A	91	89	
LCS 880-57706/1-A	Lab Control Sample	97	92	
LCSD 880-57706/2-A	Lab Control Sample Dup	103	93	
MB 880-57706/5-A	Method Blank	91	110	

BFB = 4-Bromofluorobenzene (Surr)

DFBZ = 1,4-Difluorobenzene (Surr)

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

Matrix: Solid

		1CO1	OTPH1
Lab Sample ID	Client Sample ID	(70-130)	(70-130)
890-4940-1	SS01A	77	87
890-4940-2	SS02A	84	96
890-4940-3	SS03A	71	85
890-4940-4	SS04A	99	124
890-4940-5	SS05A	88	107
890-4943-A-1-H MS	Matrix Spike	72	74
890-4943-A-1-I MSD	Matrix Spike Duplicate	62 S1-	64 S1-
LCS 880-58356/2-A	Lab Control Sample	100	123
LCSD 880-58356/3-A	Lab Control Sample Dup	95	119
MB 880-58356/1-A	Method Blank	141 S1+	176 S1+

Surrogate Legend

1CO = 1-Chlorooctane

OTPH = o-Terphenyl
Lab Sample ID: MB 880-57706/5-A

QC Sample Results

Client: Ensolum Project/Site: PLU TWIN WELLS RANCH CTB

Method: 8021B - Volatile Organic Compounds (GC)

Matrix: Solid							Prep Type: 1	fotal/NA
Analysis Batch: 57752							Prep Batch	1: 57706
	MB	MB						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		07/14/23 14:36	07/15/23 17:39	1
Toluene	<0.00200	U	0.00200	mg/Kg		07/14/23 14:36	07/15/23 17:39	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		07/14/23 14:36	07/15/23 17:39	1
m-Xylene & p-Xylene	<0.00400	U	0.00400	mg/Kg		07/14/23 14:36	07/15/23 17:39	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		07/14/23 14:36	07/15/23 17:39	1
Xylenes, Total	<0.00400	U	0.00400	mg/Kg		07/14/23 14:36	07/15/23 17:39	1
	МВ	MB						
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	91		70 - 130			07/14/23 14:36	07/15/23 17:39	1
1,4-Difluorobenzene (Surr)	110		70 - 130			07/14/23 14:36	07/15/23 17:39	1

Lab Sample ID: LCS 880-57706/1-A Matrix: Solid

Analysis Batch: 57752

	Spike	LCS	LCS				%Rec	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Benzene	0.100	0.08059		mg/Kg		81	70 - 130	
Toluene	0.100	0.09173		mg/Kg		92	70 - 130	
Ethylbenzene	0.100	0.07726		mg/Kg		77	70 - 130	
m-Xylene & p-Xylene	0.200	0.1625		mg/Kg		81	70 - 130	
o-Xylene	0.100	0.07434		mg/Kg		74	70 - 130	

	LCS LC	cs	
Surrogate	%Recovery Q	ualifier	Limits
4-Bromofluorobenzene (Surr)	97		70 - 130
1,4-Difluorobenzene (Surr)	92		70 - 130

Lab Sample ID: LCSD 880-57706/2-A

Matrix: Solid

Analysis Batch: 57752							Prep	Batch:	57706
	Spike	LCSD	LCSD				%Rec		RPD
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Benzene	0.100	0.08691		mg/Kg		87	70 - 130	8	35
Toluene	0.100	0.1013		mg/Kg		101	70 - 130	10	35
Ethylbenzene	0.100	0.08840		mg/Kg		88	70 - 130	13	35
m-Xylene & p-Xylene	0.200	0.1819		mg/Kg		91	70 - 130	11	35
o-Xylene	0.100	0.08739		mg/Kg		87	70 - 130	16	35

	LCSD	LCSD	
Surrogate	%Recovery	Qualifier	Limits
4-Bromofluorobenzene (Surr)	103		70 - 130
1,4-Difluorobenzene (Surr)	93		70 - 130

Lab Sample ID: 890-4931-A-1-B MS Matrix: Solid

Analysis Potoby 57752

Analysis Batch: 57752									Prep	Batch: 57706
	Sample	Sample	Spike	MS	MS				%Rec	
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Benzene	<0.00202	U	0.0994	0.09181		mg/Kg		92	70 - 130	
Toluene	<0.00202	U	0.0994	0.1034		mg/Kg		104	70 - 130	

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Prep Type: Total/NA

Client Sample ID: Matrix Spike

Client Sample ID: Lab Control Sample

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Type: Total/NA

Prep Batch: 57706

QC Sample Results

Client: Ensolum Project/Site: PLU TWIN WELLS RANCH CTB

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

Job ID: 890-4940-1 SDG: 03C1558247

Lab Sample ID: 890-4931-A-1-	BMS							Client S	ample ID: N	/latrix Spike
Matrix: Solid									Prep Ty	be: Total/NA
Analysis Batch: 57752									Prep B	atch: 57706
	Sample Sa	mple	Spike	MS	MS				%Rec	
Analyte	Result Qu	alifier	Added	Result	Qualifier	Unit		D %Rec	Limits	
Ethylbenzene	<0.00202 U		0.0994	0.08545		mg/Kg		86	70 - 130	
m-Xylene & p-Xylene	<0.00403 U		0.199	0.1713		mg/Kg		86	70 - 130	
o-Xylene	<0.00202 U		0.0994	0.09163		mg/Kg		92	70 - 130	
	MS MS	5								
Surrogate	%Recovery Qu	alifier	Limits							
4-Bromofluorobenzene (Surr)	99		70 - 130							
1,4-Difluorobenzene (Surr)	92		70 - 130							
Lab Sample ID: 890-4931-A-1-	C MSD						Clien	t Sample ID:	Matrix Spik	e Duplicate
Matrix: Solid										be: Total/NA
Analysis Batch: 57752										atch: 57706
,	Sample Sa	mple	Spike	MSD	MSD				%Rec	RPD
Analyte	Result Qu	alifier	Added	Result	Qualifier	Unit		D %Rec	Limits	RPD Limit
Benzene	<0.00202 U		0.0998	0.08348		mg/Kg		84	70 - 130	10 35
Toluene	<0.00202 U		0.0998	0.09166		mg/Kg		92	70 - 130	12 35
Ethylbenzene	<0.00202 U		0.0998	0.07256		mg/Kg		73	70 - 130	16 35
m-Xylene & p-Xylene	<0.00403 U		0.200	0.1499		mg/Kg		75	70 - 130	13 35
o-Xylene	<0.00202 U		0.0998	0.08090		mg/Kg		81	70 - 130	12 35
	MSD MS	SD								
Surrogate	%Recovery Qu	alifier	Limits							
4-Bromofluorobenzene (Surr)	91		70 - 130							
1,4-Difluorobenzene (Surr)	93		70 - 130							
lethod: 8015B NM - Diese	Banga Org	nice (DP								
ietilou. ou ibb inim - Diese	a Range Orga									
Lab Sample ID: MB 880-58356	5/1- A							Client Sa		ethod Blank
Matrix: Solid										be: Total/NA
Analysis Batch: 58682									Prep B	atch: 58356
A		B MB			11		-	Durant	A	D!!
Analyte		Lt Qualifier	RI		Unit	~	_ <u>D</u> _	Prepared	Analyzed	
Gasoline Range Organics (GRO)-C6-C10		0 U	50.0		mg/K			07/24/23 12:58	07/28/23 08	
Diesel Range Organics (Over C10-C28)	<50.	0 U	50.0	U	mg/K	g		07/24/23 12:58	07/28/23 08	15 1
Oll Range Organics (Over C28-C36)	<50.	0 U	50.0	D	mg/K	g		07/24/23 12:58	07/28/23 08	15 1
		B <i>MB</i>								
Surrogate		y Qualifier	Limits	_			_	Prepared	Analyzeo	
1-Chlorooctane		1 S1+	70 - 130					07/24/23 12:58	07/28/23 08	
o-Terphenyl	17	6 S1+	70 - 130					07/24/23 12:58	07/28/23 08	:15 1
 A second sec second second sec										
Lab Sample ID: LCS 880-5835	6/2-A						Cli	ent Sample	D: Lab Con	trol Sample
Lab Sample ID: LCS 880-5835 Matrix: Solid	6/2-A						Cli	ent Sample		trol Sample be: Total/NA

Allalysis Dalch. 50002							Fieh	Datch. 50550
	Spike	LCS	LCS				%Rec	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Gasoline Range Organics	1000	867.5		mg/Kg		87	70 - 130	
(GRO)-C6-C10								
Diesel Range Organics (Over	1000	947.8		mg/Kg		95	70 - 130	
C10-C28)								

QC Sample Results

Client: Ensolum Project/Site: PLU TWIN WELLS RANCH CTB

8015B NM - Di 0 . 47 Method:

Lab Sample ID: LCS 880-58	356/2-A						Client	Sample	D: Lab Co	ontrol Sa	ample
Matrix: Solid										ype: To	
Analysis Batch: 58682										Batch:	
									Trop	Batom	
	LCS	LCS									
Surrogate	%Recovery	Qualifier	Limits								
1-Chlorooctane	100		70 - 130								
o-Terphenyl	123		70 - 130								
Lab Sample ID: LCSD 880-5	58356/3-A					Clier	nt San	nple ID: I	Lab Contro	I Sample	e Dup
Matrix: Solid								·		ype: To	
Analysis Batch: 58682										Batch:	
			Spike	LCSD	LCSD				%Rec		RPD
Analyte			Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Gasoline Range Organics			1000	907.7		mg/Kg		91	70 - 130	5	20
(GRO)-C6-C10						5.15				-	_0
Diesel Range Organics (Over			1000	959.6		mg/Kg		96	70 - 130	1	20
C10-C28)											
	LCSD	LCSD									
Surrogate	%Recovery	Qualifier	Limits								
1-Chlorooctane	95		70 - 130								
o-Terphenyl	119		70 - 130								
Lab Sample ID: 890-4943-A	-1-H MS							Client	Sample ID:	: Matrix	Spike
Matrix: Solid									Prep T	ype: To	al/NA
Analysis Batch: 58682										Batch:	
-	Sample	Sample	Spike	MS	MS				%Rec		
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits		
Gasoline Range Organics	<50.3	U F1 F2	999	753.2		mg/Kg		71	70 - 130		
(GRO)-C6-C10	E1 O	F 4	000	600.0	F 1	malla		64	70 120		
Diesel Range Organics (Over C10-C28)	51.9	FI	999	688.2	F1	mg/Kg		64	70 - 130		
	MS	MS									
Surrogate	%Recovery	Qualifier	Limits								
1-Chlorooctane	72		70 - 130								
o-Terphenyl	74		70 - 130								
Lab Sample ID: 890-4943-A						CI	ont S	amnia IF): Matrix Sp	iko Dun	licate
Matrix: Solid										ype: To	
										Batch:	
Analysis Batch: 58682	Sampla	Sample	Spike	Med	MSD					Datch.	RPD
•	•	•	Spike			1114	_	0/ D = =	%Rec		
Analyte		Qualifier	Added		Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Gasoline Range Organics (GRO)-C6-C10	<50.3	U F1 F2	999	587.3	F1 F2	mg/Kg		55	70 - 130	25	20
Diesel Range Organics (Over	51.9	F1	999	598.6	F1	mg/Kg		55	70 - 130	14	20
C10-C28)											
	MSD	MSD									
Surrogate	%Recovery		Limits								

Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane	62	S1-	70 - 130
o-Terphenyl	64	S1-	70 - 130

QC Sample Results

Job ID: 890-4940-1 SDG: 03C1558247

Client: Ensolum Project/Site: PLU TWIN WELLS RANCH CTB

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-57711/1	- A							Client	Sample ID:		
Matrix: Solid									Prep	Type: S	oluble
Analysis Batch: 57903											
		MB MB									
Analyte		esult Qualifie	r	RL	Unit		D	Prepared	Analyz		Dil Fac
Chloride	<	5.00 U		5.00	mg/k	ξg			07/17/23	14:26	1
Lab Sample ID: LCS 880-57711	2-A						Clie	nt Sample	e ID: Lab C	ontrol S	ample
Matrix: Solid									Prep	Type: S	oluble
Analysis Batch: 57903											
			Spike	LCS	LCS				%Rec		
Analyte			Added	Result	Qualifier	Unit		D %Rec	Limits		
Chloride			250	246.1		mg/Kg		98	90 - 110		
Lab Sample ID: LCSD 880-5771	1/3-A					CI	ient Sa	ample ID:	Lab Contro	ol Sampl	le Dup
Matrix: Solid										Type: S	
Analysis Batch: 57903											
			Spike	LCSD	LCSD				%Rec		RPD
Analyte			Added	Result	Qualifier	Unit		D %Rec	Limits	RPD	Limit
Chloride			250	246.2		mg/Kg		98	90 - 110	0	20
Lab Sample ID: 880-30745-A-1-	BMS							Client	Sample ID): Matrix	Spike
Matrix: Solid									Prep	Type: S	oluble
Analysis Batch: 57903											
	Sample	Sample	Spike	MS	MS				%Rec		
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	I	D %Rec	Limits		
Chloride	29.4		248	279.6		mg/Kg		101	90 - 110		
Lab Sample ID: 880-30745-A-1-	C MSD						Client	Sample II	D: Matrix S	pike Du	olicate
Matrix: Solid										Type: S	
Analysis Batch: 57903											
-	Sample	Sample	Spike	MSD	MSD				%Rec		RPD
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	I	D %Rec	Limits	RPD	Limit
Analyte											

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Page 14 of 24

QC Association Summary

Client: Ensolum Project/Site: PLU TWIN WELLS RANCH CTB

5

Job ID: 890-4940-1 SDG: 03C1558247

GC VOA

Prep Batch: 57706

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4940-1	SS01A	Total/NA	Solid	5035	
890-4940-2	SS02A	Total/NA	Solid	5035	
890-4940-3	SS03A	Total/NA	Solid	5035	
890-4940-4	SS04A	Total/NA	Solid	5035	
890-4940-5	SS05A	Total/NA	Solid	5035	
MB 880-57706/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-57706/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-57706/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
890-4931-A-1-B MS	Matrix Spike	Total/NA	Solid	5035	
890-4931-A-1-C MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	

Analysis Batch: 57752

LCS 880-57706/1-A	Lab Control Sample	Total/INA	Solid	5035		
LCSD 880-57706/2-A	Lab Control Sample Dup	Total/NA	Solid	5035		8
890-4931-A-1-B MS	Matrix Spike	Total/NA	Solid	5035		
890-4931-A-1-C MSD	Matrix Spike Duplicate	Total/NA	Solid	5035		9
Analysis Batch: 57752						
Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch	
890-4940-1	SS01A	Total/NA	Solid	8021B	57706	
890-4940-2	SS02A	Total/NA	Solid	8021B	57706	
890-4940-3	SS03A	Total/NA	Solid	8021B	57706	
890-4940-4	SS04A	Total/NA	Solid	8021B	57706	
890-4940-5	SS05A	Total/NA	Solid	8021B	57706	
MB 880-57706/5-A	Method Blank	Total/NA	Solid	8021B	57706	13
LCS 880-57706/1-A	Lab Control Sample	Total/NA	Solid	8021B	57706	
LCSD 880-57706/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	57706	
890-4931-A-1-B MS	Matrix Spike	Total/NA	Solid	8021B	57706	
890-4931-A-1-C MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	57706	
<u> </u>						

Analysis Batch: 57847

Client Sample ID	Prep Type	Matrix	Method	Prep Batch
SS01A	Total/NA	Solid	Total BTEX	
SS02A	Total/NA	Solid	Total BTEX	
SS03A	Total/NA	Solid	Total BTEX	
SS04A	Total/NA	Solid	Total BTEX	
SS05A	Total/NA	Solid	Total BTEX	
	SS01A SS02A SS03A SS04A	SS01A Total/NA SS02A Total/NA SS03A Total/NA SS04A Total/NA	SS01A Total/NA Solid SS02A Total/NA Solid SS03A Total/NA Solid SS04A Total/NA Solid	SS01A Total/NA Solid Total BTEX SS02A Total/NA Solid Total BTEX SS03A Total/NA Solid Total BTEX SS04A Total/NA Solid Total BTEX

GC Semi VOA

Prep Batch: 58356

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4940-1	SS01A	Total/NA	Solid	8015NM Prep	
890-4940-2	SS02A	Total/NA	Solid	8015NM Prep	
890-4940-3	SS03A	Total/NA	Solid	8015NM Prep	
890-4940-4	SS04A	Total/NA	Solid	8015NM Prep	
890-4940-5	SS05A	Total/NA	Solid	8015NM Prep	
MB 880-58356/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-58356/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-58356/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
890-4943-A-1-H MS	Matrix Spike	Total/NA	Solid	8015NM Prep	
890-4943-A-1-I MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4940-1	SS01A	Total/NA	Solid	8015B NM	58356
890-4940-2	SS02A	Total/NA	Solid	8015B NM	58356

QC Association Summary

Client: Ensolum	
Project/Site: PLU TWIN	WELLS RANCH CTB

GC Semi VOA (Continued)

~ ''

Analysis Batch: 58682 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4940-3	SS03A	Total/NA	Solid	8015B NM	58356
890-4940-4	SS04A	Total/NA	Solid	8015B NM	58356
890-4940-5	SS05A	Total/NA	Solid	8015B NM	58356
MB 880-58356/1-A	Method Blank	Total/NA	Solid	8015B NM	58356
LCS 880-58356/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	58356
LCSD 880-58356/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	58356
890-4943-A-1-H MS	Matrix Spike	Total/NA	Solid	8015B NM	58356
890-4943-A-1-I MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	58356

Analysis Batch: 58924

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4940-1	SS01A	Total/NA	Solid	8015 NM	
890-4940-2	SS02A	Total/NA	Solid	8015 NM	
890-4940-3	SS03A	Total/NA	Solid	8015 NM	
890-4940-4	SS04A	Total/NA	Solid	8015 NM	
890-4940-5	SS05A	Total/NA	Solid	8015 NM	

HPLC/IC

Leach Batch: 57711

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4940-1	SS01A	Soluble	Solid	DI Leach	
890-4940-2	SS02A	Soluble	Solid	DI Leach	
890-4940-3	SS03A	Soluble	Solid	DI Leach	
890-4940-4	SS04A	Soluble	Solid	DI Leach	
890-4940-5	SS05A	Soluble	Solid	DI Leach	
MB 880-57711/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-57711/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-57711/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
880-30745-A-1-B MS	Matrix Spike	Soluble	Solid	DI Leach	
880-30745-A-1-C MSD	Matrix Spike Duplicate	Soluble	Solid	DI Leach	

Analysis Batch: 57903

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4940-1	SS01A	Soluble	Solid	300.0	57711
890-4940-2	SS02A	Soluble	Solid	300.0	57711
890-4940-3	SS03A	Soluble	Solid	300.0	57711
890-4940-4	SS04A	Soluble	Solid	300.0	57711
890-4940-5	SS05A	Soluble	Solid	300.0	57711
MB 880-57711/1-A	Method Blank	Soluble	Solid	300.0	57711
LCS 880-57711/2-A	Lab Control Sample	Soluble	Solid	300.0	57711
LCSD 880-57711/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	57711
880-30745-A-1-B MS	Matrix Spike	Soluble	Solid	300.0	57711
880-30745-A-1-C MSD	Matrix Spike Duplicate	Soluble	Solid	300.0	57711

Page 114 of 126

Job ID: 890-4940-1 SDG: 03C1558247 Project/Site: PLU TWIN WELLS RANCH CTB

5

9

Job ID: 890-4940-1 SDG: 03C1558247

Lab Sample ID: 890-4940-1 Matrix: Solid

Lab Sample ID: 890-4940-2

Lab Sample ID: 890-4940-3

Lab Sample ID: 890-4940-4

Matrix: Solid

Matrix: Solid

Date Collected: 07/12/23 09:35 Date Received: 07/12/23 16:22

Client Sample ID: SS01A

Client: Ensolum

Batch	Batch		Dil	Initial	Final	Batch	Prepared			
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.95 g	5 mL	57706	07/14/23 14:36	EL	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	57752	07/15/23 23:44	AJ	EET MID
Total/NA	Analysis	Total BTEX		1			57847	07/17/23 13:55	AJ	EET MID
Total/NA	Analysis	8015 NM		1			58924	07/31/23 16:05	AJ	EET MID
Total/NA	Prep	8015NM Prep			9.99 g	10 mL	58356	07/24/23 12:58	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	58682	07/28/23 17:32	AJ	EET MID
Soluble	Leach	DI Leach			5.02 g	50 mL	57711	07/14/23 15:08	KS	EET MID
Soluble	Analysis	300.0		1			57903	07/17/23 17:06	СН	EET MID

Client Sample ID: SS02A

Date Collected: 07/12/23 12:20 Date Received: 07/12/23 16:22

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.00 g	5 mL	57706	07/14/23 14:36	EL	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	57752	07/16/23 00:04	AJ	EET MID
Total/NA	Analysis	Total BTEX		1			57847	07/17/23 13:55	AJ	EET MID
Total/NA	Analysis	8015 NM		1			58924	07/31/23 16:05	AJ	EET MID
Total/NA	Prep	8015NM Prep			10.06 g	10 mL	58356	07/24/23 12:58	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	58682	07/28/23 17:54	AJ	EET MID
Soluble	Leach	DI Leach			5 g	50 mL	57711	07/14/23 15:08	KS	EET MID
Soluble	Analysis	300.0		1			57903	07/17/23 17:12	СН	EET MID

Client Sample ID: SS03A

Date Collected: 07/12/23 13:10 Date Received: 07/12/23 16:22

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Ргер Туре	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.96 g	5 mL	57706	07/14/23 14:36	EL	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	57752	07/16/23 00:25	AJ	EET MID
Total/NA	Analysis	Total BTEX		1			57847	07/17/23 13:55	AJ	EET MID
Total/NA	Analysis	8015 NM		1			58924	07/31/23 16:05	AJ	EET MID
Total/NA	Prep	8015NM Prep			9.95 g	10 mL	58356	07/24/23 12:58	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	58682	07/28/23 18:16	AJ	EET MID
Soluble	Leach	DI Leach			5.04 g	50 mL	57711	07/14/23 15:08	KS	EET MID
Soluble	Analysis	300.0		1			57903	07/17/23 17:18	СН	EET MID

Client Sample ID: SS04A Date Collected: 07/12/23 14:30 Date Received: 07/12/23 16:22

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.98 g	5 mL	57706	07/14/23 14:36	EL	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	57752	07/16/23 00:45	AJ	EET MID
Total/NA	Analysis	Total BTEX		1			57847	07/17/23 13:55	AJ	EET MID

Eurofins Carlsbad

Released to Imaging: 1/12/2024 4:13:55 PM

Matrix: Solid

Date Received: 07/12/23 16:22

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Ргер Туре	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	8015 NM		1			58924	07/31/23 16:05	AJ	EET MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	58356	07/24/23 12:58	ткс	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	58682	07/28/23 18:38	AJ	EET MID
Soluble	Leach	DI Leach			4.95 g	50 mL	57711	07/14/23 15:08	KS	EET MID
Soluble	Analysis	300.0		1			57903	07/17/23 17:24	СН	EET MID

Client Sample ID: SS05A Date Collected: 07/12/23 12:45

Date Received: 07/12/23 16:22

_	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.95 g	5 mL	57706	07/14/23 14:36	EL	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	57752	07/16/23 01:05	AJ	EET MID
Total/NA	Analysis	Total BTEX		1			57847	07/17/23 13:55	AJ	EET MID
Total/NA	Analysis	8015 NM		1			58924	07/31/23 16:05	AJ	EET MID
Total/NA	Prep	8015NM Prep			10.09 g	10 mL	58356	07/24/23 12:58	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	58682	07/28/23 19:00	AJ	EET MID
Soluble	Leach	DI Leach			4.98 g	50 mL	57711	07/14/23 15:08	KS	EET MID
Soluble	Analysis	300.0		1			57903	07/17/23 17:30	СН	EET MID

Laboratory References:

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

Job ID: 890-4940-1 SDG: 03C1558247

Page 116 of 126

Lab Sample ID: 890-4940-4

Lab Sample ID: 890-4940-5

Matrix: Solid

Matrix: Solid

Accreditation/Certification Summary

Client: Ensolum Project/Site: PLU TWIN WELLS RANCH CTB

Laboratory: Eurofins Midland

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

Authority Texas		Program	Identification Number	Expiration Date
		NELAP	T104704400-23-26	06-30-24
The following analytes	are included in this report.	but the laboratory is not certif	ied by the governing authority. This list ma	av include analytes for w
the agency does not o	fer certification.			, ,
the agency does not o Analysis Method	•	Matrix	Analyte	
the agency does not o	fer certification.			

Page 117 of 126

10

Job ID: 890-4940-1

SDG: 03C1558247

Method Summary

Client: Ensolum Project/Site: PLU TWIN WELLS RANCH CTB Job ID: 890-4940-1 SDG: 03C1558247

lethod	Method Description	Protocol	Laboratory
8021B	Volatile Organic Compounds (GC)	SW846	EET MID
otal 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
800.0	Anions, Ion Chromatography	EPA	EET MID
6035	Closed System Purge and Trap	SW846	EET MID
015NM Prep	Microextraction	SW846	EET MID
01 Leach	Deionized Water Leaching Procedure	ASTM	EET MID
	Environmental Protection Agency		
SW846 = '	Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Ed	tion, November 1986 And Its Updates.	
TAL SOP :	- TestAmerica Laboratories, Standard Operating Procedure		
Laboratory Re			
EET MID =	Eurofins Midland, 1211 W. Florida Ave, Midland, TX 79701, TEL (432)704-5440		

Client: Ensolum Project/Site: PLU TWIN WELLS RANCH CTB Job ID: 890-4940-1 SDG: 03C1558247

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth	
890-4940-1	SS01A	Solid	07/12/23 09:35	07/12/23 16:22	5	
890-4940-2	SS02A	Solid	07/12/23 12:20	07/12/23 16:22	5	
890-4940-3	SS03A	Solid	07/12/23 13:10	07/12/23 16:22	5	5
890-4940-4	SS04A	Solid	07/12/23 14:30	07/12/23 16:22	5	J
890-4940-5	SS05A	Solid	07/12/23 12:45	07/12/23 16:22	5	

		o			0		
		6 d	1 8 8.01.1		Che chi	1200	ac vil
e) Date/Time	Received by: (Signature)	Relinquished by: (Signature)	Date/Time		Received by: (Signature)	r: (Signature)	Relinquished by: (Signature)
	onations e control usly negotiated.	Notice: Signature of this document and relinquishment of samples constitutes a valid purchase order from client company to Eurofins Xenco, its amilistes and subcontractors. It assigns standard terms and conditions of service. Eurofins Xenco will be liable only for the cost of samples and shall not assume any responsibility for any losses or expenses incurred by the client if such losses are due to circumstances beyond the control of Eurofins Xenco. A minimum charge of \$85.00 will be applied to each project and a charge of \$5 for each sample submitted to Eurofins Xenco, but not analyzed. These terms will be enforced unless previously negotiated.	oronns Xenco, its amiliate benses incurred by the cli be Eurofins Xenco, but no	er from client company to E nsibility for any losses or ex for each sample submitted	Is samples constitutes a valid purchase ord of samples and shall not assume any respo ipplied to each project and a charge of \$5	cument and relinquishment of will be liable only for the cost rum charge of \$85.00 will be a	tice: Signature of this do service. Eurofins Xenco v Eurofins Xenco. A minim
// Sn U V Zn /7470 /7471	g Mn Mo Ni K Se Ag SiO ₂ Na Sr II Sn U V Z Se Ag TI U Hg: 1631/245.1/7470/7471	A 13PPM Texas 11 Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K TCLP/SPLP 6010 : 8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Tl U	Al Sb As Ba Be B CRA Sb As Ba Be C	M Texas 11 AI PLP 6010 : 8RCRA	0: 8RCRA 13PPM 2 analyzed TCLP / SPLP	Total 200.7 / 6010 200.8 / 6020: Circle Method(s) and Metal(s) to be analyzed	Total 200.7 / 6010 ircle Method(s) ar
hun nu							
agiovengoe ensolum con							
Ashley Giovenad:							
2027111001			4	5	▼ V 12:45		SS05 A
Ce M				5	14·3D		SSOHA
				2	1 13.10		Ľ 1
NAPP7315148242				5. 1	1 1 12.20		SS07.A
includent #			XX	5 6 1	5 7 1223 9:35		SSO 1A
Sample Comments		BT		Depth Grab/ #	Matrix Date Time Sampled Sampled		Sample Identification
NaOH+Ascorbic Acid: SAPC		_	H	5.6	Corrected Temperature:		Total Containers:
Zn Acetate+NaOH: Zn	in of Custody	890-4940 Cha		5	N/A Temperature Reading:	Yes No	Sample Custody Seals:
Na 25 20 3: NaSO 3				P	Correction Factor:	Yes No	Cooler Custody Seals;
NaHSO 4: NABIS			rame 25	ß	Thermometer	-	Samples Received Intact:
H ₃ PO 4: HP			ters	Tes No	k: A ye No Wet Ice:	Temp Blank:	SAMPLE RECEIPT
2				the lab, if received by 4:30pm	the lab, if rec	I VIAVIAI IA	PO #:
Cool: Cool MeUH: Me				15 days	. 1 10 1	cot- 441 207 - 70	Project Location:
			Code	Rush	4	301	Project Number:
Preservative Codes	-	ANALYSIS REQUEST	-	Around	IWIN Wells Ranchic Tum	PLU 15 TW	Project Name:
or □ Other:	Deliverables: EDD J ADaPT J	EXXDY MODIL COM	(oven @f	Garrett.	9-00F	515 - 48	Phone:
	Reporting: Level II Level III PST/UST T TRRP	ad, NM 88220 Re	Carloo	City, State ZIP:	NM 88220 -	Carlsbad	City, State ZIP:
_	State of Project:	-	710H	Address:	National Parks Hwy	3122 Nati	Address:
wnfields RRC Superfund	Program: UST/PST PRP Brownfields	Enerau	XTO	Company Name:	ill '	Ensolum.	Company Name:
omments	Work Order Comments	itt Green	Garret	Bill to: (if different)	Giovenan	Ashley	Project Manager:
Page 1 of 1	www.xenco.com	Hobbs, NM (575) 392-7550, Carisbad, NM (575) 988-3199	A (575) 392-7550, Carls	Hobbs, N			
		EL Paso, TX (915) 585-3443, Lubbock, TX (806) 794-1296	((915) 585-3443, Lubb	EL Paso, T	CO	Xenco	
	Work Order No: _	Houston, TX (281) 240-4200, Dallas, TX (214) 902-0300 Midland, TX (432) 704-5440, San Antonio, TX (210) 509-3334	TX (281) 240-4200, Da (432) 704-5440, San A	Houston, Midland, TX	Environment Testing	EUTOTHIS	
		ustody	Chain of Custody			ofine	

(Com

7/31/2023

Page 120 of 126

5

13

Login Sample Receipt Checklist

Client: Ensolum

Login Number: 4940 List Number: 1 Creator: Clifton, Cloe

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

Job Number: 890-4940-1 SDG Number: 03C1558247

14

Job Number: 890-4940-1 SDG Number: 03C1558247

List Source: Eurofins Midland

List Creation: 07/14/23 11:05 AM

Login Sample Receipt Checklist

Client: Ensolum

<6mm (1/4").

Login Number: 4940 List Number: 2 Creator: Rodriguez, Leticia

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



APPENDIX E

NMOCD Notifications

Released to Imaging: 1/12/2024 4:13:55 PM

From:	Buchanan, Michael, EMNRD
То:	Collins, Melanie; spills@slo.state.nm.us; Enviro, OCD, EMNRD; Bratcher, Michael, EMNRD; Hamlet, Robert,
	EMNRD; Harimon, Jocelyn, EMNRD
Cc:	<u>Green, Garrett J; DelawareSpills /SM; Ben Belill</u>
Subject:	RE: [EXTERNAL] XTO - Sampling Notification (Week of 7/10/23 - 7/14/23)
Date:	Wednesday, July 5, 2023 5:28:16 PM
Attachments:	image003.png

[**EXTERNAL EMAIL**]

Good afternoon,

Thank you for the notification. Please include a copy of this and all notifications in the C-141, remedial and/or closure reports to ensure the notifications are documented in the project file.

Regards,

Mike Buchanan ● Environmental Specialist Environmental Bureau EMNRD - Oil Conservation Division 8801 Horizon Blvd. NE | Albuquerque, NM 87113 | michael.buchanan@emnrd.nm.gov http://www.emnrd.nm.gov/ocd_



From: Collins, Melanie <melanie.collins@exxonmobil.com>

Sent: Wednesday, July 5, 2023 2:54 PM

To: spills@slo.state.nm.us; Enviro, OCD, EMNRD <OCD.Enviro@emnrd.nm.gov>; Bratcher, Michael, EMNRD <mike.bratcher@emnrd.nm.gov>; Hamlet, Robert, EMNRD

<Robert.Hamlet@emnrd.nm.gov>; Harimon, Jocelyn, EMNRD <Jocelyn.Harimon@emnrd.nm.gov>

Cc: Green, Garrett J <garrett.green@exxonmobil.com>; DelawareSpills /SM

<DelawareSpills@exxonmobil.com>; bbelill@ensolum.com

Subject: [EXTERNAL] XTO - Sampling Notification (Week of 7/10/23 - 7/14/23)

CAUTION: This email originated outside of our organization. Exercise caution prior to clicking on links or opening attachments.

All,

XTO plans to complete final sampling activities at the sites listed below for the week of July 10, 2023.

Tuesday July 11th

• Hat Mesa 32-2 / nAPP2316046257 (SLO)

Wednesday July 12th

• PLU 15 Twin Wells Ranch CTB / nAPP2315148242

Thursday July 13th

- PLU 102 / nAPP2315334597
- PLU 15 Twin Wells Ranch CTB / nAPP2315148242

Friday July 14th

• Nash 12 / NAB1722948770

Thank you,

Melaníe Collíns



Environmental Technician melanie.collins@exxonmobil.com 432-556-3756

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

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

District III

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

District IV

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

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

CONDITIONS

Operator:	OGRID:
XTO ENERGY, INC	5380
6401 Holiday Hill Road	Action Number:
Midland, TX 79707	252226
	Action Type:
	[C-141] Release Corrective Action (C-141)
	•

CONDITIONS

Created By Condition

Area around pipe rack represented by sample ID's SS01/SS01A is approved for deferral. Site will need to be remediated and then reclaimed at time of a 1/12/2024 scwells major facility deconstruction or at plugging and abandonment, whichever comes first.

CONDITIONS

Action 252226

Condition Date