E N S O L U M

October 13, 2023

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

Re: Closure Request MCA 95 Incident Number NAPP2306757137 Lea County, New Mexico

To Whom It May Concern:

Ensolum, LLC (Ensolum), on behalf of Maverick Permian, LLC (Maverick), has prepared this *Closure Request* to document assessment, excavation, and soil sampling activities performed at the MCA 95 (Site). The purpose of the assessment, excavation, and soil sampling activities was to address impacts to soil resulting from a release of crude oil at the Site. Based on the excavation activities and laboratory analytical results from the soil sampling events, Maverick is submitting this *Closure Request*, describing remediation that has occurred and requesting closure for Incident Number NAPP2306757137.

SITE DESCRIPTION AND RELEASE SUMMARY

The Site is located in Unit J, Section 20, Township 17 South, Range 32 East, in Lea County, New Mexico (32.817529° N, -103.787126° W) and is associated with oil and gas exploration and production operations on Federal Land managed by Bureau of Land Management (BLM).

On February 21, 2023, corrosion of a flow line resulted in the release of approximately 5.6 barrels (bbls) of crude oil into the surrounding pasture. A vacuum was immediately dispatched to the site and recovered 2.5 bbls of free-standing fluid. The saturated surface soil was scraped up during initial spill response activities. Maverick reported the release to the New Mexico Oil Conservation Division (NMOCD) on a Release Notification Form C-141 (Form C-141) on February 27, 2023. The release was assigned Incident Number NAPP2306757137.

SITE CHARACTERIZATION AND CLOSURE CRITERIA

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

Depth to groundwater at the Site is greater than 100 feet below ground surface (bgs) based on the nearest groundwater well data. The closest groundwater well/soil boring with depth to groundwater data is soil boring DTW 01 located approximately 470 feet southwest of the Site. The soil boring was drilled during August 2023 to a depth of 106 feet bgs. A field geologist logged and described soils continuously.

Maverick Permian, LLC Closure Request MCA 95

Page 2

The borehole lithologic log is included in Appendix A. No groundwater was encountered in the borehole to a depth of 106 feet bgs. The borehole was left open for over 72 hours to allow for potential slow infill of groundwater. After the 72-hour waiting period without observing groundwater, it was confirmed that groundwater is greater than 106 feet bgs. The borehole was properly abandoned using hydrated bentonite chips. All wells used for depth to groundwater determination are presented on Figure 1.

The closest continuously flowing or significant watercourse is greater than 300 feet from the Site. The Site is greater than 200 feet from a lakebed, sinkhole, or playa lake and greater than 300 feet from an occupied residence, school, hospital, institution, church, or wetland. The Site is greater than 1,000 feet to a freshwater well or spring and is not within a 100-year floodplain or overlying a subsurface mine. The Site is not underlain by unstable geology (low potential karst designation area). Site receptors are identified on Figure 1.

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

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

A reclamation requirement of 600 mg/kg chloride and 100 mg/kg TPH was applied to the top 4 feet of the pasture area that was impacted by the release, per 19.15.29.13.D (1) NMAC for the top 4 feet of areas that will be reclaimed following remediation.

SITE ASSESSMENT ACTIVITIES AND LABORATORY ANALYTICAL RESULTS

On February 22, 2023, site assessment activities were conducted at the Site to evaluate the release extent based on information provided on the Form C-141 and visual observations. Two assessment soil samples (SS01 and SS02) were collected within the release extent at a depth of 0.5 feet bgs to assess surficial soil within the release. Four assessment soil samples (SS03 through SS06) were collected around the visible release extent at a depth of 0.5 feet bgs to confirm the lateral extent of the release. 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 completed during the Site visit and a photographic log is included in Appendix B.

The assessment soil samples were placed directly into pre-cleaned glass jars, labeled with the location, date, time, sampler name, method of analysis, and immediately placed on ice. The soil samples were transported at or below 4 degrees Celsius (°C) under strict chain-of-custody procedures to Cardinal Laboratories for analysis of the following constituents of concern (COC): BTEX following United States Environmental Protection Agency (EPA) Method 8021B; TPH-GRO, TPH-DRO, and TPH-oil range organics (ORO) following EPA Method 8015M/D; and chloride following EPA Method 4500.

Laboratory analytical results for assessment soil samples SS01 and SS02, collected within the release extent, indicated that TPH concentrations exceeded the Site Closure Criteria and/or reclamation requirements. Laboratory analytical results for assessment soil samples SS03 through SS06, collected around the release extent, indicated that all COC concentrations were compliant with the most stringent Table I Closure Criteria and confirmed the lateral extent of the release. Based on visible staining in the



Maverick Permian, LLC Closure Request MCA 95

Page 3

ENSOLUM

release area and laboratory analytical results for assessment soil samples SS01 and SS02, excavation activities were warranted.

EXCAVATION ACTIVITIES AND LABORATORY ANALYTICAL RESULTS

Between September 14, 2023 and September 21, 2023, Ensolum personnel were at the Site to oversee excavation of impacted soil as indicated by visible staining in the release area and laboratory analytical results for the assessment soil samples. To direct excavation activities, soil was field screened for VOCs and chloride. Excavation activities were performed using hand shovels, track-mounted backhoe, and transport vehicles. The excavation was completed to depths ranging from 4 feet to 6 feet bgs.

Following removal of impacted soil, 5-point composite soil samples were collected every 200 square feet from the floor and sidewalls of the excavation. The 5-point composite samples were collected by placing five equivalent aliquots of soil into a 1-gallon, resealable plastic bag and homogenizing the samples by thoroughly mixing. Composite soil samples FS01 through FS14 were collected from the floor of the excavation at depths ranging from 4 feet to 6 feet bgs. Composite soil samples SW01 through SW09 were collected from the sidewalls of the excavation at depths ranging from the sidewalls of the excavation at depths ranging from the sidewalls of the excavation at depths ranging from the sidewalls of the excavation at depths ranging from the ground surface to to 6 feet bgs. The excavation soil samples were handled and analyzed following the same procedures as described above. The excavation extent and excavation soil sample locations were mapped utilizing a handheld GPS and are presented on Figure 3.

Laboratory analytical results for excavation floor samples FS01 through FS14 and excavation sidewall samples SW01 through SW09, collected from the final excavation extent, indicated all COC concentrations were compliant with the Site Closure Criteria and reclamation requirements, where applicable. Laboratory analytical results are summarized on Table 1 and the complete laboratory analytical reports are included as Appendix C.

The excavation measured approximately 2,500 square feet in areal extent. A total of approximately 600 cubic yards of impacted soil was removed during the excavation activities. The impacted soil was transported and properly disposed of at the R360 Disposal Facility located in Hobbs, New Mexico. After completion of confirmation sampling, the excavation was secured with fencing.

CLOSURE REQUEST

Site assessment and excavation activities were conducted at the Site to address the February 21, 2023, release of crude oil. Laboratory analytical results for the excavation soil samples, collected from the final excavation extent, indicated all COC concentrations were compliant with the Site Closure Criteria and reclamation requirements, where applicable. Based on the laboratory analytical results, no further remediation is required. Maverick will backfill the excavation with material purchased locally and recontour the Site to match pre-existing conditions.

Initial response efforts and excavation of impacted soil have mitigated impacts at this Site. Depth to groundwater has been determined to be greater than 100 feet bgs within 0.5 miles of the Site and no sensitive receptors were identified near the release extent. Maverick believes the remedial actions completed are protective of human health, the environment, and groundwater and respectfully requests closure for Incident NAPP2306757137. NMOCD notifications are included in Appendix D and the final Form C-141 is included in Appendix E.

Maverick Permian, LLC Closure Request MCA 95

Page 4

If you have any questions or comments, please contact Ms. Aimee Cole at (720) 384-7365 or acole@ensolum.com.

Sincerely, Ensolum, LLC

uluanatalionata

Julianna Falcomata Staff Geologist

Sinée Cale

Aimee Cole Senior Managing Scientist

cc: Bryce Wagoner, Maverick Natural Resources Bureau of Land Management

Appendices:

- Figure 1 Site Receptor Map
- Figure 2 Assessment Soil Sample Locations
- Figure 3 Excavation Soil Sample Locations
- Table 1Soil Sample Analytical Results
- Appendix A Referenced Well Records
- Appendix B Photographic Log
- Appendix C Laboratory Analytical Reports & Chain of Custody Documentation
- Appendix D NMOCD Notifications
- Appendix E Final Form C-141



.



FIGURES

.

Received by OCD: 10/17/2023 1:24:32 PM

Page 6 of 174



Released to Imaging: 1/10/2024 2:36:37 PM

Received by OCD: 10/17/2023 1:24:32 PM







TABLES

.

•

ENSOLUM

TABLE 1 SOIL SAMPLE ANALYTICAL RESULTS MCA 95 Maverick Permian, LLC Lea County, New Mexico											
Sample Designation	Date	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	Closure Criteria (N	NMAC 19.15.29)	10	50	NE	NE	NE	1,000	2,500	10,000	
				Assess	sment Soil Samp	les					
SS01*	2/22/2023	0.5	0.277	0.519	<49.9	253	<49.9	253	253	63.0	
SS02*	2/22/2023	0.5	2.80	367	4,270	9,200	<500	13,470	13,500	98.2	
SS03	2/22/2023	0.5	<0.00200	<0.00399	<49.9	<49.9	<49.9	<49.9	<49.9	<5.05	
SS04	2/22/2023	0.5	<0.00199	<0.00398	<49.9	<49.9	<49.9	<49.9	<49.9	<5.00	
SS05	2/22/2023	0.5	<0.00199	<0.00398	<50.0	<50.0	<50.0	<50.0	<50.0	<4.98	
SS06	2/22/2023	0.5	<0.00200	<0.00401	<49.9	<49.9	<49.9	<49.9	<49.9	<5.00	
				Excavatio	on Floor Soil Sar	nples					
FS01	9/15/2023	4	<0.050	<0.300	18.7	520	80.9	538.7	619.6	64.4	
FS02	9/18/2023	4	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	32.0	
FS03	9/18/2023	4	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	32.0	
FS04	9/18/2023	4	<0.050	<0.300	<10.0	16.5	<10.0	16.5	16.5	<16.0	
FS05	9/19/2023	6	<0.050	<0.300	<10.0	14.3	<10.0	14.3	14.3	16.0	
FS06	9/19/2023	6	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	16.0	
FS07	9/19/2023	6	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	32.0	
FS08	9/19/2023	6	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	144	
FS09	9/19/2023	4	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	240	
FS10	9/19/2023	4	<0.050	<0.300	<10.0	15.3	<10.0	15.3	15.3	<16.0	
FS11	9/19/2023	6	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	<16.0	
FS12	9/19/2023	6	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	<16.0	
FS13*	9/19/2023	1	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	<16.0	
FS14	9/19/2023	4	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	<16.0	
				Excavation	n Sidewall Soil Sa	amples					
SW01*	9/15/2023	0-4	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	32.0	
SW02*	9/21/2023	0-4	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	<16.0	
SW03*	9/21/2023	0-4	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	<16.0	
SW04*	9/21/2023	0-4	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	16.0	

E N S O L U M

	TABLE 1 SOIL SAMPLE ANALYTICAL RESULTS MCA 95 Maverick Permian, LLC Lea County, New Mexico											
Sample Designation	Date	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 Closure Criteria (NMAC 19.15.29) 10 50 NE NE NE 1,000 2						2,500	10,000					
SW05*	9/21/2023	0-4	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	16.0		
SW06*	9/21/2023	0-4	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	<16.0		
SW07*	9/21/2023	0-4	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	16.0		
SW07	9/21/2023	4-6	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	<16.0		
SW08*	9/21/2023	0-4	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	<16.0		
SW08	9/21/2023	4-6	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	32.0		
SW09*	9/21/2023	0-4	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	<16.0		
SW09	9/21/2023	4-6	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	32.0		

Notes:

bgs: below ground surface

mg/kg: milligrams per kilogram

NMOCD: New Mexico Oil Conservation Division

NMAC: New Mexico Administrative Code

BTEX: Benzene, Toluene, Ethylbenzene, and Xylenes Concentrations in **bold** exceed the NMOCD Table 1 Closure Criteria or reclamation standard where applicable. GRO: Gasoline Range Organics

DRO: Diesel Range Organics

ORO: Oil Range Organics

TPH: Total Petroleum Hydrocarbon

Grey text represents samples that have been excavated

* indicates sample was collected in area to be reclaimed after remediation is complete; reclamation standard in the top 4 feet is 600 mg/kg for chloride and 100 mg/kg for TPH.



APPENDIX A

Referenced Well Records

•

								Sample Name: DTW 01	Date: 08/28/2023		
				C				Site Name: MCA 266			
	L ENSOLUM							Incident Number: NAPP2213642290			
							Job Number: 03D2057011				
		LITHOL	OGIO		AMPLING	LOG		Logged By: Julianna Falcomata	Method: Hollow Stem		
		316600, -						Hole Diameter: 5"	Total Depth: 106'		
Comm					a total depth	of 106' bgs	No water	was observed within the soil borin			
		-			•	-		bentonite chips.			
Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample ID	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithologic Des	criptions		
Dry	-	-	Ν	-		L - 10 -	SP-SM	(10') SAND: fine grained silty tan to medium brown, non p			
Dry	-	-	Ν	-		20	SP-SM	no odor. (20') SAND: fine grained silty small gravel, poorly graded,	tan to reddish brown,		
Dry	-	-	Ν	-		30	SP-SM	non plastic, non cohesive, no (30') SAND: fine grained silty amounts small to medium g	y sand, moderate ravel, poorly graded,		
Dry	-	-	N	-		40	SP-SM	reddish brown, non plastic, (40') SAND: SAA with trace a material			
Dry	-	-	Ν	-		50	SP-SM	(50') SAND: fine grained silty small gravel, poorly graded,	reddish brown, non		
Dry	-	-	Ν	-		60	SP-SM	plastic, non cohesive, no od (60') SAND: fine grained silty small gravel, poorly graded,	y sand, trace amounts medium brown, non		
Dry	-	-	Ν	-		- 70	SP-SM	plastic, non cohesive, no od (70') SAND: fine grained silty small gravel, poorly graded,	y sand, trace amounts medium brown to		
Dry	-	-	Ν	-		- 80	GP-GM	dark grey, non plastic, non c (80') GRAVEL: medium grain sand, poorly graded, dark gr	ned, trace amount silty		
Dry	-	-	Ν	-		90	GP-GM	plastic, non cohesive, no ode (90') GRAVEL: medium grain sand, poorly graded, light gr	ned, trace amount silty		
Dry	-	-	Ν	-	- - -	100	SP-SM	non plastic, non cohesive, no (100') SAND: fine grained, tr medium gravel, poorly grade	race amount small to		
Dry	-	-	N	-	- - -	106	SP-SM	non plastic, non cohesive, no (106') SAND: fine grained, t medium gravel, poorly grade	race amount small to ed, dark brown, non		
					T	- otal Dept	h @ 106	plastic, non cohesive, no od feet bgs	or.		
Í											



APPENDIX B

Photographic Log

Released to Imaging: 1/10/2024 2:36:57 PM







APPENDIX C

Laboratory Analytical Reports & Chain of Custody Documentation



September 20, 2023

AIMEE COLE ENSOLUM 3122 NATIONAL PARKS HWY CARLSBAD, NM 88220

RE: MCA 95

Enclosed are the results of analyses for samples received by the laboratory on 09/15/23 14:32.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-22-15. Accreditation applies to drinking water, non-potable water and solid and chemical materials. All accredited analytes are denoted by an asterisk (*). For a complete list of accredited analytes and matrices visit the TCEQ website at www.tceq.texas.gov/field/ga/lab_accred_certif.html.

Cardinal Laboratories is accreditated through the State of Colorado Department of Public Health and Environment for:

Method EPA 552.2	Haloacetic Acids (HAA-5)
Method EPA 524.2	Total Trihalomethanes (TTHM)
Method EPA 524.4	Regulated VOCs (V1, V2, V3)

Accreditation applies to public drinking water matrices.

This report meets NELAP requirements and is made up of a cover page, analytical results, and a copy of the original chain-of-custody. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Celey D. Keine

Celey D. Keene Lab Director/Quality Manager



	AII 31 CA	ISOLUM MEE COLE 22 NATIONAL PARKS HV RLSBAD NM, 88220 x To:	٧Y	
Received:	09/15/2023		Sampling Date:	09/15/2023
Reported:	09/20/2023		Sampling Type:	Soil
Project Name:	MCA 95		Sampling Condition:	Cool & Intact
Project Number:	03D2057075		Sample Received By:	Dionica Hinojos
Project Location:	MAVERICK (32.817529-	-103.787126)		

Sample ID: FS 01 4' (H235010-01)

BTEX 8021B	mg/	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	09/18/2023	ND	1.94	97.2	2.00	1.00	
Toluene*	<0.050	0.050	09/18/2023	ND	2.00	99.9	2.00	1.83	
Ethylbenzene*	0.083	0.050	09/18/2023	ND	1.93	96.5	2.00	0.549	
Total Xylenes*	<0.150	0.150	09/18/2023	ND	5.80	96.7	6.00	1.40	
Total BTEX	<0.300	0.300	09/18/2023	ND					
Surrogate: 4-Bromofluorobenzene (PID	129 9	% 71.5-13	4						
Chloride, SM4500Cl-B	mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	64.0	16.0	09/18/2023	ND	416	104	400	3.77	
TPH 8015M	mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	18.7	10.0	09/18/2023	ND	192	95.8	200	1.67	
DRO >C10-C28*	520	10.0	09/18/2023	ND	204	102	200	5.36	
EXT DRO >C28-C36	80.9	10.0	09/18/2023	ND					
Surrogate: 1-Chlorooctane	91.8	% 48.2-13	4						
Surrogate: 1-Chlorooctadecane	103 9	% 49.1-14	8						

Cardinal Laboratories

*=Accredited Analyte

Celeg D. Keine

Celey D. Keene, Lab Director/Quality Manager



		ENSOLUM AIMEE COLE 3122 NATIONAL PARKS HW CARLSBAD NM, 88220 Fax To:	ſY	
Received:	09/15/2023		Sampling Date:	09/15/2023
Reported:	09/20/2023		Sampling Type:	Soil
Project Name:	MCA 95		Sampling Condition:	Cool & Intact
Project Number:	03D2057075		Sample Received By:	Dionica Hinojos
Project Location:	MAVERICK (32.817	7529-103.787126)		

Sample ID: SW 01 0-4' (H235010-02)

BTEX 8021B	mg/	′kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	09/18/2023	ND	1.94	97.2	2.00	1.00	
Toluene*	<0.050	0.050	09/18/2023	ND	2.00	99.9	2.00	1.83	
Ethylbenzene*	<0.050	0.050	09/18/2023	ND	1.93	96.5	2.00	0.549	
Total Xylenes*	<0.150	0.150	09/18/2023	ND	5.80	96.7	6.00	1.40	
Total BTEX	<0.300	0.300	09/18/2023	ND					
Surrogate: 4-Bromofluorobenzene (PID	110 9	% 71.5-13	4						
Chloride, SM4500Cl-B	mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	32.0	16.0	09/18/2023	ND	416	104	400	3.77	
TPH 8015M	mg/	′kg	Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	09/18/2023	ND	192	95.8	200	1.67	
DRO >C10-C28*	<10.0	10.0	09/18/2023	ND	204	102	200	5.36	
EXT DRO >C28-C36	<10.0	10.0	09/18/2023	ND					
Surrogate: 1-Chlorooctane	73.9	% 48.2-13	4						
Surrogate: 1-Chlorooctadecane	76.8	% 49.1-14	8						

Cardinal Laboratories

*=Accredited Analyte

Celeg D. Keine

Celey D. Keene, Lab Director/Quality Manager



Notes and Definitions

S-04	The surrogate recovery for this sample is outside of established control limits due to a sample matrix effect.
QM-07	The spike recovery was outside acceptance limits for the MS and/or MSD. The batch was accepted based on acceptable LCS recovery.
ND	Analyte NOT DETECTED at or above the reporting limit
RPD	Relative Percent Difference
**	Samples not received at proper temperature of 6°C or below.
***	Insufficient time to reach temperature.
-	Chloride by SM4500Cl-B does not require samples be received at or below 6°C
	Samples reported on an as received basis (wet) unless otherwise noted on report

Cardinal Laboratories

*=Accredited Analyte

Celez D. Keine

Celey D. Keene, Lab Director/Quality Manager

PLEASE NOTE: Liabity and Damages. Caddual's liabity and clients each analyses. At clients including those for negligence and any other cause who affiltuies or successors arising out of or reliaded to the performance of service affiltuits bed By: Relinquished By: Delivered By: (Circle One) Delivered By: (Circle One) Sampler - UPS - Bus - Other: Corrested	In East Marland, H (575) 393-2326 FA Company Name: Ensolum, LLC Project Manager: A.M.L.C Address: 3172 Narkowi Ry City: Carl Schul Phone #: 770 364 7342 Project Name: MCA 95 Project Location: 3 2,817524 Sampler Name: Ronn, Huly S FOR LAB USE ONLY HAB 5010 Lab I.D. Sample I.D.
Indicate extends to any dam saving weedbar based in contract or bet, shall be livined to the amount paid by the cleant for the orner-quence shall be deemed waised unders make in while and tree viewed to fill be deemed to the amount paid by the cleant for the orner-quenchal damages, lackding without finalition, business interruptions, based upon any of the above shalled on the sounded by disc, it is an addition of the sounded by the cleant for the orner-quenchal damages, lackding without finalition, business interruptions, bear of use, or base of profile above shalled on the sounded by disc, it is an addition of the sounded by disc, it is an addition of the sounded by disc, it is an addition of the above shalled on the above shalled o	Lories Lories <th< td=""></th<>
The Ves I No Ad nailed. Please provide Physician Advised Physician Advised Standard B	BILL TO ANALYSIS REQUEST ZIp: ANALYSIS REQUEST DATE TME 1225 T
dt Phone #: Email address: fal and the art of a solution	ANALYSIS REQUEST

Page 5 of 5



September 26, 2023

AIMEE COLE ENSOLUM 3122 NATIONAL PARKS HWY CARLSBAD, NM 88220

RE: MCA 95

Enclosed are the results of analyses for samples received by the laboratory on 09/20/23 11:57.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-22-15. Accreditation applies to drinking water, non-potable water and solid and chemical materials. All accredited analytes are denoted by an asterisk (*). For a complete list of accredited analytes and matrices visit the TCEQ website at www.tceq.texas.gov/field/qa/lab_accred_certif.html.

Cardinal Laboratories is accreditated through the State of Colorado Department of Public Health and Environment for:

Method EPA 552.2	Haloacetic Acids (HAA-5)
Method EPA 524.2	Total Trihalomethanes (TTHM)
Method EPA 524.4	Regulated VOCs (V1, V2, V3)

Accreditation applies to public drinking water matrices.

This report meets NELAP requirements and is made up of a cover page, analytical results, and a copy of the original chain-of-custody. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Celey D. Keine

Celey D. Keene Lab Director/Quality Manager



		ENSOLUM AIMEE COLE 3122 NATIONAL PARKS HWY CARLSBAD NM, 88220 Fax To:	,	
Received:	09/20/2023		Sampling Date:	09/18/2023
Reported:	09/26/2023		Sampling Type:	Soil
Project Name:	MCA 95		Sampling Condition:	Cool & Intact
Project Number:	03D2057075		Sample Received By:	Dionica Hinojos
Project Location:	MAVERICK (32.817	7529-103.787126)		

Sample ID: FS 02 @ 4' (H235095-01)

BTEX 8021B	mg/	′kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	09/21/2023	ND	2.11	106	2.00	1.17	
Toluene*	<0.050	0.050	09/21/2023	ND	2.16	108	2.00	1.48	
Ethylbenzene*	<0.050	0.050	09/21/2023	ND	2.12	106	2.00	1.56	
Total Xylenes*	<0.150	0.150	09/21/2023	ND	6.44	107	6.00	1.98	
Total BTEX	<0.300	0.300	09/21/2023	ND					
Surrogate: 4-Bromofluorobenzene (PID	109 9	% 71.5-13	4						
Chloride, SM4500Cl-B	mg/	′kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	32.0	16.0	09/20/2023	ND	432	108	400	3.64	
TPH 8015M	mg/	′kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	09/20/2023	ND	195	97.4	200	2.91	
DRO >C10-C28*	<10.0	10.0	09/20/2023	ND	211	105	200	0.815	
EXT DRO >C28-C36	<10.0	10.0	09/20/2023	ND					
Surrogate: 1-Chlorooctane	103 9	% 48.2-13	4						
Surrogate: 1-Chlorooctadecane	121 9	% 49.1-14	0						

Cardinal Laboratories

*=Accredited Analyte

Celeg D. Keine

Celey D. Keene, Lab Director/Quality Manager



		ENSOLUM AIMEE COLE 3122 NATIONAL PARKS HW CARLSBAD NM, 88220 Fax To:	ſY	
Received:	09/20/2023		Sampling Date:	09/18/2023
Reported:	09/26/2023		Sampling Type:	Soil
Project Name:	MCA 95		Sampling Condition:	Cool & Intact
Project Number:	03D2057075		Sample Received By:	Dionica Hinojos
Project Location:	MAVERICK (32.817	/529-103.787126)		

Sample ID: FS 03 @ 4' (H235095-02)

BTEX 8021B	mg/	′kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	09/21/2023	ND	2.11	106	2.00	1.17	
Toluene*	<0.050	0.050	09/21/2023	ND	2.16	108	2.00	1.48	
Ethylbenzene*	<0.050	0.050	09/21/2023	ND	2.12	106	2.00	1.56	
Total Xylenes*	<0.150	0.150	09/21/2023	ND	6.44	107	6.00	1.98	
Total BTEX	<0.300	0.300	09/21/2023	ND					
Surrogate: 4-Bromofluorobenzene (PID	107 9	% 71.5-13	4						
Chloride, SM4500Cl-B	mg/	′kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	32.0	16.0	09/20/2023	ND	432	108	400	3.64	
TPH 8015M	mg/	′kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	09/21/2023	ND	195	97.4	200	2.91	
DRO >C10-C28*	<10.0	10.0	09/21/2023	ND	211	105	200	0.815	
EXT DRO >C28-C36	<10.0	10.0	09/21/2023	ND					
Surrogate: 1-Chlorooctane	102	% 48.2-13	4						
Surrogate: 1-Chlorooctadecane	120	% 49.1-14	8						

Cardinal Laboratories

*=Accredited Analyte

Celeg D. Keine

Celey D. Keene, Lab Director/Quality Manager



		ENSOLUM AIMEE COLE 3122 NATIONAL PARKS HWY CARLSBAD NM, 88220 Fax To:		
Received:	09/20/2023		Sampling Date:	09/18/2023
Reported:	09/26/2023		Sampling Type:	Soil
Project Name:	MCA 95		Sampling Condition:	Cool & Intact
Project Number:	03D2057075		Sample Received By:	Dionica Hinojos
Project Location:	MAVERICK (32.817	7529-103.787126)		

Sample ID: FS 04 @ 4' (H235095-03)

BTEX 8021B	mg/	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	09/21/2023	ND	2.11	106	2.00	1.17	
Toluene*	<0.050	0.050	09/21/2023	ND	2.16	108	2.00	1.48	
Ethylbenzene*	<0.050	0.050	09/21/2023	ND	2.12	106	2.00	1.56	
Total Xylenes*	<0.150	0.150	09/21/2023	ND	6.44	107	6.00	1.98	
Total BTEX	<0.300	0.300	09/21/2023	ND					
Surrogate: 4-Bromofluorobenzene (PID	107 5	% 71.5-13	4						
Chloride, SM4500Cl-B	mg,	/kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	<16.0	16.0	09/21/2023	ND	416	104	400	7.41	
TPH 8015M	mg/	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	09/21/2023	ND	195	97.4	200	2.91	
DRO >C10-C28*	16.5	10.0	09/21/2023	ND	211	105	200	0.815	
EXT DRO >C28-C36	<10.0	10.0	09/21/2023	ND					
Surrogate: 1-Chlorooctane	103	% 48.2-13	4						
Surrogate: 1-Chlorooctadecane	121	% 49.1-14	8						

Cardinal Laboratories

*=Accredited Analyte

Celez D. Keine

Celey D. Keene, Lab Director/Quality Manager



		ENSOLUM AIMEE COLE 3122 NATIONAL PARKS HW CARLSBAD NM, 88220 Fax To:	ſŶ	
Received:	09/20/2023		Sampling Date:	09/19/2023
Reported:	09/26/2023		Sampling Type:	Soil
Project Name:	MCA 95		Sampling Condition:	Cool & Intact
Project Number:	03D2057075		Sample Received By:	Dionica Hinojos
Project Location:	MAVERICK (32.817	7529-103.787126)		

Sample ID: FS 05 @ 6' (H235095-04)

BTEX 8021B	mg/	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	09/21/2023	ND	2.11	106	2.00	1.17	
Toluene*	<0.050	0.050	09/21/2023	ND	2.16	108	2.00	1.48	
Ethylbenzene*	<0.050	0.050	09/21/2023	ND	2.12	106	2.00	1.56	
Total Xylenes*	<0.150	0.150	09/21/2023	ND	6.44	107	6.00	1.98	
Total BTEX	<0.300	0.300	09/21/2023	ND					
Surrogate: 4-Bromofluorobenzene (PID	108	% 71.5-13	4						
Chloride, SM4500Cl-B	mg,	mg/kg Analyzed By: AC		d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	16.0	16.0	09/21/2023	ND	416	104	400	7.41	
TPH 8015M	mg,	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	09/21/2023	ND	195	97.4	200	2.91	
DRO >C10-C28*	14.3	10.0	09/21/2023	ND	211	105	200	0.815	
EXT DRO >C28-C36	<10.0	10.0	09/21/2023	ND					
Surrogate: 1-Chlorooctane	102	% 48.2-13	4						
Surrogate: 1-Chlorooctadecane	119 9	% 49.1-14	8						

Cardinal Laboratories

*=Accredited Analyte

Celeg D. Keine

Celey D. Keene, Lab Director/Quality Manager



		ENSOLUM AIMEE COLE 3122 NATIONAL PARKS HW CARLSBAD NM, 88220 Fax To:	Y	
Received:	09/20/2023		Sampling Date:	09/19/2023
Reported:	09/26/2023		Sampling Type:	Soil
Project Name:	MCA 95		Sampling Condition:	Cool & Intact
Project Number:	03D2057075		Sample Received By:	Dionica Hinojos
Project Location:	MAVERICK (32.81752	29-103.787126)		

Sample ID: FS 06 @ 6' (H235095-05)

BTEX 8021B	mg/	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	09/21/2023	ND	2.06	103	2.00	0.135	
Toluene*	<0.050	0.050	09/21/2023	ND	2.10	105	2.00	0.217	
Ethylbenzene*	<0.050	0.050	09/21/2023	ND	2.07	103	2.00	0.772	
Total Xylenes*	<0.150	0.150	09/21/2023	ND	6.32	105	6.00	2.26	
Total BTEX	<0.300	0.300	09/21/2023	ND					
Surrogate: 4-Bromofluorobenzene (PID	108 9	% 71.5-13	24						
Chloride, SM4500Cl-B	mg/	/kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	16.0	16.0	09/21/2023	ND	416	104	400	7.41	
TPH 8015M	mg/	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	09/20/2023	ND	233	116	200	5.18	
DRO >C10-C28*	<10.0	10.0	09/20/2023	ND	231	115	200	5.90	
EXT DRO >C28-C36	<10.0	10.0	09/20/2023	ND					
Surrogate: 1-Chlorooctane	90.2	% 48.2-13	4						

Cardinal Laboratories

*=Accredited Analyte

Celeg D. Keine

Celey D. Keene, Lab Director/Quality Manager



		ENSOLUM AIMEE COLE 3122 NATIONAL PARKS HWY CARLSBAD NM, 88220 Fax To:		
Received:	09/20/2023		Sampling Date:	09/19/2023
Reported:	09/26/2023		Sampling Type:	Soil
Project Name:	MCA 95		Sampling Condition:	Cool & Intact
Project Number:	03D2057075		Sample Received By:	Dionica Hinojos
Project Location:	MAVERICK (32.8175	529-103.787126)		

Sample ID: FS 07 @ 6' (H235095-06)

BTEX 8021B	mg,	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	09/21/2023	ND	2.06	103	2.00	0.135	
Toluene*	<0.050	0.050	09/21/2023	ND	2.10	105	2.00	0.217	
Ethylbenzene*	<0.050	0.050	09/21/2023	ND	2.07	103	2.00	0.772	
Total Xylenes*	<0.150	0.150	09/21/2023	ND	6.32	105	6.00	2.26	
Total BTEX	<0.300	0.300	09/21/2023	ND					
Surrogate: 4-Bromofluorobenzene (PID	109	% 71.5-13	4						
Chloride, SM4500Cl-B	mg,	/kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	32.0	16.0	09/21/2023	ND	416	104	400	7.41	
TPH 8015M	mg,	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	09/20/2023	ND	233	116	200	5.18	
DRO >C10-C28*	<10.0	10.0	09/20/2023	ND	231	115	200	5.90	
EXT DRO >C28-C36	<10.0	10.0	09/20/2023	ND					
Surrogate: 1-Chlorooctane	86.4	% 48.2-13	4						
Surrogate: 1-Chlorooctadecane	99.0	% 49.1-14	8						

Cardinal Laboratories

*=Accredited Analyte

Celeg D. Keine

Celey D. Keene, Lab Director/Quality Manager



		ENSOLUM AIMEE COLE 3122 NATIONAL PARKS HW CARLSBAD NM, 88220 Fax To:	ſY	
Received:	09/20/2023		Sampling Date:	09/19/2023
Reported:	09/26/2023		Sampling Type:	Soil
Project Name:	MCA 95		Sampling Condition:	Cool & Intact
Project Number:	03D2057075		Sample Received By:	Dionica Hinojos
Project Location:	MAVERICK (32.8175	529-103.787126)		

Sample ID: FS 08 @ 6' (H235095-07)

BTEX 8021B	mg,	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	09/21/2023	ND	2.06	103	2.00	0.135	
Toluene*	<0.050	0.050	09/21/2023	ND	2.10	105	2.00	0.217	
Ethylbenzene*	<0.050	0.050	09/21/2023	ND	2.07	103	2.00	0.772	
Total Xylenes*	<0.150	0.150	09/21/2023	ND	6.32	105	6.00	2.26	
Total BTEX	<0.300	0.300	09/21/2023	ND					
Surrogate: 4-Bromofluorobenzene (PID	108	% 71.5-13	4						
Chloride, SM4500Cl-B	mg,	/kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	144	16.0	09/21/2023	ND	416	104	400	7.41	
TPH 8015M	mg/	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	09/20/2023	ND	233	116	200	5.18	
DRO >C10-C28*	<10.0	10.0	09/20/2023	ND	231	115	200	5.90	
EXT DRO >C28-C36	<10.0	10.0	09/20/2023	ND					
Surrogate: 1-Chlorooctane	89.5	% 48.2-13	4						
Surrogate: 1-Chlorooctadecane	103	% 49.1-14	8						

Cardinal Laboratories

*=Accredited Analyte

Celeg D. Keine

Celey D. Keene, Lab Director/Quality Manager



		ENSOLUM AIMEE COLE 3122 NATIONAL PARKS HW CARLSBAD NM, 88220 Fax To:	ſY	
Received:	09/20/2023		Sampling Date:	09/19/2023
Reported:	09/26/2023		Sampling Type:	Soil
Project Name:	MCA 95		Sampling Condition:	Cool & Intact
Project Number:	03D2057075		Sample Received By:	Dionica Hinojos
Project Location:	MAVERICK (32.817	529-103.787126)		

Sample ID: FS 09 @ 4' (H235095-08)

BTEX 8021B	mg/	'kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	09/21/2023	ND	2.06	103	2.00	0.135	
Toluene*	<0.050	0.050	09/21/2023	ND	2.10	105	2.00	0.217	
Ethylbenzene*	<0.050	0.050	09/21/2023	ND	2.07	103	2.00	0.772	
Total Xylenes*	<0.150	0.150	09/21/2023	ND	6.32	105	6.00	2.26	
Total BTEX	<0.300	0.300	09/21/2023	ND					
Surrogate: 4-Bromofluorobenzene (PID	106 9	% 71.5-13	4						
Chloride, SM4500Cl-B	mg/	'kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	240	16.0	09/21/2023	ND	416	104	400	7.41	
TPH 8015M	mg/	'kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	09/20/2023	ND	233	116	200	5.18	
DRO >C10-C28*	<10.0	10.0	09/20/2023	ND	231	115	200	5.90	
EXT DRO >C28-C36	<10.0	10.0	09/20/2023	ND					
Surrogate: 1-Chlorooctane	93.1	% 48.2-13	4						
Surrogate: 1-Chlorooctadecane	105 9	% 49.1-14	8						

Cardinal Laboratories

*=Accredited Analyte

Celeg D. Keine

Celey D. Keene, Lab Director/Quality Manager



		ENSOLUM AIMEE COLE 3122 NATIONAL PARKS HW CARLSBAD NM, 88220 Fax To:	Y	
Received:	09/20/2023		Sampling Date:	09/19/2023
Reported:	09/26/2023		Sampling Type:	Soil
Project Name:	MCA 95		Sampling Condition:	Cool & Intact
Project Number:	03D2057075		Sample Received By:	Dionica Hinojos
Project Location:	MAVERICK (32.817	529-103.787126)		

Sample ID: FS 10 @ 4' (H235095-09)

BTEX 8021B	mg	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	09/21/2023	ND	2.06	103	2.00	0.135	
Toluene*	<0.050	0.050	09/21/2023	ND	2.10	105	2.00	0.217	
Ethylbenzene*	<0.050	0.050	09/21/2023	ND	2.07	103	2.00	0.772	
Total Xylenes*	<0.150	0.150	09/21/2023	ND	6.32	105	6.00	2.26	
Total BTEX	<0.300	0.300	09/21/2023	ND					
Surrogate: 4-Bromofluorobenzene (PID	106	% 71.5-13	4						
Chloride, SM4500Cl-B	mg	/kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	<16.0	16.0	09/21/2023	ND	416	104	400	7.41	
TPH 8015M	mg	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	09/20/2023	ND	233	116	200	5.18	
DRO >C10-C28*	15.3	10.0	09/20/2023	ND	231	115	200	5.90	
EXT DRO >C28-C36	<10.0	10.0	09/20/2023	ND					
Surrogate: 1-Chlorooctane	93 .7	% 48.2-13	4						
Surrogate: 1-Chlorooctadecane	106	% 49.1-14	8						

Cardinal Laboratories

*=Accredited Analyte

Celeg D. Keine

Celey D. Keene, Lab Director/Quality Manager



	4 3 0	ENSOLUM AIMEE COLE 3122 NATIONAL PARKS HW CARLSBAD NM, 88220 Fax To:	Y	
Received:	09/20/2023		Sampling Date:	09/19/2023
Reported:	09/26/2023		Sampling Type:	Soil
Project Name:	MCA 95		Sampling Condition:	Cool & Intact
Project Number:	03D2057075		Sample Received By:	Dionica Hinojos
Project Location:	MAVERICK (32.81752	9-103.787126)		

Sample ID: FS 11 @ 6' (H235095-10)

BTEX 8021B	mg/	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	09/21/2023	ND	2.06	103	2.00	0.135	
Toluene*	<0.050	0.050	09/21/2023	ND	2.10	105	2.00	0.217	
Ethylbenzene*	<0.050	0.050	09/21/2023	ND	2.07	103	2.00	0.772	
Total Xylenes*	<0.150	0.150	09/21/2023	ND	6.32	105	6.00	2.26	
Total BTEX	<0.300	0.300	09/21/2023	ND					
Surrogate: 4-Bromofluorobenzene (PID	108	% 71.5-13	4						
Chloride, SM4500Cl-B	mg,	/kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	<16.0	16.0	09/21/2023	ND	416	104	400	7.41	
TPH 8015M	mg/	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	09/20/2023	ND	233	116	200	5.18	
DRO >C10-C28*	<10.0	10.0	09/20/2023	ND	231	115	200	5.90	
EXT DRO >C28-C36	<10.0	10.0	09/20/2023	ND					
Surrogate: 1-Chlorooctane	85.8	% 48.2-13	4						
Surrogate: 1-Chlorooctadecane	98.8	% 49.1-14	8						

Cardinal Laboratories

*=Accredited Analyte

Celeg D. Keine

Celey D. Keene, Lab Director/Quality Manager



		ENSOLUM AIMEE COLE 3122 NATIONAL PARKS HWY CARLSBAD NM, 88220 Fax To:		
Received:	09/20/2023		Sampling Date:	09/19/2023
Reported:	09/26/2023		Sampling Type:	Soil
Project Name:	MCA 95		Sampling Condition:	Cool & Intact
Project Number:	03D2057075		Sample Received By:	Dionica Hinojos
Project Location:	MAVERICK (32.8175	529-103.787126)		

Sample ID: FS 12 @ 6' (H235095-11)

BTEX 8021B	mg/	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	09/21/2023	ND	2.06	103	2.00	0.135	
Toluene*	<0.050	0.050	09/21/2023	ND	2.10	105	2.00	0.217	
Ethylbenzene*	<0.050	0.050	09/21/2023	ND	2.07	103	2.00	0.772	
Total Xylenes*	<0.150	0.150	09/21/2023	ND	6.32	105	6.00	2.26	
Total BTEX	<0.300	0.300	09/21/2023	ND					
Surrogate: 4-Bromofluorobenzene (PID	109	% 71.5-13	4						
Chloride, SM4500Cl-B	mg/	/kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	<16.0	16.0	09/21/2023	ND	416	104	400	7.41	
TPH 8015M	mg/	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	09/20/2023	ND	233	116	200	5.18	
DRO >C10-C28*	<10.0	10.0	09/20/2023	ND	231	115	200	5.90	
EXT DRO >C28-C36	<10.0	10.0	09/20/2023	ND					
Surrogate: 1-Chlorooctane	95.9	% 48.2-13	4						
Surrogate: 1-Chlorooctadecane	109	% 49.1-14	8						

Cardinal Laboratories

*=Accredited Analyte

Celeg D. Keine

Celey D. Keene, Lab Director/Quality Manager



		ENSOLUM AIMEE COLE 3122 NATIONAL PARKS HW CARLSBAD NM, 88220 Fax To:	ſY	
Received:	09/20/2023		Sampling Date:	09/19/2023
Reported:	09/26/2023		Sampling Type:	Soil
Project Name:	MCA 95		Sampling Condition:	Cool & Intact
Project Number:	03D2057075		Sample Received By:	Dionica Hinojos
Project Location:	MAVERICK (32.8175	29-103.787126)		

Sample ID: FS 13 @ 1' (H235095-12)

BTEX 8021B	mg/	′kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	09/21/2023	ND	2.06	103	2.00	0.135	
Toluene*	<0.050	0.050	09/21/2023	ND	2.10	105	2.00	0.217	
Ethylbenzene*	<0.050	0.050	09/21/2023	ND	2.07	103	2.00	0.772	
Total Xylenes*	<0.150	0.150	09/21/2023	ND	6.32	105	6.00	2.26	
Total BTEX	<0.300	0.300	09/21/2023	ND					
Surrogate: 4-Bromofluorobenzene (PID	108 9	% 71.5-13	4						
Chloride, SM4500Cl-B	mg/	′kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	<16.0	16.0	09/21/2023	ND	416	104	400	7.41	
TPH 8015M	mg/	′kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	09/20/2023	ND	233	116	200	5.18	
DRO >C10-C28*	<10.0	10.0	09/20/2023	ND	231	115	200	5.90	
EXT DRO >C28-C36	<10.0	10.0	09/20/2023	ND					
Surrogate: 1-Chlorooctane	92.0	% 48.2-13	4						
Surrogate: 1-Chlorooctadecane	106 9	% 49.1-14	8						

Cardinal Laboratories

*=Accredited Analyte

Celeg D. Keine

Celey D. Keene, Lab Director/Quality Manager



		ENSOLUM AIMEE COLE 3122 NATIONAL PARKS HWY CARLSBAD NM, 88220 Fax To:		
Received:	09/20/2023		Sampling Date:	09/19/2023
Reported:	09/26/2023		Sampling Type:	Soil
Project Name:	MCA 95		Sampling Condition:	Cool & Intact
Project Number:	03D2057075		Sample Received By:	Dionica Hinojos
Project Location:	MAVERICK (32.817	529-103.787126)		

Sample ID: FS 14 @ 4' (H235095-13)

BTEX 8021B	mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	09/21/2023	ND	2.06	103	2.00	0.135	
Toluene*	<0.050	0.050	09/21/2023	ND	2.10	105	2.00	0.217	
Ethylbenzene*	<0.050	0.050	09/21/2023	ND	2.07	103	2.00	0.772	
Total Xylenes*	<0.150	0.150	09/21/2023	ND	6.32	105	6.00	2.26	
Total BTEX	<0.300	0.300	09/21/2023	ND					
Surrogate: 4-Bromofluorobenzene (PID	108	% 71.5-13	4						
Chloride, SM4500Cl-B	mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	<16.0	16.0	09/21/2023	ND	416	104	400	7.41	
TPH 8015M	mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	09/21/2023	ND	233	116	200	5.18	
DRO >C10-C28*	<10.0	10.0	09/21/2023	ND	231	115	200	5.90	
EXT DRO >C28-C36	<10.0	10.0	09/21/2023	ND					
Surrogate: 1-Chlorooctane	92.2 % 48.2-13		4						
Surrogate: 1-Chlorooctadecane	105	% 49.1-14	8						

Cardinal Laboratories

*=Accredited Analyte

Celeg D. Keine

Celey D. Keene, Lab Director/Quality Manager


Notes and Definitions

QM-07	The spike recovery was outside acceptance limits for the MS and/or MSD. The batch was accepted based on acceptable LCS recovery.
ND	Analyte NOT DETECTED at or above the reporting limit
RPD	Relative Percent Difference
**	Samples not received at proper temperature of 6°C or below.
***	Insufficient time to reach temperature.
-	Chloride by SM4500Cl-B does not require samples be received at or below 6°C
	Samples reported on an as received basis (wet) unless otherwise noted on report

Cardinal Laboratories

*=Accredited Analyte

Celeg D. Keine

Celey D. Keene, Lab Director/Quality Manager

Cardinal cannot accept verbal changes. Please email changes to celey.keene@cardinallabsnm.com	hanges to celey.	changes. Please email c	annot accept verba	† Cardinal	
me: Standard Bacteria (only) Sample Condition Rush Cool Intact Observed Temp. °C #140 Yes Yes r 0°C No No Corrected Temp. °C	Turnaround Time: Thermometer ID #140 Correction Factor 0°C	ndition CHECKED BY: ct (Initials) Yes No	Sample Cor Cool Inta	Observed Temp. °C 3. 3% Other: Corrected Temp. °C	Delivered By: (Circle One) Sampler - UPS - Bus - Oti
ensolum.com, Fakomatoraensolum.m	REMARKS:	K.	Received By:	Date:	Relinquished By:
Verbal Result: Verbal Result:	Verbal Result: All Results are e		Received By:		
ncable	arter completion of the applic by client, its subsidiaries, d reasons or otherwise.	ental damages, including without limitation, business interruptions loss of use, or loss of profits incurred by client, its subsidiaries software the subsidiaries and the subsidiaries and the subsidiaries are subsidiaries a Are subsidiaries are subsidiaries are subsidiaries are subsidiaries are subsidiaries are subsidiaries are subsid	without limitation, business interrup	le for incidental or consequental damages, including laked to the performance of services hereunder by Co	ervice. In no event shall Cardinal be liable for incidental or cor iffliates or successors ving out of or related to the performan
	paid by the client for the	ising whether based in contract or fort, shall be limited to the amount	emed waived unless made in writi	ability and Damages. Caldinal's liability and client's exclusive remedy for any client asing whether based in contract or fort, shall be limited to the amount paid by the client for the including those for negligence and any other cause whatsoever shall be deemed valved unless made is written and reported to the the amount paid by the client for the	PLEASE NOTE: Liability and Damages. C inalyses. All claims including those for ne
	IZS I			Dart.	
	120			904	200 150
				106	2 150
				96	R
	_	- q 19[23		0 (2) (2) (2)	Rd
			~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	N 2 4	10
-			°C	1 (a) 4'	60 101
	-	X 9/R	1 ×	14 0 20	1 150
	ETIME		# CO GRO		
	P	ER : /BASE: COOL	AB OR NTAINE UNDW/ TEWAT	Sample I.D.	Lab I.D.
TEDIO	TI		ERS		Hasboqb
2H ric	SAMPLING	PRESERV.	P. MATRIX		FOR LAB USE ONLY
		Fax #:		LIQUMEL FOLLOW	Sampler Name:
5		Phone #:	161,126	SUP 1850 -18	Project Location:
		State: Zip:	11 122 122	A OS	Project Name: MO
		City:	Muchink		Project #: (BD20)
		Address:	NAV ridiz	14-73/05 Fax #: -	Phone #: 170-25
		Company:	- KANAN	TH CLIMA I DUN	Address: Oluci
		P.O. # A A		MUL HOLL	Fluject Mallager.
ANALYSIS REQUEST	70	BILL		NPO IMM 1-4K	Company Name:
Page 1			240 476	101 East Marland, Hobbs, NM 88240 (575) 393-2326 FAX (575) 393-2476	101 Ea (575
-CUSTODY AND ANALYSIS REQUEST	CHAIN-OF			poratories	Lat
				RDINA	CA

Page 38 of 174

Solution Last Mariand, Hobbs, NM 88240 (575) 393-2326 FAX (575) 393-2476 Company Name: Company Name:	DOLATOLIS	ADORATORIES CHAIN-OF CUSTODY AND ANALYSIS REQUEST 01 East Marland, Hobbs, NM 88240 (575) 393-2326 FAX (575) 393-2476 BILL TO ANALYSIS REQUEST	aboratories CHAIN-OF CUSTODY Of East Marland, Hobbs, NM 88240 (575) 393-2326 FAX (575) 393-2476 BILL TO BILL TO	ARDINAL aboratories entries entries entries entries entries entries entries entries entries entries entries entries entries entries entries entries entries entries entries entries entries entries entries entries entries entries entries entries entries entries entries entries entries entries entries entries entries entries entries entries entries entries entries entries entries entries entries entries entries entries entries entries entries entries entries entries entries entries entries entries entries entries entries entries entries entries entries entries entries entries entries entries entries entries entries entries entries entries entries entries entries entries entries entries entries entries entries entries entries entries entries entries entries entries entries entries entries entries entries entries entries entries entries entries entries entries entries entries entries entries entries entries entries entries entries entries entries entries entries entries entries entries entries entries entries entries entries entries entries entries entries entries entries entries entries entries entries entries entries entries entries entries entries entries entries entries entries entries entries entries entries entries entries entries entries entries entries entries entries entries entries entries entries entries entries entries entries entries entries entries entries entries entries entries entries entries entries entries entries entries entries entries entries entries entries entries entries entries entries entries entries entries entries entries entries entries entries entries entries entries entries entries entries entries entries entries entries entries entries entries entries entries entries entries entries entries entries entries entries entries entries entries entries entries entries
(575) 393-2326 FAX (575) 393-2476		CHAIN-OF CUSTODY AND ANALYSIS REQUEST	CHAIN-OF CUSTODY AND ANALYSIS REQUEST	CHAIN-OF CUSTODY AND ANALYSIS REQUEST
		CHAIN-OF CUSTODY	CHAIN-OF CUSTODY	CHAIN-OF CUSTODY

Page 39 of 174



September 27, 2023

AIMEE COLE ENSOLUM 3122 NATIONAL PARKS HWY CARLSBAD, NM 88220

RE: MCA 95

Enclosed are the results of analyses for samples received by the laboratory on 09/22/23 12:57.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-22-15. Accreditation applies to drinking water, non-potable water and solid and chemical materials. All accredited analytes are denoted by an asterisk (*). For a complete list of accredited analytes and matrices visit the TCEQ website at <a href="https://www.tceq.texas.gov/field/ga/lab_accred_certif.html">www.tceq.texas.gov/field/ga/lab_accred_certif.html</a>.

Cardinal Laboratories is accreditated through the State of Colorado Department of Public Health and Environment for:

Method EPA 552.2	Haloacetic Acids (HAA-5)
Method EPA 524.2	Total Trihalomethanes (TTHM)
Method EPA 524.4	Regulated VOCs (V1, V2, V3)

Accreditation applies to public drinking water matrices.

This report meets NELAP requirements and is made up of a cover page, analytical results, and a copy of the original chain-of-custody. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Celey D. Keine

Celey D. Keene Lab Director/Quality Manager



		ENSOLUM AIMEE COLE 3122 NATIONAL PARKS HV CARLSBAD NM, 88220 Fax To:	WY	
Received:	09/22/2023		Sampling Date:	09/21/2023
Reported:	09/27/2023		Sampling Type:	Soil
Project Name:	MCA 95		Sampling Condition:	Cool & Intact
Project Number:	03D2057075		Sample Received By:	Dionica Hinojos
Project Location:	MAVERICK ( 32.81752	29-103.787126 )		

#### Sample ID: SW 02 @ 0-4' (H235172-01)

BTEX 8021B	mg/	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifie
Benzene*	<0.050	0.050	09/25/2023	ND	1.95	97.5	2.00	4.14	
Toluene*	<0.050	0.050	09/25/2023	ND	2.05	102	2.00	5.37	
Ethylbenzene*	<0.050	0.050	09/25/2023	ND	2.20	110	2.00	4.94	
Total Xylenes*	<0.150	0.150	09/25/2023	ND	6.00	100	6.00	5.19	
Total BTEX	<0.300	0.300	09/25/2023	ND					
Surrogate: 4-Bromofluorobenzene (PID	115 9	% 71.5-13	4						
Chloride, SM4500Cl-B	mg/	/kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	<16.0	16.0	09/25/2023	ND	432	108	400	3.64	
TPH 8015M	mg/	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	09/25/2023	ND	189	94.3	200	3.12	
DRO >C10-C28*	<10.0	10.0	09/25/2023	ND	204	102	200	0.0900	
EXT DRO >C28-C36	<10.0	10.0	09/25/2023	ND					
Surrogate: 1-Chlorooctane	76.2	% 48.2-13	4						
Surrogate: 1-Chlorooctadecane	77.3	% 49.1-14	8						

#### **Cardinal Laboratories**

*=Accredited Analyte

Celez D. Keine

Celey D. Keene, Lab Director/Quality Manager



		ENSOLUM AIMEE COLE 3122 NATIONAL PARKS HW CARLSBAD NM, 88220 Fax To:	ľ	
Received:	09/22/2023		Sampling Date:	09/21/2023
Reported:	09/27/2023		Sampling Type:	Soil
Project Name:	MCA 95		Sampling Condition:	Cool & Intact
Project Number:	03D2057075		Sample Received By:	Dionica Hinojos
Project Location:	MAVERICK (32.817	529-103.787126)		

#### Sample ID: SW 03 @ 0-4' (H235172-02)

BTEX 8021B	mg,	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	09/25/2023	ND	1.95	97.5	2.00	4.14	
Toluene*	<0.050	0.050	09/25/2023	ND	2.05	102	2.00	5.37	
Ethylbenzene*	<0.050	0.050	09/25/2023	ND	2.20	110	2.00	4.94	
Total Xylenes*	<0.150	0.150	09/25/2023	ND	6.00	100	6.00	5.19	
Total BTEX	<0.300	0.300	09/25/2023	ND					
Surrogate: 4-Bromofluorobenzene (PID	114 9	% 71.5-13	4						
Chloride, SM4500Cl-B	mg,	/kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	<16.0	16.0	09/25/2023	ND	432	108	400	3.64	
TPH 8015M	mg/	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	09/25/2023	ND	189	94.3	200	3.12	
DRO >C10-C28*	<10.0	10.0	09/25/2023	ND	204	102	200	0.0900	
EXT DRO >C28-C36	<10.0	10.0	09/25/2023	ND					
Surrogate: 1-Chlorooctane	77.1	% 48.2-13	4						
Surrogate: 1-Chlorooctadecane	77.8	% 49.1-14	8						

#### Cardinal Laboratories

*=Accredited Analyte

Celeg D. Keine

Celey D. Keene, Lab Director/Quality Manager



		ENSOLUM AIMEE COLE 3122 NATIONAL PARKS HW CARLSBAD NM, 88220 Fax To:	ľ	
Received:	09/22/2023		Sampling Date:	09/21/2023
Reported:	09/27/2023		Sampling Type:	Soil
Project Name:	MCA 95		Sampling Condition:	Cool & Intact
Project Number:	03D2057075		Sample Received By:	Dionica Hinojos
Project Location:	MAVERICK (32.817	529-103.787126)		

#### Sample ID: SW 04 @ 0-4' (H235172-03)

BTEX 8021B	mg/	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	09/25/2023	ND	1.95	97.5	2.00	4.14	
Toluene*	<0.050	0.050	09/25/2023	ND	2.05	102	2.00	5.37	
Ethylbenzene*	<0.050	0.050	09/25/2023	ND	2.20	110	2.00	4.94	
Total Xylenes*	<0.150	0.150	09/25/2023	ND	6.00	100	6.00	5.19	
Total BTEX	<0.300	0.300	09/25/2023	ND					
Surrogate: 4-Bromofluorobenzene (PID	116 9	% 71.5-13	4						
Chloride, SM4500Cl-B	mg,	/kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	16.0	16.0	09/25/2023	ND	432	108	400	3.64	
TPH 8015M	mg/	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	09/25/2023	ND	189	94.3	200	3.12	
DRO >C10-C28*	<10.0	10.0	09/25/2023	ND	204	102	200	0.0900	
EXT DRO >C28-C36	<10.0	10.0	09/25/2023	ND					
Surrogate: 1-Chlorooctane	77.5	% 48.2-13	4						
Surrogate: 1-Chlorooctadecane	78.4	% 49.1-14	8						

#### Cardinal Laboratories

*=Accredited Analyte

Celeg D. Keine

Celey D. Keene, Lab Director/Quality Manager



		ENSOLUM AIMEE COLE 3122 NATIONAL PARKS HW CARLSBAD NM, 88220 Fax To:	Y	
Received:	09/22/2023		Sampling Date:	09/21/2023
Reported:	09/27/2023		Sampling Type:	Soil
Project Name:	MCA 95		Sampling Condition:	Cool & Intact
Project Number:	03D2057075		Sample Received By:	Dionica Hinojos
Project Location:	MAVERICK (32.817	529-103.787126)		

#### Sample ID: SW 05 @ 0-4' (H235172-04)

BTEX 8021B	mg/	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	09/25/2023	ND	1.95	97.5	2.00	4.14	
Toluene*	<0.050	0.050	09/25/2023	ND	2.05	102	2.00	5.37	
Ethylbenzene*	<0.050	0.050	09/25/2023	ND	2.20	110	2.00	4.94	
Total Xylenes*	<0.150	0.150	09/25/2023	ND	6.00	100	6.00	5.19	
Total BTEX	<0.300	0.300	09/25/2023	ND					
Surrogate: 4-Bromofluorobenzene (PID	114 9	% 71.5-13	4						
Chloride, SM4500Cl-B	mg/	/kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	16.0	16.0	09/25/2023	ND	432	108	400	3.64	
TPH 8015M	mg/	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	09/25/2023	ND	189	94.3	200	3.12	
DRO >C10-C28*	<10.0	10.0	09/25/2023	ND	204	102	200	0.0900	
EXT DRO >C28-C36	<10.0	10.0	09/25/2023	ND					
Surrogate: 1-Chlorooctane	79.8	% 48.2-13	4						
Surrogate: 1-Chlorooctadecane	81.6	% 49.1-14	8						

#### Cardinal Laboratories

*=Accredited Analyte

Celeg D. Keine

Celey D. Keene, Lab Director/Quality Manager



		ENSOLUM AIMEE COLE 3122 NATIONAL PARKS HW CARLSBAD NM, 88220 Fax To:	ľY	
Received:	09/22/2023		Sampling Date:	09/21/2023
Reported:	09/27/2023		Sampling Type:	Soil
Project Name:	MCA 95		Sampling Condition:	Cool & Intact
Project Number:	03D2057075		Sample Received By:	Dionica Hinojos
Project Location:	MAVERICK (32.817	529-103.787126)		

#### Sample ID: SW 06 @ 0-4' (H235172-05)

BTEX 8021B	mg/	′kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	09/25/2023	ND	1.95	97.5	2.00	4.14	
Toluene*	<0.050	0.050	09/25/2023	ND	2.05	102	2.00	5.37	
Ethylbenzene*	<0.050	0.050	09/25/2023	ND	2.20	110	2.00	4.94	
Total Xylenes*	<0.150	0.150	09/25/2023	ND	6.00	100	6.00	5.19	
Total BTEX	<0.300	0.300	09/25/2023	ND					
Surrogate: 4-Bromofluorobenzene (PID	117 9	% 71.5-13	4						
Chloride, SM4500Cl-B	mg/	′kg	Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	<16.0	16.0	09/25/2023	ND	432	108	400	3.64	
TPH 8015M	mg/	′kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	09/25/2023	ND	189	94.3	200	3.12	
DRO >C10-C28*	<10.0	10.0	09/25/2023	ND	204	102	200	0.0900	
EXT DRO >C28-C36	<10.0	10.0	09/25/2023	ND					
Surrogate: 1-Chlorooctane	78.5	% 48.2-13	4						
Surrogate: 1-Chlorooctadecane	79.7	% 49.1-14	8						

#### Cardinal Laboratories

*=Accredited Analyte

Celeg D. Keine

Celey D. Keene, Lab Director/Quality Manager



		ENSOLUM AIMEE COLE 3122 NATIONAL PARKS HW CARLSBAD NM, 88220 Fax To:	ľY	
Received:	09/22/2023		Sampling Date:	09/21/2023
Reported:	09/27/2023		Sampling Type:	Soil
Project Name:	MCA 95		Sampling Condition:	Cool & Intact
Project Number:	03D2057075		Sample Received By:	Dionica Hinojos
Project Location:	MAVERICK (32.817	529-103.787126)		

#### Sample ID: SW 07 @ 0-4' (H235172-06)

BTEX 8021B	mg/	′kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	09/25/2023	ND	1.95	97.5	2.00	4.14	
Toluene*	<0.050	0.050	09/25/2023	ND	2.05	102	2.00	5.37	
Ethylbenzene*	<0.050	0.050	09/25/2023	ND	2.20	110	2.00	4.94	
Total Xylenes*	<0.150	0.150	09/25/2023	ND	6.00	100	6.00	5.19	
Total BTEX	<0.300	0.300	09/25/2023	ND					
Surrogate: 4-Bromofluorobenzene (PID	114 9	% 71.5-13	4						
Chloride, SM4500Cl-B	mg/	′kg	Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	16.0	16.0	09/25/2023	ND	432	108	400	3.64	
TPH 8015M	mg/	′kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	09/25/2023	ND	189	94.3	200	3.12	
DRO >C10-C28*	<10.0	10.0	09/25/2023	ND	204	102	200	0.0900	
EXT DRO >C28-C36	<10.0	10.0	09/25/2023	ND					
Surrogate: 1-Chlorooctane	79.0	% 48.2-13	4						
Surrogate: 1-Chlorooctadecane	80.4	% 49.1-14	8						

#### Cardinal Laboratories

*=Accredited Analyte

Celez D. Keine

Celey D. Keene, Lab Director/Quality Manager



		ENSOLUM AIMEE COLE 3122 NATIONAL PARKS HV CARLSBAD NM, 88220 Fax To:	ŴΥ	
Received:	09/22/2023		Sampling Date:	09/21/2023
Reported:	09/27/2023		Sampling Type:	Soil
Project Name:	MCA 95		Sampling Condition:	Cool & Intact
Project Number:	03D2057075		Sample Received By:	Dionica Hinojos
Project Location:	MAVERICK (32.817	529-103.787126)		

#### Sample ID: SW 07 @ 4-6' (H235172-07)

BTEX 8021B	mg/	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	09/25/2023	ND	1.95	97.5	2.00	4.14	
Toluene*	<0.050	0.050	09/25/2023	ND	2.05	102	2.00	5.37	
Ethylbenzene*	<0.050	0.050	09/25/2023	ND	2.20	110	2.00	4.94	
Total Xylenes*	<0.150	0.150	09/25/2023	ND	6.00	100	6.00	5.19	
Total BTEX	<0.300	0.300	09/25/2023	ND					
Surrogate: 4-Bromofluorobenzene (PID	113 9	% 71.5-13	4						
Chloride, SM4500Cl-B	mg/	/kg	Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	<16.0	16.0	09/25/2023	ND	432	108	400	3.64	
TPH 8015M	mg/	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	09/25/2023	ND	189	94.3	200	3.12	
DRO >C10-C28*	<10.0	10.0	09/25/2023	ND	204	102	200	0.0900	
EXT DRO >C28-C36	<10.0	10.0	09/25/2023	ND					
Surrogate: 1-Chlorooctane	79.8	% 48.2-13	4						
Surrogate: 1-Chlorooctadecane	83.5	% 49.1-14	0						

#### Cardinal Laboratories

*=Accredited Analyte

Celeg D. Keine

Celey D. Keene, Lab Director/Quality Manager



		ENSOLUM AIMEE COLE 3122 NATIONAL PARKS HW CARLSBAD NM, 88220 Fax To:	ľY	
Received:	09/22/2023		Sampling Date:	09/21/2023
Reported:	09/27/2023		Sampling Type:	Soil
Project Name:	MCA 95		Sampling Condition:	Cool & Intact
Project Number:	03D2057075		Sample Received By:	Dionica Hinojos
Project Location:	MAVERICK (32.817	529-103.787126)		

#### Sample ID: SW 08 @ 0-4' (H235172-08)

BTEX 8021B	mg/	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	09/25/2023	ND	1.95	97.5	2.00	4.14	
Toluene*	<0.050	0.050	09/25/2023	ND	2.05	102	2.00	5.37	
Ethylbenzene*	<0.050	0.050	09/25/2023	ND	2.20	110	2.00	4.94	
Total Xylenes*	<0.150	0.150	09/25/2023	ND	6.00	100	6.00	5.19	
Total BTEX	<0.300	0.300	09/25/2023	ND					
Surrogate: 4-Bromofluorobenzene (PID	117 9	% 71.5-13	4						
Chloride, SM4500Cl-B	mg/	/kg	Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	<16.0	16.0	09/25/2023	ND	432	108	400	3.64	
TPH 8015M	mg/	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	09/25/2023	ND	189	94.3	200	3.12	
DRO >C10-C28*	<10.0	10.0	09/25/2023	ND	204	102	200	0.0900	
EXT DRO >C28-C36	<10.0	10.0	09/25/2023	ND					
Surrogate: 1-Chlorooctane	77.5	% 48.2-13	4						
Surrogate: 1-Chlorooctadecane	76.1	% 49.1-14	0						

#### Cardinal Laboratories

*=Accredited Analyte

Celez D. Keine

Celey D. Keene, Lab Director/Quality Manager



		ENSOLUM AIMEE COLE 3122 NATIONAL PARKS HW CARLSBAD NM, 88220 Fax To:	ľY	
Received:	09/22/2023		Sampling Date:	09/21/2023
Reported:	09/27/2023		Sampling Type:	Soil
Project Name:	MCA 95		Sampling Condition:	Cool & Intact
Project Number:	03D2057075		Sample Received By:	Dionica Hinojos
Project Location:	MAVERICK (32.817	529-103.787126)		

#### Sample ID: SW 08 @ 4-6' (H235172-09)

BTEX 8021B	mg/	′kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	09/25/2023	ND	1.95	97.5	2.00	4.14	
Toluene*	<0.050	0.050	09/25/2023	ND	2.05	102	2.00	5.37	
Ethylbenzene*	<0.050	0.050	09/25/2023	ND	2.20	110	2.00	4.94	
Total Xylenes*	<0.150	0.150	09/25/2023	ND	6.00	100	6.00	5.19	
Total BTEX	<0.300	0.300	09/25/2023	ND					
Surrogate: 4-Bromofluorobenzene (PID	115 9	% 71.5-13	4						
Chloride, SM4500Cl-B	mg/	′kg	Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	32.0	16.0	09/25/2023	ND	432	108	400	3.64	
TPH 8015M	mg/	′kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	09/25/2023	ND	189	94.3	200	3.12	
DRO >C10-C28*	<10.0	10.0	09/25/2023	ND	204	102	200	0.0900	
EXT DRO >C28-C36	<10.0	10.0	09/25/2023	ND					
Surrogate: 1-Chlorooctane	73.4	% 48.2-13	4						
Surrogate: 1-Chlorooctadecane	74.9	% 49.1-14	8						

#### Cardinal Laboratories

*=Accredited Analyte

Celez D. Keine

Celey D. Keene, Lab Director/Quality Manager



		ENSOLUM AIMEE COLE 3122 NATIONAL PARKS HW CARLSBAD NM, 88220 Fax To:	ſY	
Received:	09/22/2023		Sampling Date:	09/21/2023
Reported:	09/27/2023		Sampling Type:	Soil
Project Name:	MCA 95		Sampling Condition:	Cool & Intact
Project Number:	03D2057075		Sample Received By:	Dionica Hinojos
Project Location:	MAVERICK (32.817	529-103.787126)		

#### Sample ID: SW 09 @ 0-4' (H235172-10)

BTEX 8021B	mg/	′kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	09/25/2023	ND	1.95	97.5	2.00	4.14	
Toluene*	<0.050	0.050	09/25/2023	ND	2.05	102	2.00	5.37	
Ethylbenzene*	<0.050	0.050	09/25/2023	ND	2.20	110	2.00	4.94	
Total Xylenes*	<0.150	0.150	09/25/2023	ND	6.00	100	6.00	5.19	
Total BTEX	<0.300	0.300	09/25/2023	ND					
Surrogate: 4-Bromofluorobenzene (PID	116 9	% 71.5-13	4						
Chloride, SM4500Cl-B	mg/	′kg	Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	<16.0	16.0	09/25/2023	ND	432	108	400	3.64	
TPH 8015M	mg/	′kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	09/25/2023	ND	189	94.3	200	3.12	
DRO >C10-C28*	<10.0	10.0	09/25/2023	ND	204	102	200	0.0900	
EXT DRO >C28-C36	<10.0	10.0	09/25/2023	ND					
Surrogate: 1-Chlorooctane	75.6	% 48.2-13	4						
Surrogate: 1-Chlorooctadecane	76.2	% 49.1-14	8						

#### Cardinal Laboratories

*=Accredited Analyte

Celez D. Keine

Celey D. Keene, Lab Director/Quality Manager



		ENSOLUM AIMEE COLE 3122 NATIONAL PARKS HV CARLSBAD NM, 88220 Fax To:	WY	
Received:	09/22/2023		Sampling Date:	09/21/2023
Reported:	09/27/2023		Sampling Type:	Soil
Project Name:	MCA 95		Sampling Condition:	Cool & Intact
Project Number:	03D2057075		Sample Received By:	Dionica Hinojos
Project Location:	MAVERICK (32.817	/529-103.787126 )		

#### Sample ID: SW 09 @ 4-6' (H235172-11)

BTEX 8021B	mg	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	09/25/2023	ND	1.95	97.5	2.00	4.14	
Toluene*	<0.050	0.050	09/25/2023	ND	2.05	102	2.00	5.37	
Ethylbenzene*	<0.050	0.050	09/25/2023	ND	2.20	110	2.00	4.94	
Total Xylenes*	<0.150	0.150	09/25/2023	ND	6.00	100	6.00	5.19	
Total BTEX	<0.300	0.300	09/25/2023	ND					
Surrogate: 4-Bromofluorobenzene (PID	116	% 71.5-13	4						
Chloride, SM4500Cl-B	mg	/kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	32.0	16.0	09/25/2023	ND	432	108	400	3.64	
TPH 8015M	mg	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	09/25/2023	ND	189	94.3	200	3.12	
DRO >C10-C28*	<10.0	10.0	09/25/2023	ND	204	102	200	0.0900	
EXT DRO >C28-C36	<10.0	10.0	09/25/2023	ND					
Surrogate: 1-Chlorooctane	76.3	% 48.2-13	4						
Surrogate: 1-Chlorooctadecane	77.5	% 49.1-14	8						

#### Cardinal Laboratories

*=Accredited Analyte

Celeg D. Keine

Celey D. Keene, Lab Director/Quality Manager



#### **Notes and Definitions**

ND	Analyte NOT DETECTED at or above the reporting limit
RPD	Relative Percent Difference
**	Samples not received at proper temperature of 6°C or below.
***	Insufficient time to reach temperature.
-	Chloride by SM4500Cl-B does not require samples be received at or below 6°C

Samples reported on an as received basis (wet) unless otherwise noted on report

#### Cardinal Laboratories

#### *=Accredited Analyte

Celeg D. Keine

Celey D. Keene, Lab Director/Quality Manager

# CARDINA Laboratorie 101 East Marland, Hobbs, NM 88 (575) 393-2326 FAX (575) 393-2

CHAIN-OF-CUSTODY AND ANALYS'S REQUEST

R

# Received by OCD: 10/17/2023 1:24:32 PM

Delivered By: (Circle One) Sampler - UPS - Bus - Other:	+ > -	PLEASE NOTE: Liability and Damages. Cardinal's liability and client analyses. All claims including those for negligence and any other of service. In no event shall Cardinal be liable for incidential or consee affinates or purceasors arising out o * [felated to the performance	10 500 9 7	A BOMS	2 10Mg Z	- 6 5 WUD (0	4 5005	2 Short a	1 SINOZ (A	Lab I.D. Samp	H235172	FOR LAB USE ONLY	Sampler Name:	Project Location: 27 4/1<	Project Name: MAA AS	Project #: 18 DA 051015	Phone #: 770-399-731	city: WK6DQQ	Address: 6122 Nout 1	Project Manager:	Company Name: CMANILL	(575) 393-2326
Time:       Observed Temp. °CA. 4 °       Samp         Observed Temp. °C       Cool         Corrected Temp. °C       UX	Date: 7/72/23 Received By: Time: 12:57 V 4 Date: Received By:	으 문 집 코		9-4-6-	54-61		0-4		00-41 04	(G)RAB OR # CONTAIN GROUNDW WASTEWA	ERS ATER	0	Alleward	279 _INS, 787126		S Project Owner: MUUM	65 Fax #: (	State: N/M (Zip: 8820)	Porto twar	19Kg	m. LlC	(575) 393-2326 FAX (575) 393-2476
le Condition CHECKED BY:	infi	seed in contract or tort, shall be limited to the amount, paid ade in writing and received by Cardinal within 30 days after ss interruptions, loss of use, or loss of profits incurred by cli ther such claim is based upon any of b	Ł	///20	In Internet	•			X X 9/2/22	SOIL OIL SLUDGE OTHER : ACID/BASE ICE / COOL OTHER :		MATRIX PRESERV. SAMPLING	Fax #:	Phone #:	State: Zip:	City:	Address:	Attn:	Company:	P.O. #: 14 1	BILL TO	
Turnaround Time: Standard Rush Thermometer ID #140 Correction Factor 0°C	Verbal Result: □ Yes □ No.   Add'i Phone #: All Results are emailed. Please provide Email address: MCO OO UNSOLUM _COM _ FO REMARKS:	pplicable	PA I	000	04h/	14/5	SOM	1400	-XX	TIME	TE) PH hlo	X		25								
Bacteria (only) Sample Condition Cool Intact Observed Temp. °C	ide Email address: COM JFALOMATELA					:															ANALYSIS REQUEST	

	Delivered By? (Circle One) Sampler - UPS - Bus - Ot	shed B	PLEASE NOTE: Liability and analyses. All claims including service. In no event shall Can affiliates or successors arising			H135172 Lab I.D.	Sampler Name: FOR LAB USE ONLY	Project Name: Project Location:	City: UW/S	Address:	Company Name:	-	
N 3.4 0771 1123	lircle One) Bus - Other:	AMAN	PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim nanyses. All claims including those for negligence and any other cause whatsoever shall be demot service. In no event shall Cardinal be liable for incidental or consequentia damages, including without affiliates or successors arising out of or related to the performance of services hereunder by Cardinal.		SWU9 A	Sample I.D.	Jan nan	34,54,75	13974 - TR	HIMUL US	Chrolimp,	101 East Marland, Hobbs, NM 88240 (575) 393-2326 FAX (575) 393-2476	abore
† Cardina	Observed Temp. °C) 1/°C Corrected Temp. °C	Date: 7/24	nd client's exclusive remedy for other cause whatsoever shall the consequental damages, includ mance of services hereunder by	:	) -1- (0,	e I.D.	W T WILD	RU-102,78	State:////	12	LUC .	11 East Marland, Hobbs, NM 88240 (575) 393-2326 FAX (575) 393-2476	atories
Cardinal cannot accept verbal changes. Please email changes to celey.keene@cardinallabsnm.com		Received By:	PLEASE NOTE: Liability and Damages. Cardina's liability and client's exclusive remedy for any claim arising whether based in contract or tort, shall be limited to the amount paid by the client for the analyses. All claims including these for negligence and any other cause whatsoever shall be demod waived unless made in writing and received by Cardinal writin 30 days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including without limitation, business interruptions, loss of use, or loss of profits incurred by client its subsidiaries, affinates or successors arising out of or related to the performance of services hereunder by Cardinal		• (->	G)RAB OR (C)OMI # CONTAINERS GROUNDWATER WASTEWATER SOIL	9	R	YUZIP: 60 UUV	NULTER M		1240 1476	
erbal changes. P	Condition atact Yes No	pe	arising whether based in contract or tort, shall be limited to the amount paid by the client for the waved unless made in writing and received by Cardinal within 30 days after completion of the a limitation, business interruptions, loss of use or toos of profits incurred by client, its subsidiaries, 1,		•	DIL SLUDGE OTHER : ACID/BASE: ICE / COOL	MATRIX PRESERV	State: Phone #:	Attn: Address:	P.O. #: Company:			
lease email cha	(Inithals)		limited to the amount paid b ardinal within 30 days after co ss of profits incurred by cliev my of the above stated reaso		9/21/23	OTHER :	ERV. SAMPLING	Zip:		1214	BILL TO		
nges to celey.kee	Turnaround Time: Thermometer ID #140 Correction Factor 0°C	Verbal Result:			425 ×	TIME	NG						CHAIN-OF-
ene@cardinallab	Standard Rush	ailed. Please provid			. <u>.</u> X	ohlor	Hide	5					CUSTODY
snm.com	Bacteria (only) S Cool Intact	= Email address:			•						ANALYSIS REQUEST		-CUSTODY AND ANALYSIS REQUEST
	Bacteria (only) Sample Condition Cool Intact Observed Temp. °C Yes Yes No No Corrected Temp. °C	WAR DUB									EST		IS REQUEST
		hun											

Page 54 of 174

Released to Imaging: 1/10/2024 2:36:57 PM

rugh



**Environment Testing** 

# **ANALYTICAL REPORT**

# **PREPARED FOR**

Attn: Josh Adams Ensolum 601 N. Marienfeld St. Suite 400 Midland, Texas 79701 Generated 3/3/2023 1:03:32 PM

# **JOB DESCRIPTION**

MCA 95/Maverick SDG NUMBER 03D2057075

# **JOB NUMBER**

890-4183-1

**Eurofins Carlsbad** 1089 N Canal St. Carlsbad NM 88220

See page two for job notes and contact information



# **Eurofins Carlsbad**

Job Notes

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

# Authorization

RAMER

Generated 3/3/2023 1:03:32 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

Page 57 of 174

# **Table of Contents**

Cover Page	1
Table of Contents	3
Definitions/Glossary	4
Case Narrative	5
Client Sample Results	6
Surrogate Summary	8
QC Sample Results	9
QC Association Summary	15
Lab Chronicle	17
Certification Summary	18
Method Summary	19
Sample Summary	20
Chain of Custody	21
Receipt Checklists	22

Page 58 of 174

	Definitions/Glossary		
Client: Ensolu		Job ID: 890-4183-1	
Project/Site: N	/ICA 95/Maverick	SDG: 03D2057075	
Qualifiers			3
GC VOA Qualifier	Qualifier Description		4
F1	MS and/or MSD recovery exceeds control limits.		
S1+	Surrogate recovery exceeds control limits, high biased.		5
U	Indicates the analyte was analyzed for but not detected.		
GC Semi VO	Α		
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, high biased.		8
U	Indicates the analyte was analyzed for but not detected.		
HPLC/IC			9
Qualifier	Qualifier Description		
F1	MS and/or MSD recovery exceeds control limits.		
U	Indicates the analyte was analyzed for but not detected.		
Glossary			
Abbreviation	These commonly used abbreviations may or may not be present in this report.		
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis		
%R	Percent Recovery		19
CFL	Contains Free Liquid		13
CFU	Colony Forming Unit		
CNF	Contains No Free Liquid		

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: 890-4183-1

#### Laboratory: Eurofins Carlsbad

#### Narrative

Job Narrative 890-4183-1

#### Receipt

The samples were received on 2/23/2023 2:52 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 2.0°C

#### **Receipt Exceptions**

The following samples were received and analyzed from an unpreserved bulk soil jar: SS01 (890-4183-1) and SS02 (890-4183-2).

#### GC VOA

Method 8021B: Surrogate recovery for the following sample was outside control limits: (880-25235-A-61-J MS). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

Method 8021B: Surrogate recovery for the following samples were outside control limits: SS01 (890-4183-1) and SS02 (890-4183-2). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

Method 8021B: The matrix spike (MS) recoveries for preparation batch 880-47512 and analytical batch 880-47507 were outside control limits. Non-homogeneity is suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.

Method 8021B: Surrogate recovery for the following sample was outside control limits: SS02 (890-4183-2). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

Method 8021B: Surrogate recovery for the following sample was outside control limits: (LCS 880-47616/1-A). Evidence of matrix interferences is not obvious.

Method 8021B: Surrogate recovery for the following sample was outside control limits: (890-4197-A-10-H). 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.

#### GC Semi VOA

Method 8015MOD_NM: The surrogate recovery for the blank associated with preparation batch 880-47312 and analytical batch 880-47268 was outside the upper control limits.

Method 8015MOD_NM: Surrogate recovery for the following sample was outside control limits: SS02 (890-4183-2). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

Method 8015MOD_NM: The matrix spike / matrix spike duplicate (MS/MSD) recoveries and precision for preparation batch 880-47312 and analytical batch 880-47268 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample / laboratory sample control duplicate (LCS/LCSD) precision was within acceptance limits.

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

#### HPLC/IC

Method 300_ORGFM_28D: The matrix spike / matrix spike duplicate (MS/MSD) recoveries and precision for preparation batch 880-47518 and analytical batch 880-47637 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample / laboratory sample control duplicate (LCS/LCSD) precision was within acceptance limits.

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

Job ID: 890-4183-1 SDG: 03D2057075

# **Client Sample ID: SS01**

Project/Site: MCA 95/Maverick

Client: Ensolum

Lab Sample ID: 890-4183-1

te Received: 02/23/23 14:52								
ample Depth: 0.5'								
Method: SW846 8021B - Volatile	Organic Comp	ounds (GC)	1					
Analyte	Result	Qualifier	RL	Unit	<u>D</u>	Prepared	Analyzed	Dil Fac
Benzene	0.277		0.0996	mg/Kg		03/01/23 09:04	03/01/23 18:56	50
Toluene	0.242		0.0996	mg/Kg		03/01/23 09:04	03/01/23 18:56	50
Ethylbenzene	<0.0996		0.0996	mg/Kg		03/01/23 09:04	03/01/23 18:56	50
m-Xylene & p-Xylene	<0.199	U	0.199	mg/Kg		03/01/23 09:04	03/01/23 18:56	50
o-Xylene	<0.0996	U	0.0996	mg/Kg		03/01/23 09:04	03/01/23 18:56	50
Xylenes, Total	<0.199	U	0.199	mg/Kg		03/01/23 09:04	03/01/23 18:56	50
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	139	S1+	70 - 130			03/01/23 09:04	03/01/23 18:56	50
1,4-Difluorobenzene (Surr)	88		70 - 130			03/01/23 09:04	03/01/23 18:56	50
Method: TAL SOP Total BTEX - 1	Fotal BTEX Calo	culation						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	0.519		0.199	mg/Kg			03/02/23 09:50	1
Method: SW846 8015 NM - Diese	N Pango Organ		20)					
Analyte		Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
						·	-	
	253 sel Range Orga	nics (DRO)	49.9	mg/Kg			02/28/23 10:23	1
Method: SW846 8015B NM - Dies Analyte	sel Range Orga	Qualifier	(GC) RL	Unit	D	Prepared	Analyzed	Dil Fac
Method: SW846 8015B NM - Dies Analyte Gasoline Range Organics	sel Range Orga	Qualifier	(GC)		D	Prepared 02/27/23 12:09		
Method: SW846 8015B NM - Dies Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over	sel Range Orga	Qualifier	(GC) RL	Unit	D		Analyzed	Dil Fac
Method: SW846 8015B NM - Dies Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28)	sel Range Orga 	Qualifier U	(GC) 	Unit mg/Kg	<u> </u>	02/27/23 12:09	Analyzed 02/28/23 04:23	Dil Fac
Method: SW846 8015B NM - Dies Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) Oll Range Organics (Over C28-C36)	sel Range Orga Result <49.9 253	Qualifier U	(GC) <u>RL</u> 49.9 49.9	Unit mg/Kg mg/Kg	D	02/27/23 12:09 02/27/23 12:09	Analyzed 02/28/23 04:23 02/28/23 04:23	<b>Dil Fac</b> 1
Method: SW846 8015B NM - Dies Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) Oll Range Organics (Over C28-C36) Surrogate	sel Range Orga <u>Result</u> <49.9 253 <49.9	Qualifier U	(GC) <u>RL</u> 49.9 49.9 49.9	Unit mg/Kg mg/Kg	<u>D</u>	02/27/23 12:09 02/27/23 12:09 02/27/23 12:09	Analyzed 02/28/23 04:23 02/28/23 04:23 02/28/23 04:23	<b>Dil Fac</b> 1 1
Method: SW846 8015B NM - Dies Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) Oll Range Organics (Over C28-C36) Surrogate 1-Chlorooctane	sel Range Orga Result <49.9 253 <49.9 %Recovery	Qualifier U	(GC) <u>RL</u> 49.9 49.9 49.9 <u>Limits</u>	Unit mg/Kg mg/Kg	D	02/27/23 12:09 02/27/23 12:09 02/27/23 12:09 02/27/23 12:09 Prepared	Analyzed 02/28/23 04:23 02/28/23 04:23 02/28/23 04:23 Analyzed	Dil Fac 1 1 1 Dil Fac
Method: SW846 8015B NM - Dies Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) Oll Range Organics (Over C28-C36) Surrogate 1-Chlorooctane o-Terphenyl	sel Range Orga <u>Result</u> <49.9 253 <49.9 <u>%Recovery</u> 100 95	Qualifier U Qualifier	(GC) <u>RL</u> 49.9 49.9 49.9 <u>Limits</u> 70 - 130 70 - 130	Unit mg/Kg mg/Kg	<u>D</u>	02/27/23 12:09 02/27/23 12:09 02/27/23 12:09 <b>Prepared</b> 02/27/23 12:09	Analyzed 02/28/23 04:23 02/28/23 04:23 02/28/23 04:23 Analyzed 02/28/23 04:23	Dil Fac 1 1 1 1 1 <i>Dil Fac</i> 1
Total TPH Method: SW846 8015B NM - Dies Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) Oll Range Organics (Over C28-C36) Surrogate 1-Chlorooctane o-Terphenyl Method: EPA 300.0 - Anions, Ion Analyte	sel Range Orga <u>Result</u> <49.9 253 <49.9 <u>%Recovery</u> 100 95 Chromatograp	Qualifier U Qualifier	(GC) <u>RL</u> 49.9 49.9 49.9 <u>Limits</u> 70 - 130 70 - 130	Unit mg/Kg mg/Kg	<u>D</u>	02/27/23 12:09 02/27/23 12:09 02/27/23 12:09 <b>Prepared</b> 02/27/23 12:09	Analyzed 02/28/23 04:23 02/28/23 04:23 02/28/23 04:23 Analyzed 02/28/23 04:23	Dil Fac 1 1 1 1 1 <i>Dil Fac</i> 1
Method: SW846 8015B NM - Dies Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) Oll Range Organics (Over C28-C36) Surrogate 1-Chlorooctane o-Terphenyl Method: EPA 300.0 - Anions, Ion	sel Range Orga <u>Result</u> <49.9 253 <49.9 <u>%Recovery</u> 100 95 Chromatograp	Qualifier U Qualifier	(GC) <u>RL</u> 49.9 49.9 49.9 <u>Limits</u> 70 - 130 70 - 130 e	Unit mg/Kg mg/Kg mg/Kg		02/27/23 12:09 02/27/23 12:09 02/27/23 12:09 <b>Prepared</b> 02/27/23 12:09 02/27/23 12:09	Analyzed 02/28/23 04:23 02/28/23 04:23 02/28/23 04:23 Analyzed 02/28/23 04:23 02/28/23 04:23	Dil Fac           1           1           1           1           1           1           1           1           1           1           1           1           1           1
Method: SW846 8015B NM - Dies Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) Oll Range Organics (Over C28-C36) Surrogate 1-Chlorooctane o-Terphenyl Method: EPA 300.0 - Anions, Ion Analyte Chloride	sel Range Orga Result <49.9 253 <49.9 %Recovery 100 95 Chromatograp Result	Qualifier U Qualifier	(GC) <u>RL</u> 49.9 49.9 <u>Limits</u> 70 - 130 70 - 130 e <u>RL</u>	Unit mg/Kg mg/Kg mg/Kg		02/27/23 12:09 02/27/23 12:09 02/27/23 12:09 <b>Prepared</b> 02/27/23 12:09 02/27/23 12:09 02/27/23 12:09 <b>Prepared</b>	Analyzed           02/28/23 04:23           02/28/23 04:23           02/28/23 04:23           02/28/23 04:23           02/28/23 04:23           02/28/23 04:23           02/28/23 04:23           02/28/23 04:23           02/28/23 04:23           02/28/23 04:23           02/28/23 04:23           02/28/23 04:23           02/28/23 04:23           02/28/23 04:23           02/28/23 04:23           02/28/23 04:23	Dil Fac           1           1           1           1           Dil Fac           1           Dil Fac           1           Dil Fac           1
Method: SW846 8015B NM - Dies Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) Oll Range Organics (Over C28-C36) Surrogate 1-Chlorooctane o-Terphenyl Method: EPA 300.0 - Anions, Ion Analyte Chloride	sel Range Orga Result <49.9 253 <49.9 %Recovery 100 95 Chromatograp Result	Qualifier U Qualifier	(GC) <u>RL</u> 49.9 49.9 <u>Limits</u> 70 - 130 70 - 130 e <u>RL</u>	Unit mg/Kg mg/Kg mg/Kg		02/27/23 12:09 02/27/23 12:09 02/27/23 12:09 <b>Prepared</b> 02/27/23 12:09 02/27/23 12:09 02/27/23 12:09 <b>Prepared</b>	Analyzed 02/28/23 04:23 02/28/23 04:23 02/28/23 04:23 Analyzed 02/28/23 04:23 02/28/23 04:23 02/28/23 04:23 02/28/23 17:49 nple ID: 890	Dil Fac 1 1 1 1 1 <i>Dil Fac</i> 1 1 <b>Dil Fac</b> 1 4183-2
Method: SW846 8015B NM - Dies Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) Oll Range Organics (Over C28-C36) Surrogate 1-Chlorooctane o-Terphenyl Method: EPA 300.0 - Anions, Ion Analyte Chloride Elient Sample ID: SS02 ate Collected: 02/22/23 15:25	sel Range Orga Result <49.9 253 <49.9 %Recovery 100 95 Chromatograp Result	Qualifier U Qualifier	(GC) <u>RL</u> 49.9 49.9 <u>Limits</u> 70 - 130 70 - 130 e <u>RL</u>	Unit mg/Kg mg/Kg mg/Kg		02/27/23 12:09 02/27/23 12:09 02/27/23 12:09 <b>Prepared</b> 02/27/23 12:09 02/27/23 12:09 02/27/23 12:09 <b>Prepared</b>	Analyzed 02/28/23 04:23 02/28/23 04:23 02/28/23 04:23 Analyzed 02/28/23 04:23 02/28/23 04:23 02/28/23 04:23 02/28/23 17:49 nple ID: 890	Dil Fac           1           1           1           1           Dil Fac           1           Dil Fac           1           Dil Fac           1
Method: SW846 8015B NM - Dies Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) Oll Range Organics (Over C28-C36) Surrogate 1-Chlorooctane o-Terphenyl Method: EPA 300.0 - Anions, Ion Analyte	sel Range Orga Result <49.9 253 <49.9 %Recovery 100 95 Chromatograp Result	Qualifier U Qualifier	(GC) <u>RL</u> 49.9 49.9 <u>Limits</u> 70 - 130 70 - 130 e <u>RL</u>	Unit mg/Kg mg/Kg mg/Kg		02/27/23 12:09 02/27/23 12:09 02/27/23 12:09 <b>Prepared</b> 02/27/23 12:09 02/27/23 12:09 02/27/23 12:09 <b>Prepared</b>	Analyzed 02/28/23 04:23 02/28/23 04:23 02/28/23 04:23 Analyzed 02/28/23 04:23 02/28/23 04:23 02/28/23 04:23 02/28/23 17:49 nple ID: 890	Dil Fac 1 1 1 1 1 <i>Dil Fac</i> 1 1 <b>Dil Fac</b> 1 4183-2
Method: SW846 8015B NM - Dies Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) Oll Range Organics (Over C28-C36) Surrogate 1-Chlorooctane o-Terphenyl Method: EPA 300.0 - Anions, Ion Analyte Chloride Chloride Chloride Chloride Chloride D2/22/23 15:25 ate Received: 02/23/23 14:52 ample Depth: 0.5'	sel Range Orga <u>Result</u> <49.9 253 <49.9 %Recovery 100 95 Chromatograp Result 63.0	Qualifier U Qualifier	(GC) <u>RL</u> 49.9 49.9 <u>Limits</u> 70 - 130 70 - 130 70 - 130 E <u>RL</u> 4.96	Unit mg/Kg mg/Kg mg/Kg		02/27/23 12:09 02/27/23 12:09 02/27/23 12:09 <b>Prepared</b> 02/27/23 12:09 02/27/23 12:09 02/27/23 12:09 <b>Prepared</b>	Analyzed 02/28/23 04:23 02/28/23 04:23 02/28/23 04:23 Analyzed 02/28/23 04:23 02/28/23 04:23 02/28/23 04:23 02/28/23 17:49 nple ID: 890	Dil Fac 1 1 1 1 1 <i>Dil Fac</i> 1 1 <b>Dil Fac</b> 1 4183-2
Method: SW846 8015B NM - Dies Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) Oll Range Organics (Over C28-C36) Surrogate 1-Chlorooctane o-Terphenyl Method: EPA 300.0 - Anions, Ion Analyte Chloride Client Sample ID: SS02 ate Collected: 02/22/23 15:25 ate Received: 02/23/23 14:52	sel Range Orga Result <ul> <li>&lt;49.9</li> <li>253</li> <li>&lt;49.9</li> <li>%Recovery</li> <li>100</li> <li>95</li> <li>Chromatograp</li> <li>Result</li> <li>63.0</li> </ul> Organic Comp	Qualifier U Qualifier	(GC) <u>RL</u> 49.9 49.9 <u>Limits</u> 70 - 130 70 - 130 70 - 130 E <u>RL</u> 4.96	Unit mg/Kg mg/Kg mg/Kg		02/27/23 12:09 02/27/23 12:09 02/27/23 12:09 <b>Prepared</b> 02/27/23 12:09 02/27/23 12:09 02/27/23 12:09 <b>Prepared</b>	Analyzed 02/28/23 04:23 02/28/23 04:23 02/28/23 04:23 Analyzed 02/28/23 04:23 02/28/23 04:23 02/28/23 04:23 02/28/23 17:49 nple ID: 890	Dil Fac 1 1 1 1 1 <i>Dil Fac</i> 1 1 <b>Dil Fac</b> 1 4183-2

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	2.80		0.101	mg/Kg		03/01/23 09:04	03/01/23 19:16	50
Toluene	83.4		0.990	mg/Kg		03/02/23 09:28	03/02/23 20:18	500
Ethylbenzene	119		0.990	mg/Kg		03/02/23 09:28	03/02/23 20:18	500
m-Xylene & p-Xylene	114		1.98	mg/Kg		03/02/23 09:28	03/02/23 20:18	500
o-Xylene	47.8		0.990	mg/Kg		03/02/23 09:28	03/02/23 20:18	500
Xylenes, Total	162		1.98	mg/Kg		03/02/23 09:28	03/02/23 20:18	500
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	423	S1+	70 - 130			03/01/23 09:04	03/01/23 19:16	50

Eurofins Carlsbad

# **Client Sample Results**

Job ID: 890-4183-1 SDG: 03D2057075

# **Client Sample ID: SS02**

Project/Site: MCA 95/Maverick

Date Collected: 02/22/23 15:25 Date Received: 02/23/23 14:52

Sample Depth: 0.5'

Client: Ensolum

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

Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1,4-Difluorobenzene (Surr)	84		70 - 130			03/01/23 09:04	03/01/23 19:16	50
Method: TAL SOP Total BTEX - To	otal BTEX Calo	ulation						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	367		1.98	mg/Kg			03/02/23 09:50	,
Method: SW846 8015 NM - Diese	Range Organ	ics (DRO) (	GC)					
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fa
Total TPH	13500		500	mg/Kg			02/28/23 10:23	
Method: SW846 8015B NM - Dies	el Range Orga	nics (DRO)	(GC)					
Analyte		Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	4270		500	mg/Kg		02/27/23 12:09	02/28/23 04:02	10
Diesel Range Organics (Over C10-C28)	9200		500	mg/Kg		02/27/23 12:09	02/28/23 04:02	10
Oll Range Organics (Over C28-C36)	<500	U	500	mg/Kg		02/27/23 12:09	02/28/23 04:02	10
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fa
1-Chlorooctane	140	S1+	70 - 130			02/27/23 12:09	02/28/23 04:02	10
o-Terphenyl	210	S1+	70 - 130			02/27/23 12:09	02/28/23 04:02	10
Method: EPA 300.0 - Anions, Ion	Chromatograp	hy - Solubl	e					
Analyte		Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	98.2		5.05	mg/Kg			03/02/23 17:54	

#### Eurofins Carlsbad

Released to Imaging: 1/10/2024 2:36:57 PM

Lab Sample ID: 890-4183-2 Matrix: Solid

5

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

	Percent Surrogate Recovery (Acceptance Limits)
BFE	B1 DFBZ1
Client Sample ID (70-1	130) (70-130)
Matrix Spike 131 S	S1+ 105
D Matrix Spike Duplicate 11	0 104
SS01 139 S	S1+ 88
SS02 423 S	S1+ 84
Matrix Spike 10	106
D Matrix Spike Duplicate 10	110
Lab Control Sample 11	0 109
Lab Control Sample 133 S	S1+ 108
Lab Control Sample Dup 113	3 109
Lab Control Sample Dup 12	12 104
Method Blank 78	8 88
Method Blank 83	3 83
Method Blank	78

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)
880-25190-A-1-E MS	Matrix Spike	107	95
880-25190-A-1-F MSD	Matrix Spike Duplicate	110	97
890-4183-1	SS01	100	95
890-4183-2	SS02	140 S1+	210 S1+
LCS 880-47312/2-A	Lab Control Sample	95	92
LCSD 880-47312/3-A	Lab Control Sample Dup	94	89
MB 880-47312/1-A	Method Blank	142 S1+	149 S1+

#### Surrogate Legend

1CO = 1-Chlorooctane

OTPH = o-Terphenyl

Page 62 of 174

Job ID: 890-4183-1 SDG: 03D2057075

Prep Type: Total/NA

Prep Type: Total/NA

# **QC Sample Results**

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

Lab Sample ID: MB 880-47512/	5-A

Matrix: Solid Analysis Batch: 47507

Analysis Batch: 47507							Prep Batch	n: 47512
	MB	MB						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		03/01/23 09:04	03/01/23 11:23	1
Toluene	<0.00200	U	0.00200	mg/Kg		03/01/23 09:04	03/01/23 11:23	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		03/01/23 09:04	03/01/23 11:23	1
m-Xylene & p-Xylene	<0.00400	U	0.00400	mg/Kg		03/01/23 09:04	03/01/23 11:23	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		03/01/23 09:04	03/01/23 11:23	1
Xylenes, Total	<0.00400	U	0.00400	mg/Kg		03/01/23 09:04	03/01/23 11:23	1
	МВ	МВ						
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	78		70 - 130			03/01/23 09:04	03/01/23 11:23	1
1,4-Difluorobenzene (Surr)	88		70 - 130			03/01/23 09:04	03/01/23 11:23	1

#### Lab Sample ID: LCS 880-47512/1-A Matrix: Solid

#### Analysis Batch: 47507

	Spike	LCS	LCS				%Rec	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Benzene	0.100	0.1239		mg/Kg		124	70 - 130	
Toluene	0.100	0.1148		mg/Kg		115	70 - 130	
Ethylbenzene	0.100	0.1181		mg/Kg		118	70 - 130	
m-Xylene & p-Xylene	0.200	0.2467		mg/Kg		123	70 - 130	
o-Xylene	0.100	0.1213		mg/Kg		121	70 - 130	

	LCS	LCS	
Surrogate	%Recovery	Qualifier	Limits
4-Bromofluorobenzene (Surr)	110		70 - 130
1,4-Difluorobenzene (Surr)	109		70 - 130

#### Lab Sample ID: LCSD 880-47512/2-A

# Matrix: Solid

Analysis Batch: 47507						Prep	Batch:	47512
	Spike	LCSD LCS	D			%Rec		RPD
Analyte	Added	Result Qua	lifier Unit	D	%Rec	Limits	RPD	Limit
Benzene	0.100	0.1227	mg/Kg		123	70 - 130	1	35
Toluene	0.100	0.1126	mg/Kg		113	70 - 130	2	35
Ethylbenzene	0.100	0.1182	mg/Kg		118	70 - 130	0	35
m-Xylene & p-Xylene	0.200	0.2506	mg/Kg		125	70 - 130	2	35
o-Xylene	0.100	0.1236	mg/Kg		124	70 - 130	2	35

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

# Lab Sample ID: 880-25235-A-61-J MS

#### Matrix: Solid Analysis Batch: 47507

Analysis Batch: 47507									Prep	Batch: 47512
	Sample	Sample	Spike	MS	MS				%Rec	
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Benzene	<0.00200	U	0.0990	0.09565		mg/Kg		97	70 - 130	
Toluene	<0.00200	U	0.0990	0.1047		mg/Kg		106	70 - 130	

Eurofins Carlsbad

Prep Type: Total/NA

**Client Sample ID: Matrix Spike** 

3

Prep Type: Total/NA

Prep Type: Total/NA

Prep Type: Total/NA

Prep Batch: 47512

**Client Sample ID: Method Blank** 

**Client Sample ID: Lab Control Sample** 

Client Sample ID: Lab Control Sample Dup

<b>Released to Imaging:</b>	1/10/2024	2:36:57 PM	

Lab Sample ID: 880-25235-A-61-J MS

Lab Sample ID: 880-25235-A-61-K MSD

# **QC Sample Results**

MS MS

0.1212

0.2589 F1

0.1302 F1

**Result Qualifier** 

Unit

mg/Kg

mg/Kg

mg/Kg

Spike

Added

0.0990

0.198

0.0990

Limits 70 - 130

70 - 130

Client: Ensolum Project/Site: MCA 95/Maverick

Matrix: Solid

Analyte

o-Xylene

Surrogate

Ethylbenzene

m-Xylene & p-Xylene

Analysis Batch: 47507

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

Sample Sample

<0.00200

<0.00399 UF1

<0.00200 UF1

MS MS

83

%Recovery Qualifier

131 S1+

105

**Result Qualifier** 

U

Prep Type: Total/NA

Prep Batch: 47512

**Client Sample ID: Matrix Spike** 

%Rec

Limits

70 - 130

70 - 130

70 - 130

%Rec

122

131

132

D

5
7
8
9

12 13

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

**Client Sample ID: Method Blank** 

03/02/23 11:08

**Client Sample ID: Lab Control Sample** 

03/02/23 09:28

Prep Type: Total/NA

Prep Batch: 47616

Matrix: Solid Analysis Batch: 47507

4-Bromofluorobenzene (Surr)

1,4-Difluorobenzene (Surr)

Analysis Batch: 47507									Prep	Batch:	47512	
_	Sample	Sample	Spike	MSD	MSD				%Rec		RPD	
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit	
Benzene	<0.00200	U	0.100	0.1051		mg/Kg		105	70 - 130	9	35	
Toluene	<0.00200	U	0.100	0.1030		mg/Kg		103	70 - 130	2	35	ī
Ethylbenzene	<0.00200	U	0.100	0.1087		mg/Kg		108	70 - 130	11	35	
m-Xylene & p-Xylene	<0.00399	U F1	0.200	0.2271		mg/Kg		113	70 - 130	13	35	ŝ
o-Xylene	<0.00200	U F1	0.100	0.1124		mg/Kg		112	70 - 130	15	35	
	MSD	MSD										

	14/30	WISD	
Surrogate	%Recovery	Qualifier	Limits
4-Bromofluorobenzene (Surr)	110		70 - 130
1,4-Difluorobenzene (Surr)	104		70 - 130

#### Lab Sample ID: MB 880-47616/5-A Matrix: Solid Analysis Batch: 47603

	IN D	IVID					
Analyte	Result	Qualifier	RL	Unit	D Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg	03/02/23 09:28	03/02/23 11:08	1
Toluene	<0.00200	U	0.00200	mg/Kg	03/02/23 09:28	03/02/23 11:08	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg	03/02/23 09:28	03/02/23 11:08	1
m-Xylene & p-Xylene	<0.00400	U	0.00400	mg/Kg	03/02/23 09:28	03/02/23 11:08	1
o-Xylene	<0.00200	U	0.00200	mg/Kg	03/02/23 09:28	03/02/23 11:08	1
Xylenes, Total	<0.00400	U	0.00400	mg/Kg	03/02/23 09:28	03/02/23 11:08	1
	МВ	МВ					
Surrogate	%Recovery	Qualifier	Limits		Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	83		70 - 130		03/02/23 09:28	03/02/23 11:08	1

70 - 130

4-Diomonuolobenzene (Sun)	
1,4-Difluorobenzene (Surr)	

#### Lab Sample ID: LCS 880-47616/1-A Matrix: Solid Analysis Batch: 47603

	Spike	LCS	LCS				%Rec
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits
Benzene	0.100	0.08324		mg/Kg		83	70 - 130
Toluene	0.100	0.08248		mg/Kg		82	70 - 130
Ethylbenzene	0.100	0.09740		mg/Kg		97	70 - 130
m-Xylene & p-Xylene	0.200	0.2063		mg/Kg		103	70 - 130

**Eurofins Carlsbad** 

Prep Type: Total/NA

Prep Batch: 47616

1

Lab Sample ID: LCS 880-47616/1-A

# **QC Sample Results**

Client: Ensolum Project/Site: MCA 95/Maverick

### Job ID: 890-4183-1 SDG: 03D2057075

**Client Sample ID: Lab Control Sample** 

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

Matrix: Solid										Гуре: То	
Analysis Batch: 47603										Batch:	4761
			Spike		LCS				%Rec		
Analyte			Added		Qualifier	Unit	D	%Rec	Limits		
o-Xylene			0.100	0.1060		mg/Kg		106	70 - 130		
	LCS	LCS									
Surrogate	%Recovery		Limits								
4-Bromofluorobenzene (Surr)			70 - 130								
1,4-Difluorobenzene (Surr)	108		70 - 130								
Lab Sample ID: LCSD 880-4	7616/2-A					Clier	nt San	nple ID:	Lab Contro	I Sampl	e Du
Matrix: Solid									Prep 1	Type: To	tal/N/
Analysis Batch: 47603									Prep	Batch:	4761
			Spike	LCSD	LCSD				%Rec		RPI
Analyte			Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limi
Benzene			0.100	0.08959		mg/Kg		90	70 - 130	7	3
Toluene			0.100	0.08981		mg/Kg		90	70 - 130	9	3
Ethylbenzene			0.100	0.1040		mg/Kg		104	70 - 130	7	3
m-Xylene & p-Xylene			0.200	0.2008		mg/Kg		100	70 - 130	3	35
o-Xylene			0.100	0.1017		mg/Kg		102	70 - 130	4	35
	(										
<b>•</b> • •		LCSD									
Surrogate	%Recovery	Qualifier	Limits 70 - 130								
4-Bromofluorobenzene (Surr) 1,4-Difluorobenzene (Surr)	122 104		70 - 130 70 - 130								
Lab Sample ID: 890-4197-A Matrix: Solid	-10-F MS							Client		Гуре: То	tal/N/
Analysis Batch: 47603										Batch:	47616
	•	Sample	Spike		MS				%Rec		
Analyte		Qualifier	Added		Qualifier	Unit	D	%Rec	Limits		
Benzene	<0.00202	U	0.100	0.1166		mg/Kg		114	70 - 130		
Toluene	0.00371		0.100	0.1033		mg/Kg		99	70 - 130		
Ethylbenzene	0.00518		0.100	0.1059		mg/Kg		100	70 - 130		
m-Xylene & p-Xylene	0.00916		0.201	0.2144		mg/Kg		102	70 - 130		
o-Xylene	0.00634		0.100	0.1057		mg/Kg		99	70 - 130		
	MS	MS									
Surrogate	%Recovery		Limits								
4-Bromofluorobenzene (Surr)			70 - 130								
1,4-Difluorobenzene (Surr)	106		70 - 130								
Lab Sample ID: 890-4197-A						Cli	ient Sa	ample IC	): Matrix Sp	oike Dur	olicate
Matrix: Solid										Type: To	
Analysis Batch: 47603									Prep	Batch:	47616
		Sample	Spike	MSD	MSD				%Rec		RPD
	Sample				Qualifian	Unit	D	%Rec	Limits	RPD	Limi
Analyte	Result	Qualifier	Added	Result	Quaimer						
	-		Added	0.1227	Quaimer	mg/Kg		122	70 - 130	5	
Benzene	Result				Quaimer						3
Analyte Benzene Toluene Ethylbenzene	Result <0.00202		0.0990	0.1227	Quaimer	mg/Kg		122	70 - 130	5	35 35 35
Benzene Toluene	Result <0.00202 0.00371		0.0990	0.1227 0.1085	Quaimer	mg/Kg mg/Kg		122 106	70 ₋ 130 70 - 130	5	35

# **QC Sample Results**

Client: Ensolum Project/Site: MCA 95/Maverick

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

Lab Sample ID: 890-4197-A-10 Matrix: Solid								5110			Matrix Spil : Prep Ty	-	
Analysis Batch: 47603											Prep E	-	
	MCD	M00											
Surrogata	MSD % Recovery			Limito									
Surrogate 4-Bromofluorobenzene (Surr)	%Recovery 108	Qua	imer	Limits 70 - 130									
1,4-Difluorobenzene (Surr)	108			70 - 130 70 - 130									
ethod: 8015B NM - Diese		gar	nics (DR										
_ab Sample ID: MB 880-47312		3	(							Client Sa	ample ID: M	ethod	Blan
Matrix: Solid											Prep Ty		
Analysis Batch: 47268											Prep E		
		ΜВ	МВ										
Analyte	Re	sult	Qualifier	RL		Un	it	D	Р	repared	Analyzed	ł	Dil Fa
Gasoline Range Organics		50.0		50.0			g/Kg	-		7/23 12:09	02/27/23 19		
GRO)-C6-C10							-						
Diesel Range Organics (Over	<	50.0	U	50.0		mg	g/Kg		02/2	7/23 12:09	02/27/23 19	:55	
C10-C28)													
Oll Range Organics (Over C28-C36)	<	50.0	U	50.0		mg	g/Kg		02/2	27/23 12:09	02/27/23 19	:55	
		ΜВ	MB										
Surrogate	%Reco	verv	Qualifier	Limits					P	repared	Analyzeo	1	Dil Fa
1-Chlorooctane		142	S1+	70 - 130						7/23 12:09	02/27/23 19		
o-Terphenyl		149	S1+	70 - 130					02/2	27/23 12:09	02/27/23 19	:55	
Lab Sample ID: LCS 880-4731	2/2-A							C	lient	Sample	ID: Lab Cor	trol S	amp
Matrix: Solid											Prep Ty	pe: To	tal/N
Analysis Batch: 47268											Prep E	Batch:	4731
				Spike	LCS	LCS					%Rec		
Analyte				Added	Result	Qualifie	r Unit		D	%Rec	Limits		
Gasoline Range Organics				1000	964.1		mg/Kg			96	70 - 130		
(GRO)-C6-C10													
Diesel Range Organics (Over				1000	976.9		mg/Kg			98	70 - 130		
C10-C28)													
	LCS	LCS											
Surrogate	%Recovery	Qual	lifier	Limits									
I-Chlorooctane	95			70 - 130									
p-Terphenyl	92			70 - 130									
Lab Sample ID: LCSD 880-473	12/3-A						CI	ient	San	ple ID: L	ab Control	-	
Matrix: Solid											Prep Ty		
Analysis Batch: 47268											Prep E	Batch:	
				Spike		LCSD					%Rec		RP
Analyte				Added		Qualifie			<u>D</u>	%Rec	Limits	RPD	Lim
Gasoline Range Organics GRO)-C6-C10				1000	1033		mg/Kg			103	70 - 130	7	2
Diesel Range Organics (Over C10-C28)				1000	1011		mg/Kg			101	70 - 130	3	:
	LCSD	LCS	D										
Surrogate		Qua		Limits									
1-Chlorooctane	94			70 - 130									

o-Terphenyl

89

70 - 130

Eurofins Carlsbad

5 6

Job ID: 890-4183-1 SDG: 03D2057075 Lab Sample ID: 880-25190-A-1-E MS

# **QC Sample Results**

MS MS

916.2

742.2 F1

Result Qualifier

Unit

mg/Kg

mg/Kg

D

%Rec

88

59

Spike

Added

998

998

Limits 70 - 130

70 - 130

Client: Ensolum Project/Site: MCA 95/Maverick

Matrix: Solid

(GRO)-C6-C10

Analyte

C10-C28)

Surrogate

o-Terphenyl

1-Chlorooctane

Analysis Batch: 47268

Gasoline Range Organics

Diesel Range Organics (Over

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

Sample Sample

<49.9 U

Result Qualifier

157 F1 F2

MS MS

%Recovery Qualifier

107

95

Job ID: 890-4183-1 SDG: 03D2057075

Prep Type: Total/NA

Prep Batch: 47312

**Client Sample ID: Matrix Spike** 

%Rec

Limits

70 - 130

70 - 130

5
7
8
9

Lab Sample ID: 880-25190-A-1 Matrix: Solid Analysis Batch: 47268	-F MSD					CI	ient Sa	ample IC		oike Dup Type: To Batch:	tal/NA
	Sample	Sample	Spike	MSD	MSD				%Rec		RPD
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	999	952.3		mg/Kg		91	70 - 130	4	20
Diesel Range Organics (Over C10-C28)	157	F1 F2	999	1035	F2	mg/Kg		88	70 - 130	33	20
	MSD	MSD									
Surrogate	%Recovery	Qualifier	Limits								
1-Chlorooctane	110		70 - 130								
o-Terphenyl	97		70 - 130								

#### Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-47518/1-A Matrix: Solid Analysis Batch: 47637									Client S	Sample ID: Mo Prep Ty		
	МВ	МВ										
Analyte	Result	Qualifier		RL		Unit		DI	Prepared	Analyzed		Dil Fac
Chloride	<5.00	U		5.00		mg/k	ζg			03/02/23 15	29	1
Lab Sample ID: LCS 880-47518/2-A								Clien	t Sample	e ID: Lab Con	trol Sa	ample
Matrix: Solid										Prep Ty	pe: S	oluble
Analysis Batch: 47637												
-			Spike		LCS	LCS				%Rec		
Analyte			Added		Result	Qualifier	Unit	D	%Rec	Limits		
Chloride			250		251.4		mg/Kg		101	90 _ 110		
Lab Sample ID: LCSD 880-47518/3-A							CI	lient Sar	nple ID:	Lab Control S	Sampl	e Dup
Matrix: Solid										Prep Ty	pe: S	oluble
Analysis Batch: 47637												
-			Spike		LCSD	LCSD				%Rec		RPD
Analyte			Added		Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Chloride			250		251.2		mg/Kg		100	90 - 110	0	20

Eurofins Carlsbad

# QC Sample Results

Client: Ensolum Project/Site: MCA 95/Maverick Job ID: 890-4183-1 SDG: 03D2057075

# Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: 880-251	69-A-11-C MS							Client	Sample ID	: Matrix	Spike
Matrix: Solid									Prep	Type: So	oluble
Analysis Batch: 47637											
	Sample	Sample	Spike	MS	MS				%Rec		
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits		
Chloride	153		249	340.0	F1	mg/Kg		75	90 - 110		
						0 0					
						Cli	ent S	ample ID	): Matrix Sr	oike Dun	licate
Lab Sample ID: 880-251 Matrix: Solid						Cli	ent Sa	ample IC	): Matrix Sp Prep	oike Dup Type: So	
Lab Sample ID: 880-251						Cli	ent Sa	ample ID			
Lab Sample ID: 880-251 Matrix: Solid			Spike		MSD	Cli	ient Sa	ample ID			
Lab Sample ID: 880-251 Matrix: Solid	69-A-11-D MSD Sample		Spike Added	MSD	MSD Qualifier	Cli	ient Sa D	ample ID %Rec	Prep		oluble

# **QC Association Summary**

Client: Ensolum Project/Site: MCA 95/Maverick Job ID: 890-4183-1 SDG: 03D2057075

# GC VOA

#### Analysis Batch: 47507

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4183-1	SS01	Total/NA	Solid	8021B	47512
890-4183-2	SS02	Total/NA	Solid	8021B	47512
MB 880-47512/5-A	Method Blank	Total/NA	Solid	8021B	47512
LCS 880-47512/1-A	Lab Control Sample	Total/NA	Solid	8021B	47512
LCSD 880-47512/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	47512
880-25235-A-61-J MS	Matrix Spike	Total/NA	Solid	8021B	47512
880-25235-A-61-K MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	47512

#### Prep Batch: 47512

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4183-1	SS01	Total/NA	Solid	5035	
890-4183-2	SS02	Total/NA	Solid	5035	
MB 880-47512/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-47512/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-47512/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
880-25235-A-61-J MS	Matrix Spike	Total/NA	Solid	5035	
880-25235-A-61-K MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	

#### Analysis Batch: 47603

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4183-2	SS02	Total/NA	Solid	8021B	47616
MB 880-47616/5-A	Method Blank	Total/NA	Solid	8021B	47616
LCS 880-47616/1-A	Lab Control Sample	Total/NA	Solid	8021B	47616
LCSD 880-47616/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	47616
890-4197-A-10-F MS	Matrix Spike	Total/NA	Solid	8021B	47616
890-4197-A-10-G MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	47616

#### Prep Batch: 47616

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batc
890-4183-2	SS02	Total/NA	Solid	5035	
MB 880-47616/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-47616/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-47616/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
890-4197-A-10-F MS	Matrix Spike	Total/NA	Solid	5035	
890-4197-A-10-G MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	

#### Analysis Batch: 47623

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4183-1	SS01	Total/NA	Solid	Total BTEX	
890-4183-2	SS02	Total/NA	Solid	Total BTEX	

#### GC Semi VOA

#### Analysis Batch: 47268

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4183-1	SS01	Total/NA	Solid	8015B NM	47312
890-4183-2	SS02	Total/NA	Solid	8015B NM	47312
MB 880-47312/1-A	Method Blank	Total/NA	Solid	8015B NM	47312
LCS 880-47312/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	47312
LCSD 880-47312/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	47312
880-25190-A-1-E MS	Matrix Spike	Total/NA	Solid	8015B NM	47312

Eurofins Carlsbad

8

### Released to Imaging: 1/10/2024 2:36:57 PM

# **QC Association Summary**

Client: Ensolum Project/Site: MCA 95/Maverick

# GC Semi VOA (Continued)

### Analysis Batch: 47268 (Continued)

Lab Sample ID 880-25190-A-1-F MSD	Client Sample ID Matrix Spike Duplicate	Prep Type Total/NA	Matrix Solid	Method 8015B NM	Prep Batch 47312	4
Prep Batch: 47312						<b>၁</b>
Lab Sample ID	Client Sample ID	Ргер Туре	Matrix	Method	Prep Batch	
890-4183-1	SS01	Total/NA	Solid	8015NM Prep		
890-4183-2	SS02	Total/NA	Solid	8015NM Prep		
MB 880-47312/1-A	Method Blank	Total/NA	Solid	8015NM Prep		
LCS 880-47312/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep		8
LCSD 880-47312/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep		
880-25190-A-1-E MS	Matrix Spike	Total/NA	Solid	8015NM Prep		9
880-25190-A-1-F MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep		
Analysis Batch: 47415						
Lab Sample ID	Client Sample ID	Ргер Туре	Matrix	Method	Prep Batch	
890-4183-1	SS01	Total/NA	Solid	8015 NM		

Total/NA

Solid

8015 NM

#### 890-4183-2 SS02

# HPLC/IC

#### Leach Batch: 47518

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4183-1	SS01	Soluble	Solid	DI Leach	
890-4183-2	SS02	Soluble	Solid	DI Leach	
MB 880-47518/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-47518/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-47518/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
880-25169-A-11-C MS	Matrix Spike	Soluble	Solid	DI Leach	
880-25169-A-11-D MSD	Matrix Spike Duplicate	Soluble	Solid	DI Leach	

#### Analysis Batch: 47637

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4183-1	SS01	Soluble	Solid	300.0	47518
890-4183-2	SS02	Soluble	Solid	300.0	47518
MB 880-47518/1-A	Method Blank	Soluble	Solid	300.0	47518
LCS 880-47518/2-A	Lab Control Sample	Soluble	Solid	300.0	47518
LCSD 880-47518/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	47518
880-25169-A-11-C MS	Matrix Spike	Soluble	Solid	300.0	47518
880-25169-A-11-D MSD	Matrix Spike Duplicate	Soluble	Solid	300.0	47518

Job ID: 890-4183-1

Page 70 of 174

SDG: 03D2057075

Job ID: 890-4183-1 SDG: 03D2057075

# Lab Sample ID: 890-4183-1 Matrix: Solid

Lab Sample ID: 890-4183-2

Matrix: Solid

Date Collected: 02/22/23 15:20 Date Received: 02/23/23 14:52

**Client Sample ID: SS01** 

Project/Site: MCA 95/Maverick

Client: Ensolum

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.02 g	5 mL	47512	03/01/23 09:04	MNR	EET MID
Total/NA	Analysis	8021B		50	5 mL	5 mL	47507	03/01/23 18:56	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			47623	03/02/23 09:50	SM	EET MID
Total/NA	Analysis	8015 NM		1			47415	02/28/23 10:23	SM	EET MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	47312	02/27/23 12:09	AJ	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	47268	02/28/23 04:23	SM	EET MID
Soluble	Leach	DI Leach			5.04 g	50 mL	47518	03/01/23 10:40	KS	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	47637	03/02/23 17:49	СН	EET MID

# Client Sample ID: SS02

#### Date Collected: 02/22/23 15:25 Date Received: 02/23/23 14:52

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Ргер Туре	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.97 g	5 mL	47512	03/01/23 09:04	MNR	EET MID
Total/NA	Analysis	8021B		50	5 mL	5 mL	47507	03/01/23 19:16	MNR	EET MID
Total/NA	Prep	5035			5.05 g	5 mL	47616	03/02/23 09:28	MNR	EET MID
Total/NA	Analysis	8021B		500	5 mL	5 mL	47603	03/02/23 20:18	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			47623	03/02/23 09:50	SM	EET MID
Total/NA	Analysis	8015 NM		1			47415	02/28/23 10:23	SM	EET MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	47312	02/27/23 12:09	AJ	EET MID
Total/NA	Analysis	8015B NM		10	1 uL	1 uL	47268	02/28/23 04:02	SM	EET MID
Soluble	Leach	DI Leach			4.95 g	50 mL	47518	03/01/23 10:40	KS	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	47637	03/02/23 17:54	CH	EET MID

#### Laboratory References:

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

5 6

9

Accreditation/Certification Summary

Client: Ensolum Project/Site: MCA 95/Maverick

#### Laboratory: Eurofins Midland

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

thority	P	rogram	Identification Number	Expiration Date
as	N	ELAP	T104704400-22-25	06-30-23
the agency does not o	fer certification.	·	ed by the governing authority. This list ma	ay include analytes for t
• •	• •	ut the laboratory is not certif <u>Matrix</u> Solid	ied by the governing authority. This list ma Analyte Total TPH	ay include analytes for

10

Job ID: 890-4183-1

SDG: 03D2057075

Eurofins Carlsbad
### **Method Summary**

Client: Ensolum Project/Site: MCA 95/Maverick Job ID: 890-4183-1 SDG: 03D2057075

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
EPA = US	STM International Environmental Protection Agency		
	'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: = Eurofins Midland, 1211 W. Florida Ave, Midland, TX 79701, TEL (432)704-5440		
	,		

### Laboratory References:

Eurofins Carlsbad

Released to Imaging: 1/10/2024 2:36:57 PM

Client: Ensolum Project/Site: MCA 95/Maverick Job ID: 890-4183-1 SDG: 03D2057075

Page 74 of 174

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-4183-1	SS01	Solid	02/22/23 15:20	02/23/23 14:52	0.5'
890-4183-2	SS02	Solid	02/22/23 15:25	02/23/23 14:52	0.5'

🔅 eurofins	******	Environment Testing Xenco	sting	Hou EL P Hobi	ston, TX (281) 240-4200, Dallas, TX (214) 90 rd, TX (432) 704-5440, San Antonio, TX (210) °aso, TX (915) 585-3443, Lubbock, TX (806) 7 bs, NM (575) 392-7550, Carlsbad, NM (575) 9	( (281) 2 32) 704 (915) 5 575) 39	240-420 -5440, \$ 85-3443 2-7550,	0, Dalla San Anto 3, Lubbo Carlsba	s, TX (2) inio, TX ck, TX (8 d, NM (5	Houston, TX (281) 240-4200. Dallas. TX (214) 902-0300 Midland, TX (432) 704-5440, San Antonio, TX (210) 509-3334 EL Paso, TX (915) 585-3443, Lubbock, TX (806) 794-1296 Hobbs, NM (575) 392-7550, Carlsbad, NM (575) 988-3199	00 33334 296 199			<	Vork	Work Order No:	No:			
				Hob	bs, NM ()	575) 39	2-7550,	Carlsba	d, NM (\$	575) 988-31		1			WWW.	www.xenco.com	com	Page		9
Project Manager: Josh /	Josh Adams			Bill to: (if different)	nt)	a.a.									×	ork Or	der Co	Work Order Comments		
	Ensolum, LLC		_	Company Name:	ie:							Pro	gram:	UST/P	STOF	RP I	Brownf	Program: UST/PST  PRP Brownfields RRC Superfund		dnS
	3122 Nat'l Parks Hwy			Address:								Sta	State of Project:	roject:				1	]	
e ZIP:	Carsibad, NM 88220			City, State ZIP:								Re	porting:	Level		vel III L	J PST/		RP	
	303-517-8437		Email:	jadams@ensolum.com	olum.c	om						De	Deliverables: EDD	S: ED			ADaPT L		Other:	
Project Name:	MCA 95/Maverick	rick	Turn	Turn Around						ANA	ANALYSIS REQUEST	EQUE	15					Preservative Codes	rvative	0
Project Number: 0,3	5020570	5	Routine	Rush	Pres.				_			-			-		-	None: NO	D	DI Water: H ₂ O
	32.817529, -103.787126		Due Date:						_	-		_						Cool: Cool	N	MeOH: Me
	Julianna Falcomata		TAT starts the	TAT starts the day received by						-		-	-	-		_		HCL: HC	2 1	HNO3: HN
PO #:			the lab, if rece	the lab, if received by 4:30pm	ers				_								-	T120U4. T12	7	NAOTI, NA
SAMPLE RECEIPT	Temp Blank:	Res No	Wet Ice:	(res) No	nete	.0)			_								-	H ₃ PO ₄ : HP		
Samples Received Intact:	Més No		rip:	TUN DO-	ram	300.			_									NaHSO4: NABIS	ABIS	
	ō	Correction Factor:	actor:	C.U-	Pa	PA:				890-418	$\omega \equiv$	Chain of Custody	Internet	AL LUN DA				Na ₂ S ₂ O ₃ : NaSO ₃	BO3	
	Yes NO NIA	Temperature Reading:	Reading:	2.2		S (E					1		torout				N	Zn Acetate+NaOH: Zn	NaOH:	Zn
Total Containers:		Corrected Temperature:	emperature:	2.0		RIDE	015)	802							-		T =		JIDIC AL	i c
Sample Identification	lion Matrix	Date Sampled	Time Sampled	Depth Grab/ Comp	/ # of Cont	CHLOP	<b>TPH (8</b>	BTEX										Samp	Sample Comments	nme
1055	5	2-22-23	1520	· S' ()	-	1	1	11				-								
6502	S	2-12-23	525	Sic	-	/	1	1		-		-	+	+						
				+-	+				_	+	+	+								
										-		+-	+	+	-					
									$\downarrow \downarrow$	$\left  \right $		++								
				-																
										-		-		-						
Total 200.7 / 6010 200.8 / 6020:	200.8 / 6020:		BRCRA 13PPM	TCI D / SDI D 6010 BRCRA	1 AI	Sb As Ba	: Ba E	Be B O	Cd Ca	Sb As Ba Be B Cd Ca Cr Co Cu Sb As Ba Be Cd Cr Co Cu Pb N	Cu Fe F	Fe Pb Mg Mn N n Mo Ni Se Ag	Mn Mo e Ag Ti	c₹	K Se	Ag SiO ₂ Hg: 163	O ₂ Na 631/2	_{.g} SiO ₂ Na Sr TI Sn L Hg: 1631/245.1/7470	U V Zr 0 / 7471	Zn 171
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 responses incurred by the client if such losses are due to circumstances beyond the control of service. Eurofins Xenco will be liable only for the cost of samples and shall not assume of the for any losses or expenses incurred by the client if such losses are due to circumstances beyond the control of service. Eurofins Xenco will be enforced unless previously negotiations and shall not assume of the force such assume submitted to Eurofine Xenco but not analyzed. These terms will be enforced unless previously negotiations are submitted to Eurofine Xenco but not analyzed.	ent and relinquishment be liable only for the co	of samples cons st of samples an	stitutes a valid p d shall not assu	urchase order fro me any responsit	m client billty for a	company any loss	y to Euro	ofins Xen penses ir	co, its af icurred b	fillates and the client	subcontracto If such losse ed. These te	ors. It as is are du	signs sta e to circu be enforc	ndard tu mstance ed unles	s previou	ntractors. It assigns standard terms and conditions h losses are due to circumstances beyond the control sese terms will be enforced unless previously negotiated.	ns trol tiated.			
Beinhikshed by: /Sign	datura)	Receiver	Received by: (Signature)	lure)	-	Date	Date/Time		Reli	Relinguished by:	by: (Sign	(Signature)	_	Rec	eived	Received by: (Signature)	Inature	(6	Da	Date/Time
A Non Allen Allen Allen	And	INCOMPANY	2 v) · (vigi.u							-			+							
ANNON A	ALL AL	ve ~ x	pla 5	lig	P	2-23-2	23	142	13				+							
S M					-															1

3/3/2023

Page 75 of 174

5

### Login Sample Receipt Checklist

Client: Ensolum

### Login Number: 4183 List Number: 1 Creator: Stutzman, Amanda

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

### Job Number: 890-4183-1 SDG Number: 03D2057075

List Source: Eurofins Carlsbad

Eurofins Carlsbad Released to Imaging: 1/10/2024 2:36:57 PM

Job Number: 890-4183-1 SDG Number: 03D2057075

List Source: Eurofins Midland

List Creation: 02/27/23 08:59 AM

### Login Sample Receipt Checklist

Client: Ensolum

Login Number: 4183 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: 10/17/2023 1:24:32 PM



**Environment Testing** 

# **ANALYTICAL REPORT**

## PREPARED FOR

Attn: Josh Adams Ensolum 601 N. Marienfeld St. Suite 400 Midland, Texas 79701 Generated 3/7/2023 1:12:54 PM

## JOB DESCRIPTION

MCA 95/Maverick SDG NUMBER 03D2057075

### **JOB NUMBER**

890-4184-1



Eurofins Carlsbad 1089 N Canal St. Carlsbad NM 88220



Received by OCD: 10/17/2023 1:24:32 PM

### **Eurofins Carlsbad**

Job Notes

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

### Authorization

RAMER

Generated 3/7/2023 1:12:54 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

Page 80 of 174

# **Table of Contents**

Cover Page	1
Table of Contents	3
Definitions/Glossary	4
	5
Client Sample Results	6
Surrogate Summary	7
QC Sample Results	8
QC Association Summary	13
Lab Chronicle	15
Certification Summary	16
Method Summary	17
Sample Summary	18
Chain of Custody	19
Receipt Checklists	20

ervea by OC	D: 10/17/2023 1:24:32 PM	Page 81 of J	<i>U</i> /
	Definitions/Glossary		
Client: Ensolu		Job ID: 890-4184-1	i
Project/Site: N	/ICA 95/Maverick	SDG: 03D2057075	
Qualifiers			
GC VOA			ł
Qualifier	Qualifier Description		
*+	LCS and/or LCSD is outside acceptance limits, high biased.		ĥ
F1	MS and/or MSD recovery exceeds control limits.		
F2	MS/MSD RPD exceeds control limits		
U	Indicates the analyte was analyzed for but not detected.		
GC Semi VOA	A		
Qualifier	Qualifier Description		
S1+	Surrogate recovery exceeds control limits, high biased.		
U	Indicates the analyte was analyzed for but not detected.		
HPLC/IC			
Qualifier	Qualifier Description		
U	Indicates the analyte was analyzed for but not detected.		
Glossary			
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		
	Colony Forming Unit		

RERRelative Error Ratio (Radiochemistry)RLReporting Limit or Requested Limit (Radiochemistry)

CNF

DER

DL

DLC

EDL

LOD

LOQ MCL

MDA

MDC

MDL

MPN

MQL

NC

ND

NEG

POS

PQL PRES

QC

ML

Dil Fac

DL, RA, RE, IN

- RPD Relative Percent Difference, a measure of the relative difference between two points
- TEF Toxicity Equivalent Factor (Dioxin)

Contains No Free Liquid

Detection Limit (DoD/DOE)

Estimated Detection Limit (Dioxin)

Limit of Detection (DoD/DOE) Limit of Quantitation (DoD/DOE)

Method Detection Limit

Minimum Level (Dioxin)

Most Probable Number

Not Calculated

Negative / Absent Positive / Present

Presumptive Quality Control

Method Quantitation Limit

Practical Quantitation Limit

**Dilution Factor** 

Duplicate Error Ratio (normalized absolute difference)

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)

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

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

### **Case Narrative**

Client: Ensolum Project/Site: MCA 95/Maverick Job ID: 890-4184-1 SDG: 03D2057075

### Job ID: 890-4184-1

### Laboratory: Eurofins Carlsbad

#### Narrative

Job Narrative 890-4184-1

#### Receipt

The sample was received on 2/23/2023 2:52 PM. Unless otherwise noted below, the sample arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 2.0°C

### **Receipt Exceptions**

The following sample was received and analyzed from an unpreserved bulk soil jar: SS03 (890-4184-1).

#### 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 880-47298 and analytical batch 880-47263 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: 890-4184-1 SDG: 03D2057075

### **Client Sample ID: SS03**

Project/Site: MCA 95/Maverick

Date Collected: 02/22/23 15:30 Date Received: 02/23/23 14:52

Sample Depth: 0.5'

Client: Ensolum

Chloride

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		02/28/23 10:10	03/01/23 18:20	1
Toluene	<0.00200	U	0.00200	mg/Kg		02/28/23 10:10	03/01/23 18:20	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		02/28/23 10:10	03/01/23 18:20	1
m-Xylene & p-Xylene	<0.00399	U	0.00399	mg/Kg		02/28/23 10:10	03/01/23 18:20	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		02/28/23 10:10	03/01/23 18:20	1
Xylenes, Total	<0.00399	U	0.00399	mg/Kg		02/28/23 10:10	03/01/23 18:20	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	130		70 - 130			02/28/23 10:10	03/01/23 18:20	1
1,4-Difluorobenzene (Surr)	99		70 - 130			02/28/23 10:10	03/01/23 18:20	1
Method: TAL SOP Total BTEX - T	otal BTEX Calo	culation						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	< 0.00399	U	0.00399	mg/Kg			03/07/23 13:34	1
Analyte Total TPH	<del>Result</del> <49.9	Qualifier U		<mark>Unit</mark> mg/Kg	D	Prepared	Analyzed 02/28/23 11:34	Dil Fac 1
Method: SW846 8015B NM - Dies	sel Range Orga	nics (DRO)	(GC)					
Analyte		Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9	mg/Kg		02/27/23 10:15	02/28/23 04:58	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9	mg/Kg		02/27/23 10:15	02/28/23 04:58	1
Oll Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg		02/27/23 10:15	02/28/23 04:58	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	89		70 - 130			02/27/23 10:15	02/28/23 04:58	1
	99		70 - 130			02/27/23 10:15	02/28/23 04:58	
o-Terphenyl	33							1
		ohy - Solubl	e					1
o- <i>Terphenyl</i> Method: EPA 300.0 - Anions, Ion Analyte	Chromatograp	o <mark>hy - Solubl</mark> Qualifier	e RL	Unit	D	Prepared	Analyzed	1 Dil Fac

5.05

mg/Kg

<5.05 U

02/28/23 15:53

1

Matrix: Solid

3/7/2023

Lab Sample ID: 890-4184-1

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

### Matrix: Solid

				Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	BFB1 (70-130)	DFBZ1 (70-130)		
880-25235-A-57-A MS	Matrix Spike	101	92		
880-25235-A-57-B MSD	Matrix Spike Duplicate	92	91		
890-4184-1	SS03	130	99		
LCS 880-47407/1-A	Lab Control Sample	116	113		
LCSD 880-47407/2-A	Lab Control Sample Dup	115	94		
MB 880-47406/5-A	Method Blank	71	98		
MB 880-47407/5-A	Method Blank	77	87		
Surrogate Legend					

BFB = 4-Bromofluorobenzene (Surr)

DFBZ = 1,4-Difluorobenzene (Surr)

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

### Matrix: Solid

				Percent Surrogate Recovery (Acceptance Limits)
		1CO1	OTPH1	
Sample ID	Client Sample ID	(70-130)	(70-130)	
174-A-1-B MS	Matrix Spike	90	94	
174-A-1-C MSD	Matrix Spike Duplicate	90	94	
84-1	SS03	89	99	
0-47298/2-A	Lab Control Sample	79	94	
880-47298/3-A	Lab Control Sample Dup	78	96	
80-47298/1-A	Method Blank	145 S1+	166 S1+	

#### Surrogate Legend

1CO = 1-Chlorooctane

OTPH = o-Terphenyl

Job ID: 890-4184-1 SDG: 03D2057075

Prep Type: Total/NA

Page 84 of 174

Eurofins Carlsbad

### **QC Sample Results**

Client: Ensolum Project/Site: MCA 95/Maverick

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

Lab Sample ID: MB 880-47406/5-A Matrix: Solid										Client Sa	mple ID: Metho Prep Type:	Total/NA
Analysis Batch: 47466											Prep Batc	h: 47406
Australia			MB			11		_			A	
Analyte	<0.00		Qualifier	RL 		Unit	· ~	D		repared	Analyzed 02/28/23 18:07	Dil Fac
Benzene Toluene	<0.00			0.00200		mg/K	-			8/23 10:00 8/23 10:00	02/28/23 18:07	1 1
						mg/K	-					
	<0.00			0.00200		mg/K				8/23 10:00	02/28/23 18:07	1
m-Xylene & p-Xylene	< 0.00			0.00400		mg/K	-			8/23 10:00	02/28/23 18:07	1
o-Xylene	< 0.00			0.00200		mg/K	-			8/23 10:00	02/28/23 18:07	1
Xylenes, Total	<0.00	0400	0	0.00400		mg/K	.g		02/2	8/23 10:00	02/28/23 18:07	1
		ΜВ	МВ									
Surrogate	%Reco	very	Qualifier	Limits					Р	repared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)		71		70 - 130					02/2	8/23 10:00	02/28/23 18:07	1
1,4-Difluorobenzene (Surr)		98		70 - 130					02/2	8/23 10:00	02/28/23 18:07	1
Lab Sample ID: MB 880-47407/5-A Matrix: Solid Analysis Batch: 47466										Client Sa	mple ID: Metho Prep Type: Prep Batc	Total/NA
		мв	МВ								Trop Date	
Analyte	Re	sult	Qualifier	RL		Unit		D	Р	repared	Analyzed	Dil Fac
Benzene	<0.00	0200	U	0.00200		mg/K	ģ	_	02/2	8/23 09:06	03/01/23 08:16	1
Toluene	<0.00	0200	U	0.00200		mg/K	-		02/2	8/23 09:06	03/01/23 08:16	1
Ethylbenzene	<0.00	0200	U	0.00200		mg/K	-		02/2	8/23 09:06	03/01/23 08:16	1
m-Xylene & p-Xylene	<0.00	0400	U	0.00400		mg/K			02/2	8/23 09:06	03/01/23 08:16	1
o-Xylene	<0.00			0.00200		mg/K	-			8/23 09:06	03/01/23 08:16	1
Xylenes, Total	<0.00			0.00400		mg/K	-			8/23 09:06	03/01/23 08:16	1
, ·			МВ			5	5					
Surrogate	%Reco	very	Qualifier	Limits					Ρ	repared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)		77		70 - 130					02/2	8/23 09:06	03/01/23 08:16	1
1,4-Difluorobenzene (Surr)		87		70 - 130					02/2	8/23 09:06	03/01/23 08:16	1
 Lab Sample ID: LCS 880-47407/1-A								0	liont	Sample I	D: Lab Control	Samplo
Matrix: Solid								Ŭ	incine	oumpier	Prep Type:	
Analysis Batch: 47466											Prep Batc	
				Spike	LCS	LCS					%Rec	
Analyte				Added	Result	Qualifier	Unit		D	%Rec	Limits	
Benzene				0.100	0.1299		mg/Kg			130	70 - 130	
Toluene				0.100	0.1134		mg/Kg			113	70 - 130	
Ethylbenzene				0.100	0.1103		mg/Kg			110	70 - 130	
m-Xylene & p-Xylene				0.200	0.2222		mg/Kg			111	70 - 130	
o-Xylene				0.100	0.1182		mg/Kg			118	70 - 130	
Surrogato	LCS Recovery		lifior	Limits								
		Quai	mer	70 - 130								
4-Bromofluorobenzene (Surr) 1,4-Difluorobenzene (Surr)	116 113			70 - 130 70 - 130								
	115			70 - 750								
Lab Sample ID: LCSD 880-47407/2- Matrix: Solid Analysis Batch: 47466	A						Cli	ent	Sam	ple ID: La	ab Control San Prep Type: Prep Batc	Total/NA
				Spike	LCSD	LCSD					%Rec	RPD
Analyte				Added	Result	Qualifier	Unit		D	%Rec	Limits RP	D Limit

5

7

Job ID: 890-4184-1 SDG: 03D2057075

Benzene

0.100

0.1307 *+

mg/Kg

131

70 - 130

1

Eurofins Carlsbad

### **QC Sample Results**

Client: Ensolum Project/Site: MCA 95/Maverick Job ID: 890-4184-1 SDG: 03D2057075

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

Lab Sample ID: LCSD 880-474 Matrix: Solid Analysis Batch: 47466	07/2-A					Clie	nt Sarr	ple ID:		I Sampl Type: To Batch:	tal/NA
			Spike	LCSD	LCSD				%Rec		RPD
Analyte			Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Toluene			0.100	0.1225		mg/Kg		123	70 - 130	8	35
Ethylbenzene			0.100	0.1184		mg/Kg		118	70 - 130	7	35
m-Xylene & p-Xylene			0.200	0.2364		mg/Kg		118	70 - 130	6	35
o-Xylene			0.100	0.1265		mg/Kg		127	70 - 130	7	35
	LCSD	LCSD									
Surrogate	%Recovery	Qualifier	Limits								
4-Bromofluorobenzene (Surr)	115		70 - 130								

70 - 130

1,4-Difluorobenzene (Surr) _	94
Lab Sample ID: 880-25235-A-57-A MS	

#### Matrix: Solid alveie Batch . .....

Analysis Batch: 47466									Prep B	atch: 47407
	Sample	Sample	Spike	MS	MS				%Rec	
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Benzene	<0.00201	U *+ F1 F2	0.100	0.05538	F1	mg/Kg		55	70 - 130	
Toluene	<0.00201		0.100	0.05165	F1	mg/Kg		51	70 - 130	
Ethylbenzene	<0.00201	U F1 F2	0.100	0.04858	F1	mg/Kg		48	70 - 130	
m-Xylene & p-Xylene	<0.00402	U F1	0.201	0.1032	F1	mg/Kg		51	70 - 130	
o-Xylene	<0.00201	U F1 F2	0.100	0.05892	F1	mg/Kg		59	70 - 130	

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

### Lab Sample ID: 880-25235-A-57-B MSD Matrix: Solid

### Analysis Batch: 47466

Analysis Datch. 4/400									гіер	Datch.	4/40/
	Sample	Sample	Spike	MSD	MSD				%Rec		RPD
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Benzene	<0.00201	U *+ F1	0.0990	0.03508	F1 F2	mg/Kg		35	70 - 130	45	35
		F2									
Toluene	<0.00201	U F1 F2	0.0990	0.03284	F1 F2	mg/Kg		33	70 - 130	45	35
Ethylbenzene	<0.00201	U F1 F2	0.0990	0.03140	F1 F2	mg/Kg		32	70 - 130	43	35
m-Xylene & p-Xylene	<0.00402	U F1	0.198	0.07209	F1	mg/Kg		36	70 - 130	35	35
o-Xylene	<0.00201	U F1 F2	0.0990	0.03917	F1 F2	mg/Kg		40	70 - 130	40	35
	MSD	MSD									

	MSD M	SD	
Surrogate	%Recovery Q	ualifier	Limits
4-Bromofluorobenzene (Surr)	92		70 - 130
1,4-Difluorobenzene (Surr)	91		70 - 130

### Client Sample ID: Matrix Spike D

le ID: Matrix Spik	e Duplicate
Ргер Тур	e: Total/NA
Prep Ba	atch: 47407
% Boo	000

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Lab Sample ID: MB 880-47298/1-A

### **QC Sample Results**

RL

50.0

50.0

50.0

Limits

70 - 130

70 - 130

Client: Ensolum Project/Site: MCA 95/Maverick

Matrix: Solid

(GRO)-C6-C10

Analyte

C10-C28)

Surrogate

o-Terphenyl

1-Chlorooctane

Matrix: Solid

Analysis Batch: 47263

Analysis Batch: 47263

Gasoline Range Organics

Diesel Range Organics (Over

Oll Range Organics (Over C28-C36)

Lab Sample ID: LCS 880-47298/2-A

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

MB MB Result Qualifier

<50.0 U

<50.0 U

<50.0 U MB MB

%Recovery Qualifier

145 S1+

166 S1+

			Job ID: 890 SDG: 03D2	
 		Client Sa	mple ID: Metho Prep Type: 1 Prep Batch	otal/NA
Unit	D	Prepared	Analyzed	Dil Fac
 mg/Kg		02/27/23 10:15	02/27/23 20:00	1
mg/Kg		02/27/23 10:15	02/27/23 20:00	1
mg/Kg		02/27/23 10:15	02/27/23 20:00	1
		Prepared	Analyzed	Dil Fac
		02/27/23 10:15	02/27/23 20:00	1
		02/27/23 10:15	02/27/23 20:00	1
	С	lient Sample I	D: Lab Control Prep Type: 1 Prep Batch	otal/NA
			%Rec	

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

Prep Type: Total/NA

**Client Sample ID: Matrix Spike** 

**Prep Type: Total/NA** 

-	Spike	LCS	LCS				%Rec	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Gasoline Range Organics (GRO)-C6-C10	1000	862.0		mg/Kg		86	70 - 130	
Diesel Range Organics (Over C10-C28)	1000	942.0		mg/Kg		94	70 - 130	

	LCS	LCS	
Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane	79		70 - 130
o-Terphenyl	94		70 - 130

### Lab Sample ID: LCSD 880-47298/3-A

### Matrix: Solid

Analysis Batch: 47263							Prep	Batch:	47298
	Spike	LCSD	LCSD				%Rec		RPD
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Gasoline Range Organics	1000	886.3		mg/Kg		89	70 - 130	3	20
(GRO)-C6-C10									
Diesel Range Organics (Over	1000	1022		mg/Kg		102	70 - 130	8	20
C10-C28)									

	LCSD	LCSD	
Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane	78		70 - 130
o-Terphenyl	96		70 - 130

### Lab Sample ID: 890-4174-A-1-B MS Matrix: Solid Analysis Batch: 47263

Analysis Batch: 47263									Prep	Batch: 47298
	Sample	Sample	Spike	MS	MS				%Rec	
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Gasoline Range Organics	<49.9	U	997	842.5		mg/Kg		83	70 - 130	
(GRO)-C6-C10										
Diesel Range Organics (Over	<49.9	U	997	968.5		mg/Kg		95	70 - 130	
C10-C28)										

**Eurofins Carlsbad** 

Lab Sample ID: 890-4174-A-1-B MS

Lab Sample ID: 890-4174-A-1-C MSD

### **QC Sample Results**

Limits

70 - 130

70 - 130

Spike

Added

999

999

Limits

70 - 130

MSD MSD

881.4

966.4

Result Qualifier

Unit

mg/Kg

mg/Kg

Matrix: Solid

Surrogate

o-Terphenyl

Analyte

C10-C28)

Surrogate

o-Terphenyl

1-Chlorooctane

1-Chlorooctane

Matrix: Solid

(GRO)-C6-C10

Analysis Batch: 47263

Analysis Batch: 47263

Gasoline Range Organics

Diesel Range Organics (Over

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

MS MS

%Recovery Qualifier

90

94

Sample Sample

<49.9 U

<49.9 U

MSD MSD

Qualifier

Result Qualifier

### Page 88 of 174

### Job ID: 890-4184-1 SDG: 03D2057075

Prep Type: Total/NA

Prep Batch: 47298

**Client Sample ID: Matrix Spike** 

5

ð		ype: Tot Batch:			
9	RPD		%Rec		
	Limit	RPD	Limits	%Rec	<u>D</u>
	20	5	70 - 130	86	
	20	0	70 - 130	95	
1:					
1					

### 70 - 130 94 Method: 300.0 - Anions, Ion Chromatography

90

%Recovery

Lab Sample ID: MB 880-47347/1-A										Client S	ample ID:		
Matrix: Solid											Prep	Type: S	oluble
Analysis Batch: 47423													
		MB											
Analyte		Qualifier		RL		Unit		D	Pr	epared	Analyz		Dil Fac
Chloride	<5.00	U		5.00		mg/Kg					02/28/23	13:50	1
Lab Sample ID: LCS 880-47347/2-A								Clie	ent	Sample	ID: Lab Co	ontrol S	ample
Matrix: Solid											Prep	Type: S	oluble
Analysis Batch: 47423													
-			Spike	LC	S LCS	5					%Rec		
Analyte			Added	Resu	lt Qua	alifier	Unit		D	%Rec	Limits		
Chloride			250	225	2		mg/Kg			90	90 - 110		
Lab Sample ID: LCSD 880-47347/3-A							Cli	ent S	am	ple ID: I	Lab Contro	I Samp	le Dup
Lab Sample ID: LCSD 880-47347/3-A Matrix: Solid							Cli	ent S	am	ple ID: I			
-							Cli	ent S	am	ple ID: I		ol Samp Type: S	
Matrix: Solid			Spike	LCS	D LCS	SD.	Cli	ent S	am	ple ID: I			
Matrix: Solid			Spike Added		D LCS		Cli Unit		am D	ple ID: I %Rec	Prep		oluble
Matrix: Solid Analysis Batch: 47423 Analyte			•		lt Qua						Prep %Rec	Type: S	oluble RPD
Matrix: Solid Analysis Batch: 47423 Analyte Chloride			Added	Resu	lt Qua		Unit			% <b>Rec</b> 92	Prep %Rec Limits 90 - 110	Type: S	Oluble RPD Limit 20
Matrix: Solid Analysis Batch: 47423 Analyte			Added	Resu	lt Qua		Unit			% <b>Rec</b> 92	Prep %Rec Limits 90 - 110 Sample ID	Type: S <u>RPD</u> 2 : Matrix	oluble RPD Limit 20 Spike
Matrix: Solid Analysis Batch: 47423 Analyte Chloride Lab Sample ID: 890-4182-A-6-E MS Matrix: Solid			Added	Resu	lt Qua		Unit			% <b>Rec</b> 92	Prep %Rec Limits 90 - 110 Sample ID	Type: S	oluble RPD Limit 20 Spike
Matrix: Solid Analysis Batch: 47423 Analyte Chloride Lab Sample ID: 890-4182-A-6-E MS Matrix: Solid Analysis Batch: 47423	mple San	nple	Added	Resu	It Qua		Unit			% <b>Rec</b> 92	Prep %Rec Limits 90 - 110 Sample ID	Type: S <u>RPD</u> 2 : Matrix	oluble RPD Limit 20 Spike
Matrix: Solid Analysis Batch: 47423 Analyte Chloride Lab Sample ID: 890-4182-A-6-E MS Matrix: Solid Analysis Batch: 47423	mple San esult Qua	•	Added 250	Resu 229	It Qua	alifier	Unit			% <b>Rec</b> 92	Prep %Rec Limits 90 - 110 Sample ID Prep	Type: S <u>RPD</u> 2 : Matrix	oluble RPD Limit 20 Spike

**Eurofins Carlsbad** 

Released to Imaging: 1/10/2024 2:36:57 PM

### **QC Sample Results**

Client: Ensolum Project/Site: MCA 95/Maverick Job ID: 890-4184-1 SDG: 03D2057075

### Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: 890-4182-A Matrix: Solid Analysis Batch: 47423	A-6-F MSD					CI	ient Sa	ample ID	D: Matrix Sj Prep	pike Dup Type: S		4
	-	Sample	Spike		MSD				%Rec		RPD	5
Analyte		Qualifier	Added		Qualifier	Unit	D	%Rec	Limits	RPD	Limit	
Chloride	14.4		249	249.2		mg/Kg		94	90 - 110	0	20	
												7
												8
												9
												1

Eurofins Carlsbad

Released to Imaging: 1/10/2024 2:36:57 PM

Client: Ensolum Project/Site: MCA 95/Maverick

Job ID: 890-4184-1 SDG: 03D2057075

### GC VOA

### Prep Batch: 47406

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 880-47406/5-A	Method Blank	Total/NA	Solid	5035	
ep Batch: 47407					
_ab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batcl
890-4184-1	SS03	Total/NA	Solid	5035	
MB 880-47407/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-47407/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-47407/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
880-25235-A-57-A MS	Matrix Spike	Total/NA	Solid	5035	
380-25235-A-57-B MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	
Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batc
390-4184-1	SS03	Total/NA	Solid	8021B	4740
MB 880-47406/5-A	Method Blank	Total/NA	Solid	8021B	4740
MB 880-47407/5-A	Method Blank	Total/NA	Solid	8021B	4740
LCS 880-47407/1-A	Lab Control Sample	Total/NA	Solid	8021B	4740
LCSD 880-47407/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	4740
				00045	17.10
	Matrix Spike	Total/NA	Solid	8021B	4740
880-25235-A-57-A MS	Matrix Spike Matrix Spike Duplicate	Total/NA Total/NA	Solid Solid	8021B 8021B	
880-25235-A-57-A MS 880-25235-A-57-B MSD					
880-25235-A-57-A MS 880-25235-A-57-B MSD malysis Batch: 48040 Lab Sample ID					47407 47407 Prep Batch

### GC Semi VOA

### Analysis Batch: 47263

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4184-1	SS03	Total/NA	Solid	8015B NM	47298
MB 880-47298/1-A	Method Blank	Total/NA	Solid	8015B NM	47298
LCS 880-47298/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	47298
LCSD 880-47298/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	47298
890-4174-A-1-B MS	Matrix Spike	Total/NA	Solid	8015B NM	47298
890-4174-A-1-C MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	47298

Prep Batch: 47298

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4184-1	SS03	Total/NA	Solid	8015NM Prep	
MB 880-47298/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-47298/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-47298/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
890-4174-A-1-B MS	Matrix Spike	Total/NA	Solid	8015NM Prep	
890-4174-A-1-C MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4184-1	SS03	Total/NA	Solid	8015 NM	

### **QC** Association Summary

Client: Ensolum Project/Site: MCA 95/Maverick

HPLC/IC

### Leach Batch: 47347

Lab Sample ID	Client Sample ID	Ргер Туре	Matrix	Method	Prep Batch
890-4184-1	SS03	Soluble	Solid	DI Leach	
MB 880-47347/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-47347/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-47347/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
890-4182-A-6-E MS	Matrix Spike	Soluble	Solid	DI Leach	
890-4182-A-6-F MSD	Matrix Spike Duplicate	Soluble	Solid	DI Leach	
nalysis Batch: 47423					
Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4184-1	SS03	Soluble	Solid	300.0	47347
MB 880-47347/1-A	Method Blank	Soluble	Solid	300.0	47347
LCS 880-47347/2-A	Lab Control Sample	Soluble	Solid	300.0	47347
LCSD 880-47347/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	47347
890-4182-A-6-E MS	Matrix Spike	Soluble	Solid	300.0	47347
890-4182-A-6-F MSD	Matrix Spike Duplicate	Soluble	Solid	300.0	47347

Lab Sample ID	Client Sample ID	Ргер Туре	Matrix	Method	Prep Batch
890-4184-1	SS03	Soluble	Solid	300.0	47347
MB 880-47347/1-A	Method Blank	Soluble	Solid	300.0	47347
LCS 880-47347/2-A	Lab Control Sample	Soluble	Solid	300.0	47347
LCSD 880-47347/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	47347
890-4182-A-6-E MS	Matrix Spike	Soluble	Solid	300.0	47347
890-4182-A-6-F MSD	Matrix Spike Duplicate	Soluble	Solid	300.0	47347

Eurofins Carlsbad

### Job ID: 890-4184-1 SDG: 03D2057075

Job ID: 890-4184-1 SDG: 03D2057075

### Lab Sample ID: 890-4184-1

Matrix: Solid

### Client Sample ID: SS03 Date Collected: 02/22/23 15:30 Date Received: 02/23/23 14:52

Project/Site: MCA 95/Maverick

Client: Ensolum

	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	47407	02/28/23 10:10	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	47466	03/01/23 18:20	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			48040	03/07/23 13:34	AJ	EET MID
Total/NA	Analysis	8015 NM		1			47428	02/28/23 11:34	SM	EET MID
Total/NA	Prep	8015NM Prep			10.03 g	10 mL	47298	02/27/23 10:15	AJ	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	47263	02/28/23 04:58	SM	EET MID
Soluble	Leach	DI Leach			4.95 g	50 mL	47347	02/27/23 15:44	KS	EET MID
Soluble	Analysis	300.0		1			47423	02/28/23 15:53	СН	EET MID

#### Laboratory References:

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

Eurofins Carlsbad

Released to Imaging: 1/10/2024 2:36:57 PM

Accreditation/Certification Summary

Client: Ensolum Project/Site: MCA 95/Maverick

### Laboratory: Eurofins Midland

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

thority	Pr	ogram	Identification Number	Expiration Date
as	NE	ELAP	T104704400-22-25	06-30-23
the agency does not of	fer certification.	-	ed by the governing authority. This list ma	ay include analytes fo
• •		tt the laboratory is not certif <u>Matrix</u> Solid	ed by the governing authority. This list ma Analyte Total TPH	ay include analytes fo

10

Job ID: 890-4184-1

SDG: 03D2057075

Eurofins Carlsbad

### **Method Summary**

Client: Ensolum Project/Site: MCA 95/Maverick Job ID: 890-4184-1 SDG: 03D2057075

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	erences:		
ASTM = A	STM International		
EPA = US	Environmental Protection Agency		
SW846 =	"Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Ec	lition, 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:

Eurofins Carlsbad

### **Sample Summary**

Client: Ensolum Project/Site: MCA 95/Maverick Job ID: 890-4184-1 SDG: 03D2057075

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth	
890-4184-1	SS03	Solid	02/22/23 15:30	02/23/23 14:52	0.5'	4
						5
						8
						9
						12
						13

	Xenco	Xenco		EL Pa Hobb	so, TX (9 s, NM (57	5) 392-75	50, Carlsbad,	Hobbs, NM (575) 392-7550, Carlsbad, NM (575) 988-3199		www.xenco.com Page	of
Project Manager: J	Josh Adams			Bill to: (if different)	a.a	a				Con	
	Ensolum, LLC			Company Name:					Program: UST/PST		RC Superfund
	3122 Nat'l Parks Hwy	WY		Address:					State of Project:		
e ZIP:	Carslbad, NM 88220	20		City, State ZIP:					Reporting: Level II	Reporting: Level II Level III PST/UST TRRP	
	303-517-8437		Email:	Email: jadams@ensolum.com	lum.con				Deliverables: EDD	ADaPT	Other:
Project Name:	MCA 95/Maverick	averick	Turn	Turn Around				ANALYSIS RE	SIS REQUEST	Pres	Preservative Codes
Project Number:	13N10510	3	Routine	🗌 Rush	Pres. Code	-				None: NO	DI Water: H ₂ O
Project Location:	32.817529, -103.787126	03.787126	Due Date:							Cool: Cool	MeOH: Me
Sampler's Name:	Julianna Falcomata	lcomata	TAT starts the	TAT starts the day received by						HCL: HC	HNO3: HN
PO #			the lab, if rece	eived by 4:30pm	ers	-				H ₂ SO ₄ : H ₂	NaOH: Na
SAMPLE RECEIPT	T Temp Blank:	C (res) No	Wet Ice:	(Yes No	mete	0.0)				H ₃ PO ₄ : HP	
Samples Received Intact:		Thermometer ID:	ter ID:	IN-AD-1		300					VABIS
Cooler Custody Seals:	Yes No	-	Factor:	いい		EPA		890-4184 Chain of Custody	ustody	Zn Acetatet NaO	Ta Acatatat NaOH: 7n
Total Containers:	UN Cal	Corrected	Corrected Temperature:	24.01			021		-	NaOH+Asc	NaOH+Ascorbic Acid: SAPC
Sample Identification		Matrix Date Sampled	Time Sampled	Depth Grab/ Comp	# of Cont	CHLOR	BTEX (			Sam	Sample Comments
5503		5 222-73	1550	·51 C	)						
						_					
Circle Method(s) and Metal(s) to be analyzed	d Metal(s) to be an	: nalyzed	2	PM Texas II	CRA S	Sb As Ba	a Be Cd C	TCLP/SPLP 6010: 8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag	Ni Se Ag TI U	Hg: 1631 / 245.1 /	7470 / 7471
Notice: Signature of this do of service. Eurofins Xenco of Eurofins Xenco. A minim	ocument and relinquishn will be liable only for th num charge of \$5.00 wi	nent of samples co e cost of samples II be applied to eac	nstitutes a valid p and shall not assu h project and a ch	urchase order from me any responsibil large of \$5 for each	client con ity for any sample su	npany to E losses or a lomitted to	urofins Xenco expenses incu Eurofins Xen	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. Eurofins Xenco. A minimum charne of \$15.00 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.	s. It assigns standard ten are due to circumstances ns will be enforced unless	ms and conditions beyond the control previously negotiated.	
Relinquished by:	(Signatuse)	Receiv	Received by: (Signature)	lure)		Date/Time	e	Relinquished by: (Signature)	iture) Rece	Received by: (Signature)	Date/Time
VA	TANK	C LAN	la S	ted-	2.2	3.2	3 11	le le			
3							o +				
	-						-				Revised Date. 08/25/2020 Rev. 2020

### Received by OCD: 10/17/2023 1:24:32 PM

### 3/7/2023

Chain of Custody

Page 96 of 174

### Login Sample Receipt Checklist

Client: Ensolum

### Login Number: 4184 List Number: 1 Creator: Stutzman, Amanda

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

List Source: Eurofins Carlsbad

Eurofins Carlsbad Released to Imaging: 1/10/2024 2:36:57 PM

14

Job Number: 890-4184-1 SDG Number: 03D2057075

List Source: Eurofins Midland

List Creation: 02/27/23 08:59 AM

### Login Sample Receipt Checklist

Client: Ensolum

Login Number: 4184 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: 10/17/2023 1:24:32 PM



**Environment Testing** 

# **ANALYTICAL REPORT**

## PREPARED FOR

Attn: Josh Adams Ensolum 601 N. Marienfeld St. Suite 400 Midland, Texas 79701 Generated 3/7/2023 1:12:54 PM

## **JOB DESCRIPTION**

MCA 95/Maverick SDG NUMBER 03D2057075

### **JOB NUMBER**

890-4185-1

D FOR Adams Insolum Infeld St. Uite 400 Inte 400 Inte 400 Inte 400 Inte 400 Inte 400

Eurofins Carlsbad 1089 N Canal St. Carlsbad NM 88220

See page two for job notes and contact information

Received by OCD: 10/17/2023 1:24:32 PM

### **Eurofins Carlsbad**

Job Notes

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

### Authorization

RAMER

Generated 3/7/2023 1:12:54 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

SDG: 03D2057075

Laboratory Job ID: 890-4185-1

# **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	13
Lab Chronicle	15
Certification Summary	16
Method Summary	17
Sample Summary	18
Chain of Custody	19
Receipt Checklists	20

Contains Free Liquid Colony Forming Unit

**Dilution Factor** 

Contains No Free Liquid

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 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

Limit of Quantitation (DoD/DOE)

Duplicate Error Ratio (normalized absolute difference)

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)

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

CFL

CFU CNF

DER

DL

DLC

EDL

LOD

LOQ

MCL

MDA

MDC

MDL

MPN

MQL

NC

ND

NEG

POS

PQL PRES

QC RER

RL

RPD

TEF

TEQ

TNTC

ML

Dil Fac

DL, RA, RE, IN

	Definitions/Glossary		
Client: Ensolu	Im	Job ID: 890-4185-1	
Project/Site: N	MCA 95/Maverick	SDG: 03D2057075	
Qualifiers			
GC VOA			
Qualifier	Qualifier Description		
*+	LCS and/or LCSD is outside acceptance limits, high biased.		
F1	MS and/or MSD recovery exceeds control limits.		
F2	MS/MSD RPD exceeds control limits		
U	Indicates the analyte was analyzed for but not detected.		
GC Semi VO	Α		
Qualifier	Qualifier Description		
S1+	Surrogate recovery exceeds control limits, high biased.		
U	Indicates the analyte was analyzed for but not detected.		
HPLC/IC			
Qualifier	Qualifier Description		
U	Indicates the analyte was analyzed for but not detected.		
Glossary			
Abbreviation	These commonly used abbreviations may or may not be present in this report.		
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis		
%R	Percent Recovery		

4

### **Case Narrative**

Client: Ensolum Project/Site: MCA 95/Maverick Job ID: 890-4185-1 SDG: 03D2057075

### Job ID: 890-4185-1

### Laboratory: Eurofins Carlsbad

#### Narrative

Job Narrative 890-4185-1

#### Receipt

The sample was received on 2/23/2023 2:52 PM. Unless otherwise noted below, the sample arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 2.0°C

### **Receipt Exceptions**

The following sample was received and analyzed from an unpreserved bulk soil jar: SS04 (890-4185-1).

#### 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 880-47299 and analytical batch 880-47265 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.

RL

0.00199

0.00199

0.00199

0.00398

0.00199

Job ID: 890-4185-1 SDG: 03D2057075

### **Client Sample ID: SS04**

Project/Site: MCA 95/Maverick

Date Collected: 02/22/23 15:35 Date Received: 02/23/23 14:52

Sample Depth: 0.5'

Client: Ensolum

Analyte

Benzene

Toluene

o-Xylene

Chloride

Ethylbenzene

m-Xylene & p-Xylene

Lab Sample ID: 890-4185-1

Analyzed

Analyzed

03/01/23 18:45

03/01/23 18:45

02/28/23 16:00

Matrix: Solid

Dil Fac

1

1

1

1

1

1

1

1

Dil Fac

5

Unit D Prepared 02/28/23 10:10 03/01/23 18:45 mg/Kg mg/Kg 02/28/23 10:10 03/01/23 18:45 mg/Kg 02/28/23 10:10 03/01/23 18:45 02/28/23 10:10 03/01/23 18:45 mg/Kg mg/Kg 02/28/23 10:10 03/01/23 18:45 03/01/23 18:45

Xylenes, Total	<0.00398	U	0.00398	mg/Kg	02/28/23 10:10
Surrogate	%Recovery	Qualifier	Limits		Prepared
4-Bromofluorobenzene (Surr)	130		70 - 130		02/28/23 10:10
1,4-Difluorobenzene (Surr)	88		70 - 130		02/28/23 10:10

Result Qualifier

<0.00199 U*+

<0.00199 U

<0.00199 U

<0.00398 U

<0.00199 U

<5.00 U

Method: TAL SOP Total BTEX - 1	Total BTEX Calc	ulation						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398	mg/Kg			03/07/23 13:34	1

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

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9	mg/Kg			02/28/23 12:06	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics	<49.9	U	49.9	mg/Kg		02/27/23 10:18	02/28/23 04:58	1
(GRO)-C6-C10								
Diesel Range Organics (Over	<49.9	U	49.9	mg/Kg		02/27/23 10:18	02/28/23 04:58	1
C10-C28)								
Oll Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg		02/27/23 10:18	02/28/23 04:58	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	84		70 - 130			02/27/23 10:18	02/28/23 04:58	1
o-Terphenyl	104		70 - 130			02/27/23 10:18	02/28/23 04:58	1
	104		70 - 700			02/27/20 10:10	02 20 20 000	,
		ubu Calubl				02/2//20 10:10	0220200	
Method: EPA 300.0 - Anions, Ion Analyte	Chromatograp	o <mark>hy - Solubl</mark> o Qualifier		Unit	D	Prepared	Analyzed	, Dil Fac

5.00

mg/Kg

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

#### Percent Surrogate Recovery (Acceptance Limits) BFB1 DFBZ1 Lab Sample ID **Client Sample ID** (70-130) (70-130) 880-25235-A-57-A MS Matrix Spike 101 92 880-25235-A-57-B MSD Matrix Spike Duplicate 92 91 890-4185-1 SS04 130 88 LCS 880-47407/1-A Lab Control Sample 116 113 LCSD 880-47407/2-A Lab Control Sample Dup 115 94 MB 880-47406/5-A Method Blank 71 98 MB 880-47407/5-A Method Blank 77 87 Surrogate Legend

BFB = 4-Bromofluorobenzene (Surr)

DFBZ = 1,4-Difluorobenzene (Surr)

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

### Matrix: Solid

				Percent Surrogate Recovery (Acceptance Limits)
		1CO1	OTPH1	
Sample ID	Client Sample ID	(70-130)	(70-130)	
185-1	SS04	84	104	
88-A-1-B MS	Matrix Spike	106	127	
88-A-1-C MSD	Matrix Spike Duplicate	108	125	
-47299/2-A	Lab Control Sample	107	129	
80-47299/3-A	Lab Control Sample Dup	93	117	
80-47299/1-A	Method Blank	146 S1+	191 S1+	

#### Surrogate Legend

1CO = 1-Chlorooctane

OTPH = o-Terphenyl

Job ID: 890-4185-1 SDG: 03D2057075

Prep Type: Total/NA

Prep Type: Total/NA

Page 105 of 174

Eurofins Carlsbad

### **QC Sample Results**

Client: Ensolum Project/Site: MCA 95/Maverick

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

Lab Sample ID: MB 880-47406/5-A										Client Sa	mple ID: Meth		
Matrix: Solid											Prep Type:	Tota	I/NA
Analysis Batch: 47466											Prep Bate	:h: 47	7406
		MB	МВ										
Analyte			Qualifier	RL		Un	it	D		repared	Analyzed	Di	il Fac
Benzene	<0.002	200	U	0.00200		mg	g/Kg		02/2	8/23 10:00	02/28/23 18:07		1
Toluene	<0.00	200	U	0.00200		mg	g/Kg		02/2	8/23 10:00	02/28/23 18:07		1
Ethylbenzene	<0.00	200	U	0.00200		mg	g/Kg		02/2	8/23 10:00	02/28/23 18:07		1
m-Xylene & p-Xylene	< 0.004	400	U	0.00400		mg	g/Kg		02/2	8/23 10:00	02/28/23 18:07		1
o-Xylene	<0.00	200	U	0.00200		mg	g/Kg		02/2	8/23 10:00	02/28/23 18:07		1
Xylenes, Total	<0.004	400	U	0.00400		mg	g/Kg		02/2	8/23 10:00	02/28/23 18:07		1
		ΜВ	МВ										
Surrogate	%Recov		Qualifier	Limits						repared	Analyzed	D	il Fac
4-Bromofluorobenzene (Surr)		71		70 - 130					02/2	8/23 10:00	02/28/23 18:07		1
1,4-Difluorobenzene (Surr)		98		70 - 130					02/2	8/23 10:00	02/28/23 18:07		1
Lab Sample ID: MB 880-47407/5-A										Client Sa	mple ID: Meth	od B	lank
Matrix: Solid											Prep Type:	Tota	I/NA
Analysis Batch: 47466											Prep Bate	:h: 47	7407
		MB	MB										
Analyte			Qualifier	RL		Un		<u>D</u>		repared	Analyzed	Di	il Fac
Benzene	<0.002			0.00200		-	g/Kg			8/23 09:06	03/01/23 08:16		1
Toluene	<0.002			0.00200		mg	g/Kg		02/2	8/23 09:06	03/01/23 08:16		1
Ethylbenzene	<0.00	200	U	0.00200		mg	g/Kg		02/2	8/23 09:06	03/01/23 08:16		1
m-Xylene & p-Xylene	<0.004	400	U	0.00400		mg	g/Kg		02/2	8/23 09:06	03/01/23 08:16		1
o-Xylene	<0.00	200	U	0.00200		mg	g/Kg		02/2	8/23 09:06	03/01/23 08:16		1
Xylenes, Total	<0.004	400	U	0.00400		mg	g/Kg		02/2	8/23 09:06	03/01/23 08:16		1
		ΜВ	МВ										
Surrogate	%Recov	very	Qualifier	Limits					Р	repared	Analyzed	D	il Fac
4-Bromofluorobenzene (Surr)		77		70 - 130					02/2	8/23 09:06	03/01/23 08:16		1
1,4-Difluorobenzene (Surr)		87		70 - 130					02/2	8/23 09:06	03/01/23 08:16		1
 Lab Sample ID: LCS 880-47407/1-A								С	lient	Sample	ID: Lab Contro	I San	nple
Matrix: Solid											Prep Type:		
Analysis Batch: 47466											Prep Bate		
				Spike	LCS	LCS					%Rec		
Analyte				Added	Result	Qualifie	r Unit		D	%Rec	Limits		
Benzene				0.100	0.1299		mg/Kg			130	70 - 130		
Toluene				0.100	0.1134		mg/Kg			113	70 - 130		
Ethylbenzene				0.100	0.1103		mg/Kg			110	70 - 130		
m-Xylene & p-Xylene				0.200	0.2222		mg/Kg			111	70 - 130		
o-Xylene				0.100	0.1182		mg/Kg			118	70 - 130		
	LCS	105											
Surrogate %R	ecovery		ifier	Limits									
4-Bromofluorobenzene (Surr)	116			70 - 130									
1,4-Difluorobenzene (Surr)	113			70 - 130									
									~				_
Lab Sample ID: LCSD 880-47407/2-4	4						Cli	ent	Sam	iple ID: La	ab Control Sar		
Matrix: Solid											Prep Type:		
Analysis Batch: 47466											Prep Bate	:h: 47	
				Spike		LCSD					%Rec		RPD
Analyte				Added	Result	Qualifie	r Unit		D	%Rec	Limits RF	<u></u>	Limit

5

7

Job ID: 890-4185-1 SDG: 03D2057075

Eurofins Carlsbad

1

Benzene

0.100

0.1307 *+

mg/Kg

131

70 - 130

### **QC Sample Results**

Client: Ensolum Project/Site: MCA 95/Maverick Job ID: 890-4185-1 SDG: 03D2057075

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

94

Lab Sample ID: LCSD 880-474 Matrix: Solid Analysis Batch: 47466			Clie	nt Sarr	ple ID:		I Sample Type: Tot Batch:	tal/NA			
			Spike	LCSD	LCSD				%Rec		RPD
Analyte			Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Toluene			0.100	0.1225		mg/Kg		123	70 - 130	8	35
Ethylbenzene			0.100	0.1184		mg/Kg		118	70 - 130	7	35
m-Xylene & p-Xylene			0.200	0.2364		mg/Kg		118	70 - 130	6	35
o-Xylene			0.100	0.1265		mg/Kg		127	70 - 130	7	35
	LCSD	LCSD									
Surrogate	%Recovery	Qualifier	Limits								
4-Bromofluorobenzene (Surr)	115		70 - 130								

70 - 130

Lab Sample ID: 880-25235-A-57-A M	5
Matrix: Solid	

### Analysis Batch: 47466

1,4-Difluorobenzene (Surr)

Analysis Batch: 47466									Prep B	atch: 47407
	Sample	Sample	Spike	MS	MS				%Rec	
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Benzene	< 0.00201	U *+ F1	0.100	0.05538	F1	mg/Kg		55	70 - 130	
		F2								
Toluene	<0.00201	U F1 F2	0.100	0.05165	F1	mg/Kg		51	70 - 130	
Ethylbenzene	<0.00201	U F1 F2	0.100	0.04858	F1	mg/Kg		48	70 - 130	
m-Xylene & p-Xylene	<0.00402	U F1	0.201	0.1032	F1	mg/Kg		51	70 - 130	
o-Xylene	<0.00201	U F1 F2	0.100	0.05892	F1	mg/Kg		59	70 - 130	

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

### Lab Sample ID: 880-25235-A-57-B MSD Matrix: Solid

### Analysis Batch: 47466

Analysis Datch. 47400									гіер	Daten.	+/ 40/
	Sample	Sample	Spike	MSD	MSD				%Rec		RPD
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Benzene	<0.00201	U *+ F1	0.0990	0.03508	F1 F2	mg/Kg		35	70 - 130	45	35
		F2									
Toluene	<0.00201	U F1 F2	0.0990	0.03284	F1 F2	mg/Kg		33	70 - 130	45	35
Ethylbenzene	<0.00201	U F1 F2	0.0990	0.03140	F1 F2	mg/Kg		32	70 - 130	43	35
m-Xylene & p-Xylene	<0.00402	U F1	0.198	0.07209	F1	mg/Kg		36	70 - 130	35	35
o-Xylene	<0.00201	U F1 F2	0.0990	0.03917	F1 F2	mg/Kg		40	70 - 130	40	35
	MSD	MSD									

	MSD	MSD	
Surrogate	%Recovery	Qualifier	Limits
4-Bromofluorobenzene (Surr)	92		70 - 130
1,4-Difluorobenzene (Surr)	91		70 - 130

### Client Sample ID: Matrix Spi

ole ID: M	atrix Spike Duplicate	
	Prep Type: Total/NA	
	Prep Batch: 47407	

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Page 107 of 174

Lab Sample ID: MB 880-47299/1-A

### **QC Sample Results**

Client: Ensolum Project/Site: MCA 95/Maverick

Matrix: Solid

(GRO)-C6-C10

Analyte

C10-C28)

Surrogate

o-Terphenyl

Analyte

C10-C28)

Surrogate

o-Terphenyl

1-Chlorooctane

1-Chlorooctane

Matrix: Solid

Analysis Batch: 47265

Gasoline Range Organics (GRO)-C6-C10

Diesel Range Organics (Over

Analysis Batch: 47265

Gasoline Range Organics

Diesel Range Organics (Over

Oll Range Organics (Over C28-C36)

Lab Sample ID: LCS 880-47299/2-A

### Method: 8015B NM - Diesel Range Organics

												SDG: 03[	D2057075	
Ran	ge Org	jani	ics (DR	0) (GC	)									
<b>-A</b>											Client Sa	Imple ID: Meth Prep Type: Prep Bati		4
	N	ИВ	мв									-		5
	Res	ult	Qualifier		RL		Unit		D	Р	repared	Analyzed	Dil Fac	
	<50	0.0	U		50.0		mg/k	ίg	_	02/2	7/23 10:18	02/27/23 20:00	1	
	<50	0.0	U		50.0		mg/k	ζg		02/2	7/23 10:18	02/27/23 20:00	1	7
	<50	0.0	U		50.0		mg/k	ίg		02/2	7/23 10:18	02/27/23 20:00	1	8
	Λ	ИВ	МВ											
	%Recove	ery	Qualifier	Lin	nits					Р	repared	Analyzed	Dil Fac	
	1	46	S1+	70	. 130					02/2	7/23 10:18	02/27/23 20:00	1	
	1	91	S1+	70	130					02/2	7/23 10:18	02/27/23 20:00	1	
2-A									C	lient	Sample	ID: Lab Contro Prep Type: Prep Bat		
				Spike		LCS	LCS					%Rec		
				Added		Result	Qualifier	Unit		D	%Rec	Limits		_
				1000		1170		mg/Kg			117	70 - 130		
				1000		1119		mg/Kg			112	70 - 130		
	LCS L	.cs												
%Re	ecovery G	Quali	fier	Limits										
	107			70 - 130	-									
	129			70 - 130										
9/3-A								CI	ient	Sam	ple ID: L	ab Control Sa	mple Dup	

Lab Sample ID: LCSD 880-47299/3-A
Matrix: Solid

Analysis Batch: 47265							Prep Batch: 47299		
	Spike	LCSD	LCSD				%Rec		RPD
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Gasoline Range Organics	1000	1164		mg/Kg		116	70 - 130	1	20
(GRO)-C6-C10									
Diesel Range Organics (Over	1000	961.4		mg/Kg		96	70 - 130	15	20
C10-C28)									

	LCSD	LCSD	
Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane	93		70 - 130
o-Terphenyl	117		70 - 130

### Lab Sample ID: 890-4188-A-1-B MS Matrix: Solid Analysis Batch: 47265

Analysis Batch: 47265									Prep	Batch: 47299
	Sample	Sample	Spike	MS	MS				%Rec	
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Gasoline Range Organics	<50.0	U	998	907.4		mg/Kg		89	70 - 130	
(GRO)-C6-C10										
Diesel Range Organics (Over	<50.0	U	998	1075		mg/Kg		108	70 - 130	
C10-C28)										

Page 108 of 174

Job ID: 890-4185-1

**Eurofins Carlsbad** 

Prep Type: Total/NA

**Client Sample ID: Matrix Spike** 

**Prep Type: Total/NA**
## **QC Sample Results**

Limits

70 - 130

70 - 130

Spike

Added

997

Lab Sample ID: 890-4188-A-1-B MS

Lab Sample ID: 890-4188-A-1-C MSD

Matrix: Solid

Surrogate

o-Terphenyl

Analyte

1-Chlorooctane

Matrix: Solid

Analysis Batch: 47265

Analysis Batch: 47265

Gasoline Range Organics (GRO)-C6-C10

MS MS

Sample Sample

<50.0 U

Result Qualifier

%Recovery Qualifier

106

127

# **Client Sample ID: Matrix Spike** Prep Type: Total/NA Prep Batch: 47299 7 **Client Sample ID: Matrix Spike Duplicate** Prep Type: Total/NA

						Flehi	ype. io	
						Prep	Batch:	47299
	MSD	MSD				%Rec		RPD
	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
	916.4		mg/Kg		90	70 - 130	1	20
	1071		mg/Kg		107	70 - 130	0	20
-								

Diesel Range Organics (Over	<50.0	U		997		1071		mg/Kg		107	70 - 130	0	20
C10-C28)													
	MSD	MSD	)										
Surrogate	%Recovery	Qual	lifier	Limits									
1-Chlorooctane	108			70 - 130									
o-Terphenyl	125			70 - 130									
Method: 300.0 - Anions, I	on Chromat	ogra	aphy										
Lab Sample ID: MB 880-4734	17/1-A									Client	Sample ID:	Method	l Blank
Matrix: Solid											Prep	Type: S	Soluble
Analysis Batch: 47423													
		MB	MB										
Analyte	R	esult	Qualifier		RL		Unit		D	Prepared	Analy	zed	Dil Fac
Chloride	<	<5.00	U		5.00		mg/k	g			02/28/23	13:50	1
Lab Sample ID: LCS 880-473	47/2-A								Clie	ent Sampl	e ID: Lab C	ontrol	Sample
Matrix: Solid											Prep	Type: S	Soluble
Analysis Batch: 47423													
				Spike		LCS	LCS				%Rec		
Analyte				Added		Result	Qualifier	Unit	I	D %Rec	Limits		
Chloride				250		225.2		mg/Kg		90	90 - 110		
Lab Sample ID: LCSD 880-47	7347/3- <b>A</b>							CI	ient Sa	ample ID:	Lab Contro	ol Samp	ole Dup
Matrix: Solid											Prep	Type: S	Soluble
Analysis Batch: 47423													
				Spike		LCSD	LCSD				%Rec		RPD
Analyte				Added		Result	Qualifier	Unit	I	D %Rec	Limits	RPD	Limit
Chloride				250		229.1		 mg/Kg		92	90 - 110	2	20

#### Lab Sample ID: 890-4182-A-6-E MS **Client Sample ID: Matrix Spike** Matrix: Solid **Prep Type: Soluble** Analysis Batch: 47423 Sample Sample Spike MS MS %Rec Analyte Result Qualifier Added Result Qualifier Unit %Rec Limits D Chloride 14.4 249 250.2 95 90 - 110 mg/Kg

**Eurofins Carlsbad** 

## **QC Sample Results**

Client: Ensolum Project/Site: MCA 95/Maverick Job ID: 890-4185-1 SDG: 03D2057075

### Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: 890-41 Matrix: Solid Analysis Batch: 47423						С	lient Sa	ample II	D: Matrix S Prep	pike Dup Type: S		
Analysis Datch. 47420		Sample	Spike	MSD	MSD				%Rec		RPD	
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit	E
Chloride	14.4		249	249.2		mg/Kg		94	90 - 110	0	20	

Eurofins Carlsbad

Client: Ensolum Project/Site: MCA 95/Maverick Job ID: 890-4185-1

Page 111 of 174

SDG: 03D2057075

#### GC VOA

#### Prep Batch: 47406

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batcl
MB 880-47406/5-A	Method Blank	Total/NA	Solid	5035	
ep Batch: 47407					
_ab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batcl
390-4185-1	SS04	Total/NA	Solid	5035	
MB 880-47407/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-47407/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-47407/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
880-25235-A-57-A MS	Matrix Spike	Total/NA	Solid	5035	
880-25235-A-57-B MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	
890-4185-1	SS04	Total/NA	Solid	8021B	
Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batc
MB 880-47406/5-A	Method Blank	Total/NA	Solid	8021B	4740
MB 880-47407/5-A	Method Blank	Total/NA	Solid	8021B	4740
LCS 880-47407/1-A	Lab Control Sample	Total/NA	Solid	8021B	4740
LCSD 880-47407/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	4740
880-25235-A-57-A MS	Matrix Spike	Total/NA	Solid	8021B	4740
880-25235-A-57-B MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	4740
nalysis Batch: 48041					
	Client Sample ID	Prep Type	Matrix	Method	Prep Batc
Lab Sample ID					

#### GC Semi VOA

#### Analysis Batch: 47265

Lab Sample ID 890-4185-1	Client Sample ID	Prep Type Total/NA	Matrix Solid	Method 8015B NM	Prep Batch 47299
MB 880-47299/1-A	Method Blank	Total/NA	Solid	8015B NM	47299
LCS 880-47299/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	47299
LCSD 880-47299/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	47299
890-4188-A-1-B MS	Matrix Spike	Total/NA	Solid	8015B NM	47299
890-4188-A-1-C MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	47299

Prep Batch: 47299

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4185-1	SS04	Total/NA	Solid	8015NM Prep	
MB 880-47299/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-47299/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-47299/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
890-4188-A-1-B MS	Matrix Spike	Total/NA	Solid	8015NM Prep	
890-4188-A-1-C MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	

Lab Sample ID	Client Sample ID	Ргер Туре	Matrix	Method	Prep Batch
890-4185-1	SS04	Total/NA	Solid	8015 NM	

Client: Ensolum Project/Site: MCA 95/Maverick

#### HPLC/IC

#### Leach Batch: 47347

ab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
90-4185-1	SS04	Soluble	Solid	DI Leach	
/IB 880-47347/1-A	Method Blank	Soluble	Solid	DI Leach	
.CS 880-47347/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
CSD 880-47347/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
890-4182-A-6-E MS	Matrix Spike	Soluble	Solid	DI Leach	
390-4182-A-6-F MSD	Matrix Spike Duplicate	Soluble	Solid	DI Leach	
nalysis Batch: 47423					
ab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
90-4185-1	SS04	Soluble	Solid	300.0	47347
/IB 880-47347/1-A	Method Blank	Soluble	Solid	300.0	47347
CS 880-47347/2-A	Lab Control Sample	Soluble	Solid	300.0	47347
CSD 880-47347/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	47347
390-4182-A-6-E MS	Matrix Spike	Soluble	Solid	300.0	47347
390-4182-A-6-F MSD	Matrix Spike Duplicate	Soluble	Solid	300.0	47347

Lab Sample ID	Client Sample ID	Ргер Туре	Matrix	Method	Prep Batch
890-4185-1	SS04	Soluble	Solid	300.0	47347
MB 880-47347/1-A	Method Blank	Soluble	Solid	300.0	47347
LCS 880-47347/2-A	Lab Control Sample	Soluble	Solid	300.0	47347
LCSD 880-47347/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	47347
890-4182-A-6-E MS	Matrix Spike	Soluble	Solid	300.0	47347
890-4182-A-6-F MSD	Matrix Spike Duplicate	Soluble	Solid	300.0	47347

#### Job ID: 890-4185-1 SDG: 03D2057075

Job ID: 890-4185-1 SDG: 03D2057075

Matrix: Solid

9

Lab Sample ID: 890-4185-1

## Client Sample ID: SS04 Date Collected: 02/22/23 15:35

Project/Site: MCA 95/Maverick

Client: Ensolum

Date Received: 02/23/23 14:52

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.02 g	5 mL	47407	02/28/23 10:10	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	47466	03/01/23 18:45	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			48041	03/07/23 13:34	AJ	EET MID
Total/NA	Analysis	8015 NM		1			47451	02/28/23 12:06	SM	EET MID
Total/NA	Prep	8015NM Prep			10.03 g	10 mL	47299	02/27/23 10:18	AJ	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	47265	02/28/23 04:58	SM	EET MID
Soluble	Leach	DI Leach			5 g	50 mL	47347	02/27/23 15:44	KS	EET MID
Soluble	Analysis	300.0		1			47423	02/28/23 16:00	СН	EET MID

Laboratory References:

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

Eurofins Carlsbad

Released to Imaging: 1/10/2024 2:36:57 PM

#### Laboratory: Eurofins Midland

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

thority		Program	Identification Number	Expiration Date
as		NELAP	T104704400-22-25	06-30-23
The following analytes	are included in this report,	but the laboratory is not certif	ied by the governing authority. This list ma	ay include analytes for v
the agency does not o				
the agency does not of Analysis Method	fer certification. Prep Method	Matrix	Analyte	
0,		Matrix Solid	Analyte Total TPH	

10

Job ID: 890-4185-1

SDG: 03D2057075

Eurofins Carlsbad

## **Method Summary**

Client: Ensolum Project/Site: MCA 95/Maverick Job ID: 890-4185-1 SDG: 03D2057075

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 Edit	on, November 1986 And Its Updates.	
TAL SOP :	<ul> <li>TestAmerica Laboratories, Standard Operating Procedure</li> </ul>		
Laboratory R			
EET MID :	Eurofins Midland, 1211 W. Florida Ave, Midland, TX 79701, TEL (432)704-5440		

#### Laboratory References:

Eurofins Carlsbad

Released to Imaging: 1/10/2024 2:36:57 PM

Client: Ensolum

## **Sample Summary**

Project/Site: MCA 95/Maverick

Job ID: 890-4185-1 SDG: 03D2057075

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth	
890-4185-1	SS04	Solid	02/22/23 15:35	02/23/23 14:52	0.5'	4
						5
						8
						9
						12
						13

		Environment Testing Xenco	sting	Hous EL Pa	Houston, TX (281) 240-4200, Dallas, TX (214) 902-0300 idland, TX (432) 704-5440, San Antonio, TX (210) 509-333 EL Paso, TX (915) 585-3443, Lubbock, TX (806) 794-1290 Hobbe NM (775) 302-7550 Codebed NM (575) 988-3190	4200, Dalias, 10, San Anton 1443, Lubbock	Houston, TX (281) 244-4200, Dallas, TX (214) 902-0000 Midland, TX (432) 704-5440, San Antonio, TX (210) 509-3334 EL Paso, TX (915) 585-3443, Lubbock, TX (806) 794-1296 Hohe NM (575) 302.7550 Carlsbad, NM (575) 988-3199		Work Order No:	der No:	
									www.xe	www.xenco.com rage	lo 1 of
Project Manager:	Josh Adams			Bill to: (if different)	a.a				Worl	Work Order Comments	nts
	Ensolum, LLC			Company Name:				Program:	Program: UST/PST [] PRP ] Brownfields ] RRC ] Superfund ]	Brownfields	RRC Supe
	3122 Nat'l Parks Hwy	Hwy		Address:				State of Project:	^a roject:		
e ZIP:	Carsibad, NM 88220	3220		City, State ZIP:				Reporting	Reporting: Level II CLevel III PST/UST TRRP		
	303-517-8437		Email:	Email: jadams@ensolum.com	um.com			Deliverables: EDD	les: EDD	ADaPT	Other:
Project Name:	MCA 95/	MCA 95/Maverick	Turn	Turn Around			ANALYSIS REQUEST	EQUEST		P	<b>Preservative Codes</b>
Project Number:	NONA	2005	Routine		Pres. Code	_		_		None: NO	NO DI Water: H ₂ O
Project Location:	32.817529,	32.817529, -103.787126	Due Date:							Cool: Cool	ool MeOH: Me
Sampler's Name:	Julianna I	Julianna Falcomata	TAT starts the	TAT starts the day received by						HCL: HC	
PO#			the lab, if recu	eived by 4:30pm	ers					H ₂ SO ₄ : H ₂	H ₂ NaOH: Na
SAMPLE RECEIPT	PT Temp Blank:	ank: (Yes No	Wet Ice:	Yes No	nete					H ₃ PO ₄ : HP	HP
Samples Received Intact:		No Thermometer ID:	er ID:	IN- 20-1						NaHSC	NaHSO4: NABIS
Cooler Custody Seals:	S: Yes No	NHA Correction Factor:	-actor:	C. C.		_			_	Na222	Na22203: Na203
Sample Custody Seals:	Is: Yes No	N/A Temperature Reading:	e Reading:				890-4185 Chain of Cus	(mainer)		Zn Ace	Zn Acetate+NaOH: Zn
Sample Identification		Matrix Date	Time	Depth Grab/	Cont HLORI	TEX (8				ŝ	Sample Comments
5504		5 9-17-23	1525		4	1					
		_									
Circle Method(s) and Metal(s) to be analyzed	10 200.8 / 6020:		BRCRA 13PPM	CRA 13PPM Texas 11 AI	AI Sb As Ba	Be B Cd	Ca Cr Co Cu Fe Cr Co Cu Pb Mn	Pb Mg Mn Mo Ni Mo Ni Se Ag Ti U	K Se /	SiO ₂ Na Sr Ti 1: 1631 / 245.1 /	I Sn U V Zn 7470 / 7471
Notice: Signature of this document a of service. Eurofins Xenco will be lia of Eurofins Xenco. A minimum chard	o will be liable only for	shment of samples con the cost of samples all will be applied to each	stitutes a valid p nd shall not assu	urchase order from Ime any responsibility Name of \$5 for each	client company to E ty for any losses or sample submitted to	urofins Xenco expenses incu o Eurofins Xen		rs. It assigns st s are due to circi ms will be enfor	andard terms and cor ımstances beyond the æd unless previously	iditions control negotiated.	
Relinquished by	Mstightatural A	Receive	Received by: (Signature)	ture)	Date/Time	ē	Relinquished by: (Signature)	ature)	Received by: (Signature)	(Signature)	Date/Time
NOV	A AN	Marca	plas	tist	2.23.23	E3/11 3	7				
3	-					4 10					

12 13

o----j

### Login Sample Receipt Checklist

Client: Ensolum

#### Login Number: 4185 List Number: 1 Creator: Stutzman, Amanda

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

Job Number: 890-4185-1 SDG Number: 03D2057075

List Source: Eurofins Carlsbad

Job Number: 890-4185-1 SDG Number: 03D2057075

List Source: Eurofins Midland

List Creation: 02/27/23 08:59 AM

## Login Sample Receipt Checklist

Client: Ensolum

Login Number: 4185 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").

14



**Environment Testing** 

# **ANALYTICAL REPORT**

# PREPARED FOR

Attn: Josh Adams Ensolum 601 N. Marienfeld St. Suite 400 Midland, Texas 79701 Generated 3/7/2023 1:13:51 PM

# JOB DESCRIPTION

MCA 95/Maverick SDG NUMBER 03D2057075

# **JOB NUMBER**

890-4186-1

Eurofins Carlsbad 1089 N Canal St. Carlsbad NM 88220





Received by OCD: 10/17/2023 1:24:32 PM

# **Eurofins Carlsbad**

Job Notes

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

## Authorization

RAMER

Generated 3/7/2023 1:13:51 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

Page 122 of 174

# **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	13
Lab Chronicle	15
Certification Summary	16
Method Summary	17
Sample Summary	18
Chain of Custody	19
Receipt Checklists	20

	Deminions/Glossary	
Client: Enso Project/Site:	Job ID: 890-4186-1           MCA 95/Maverick         SDG: 03D2057075	2
Qualifiers		3
GC VOA Qualifier	Qualifier Description	4
*+	LCS and/or LCSD is outside acceptance limits, high biased.	
F1	MS and/or MSD recovery exceeds control limits.	5
F2	MS/MSD RPD exceeds control limits	
U	Indicates the analyte was analyzed for but not detected.	

GC Semi VOA

GC Semi VC		
Qualifier	Qualifier Description	
F1	MS and/or MSD recovery exceeds control limits.	
F2	MS/MSD RPD exceeds control limits	8
S1+	Surrogate recovery exceeds control limits, high biased.	
U	Indicates the analyte was analyzed for but not detected.	9
HPLC/IC		
Qualifier	Qualifier Description	
U	Indicates the analyte was analyzed for but not detected.	

## Glossary

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

4

5

#### Job ID: 890-4186-1 SDG: 03D2057075

#### Job ID: 890-4186-1

Client: Ensolum

#### Laboratory: Eurofins Carlsbad

Project/Site: MCA 95/Maverick

#### Narrative

Job Narrative 890-4186-1

#### Receipt

The sample was received on 2/23/2023 2:52 PM. Unless otherwise noted below, the sample arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 2.0°C

#### **Receipt Exceptions**

The following sample was received and analyzed from an unpreserved bulk soil jar: SS05 (890-4186-1).

#### 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 880-47312 and analytical batch 880-47268 was outside the upper control limits.

Method 8015MOD_NM: The matrix spike / matrix spike duplicate (MS/MSD) recoveries and precision for preparation batch 880-47312 and analytical batch 880-47268 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample / laboratory sample control duplicate (LCS/LCSD) precision was within acceptance limits.

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

#### HPLC/IC

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

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

Method: TAL SOP Total BTEX - Total BTEX Calculation

Result Qualifier

Qualifier

<0.00199 U*+

<0.00199 U

<0.00199 U

<0.00398 U

<0.00199 U

<0.00398 U

119

89

<0.00398 U

Result Qualifier

%Recovery

RL

0.00199

0.00199

0.00199

0.00398

0.00199

0.00398

Limits

70 - 130

70 - 130

RL

0.00398

Unit

mg/Kg

mg/Kg

mg/Kg

mg/Kg

mg/Kg

mg/Kg

Unit

mg/Kg

D

D

Prepared

02/28/23 10:10

02/28/23 10:10

02/28/23 10:10

02/28/23 10:10

02/28/23 10:10

02/28/23 10:10

Prepared

02/28/23 10:10

02/28/23 10:10

Prepared

Job ID: 890-4186-1 SDG: 03D2057075

## **Client Sample ID: SS05**

Project/Site: MCA 95/Maverick

Date Collected: 02/22/23 15:40 Date Received: 02/23/23 14:52

Sample Depth: 0.5

Client: Ensolum

Analyte

Benzene

Toluene

o-Xylene

Surrogate

Analyte

Total BTEX

Ethylbenzene

Xylenes, Total

m-Xylene & p-Xylene

4-Bromofluorobenzene (Surr)

1,4-Difluorobenzene (Surr)

Lab Sample ID: 890-4186-1

Analyzed

03/01/23 19:11

03/01/23 19:11

03/01/23 19:11

03/01/23 19:11

03/01/23 19:11

03/01/23 19:11

Analyzed

03/01/23 19:11

03/01/23 19:11

Analyzed

03/07/23 13:34

Matrix: Solid

rix: Solid	
	5
Dil Fac	
1	
1	
1	
1	
1	
1	Ö
Dil Fac	9
1	
1	
Dil Fac	
1	

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0	mg/Kg			02/28/23 10:23	1
Method: SW846 8015B NM - Dies	el Range Orga	nics (DRO)	(GC)					
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0	mg/Kg		02/27/23 12:09	02/28/23 03:22	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		02/27/23 12:09	02/28/23 03:22	1
Oll Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		02/27/23 12:09	02/28/23 03:22	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	90		70 - 130			02/27/23 12:09	02/28/23 03:22	1
o-Terphenyl	90		70 - 130			02/27/23 12:09	02/28/23 03:22	1
Method: EPA 300.0 - Anions, Ion	Chromatograp	hy - Solubl	e					
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<4.98	11	4.98	mg/Kg			02/28/23 16:18	1

Released to Imaging: 1/10/2024 2:36:57 PM

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

#### Percent Surrogate Recovery (Acceptance Limits) BFB1 DFBZ1 Lab Sample ID Client Sample ID (70-130) (70-130) 880-25235-A-57-A MS Matrix Spike 101 92 880-25235-A-57-B MSD Matrix Spike Duplicate 92 91 890-4186-1 SS05 119 89 LCS 880-47407/1-A Lab Control Sample 116 113 LCSD 880-47407/2-A Lab Control Sample Dup 115 94 MB 880-47406/5-A Method Blank 71 98 MB 880-47407/5-A Method Blank 77 87 Surrogate Legend

BFB = 4-Bromofluorobenzene (Surr)

DFBZ = 1,4-Difluorobenzene (Surr)

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

#### Matrix: Solid

				Percent Surrogate Recovery (Acceptance Limits
		1CO1	OTPH1	
b Sample ID	Client Sample ID	(70-130)	(70-130)	
5190-A-1-E MS	Matrix Spike	107	95	
25190-A-1-F MSD	Matrix Spike Duplicate	110	97	
186-1	SS05	90	90	
-47312/2-A	Lab Control Sample	95	92	
80-47312/3-A	Lab Control Sample Dup	94	89	
80-47312/1-A	Method Blank	142 S1+	149 S1+	

#### Surrogate Legend

1CO = 1-Chlorooctane

OTPH = o-Terphenyl

Job ID: 890-4186-1 SDG: 03D2057075

Prep Type: Total/NA

Prep Type: Total/NA

Page 126 of 174

6

Eurofins Carlsbad

## **QC Sample Results**

Client: Ensolum Project/Site: MCA 95/Maverick

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

Lab Sample ID: MB 880-47406/5-A										Client Sa	mple ID: Metho	od Blank
Matrix: Solid											Prep Type:	Total/NA
Analysis Batch: 47466											Prep Batc	
		MB	MB									
Analyte	Re	sult	Qualifier	RL	-	Un	it	D	Р	repared	Analyzed	Dil Fac
Benzene	<0.00	200	U	0.00200	)	mg	g/Kg	_	02/2	8/23 10:00	02/28/23 18:07	1
Toluene	<0.00	200	U	0.00200	)	mg	g/Kg		02/2	8/23 10:00	02/28/23 18:07	1
Ethylbenzene	<0.00	200	U	0.00200	)	mg	g/Kg		02/2	8/23 10:00	02/28/23 18:07	1
m-Xylene & p-Xylene	< 0.00	400	U	0.00400	)	mę	g/Kg		02/2	8/23 10:00	02/28/23 18:07	1
o-Xylene	<0.00	200	U	0.00200	)	mg	g/Kg		02/2	8/23 10:00	02/28/23 18:07	1
Xylenes, Total	<0.004	400	U	0.00400	)	mg	g/Kg		02/2	8/23 10:00	02/28/23 18:07	1
		ΜВ	МВ									
Surrogate	%Recov	very	Qualifier	Limits					P	repared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)		71		70 _ 130	-				02/2	8/23 10:00	02/28/23 18:07	1
1,4-Difluorobenzene (Surr)		98		70 - 130					02/2	8/23 10:00	02/28/23 18:07	1
 Lab Sample ID: MB 880-47407/5-A										Client Sa	mple ID: Metho	od Blank
Matrix: Solid											Prep Type:	
Analysis Batch: 47466											Prep Batc	
		ΜВ	мв								Trop Date	
Analyte			Qualifier	RL	-	Un	it	D	Р	repared	Analyzed	Dil Fac
Benzene	<0.00	200	U	0.00200	)	mg	g/Kg	_	02/2	8/23 09:06	03/01/23 08:16	1
Toluene	<0.00	200	U	0.00200	)	mç	j/Kg		02/2	8/23 09:06	03/01/23 08:16	1
Ethylbenzene	<0.00	200	U	0.00200	)	-	j/Kg		02/2	8/23 09:06	03/01/23 08:16	1
m-Xylene & p-Xylene	<0.004	400	U	0.00400	)		g/Kg		02/2	8/23 09:06	03/01/23 08:16	1
o-Xylene	<0.00			0.00200		-	j/Kg			8/23 09:06	03/01/23 08:16	1
Xylenes, Total	<0.004			0.00400		-	j/Kg			8/23 09:06	03/01/23 08:16	1
· · · · · · · · · · · · · · · · · · ·				0.00100			,		02,2	0,20 00100	00/01/20 00:10	
0		MB	MB	1 : :4-					_		A	D# 5
Surrogate	%Recov	77	Qualifier	Limits	-					repared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)		87		70 ₋ 130 70 ₋ 130						8/23 09:06	03/01/23 08:16	1
1,4-Difluorobenzene (Surr)		07		70 - 730					02/2	8/23 09:06	03/01/23 08:16	1
Lab Sample ID: LCS 880-47407/1-A								С	lient	Sample I	D: Lab Control	Sample
Matrix: Solid											Prep Type:	Total/NA
Analysis Batch: 47466											Prep Batc	h: 47407
				Spike	LCS	LCS					%Rec	
Analyte				Added	Result	Qualifie	r Unit		D	%Rec	Limits	
Benzene				0.100	0.1299		mg/Kg			130	70 - 130	
Toluene				0.100	0.1134		mg/Kg			113	70 - 130	
Ethylbenzene				0.100	0.1103		mg/Kg			110	70 - 130	
m-Xylene & p-Xylene				0.200	0.2222		mg/Kg			111	70 - 130	
o-Xylene				0.100	0.1182		mg/Kg			118	70 - 130	
	LCS	LCS										
Surrogate %R	ecovery	Qual	ifier	Limits								
4-Bromofluorobenzene (Surr)	116			70 - 130								
1,4-Difluorobenzene (Surr)	113			70 - 130								
 Lab Sample ID: LCSD 880-47407/2-4	<b>`</b>						C	iont	Sam		ab Control San	
Matrix: Solid	•							ent	Jail		Prep Type:	
Analysis Batch: 47466				Spike	1000	1000					Prep Batc	
Analyta				Spike		LCSD			~	% Dee	%Rec	RPD D. Limit
Analyte				Added	Result	Qualifie	r <u>Unit</u>			%Rec	Limits RP	D Limit

1 Eurofins Carlsbad

Job ID: 890-4186-1 SDG: 03D2057075 5 7

Released to Imaging: 1/10/2024 2:36:57 PM

Benzene

0.100

0.1307 *+

mg/Kg

131

70 - 130

35

## **QC Sample Results**

Client: Ensolum Project/Site: MCA 95/Maverick Job ID: 890-4186-1 SDG: 03D2057075

Page 128 of 174

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

Lab Sample ID: LCSD 880-474 Matrix: Solid Analysis Batch: 47466	07/2-A			Clie	ent San	nple ID:		ol Sample Type: Tot Batch: 4	tal/NA
		Spike	LCSD LC	SD			%Rec		RPD
Analyte		Added	Result Qu	alifier Unit	D	%Rec	Limits	RPD	Limit
Toluene		0.100	0.1225	mg/Kg		123	70 - 130	8	35
Ethylbenzene		0.100	0.1184	mg/Kg		118	70 - 130	7	35
m-Xylene & p-Xylene		0.200	0.2364	mg/Kg		118	70 - 130	6	35
o-Xylene		0.100	0.1265	mg/Kg		127	70 - 130	7	35
	LCSD LCSD								
Surrogate 4-Bromofluorobenzene (Surr)	%RecoveryQualifier115	Limits 70 _ 130							

70 - 130

1,4-Difluorobenzene (Surr)	94	
- Lab Sample ID: 880-25235-A-57-A MS		

#### Sample ID: 880-25235-A-57-A INS Matrix: Solid

#### Analysis Batch: 47466

Analysis Batch: 47466									Prep E	Batch: 47407
	Sample	Sample	Spike	MS	MS				%Rec	
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Benzene	< 0.00201	U *+ F1	0.100	0.05538	F1	mg/Kg		55	70 - 130	
		F2								
Toluene	<0.00201	U F1 F2	0.100	0.05165	F1	mg/Kg		51	70 - 130	
Ethylbenzene	<0.00201	U F1 F2	0.100	0.04858	F1	mg/Kg		48	70 - 130	
m-Xylene & p-Xylene	<0.00402	U F1	0.201	0.1032	F1	mg/Kg		51	70 - 130	
o-Xylene	<0.00201	U F1 F2	0.100	0.05892	F1	mg/Kg		59	70 - 130	

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

#### Lab Sample ID: 880-25235-A-57-B MSD Matrix: Solid

#### Analysis Batch: 47466

Allalysis Dalch. 4/400									Fleb	Datch.	4/40/
	Sample	Sample	Spike	MSD	MSD				%Rec		RPD
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Benzene	<0.00201	U *+ F1	0.0990	0.03508	F1 F2	mg/Kg		35	70 - 130	45	35
		F2									
Toluene	<0.00201	U F1 F2	0.0990	0.03284	F1 F2	mg/Kg		33	70 - 130	45	35
Ethylbenzene	<0.00201	U F1 F2	0.0990	0.03140	F1 F2	mg/Kg		32	70 - 130	43	35
m-Xylene & p-Xylene	<0.00402	U F1	0.198	0.07209	F1	mg/Kg		36	70 - 130	35	35
o-Xylene	<0.00201	U F1 F2	0.0990	0.03917	F1 F2	mg/Kg		40	70 - 130	40	35
	MSD	MSD									

	MSD M	SD	
Surrogate	%Recovery Q	ualifier	Limits
4-Bromofluorobenzene (Surr)	92		70 - 130
1,4-Difluorobenzene (Surr)	91		70 - 130

#### Client Sample ID: Matrix Spike D

ple ID:	Matrix Spike	Duplicate
	Prep Type	: Total/NA
	Prep Bat	ch: 47407
	% Pac	PDD

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Lab Sample ID: MB 880-47312/1-A

## **QC Sample Results**

Client: Ensolum Project/Site: MCA 95/Maverick

Matrix: Solid

Analyte

C10-C28)

Surrogate

1-Chlorooctane o-Terphenyl

Matrix: Solid

Analyte

C10-C28)

Surrogate

1-Chlorooctane o-Terphenyl

Matrix: Solid

Analysis Batch: 47268

Gasoline Range Organics (GRO)-C6-C10

Diesel Range Organics (Over

Analysis Batch: 47268

Gasoline Range Organics (GRO)-C6-C10

Diesel Range Organics (Over

Oll Range Organics (Over C28-C36)

Lab Sample ID: LCS 880-47312/2-A

#### Method: 8015B NM - Diesel Range

									Client Sa	ample ID: Meth	
										Prep Type:	
	мв	мв								Prep Bate	ch: 47312
D		Qualifier	RL		Unit		D	Б	repared	Analyzed	Dil Fac
	<50.0	-	50.0		mg/K	a	-		7/23 12:09	02/27/23 19:55	
						5					
<	<50.0	U	50.0		mg/K	g		02/2	7/23 12:09	02/27/23 19:55	1
	<50.0		50.0		mg/K	a		02/2	7/23 12:09	02/27/23 19:55	
	-00.0	0	00.0		iiig/it	9		02/2	1120 12.00	02/21/20 10:00	
	MB	МВ									
%Reco		Qualifier	Limits						repared	Analyzed	Dil Fac
		S1+	70 - 130						7/23 12:09	02/27/23 19:55	
	149	S1+	70 - 130					02/2	7/23 12:09	02/27/23 19:55	
							С	lient	Sample	ID: Lab Contro	ol Sample
										Prep Type:	
										Prep Bate	ch: 47312
			Spike	LCS	LCS					%Rec	
			Added	Result	Qualifier	Unit		D	%Rec	Limits	
			1000	964.1		mg/Kg			96	70 - 130	
			1000	976.9		mg/Kg			98	70 - 130	
LCS	LCS										
Recovery	Qua	lifier	Limits								
95			70 - 130								
92			70 - 130								
A						Cli	ient	Sam	ple ID: L	ab Control Sa	mple Dup
										Prep Type:	Total/NA
										Prep Bate	
			Spike		LCSD					%Rec	RPD
			Added	Result	Qualifier	Unit		D	%Rec	Limits RI	PD Limi

Analysis Batch: 47268							Prep	Batch:	47312
	Spike	LCSD	LCSD				%Rec		RPD
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Gasoline Range Organics	1000	1033		mg/Kg		103	70 - 130	7	20
(GRO)-C6-C10									
Diesel Range Organics (Over	1000	1011		mg/Kg		101	70 - 130	3	20
C10-C28)									

	LCSD	LCSD	
Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane	94		70 - 130
o-Terphenyl	89		70 - 130

## Lab Sample ID: 880-25190-A-1-E MS Matrix: Solid

Lab Sample ID: LCSD 880-47312/3-A

Analysis Batch: 47268									Prep	Batch: 4	47312
	Sample	Sample	Spike	MS	MS				%Rec		
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits		
Gasoline Range Organics	<49.9	U	998	916.2		mg/Kg		88	70 - 130		
(GRO)-C6-C10 Diesel Range Organics (Over	157	F1 F2	998	742.2	F1	mg/Kg		59	70 - 130		
C10-C28)											

**Eurofins Carlsbad** 

**Client Sample ID: Matrix Spike** 

Prep Type: Total/NA

Lab Sample ID: 880-25190-A-1-E MS

Method: 300.0 - Anions, Ion Chromatography

## **QC Sample Results**

Limits

70 - 130

70 - 130

Matrix: Solid

Surrogate

o-Terphenyl

1-Chlorooctane

Analysis Batch: 47268

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

MS MS

%Recovery Qualifier

107

95

## Page 130 of 174

Prep Type: Total/NA

Prep Batch: 47312

**Client Sample ID: Matrix Spike** 

# 7

Lab Sample ID: 880-25190-A		CI	lient Sa	ample IE	): Matrix Sp			ł				
Matrix: Solid								Type: To				
Analysis Batch: 47268									Prep	Batch:	47312	-
	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	999	952.3		mg/Kg		91	70 - 130	4	20	
Diesel Range Organics (Over C10-C28)	157	F1 F2	999	1035	F2	mg/Kg		88	70 - 130	33	20	
	MSD	MSD										
Surrogate	%Recovery	Qualifier	Limits									
1-Chlorooctane	110		70 - 130									
o-Terphenyl	97		70 - 130									

Lab Sample ID: MB 880-47347	/1-A								Client	Sample ID:	Method	l Blank
Matrix: Solid									•	-	Type: S	
Analysis Batch: 47423											.,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	
	N	ИВ МВ										
Analyte		ult Qualifier		RL		Unit		D	Prepared	Analyz	zed	Dil Fac
Chloride	<5.	.00 U		5.00		mg/Kg	9			02/28/23	13:50	1
Lab Sample ID: LCS 880-4734	7/2-A							Clie	nt Samp	le ID: Lab C	ontrol S	Sample
Matrix: Solid										Prep	Type: S	Soluble
Analysis Batch: 47423												
-			Spike		LCS	LCS				%Rec		
Analyte			Added	1	Result	Qualifier	Unit		) %Rec	Limits		
Chloride			250		225.2		mg/Kg		90	90 _ 110		
			250		225.2							
Lab Sample ID: LCSD 880-473	47/3-A		250		225.2			ient Sa		: Lab Contro		
Lab Sample ID: LCSD 880-473 Matrix: Solid	47/3-A		250		225.2			ient Sa		: Lab Contro	ol Samp Type: S	
Lab Sample ID: LCSD 880-473								ient Sa		: Lab Contro Prep		Soluble
Lab Sample ID: LCSD 880-473 Matrix: Solid Analysis Batch: 47423			Spike		LCSD		Cli		imple ID	: Lab Contro Prep %Rec	Type: S	Soluble RPD
Lab Sample ID: LCSD 880-473 Matrix: Solid Analysis Batch: 47423 Analyte	47/3-A		Spike Added		LCSD Result	LCSD Qualifier	Cli	ient Sa	mple ID	: Lab Contro Prep %Rec Limits	Type: S	RPD Limit
Lab Sample ID: LCSD 880-473 Matrix: Solid Analysis Batch: 47423	47/3-A		Spike		LCSD		Cli		imple ID	: Lab Contro Prep %Rec	Type: S	Soluble RPD
Lab Sample ID: LCSD 880-473 Matrix: Solid Analysis Batch: 47423 Analyte			Spike Added		LCSD Result		Cli		mple ID 0 <u>%Rec</u> 92	: Lab Contro Prep %Rec Limits	Type: \$RPD2	RPD Limit 20
Lab Sample ID: LCSD 880-473 Matrix: Solid Analysis Batch: 47423 Analyte Chloride			Spike Added		LCSD Result		Cli		mple ID 0 <u>%Rec</u> 92	: Lab Contro Prep %Rec Limits 90 - 110	Type: \$RPD2	RPD Limit 20
Lab Sample ID: LCSD 880-473 Matrix: Solid Analysis Batch: 47423 Analyte Chloride Lab Sample ID: 890-4182-A-6-			Spike Added		LCSD Result		Cli		mple ID 0 <u>%Rec</u> 92	: Lab Contro Prep %Rec Limits 90 - 110	Type: S <u>RPD</u> 2 : Matrix	RPD Limit 20
Lab Sample ID: LCSD 880-473 Matrix: Solid Analysis Batch: 47423 Analyte Chloride Lab Sample ID: 890-4182-A-6-I Matrix: Solid		Sample	Spike Added		LCSD Result	Qualifier	Cli		mple ID 0 <u>%Rec</u> 92	: Lab Contro Prep %Rec Limits 90 - 110	Type: S <u>RPD</u> 2 : Matrix	RPD Limit 20
Lab Sample ID: LCSD 880-473 Matrix: Solid Analysis Batch: 47423 Analyte Chloride Lab Sample ID: 890-4182-A-6-I Matrix: Solid	 E MS	•	Spike Added 250	I	LCSD Result 229.1 MS	Qualifier	Cli		mple ID %Rec 92 Clier	: Lab Contro Prep %Rec Limits 90 - 110 at Sample ID Prep	Type: S <u>RPD</u> 2 : Matrix	RPD Limit 20

## **QC Sample Results**

Client: Ensolum Project/Site: MCA 95/Maverick Job ID: 890-4186-1 SDG: 03D2057075

### Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: 890-4182-A Matrix: Solid Analysis Batch: 47423	A-6-F MSD					CI	ient Sa	ample ID	D: Matrix Sj Prep	pike Dup Type: S		4
	-	Sample	Spike		MSD				%Rec		RPD	5
Analyte		Qualifier	Added		Qualifier	Unit	D	%Rec	Limits	RPD	Limit	
Chloride	14.4		249	249.2		mg/Kg		94	90 - 110	0	20	
												7
												8
												9
												1

Eurofins Carlsbad

Client: Ensolum Project/Site: MCA 95/Maverick Job ID: 890-4186-1

SDG: 03D2057075

### **GC VOA**

#### Prep Batch: 47406

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batc
AB 880-47406/5-A	Method Blank	Total/NA	Solid	5035	
ep Batch: 47407					
_ab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batc
390-4186-1	SS05	Total/NA	Solid	5035	
MB 880-47407/5-A	Method Blank	Total/NA	Solid	5035	
_CS 880-47407/1-A	Lab Control Sample	Total/NA	Solid	5035	
CSD 880-47407/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
880-25235-A-57-A MS	Matrix Spike	Total/NA	Solid	5035	
80-25235-A-57-B MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	
_ab Sample ID	Client Sample ID				
	· · ·	Ргер Туре	Matrix	Method	
390-4186-1	SS05	Total/NA	Solid	Method 8021B	
	· · ·				4740
MB 880-47406/5-A	SS05	Total/NA	Solid	8021B	4740
MB 880-47406/5-A MB 880-47407/5-A	SS05 Method Blank	Total/NA Total/NA	Solid Solid	8021B 8021B	4740 4740 4740 4740
MB 880-47406/5-A MB 880-47407/5-A _CS 880-47407/1-A	SS05 Method Blank Method Blank	Total/NA Total/NA Total/NA	Solid Solid Solid	8021B 8021B 8021B	4740 4740 4740 4740 4740
MB 880-47406/5-A MB 880-47407/5-A _CS 880-47407/1-A _CSD 880-47407/2-A	SS05 Method Blank Method Blank Lab Control Sample	Total/NA Total/NA Total/NA Total/NA	Solid Solid Solid Solid	8021B 8021B 8021B 8021B	4740 4740 4740 4740 4740 4740
IB 880-47406/5-A IB 880-47407/5-A CS 880-47407/1-A CSD 880-47407/2-A 80-25235-A-57-A MS	SS05 Method Blank Method Blank Lab Control Sample Lab Control Sample Dup	Total/NA Total/NA Total/NA Total/NA Total/NA	Solid Solid Solid Solid Solid Solid	8021B 8021B 8021B 8021B 8021B 8021B	474( 474( 474( 474( 474( 474( 474(
MB 880-47406/5-A MB 880-47407/5-A .CS 880-47407/1-A .CSD 880-47407/2-A 880-25235-A-57-A MS 880-25235-A-57-B MSD	SS05 Method Blank Method Blank Lab Control Sample Lab Control Sample Dup Matrix Spike	Total/NA Total/NA Total/NA Total/NA Total/NA Total/NA	Solid Solid Solid Solid Solid Solid	8021B 8021B 8021B 8021B 8021B 8021B 8021B	4740 4740 4740 4740 4740 4740 4740
890-4186-1 MB 880-47406/5-A MB 880-47407/5-A LCS 880-47407/1-A LCSD 880-47407/2-A 880-25235-A-57-A MS 880-25235-A-57-B MSD nalysis Batch: 48042 Lab Sample ID	SS05 Method Blank Method Blank Lab Control Sample Lab Control Sample Dup Matrix Spike	Total/NA Total/NA Total/NA Total/NA Total/NA Total/NA	Solid Solid Solid Solid Solid Solid	8021B 8021B 8021B 8021B 8021B 8021B 8021B	Prep Batc 4740 4740 4740 4740 4740 4740 4740 474

#### GC Semi VOA

#### Analysis Batch: 47268

Lab Sample ID 890-4186-1	Client Sample ID SS05	Prep Type Total/NA	Matrix Solid	Method 8015B NM	Prep Batch 47312
MB 880-47312/1-A	Method Blank	Total/NA	Solid	8015B NM	47312
LCS 880-47312/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	47312
LCSD 880-47312/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	47312
880-25190-A-1-E MS	Matrix Spike	Total/NA	Solid	8015B NM	47312
880-25190-A-1-F MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	47312

#### Prep Batch: 47312

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4186-1	SS05	Total/NA	Solid	8015NM Prep	
MB 880-47312/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-47312/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-47312/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
880-25190-A-1-E MS	Matrix Spike	Total/NA	Solid	8015NM Prep	
880-25190-A-1-F MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	
Analysis Batch: 47413					
Analysis Batch. 4/415					

Lab Sample ID	Client Sample ID	Ргер Туре	Matrix	Method	Prep Batch
890-4186-1	SS05	Total/NA	Solid	8015 NM	

Page 132 of 174

Client: Ensolum Project/Site: MCA 95/Maverick

#### HPLC/IC

#### Leach Batch: 47347

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4186-1	SS05	Soluble	Solid	DI Leach	
MB 880-47347/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-47347/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-47347/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
890-4182-A-6-E MS	Matrix Spike	Soluble	Solid	DI Leach	
890-4182-A-6-F MSD	Matrix Spike Duplicate	Soluble	Solid	DI Leach	
nalysis Batch: 47423					
Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4186-1	SS05	Soluble	Solid	300.0	47347
MB 880-47347/1-A	Method Blank	Soluble	Solid	300.0	47347
LCS 880-47347/2-A	Lab Control Sample	Soluble	Solid	300.0	47347
LCSD 880-47347/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	47347
890-4182-A-6-E MS	Matrix Spike	Soluble	Solid	300.0	47347
890-4182-A-6-F MSD	Matrix Spike Duplicate	Soluble	Solid	300.0	47347

Lab Sample ID	Client Sample ID	Ргер Туре	Matrix	Method	Prep Batch
890-4186-1	SS05	Soluble	Solid	300.0	47347
MB 880-47347/1-A	Method Blank	Soluble	Solid	300.0	47347
LCS 880-47347/2-A	Lab Control Sample	Soluble	Solid	300.0	47347
LCSD 880-47347/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	47347
890-4182-A-6-E MS	Matrix Spike	Soluble	Solid	300.0	47347
890-4182-A-6-F MSD	Matrix Spike Duplicate	Soluble	Solid	300.0	47347

#### Job ID: 890-4186-1 SDG: 03D2057075

Job ID: 890-4186-1 SDG: 03D2057075

Matrix: Solid

9

Lab Sample ID: 890-4186-1

## Client Sample ID: SS05 Date Collected: 02/22/23 15:40

Project/Site: MCA 95/Maverick

Client: Ensolum

Date Received: 02/23/23 14:52

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.03 g	5 mL	47407	02/28/23 10:10	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	47466	03/01/23 19:11	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			48042	03/07/23 13:34	AJ	EET MID
Total/NA	Analysis	8015 NM		1			47413	02/28/23 10:23	SM	EET MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	47312	02/27/23 12:09	AJ	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	47268	02/28/23 03:22	SM	EET MID
Soluble	Leach	DI Leach			5.02 g	50 mL	47347	02/27/23 15:44	KS	EET MID
Soluble	Analysis	300.0		1			47423	02/28/23 16:18	СН	EET MID

Laboratory References:

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

Eurofins Carlsbad

Released to Imaging: 1/10/2024 2:36:57 PM

#### Laboratory: Eurofins Midland

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

thority	P	Program	Identification Number	Expiration Date
as	N	NELAP	T104704400-22-25	06-30-23
The following analytes	are included in this report, b	out the laboratory is not certif	ied by the governing authority. This list ma	ay include analytes for v
the agency does not o		Matrix	Analyte	
Analysis Method	fer certification . Prep Method	Matrix	Analyte	
0,		Matrix Solid	Analyte Total TPH	

Page 135 of 174

10

Job ID: 890-4186-1 SDG: 03D2057075

Eurofins Carlsbad

## **Method Summary**

Client: Ensolum Project/Site: MCA 95/Maverick Job ID: 890-4186-1 SDG: 03D2057075

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
EPA = US	STM International Environmental Protection Agency 'Test Methods For Evaluating Solid Waste, Physical/Chemical Methods'', Third Editi	on November 1986 And Its Undates	
	TestAmerica Laboratories, Standard Operating Procedure	ni, noveniber 1900 And its opuales.	
	eferences: • Eurofins Midland, 1211 W. Florida Ave, Midland, TX 79701, TEL (432)704-5440		
	- Lutonins wildiand, 12 11 11. 1 1010a Ave, Wildiand, 1X 19101, 1LL (432)/04-3440		

Eurofins Carlsbad

## **Sample Summary**

Job ID: 890-4186-1 SDG: 03D2057075

Client: Ensolum Project/Site: MCA 95/Maverick

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth	
390-4186-1	SS05	Solid	02/22/23 15:40	02/23/23 14:52	0.5	4
						5
						8
						9
						12
						13

		Environment lesting Xenco		Midlang EL Pa Hobb	9, TX (43 350, TX ( 5, NM (5	(2) 704-5440, \$ 915) 585-3443 75) 392-7550,	San Anto 3, Lubbo Carlsba	Midland, TX (432) 704-5440, San Antonio, TX (210) 509-3334 EL Paso, TX (915) 585-3443, Lubbock, TX (806) 794-1296 Hobbs, NM (575) 392-7550, Carlsbad, NM (575) 988-3199	WWW.	www.xenco.com Page	of
Project Manager: Jo	Josh Adams			Bill to: (if different)		a.a.			W	Corr	
	Ensolum, LLC			Company Name:					Program: UST/PST 🗌 P	Program: UST/PST D PRP Brownfields RRC Superfund	RC 🗌 Su
	3122 Nat'l Parks Hwy	Hwy		Address:					State of Project:		
3 ZIP:	Carsibad, NM 88220	220		City, State ZIP:					Reporting: Level II Lev	Reporting: Level II CLevel III PST/UST TRRP	
	303-517-8437		Email:	jadams@ensolum.com	lum.co	m			Deliverables: EDD	ADaPT  ot	Other:
Project Name:	MCA 95/Maverick	Maverick	Turn	Turn Around				ANALYSIS RE	IS REQUEST	Prese	<b>Preservative Codes</b>
Project Number:	03075	57075	Routine	🗌 Rush	Pres.					None: NO	DI Water: H ₂ O
Project Location:	32.817529, -103.787126	103.787126	Due Date:			_				Cool: Cool	MeOH: Me
Sampler's Name:	Julianna Falcomata	alcomata	TAT starts the	TAT starts the day received by						HCL: HC	HNO3: HN
PO#			the lab, if rece	the lab, if received by 4:30pm	rs	_				H ₂ S0 ₄ : H ₂	NaOH: Na
SAMPLE RECEIPT	T Temp Blank:	nk: Yes No	Wet Ice:	Nes No	nete	0)				H ₃ PO ₄ : HP	
Samples Received Intact:			er ID:	CUT GU	ran	300				NaHSO4: NABIS	ABIS
Cooler Custody Seals:	Yes No	N/A Correction Factor:	Factor:	C. U-,	Pa	PA:				Na2S2O3: NaSO3	SO3
Sample Custody Seals:	Yes No	W/A Temperature Reading:	e Reading:	ので		S (E		090-4186 Chain of C.		Zn Acetate+NaOH: Zn	NaOH: Zr
Total Containers:		Corrected 1	Corrected Temperature:	XiC			802	Abore	Plot	NaCH+Ascorbic Acid: SAPC	orbic Acid:
Sample Identification		Matrix Date Sampled	Time Sampled	Depth Grab/ Comp	# of Cont	CHLOF TPH (8	BTEX (		/	Samp	Sample Comments
6505		5 9-77-9	049	s' C	-						
Total 200.7 / 6010 200.8 / 6020: Circle Method(s) and Metal(s) to be analyzed	0 200.8 / 6020: 1 Metal(s) to be an		8RCRA 13PPM TCLP / SPLP	CRA 13PPM Texas 11 AI	CRA	Sb As Ba E Sb As Ba	Be B C	Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Tl U	K Se	Ag SiO ₂ Na Sr Ti Sn U Hg: 1631/245.1/7470 /	U V Zn 0 / 7471
Notice: Signature of this doc of service. Eurofins Xenco v of Eurofins Xenco. A minimu	cument and relinquisi will be ilable only for rum charge _r of \$85.00	hment of samples country the cost of samples a will be applied to eac	nstitutes a valid pr nd shall not assu h project and a ch	urchase order from me any responsibli large of \$5 for each	t client c ity for ar sample	ompany to Euro ly losses or exp submitted to Eu	fins Xen enses in rofins 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 \$86.00 will be applied to each project and a charge of \$6 for each sample submitted to Eurofins Xenco, but not analyzed. These terms will be enforced unless previously negotiated.	It assigns standard terms and are due to circumstances beyond s will be enforced unless previou	conditions the control sly negotlated.	
Reinquished by	(Signature)	Receive	Received by: (Signature	ure)	Cé.	Date/Time	14527	Relinquished by: (Signature)	ture) Received t	Received by: (Signature)	Date/Time
3 Charles							6 4				

13

Chain of Custody

Job Number: 890-4186-1 SDG Number: 03D2057075

List Source: Eurofins Carlsbad

### Login Sample Receipt Checklist

Client: Ensolum

#### Login Number: 4186 List Number: 1 Creator: Stutzman, Amanda

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

Job Number: 890-4186-1 SDG Number: 03D2057075

List Source: Eurofins Midland

List Creation: 02/27/23 08:59 AM

## Login Sample Receipt Checklist

Client: Ensolum

Login Number: 4186 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").

14



**Environment Testing** 

# **ANALYTICAL REPORT**

# PREPARED FOR

Attn: Josh Adams Ensolum 601 N. Marienfeld St. Suite 400 Midland, Texas 79701 Generated 3/6/2023 2:10:31 PM

# JOB DESCRIPTION

MCA 95/Maverick SDG NUMBER 03D2057075

# **JOB NUMBER**

890-4187-1

Eurofins Carlsbad 1089 N Canal St. Carlsbad NM 88220

See page two for job notes and contact information

Received by OCD: 10/17/2023 1:24:32 PM

# **Eurofins Carlsbad**

Job Notes

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

## Authorization

RAMER

Generated 3/6/2023 2:10:31 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

SDG: 03D2057075

# **Table of Contents**

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

## **Definitions/Glossary**

Client: Ensolum
Project/Site: MCA 95/Maverick

Job ID: 890-4187-1 SDG: 03D2057075

Qualifiers		- (
GC VOA Qualifier	Qualifier Description	
U	Indicates the analyte was analyzed for but not detected.	-
GC Semi VOA		ł
Qualifier	Qualifier Description	
F1	MS and/or MSD recovery exceeds control limits.	- 6
F2	MS/MSD RPD exceeds control limits	
S1+	Surrogate recovery exceeds control limits, high biased.	
U	Indicates the analyte was analyzed for but not detected.	
HPLC/IC		
Qualifier	Qualifier Description	
U	Indicates the analyte was analyzed for but not detected.	-
Glossary		
Abbreviation	These commonly used abbreviations may or may not be present in this report.	- 1
¤	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	
	Not Calculated	
ND NEG	Not Detected at the reporting limit (or MDL or EDL if shown)	
POS	Negative / Absent Positive / Present	
PQL	Practical Quantitation Limit	
PRES	Presumptive	
	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)	
	Toxicity Equivalent Quotient (Dioxin)	
TEQ		
4

#### Job ID: 890-4187-1 SDG: 03D2057075

#### Job ID: 890-4187-1

Client: Ensolum

#### Laboratory: Eurofins Carlsbad

Project/Site: MCA 95/Maverick

#### Narrative

Job Narrative 890-4187-1

#### Receipt

The sample was received on 2/23/2023 2:52 PM. Unless otherwise noted below, the sample arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 2.0°C

#### **Receipt Exceptions**

The following sample was received and analyzed from an unpreserved bulk soil jar: SS06 (890-4187-1).

#### 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 880-47312 and analytical batch 880-47268 was outside the upper control limits.

Method 8015MOD_NM: The matrix spike / matrix spike duplicate (MS/MSD) recoveries and precision for preparation batch 880-47312 and analytical batch 880-47268 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample / laboratory sample control duplicate (LCS/LCSD) precision was within acceptance limits.

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

#### HPLC/IC

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

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

Method: TAL SOP Total BTEX - Total BTEX Calculation

Result Qualifier

Qualifier

<0.00200 U

<0.00200 U

<0.00200 U

<0.00401 U

<0.00200 U

<0.00401 U

105

82

<5.00 U

%Recovery

RL

0.00200

0.00200

0.00200

0.00401

0.00200

0.00401

Limits

70 - 130 70 - 130

Unit

mg/Kg

mg/Kg

mg/Kg

mg/Kg

mg/Kg

mg/Kg

mg/Kg

D

Prepared

02/27/23 16:02

02/27/23 16:02

02/27/23 16:02

02/27/23 16:02

02/27/23 16:02

02/27/23 16:02

Prepared

02/27/23 16:02

02/27/23 16:02

Job ID: 890-4187-1 SDG: 03D2057075

Analyzed

03/04/23 10:05

03/04/23 10:05

03/04/23 10:05

03/04/23 10:05

03/04/23 10:05

03/04/23 10:05

Analyzed

03/04/23 10:05

03/04/23 10:05

03/01/23 04:03

## **Client Sample ID: SS06**

Project/Site: MCA 95/Maverick

Date Collected: 02/22/23 15:45 Date Received: 02/23/23 14:52

Sample Depth: 0.5'

Client: Ensolum

Analyte

Benzene

Toluene

o-Xylene

Surrogate

Chloride

Ethylbenzene

Xylenes, Total

m-Xylene & p-Xylene

4-Bromofluorobenzene (Surr)

1,4-Difluorobenzene (Surr)

Lab Sample ID: 890-4187-1 Matrix: Solid

5

Dil Fac

1

1

1

1

1

1

Dil Fac

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
Total BTEX	<0.00401	U	0.00401	mg/Kg			03/06/23 14:44	1	
Method: SW846 8015 NM - Diese	I Range Organ	ics (DRO) (C	GC)						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	13
Total TPH	<49.9	U	49.9	mg/Kg			02/28/23 10:23	1	
_ _									
Method: SW846 8015B NM - Dies	sel Range Orga	anics (DRO)	(GC)						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
Osseline Denne Onnenies			40.0			00/07/00 10:00	02/20/22 02:42	1	

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics	<49.9	U	49.9	mg/Kg		02/27/23 12:09	02/28/23 03:42	1
(GRO)-C6-C10								
Diesel Range Organics (Over	<49.9	U	49.9	mg/Kg		02/27/23 12:09	02/28/23 03:42	1
C10-C28)								
Oll Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg		02/27/23 12:09	02/28/23 03:42	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	91		70 - 130			02/27/23 12:09	02/28/23 03:42	1
o-Terphenyl	90		70 - 130			02/27/23 12:09	02/28/23 03:42	1
Method: EPA 300.0 - Anions, Ion	Chromatograp	hy - Solubl	е					
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac

5.00

Method: 8021B - Volatile Organic Compounds (GC)

				Percent Surrogate Recovery (Acceptance Limits)	
		BFB1	DFBZ1		
ab Sample ID	Client Sample ID	(70-130)	(70-130)		
90-4172-A-1-E MS	Matrix Spike	95	100		
390-4172-A-1-F MSD	Matrix Spike Duplicate	95	96		
390-4187-1	SS06	105	82		
_CS 880-47350/1-A	Lab Control Sample	96	95		
_CSD 880-47350/2-A	Lab Control Sample Dup	99	103		
MB 880-47350/5-A	Method Blank	88	92		
Surrogate Legend					
BFB = 4-Bromofluorober	nzene (Surr)				
	(0)				

DFBZ = 1,4-Difluorobenzene (Surr)

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

Matrix: Solid				Prep Type: Total/NA	
		1CO1	OTPH1	Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	(70-130)	(70-130)		
880-25190-A-1-E MS	Matrix Spike	107	95	·	
880-25190-A-1-F MSD	Matrix Spike Duplicate	110	97		
890-4187-1	SS06	91	90		
LCS 880-47312/2-A	Lab Control Sample	95	92		
LCSD 880-47312/3-A	Lab Control Sample Dup	94	89		
MB 880-47312/1-A	Method Blank	142 S1+	149 S1+		

#### Surrogate Legend

1CO = 1-Chlorooctane

OTPH = o-Terphenyl

Job ID: 890-4187-1 SDG: 03D2057075

Prep Type: Total/NA

Page 147 of 174

## **QC Sample Results**

Client: Ensolum Project/Site: MCA 95/Maverick

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

Lab Sample ID: MB 880-47350/5-A Matrix: Solid Analysis Batch: 47690	МВ	МВ				Client Sa	mple ID: Metho Prep Type: ⊺ Prep Batcł	Total/NA
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		02/27/23 16:02	03/03/23 13:34	1
Toluene	<0.00200	U	0.00200	mg/Kg		02/27/23 16:02	03/03/23 13:34	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		02/27/23 16:02	03/03/23 13:34	1
m-Xylene & p-Xylene	<0.00400	U	0.00400	mg/Kg		02/27/23 16:02	03/03/23 13:34	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		02/27/23 16:02	03/03/23 13:34	1
Xylenes, Total	<0.00400	U	0.00400	mg/Kg		02/27/23 16:02	03/03/23 13:34	1
	МВ	МВ						
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	88		70 - 130			02/27/23 16:02	03/03/23 13:34	1
1,4-Difluorobenzene (Surr)	92		70 - 130			02/27/23 16:02	03/03/23 13:34	1

#### Lab Sample ID: LCS 880-47350/1-A Matrix: Solid

#### Analysis Batch: 47690

	Spike	LCS	LCS				%Rec	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Benzene	0.100	0.07188		mg/Kg		72	70 - 130	
Toluene	0.100	0.07279		mg/Kg		73	70 - 130	
Ethylbenzene	0.100	0.07111		mg/Kg		71	70 - 130	
m-Xylene & p-Xylene	0.200	0.1463		mg/Kg		73	70 - 130	
o-Xylene	0.100	0.07656		mg/Kg		77	70 - 130	

	LCS	LCS	
Surrogate	%Recovery	Qualifier	Limits
4-Bromofluorobenzene (Surr)	96		70 - 130
1,4-Difluorobenzene (Surr)	95		70 - 130

#### Lab Sample ID: LCSD 880-47350/2-A

## Matrix: Solid

Analysis Batch: 47690							Prep	Batch:	47350
	Spike	LCSD	LCSD				%Rec		RPD
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Benzene	0.100	0.1027		mg/Kg		103	70 - 130	35	35
Toluene	0.100	0.09741		mg/Kg		97	70 - 130	29	35
Ethylbenzene	0.100	0.08979		mg/Kg		90	70 - 130	23	35
m-Xylene & p-Xylene	0.200	0.1789		mg/Kg		89	70 - 130	20	35
o-Xylene	0.100	0.09257		mg/Kg		93	70 - 130	19	35

	LCSD	LCSD	
Surrogate	%Recovery	Qualifier	Limits
4-Bromofluorobenzene (Surr)	99		70 - 130
1,4-Difluorobenzene (Surr)	103		70 - 130

## Lab Sample ID: 890-4172-A-1-E MS

#### Matrix: Solid . . . . .

Analysis Batch: 47690									Prej	p Batch: 47350
	Sample	Sample	Spike	MS	MS				%Rec	
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Benzene	<0.00200	U	0.0996	0.08951		mg/Kg		89	70 - 130	
Toluene	<0.00200	U	0.0996	0.08481		mg/Kg		85	70 - 130	

Eurofins Carlsbad

Prep Type: Total/NA

**Client Sample ID: Matrix Spike** 

Prep Type: Total/NA

Prep Type: Total/NA

Prep Batch: 47350

**Client Sample ID: Lab Control Sample** 

Client Sample ID: Lab Control Sample Dup

Lab Sample ID: 890-4172-A-1-E MS

## **QC Sample Results**

Client: Ensolum Project/Site: MCA 95/Maverick

Matrix: Solid

Analyte

o-Xylene

Surrogate

Ethylbenzene

m-Xylene & p-Xylene

Analysis Batch: 47690

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

Sample Sample

MS MS

%Recovery Qualifier

95

100

95

96

149 S1+

<0.00200 U

<0.00401 U

<0.00200 U

Result Qualifier

Prep Type: Total/NA

**Client Sample ID: Matrix Spike Duplicate** 

**Client Sample ID: Method Blank** 

02/27/23 19:55

Client Sample ID: Lab Control Sample

02/27/23 12:09

Prep Type: Total/NA

Prep Batch: 47312

ch: 47350	Prep Bat					
	%Rec			MS	MS	Spike
	Limits	D %Rec	Unit	Qualifier	Result	Added
	70 - 130	79	mg/Kg		0.07843	0.0996
	70 - 130	78	mg/Kg		0.1548	0.199
	70 - 130	79	mg/Kg		0.07879	0.0996
						Limits
						70 - 130
						70 - 130
	70 - 130	78	mg/Kg		0.1548	0.199 0.0996 <u>Limits</u> 70 - 130

#### Lab Sample ID: 890-4172-A-1-F MSD Matrix: Solid

#### Analysis Batch: 47690

4-Bromofluorobenzene (Surr) 1,4-Difluorobenzene (Surr)

4-Bromofluorobenzene (Surr)

1,4-Difluorobenzene (Surr)

Analysis Batch: 47690									Prep	Batch:	47350
	Sample	Sample	Spike	MSD	MSD				%Rec		RPD
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Benzene	<0.00200	U	0.0990	0.08430		mg/Kg		85	70 - 130	6	35
Toluene	<0.00200	U	0.0990	0.08118		mg/Kg		82	70 - 130	4	35
Ethylbenzene	<0.00200	U	0.0990	0.07650		mg/Kg		77	70 - 130	3	35
m-Xylene & p-Xylene	<0.00401	U	0.198	0.1531		mg/Kg		77	70 - 130	1	35
o-Xylene	<0.00200	U	0.0990	0.07807		mg/Kg		78	70 - 130	1	35
	MSD	MSD									
Surrogate	%Recovery	Qualifier	Limits								

70 - 130

70 - 130

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

#### Lab Sample ID: MB 880-47312/1-A Matrix: Solid Analysis Batch: 47268

	МВ	MB						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0	mg/Kg		02/27/23 12:09	02/27/23 19:55	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		02/27/23 12:09	02/27/23 19:55	1
Oll Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		02/27/23 12:09	02/27/23 19:55	1
	МВ	МВ						
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	142	S1+	70 - 130			02/27/23 12:09	02/27/23 19:55	1

70 - 130

o-Terphenyl	
Lab Sample ID: LCS 880-47312/2-A	

#### Matrix: Solid Analysis Batch: 47268

Analysis Batch: 47268							Prep	o Batch: 47312
	Spike	LCS	LCS				%Rec	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Gasoline Range Organics	1000	964.1		mg/Kg		96	70 - 130	
(GRO)-C6-C10								
Diesel Range Organics (Over	1000	976.9		mg/Kg		98	70 - 130	
C10-C28)								

**Eurofins Carlsbad** 

Prep Type: Total/NA

5

7

1

Lab Sample ID: LCS 880-47312/2-A

Lab Sample ID: LCSD 880-47312/3-A

# QC Sample Results

Client: Ensolum Project/Site: MCA 95/Maverick

Matrix: Solid

Surrogate 1-Chlorooctane

o-Terphenyl

Analyte

C10-C28)

Surrogate

1-Chlorooctane

o-Terphenyl

Matrix: Solid

Analysis Batch: 47268

Analysis Batch: 47268

Gasoline Range Organics (GRO)-C6-C10

Diesel Range Organics (Over

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

LCS LCS %Recovery Qualifier

95

92

LCSD LCSD

%Recovery Qualifier

94

89

							ts	pie Resul	C Sam
	4187-1	D: 890-4	Job II						
	57075	: 03D20	SDG						
							ed)	(Continue	(GC)
	ample	ontrol Sa	e ID: Lab Co	Sample	lient	C			
		Type: To		Campio					
		Batch:							
5									
									Limits
								-	70 - 130
									70 - 130
7									
			Lab Contro	ple ID: I	Sam	Client			
8		Type: To							
	47312	Batch:	Prep						
9	RPD		%Rec				LCSD	LCSD	Spike
	Limit	RPD	Limits	%Rec	D	Unit	Qualifier	Result	Added
	20	7	70 - 130	103	_	mg/Kg		1033	1000
	20	3	70 - 130	101		mg/Kg		1011	1000

Page 150 of 174

Client Sam	ple	ID:	Matrix	c Spike
	Dro	n T.	mo: T	

**Client Sample ID: Matrix Spike Duplicate** 

Prep Type: Total/NA

Pi	rep ˈ	Type:	To	tal/NA
		. D	1.1.1	47040

Lab Sample ID: 880-25190-A- Matrix: Solid Analysis Batch: 47268	1-E MS							Client	Prep T	: Matrix Spike ype: Total/NA Batch: 47312
	Sample	Sample	Spike	MS	MS				%Rec	
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	998	916.2		mg/Kg		88	70 - 130	
Diesel Range Organics (Over C10-C28)	157	F1 F2	998	742.2	F1	mg/Kg		59	70 - 130	
	MS	MS								

Limits

70 - 130 70 - 130

	110		
Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane	107		70 - 130
o-Terphenyl	95		70 _ 130

#### Lab Sample ID: 880-25190-A-1-F MSD Matrix: Solid

Analysis Batch: 47268									Prep	Batch:	47312
	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	999	952.3		mg/Kg		91	70 - 130	4	20
Diesel Range Organics (Over C10-C28)	157	F1 F2	999	1035	F2	mg/Kg		88	70 - 130	33	20
	MSD	Men									

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

Client: Ensolum

## **QC Sample Results**

Job ID: 890-4187-1 SDG: 03D2057075

Project/Site: MCA 95/Maverick Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-47348/1-A Matrix: Solid										Client S	Sample ID: Prep	Method Type: S	
Analysis Batch: 47513													
		MB	MB										
Analyte	R	esult	Qualifier		RL	Ur	nit	D	Р	repared	Analy	zed	Dil Fac
Chloride	<	\$.00	U		5.00	mį	g/Kg				03/01/23	03:49	1
Lab Sample ID: LCS 880-47348/2-A								Cli	ient	Sample	D: Lab C	ontrol S	ample
Matrix: Solid											Prep	Type: S	oluble
Analysis Batch: 47513													
-				Spike	LCS	LCS					%Rec		
Analyte				Added	Resul	t Qualifie	r Unit		D	%Rec	Limits		
Chloride				250	250.8	5	mg/Kg		_	100	90 - 110		
Lab Sample ID: LCSD 880-47348/3-	Δ						Cli	ient S	Sam	nole ID: I	Lab Contro	ol Sampl	e Dur
Matrix: Solid												Type: S	
Analysis Batch: 47513											iiop	1,700.0	orabit
				Spike	LCSI	LCSD					%Rec		RPD
Analyte				Added	Resul	t Qualifie	r Unit		D	%Rec	Limits	RPD	Limi
				Added 250	Resul		r Unit mg/Kg		<u>D</u>	<b>%Rec</b> 98	Limits 90 - 110	<b>RPD</b> 2	
Analyte Chloride Lab Sample ID: 890-4187-1 MS									<u>D</u>			2	20
Chloride Lab Sample ID: 890-4187-1 MS									<u>D</u>		90 - 110 Client Sa	2	20 : <b>SS06</b>
Chloride Lab Sample ID: 890-4187-1 MS Matrix: Solid									<u>D</u>		90 - 110 Client Sa	2 mple ID:	20 : <b>SS06</b>
Chloride Lab Sample ID: 890-4187-1 MS Matrix: Solid	Sample	Samp			245.				<u>D</u>		90 - 110 Client Sa	2 mple ID:	20 : <b>SS06</b>
Chloride Lab Sample ID: 890-4187-1 MS Matrix: Solid Analysis Batch: 47513	Sample Result			250	245.	I	mg/Kg		D		90 - 110 Client Sa Prep	2 mple ID:	20 : <b>SS06</b>
Chloride Lab Sample ID: 890-4187-1 MS Matrix: Solid Analysis Batch: 47513 Analyte		Quali		250 Spike	245.	6 MS t Qualifie	mg/Kg		_	98	90 - 110 Client Sa Prep %Rec	2 mple ID:	20 : <b>SS06</b>
Chloride Lab Sample ID: 890-4187-1 MS Matrix: Solid Analysis Batch: 47513 Analyte Chloride	Result	Quali		250 Spike Added	245. M: Resul	6 MS t Qualifie	mg/Kg		_	98 %Rec	90 - 110 Client Sa Prep %Rec Limits 90 - 110	2 mple ID: Type: S	20 20 20 20 20 20 20 20 20 20 20 20 20 2
Chloride Lab Sample ID: 890-4187-1 MS Matrix: Solid Analysis Batch: 47513 Analyte	Result	Quali		250 Spike Added	245. M: Resul	6 MS t Qualifie	mg/Kg		_	98 %Rec	90 - 110 Client Sa Prep %Rec Limits 90 - 110 Client Sa	2 mple ID: Type: S mple ID:	20 : SS06 oluble : SS06
Chloride Lab Sample ID: 890-4187-1 MS Matrix: Solid Analysis Batch: 47513 Analyte Chloride Lab Sample ID: 890-4187-1 MSD Matrix: Solid	Result	Quali		250 Spike Added	245. M: Resul	6 MS t Qualifie	mg/Kg		_	98 %Rec	90 - 110 Client Sa Prep %Rec Limits 90 - 110 Client Sa	2 mple ID: Type: S	20 : SS06 oluble : SS06
Chloride Lab Sample ID: 890-4187-1 MS Matrix: Solid Analysis Batch: 47513 Analyte Chloride Lab Sample ID: 890-4187-1 MSD	Result	Quali	fier	250 Spike Added	245. M: <u>Resul</u> 252.0	6 MS t Qualifie	mg/Kg		_	98 %Rec	90 - 110 Client Sa Prep %Rec Limits 90 - 110 Client Sa	2 mple ID: Type: S mple ID:	SS06
Chloride Lab Sample ID: 890-4187-1 MS Matrix: Solid Analysis Batch: 47513 Analyte Chloride Lab Sample ID: 890-4187-1 MSD Matrix: Solid	<b>Result</b> <5.00	Quali	ifier	250 Spike Added 250	245. M: <u>Resul</u> 252.0	5 MS t Qualifie	r Unit mg/Kg		_	98 %Rec	90 - 110 Client Sa Prep %Rec Limits 90 - 110 Client Sa Prep	2 mple ID: Type: S mple ID:	oluble SS06

Client: Ensolum Project/Site: MCA 95/Maverick

Job ID: 890-4187-1 SDG: 03D2057075

# **GC VOA**

## Prep Batch: 47350

ab Sample ID	Client Sample ID	Ргер Туре	Matrix	Method	Prep Batch
90-4187-1	SS06	Total/NA	Solid	5035	
MB 880-47350/5-A	Method Blank	Total/NA	Solid	5035	
_CS 880-47350/1-A	Lab Control Sample	Total/NA	Solid	5035	
_CSD 880-47350/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
390-4172-A-1-E MS	Matrix Spike	Total/NA	Solid	5035	
890-4172-A-1-F MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	
nalysis Batch: 47690					
_ab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
390-4187-1	SS06	Total/NA	Solid	8021B	47350
MB 880-47350/5-A	Method Blank	Total/NA	Solid	8021B	47350
_CS 880-47350/1-A	Lab Control Sample	Total/NA	Solid	8021B	47350
CSD 880-47350/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	47350
390-4172-A-1-E MS	Matrix Spike	Total/NA	Solid	8021B	47350
390-4172-A-1-F MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	47350
nalysis Batch: 47951					
Lab Sample ID	Client Sample ID	Ргер Туре	Matrix	Method	Prep Batch
	SS06	Total/NA	Solid	Total BTEX	

#### Analysis Batch: 47268

Lab Sample ID	Client Sample ID	Ргер Туре	Matrix	Method	Prep Batch
890-4187-1	SS06	Total/NA	Solid	8015B NM	47312
MB 880-47312/1-A	Method Blank	Total/NA	Solid	8015B NM	47312
LCS 880-47312/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	47312
LCSD 880-47312/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	47312
880-25190-A-1-E MS	Matrix Spike	Total/NA	Solid	8015B NM	47312
880-25190-A-1-F MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	47312

#### Prep Batch: 47312

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4187-1	SS06	Total/NA	Solid	8015NM Prep	
MB 880-47312/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-47312/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-47312/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
880-25190-A-1-E MS	Matrix Spike	Total/NA	Solid	8015NM Prep	
880-25190-A-1-F MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	
Analysis Batch: 47414					
Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch

Total/NA

Solid

8015 NM

# 890-4187-1

### HPLC/IC

#### Leach Batch: 47348

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4187-1	SS06	Soluble	Solid	DI Leach	
MB 880-47348/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-47348/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-47348/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	

Eurofins Carlsbad

SS06

## HPLC/IC (Continued)

LCS 880-47348/2-A

890-4187-1 MS

890-4187-1 MSD

LCSD 880-47348/3-A

#### Leach Batch: 47348 (Continued)

Lab Control Sample

SS06

SS06

Lab Control Sample Dup

Lab Sample ID	Client Sample ID	Ргер Туре	Matrix	Method	Prep Batch
890-4187-1 MS	SS06	Soluble	Solid	DI Leach	
890-4187-1 MSD	SS06	Soluble	Solid	DI Leach	
Analysis Batch: 4751	•				
Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
Lab Sample ID 890-4187-1	Client Sample ID SS06	Prep Type Soluble	Matrix Solid	Method 300.0	Prep Batch 47348

Soluble

Soluble

Soluble

Soluble

Solid

Solid

Solid

Solid

300.0

300.0

300.0

300.0

**Released to Imaging: 1/10/2024 2:36:57 PM** 

Page 153 of 174

47348

47348

47348

47348

Job ID: 890-4187-1 SDG: 03D2057075

Matrix: Solid

9

Lab Sample ID: 890-4187-1

## Client Sample ID: SS06 Date Collected: 02/22/23 15:45

Project/Site: MCA 95/Maverick

Client: Ensolum

Date Received: 02/23/23 14:52

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.99 g	5 mL	47350	02/27/23 16:02	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	47690	03/04/23 10:05	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			47951	03/06/23 14:44	AJ	EET MID
Total/NA	Analysis	8015 NM		1			47414	02/28/23 10:23	SM	EET MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	47312	02/27/23 12:09	AJ	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	47268	02/28/23 03:42	SM	EET MID
Soluble	Leach	DI Leach			5 g	50 mL	47348	02/27/23 15:45	KS	EET MID
Soluble	Analysis	300.0		1			47513	03/01/23 04:03	СН	EET MID

Laboratory References:

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

#### Laboratory: Eurofins Midland

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

thority	F	Program	Identification Number	Expiration Date	
as	1	NELAP T104704400-22-25		06-30-23	
The following analytes	are included in this report, I	but the laboratory is not certif	ied by the governing authority. This list ma	ay include analytes for v	
the agency does not o		Motrix	Angluto		
Analysis Method	fer certification . Prep Method	Matrix	Analyte		
6 ,		Matrix Solid	Analyte Total TPH		

Page 155 of 174

10

## **Method Summary**

Client: Ensolum Project/Site: MCA 95/Maverick Job ID: 890-4187-1 SDG: 03D2057075

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 Edit	on, November 1986 And Its Updates.	
TAL SOP :	<ul> <li>TestAmerica Laboratories, Standard Operating Procedure</li> </ul>		
Laboratory R			
EET MID :	Eurofins Midland, 1211 W. Florida Ave, Midland, TX 79701, TEL (432)704-5440		

## **Sample Summary**

Job ID: 890-4187-1 SDG: 03D2057075

Client: Ensolum Project/Site: MCA 95/Maverick

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth	
890-4187-1	SS06	Solid	02/22/23 15:45	02/23/23 14:52	0.5'	4
						5
						8
						9
						12
						13

Notice: Signature of this document and relinquishment of samples constitutes a valid purchase order from client company to Eurofins Xenco, its affiliates and subcor	PLE RECEIPT     Temp Blank:       les Received Intact:     Ves No       r Custody Seals:     Yes No       le Custody Seals:     Yes No       Sample Identification     Matrix       SDL0     Solution       SOL0     Solution       Solution     Solution       Matrix     Solution       Solution     Solution       Method(s) and Metal(s) to be analyzing	Project Number: NSD 205710715 Project Location: 32.817529, -103.787126 Sampler's Name: Julianna Falcomata PO #:	303-517	ate ZIP:		Company Name: Ensolum, LLC		eurofins Environment Testing
led to each project and a charge of \$5 for each Received by: (Signature)	Correction Factor:     Vet Ice:     Yes No       Temperature Reading:     0.0     0.0       Date     Time     0.0       Sampled     SHCRA     0.0       BRCRA     13PPM     Texas 11       Texas     TCLP / SPLP 6010:     8RCRA	Routine Rush     Due Date:     TAT starts the day received by     the lab, if received by 4:30pm	Turn Around	City, State ZIP:	Address:	Company Name:	Bill for dif	
or service. Eurofins Xenco will be lighle onuc for the cost of samples and shall not assume any responsibility for any losses or expenses incurred by the clinit such losses are out to circumstances by one clinit such losses are out to circumstances by received by responsibility for any losses or expenses incurred by the clinit such losses are out to circumstances by responsibility for any losses or expenses incurred by the clinit such losses are out to circumstances by responsibility for any losses or expenses incurred by the clinit such losses are out to circumstances by responsibility for any losses or expenses incurred by the clinit such losses are out to circumstances by responsibility for any losses are out to circumstances by responsibility for any losses are out to circumstances by responsibility for any losses are out to circumstances by responsibility for any losses are out to circumstances by responsibility for any losses are out to circumstances by responsibility for any losses are out to circumstances by responsibility for any losses are out to circumstances by responsibility for any losses are out to circumstances by responsibility for any losses are out to circumstances by responsibility for any losses are out to circumstances by responsibility for any losses are out to circumstances by responsibility for any losses are out to circumstances by responsibility for any losses are out to circumstances by responsibility for any losses are out to circumstances by responsibility for any losses are out to circumstances by responsibility for any losses are out to circumstances by responsibility for any losses are out to circumstances by responsibility for any losses are out to circumstances by responsibility for any losses are out to circumstances by responsibility for any losses are out to circumstances by respective by respec	and client company to Eurofins Xenco. Its artiliates and subcontractors. It assigns st	rs code	ANALYS				EL Paso, TX (915) 585-3443, Lubbock, TX (806) 794-1296 Hobbs, NM (575) 392-7550, Carlsbad, NM (575) 988-3199	Chain of Custody Houston, TX (281) 240-4200, Dallas, TX (214) 902-0300 Midland TX (432) 704-5440 San Antonio TX (210) 509-3334
These terms will be enforced unless previously negotiated.       Y: (Signature)     Received by: (Signature)	The Pb Mg Mn Mo Ni K Se Ag SiO ₂ Na N Mo Ni Se Ag Ti U Hastigns standard terms and conditions			Reporting: Level II Level III PST/UST TRRP	State of Project:	Program: UST/PST PRP Brownfields RRC Superfund		Work Order No:
) Date/Time	H ₃ PO ₄ : HP NaHSO ₄ : NABIS Na ₂ S ₂ O ₃ : NaSO ₃ Zn Acetate+NaOH: Zn NaOH+Ascorbic Acid: SAPC Sample Comments Sample Comments 1631/245.1/7470 / 7471	None: NO DI Water: H ₂ O Cool: Cool MeOH: Me HCL: HC HNO ₃ : HN H ₂ SO ₄ : H ₂ NaOH: Na	Pre			ields    RRC    S	Page of	

Page 18 of 20

Released to Imaging: 1/10/2024 2:36:57 PM

12 13

Page 158 of 174

## Login Sample Receipt Checklist

Client: Ensolum

Login Number: 4187 List Number: 1 Creator: Stutzman, Amanda

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

Job Number: 890-4187-1 SDG Number: 03D2057075

Eurofins Carlsbad
Released to Imaging: 1/10/2024 2:36:57 PM

Page 19 of 20

Job Number: 890-4187-1 SDG Number: 03D2057075

List Source: Eurofins Midland

List Creation: 02/27/23 08:59 AM

## Login Sample Receipt Checklist

Client: Ensolum

<6mm (1/4").

Login Number: 4187 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	

14



# APPENDIX D

**NMOCD** Notifications

Released to Imaging: 1/10/2024 2:36:57 PM

## Julianna Falcomata

From:	Aimee Cole
Sent:	Wednesday, August 23, 2023 1:48 PM
То:	'ocd.enviro@state.nm.us'
Subject:	Maverick - Sampling Notification (Week of 8/28/2023)

Maverick Permian, LLC plans to complete sampling activities at the following sites the week of August 28, 2023.

- MCA 409 Flowline/ NAPP2318846991
  - Sampling Dates: 8/28/2023 8/29/2023
- ABO 3 Battery / nAPP2314448299
  - Sampling Dates: 8/28/2023 8/29/2023
- Grayburg Eumont Strawn Battery / NAPP2302036818
  - Sampling Dates: 8/28/2023
- MCA 95 / NAPP2306757137 o Sampling Dates: 8/28/2023 – 9/1/2023
- MCA 301 / NAPP2307558601
  - Sampling Dates: 8/31/2023 9/1/2023

Thank you,

_



Aimee Cole Senior Managing Scientist 720-384-7365 Ensolum, LLC in f

From:	Rodgers, Scott, EMNRD		
To:	<u>Aimee Cole</u>		
Cc:	Velez, Nelson, EMNRD; Bratcher, Michael, EMNRD		
Subject:	RE: [EXTERNAL] Maverick - Sampling Notification (Week of 9/18/2023)		
Date:	Wednesday, September 13, 2023 3:20:38 PM		
Attachments: image005.ipg			
	image006.png		
	image007.png		
	image008.png		
	image009.png		

You don't often get email from scott.rodgers@emnrd.nm.gov. Learn why this is important

## [**EXTERNAL EMAIL**]

The OCD has received your notification. When reporting sampling at multiple locations it is required to provide a date and time for each location. Include a copy of this and all notifications in the remedial and/or closure reports to ensure the notifications are documented in the project file.

Thank you, Scott

Scott Rodgers • Environmental Specialist Environmental Bureau EMNRD - Oil Conservation Division 8801 Horizon Blvd. NE, Suite 260 | Albuquerque, NM 87113 505.469.1830 | <u>scott.rodgers@emnrd.nm.gov</u> http://www.emnrd.nm.gov/ocd



From: Aimee Cole <acole@ensolum.com>
Sent: Wednesday, September 13, 2023 2:51 PM
To: Enviro, OCD, EMNRD <OCD.Enviro@emnrd.nm.gov>
Subject: [EXTERNAL] Maverick - Sampling Notification (Week of 9/18/2023)

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

Maverick Permian, LLC plans to complete sampling activities at the following sites the week of September 18, 2023.

- MCA 95 / NAPP2306757137
  - Sampling Dates: 9/18/2023 9/20/2023

- MCA 1 South Transfer Line / nAPP2314650185
  - Sampling Dates: 9/20/2023 9/22/2023
- EVGSAU Satellite 5 / NAPP2213957732
  - Sampling Dates: 9/21/2023 9/22/2023

Thank you,



Aimee Cole Senior Managing Scientist 720-384-7365 Ensolum, LLC

## Julianna Falcomata

From:	Buchanan, Michael, EMNRD <michael.buchanan@emnrd.nm.gov></michael.buchanan@emnrd.nm.gov>	
Sent:	Wednesday, September 6, 2023 4:53 PM	
То:	Aimee Cole; Enviro, OCD, EMNRD	
Cc:	Bratcher, Michael, EMNRD; Velez, Nelson, EMNRD	
Subject:	RE: [EXTERNAL] Maverick - Sampling Notification (Week of 9/11/2023)	

You don't often get email from michael.buchanan@emnrd.nm.gov. Learn why this is important

### [ **EXTERNAL EMAIL**]

#### Hi Aimee,

The OCD has received your notification. Include a copy of this and all notifications in the remedial and/or closure reports to ensure the notifications are documented in the project file.

Thank you,

From: Aimee Cole <acole@ensolum.com>
Sent: Wednesday, September 6, 2023 2:32 PM
To: Enviro, OCD, EMNRD <OCD.Enviro@emnrd.nm.gov>
Subject: [EXTERNAL] Maverick - Sampling Notification (Week of 9/11/2023)

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

Maverick Permian, LLC plans to complete sampling activities at the following sites the week of September 11, 2023.

- MCA 301 / NAPP2307558601
  - o Sampling Dates: 9/11/2023 9/12/2023
- MCA 95 / NAPP2306757137
  - Sampling Dates: 9/12/2023 9/15/2023

Thank you,



## Julianna Falcomata

From:	OCDOnline@state.nm.us
Sent:	Friday, September 15, 2023 8:56 AM
То:	Kalei Jennings
Subject:	The Oil Conservation Division (OCD) has approved the application, Application ID: 228051

### [ **EXTERNAL EMAIL**]

To whom it may concern (c/o Kalei Jennings for Maverick Permian LLC),

The OCD has approved the submitted *Application for administrative approval of a release notification and corrective action* (C-141), for incident ID (n#) nAPP2306757137, with the following conditions:

Remediation plan is approved under the following conditions; 1. Soil samples must be collected outside of the release to confirm the lateral extent of the release. 2. All other proposal within this plan have been accepted.
 3. Operator must include site characterization supporting documentation in its final closure report. 4. Maverick Permian has 90-days (December 14, 2023) to submit its appropriate or final closure report.

The signed C-141 can be found in the OCD Online: Imaging under the incident ID (n#).

If you have any questions regarding this application, please contact me.

Thank you, Nelson Velez Environmental Specialist - Advanced 505-469-6146 Nelson.Velez@emnrd.nm.gov

### New Mexico Energy, Minerals and Natural Resources Department

1220 South St. Francis Drive Santa Fe, NM 87505



# APPENDIX E Final Form C-141

Released to Imaging: 1/10/2024 2:36:57 PM

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	NAPP2306757137
District RP	
Facility ID	
Application ID	

# **Release Notification**

## **Responsible Party**

Responsible Party: Maverick Permian, LLC	OGRID: 331199
Contact Name: Bryce Wagoner	Contact Telephone: 928-241-1862
Contact email: Bryce.Wagoner@mavresources.com	Incident # (assigned by OCD)
Contact mailing address: 1410 NW County Road Hobbs, NM 88240	

## **Location of Release Source**

Latitude 32.817529_

(NAD 83 in decimal degrees to 5 decimal places)

Site Name MCA 95	Site Type
Date Release Discovered February 21, 2023	API# (if applicable) 30-025-08065

ſ	Unit Letter	Section	Township	Range	County
	J	20	17S	32E	Lea

Surface Owner: State Federal Tribal Private (Name:

## Nature and Volume of Release

Materia	ul(s) Released (Select all that apply and attach calculations or specific	e justification for the volumes provided below)
Crude Oil	Volume Released (bbls) 5.6 bbls	Volume Recovered (bbls) 2.5 bbls
Produced Water	Volume Released (bbls)	Volume Recovered (bbls)
	Is the concentration of dissolved chloride 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)

Cause of Release

The release was caused by corrosion of a flowline. The release occurred on and off pad. A vaccum truck was dispatched to the location and recovered approximately 2.5 bbls of free-standing fluids. The source of the release has been stopped and the impacted area has been secured.

Page 2

	<b>Page 169 of 1</b> 7
Incident ID	NAPP2306757137
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 party consider this a major release?
🗌 Yes 🖾 No	
If YES, was immediate no	otice given to the OCD? By whom? To whom? When and by what means (phone, 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

 $\square$  The source of the release has been stopped.

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

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 not 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:Bryce Wagoner	Title:Permian HSE Specialist II
Signature: Ky Way TT	Date:2/27/2023
email:Bryce.Wagoner@mavresources.com	Telephone:928-241-1862
OCD Only	
Received by:	Date:

## NAPP2306757137

				Pooled F	luids on the S	urface				
	Length (ft.)	Width (ft.)	Depth (in)	# of Boundaries *edges of pool where depth is 0 . don't count shared boundaries	Oil-Water Ratio (%)	Pooled Area (ft ² )	Estimated Average Depth (ft.)	Pooled Volume (bbl.)	Volume of Oil in Subsurface (bbl.)	Volume of Water in Subsurface (bbl.)
Rectangle A	17.0	98.0	0.5	4.0	1.00	1666.0	0.0	3.1	3.09	0.00
Rectangle B						0.0	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
Rectangle C						0.000	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
Rectangle D						0.000	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
Rectangle E						0.000	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
	Total Volume (bbls): 3.09 3.09 0.00								0.00	

				Sul	bsurface Fluids	6				
	Length (ft.)	Width (ft.)	Depth (in.)	Saturation (%) *10% in consolidated sediments after rain to 50% in sand with no precipitation	Oil-Water Ratio (%)	Area (ft²)	Volume (bbl.)	Estimated Volume in Subsurface (bbl.)	Volume of Oil in Subsurface (bbl.)	Volume of Water in Subsurface (bbl.)
Rectangle A	17.0	98.0	1.0	0.1	1.00	1666.0	24.7	2.5	2.47	0.0
Rectangle B						0.0	0.0	0.0	0.00	0.0
Rectangle C						0.0	0.0	0.0	0.00	0.0
Rectangle D						0.0	0.0	0.0	0.00	0.0
Rectangle E						0.0	0.0	0.0	0.00	0.0
Rectangle F						0.0	0.0	0.0	0.00	0.0
Rectangle G						0.0	0.0	0.0	0.00	0.0
Rectangle H						0.0	0.0	0.0	0.00	0.0
Rectangle I						0.0	0.0	0.0	0.00	0.0
Rectangle J						0.0	0.0	0.0	0.00	0.0
						Total Volu	ume (bbls):	2.47	2.47	0.00

TOTAL RELEASE VOLUME (bbls): 5.6

**Released to Imaging: 1/10/2024 2:36:57 PM** 

Received by OCD: 10/17/2023 1:24:32 PM Form C-141 State of New Mexico

Oil Conservation Division

	Page 1/1 of 1/
Incident ID	NAPP2306757137
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>&gt;100 (ft bgs)</u>
Did this release impact groundwater or surface water?	🗌 Yes 🛛 No
Are the lateral extents of the release within 300 feet of a continuously flowing watercourse or any other significant watercourse?	🗌 Yes 🛛 No
Are the lateral extents of the release within 200 feet of any lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark)?	🗌 Yes 🛛 No
Are the lateral extents of the release within 300 feet of an occupied permanent residence, school, hospital, institution, or church?	🗌 Yes 🛛 No
Are the lateral extents of the release within 500 horizontal feet of a spring or a private domestic fresh water well used by less than five households for domestic or stock watering purposes?	🗌 Yes 🛛 No
Are the lateral extents of the release within 1000 feet of any other fresh water well or spring?	🗌 Yes 🛛 No
Are the lateral extents of the release within incorporated municipal boundaries or within a defined municipal fresh water well field?	🗌 Yes 🛛 No
Are the lateral extents of the release within 300 feet of a wetland?	🗌 Yes 🛛 No
Are the lateral extents of the release overlying a subsurface mine?	🗌 Yes 🛛 No
Are the lateral extents of the release overlying an unstable area such as karst geology?	🗌 Yes 🛛 No
Are the lateral extents of the release within a 100-year floodplain?	🗌 Yes 🛛 No
Did the release impact areas <b>not</b> on an exploration, development, production, or storage site?	🖾 Yes 🗌 No

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

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

- Scaled site map showing impacted area, surface features, subsurface features, delineation points, and monitoring wells.
- Field data

Page 3

- Data table of soil contaminant concentration data
- $\boxtimes$  Depth to water determination
- Determination of water sources and significant watercourses within ¹/₂-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: 10/17/	2023 1:24:32 PM State of New Mexico			Page 172 of 17
			Incident ID	NAPP2306757137
Page 4	Oil Conservation Division	on	District RP	
			Facility ID	
			Application ID	
regulations all operators ar public health or the environ failed to adequately investi addition, OCD acceptance and/or regulations. Printed Name: Bryc Signature:	Tormation given above is true and complete to e required to report and/or file certain release ment. The acceptance of a C-141 report by t igate and remediate contamination that pose a of a C-141 report does not relieve the operato	notifications and perform co the OCD does not relieve the a threat to groundwater, surfa or of responsibility for compl Title: <u>Permian HSE</u> Date: <u>10-13-202</u>	orrective actions for rele e operator of liability sho ice water, human health liance with any other fee Specialist	eases which may endanger ould their operations have or the environment. In deral, state, or local laws
OCD Only Received by: <u>Shelly W</u>	ells	Date: <u>10/17</u>	/2023	

Page 6

Incident ID	NAPP2306757137
District RP	
Facility ID	
Application ID	

# Closure

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

<b><u>Closure Report Attachment Checklist</u></b> : Each of the following it	tems must be incl	luded in the closure report.
A scaled site and sampling diagram as described in 19.15.29.1	1 NMAC	
Photographs of the remediated site prior to backfill or photos must be notified 2 days prior to liner inspection)	of the liner integ	rity if applicable (Note: appropriate OCD District office
Laboratory analyses of final sampling (Note: appropriate ODC	C District office m	nust be notified 2 days prior to final sampling)
Description of remediation activities		
I hereby certify that the information given above is true and complet and regulations all operators are required to report and/or file certain may endanger public health or the environment. The acceptance of should their operations have failed to adequately investigate and rem human health or the environment. In addition, OCD acceptance of a compliance with any other federal, state, or local laws and/or regula restore, reclaim, and re-vegetate the impacted surface area to the con accordance with 19.15.29.13 NMAC including notification to the O	n release notificat a C-141 report by nediate contamina a C-141 report do tions. The respon- nditions that exist	ions and perform corrective actions for releases which y the OCD does not relieve the operator of liability ation that pose a threat to groundwater, surface water, es not relieve the operator of responsibility for nsible party acknowledges they must substantially ted prior to the release or their final land use in
Printed Name: Bryce Wagoner	Title: F	Permian HSE Specialist
Signature:	Date: <u>10-13</u>	-2023
email: _ Bryce.Wagoner@mavresources.com		ne: _928-241-1862
OCD Only		
Received by: <u>Shelly Wells</u>	Date: _1	0/17/2023
Closure approval by the OCD does not relieve the responsible party remediate contamination that poses a threat to groundwater, surface v party of compliance with any other federal, state, or local laws and/o	water, human hea	lth, or the environment nor does not relieve the responsible
Closure Approved by: <u>Scott Rodgers</u>	Date:	01/10/2024
Printed Name: Scott Rodgers	_ Title:	Environmental Specialist Adv.

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:
Maverick Permian LLC	331199
1000 Main Street, Suite 2900	Action Number:
Houston, TX 77002	276522
	Action Type:
	[C-141] Release Corrective Action (C-141)

#### CONDITIONS

Created By	Condition	Condition Date
scott.rodgers	None	1/10/2024

Action 276522