State of New Mexico
Oil Conservation Division

Incident ID	NAPP2235437148
District RP	
Facility ID	fAPP2203847910
Application ID	

Closure

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

Closure Report Attachment Checklist: ***Each of the following items must be included in the closure report.***

☒ A scaled site and sampling diagram as described in 19.15.29.11 NMAC

☒ Photographs of the remediated site prior to backfill or photos of the liner integrity if applicable (Note: appropriate OCD District office must be notified 2 days prior to liner inspection)

☒ Laboratory analyses of final sampling (Note: appropriate ODC District office must be notified 2 days prior to final sampling)

☒ Description of remediation activities

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. The responsible party acknowledges they must substantially restore, reclaim, and re-vegetate the impacted surface area to the conditions that existed prior to the release or their final land use in accordance with 19.15.29.13 NMAC including notification to the OCD when reclamation and re-vegetation are complete.

Printed Name: ___ Justin Carlile _____ Title: _Senior Environmental Engineer_____

Signature: _____ Date: _____3/16/2023_____

email: __ Justin.Carlile@conocophillips.com _____ Telephone: ___432-202-4112_____

OCD Only

Received by: Jocelyn Harimon Date: 03/21/2023

Closure approval by the OCD does not relieve the responsible party of liability should their operations have failed to adequately investigate and remediate contamination that poses a threat to groundwater, surface water, human health, or the environment nor does not relieve the responsible party of compliance with any other federal, state, or local laws and/or regulations.

Closure Approved by: Robert Hamlet Date: 8/3/2023

Printed Name: Robert Hamlet Title: Environmental Specialist - Advanced

ENSOLUM

March 16, 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
Cabo Wabo Federal Com 704H, 705H & 706H
Incident Number NAPP2235437148
Lea County, New Mexico

To Whom It May Concern:

Ensolum, LLC (Ensolum), on behalf of COG Operating, LLC (COG), has prepared this *Closure Request* to document assessment, delineation and soil sampling activities performed at the Cabo Wabo Federal Com 704H, 705H & 706H (Site). The purpose of the Site assessment, delineation, and soil sampling activities was to assess for the presence or absence of impacts to soil following a release of brackish water off pad and into the pasture area at the Site. Based on field observations, field screening activities, and soil sample laboratory analytical results, COG is submitting this *Closure Request*, describing Site assessment and delineation activities that have occurred and requesting closure for Incident Number NAPP2235437148.

SITE DESCRIPTION AND RELEASE SUMMARY

The Site is located in Unit P, Section 24, Township 25 South, Range 29 East, in Lea County, New Mexico (32.1116°, -103.9302°) and is associated with oil and gas exploration and production operations on Federal Land managed by the Bureau of Land Management (BLM).

On December 16, 2022, a hole was found in a lay flat line during a pressure test that resulted in the release of approximately 13.521 barrels (bbls) of brackish water on to the surrounding pasture area. COG reported the release immediately to the New Mexico Oil Conservation Division (NMOCD) via email on December 16, 2022, and submitted a Release Notification Form C-141 (Form C-141) on December 20, 2022. The release was assigned Incident Number NAPP2235437148.

SITE CHARACTERIZATION AND CLOSURE CRITERIA

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

Depth to groundwater at the Site is estimated to be greater than 100 feet below ground surface (bgs) based on the nearest groundwater well data. The closest permitted groundwater well with depth to groundwater data is New Mexico Office of the State Engineer (NMOSE) C-04558 POD1, located approximately 1.6 miles west of the Site. The temporary groundwater well reported the hole was dry and the well was drilled to a total depth of 109 feet bgs. Ground surface elevation at the groundwater well

location is 3,082 feet above mean sea level (amsl), which is approximately 38 feet lower in elevation than the Site. All wells used for depth to groundwater determination are presented on Figure 1. The associated well records are included in Appendix A.

The closest continuously flowing or significant watercourse to the Site is an intermittent stream, also considered a wetland riverine, located approximately 1,075 feet southwest of the Site. The Site is greater than 200 feet from a lakebed, sinkhole, or playa lake and greater than 300 feet from an occupied residence, school, hospital, institution, church, or wetland. The Site is greater than 1,000 feet to a freshwater well or spring and is not within a 100-year floodplain or overlying a subsurface mine. The Site is not underlain by unstable geology (low potential karst designation area). Site receptors are identified on Figure 1.

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

- Benzene: 10 milligrams per kilogram (mg/kg)
- Benzene, toluene, ethylbenzene, and total xylenes (BTEX): 50 mg/kg
- Total petroleum hydrocarbons (TPH)-gasoline range organics (GRO) and TPH-diesel range organics (DRO): 1,000 mg/kg
- Total Petroleum Hydrocarbons (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 immediately reclaimed following remediation.

SITE ASSESSMENT ACTIVITIES AND LABORATORY ANALYTICAL RESULTS

On January 25, 2023, Ensolum personnel were at the Site to evaluate the release extent based on information provided on the Form C-141 and visual observations. Eight assessment soil samples (SS01 through SS08) were collected within the release extent at a depth of approximately 0.5 feet bgs to assess surficial soil associated with the release. The soil samples were field screened for volatile organic compounds (VOCs) utilizing a calibrated photoionization detector (PID) and chloride using Hach® chloride QuanTab® test strips. The soil sample locations were mapped utilizing a handheld Global Positioning System (GPS) unit and are depicted on Figure 2. Photographic documentation was completed during the Site visit and a photographic log is included as Appendix B.

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

Laboratory analytical results for soil samples SS01 through SS08, collected within the release extent, indicated all COC concentrations were compliant with the Closure Criteria and the reclamation requirement; however, additional vertical delineation activities within the release extent still appeared to be warranted. Laboratory analytical results are summarized in Table 1 and the complete analytical reports are included as Appendix C.

DELINEATION ACTIVITIES AND LABORATORY ANALYTICAL RESULTS

On February 16, 2023, Ensolum personnel were at the Site to perform delineation activities. Eight boreholes (SS01A through SS08A) were advanced via hand-auger at the respective locations of assessment soil samples SS01 through SS08. One discrete delineation soil sample was collected in each location, SS01A through SS08A, from the boreholes at a depth of 1-foot bgs. Additionally, four assessment soil samples (SS09 through SS12) were collected around the release extent in each cardinal direction at a depth of approximately 0.5 feet bgs to assess the lateral extent of the release. Soil from the delineation samples was field screened for VOCs and chloride. The boreholes were backfilled with soil removed. The delineation soil sample locations are depicted in Figure 2. A photographic log is included in Appendix B.

Laboratory analytical results for delineation soil samples SS01A through SS08A and SS09 through SS12 indicated all COC concentrations were compliant with the Closure Criteria and met the most stringent Table I Closure Criteria/reclamation requirement. Laboratory analytical results are summarized in Table 1 and the complete analytical reports are included as Appendix C.

CLOSURE REQUEST

Site assessment and delineation activities were conducted at the Site to address the December 16, 2022, release of brackish water at the Site. Laboratory analytical results for preliminary and delineation soil samples, collected from the off-pad release, indicated all COC concentrations were compliant with the Site Closure Criteria and met the most stringent Table I Closure Criteria/reclamation requirement. Based on soil sample analytical results, no further remediation appears to be required.

Depth to groundwater has been estimated to be greater than 100 feet bgs and no other sensitive receptors were identified near the release extent. COG believes these assessment actions have confirmed the absence of impacts from the December 2022 release and COG has been protective of human health, the environment, and groundwater. As such, COG respectfully requests closure for Incident Number NAPP2235437148. The C-141 is included in Appendix E.

If you have any questions or comments, please contact Ms. Hadlie Green at (432) 557-8895 or hgreen@ensolum.com.

Sincerely,
Ensolum, LLC

Peter Van Patten
Project Geologist

Hadlie Green
Project Manager

cc: Justin Carlile, COG Operating, LLC
Bureau of Land Management

Appendices:

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

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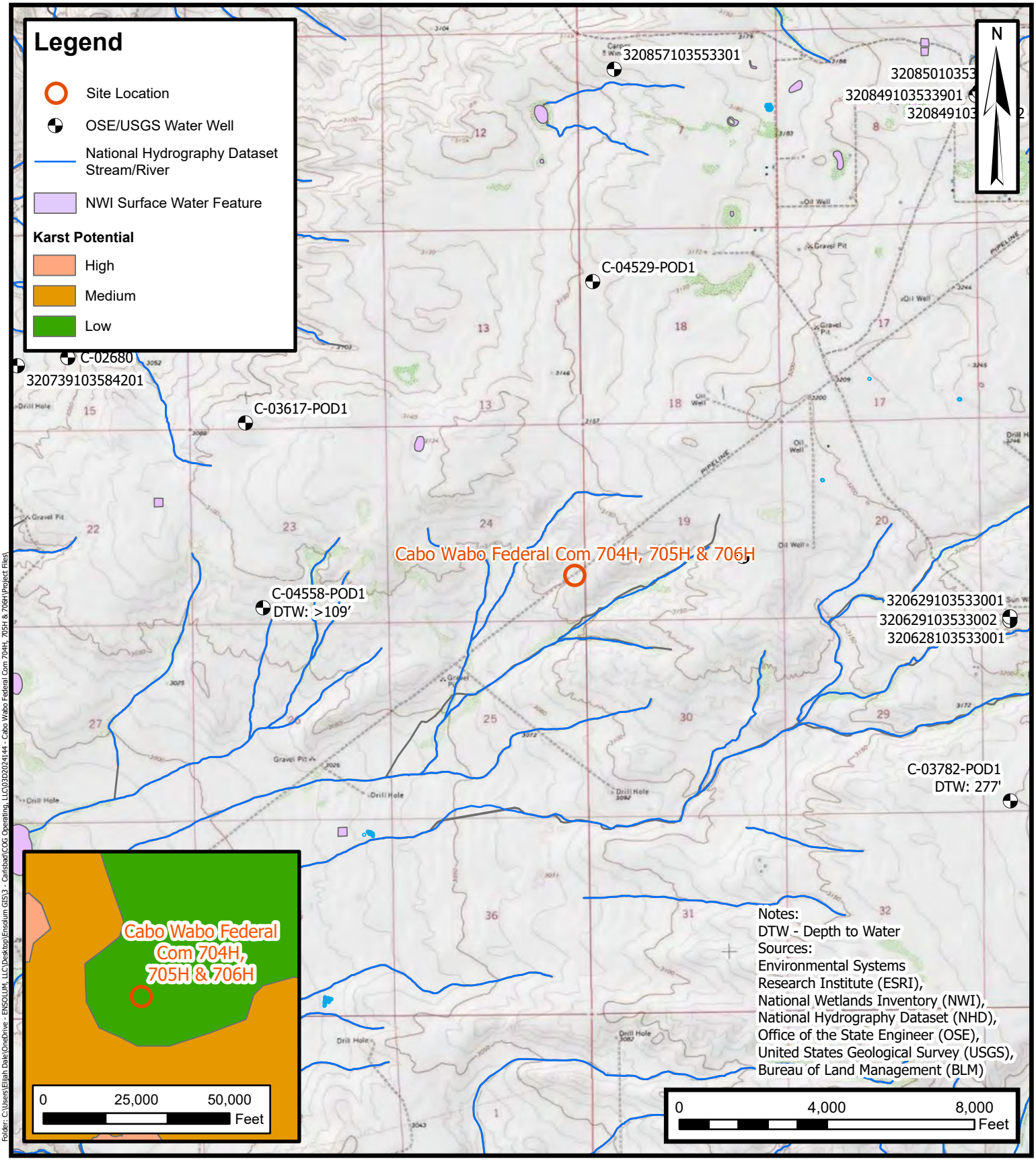
FIGURES



Folder: C:\Users\Elijah Dale\OneDrive - ENSOLUM, LLC\Desktop\Ensolum GIS\3 - Carlsbad\COG Operating, LLC\03202024144 - Cabo Wabo Federal Com 704H, 705H & 706H\Project Files\

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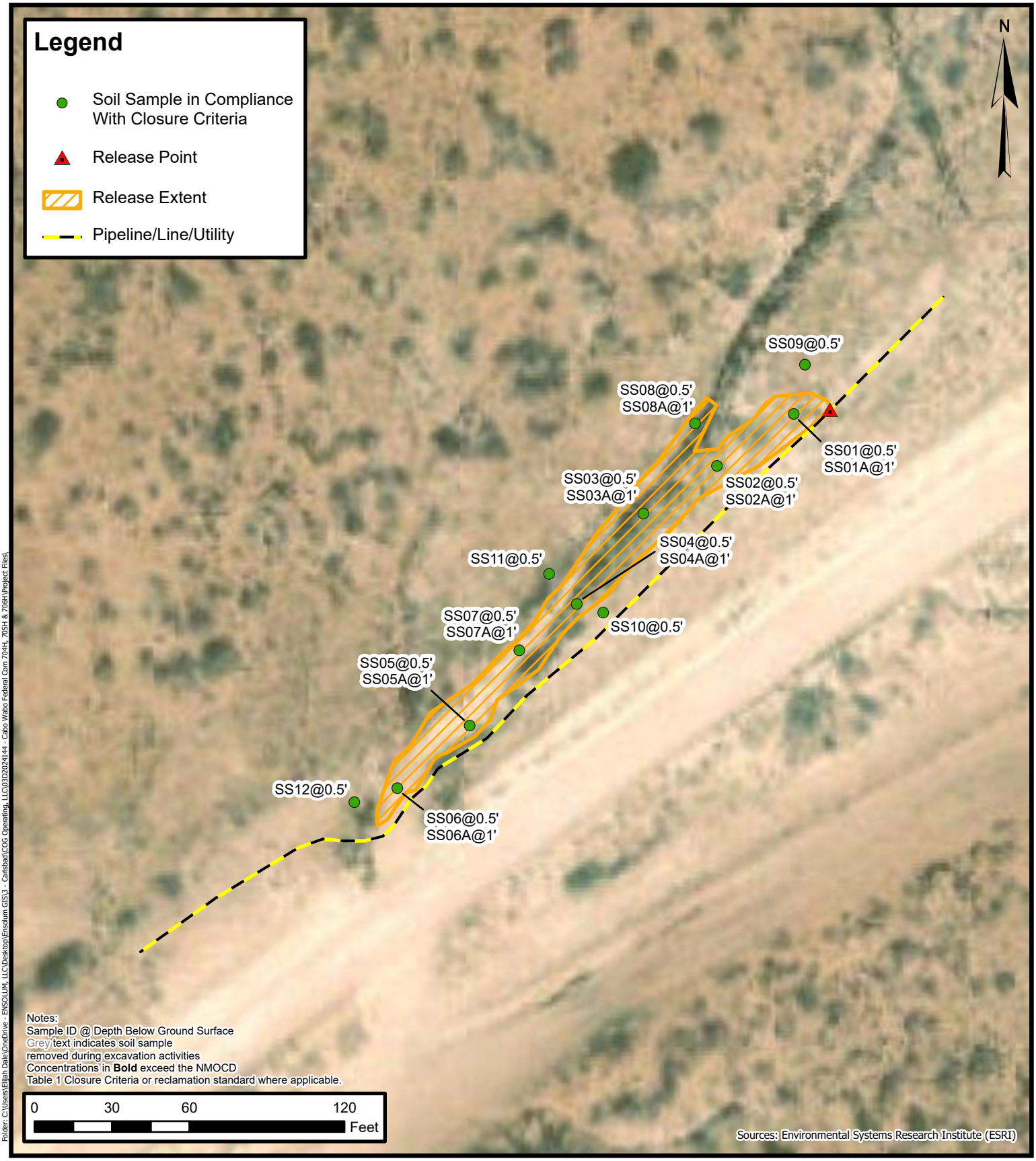
Environmental, Engineering and Hydrogeologic Consultants

Site Receptor Map

COG Operating, LLC
Cabo Wabo Federal Com 704H, 705H & 706H
Incident ID: NAPP2235437148
Unit P, Sec 24, T25S, R29E
Lea County, New Mexico

FIGURE
1



Folder: C:\Users\Elijah Dale\OneDrive - ENSOLUM, LLC\Desktop\Ensolum GIS\3 - Carlsbad\COG Operating, LLC\03202024144 - Cabo Wabo Federal Com 704H, 705H & 706H\Project Files\

ENSOLUM
Environmental, Engineering and Hydrogeologic Consultants

Soil Sample Locations Map

COG Operating, LLC
Cabo Wabo Federal Com 704H, 705H & 706H
Incident ID: NAPP2235437148
Unit P, Sec 24, T25S, R29E
Lea County, New Mexico

FIGURE
2

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TABLES

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TABLE 1
SOIL SAMPLE ANALYTICAL RESULTS
Cabo Wabo Federal Com 704H, 705H, 706H
COG Operating, 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**	**2,500**	**20,000**
Delineation Soil Samples										
SS01*	01/25/2023	0.5	<0.00201	<0.00402	<49.9	<49.9	<49.9	<49.9	<49.9	7.30
SS01A*	02/16/2023	1	<0.00198	<0.00396	<49.8	<49.8	<49.8	<49.8	<49.8	<5.02
SS02*	01/25/2023	0.5	<0.00200	<0.00401	<50.0	<50.0	<50.0	<50.0	<50.0	<5.00
SS02A*	02/16/2023	1	<0.00199	<0.00398	<49.9	<49.9	<49.9	<49.9	<49.9	<4.95
SS03*	01/25/2023	0.5	<0.00199	<0.00398	<49.9	<49.9	<49.9	<49.9	<49.9	<4.99
SS03A*	02/16/2023	1	<0.00202	<0.00404	<50.0	<50.0	<50.0	<50.0	<50.0	12.2
SS04*	01/25/2023	0.5	<0.00199	<0.00398	<49.9	<49.9	<49.9	<49.9	<49.9	<4.95
SS04A*	02/16/2023	1	<0.00200	<0.00401	<50.0	<50.0	<50.0	<50.0	<50.0	<4.97
SS05*	01/25/2023	0.5	<0.00200	<0.00399	<49.8	<49.8	<49.8	<49.8	<49.8	5.16
SS05A*	02/16/2023	1	<0.00200	<0.00399	<49.9	<49.9	<49.9	<49.9	<49.9	11.6
SS06*	01/25/2023	0.5	<0.00200	<0.00401	<50.0	<50.0	<50.0	<50.0	<50.0	<5.05
SS06A*	02/16/2023	1	<0.00198	<0.00397	<49.9	<49.9	<49.9	<49.9	<49.9	28.0
SS07*	01/25/2023	0.5	<0.00199	<0.00398	<49.9	97.8	<49.9	97.8	97.8	5.68
SS07A*	02/16/2023	1	<0.00201	<0.00402	<49.9	<49.9	<49.9	<49.9	<49.9	8.16
SS08*	01/25/2023	0.5	<0.00199	<0.00398	<50.0	67.1	<50.0	67.1	67.1	<5.00
SS08A*	02/16/2023	1	<0.00200	<0.00401	<50.0	<50.0	<50.0	<50.0	<50.0	<4.95
SS09*	02/16/2023	0.5	<0.00199	<0.00398	<49.9	<49.9	<49.9	<49.9	<49.9	<4.97
SS10*	02/16/2023	0.5	<0.00198	<0.00396	<50.0	<50.0	<50.0	<50.0	<50.0	<5.04
SS11*	02/16/2023	0.5	<0.00200	<0.00401	<50.0	<50.0	<50.0	<50.0	<50.0	<4.99
SS12*	02/16/2023	0.5	<0.00199	<0.00398	<49.8	<49.8	<49.8	<49.8	<49.8	<4.96

Notes:

bgs: below ground surface
mg/kg: milligrams per kilogram
NMOCD: New Mexico Oil Conservation Division
BTEX: Benzene, Toluene, Ethylbenzene, and Xylenes
GRO: Gasoline Range Organics
DRO: Diesel Range Organics
ORO: Oil Range Organics
TPH: Total Petroleum Hydrocarbon
** indicates sample was collected in area to be reclaimed after remediation is complete;*
reclamation standard for chloride in the top 4 feet is 600 mg/kg
reclamation standard for TPH in the top 4 feet is 100 mg/kg

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APPENDIX A

Referenced Well Records

WELL RECORD & LOG

OFFICE OF THE STATE ENGINEER

www.ose.state.nm.us

OSE DIT AUG 17 2021 PM3:21

1. GENERAL AND WELL LOCATION

OSE POD NO. (WELL NO.): POD1 (BH-01)	WELL TAG ID NO.: n/a	OSE FILE NO(S).: C-4558
WELL OWNER NAME(S): XTO Energy (Kyle Littrell)		PHONE (OPTIONAL):
WELL OWNER MAILING ADDRESS: 6401 Holiday Hill Dr.		CITY: Midland STATE: TX ZIP: 79707

WELL LOCATION (FROM GPS)		DEGREES	MINUTES	SECONDS		
	LATITUDE	32	6	33.90	N	* ACCURACY REQUIRED: ONE TENTH OF A SECOND
	LONGITUDE	103	57	27.03	W	* DATUM REQUIRED: WGS 84

DESCRIPTION RELATING WELL LOCATION TO STREET ADDRESS AND COMMON LANDMARKS – PLSS (SECTION, TOWNSHIP, RANGE) WHERE AVAILABLE

SE SW Sec. 23 T25S R29E

2. DRILLING & CASING INFORMATION

LICENSE NO.	NAME OF LICENSED DRILLER	NAME OF WELL DRILLING COMPANY
1249	Jackie D. Atkins	Atkins Engineering Associates, Inc.

DRILLING STARTED	DRILLING ENDED	DEPTH OF COMPLETED WELL (FT)	BORE HOLE DEPTH (FT)	DEPTH WATER FIRST ENCOUNTERED (FT)
07/21/2021	07/21/2021	temporary well material	109	n/a

COMPLETED WELL IS: ☐ ARTESIAN ☑ DRY HOLE ☐ SHALLOW (UNCONFINED) — STATIC WATER LEVEL IN COMPLETED WELL (FT): n/a

DRILLING FLUID: ☐ AIR ☐ MUD ADDITIVES – SPECIFY:

DRILLING METHOD: ☐ ROTARY ☐ HAMMER ☐ CABLE TOOL ☑ OTHER – SPECIFY: Hollow Stem Auger

DEPTH (feet bgl) FROM	DEPTH (feet bgl) TO	BORE HOLE DIAM (inches)	CASING MATERIAL AND/OR GRADE (include each casing string, and note sections of screen)	CASING CONNECTION TYPE (add coupling diameter)	CASING INSIDE DIAM. (inches)	CASING WALL THICKNESS (inches)	SLOT SIZE (inches)
0	109	±6.5	Boring- HSA	--	--	--	--

3. ANNULAR MATERIAL

DEPTH (feet bgl) FROM	DEPTH (feet bgl) TO	BORE HOLE DIAM. (inches)	LIST ANNULAR SEAL MATERIAL AND GRAVEL PACK SIZE-RANGE BY INTERVAL	AMOUNT (cubic feet)	METHOD OF PLACEMENT

FOR OSE INTERNAL USE — WR-20 WELL RECORD & LOG (Version 06/30/17)

FILE NO. C-4558	POD NO. 1	TRN NO. 699798	
LOCATION 25S-29E-23 343		WELL TAG ID NO.	PAGE 1 OF 2

OSE DIT AUG 17 2021 PM3:21

4. HYDROGEOLOGIC LOG OF WELL

DEPTH (feet bgl) FROM	DEPTH (feet bgl) TO	THICKNESS (feet)	COLOR AND TYPE OF MATERIAL ENCOUNTERED - INCLUDE WATER-BEARING CAVITIES OR FRACTURE ZONES (attach supplemental sheets to fully describe all units)	WATER BEARING? (YES / NO)	ESTIMATED YIELD FOR WATER-BEARING ZONES (gpm)
0	5	5	Calichem moderate consolidation, Off White	Y ✓ N	
5	23	18	Sand, poorly graded, some silt, Light Brown	Y ✓ N	
23	39	16	Sand, Fine-medium grain, poorly graded, some gravel, Light Brown	Y ✓ N	
39	44	5	Sand, Fine-medium grain, poorly graded, some gravel and clay, Light Brown	Y ✓ N	
44	65	21	Sand, Fine-medium grain, poorly graded, Light Brown	Y ✓ N	
65	70	5	Clay Sand, poorly graded, Light Brown, moist	Y ✓ N	
70	108	28	Sand, Fine-medium grain, poorly graded, Light Brown	Y ✓ N	
108	109	1	Sandstone, poorly sorted, interbedded with clay , moist	Y ✓ N	
				Y N	
				Y N	
				Y N	
				Y N	
				Y N	
				Y N	
				Y N	
				Y N	
				Y N	
				Y N	
				Y N	
				Y N	

METHOD USED TO ESTIMATE YIELD OF WATER-BEARING STRATA:

☐ PUMP ☐ AIR LIFT ☐ BAILER ☐ OTHER – SPECIFY:

TOTAL ESTIMATED WELL YIELD (gpm): 0.00

5. TEST; RIG SUPERVISION

WELL TEST: TEST RESULTS - ATTACH A COPY OF DATA COLLECTED DURING WELL TESTING, INCLUDING DISCHARGE METHOD, START TIME, END TIME, AND A TABLE SHOWING DISCHARGE AND DRAWDOWN OVER THE TESTING PERIOD.

MISCELLANEOUS INFORMATION: Temporary well materials removed and the soil boring backfilled using drill cuttings from total depth to ten feet below ground surface, then hydrated bentonite chips from ten feet below ground surface to surface. Logs adapted from WSP on-site geologist.

PRINT NAME(S) OF DRILL RIG SUPERVISOR(S) THAT PROVIDED ONSITE SUPERVISION OF WELL CONSTRUCTION OTHER THAN LICENSEE:

Shane Eldridge, Carmelo Trevino, Cameron Pruitt

6. SIGNATURE

THE UNDERSIGNED HEREBY CERTIFIES THAT, TO THE BEST OF HIS OR HER KNOWLEDGE AND BELIEF, THE FOREGOING IS A TRUE AND CORRECT RECORD OF THE ABOVE DESCRIBED HOLE AND THAT HE OR SHE WILL FILE THIS WELL RECORD WITH THE STATE ENGINEER AND THE PERMIT HOLDER WITHIN 30 DAYS AFTER COMPLETION OF WELL DRILLING:

Jack Atkins — Jackie D. Atkins — 08/16/2021

SIGNATURE OF DRILLER / PRINT SIGNEE NAME — DATE

FOR OSE INTERNAL USE — WR-20 WELL RECORD & LOG (Version 06/30/2017)

FILE NO. C-4558	POD NO. 1	TRN NO. 699798	
LOCATION 255-29E-23 343		WELL TAG ID NO.	PAGE 2 OF 2

Click to hideNews Bulletins

- Explore the *NEW* USGS National Water Dashboard interactive map to access real-time water data from over 13,500 stations nationwide.
- Full News

Groundwater levels for the Nation

Important: Next Generation Monitoring Location Page

Search Results -- 1 sites found

Agency code = usgs
site_no list =
- 320629103533002

Minimum number of levels = 1
Save file of selected sites to local disk for future upload

USGS 320629103533002 25S.30E.21.33342 A

Eddy County, New Mexico
Latitude 32°06'29", Longitude 103°53'30" NAD27
Land-surface elevation 3,209 feet above NAVD88
The depth of the well is 280 feet below land surface.
This well is completed in the Pecos River Basin alluvial aquifer (N100PCSRVR) national aquifer.
This well is completed in the Alluvium, Bolson Deposits and Other Surface Deposits (110AVMB) local aquifer.

Output formats

Table of data
Tab-separated data
Graph of data
Reselect period

Date	Time	? Water-level date-time accuracy	? Parameter code	Water level, feet below land surface	Water level, feet above specific vertical datum	Referenced vertical datum	? Status	? Method of measurement	? Measuring agency	? Source of measurement	? Water-level approval status
1949-03-10		D	62610		2939.36	NGVD29	P	Z			A
1949-03-10		D	62611		2941.00	NAVD88	P	Z			A
1949-03-10		D	72019	268.00			P	Z			A
1992-11-06		D	62610		2942.38	NGVD29	P	S			A
1992-11-06		D	62611		2944.02	NAVD88	P	S			A
1992-11-06		D	72019	264.98			P	S			A

Explanation

Section	Code	Description
Water-level date-time accuracy	D	Date is accurate to the Day
Parameter code	62610	Groundwater level above NGVD 1929, feet
Parameter code	62611	Groundwater level above NAVD 1988, feet
Parameter code	72019	Depth to water level, feet below land surface
Referenced vertical datum	NAVD88	North American Vertical Datum of 1988
Referenced vertical datum	NGVD29	National Geodetic Vertical Datum of 1929
Status	P	Pumping
Method of measurement	S	Steel-tape measurement.
Method of measurement	Z	Other.
Measuring agency		Not determined
Source of measurement		Not determined
Water-level approval status	A	Approved for publication -- Processing and review completed.

Questions about sites/data?
Feedback on this web site

Automated retrievals
Help
Data Tips
Explanation of terms
Subscribe for system changes
News

Accessibility FOIA Privacy Policies and Notices

U.S. Department of the Interior | U.S. Geological Survey
Title: Groundwater for USA: Water Levels
URL: https://nwis.waterdata.usgs.gov/nwis/gwlevels?

Page Contact Information: USGS Water Data Support Team
Page Last Modified: 2023-02-10 14:02:27 EST
0.3 0.26 nadww02

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APPENDIX B

Photographic Log

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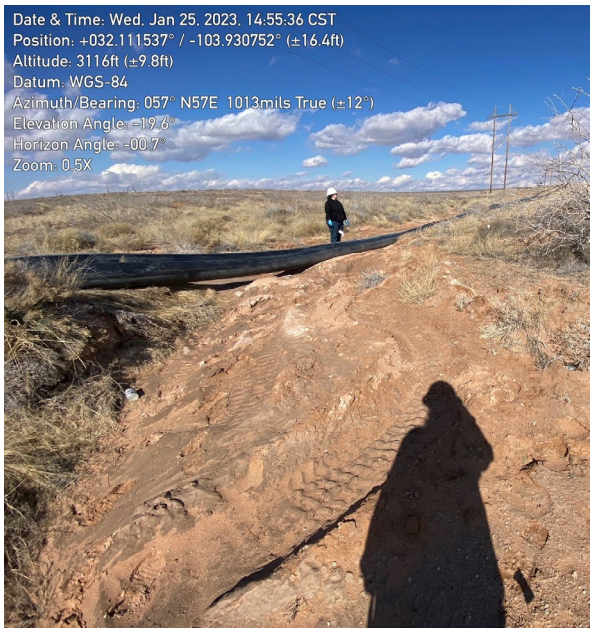
Photographic Log
COG Operating, LLC
Cabo Wabo Federal Com 704H, 705H & 706H
Incident Number NAPP2235437148

Photograph: 1 Date: 12/16/2022
Description: Release origination location
View: North

Photograph: 2 Date: 1/25/2023
Description: Soil in the release footprint
View: Southwest



Photograph: 3 Date: 1/25/2023
Description: Soil in the release footprint
View: Northeast

Photograph: 4 Date: 2/16/2023
Description: After delineation activities
View: Southwest

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APPENDIX C

Laboratory Analytical Reports & Chain of Custody Documentation

eurofins | Environment Testing

ANALYTICAL REPORT

PREPARED FOR

Attn: Hadlie Green
Ensolum
601 N. Marienfeld St.
Suite 400
Midland, Texas 79701

Generated 2/10/2023 11:58:17 AM

JOB DESCRIPTION

Cabo Wabo FC 704/705/706

JOB NUMBER

890-3961-1

Eurofins Carlsbad
1089 N Canal St.
Carlsbad NM 88220

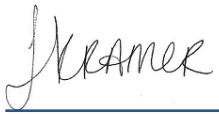
See page two for job notes and contact information.

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



Generated
2/10/2023 11:58:17 AM

Authorized for release by
Jessica Kramer, Project Manager
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Client: Ensolum
Project/Site: Cabo Wabo FC 704/705/706

Laboratory Job ID: 890-3961-1

Table of Contents

Definitions/Glossary

Client: Ensolum Job ID: 890-3961-1
Project/Site: Cabo Wabo FC 704/705/706

Qualifiers

GC VOA

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

GC Semi VOA

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
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Case Narrative

Client: Ensolum Job ID: 890-3961-1
Project/Site: Cabo Wabo FC 704/705/706

Job ID: 890-3961-1

Laboratory: Eurofins Carlsbad

Narrative

Job Narrative
890-3961-1

Receipt
The samples were received on 1/26/2023 10:02 AM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 3.8°C

Receipt Exceptions
The following samples were received and analyzed from an unpreserved bulk soil jar: SS01 (890-3961-1), SS02 (890-3961-2), SS03 (890-3961-3), SS04 (890-3961-4), SS05 (890-3961-5), SS06 (890-3961-6), SS07 (890-3961-7) and SS08 (890-3961-8).

GC VOA
Method 8021B: The laboratory control sample (LCS) associated with preparation batch 880-45398 and analytical batch 880-45308 was outside acceptance criteria. Re-extraction and/or re-analysis could not be performed; therefore, the data have been reported. The batch matrix spike/matrix spike duplicate (MS/MSD) was within acceptance limits and may be used to evaluate matrix performance.

Method 8021B: Surrogate recovery for the following sample was outside control limits: (880-24120-A-2-A). 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 880-45638 and analytical batch 880-45733 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.

Client Sample Results

Client: Ensolum
Job ID: 890-3961-1
Project/Site: Cabo Wabo FC 704/705/706

Client Sample ID: SS01
Lab Sample ID: 890-3961-1
Date Collected: 01/25/23 13:29
Matrix: Solid
Date Received: 01/26/23 10:02
Sample Depth: 0.5'

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00201	U *- *1	0.00201		mg/Kg		02/03/23 12:58	02/05/23 02:25	1
Toluene	<0.00201	U *- *1	0.00201		mg/Kg		02/03/23 12:58	02/05/23 02:25	1
Ethylbenzene	<0.00201	U *- *1	0.00201		mg/Kg		02/03/23 12:58	02/05/23 02:25	1
m-Xylene & p-Xylene	<0.00402	U *- *1	0.00402		mg/Kg		02/03/23 12:58	02/05/23 02:25	1
o-Xylene	<0.00201	U *- *1	0.00201		mg/Kg		02/03/23 12:58	02/05/23 02:25	1
Xylenes, Total	<0.00402	U *- *1	0.00402		mg/Kg		02/03/23 12:58	02/05/23 02:25	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*114*		*70 - 130*	*02/03/23 12:58*	*02/05/23 02:25*	*1*
1,4-Difluorobenzene (Surr)	*102*		*70 - 130*	*02/03/23 12:58*	*02/05/23 02:25*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00402	U	0.00402		mg/Kg			02/06/23 12:09	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9		mg/Kg			02/09/23 09:20	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9		mg/Kg		02/06/23 16:38	02/08/23 18:01	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		02/06/23 16:38	02/08/23 18:01	1
OII Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		02/06/23 16:38	02/08/23 18:01	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*105*		*70 - 130*	*02/06/23 16:38*	*02/08/23 18:01*	*1*
o-Terphenyl	*112*		*70 - 130*	*02/06/23 16:38*	*02/08/23 18:01*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**7.30**		5.05		mg/Kg			01/31/23 15:35	1

Client Sample ID: SS02
Lab Sample ID: 890-3961-2
Date Collected: 01/25/23 13:30
Matrix: Solid
Date Received: 01/26/23 10:02
Sample Depth: 0.5'

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U *- *1	0.00200		mg/Kg		02/03/23 12:58	02/05/23 02:46	1
Toluene	<0.00200	U *- *1	0.00200		mg/Kg		02/03/23 12:58	02/05/23 02:46	1
Ethylbenzene	<0.00200	U *- *1	0.00200		mg/Kg		02/03/23 12:58	02/05/23 02:46	1
m-Xylene & p-Xylene	<0.00401	U *- *1	0.00401		mg/Kg		02/03/23 12:58	02/05/23 02:46	1
o-Xylene	<0.00200	U *- *1	0.00200		mg/Kg		02/03/23 12:58	02/05/23 02:46	1
Xylenes, Total	<0.00401	U *- *1	0.00401		mg/Kg		02/03/23 12:58	02/05/23 02:46	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*117*		*70 - 130*	*02/03/23 12:58*	*02/05/23 02:46*	*1*

Client Sample Results

Client: Ensolum
Job ID: 890-3961-1
Project/Site: Cabo Wabo FC 704/705/706

Client Sample ID: SS02
Lab Sample ID: 890-3961-2
Date Collected: 01/25/23 13:30
Matrix: Solid
Date Received: 01/26/23 10:02
Sample Depth: 0.5'

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

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,4-Difluorobenzene (Surr)	*113*		*70 - 130*	*02/03/23 12:58*	*02/05/23 02:46*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00401	U	0.00401	mg/Kg			02/06/23 12:09	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0	mg/Kg			02/09/23 09:20	1

Method: SW846 8015B NM - Diesel Range Organics (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		02/06/23 16:38	02/08/23 18:23	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		02/06/23 16:38	02/08/23 18:23	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		02/06/23 16:38	02/08/23 18:23	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*110*		*70 - 130*	*02/06/23 16:38*	*02/08/23 18:23*	*1*
o-Terphenyl	*118*		*70 - 130*	*02/06/23 16:38*	*02/08/23 18:23*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.00	U	5.00	mg/Kg			01/31/23 15:53	1

Client Sample ID: SS03
Lab Sample ID: 890-3961-3
Date Collected: 01/25/23 13:32
Matrix: Solid
Date Received: 01/26/23 10:02
Sample Depth: 0.5'

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U *- *1	0.00199	mg/Kg		02/03/23 12:58	02/05/23 03:06	1
Toluene	<0.00199	U *- *1	0.00199	mg/Kg		02/03/23 12:58	02/05/23 03:06	1
Ethylbenzene	<0.00199	U *- *1	0.00199	mg/Kg		02/03/23 12:58	02/05/23 03:06	1
m-Xylene & p-Xylene	<0.00398	U *- *1	0.00398	mg/Kg		02/03/23 12:58	02/05/23 03:06	1
o-Xylene	<0.00199	U *- *1	0.00199	mg/Kg		02/03/23 12:58	02/05/23 03:06	1
Xylenes, Total	<0.00398	U *- *1	0.00398	mg/Kg		02/03/23 12:58	02/05/23 03:06	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*76*		*70 - 130*	*02/03/23 12:58*	*02/05/23 03:06*	*1*
1,4-Difluorobenzene (Surr)	*132*	*S1+*	*70 - 130*	*02/03/23 12:58*	*02/05/23 03:06*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398	mg/Kg			02/06/23 12:09	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9	mg/Kg			02/09/23 09:20	1

Client Sample Results

Client: Ensolum
Job ID: 890-3961-1
Project/Site: Cabo Wabo FC 704/705/706

Client Sample ID: SS03
Lab Sample ID: 890-3961-3
Date Collected: 01/25/23 13:32
Matrix: Solid
Date Received: 01/26/23 10:02
Sample Depth: 0.5'

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9		mg/Kg		02/06/23 16:38	02/08/23 18:45	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		02/06/23 16:38	02/08/23 18:45	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		02/06/23 16:38	02/08/23 18:45	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*92*		*70 - 130*	*02/06/23 16:38*	*02/08/23 18:45*	*1*
o-Terphenyl	*103*		*70 - 130*	*02/06/23 16:38*	*02/08/23 18:45*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<4.99	U	4.99		mg/Kg			01/31/23 15:59	1

Client Sample ID: SS04
Lab Sample ID: 890-3961-4
Date Collected: 01/25/23 13:33
Matrix: Solid
Date Received: 01/26/23 10:02
Sample Depth: 0.5'

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U *- *1	0.00199		mg/Kg		02/03/23 12:58	02/05/23 03:26	1
Toluene	<0.00199	U *- *1	0.00199		mg/Kg		02/03/23 12:58	02/05/23 03:26	1
Ethylbenzene	<0.00199	U *- *1	0.00199		mg/Kg		02/03/23 12:58	02/05/23 03:26	1
m-Xylene & p-Xylene	<0.00398	U *- *1	0.00398		mg/Kg		02/03/23 12:58	02/05/23 03:26	1
o-Xylene	<0.00199	U *- *1	0.00199		mg/Kg		02/03/23 12:58	02/05/23 03:26	1
Xylenes, Total	<0.00398	U *- *1	0.00398		mg/Kg		02/03/23 12:58	02/05/23 03:26	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*125*		*70 - 130*	*02/03/23 12:58*	*02/05/23 03:26*	*1*
1,4-Difluorobenzene (Surr)	*100*		*70 - 130*	*02/03/23 12:58*	*02/05/23 03:26*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398		mg/Kg			02/06/23 12:09	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9		mg/Kg			02/09/23 09:20	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9		mg/Kg		02/06/23 16:38	02/08/23 19:07	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		02/06/23 16:38	02/08/23 19:07	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		02/06/23 16:38	02/08/23 19:07	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*90*		*70 - 130*	*02/06/23 16:38*	*02/08/23 19:07*	*1*
o-Terphenyl	*104*		*70 - 130*	*02/06/23 16:38*	*02/08/23 19:07*	*1*

Client Sample Results

Client: Ensolum
Job ID: 890-3961-1
Project/Site: Cabo Wabo FC 704/705/706

Client Sample ID: SS04
Lab Sample ID: 890-3961-4
Date Collected: 01/25/23 13:33
Matrix: Solid
Date Received: 01/26/23 10:02
Sample Depth: 0.5'

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<4.95	U	4.95		mg/Kg			01/31/23 16:06	1

Client Sample ID: SS05
Lab Sample ID: 890-3961-5
Date Collected: 01/25/23 13:34
Matrix: Solid
Date Received: 01/26/23 10:02
Sample Depth: 0.5'

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U *- *1	0.00200		mg/Kg		02/03/23 12:58	02/05/23 03:47	1
Toluene	<0.00200	U *- *1	0.00200		mg/Kg		02/03/23 12:58	02/05/23 03:47	1
Ethylbenzene	<0.00200	U *- *1	0.00200		mg/Kg		02/03/23 12:58	02/05/23 03:47	1
m-Xylene & p-Xylene	<0.00399	U *- *1	0.00399		mg/Kg		02/03/23 12:58	02/05/23 03:47	1
o-Xylene	<0.00200	U *- *1	0.00200		mg/Kg		02/03/23 12:58	02/05/23 03:47	1
Xylenes, Total	<0.00399	U *- *1	0.00399		mg/Kg		02/03/23 12:58	02/05/23 03:47	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*107*		*70 - 130*	*02/03/23 12:58*	*02/05/23 03:47*	*1*
1,4-Difluorobenzene (Surr)	*109*		*70 - 130*	*02/03/23 12:58*	*02/05/23 03:47*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00399	U	0.00399		mg/Kg			02/06/23 12:09	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.8	U	49.8		mg/Kg			02/09/23 09:20	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.8	U	49.8		mg/Kg		02/06/23 16:38	02/08/23 19:29	1
Diesel Range Organics (Over C10-C28)	<49.8	U	49.8		mg/Kg		02/06/23 16:38	02/08/23 19:29	1
OII Range Organics (Over C28-C36)	<49.8	U	49.8		mg/Kg		02/06/23 16:38	02/08/23 19:29	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*91*		*70 - 130*	*02/06/23 16:38*	*02/08/23 19:29*	*1*
o-Terphenyl	*101*		*70 - 130*	*02/06/23 16:38*	*02/08/23 19:29*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**5.16**		4.97		mg/Kg			01/31/23 16:12	1

Client Sample Results

Client: Ensolum
Job ID: 890-3961-1
Project/Site: Cabo Wabo FC 704/705/706

Client Sample ID: SS06
Lab Sample ID: 890-3961-6
Date Collected: 01/25/23 13:35
Matrix: Solid
Date Received: 01/26/23 10:02
Sample Depth: 0.5'

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U *- *1	0.00200		mg/Kg		02/03/23 12:58	02/05/23 05:57	1
Toluene	<0.00200	U *- *1	0.00200		mg/Kg		02/03/23 12:58	02/05/23 05:57	1
Ethylbenzene	<0.00200	U *- *1	0.00200		mg/Kg		02/03/23 12:58	02/05/23 05:57	1
m-Xylene & p-Xylene	<0.00401	U *- *1	0.00401		mg/Kg		02/03/23 12:58	02/05/23 05:57	1
o-Xylene	<0.00200	U *- *1	0.00200		mg/Kg		02/03/23 12:58	02/05/23 05:57	1
Xylenes, Total	<0.00401	U *- *1	0.00401		mg/Kg		02/03/23 12:58	02/05/23 05:57	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*110*		*70 - 130*	*02/03/23 12:58*	*02/05/23 05:57*	*1*
1,4-Difluorobenzene (Surr)	*105*		*70 - 130*	*02/03/23 12:58*	*02/05/23 05:57*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00401	U	0.00401		mg/Kg			02/06/23 12:09	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0		mg/Kg			02/09/23 09:20	1

Method: SW846 8015B NM - Diesel Range Organics (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		02/06/23 16:38	02/08/23 19:51	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		02/06/23 16:38	02/08/23 19:51	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		02/06/23 16:38	02/08/23 19:51	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*88*		*70 - 130*	*02/06/23 16:38*	*02/08/23 19:51*	*1*
o-Terphenyl	*101*		*70 - 130*	*02/06/23 16:38*	*02/08/23 19:51*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.05	U	5.05		mg/Kg			01/31/23 16:30	1

Client Sample ID: SS07
Lab Sample ID: 890-3961-7
Date Collected: 01/25/23 13:36
Matrix: Solid
Date Received: 01/26/23 10:02
Sample Depth: 0.5'

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U *- *1	0.00199		mg/Kg		02/03/23 12:58	02/05/23 06:18	1
Toluene	<0.00199	U *- *1	0.00199		mg/Kg		02/03/23 12:58	02/05/23 06:18	1
Ethylbenzene	<0.00199	U *- *1	0.00199		mg/Kg		02/03/23 12:58	02/05/23 06:18	1
m-Xylene & p-Xylene	<0.00398	U *- *1	0.00398		mg/Kg		02/03/23 12:58	02/05/23 06:18	1
o-Xylene	<0.00199	U *- *1	0.00199		mg/Kg		02/03/23 12:58	02/05/23 06:18	1
Xylenes, Total	<0.00398	U *- *1	0.00398		mg/Kg		02/03/23 12:58	02/05/23 06:18	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*115*		*70 - 130*	*02/03/23 12:58*	*02/05/23 06:18*	*1*

Client Sample Results

Client: Ensolum
Job ID: 890-3961-1
Project/Site: Cabo Wabo FC 704/705/706

Client Sample ID: SS07
Lab Sample ID: 890-3961-7
Date Collected: 01/25/23 13:36
Matrix: Solid
Date Received: 01/26/23 10:02
Sample Depth: 0.5'

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

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,4-Difluorobenzene (Surr)	*107*		*70 - 130*	*02/03/23 12:58*	*02/05/23 06:18*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398	mg/Kg			02/06/23 12:09	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	**97.8**		49.9	mg/Kg			02/10/23 10:33	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9	mg/Kg		02/07/23 09:21	02/09/23 21:25	1
Diesel Range Organics (Over C10-C28)	**97.8**		49.9	mg/Kg		02/07/23 09:21	02/09/23 21:25	1
OII Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg		02/07/23 09:21	02/09/23 21:25	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*114*		*70 - 130*	*02/07/23 09:21*	*02/09/23 21:25*	*1*
o-Terphenyl	*117*		*70 - 130*	*02/07/23 09:21*	*02/09/23 21:25*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**5.68**		4.97	mg/Kg			01/31/23 16:36	1

Client Sample ID: SS08
Lab Sample ID: 890-3961-8
Date Collected: 01/25/23 13:38
Matrix: Solid
Date Received: 01/26/23 10:02
Sample Depth: 0.5'

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U *- *1	0.00199	mg/Kg		02/03/23 12:58	02/05/23 06:38	1
Toluene	<0.00199	U *- *1	0.00199	mg/Kg		02/03/23 12:58	02/05/23 06:38	1
Ethylbenzene	<0.00199	U *- *1	0.00199	mg/Kg		02/03/23 12:58	02/05/23 06:38	1
m-Xylene & p-Xylene	<0.00398	U *- *1	0.00398	mg/Kg		02/03/23 12:58	02/05/23 06:38	1
o-Xylene	<0.00199	U *- *1	0.00199	mg/Kg		02/03/23 12:58	02/05/23 06:38	1
Xylenes, Total	<0.00398	U *- *1	0.00398	mg/Kg		02/03/23 12:58	02/05/23 06:38	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*115*		*70 - 130*	*02/03/23 12:58*	*02/05/23 06:38*	*1*
1,4-Difluorobenzene (Surr)	*107*		*70 - 130*	*02/03/23 12:58*	*02/05/23 06:38*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398	mg/Kg			02/06/23 12:09	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	**67.1**		50.0	mg/Kg			02/10/23 10:33	1

Client Sample Results

Client: Ensolum
Job ID: 890-3961-1
Project/Site: Cabo Wabo FC 704/705/706

Client Sample ID: SS08
Lab Sample ID: 890-3961-8
Date Collected: 01/25/23 13:38
Matrix: Solid
Date Received: 01/26/23 10:02
Sample Depth: 0.5'

Method: SW846 8015B NM - Diesel Range Organics (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		02/07/23 09:21	02/09/23 22:31	1
Diesel Range Organics (Over C10-C28)	**67.1**		50.0		mg/Kg		02/07/23 09:21	02/09/23 22:31	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		02/07/23 09:21	02/09/23 22:31	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*113*		*70 - 130*	*02/07/23 09:21*	*02/09/23 22:31*	*1*
o-Terphenyl	*119*		*70 - 130*	*02/07/23 09:21*	*02/09/23 22:31*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.00	U	5.00		mg/Kg			01/31/23 16:43	1

Surrogate Summary

Client: Ensolum
Project/Site: Cabo Wabo FC 704/705/706

Job ID: 890-3961-1

Method: 8021B - Volatile Organic Compounds (GC)

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

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	BFB1 (70-130)	DFBZ1 (70-130)
880-24120-A-2-C MS	Matrix Spike	105	109
880-24120-A-2-D MSD	Matrix Spike Duplicate	111	109
890-3961-1	SS01	114	102
890-3961-2	SS02	117	113
890-3961-3	SS03	76	132 S1+
890-3961-4	SS04	125	100
890-3961-5	SS05	107	109
890-3961-6	SS06	110	105
890-3961-7	SS07	115	107
890-3961-8	SS08	115	107
LCS 880-45398/1-A	Lab Control Sample	110	111
LCSD 880-45398/2-A	Lab Control Sample Dup	106	110
MB 880-45349/5-A	Method Blank	105	108
MB 880-45398/5-A	Method Blank	108	107

Surrogate Legend

BFB = 4-Bromofluorobenzene (Surr)

DFBZ = 1,4-Difluorobenzene (Surr)

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

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

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	1CO1 (70-130)	OTPH1 (70-130)
890-3958-A-21-D MS	Matrix Spike	122	122
890-3958-A-21-E MSD	Matrix Spike Duplicate	121	121
890-3961-1	SS01	105	112
890-3961-2	SS02	110	118
890-3961-3	SS03	92	103
890-3961-4	SS04	90	104
890-3961-5	SS05	91	101
890-3961-6	SS06	88	101
890-3961-7	SS07	114	117
890-3961-7 MS	SS07	109	94
890-3961-7 MSD	SS07	123	103
890-3961-8	SS08	113	119
LCS 880-45638/2-A	Lab Control Sample	112	105
LCS 880-45658/2-A	Lab Control Sample	105	105
LCSD 880-45638/3-A	Lab Control Sample Dup	103	113
LCSD 880-45658/3-A	Lab Control Sample Dup	95	98
MB 880-45638/1-A	Method Blank	135 S1+	143 S1+
MB 880-45658/1-A	Method Blank	124	126

Surrogate Legend

1CO = 1-Chlorooctane

OTPH = o-Terphenyl

QC Sample Results

Client: Ensolum
Project/Site: Cabo Wabo FC 704/705/706

Job ID: 890-3961-1

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-45349/5-A
Matrix: Solid
Analysis Batch: 45308

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 45349

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		02/03/23 10:32	02/04/23 13:00	1
Toluene	<0.00200	U	0.00200		mg/Kg		02/03/23 10:32	02/04/23 13:00	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		02/03/23 10:32	02/04/23 13:00	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		02/03/23 10:32	02/04/23 13:00	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		02/03/23 10:32	02/04/23 13:00	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		02/03/23 10:32	02/04/23 13:00	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*105*		*70 - 130*	*02/03/23 10:32*	*02/04/23 13:00*	*1*
1,4-Difluorobenzene (Surr)	*108*		*70 - 130*	*02/03/23 10:32*	*02/04/23 13:00*	*1*

Lab Sample ID: MB 880-45398/5-A
Matrix: Solid
Analysis Batch: 45308

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 45398

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		02/03/23 12:58	02/05/23 00:35	1
Toluene	<0.00200	U	0.00200		mg/Kg		02/03/23 12:58	02/05/23 00:35	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		02/03/23 12:58	02/05/23 00:35	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		02/03/23 12:58	02/05/23 00:35	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		02/03/23 12:58	02/05/23 00:35	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		02/03/23 12:58	02/05/23 00:35	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*108*		*70 - 130*	*02/03/23 12:58*	*02/05/23 00:35*	*1*
1,4-Difluorobenzene (Surr)	*107*		*70 - 130*	*02/03/23 12:58*	*02/05/23 00:35*	*1*

Lab Sample ID: LCS 880-45398/1-A
Matrix: Solid
Analysis Batch: 45308

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 45398

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Benzene			0.100	0.04056	*-	mg/Kg		41	70 - 130		
Toluene			0.100	0.04277	*-	mg/Kg		43	70 - 130		
Ethylbenzene			0.100	0.04505	*-	mg/Kg		45	70 - 130		
m-Xylene & p-Xylene			0.200	0.09694	*-	mg/Kg		48	70 - 130		
o-Xylene			0.100	0.05225	*-	mg/Kg		52	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*110*		*70 - 130*
1,4-Difluorobenzene (Surr)	*111*		*70 - 130*

Lab Sample ID: LCSD 880-45398/2-A
Matrix: Solid
Analysis Batch: 45308

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 45398

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene			0.100	0.07962	*1	mg/Kg		80	70 - 130	65	35

QC Sample Results

Client: Ensolum
Project/Site: Cabo Wabo FC 704/705/706

Job ID: 890-3961-1

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

Lab Sample ID: LCSD 880-45398/2-A — **Client Sample ID: Lab Control Sample Dup**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 45308 — **Prep Batch: 45398**

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Toluene			0.100	0.07926	*1	mg/Kg		79	70 - 130	60	35
Ethylbenzene			0.100	0.08008	*1	mg/Kg		80	70 - 130	56	35
m-Xylene & p-Xylene			0.200	0.1690	*1	mg/Kg		85	70 - 130	54	35
o-Xylene			0.100	0.08502	*1	mg/Kg		85	70 - 130	48	35

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*106*		*70 - 130*
1,4-Difluorobenzene (Surr)	*110*		*70 - 130*

Lab Sample ID: 880-24120-A-2-C MS — **Client Sample ID: Matrix Spike**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 45308 — **Prep Batch: 45398**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	<0.00198	U *- *1	0.0990	0.08419		mg/Kg		85	70 - 130
Toluene	<0.00198	U *- *1	0.0990	0.07613		mg/Kg		77	70 - 130
Ethylbenzene	<0.00198	U *- *1	0.0990	0.06992		mg/Kg		71	70 - 130
m-Xylene & p-Xylene	<0.00396	U *- *1	0.198	0.1521		mg/Kg		77	70 - 130
o-Xylene	<0.00198	U *- *1	0.0990	0.07369		mg/Kg		74	70 - 130

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*105*		*70 - 130*
1,4-Difluorobenzene (Surr)	*109*		*70 - 130*

Lab Sample ID: 880-24120-A-2-D MSD — **Client Sample ID: Matrix Spike Duplicate**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 45308 — **Prep Batch: 45398**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	<0.00198	U *- *1	0.0996	0.08984		mg/Kg		90	70 - 130	6	35
Toluene	<0.00198	U *- *1	0.0996	0.08505		mg/Kg		85	70 - 130	11	35
Ethylbenzene	<0.00198	U *- *1	0.0996	0.07616		mg/Kg		76	70 - 130	9	35
m-Xylene & p-Xylene	<0.00396	U *- *1	0.199	0.1649		mg/Kg		83	70 - 130	8	35
o-Xylene	<0.00198	U *- *1	0.0996	0.07830		mg/Kg		79	70 - 130	6	35

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*111*		*70 - 130*
1,4-Difluorobenzene (Surr)	*109*		*70 - 130*

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

Lab Sample ID: MB 880-45638/1-A — **Client Sample ID: Method Blank**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 45733 — **Prep Batch: 45638**

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		02/06/23 16:38	02/08/23 08:16	1

QC Sample Results

Client: Ensolum
Project/Site: Cabo Wabo FC 704/705/706

Job ID: 890-3961-1

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

Lab Sample ID: MB 880-45638/1-A
Matrix: Solid
Analysis Batch: 45733

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 45638

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		02/06/23 16:38	02/08/23 08:16	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		02/06/23 16:38	02/08/23 08:16	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*135*	*S1+*	*70 - 130*	*02/06/23 16:38*	*02/08/23 08:16*	*1*
o-Terphenyl	*143*	*S1+*	*70 - 130*	*02/06/23 16:38*	*02/08/23 08:16*	*1*

Lab Sample ID: LCS 880-45638/2-A
Matrix: Solid
Analysis Batch: 45733

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 45638

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Gasoline Range Organics (GRO)-C6-C10			1000	784.9		mg/Kg		78	70 - 130		
Diesel Range Organics (Over C10-C28)			1000	959.3		mg/Kg		96	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1-Chlorooctane	*112*		*70 - 130*
o-Terphenyl	*105*		*70 - 130*

Lab Sample ID: LCSD 880-45638/3-A
Matrix: Solid
Analysis Batch: 45733

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 45638

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10			1000	912.0		mg/Kg		91	70 - 130	15	20
Diesel Range Organics (Over C10-C28)			1000	1038		mg/Kg		104	70 - 130	8	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1-Chlorooctane	*103*		*70 - 130*
o-Terphenyl	*113*		*70 - 130*

Lab Sample ID: 890-3958-A-21-D MS
Matrix: Solid
Analysis Batch: 45733

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 45638

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	999	1243		mg/Kg		122	70 - 130		
Diesel Range Organics (Over C10-C28)	<49.9	U	999	1090		mg/Kg		109	70 - 130		

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
1-Chlorooctane	*122*		*70 - 130*
o-Terphenyl	*122*		*70 - 130*

QC Sample Results

Client: Ensolum
Project/Site: Cabo Wabo FC 704/705/706

Job ID: 890-3961-1

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

Lab Sample ID: 890-3958-A-21-E MSD — **Client Sample ID: Matrix Spike Duplicate**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 45733 — **Prep Batch: 45638**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	997	1127		mg/Kg		111	70 - 130	10	20
Diesel Range Organics (Over C10-C28)	<49.9	U	997	1102		mg/Kg		111	70 - 130	1	20

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
1-Chlorooctane	*121*		*70 - 130*
o-Terphenyl	*121*		*70 - 130*

Lab Sample ID: MB 880-45658/1-A — **Client Sample ID: Method Blank**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 45831 — **Prep Batch: 45658**

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		02/07/23 09:21	02/09/23 20:17	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		02/07/23 09:21	02/09/23 20:17	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		02/07/23 09:21	02/09/23 20:17	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*124*		*70 - 130*	*02/07/23 09:21*	*02/09/23 20:17*	*1*
o-Terphenyl	*126*		*70 - 130*	*02/07/23 09:21*	*02/09/23 20:17*	*1*

Lab Sample ID: LCS 880-45658/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 45831 — **Prep Batch: 45658**

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Gasoline Range Organics (GRO)-C6-C10			1000	885.3		mg/Kg		89	70 - 130		
Diesel Range Organics (Over C10-C28)			1000	909.8		mg/Kg		91	70 - 130		

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

Lab Sample ID: LCSD 880-45658/3-A — **Client Sample ID: Lab Control Sample Dup**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 45831 — **Prep Batch: 45658**

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10			1000	871.4		mg/Kg		87	70 - 130	2	20
Diesel Range Organics (Over C10-C28)			1000	824.8		mg/Kg		82	70 - 130	10	20

QC Sample Results

Client: Ensolum
Project/Site: Cabo Wabo FC 704/705/706

Job ID: 890-3961-1

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

Lab Sample ID: LCSD 880-45658/3-A
Matrix: Solid
Analysis Batch: 45831

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 45658

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
1-Chlorooctane	95		70 - 130
o-Terphenyl	98		70 - 130

Lab Sample ID: 890-3961-7 MS
Matrix: Solid
Analysis Batch: 45831

Client Sample ID: SS07
Prep Type: Total/NA
Prep Batch: 45658

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	999	902.9		mg/Kg		88	70 - 130
Diesel Range Organics (Over C10-C28)	97.8		999	867.4		mg/Kg		77	70 - 130

Surrogate	MS %Recovery	MS Qualifier	Limits
1-Chlorooctane	109		70 - 130
o-Terphenyl	94		70 - 130

Lab Sample ID: 890-3961-7 MSD
Matrix: Solid
Analysis Batch: 45831

Client Sample ID: SS07
Prep Type: Total/NA
Prep Batch: 45658

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	1000	1103		mg/Kg		108	70 - 130	20	20
Diesel Range Organics (Over C10-C28)	97.8		1000	952.5		mg/Kg		85	70 - 130	9	20

Surrogate	MSD %Recovery	MSD Qualifier	Limits
1-Chlorooctane	123		70 - 130
o-Terphenyl	103		70 - 130

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-45088/1-A
Matrix: Solid
Analysis Batch: 45161

Client Sample ID: Method Blank
Prep Type: Soluble

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.00	U	5.00		mg/Kg			01/31/23 15:16	1

Lab Sample ID: LCS 880-45088/2-A
Matrix: Solid
Analysis Batch: 45161

Client Sample ID: Lab Control Sample
Prep Type: Soluble

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride			250	253.8		mg/Kg		102	90 - 110

QC Sample Results

Client: Ensolum
Job ID: 890-3961-1
Project/Site: Cabo Wabo FC 704/705/706

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: LCSD 880-45088/3-A
Client Sample ID: Lab Control Sample Dup
Matrix: Solid
Prep Type: Soluble
Analysis Batch: 45161

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride			250	253.2		mg/Kg		101	90 - 110	0	20

Lab Sample ID: 890-3961-1 MS
Client Sample ID: SS01
Matrix: Solid
Prep Type: Soluble
Analysis Batch: 45161

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride	7.30		253	267.7		mg/Kg		103	90 - 110		

Lab Sample ID: 890-3961-1 MSD
Client Sample ID: SS01
Matrix: Solid
Prep Type: Soluble
Analysis Batch: 45161

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	7.30		253	267.9		mg/Kg		103	90 - 110	0	20

QC Association Summary

Client: Ensolum
Job ID: 890-3961-1
Project/Site: Cabo Wabo FC 704/705/706

GC VOA

Analysis Batch: 45308

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3961-1	SS01	Total/NA	Solid	8021B	45398
890-3961-2	SS02	Total/NA	Solid	8021B	45398
890-3961-3	SS03	Total/NA	Solid	8021B	45398
890-3961-4	SS04	Total/NA	Solid	8021B	45398
890-3961-5	SS05	Total/NA	Solid	8021B	45398
890-3961-6	SS06	Total/NA	Solid	8021B	45398
890-3961-7	SS07	Total/NA	Solid	8021B	45398
890-3961-8	SS08	Total/NA	Solid	8021B	45398
MB 880-45349/5-A	Method Blank	Total/NA	Solid	8021B	45349
MB 880-45398/5-A	Method Blank	Total/NA	Solid	8021B	45398
LCS 880-45398/1-A	Lab Control Sample	Total/NA	Solid	8021B	45398
LCSD 880-45398/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	45398
880-24120-A-2-C MS	Matrix Spike	Total/NA	Solid	8021B	45398
880-24120-A-2-D MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	45398

Prep Batch: 45349

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 880-45349/5-A	Method Blank	Total/NA	Solid	5035	

Prep Batch: 45398

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3961-1	SS01	Total/NA	Solid	5035	
890-3961-2	SS02	Total/NA	Solid	5035	
890-3961-3	SS03	Total/NA	Solid	5035	
890-3961-4	SS04	Total/NA	Solid	5035	
890-3961-5	SS05	Total/NA	Solid	5035	
890-3961-6	SS06	Total/NA	Solid	5035	
890-3961-7	SS07	Total/NA	Solid	5035	
890-3961-8	SS08	Total/NA	Solid	5035	
MB 880-45398/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-45398/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-45398/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
880-24120-A-2-C MS	Matrix Spike	Total/NA	Solid	5035	
880-24120-A-2-D MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	

Analysis Batch: 45593

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3961-1	SS01	Total/NA	Solid	Total BTEX	
890-3961-2	SS02	Total/NA	Solid	Total BTEX	
890-3961-3	SS03	Total/NA	Solid	Total BTEX	
890-3961-4	SS04	Total/NA	Solid	Total BTEX	
890-3961-5	SS05	Total/NA	Solid	Total BTEX	
890-3961-6	SS06	Total/NA	Solid	Total BTEX	
890-3961-7	SS07	Total/NA	Solid	Total BTEX	
890-3961-8	SS08	Total/NA	Solid	Total BTEX	

GC Semi VOA

Prep Batch: 45638

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3961-1	SS01	Total/NA	Solid	8015NM Prep	

QC Association Summary

Client: Ensolum
Job ID: 890-3961-1
Project/Site: Cabo Wabo FC 704/705/706

GC Semi VOA (Continued)

Prep Batch: 45638 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3961-2	SS02	Total/NA	Solid	8015NM Prep	
890-3961-3	SS03	Total/NA	Solid	8015NM Prep	
890-3961-4	SS04	Total/NA	Solid	8015NM Prep	
890-3961-5	SS05	Total/NA	Solid	8015NM Prep	
890-3961-6	SS06	Total/NA	Solid	8015NM Prep	
MB 880-45638/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-45638/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-45638/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
890-3958-A-21-D MS	Matrix Spike	Total/NA	Solid	8015NM Prep	
890-3958-A-21-E MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	

Prep Batch: 45658

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3961-7	SS07	Total/NA	Solid	8015NM Prep	
890-3961-8	SS08	Total/NA	Solid	8015NM Prep	
MB 880-45658/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-45658/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-45658/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
890-3961-7 MS	SS07	Total/NA	Solid	8015NM Prep	
890-3961-7 MSD	SS07	Total/NA	Solid	8015NM Prep	

Analysis Batch: 45733

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3961-1	SS01	Total/NA	Solid	8015B NM	45638
890-3961-2	SS02	Total/NA	Solid	8015B NM	45638
890-3961-3	SS03	Total/NA	Solid	8015B NM	45638
890-3961-4	SS04	Total/NA	Solid	8015B NM	45638
890-3961-5	SS05	Total/NA	Solid	8015B NM	45638
890-3961-6	SS06	Total/NA	Solid	8015B NM	45638
MB 880-45638/1-A	Method Blank	Total/NA	Solid	8015B NM	45638
LCS 880-45638/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	45638
LCSD 880-45638/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	45638
890-3958-A-21-D MS	Matrix Spike	Total/NA	Solid	8015B NM	45638
890-3958-A-21-E MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	45638

Analysis Batch: 45831

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3961-7	SS07	Total/NA	Solid	8015B NM	45658
890-3961-8	SS08	Total/NA	Solid	8015B NM	45658
MB 880-45658/1-A	Method Blank	Total/NA	Solid	8015B NM	45658
LCS 880-45658/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	45658
LCSD 880-45658/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	45658
890-3961-7 MS	SS07	Total/NA	Solid	8015B NM	45658
890-3961-7 MSD	SS07	Total/NA	Solid	8015B NM	45658

Analysis Batch: 45856

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3961-1	SS01	Total/NA	Solid	8015 NM	
890-3961-2	SS02	Total/NA	Solid	8015 NM	
890-3961-3	SS03	Total/NA	Solid	8015 NM	
890-3961-4	SS04	Total/NA	Solid	8015 NM	

QC Association Summary

Client: Ensolum
Job ID: 890-3961-1
Project/Site: Cabo Wabo FC 704/705/706

GC Semi VOA (Continued)

Analysis Batch: 45856 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3961-5	SS05	Total/NA	Solid	8015 NM	
890-3961-6	SS06	Total/NA	Solid	8015 NM	
890-3961-7	SS07	Total/NA	Solid	8015 NM	
890-3961-8	SS08	Total/NA	Solid	8015 NM	

HPLC/IC

Leach Batch: 45088

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3961-1	SS01	Soluble	Solid	DI Leach	
890-3961-2	SS02	Soluble	Solid	DI Leach	
890-3961-3	SS03	Soluble	Solid	DI Leach	
890-3961-4	SS04	Soluble	Solid	DI Leach	
890-3961-5	SS05	Soluble	Solid	DI Leach	
890-3961-6	SS06	Soluble	Solid	DI Leach	
890-3961-7	SS07	Soluble	Solid	DI Leach	
890-3961-8	SS08	Soluble	Solid	DI Leach	
MB 880-45088/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-45088/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-45088/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
890-3961-1 MS	SS01	Soluble	Solid	DI Leach	
890-3961-1 MSD	SS01	Soluble	Solid	DI Leach	

Analysis Batch: 45161

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3961-1	SS01	Soluble	Solid	300.0	45088
890-3961-2	SS02	Soluble	Solid	300.0	45088
890-3961-3	SS03	Soluble	Solid	300.0	45088
890-3961-4	SS04	Soluble	Solid	300.0	45088
890-3961-5	SS05	Soluble	Solid	300.0	45088
890-3961-6	SS06	Soluble	Solid	300.0	45088
890-3961-7	SS07	Soluble	Solid	300.0	45088
890-3961-8	SS08	Soluble	Solid	300.0	45088
MB 880-45088/1-A	Method Blank	Soluble	Solid	300.0	45088
LCS 880-45088/2-A	Lab Control Sample	Soluble	Solid	300.0	45088
LCSD 880-45088/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	45088
890-3961-1 MS	SS01	Soluble	Solid	300.0	45088
890-3961-1 MSD	SS01	Soluble	Solid	300.0	45088

Lab Chronicle

Client: Ensolum

Job ID: 890-3961-1

Project/Site: Cabo Wabo FC 704/705/706

Client Sample ID: SS01

Lab Sample ID: 890-3961-1

Date Collected: 01/25/23 13:29

Matrix: Solid

Date Received: 01/26/23 10:02

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.97 g	5 mL	45398	02/03/23 12:58	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	45308	02/05/23 02:25	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			45593	02/06/23 12:09	AJ	EET MID
Total/NA	Analysis	8015 NM		1			45856	02/09/23 09:20	SM	EET MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	45638	02/06/23 16:38	AJ	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	45733	02/08/23 18:01	SM	EET MID
Soluble	Leach	DI Leach			4.95 g	50 mL	45088	01/30/23 16:07	KS	EET MID
Soluble	Analysis	300.0		1			45161	01/31/23 15:35	CH	EET MID

Client Sample ID: SS02

Lab Sample ID: 890-3961-2

Date Collected: 01/25/23 13:30

Matrix: Solid

Date Received: 01/26/23 10:02

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.99 g	5 mL	45398	02/03/23 12:58	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	45308	02/05/23 02:46	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			45593	02/06/23 12:09	AJ	EET MID
Total/NA	Analysis	8015 NM		1			45856	02/09/23 09:20	SM	EET MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	45638	02/06/23 16:38	AJ	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	45733	02/08/23 18:23	SM	EET MID
Soluble	Leach	DI Leach			5 g	50 mL	45088	01/30/23 16:07	KS	EET MID
Soluble	Analysis	300.0		1			45161	01/31/23 15:53	CH	EET MID

Client Sample ID: SS03

Lab Sample ID: 890-3961-3

Date Collected: 01/25/23 13:32

Matrix: Solid

Date Received: 01/26/23 10:02

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.02 g	5 mL	45398	02/03/23 12:58	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	45308	02/05/23 03:06	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			45593	02/06/23 12:09	AJ	EET MID
Total/NA	Analysis	8015 NM		1			45856	02/09/23 09:20	SM	EET MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	45638	02/06/23 16:38	AJ	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	45733	02/08/23 18:45	SM	EET MID
Soluble	Leach	DI Leach			5.01 g	50 mL	45088	01/30/23 16:07	KS	EET MID
Soluble	Analysis	300.0		1			45161	01/31/23 15:59	CH	EET MID

Client Sample ID: SS04

Lab Sample ID: 890-3961-4

Date Collected: 01/25/23 13:33

Matrix: Solid

Date Received: 01/26/23 10:02

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.03 g	5 mL	45398	02/03/23 12:58	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	45308	02/05/23 03:26	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			45593	02/06/23 12:09	AJ	EET MID

Lab Chronicle

Client: Ensolum
Job ID: 890-3961-1
Project/Site: Cabo Wabo FC 704/705/706

Client Sample ID: SS04
Lab Sample ID: 890-3961-4
Date Collected: 01/25/23 13:33
Matrix: Solid
Date Received: 01/26/23 10:02

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8015 NM		1			45856	02/09/23 09:20	SM	EET MID
Total/NA	Prep	8015NM Prep			10.03 g	10 mL	45638	02/06/23 16:38	AJ	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	45733	02/08/23 19:07	SM	EET MID
Soluble	Leach	DI Leach			5.05 g	50 mL	45088	01/30/23 16:07	KS	EET MID
Soluble	Analysis	300.0		1			45161	01/31/23 16:06	CH	EET MID

Client Sample ID: SS05
Lab Sample ID: 890-3961-5
Date Collected: 01/25/23 13:34
Matrix: Solid
Date Received: 01/26/23 10:02

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.01 g	5 mL	45398	02/03/23 12:58	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	45308	02/05/23 03:47	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			45593	02/06/23 12:09	AJ	EET MID
Total/NA	Analysis	8015 NM		1			45856	02/09/23 09:20	SM	EET MID
Total/NA	Prep	8015NM Prep			10.04 g	10 mL	45638	02/06/23 16:38	AJ	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	45733	02/08/23 19:29	SM	EET MID
Soluble	Leach	DI Leach			5.03 g	50 mL	45088	01/30/23 16:07	KS	EET MID
Soluble	Analysis	300.0		1			45161	01/31/23 16:12	CH	EET MID

Client Sample ID: SS06
Lab Sample ID: 890-3961-6
Date Collected: 01/25/23 13:35
Matrix: Solid
Date Received: 01/26/23 10:02

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.99 g	5 mL	45398	02/03/23 12:58	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	45308	02/05/23 05:57	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			45593	02/06/23 12:09	AJ	EET MID
Total/NA	Analysis	8015 NM		1			45856	02/09/23 09:20	SM	EET MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	45638	02/06/23 16:38	AJ	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	45733	02/08/23 19:51	SM	EET MID
Soluble	Leach	DI Leach			4.95 g	50 mL	45088	01/30/23 16:07	KS	EET MID
Soluble	Analysis	300.0		1			45161	01/31/23 16:30	CH	EET MID

Client Sample ID: SS07
Lab Sample ID: 890-3961-7
Date Collected: 01/25/23 13:36
Matrix: Solid
Date Received: 01/26/23 10:02

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.02 g	5 mL	45398	02/03/23 12:58	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	45308	02/05/23 06:18	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			45593	02/06/23 12:09	AJ	EET MID
Total/NA	Analysis	8015 NM		1			45856	02/10/23 10:33	SM	EET MID
Total/NA	Prep	8015NM Prep			10.03 g	10 mL	45658	02/07/23 09:21	AJ	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	45831	02/09/23 21:25	SM	EET MID

Lab Chronicle

Client: Ensolum
Job ID: 890-3961-1
Project/Site: Cabo Wabo FC 704/705/706

Client Sample ID: SS07
Lab Sample ID: 890-3961-7
Date Collected: 01/25/23 13:36
Matrix: Solid
Date Received: 01/26/23 10:02

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			5.03 g	50 mL	45088	01/30/23 16:07	KS	EET MID
Soluble	Analysis	300.0		1			45161	01/31/23 16:36	CH	EET MID

Client Sample ID: SS08
Lab Sample ID: 890-3961-8
Date Collected: 01/25/23 13:38
Matrix: Solid
Date Received: 01/26/23 10:02

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.03 g	5 mL	45398	02/03/23 12:58	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	45308	02/05/23 06:38	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			45593	02/06/23 12:09	AJ	EET MID
Total/NA	Analysis	8015 NM		1			45856	02/10/23 10:33	SM	EET MID
Total/NA	Prep	8015NM Prep			10.00 g	10 mL	45658	02/07/23 09:21	AJ	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	45831	02/09/23 22:31	SM	EET MID
Soluble	Leach	DI Leach			5 g	50 mL	45088	01/30/23 16:07	KS	EET MID
Soluble	Analysis	300.0		1			45161	01/31/23 16:43	CH	EET MID

Laboratory References:

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

Accreditation/Certification Summary

Client: Ensolum
Job ID: 890-3961-1
Project/Site: Cabo Wabo FC 704/705/706

Laboratory: Eurofins Midland

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

Authority	Program	Identification Number	Expiration Date
Texas	NELAP	T104704400-22-25	06-30-23

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

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

Method Summary

Client: Ensolum
Job ID: 890-3961-1
Project/Site: Cabo Wabo FC 704/705/706

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

Protocol References:

ASTM = ASTM International

EPA = US Environmental Protection Agency

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

TAL SOP = TestAmerica Laboratories, Standard Operating Procedure

Laboratory References:

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

Sample Summary

Client: Ensolum

Job ID: 890-3961-1

Project/Site: Cabo Wabo FC 704/705/706

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-3961-1	SS01	Solid	01/25/23 13:29	01/26/23 10:02	0.5'
890-3961-2	SS02	Solid	01/25/23 13:30	01/26/23 10:02	0.5'
890-3961-3	SS03	Solid	01/25/23 13:32	01/26/23 10:02	0.5'
890-3961-4	SS04	Solid	01/25/23 13:33	01/26/23 10:02	0.5'
890-3961-5	SS05	Solid	01/25/23 13:34	01/26/23 10:02	0.5'
890-3961-6	SS06	Solid	01/25/23 13:35	01/26/23 10:02	0.5'
890-3961-7	SS07	Solid	01/25/23 13:36	01/26/23 10:02	0.5'
890-3961-8	SS08	Solid	01/25/23 13:38	01/26/23 10:02	0.5'

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Chain of Custody

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

Work Order No: _____

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Project Manager:	Hadlie Green	Bill to: (if different)	Kalei Jennings
Company Name:	Ensolum, LLC	Company Name:	Ensolum, LLC
Address:	601 N Marienfeld St Suite 400	Address:	601 N Marienfeld St Suite 400
City, State ZIP:	Midland, TX 79701	City, State ZIP:	Midland, TX 79701
Phone:	432-557-8895	Email:	kjennings@ensolum.com, hgreen@ensolum.com

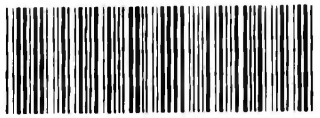
Work Order Comments

Program: UST/PST ☐ PRP ☐ Brownfields ☐ RRC ☐ Superfund ☐
State of Project: NM
Reporting: Level II ☒ Level III ☐ PST/UST ☐ TRRP ☐ Level IV ☐
Deliverables: EDD ☒ ADaPT ☐ Other:

Project Name:	CABO WABO FC 704/705/706	Turn Around	☒ Routine ☐ Rush
Project Number:		Pres. Code	
Project Location:	32.1116, -103.9302	Due Date:	5 DAY
Sampler's Name:	Hadlie Green	TAT starts the day received by the lab, if received by 4:30pm	
PO #:			

SAMPLE RECEIPT			
Temp Blank:	Yes No	Wet Ice:	Yes No
Samples Received Intact:	Yes No	Thermometer ID:	TNM007
Cooler Custody Seals:	Yes No N/A	Correction Factor:	-0.3
Sample Custody Seals:	Yes No N/A	Temperature Reading:	4.0
Total Containers:		Corrected Temperature:	3.8

ANALYSIS REQUEST



Preservative Codes

None: NO DI Water: H_2O
Cool: Cool MeOH: Me
HCL: HC HNO_3: HN
H_2S0_4: H_2 NaOH: Na
H_3PO_4: HP
$NaHSO_4$: NABIS
$Na_2S_2O_3$: $NaSO_3$
Zn Acetate+NaOH: Zn
NaOH+Ascorbic Acid: SAPC

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Grab/ Comp	# of Cont	Parameters: BTEX 8021B	TPH 8015	CHLORIDE 300	Sample Comments
SS01	SL	1-25-23	1329	0.5	G	1	X	X	X	8 - 40Z
SS02			1330							
SS03			1332							
SS04			1333							
SS05			1334							
SS06			1335							
SS07			1336							
SS08			1338							

Total 200.7 / 6010 200.8 / 6020: 8RCRA 13PPM Texas 11 Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag SiO_2 Na Sr Tl Sn U V Zn

Circle Method(s) and Metal(s) to be analyzed TCLP / SPLP 6010: 8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Tl U Hg: 1631 / 245.1 / 7470 / 7471

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
1 Hadlie Green	Amanda Stuf	1-26-23 1023	2		
3			4		
5			6		

Login Sample Receipt Checklist

Client: Ensolum

Job Number: 890-3961-1
SDG Number:

Login Number: 3961
List Number: 1
Creator: Stutzman, Amanda

List Source: Eurofins Carlsbad

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

Login Sample Receipt Checklist

Client: Ensolum

Job Number: 890-3961-1
SDG Number:

Login Number: 3961
List Number: 2
Creator: Rodriguez, Leticia

List Source: Eurofins Midland
List Creation: 01/27/23 11:00 AM

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

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ANALYTICAL REPORT

PREPARED FOR

Attn: Hadlie Green
Ensolum
601 N. Marienfeld St.
Suite 400
Midland, Texas 79701

Generated 2/24/2023 2:13:06 PM

JOB DESCRIPTION

Cabo Wabo Fed Com 704-706H
SDG NUMBER 03D2024144

JOB NUMBER

890-4138-1

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

Generated
2/24/2023 2:13:06 PM

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

Client: Ensolum
Project/Site: Cabo Wabo Fed Com 704-706H

Laboratory Job ID: 890-4138-1
SDG: 03D2024144

Table of Contents

Definitions/Glossary

Client: Ensolum
Project/Site: Cabo Wabo Fed Com 704-706H

Job ID: 890-4138-1
SDG: 03D2024144

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

GC Semi VOA

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
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Case Narrative

Client: Ensolum
Project/Site: Cabo Wabo Fed Com 704-706H

Job ID: 890-4138-1
SDG: 03D2024144

Job ID: 890-4138-1

Laboratory: Eurofins Carlsbad

Narrative

Job Narrative
890-4138-1

Receipt
The samples were received on 2/17/2023 3:27 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 1.2°C

Receipt Exceptions
The following samples were received and analyzed from an unpreserved bulk soil jar: SS01A (890-4138-1), SS02A (890-4138-2), SS03A (890-4138-3), SS04A (890-4138-4), SS05A (890-4138-5), SS06A (890-4138-6), SS07A (890-4138-7), SS08A (890-4138-8), SS09 (890-4138-9), SS10 (890-4138-10), SS11 (890-4138-11) and SS12 (890-4138-12).

GC VOA
Method 8021B: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 880-46929 and analytical batch 880-46928 were outside control limits for one or more analytes, see QC Sample Results for detail. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery is within acceptance limits.

Method 8021B: The RPD of the laboratory control sample (LCS) and laboratory control sample duplicate (LCSD) for preparation batch 880-46948 and analytical batch 880-46925 recovered outside control limits for the following analytes: Benzene, Toluene, Ethylbenzene, m-Xylene & p-Xylene and o-Xylene.

Method 8021B: Surrogate recovery for the following samples were outside control limits: SS01A (890-4138-1), SS02A (890-4138-2), SS03A (890-4138-3), SS04A (890-4138-4), SS05A (890-4138-5), SS06A (890-4138-6), SS07A (890-4138-7), SS08A (890-4138-8), (CCV 880-46925/20), (CCV 880-46925/33), (CCV 880-46925/51), (LCS 880-46948/1-A), (LCSD 880-46948/2-A), (880-25049-A-1-I), (880-25049-A-1-J MS) and (880-25049-A-1-K MSD). 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: SS09 (890-4138-9) and SS10 (890-4138-10). 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: Surrogate recovery for the following sample was outside control limits: (MB 880-47117/1-A). Evidence of matrix interferences is not obvious.

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

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

Client Sample Results

Client: Ensolum
Project/Site: Cabo Wabo Fed Com 704-706H

Job ID: 890-4138-1
SDG: 03D2024144

Client Sample ID: SS01A

Lab Sample ID: 890-4138-1
Matrix: Solid
Date Collected: 02/16/23 09:25
Date Received: 02/17/23 15:27
Sample Depth: 1'

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00198	U *+	0.00198		mg/Kg		02/22/23 14:24	02/23/23 07:16	1
Toluene	<0.00198	U *+	0.00198		mg/Kg		02/22/23 14:24	02/23/23 07:16	1
Ethylbenzene	<0.00198	U *+	0.00198		mg/Kg		02/22/23 14:24	02/23/23 07:16	1
m-Xylene & p-Xylene	<0.00396	U *+	0.00396		mg/Kg		02/22/23 14:24	02/23/23 07:16	1
o-Xylene	<0.00198	U *+	0.00198		mg/Kg		02/22/23 14:24	02/23/23 07:16	1
Xylenes, Total	<0.00396	U *+	0.00396		mg/Kg		02/22/23 14:24	02/23/23 07:16	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*206*	*S1+*	*70 - 130*	*02/22/23 14:24*	*02/23/23 07:16*	*1*
1,4-Difluorobenzene (Surr)	*68*	*S1-*	*70 - 130*	*02/22/23 14:24*	*02/23/23 07:16*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00396	U	0.00396		mg/Kg			02/23/23 12:26	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.8	U	49.8		mg/Kg			02/24/23 13:21	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.8	U	49.8		mg/Kg		02/23/23 17:07	02/23/23 21:37	1
Diesel Range Organics (Over C10-C28)	<49.8	U	49.8		mg/Kg		02/23/23 17:07	02/23/23 21:37	1
OII Range Organics (Over C28-C36)	<49.8	U	49.8		mg/Kg		02/23/23 17:07	02/23/23 21:37	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*96*		*70 - 130*	*02/23/23 17:07*	*02/23/23 21:37*	*1*
o-Terphenyl	*108*		*70 - 130*	*02/23/23 17:07*	*02/23/23 21:37*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.02	U	5.02		mg/Kg			02/23/23 06:58	1

Client Sample ID: SS02A

Lab Sample ID: 890-4138-2
Matrix: Solid
Date Collected: 02/16/23 09:30
Date Received: 02/17/23 15:27
Sample Depth: 1'

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U *+	0.00199		mg/Kg		02/22/23 14:24	02/23/23 07:42	1
Toluene	<0.00199	U *+	0.00199		mg/Kg		02/22/23 14:24	02/23/23 07:42	1
Ethylbenzene	<0.00199	U *+	0.00199		mg/Kg		02/22/23 14:24	02/23/23 07:42	1
m-Xylene & p-Xylene	<0.00398	U *+	0.00398		mg/Kg		02/22/23 14:24	02/23/23 07:42	1
o-Xylene	<0.00199	U *+	0.00199		mg/Kg		02/22/23 14:24	02/23/23 07:42	1
Xylenes, Total	<0.00398	U *+	0.00398		mg/Kg		02/22/23 14:24	02/23/23 07:42	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*218*	*S1+*	*70 - 130*	*02/22/23 14:24*	*02/23/23 07:42*	*1*

Client Sample Results

Client: Ensolum
Project/Site: Cabo Wabo Fed Com 704-706H

Job ID: 890-4138-1
SDG: 03D2024144

Client Sample ID: SS02A

Lab Sample ID: 890-4138-2
Matrix: Solid
Date Collected: 02/16/23 09:30
Date Received: 02/17/23 15:27
Sample Depth: 1'

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

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,4-Difluorobenzene (Surr)	*78*		*70 - 130*	*02/22/23 14:24*	*02/23/23 07:42*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398	mg/Kg			02/23/23 12:26	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9	mg/Kg			02/24/23 13:21	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9	mg/Kg		02/23/23 17:07	02/23/23 22:43	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9	mg/Kg		02/23/23 17:07	02/23/23 22:43	1
OII Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg		02/23/23 17:07	02/23/23 22:43	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*100*		*70 - 130*	*02/23/23 17:07*	*02/23/23 22:43*	*1*
o-Terphenyl	*112*		*70 - 130*	*02/23/23 17:07*	*02/23/23 22:43*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<4.95	U	4.95	mg/Kg			02/23/23 07:04	1

Client Sample ID: SS03A

Lab Sample ID: 890-4138-3
Matrix: Solid
Date Collected: 02/16/23 09:40
Date Received: 02/17/23 15:27
Sample Depth: 1'

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00202	U *+	0.00202	mg/Kg		02/22/23 14:24	02/23/23 08:09	1
Toluene	<0.00202	U *+	0.00202	mg/Kg		02/22/23 14:24	02/23/23 08:09	1
Ethylbenzene	<0.00202	U *+	0.00202	mg/Kg		02/22/23 14:24	02/23/23 08:09	1
m-Xylene & p-Xylene	<0.00404	U *+	0.00404	mg/Kg		02/22/23 14:24	02/23/23 08:09	1
o-Xylene	<0.00202	U *+	0.00202	mg/Kg		02/22/23 14:24	02/23/23 08:09	1
Xylenes, Total	<0.00404	U *+	0.00404	mg/Kg		02/22/23 14:24	02/23/23 08:09	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*199*	*S1+*	*70 - 130*	*02/22/23 14:24*	*02/23/23 08:09*	*1*
1,4-Difluorobenzene (Surr)	*76*		*70 - 130*	*02/22/23 14:24*	*02/23/23 08:09*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00404	U	0.00404	mg/Kg			02/23/23 12:26	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0	mg/Kg			02/24/23 13:21	1

Client Sample Results

Client: Ensolum
Project/Site: Cabo Wabo Fed Com 704-706H

Job ID: 890-4138-1
SDG: 03D2024144

Client Sample ID: SS03A

Lab Sample ID: 890-4138-3
Matrix: Solid
Date Collected: 02/16/23 09:40
Date Received: 02/17/23 15:27
Sample Depth: 1'

Method: SW846 8015B NM - Diesel Range Organics (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		02/23/23 17:07	02/23/23 23:06	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		02/23/23 17:07	02/23/23 23:06	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		02/23/23 17:07	02/23/23 23:06	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*104*		*70 - 130*	*02/23/23 17:07*	*02/23/23 23:06*	*1*
o-Terphenyl	*115*		*70 - 130*	*02/23/23 17:07*	*02/23/23 23:06*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**12.2**		5.01		mg/Kg			02/23/23 07:10	1

Client Sample ID: SS04A

Lab Sample ID: 890-4138-4
Matrix: Solid
Date Collected: 02/16/23 09:45
Date Received: 02/17/23 15:27
Sample Depth: 1'

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		02/22/23 14:24	02/23/23 09:02	1
Toluene	<0.00200	U *+	0.00200		mg/Kg		02/22/23 14:24	02/23/23 09:02	1
Ethylbenzene	<0.00200	U *+	0.00200		mg/Kg		02/22/23 14:24	02/23/23 09:02	1
m-Xylene & p-Xylene	<0.00401	U *+	0.00401		mg/Kg		02/22/23 14:24	02/23/23 09:02	1
o-Xylene	<0.00200	U *+	0.00200		mg/Kg		02/22/23 14:24	02/23/23 09:02	1
Xylenes, Total	<0.00401	U *+	0.00401		mg/Kg		02/22/23 14:24	02/23/23 09:02	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*178*	*S1+*	*70 - 130*	*02/22/23 14:24*	*02/23/23 09:02*	*1*
1,4-Difluorobenzene (Surr)	*81*		*70 - 130*	*02/22/23 14:24*	*02/23/23 09:02*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00401	U	0.00401		mg/Kg			02/23/23 12:26	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0		mg/Kg			02/24/23 13:21	1

Method: SW846 8015B NM - Diesel Range Organics (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		02/23/23 17:07	02/23/23 23:27	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		02/23/23 17:07	02/23/23 23:27	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		02/23/23 17:07	02/23/23 23:27	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*91*		*70 - 130*	*02/23/23 17:07*	*02/23/23 23:27*	*1*
o-Terphenyl	*101*		*70 - 130*	*02/23/23 17:07*	*02/23/23 23:27*	*1*

Client Sample Results

Client: Ensolum
Project/Site: Cabo Wabo Fed Com 704-706H

Job ID: 890-4138-1
SDG: 03D2024144

Client Sample ID: SS04A

Lab Sample ID: 890-4138-4
Matrix: Solid
Date Collected: 02/16/23 09:45
Date Received: 02/17/23 15:27
Sample Depth: 1'

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<4.97	U	4.97		mg/Kg			02/23/23 07:17	1

Client Sample ID: SS05A

Lab Sample ID: 890-4138-5
Matrix: Solid
Date Collected: 02/16/23 09:55
Date Received: 02/17/23 15:27
Sample Depth: 1'

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		02/22/23 14:24	02/23/23 09:29	1
Toluene	<0.00200	U *+	0.00200		mg/Kg		02/22/23 14:24	02/23/23 09:29	1
Ethylbenzene	<0.00200	U *+	0.00200		mg/Kg		02/22/23 14:24	02/23/23 09:29	1
m-Xylene & p-Xylene	<0.00399	U *+	0.00399		mg/Kg		02/22/23 14:24	02/23/23 09:29	1
o-Xylene	<0.00200	U *+	0.00200		mg/Kg		02/22/23 14:24	02/23/23 09:29	1
Xylenes, Total	<0.00399	U *+	0.00399		mg/Kg		02/22/23 14:24	02/23/23 09:29	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*204*	*S1+*	*70 - 130*	*02/22/23 14:24*	*02/23/23 09:29*	*1*
1,4-Difluorobenzene (Surr)	*73*		*70 - 130*	*02/22/23 14:24*	*02/23/23 09:29*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00399	U	0.00399		mg/Kg			02/23/23 12:26	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9		mg/Kg			02/24/23 13:21	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9		mg/Kg		02/23/23 17:07	02/23/23 23:50	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		02/23/23 17:07	02/23/23 23:50	1
OII Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		02/23/23 17:07	02/23/23 23:50	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*102*		*70 - 130*	*02/23/23 17:07*	*02/23/23 23:50*	*1*
o-Terphenyl	*114*		*70 - 130*	*02/23/23 17:07*	*02/23/23 23:50*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**11.6**		5.00		mg/Kg			02/23/23 07:35	1

Client Sample Results

Client: Ensolum
Project/Site: Cabo Wabo Fed Com 704-706H

Job ID: 890-4138-1
SDG: 03D2024144

Client Sample ID: SS06A

Lab Sample ID: 890-4138-6
Matrix: Solid
Date Collected: 02/16/23 10:00
Date Received: 02/17/23 15:27
Sample Depth: 1'

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00198	U *+	0.00198		mg/Kg		02/22/23 14:24	02/23/23 09:55	1
Toluene	<0.00198	U *+	0.00198		mg/Kg		02/22/23 14:24	02/23/23 09:55	1
Ethylbenzene	<0.00198	U *+	0.00198		mg/Kg		02/22/23 14:24	02/23/23 09:55	1
m-Xylene & p-Xylene	<0.00397	U *+	0.00397		mg/Kg		02/22/23 14:24	02/23/23 09:55	1
o-Xylene	<0.00198	U *+	0.00198		mg/Kg		02/22/23 14:24	02/23/23 09:55	1
Xylenes, Total	<0.00397	U *+	0.00397		mg/Kg		02/22/23 14:24	02/23/23 09:55	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*208*	*S1+*	*70 - 130*	*02/22/23 14:24*	*02/23/23 09:55*	*1*
1,4-Difluorobenzene (Surr)	*71*		*70 - 130*	*02/22/23 14:24*	*02/23/23 09:55*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00397	U	0.00397		mg/Kg			02/23/23 12:26	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9		mg/Kg			02/24/23 13:21	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9		mg/Kg		02/23/23 17:07	02/24/23 00:11	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		02/23/23 17:07	02/24/23 00:11	1
OII Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		02/23/23 17:07	02/24/23 00:11	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*93*		*70 - 130*	*02/23/23 17:07*	*02/24/23 00:11*	*1*
o-Terphenyl	*106*		*70 - 130*	*02/23/23 17:07*	*02/24/23 00:11*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**28.0**		4.99		mg/Kg			02/23/23 07:41	1

Client Sample ID: SS07A

Lab Sample ID: 890-4138-7
Matrix: Solid
Date Collected: 02/16/23 09:50
Date Received: 02/17/23 15:27
Sample Depth: 1'

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00201	U *+	0.00201		mg/Kg		02/22/23 14:24	02/23/23 10:21	1
Toluene	<0.00201	U *+	0.00201		mg/Kg		02/22/23 14:24	02/23/23 10:21	1
Ethylbenzene	<0.00201	U *+	0.00201		mg/Kg		02/22/23 14:24	02/23/23 10:21	1
m-Xylene & p-Xylene	<0.00402	U *+	0.00402		mg/Kg		02/22/23 14:24	02/23/23 10:21	1
o-Xylene	<0.00201	U *+	0.00201		mg/Kg		02/22/23 14:24	02/23/23 10:21	1
Xylenes, Total	<0.00402	U *+	0.00402		mg/Kg		02/22/23 14:24	02/23/23 10:21	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*230*	*S1+*	*70 - 130*	*02/22/23 14:24*	*02/23/23 10:21*	*1*

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Client Sample Results

Client: Ensolum
Project/Site: Cabo Wabo Fed Com 704-706H

Job ID: 890-4138-1
SDG: 03D2024144

Client Sample ID: SS07A

Date Collected: 02/16/23 09:50
Date Received: 02/17/23 15:27
Sample Depth: 1'

Lab Sample ID: 890-4138-7

Matrix: Solid

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

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,4-Difluorobenzene (Surr)	*78*		*70 - 130*	*02/22/23 14:24*	*02/23/23 10:21*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00402	U	0.00402	mg/Kg			02/23/23 12:26	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9	mg/Kg			02/24/23 13:21	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9	mg/Kg		02/23/23 17:07	02/24/23 00:33	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9	mg/Kg		02/23/23 17:07	02/24/23 00:33	1
OII Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg		02/23/23 17:07	02/24/23 00:33	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*90*		*70 - 130*	*02/23/23 17:07*	*02/24/23 00:33*	*1*
o-Terphenyl	*100*		*70 - 130*	*02/23/23 17:07*	*02/24/23 00:33*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**8.16**		4.95	mg/Kg			02/23/23 08:00	1

Client Sample ID: SS08A

Date Collected: 02/16/23 09:35
Date Received: 02/17/23 15:27
Sample Depth: 1'

Lab Sample ID: 890-4138-8

Matrix: Solid

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		02/22/23 14:24	02/23/23 10:47	1
Toluene	<0.00200	U *+	0.00200	mg/Kg		02/22/23 14:24	02/23/23 10:47	1
Ethylbenzene	<0.00200	U *+	0.00200	mg/Kg		02/22/23 14:24	02/23/23 10:47	1
m-Xylene & p-Xylene	<0.00401	U *+	0.00401	mg/Kg		02/22/23 14:24	02/23/23 10:47	1
o-Xylene	<0.00200	U *+	0.00200	mg/Kg		02/22/23 14:24	02/23/23 10:47	1
Xylenes, Total	<0.00401	U *+	0.00401	mg/Kg		02/22/23 14:24	02/23/23 10:47	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*215*	*S1+*	*70 - 130*	*02/22/23 14:24*	*02/23/23 10:47*	*1*
1,4-Difluorobenzene (Surr)	*74*		*70 - 130*	*02/22/23 14:24*	*02/23/23 10:47*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00401	U	0.00401	mg/Kg			02/23/23 12:26	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0	mg/Kg			02/24/23 13:21	1

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Client Sample Results

Client: Ensolum
Project/Site: Cabo Wabo Fed Com 704-706H

Job ID: 890-4138-1
SDG: 03D2024144

Client Sample ID: SS08A

Lab Sample ID: 890-4138-8
Matrix: Solid
Date Collected: 02/16/23 09:35
Date Received: 02/17/23 15:27
Sample Depth: 1'

Method: SW846 8015B NM - Diesel Range Organics (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		02/23/23 17:07	02/24/23 00:55	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		02/23/23 17:07	02/24/23 00:55	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		02/23/23 17:07	02/24/23 00:55	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*92*		*70 - 130*	*02/23/23 17:07*	*02/24/23 00:55*	*1*
o-Terphenyl	*104*		*70 - 130*	*02/23/23 17:07*	*02/24/23 00:55*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<4.95	U	4.95		mg/Kg			02/23/23 08:06	1

Client Sample ID: SS09

Lab Sample ID: 890-4138-9
Matrix: Solid
Date Collected: 02/16/23 11:05
Date Received: 02/17/23 15:27
Sample Depth: 0.5'

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U *+	0.00199		mg/Kg		02/22/23 14:24	02/23/23 11:13	1
Toluene	<0.00199	U *+	0.00199		mg/Kg		02/22/23 14:24	02/23/23 11:13	1
Ethylbenzene	<0.00199	U *+	0.00199		mg/Kg		02/22/23 14:24	02/23/23 11:13	1
m-Xylene & p-Xylene	<0.00398	U *+	0.00398		mg/Kg		02/22/23 14:24	02/23/23 11:13	1
o-Xylene	<0.00199	U *+	0.00199		mg/Kg		02/22/23 14:24	02/23/23 11:13	1
Xylenes, Total	<0.00398	U *+	0.00398		mg/Kg		02/22/23 14:24	02/23/23 11:13	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*229*	*S1+*	*70 - 130*	*02/22/23 14:24*	*02/23/23 11:13*	*1*
1,4-Difluorobenzene (Surr)	*73*		*70 - 130*	*02/22/23 14:24*	*02/23/23 11:13*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398		mg/Kg			02/23/23 12:26	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9		mg/Kg			02/24/23 13:21	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9		mg/Kg		02/23/23 17:07	02/24/23 01:17	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		02/23/23 17:07	02/24/23 01:17	1
OII Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		02/23/23 17:07	02/24/23 01:17	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*90*		*70 - 130*	*02/23/23 17:07*	*02/24/23 01:17*	*1*
o-Terphenyl	*100*		*70 - 130*	*02/23/23 17:07*	*02/24/23 01:17*	*1*

Client Sample Results

Client: Ensolum
Project/Site: Cabo Wabo Fed Com 704-706H

Job ID: 890-4138-1
SDG: 03D2024144

Client Sample ID: SS09

Lab Sample ID: 890-4138-9
Matrix: Solid
Date Collected: 02/16/23 11:05
Date Received: 02/17/23 15:27
Sample Depth: 0.5'

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<4.97	U	4.97		mg/Kg			02/23/23 08:12	1

Client Sample ID: SS10

Lab Sample ID: 890-4138-10
Matrix: Solid
Date Collected: 02/16/23 11:10
Date Received: 02/17/23 15:27
Sample Depth: 0.5'

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00198	U *+	0.00198		mg/Kg		02/22/23 14:24	02/23/23 11:39	1
Toluene	<0.00198	U *+	0.00198		mg/Kg		02/22/23 14:24	02/23/23 11:39	1
Ethylbenzene	<0.00198	U *+	0.00198		mg/Kg		02/22/23 14:24	02/23/23 11:39	1
m-Xylene & p-Xylene	<0.00396	U *+	0.00396		mg/Kg		02/22/23 14:24	02/23/23 11:39	1
o-Xylene	<0.00198	U *+	0.00198		mg/Kg		02/22/23 14:24	02/23/23 11:39	1
Xylenes, Total	<0.00396	U *+	0.00396		mg/Kg		02/22/23 14:24	02/23/23 11:39	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*216*	*S1+*	*70 - 130*	*02/22/23 14:24*	*02/23/23 11:39*	*1*
1,4-Difluorobenzene (Surr)	*74*		*70 - 130*	*02/22/23 14:24*	*02/23/23 11:39*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00396	U	0.00396		mg/Kg			02/23/23 12:26	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0		mg/Kg			02/24/23 13:21	1

Method: SW846 8015B NM - Diesel Range Organics (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		02/23/23 17:07	02/24/23 01:39	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		02/23/23 17:07	02/24/23 01:39	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		02/23/23 17:07	02/24/23 01:39	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*87*		*70 - 130*	*02/23/23 17:07*	*02/24/23 01:39*	*1*
o-Terphenyl	*105*		*70 - 130*	*02/23/23 17:07*	*02/24/23 01:39*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.04	U	5.04		mg/Kg			02/23/23 08:18	1

Client Sample Results

Client: Ensolum
Project/Site: Cabo Wabo Fed Com 704-706H

Job ID: 890-4138-1
SDG: 03D2024144

Client Sample ID: SS11

Lab Sample ID: 890-4138-11
Matrix: Solid
Date Collected: 02/16/23 11:15
Date Received: 02/17/23 15:27
Sample Depth: 0.5'

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		02/22/23 09:16	02/23/23 03:33	1
Toluene	<0.00200	U	0.00200		mg/Kg		02/22/23 09:16	02/23/23 03:33	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		02/22/23 09:16	02/23/23 03:33	1
m-Xylene & p-Xylene	<0.00401	U	0.00401		mg/Kg		02/22/23 09:16	02/23/23 03:33	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		02/22/23 09:16	02/23/23 03:33	1
Xylenes, Total	<0.00401	U	0.00401		mg/Kg		02/22/23 09:16	02/23/23 03:33	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*123*		*70 - 130*	*02/22/23 09:16*	*02/23/23 03:33*	*1*
1,4-Difluorobenzene (Surr)	*114*		*70 - 130*	*02/22/23 09:16*	*02/23/23 03:33*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00401	U	0.00401		mg/Kg			02/23/23 12:18	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0		mg/Kg			02/24/23 13:21	1

Method: SW846 8015B NM - Diesel Range Organics (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		02/23/23 17:07	02/24/23 02:23	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		02/23/23 17:07	02/24/23 02:23	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		02/23/23 17:07	02/24/23 02:23	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*90*		*70 - 130*	*02/23/23 17:07*	*02/24/23 02:23*	*1*
o-Terphenyl	*99*		*70 - 130*	*02/23/23 17:07*	*02/24/23 02:23*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<4.99	U	4.99		mg/Kg			02/23/23 08:24	1

Client Sample ID: SS12

Lab Sample ID: 890-4138-12
Matrix: Solid
Date Collected: 02/16/23 11:20
Date Received: 02/17/23 15:27
Sample Depth: 0.5'

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199		mg/Kg		02/22/23 09:16	02/23/23 03:54	1
Toluene	<0.00199	U	0.00199		mg/Kg		02/22/23 09:16	02/23/23 03:54	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		02/22/23 09:16	02/23/23 03:54	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		02/22/23 09:16	02/23/23 03:54	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		02/22/23 09:16	02/23/23 03:54	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		02/22/23 09:16	02/23/23 03:54	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*113*		*70 - 130*	*02/22/23 09:16*	*02/23/23 03:54*	*1*

Client Sample Results

Client: Ensolum
Project/Site: Cabo Wabo Fed Com 704-706H

Job ID: 890-4138-1
SDG: 03D2024144

Client Sample ID: SS12

Date Collected: 02/16/23 11:20
Date Received: 02/17/23 15:27
Sample Depth: 0.5'

Lab Sample ID: 890-4138-12

Matrix: Solid

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

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,4-Difluorobenzene (Surr)	*115*		*70 - 130*	*02/22/23 09:16*	*02/23/23 03:54*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398		mg/Kg			02/23/23 12:18	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.8	U	49.8		mg/Kg			02/24/23 13:21	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.8	U	49.8		mg/Kg		02/23/23 17:07	02/24/23 02:45	1
Diesel Range Organics (Over C10-C28)	<49.8	U	49.8		mg/Kg		02/23/23 17:07	02/24/23 02:45	1
OII Range Organics (Over C28-C36)	<49.8	U	49.8		mg/Kg		02/23/23 17:07	02/24/23 02:45	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*86*		*70 - 130*	*02/23/23 17:07*	*02/24/23 02:45*	*1*
o-Terphenyl	*94*		*70 - 130*	*02/23/23 17:07*	*02/24/23 02:45*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<4.96	U	4.96		mg/Kg			02/23/23 08:30	1

Surrogate Summary

Client: Ensolum
Project/Site: Cabo Wabo Fed Com 704-706H

Job ID: 890-4138-1
SDG: 03D2024144

Method: 8021B - Volatile Organic Compounds (GC)

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

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	BFB1 (70-130)	DFBZ1 (70-130)
880-25049-A-1-J MS	Matrix Spike	180 S1+	81
880-25049-A-1-K MSD	Matrix Spike Duplicate	187 S1+	80
890-4123-A-1-B MS	Matrix Spike	82	85
890-4123-A-1-C MSD	Matrix Spike Duplicate	100	108
890-4138-1	SS01A	206 S1+	68 S1-
890-4138-2	SS02A	218 S1+	78
890-4138-3	SS03A	199 S1+	76
890-4138-4	SS04A	178 S1+	81
890-4138-5	SS05A	204 S1+	73
890-4138-6	SS06A	208 S1+	71
890-4138-7	SS07A	230 S1+	78
890-4138-8	SS08A	215 S1+	74
890-4138-9	SS09	229 S1+	73
890-4138-10	SS10	216 S1+	74
890-4138-11	SS11	123	114
890-4138-12	SS12	113	115
LCS 880-46929/1-A	Lab Control Sample	92	107
LCS 880-46948/1-A	Lab Control Sample	199 S1+	83
LCSD 880-46929/2-A	Lab Control Sample Dup	103	110
LCSD 880-46948/2-A	Lab Control Sample Dup	197 S1+	82
MB 880-46866/5-A	Method Blank	113	75
MB 880-46868/5-A	Method Blank	82	104
MB 880-46929/5-A	Method Blank	85	99
MB 880-46948/5-A	Method Blank	125	71

Surrogate Legend

BFB = 4-Bromofluorobenzene (Surr)

DFBZ = 1,4-Difluorobenzene (Surr)

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

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

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	1CO1 (70-130)	OTPH1 (70-130)
890-4138-1	SS01A	96	108
890-4138-1 MS	SS01A	99	97
890-4138-1 MSD	SS01A	101	100
890-4138-2	SS02A	100	112
890-4138-3	SS03A	104	115
890-4138-4	SS04A	91	101
890-4138-5	SS05A	102	114
890-4138-6	SS06A	93	106
890-4138-7	SS07A	90	100
890-4138-8	SS08A	92	104
890-4138-9	SS09	90	100
890-4138-10	SS10	87	105
890-4138-11	SS11	90	99
890-4138-12	SS12	86	94
LCS 880-47117/2-A	Lab Control Sample	97	104

Surrogate Summary

Client: Ensolum
Job ID: 890-4138-1
Project/Site: Cabo Wabo Fed Com 704-706H
SDG: 03D2024144

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

Matrix: Solid
Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)									
		1CO1	OTPH1								
Lab Sample ID	Client Sample ID	(70-130)	(70-130)								
LCSD 880-47117/3-A	Lab Control Sample Dup	95	103								
MB 880-47117/1-A	Method Blank	132 S1+	155 S1+								

Surrogate Legend

1CO = 1-Chlorooctane

OTPH = o-Terphenyl

QC Sample Results

Client: Ensolum
Project/Site: Cabo Wabo Fed Com 704-706H

Job ID: 890-4138-1
SDG: 03D2024144

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-46866/5-A
Matrix: Solid
Analysis Batch: 46925

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 46866

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		02/21/23 14:31	02/22/23 11:37	1
Toluene	<0.00200	U	0.00200		mg/Kg		02/21/23 14:31	02/22/23 11:37	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		02/21/23 14:31	02/22/23 11:37	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		02/21/23 14:31	02/22/23 11:37	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		02/21/23 14:31	02/22/23 11:37	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		02/21/23 14:31	02/22/23 11:37	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*113*		*70 - 130*	*02/21/23 14:31*	*02/22/23 11:37*	*1*
1,4-Difluorobenzene (Surr)	*75*		*70 - 130*	*02/21/23 14:31*	*02/22/23 11:37*	*1*

Lab Sample ID: MB 880-46868/5-A
Matrix: Solid
Analysis Batch: 46928

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 46868

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		02/21/23 14:34	02/22/23 11:49	1
Toluene	<0.00200	U	0.00200		mg/Kg		02/21/23 14:34	02/22/23 11:49	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		02/21/23 14:34	02/22/23 11:49	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		02/21/23 14:34	02/22/23 11:49	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		02/21/23 14:34	02/22/23 11:49	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		02/21/23 14:34	02/22/23 11:49	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*82*		*70 - 130*	*02/21/23 14:34*	*02/22/23 11:49*	*1*
1,4-Difluorobenzene (Surr)	*104*		*70 - 130*	*02/21/23 14:34*	*02/22/23 11:49*	*1*

Lab Sample ID: MB 880-46929/5-A
Matrix: Solid
Analysis Batch: 46928

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 46929

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		02/22/23 09:16	02/23/23 02:51	1
Toluene	<0.00200	U	0.00200		mg/Kg		02/22/23 09:16	02/23/23 02:51	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		02/22/23 09:16	02/23/23 02:51	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		02/22/23 09:16	02/23/23 02:51	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		02/22/23 09:16	02/23/23 02:51	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		02/22/23 09:16	02/23/23 02:51	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*85*		*70 - 130*	*02/22/23 09:16*	*02/23/23 02:51*	*1*
1,4-Difluorobenzene (Surr)	*99*		*70 - 130*	*02/22/23 09:16*	*02/23/23 02:51*	*1*

QC Sample Results

Client: Ensolum
Project/Site: Cabo Wabo Fed Com 704-706H

Job ID: 890-4138-1
SDG: 03D2024144

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

Lab Sample ID: LCS 880-46929/1-A
Matrix: Solid
Analysis Batch: 46928

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 46929

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Benzene			0.100	0.1023		mg/Kg		102	70 - 130		
Toluene			0.100	0.1011		mg/Kg		101	70 - 130		
Ethylbenzene			0.100	0.09373		mg/Kg		94	70 - 130		
m-Xylene & p-Xylene			0.200	0.1915		mg/Kg		96	70 - 130		
o-Xylene			0.100	0.09836		mg/Kg		98	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*92*		*70 - 130*
1,4-Difluorobenzene (Surr)	*107*		*70 - 130*

Lab Sample ID: LCSD 880-46929/2-A
Matrix: Solid
Analysis Batch: 46928

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 46929

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene			0.100	0.1102		mg/Kg		110	70 - 130	7	35
Toluene			0.100	0.1089		mg/Kg		109	70 - 130	7	35
Ethylbenzene			0.100	0.1027		mg/Kg		103	70 - 130	9	35
m-Xylene & p-Xylene			0.200	0.2128		mg/Kg		106	70 - 130	11	35
o-Xylene			0.100	0.1094		mg/Kg		109	70 - 130	11	35

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*103*		*70 - 130*
1,4-Difluorobenzene (Surr)	*110*		*70 - 130*

Lab Sample ID: 890-4123-A-1-B MS
Matrix: Solid
Analysis Batch: 46928

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 46929

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Benzene	<0.00202	U F2 F1	0.101	0.04951	F1	mg/Kg		49	70 - 130		
Toluene	0.00490	F1	0.101	0.07116	F1	mg/Kg		66	70 - 130		
Ethylbenzene	0.00362		0.101	0.07403		mg/Kg		70	70 - 130		
m-Xylene & p-Xylene	0.00658	F1	0.202	0.1234	F1	mg/Kg		58	70 - 130		
o-Xylene	0.00316	F1	0.101	0.06386	F1	mg/Kg		60	70 - 130		

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*82*		*70 - 130*
1,4-Difluorobenzene (Surr)	*85*		*70 - 130*

Lab Sample ID: 890-4123-A-1-C MSD
Matrix: Solid
Analysis Batch: 46928

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 46929

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	<0.00202	U F2 F1	0.0992	0.09288	F2	mg/Kg		93	70 - 130	61	35
Toluene	0.00490	F1	0.0992	0.09288		mg/Kg		89	70 - 130	26	35
Ethylbenzene	0.00362		0.0992	0.08391		mg/Kg		81	70 - 130	13	35

QC Sample Results

Client: Ensolum
Project/Site: Cabo Wabo Fed Com 704-706H

Job ID: 890-4138-1
SDG: 03D2024144

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

Lab Sample ID: 890-4123-A-1-C MSD
Matrix: Solid
Analysis Batch: 46928

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 46929

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
m-Xylene & p-Xylene	0.00658	F1	0.198	0.1714		mg/Kg		83	70 - 130	33	35
o-Xylene	0.00316	F1	0.0992	0.08869		mg/Kg		86	70 - 130	33	35

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*100*		*70 - 130*
1,4-Difluorobenzene (Surr)	*108*		*70 - 130*

Lab Sample ID: MB 880-46948/5-A
Matrix: Solid
Analysis Batch: 46925

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 46948

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		02/22/23 14:24	02/23/23 01:12	1
Toluene	<0.00200	U	0.00200		mg/Kg		02/22/23 14:24	02/23/23 01:12	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		02/22/23 14:24	02/23/23 01:12	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		02/22/23 14:24	02/23/23 01:12	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		02/22/23 14:24	02/23/23 01:12	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		02/22/23 14:24	02/23/23 01:12	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*125*		*70 - 130*	*02/22/23 14:24*	*02/23/23 01:12*	*1*
1,4-Difluorobenzene (Surr)	*71*		*70 - 130*	*02/22/23 14:24*	*02/23/23 01:12*	*1*

Lab Sample ID: LCS 880-46948/1-A
Matrix: Solid
Analysis Batch: 46925

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 46948

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Benzene			0.100	0.1279		mg/Kg		128	70 - 130		
Toluene			0.100	0.1292		mg/Kg		129	70 - 130		
Ethylbenzene			0.100	0.1268		mg/Kg		127	70 - 130		
m-Xylene & p-Xylene			0.200	0.2592		mg/Kg		130	70 - 130		
o-Xylene			0.100	0.1242		mg/Kg		124	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*199*	*S1+*	*70 - 130*
1,4-Difluorobenzene (Surr)	*83*		*70 - 130*

Lab Sample ID: LCSD 880-46948/2-A
Matrix: Solid
Analysis Batch: 46925

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 46948

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene			0.100	0.1457	*+	mg/Kg		146	70 - 130	13	35
Toluene			0.100	0.1491	*+	mg/Kg		149	70 - 130	14	35
Ethylbenzene			0.100	0.1497	*+	mg/Kg		150	70 - 130	17	35
m-Xylene & p-Xylene			0.200	0.3065	*+	mg/Kg		153	70 - 130	17	35
o-Xylene			0.100	0.1486	*+	mg/Kg		149	70 - 130	18	35

QC Sample Results

Client: Ensolum
Project/Site: Cabo Wabo Fed Com 704-706H

Job ID: 890-4138-1
SDG: 03D2024144

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

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	197	S1+	70 - 130
1,4-Difluorobenzene (Surr)	82		70 - 130

Lab Sample ID: 880-25049-A-1-J MS — **Client Sample ID: Matrix Spike**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 46925 — **Prep Batch: 46948**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	<0.00198	U *+	0.101	0.1225		mg/Kg		122	70 - 130
Toluene	<0.00198	U *+	0.101	0.1220		mg/Kg		121	70 - 130
Ethylbenzene	<0.00198	U *+	0.101	0.1226		mg/Kg		122	70 - 130
m-Xylene & p-Xylene	<0.00396	U *+	0.202	0.2506		mg/Kg		124	70 - 130
o-Xylene	<0.00198	U *+	0.101	0.1188		mg/Kg		118	70 - 130

Surrogate	MS %Recovery	MS Qualifier	Limits
4-Bromofluorobenzene (Surr)	180	S1+	70 - 130
1,4-Difluorobenzene (Surr)	81		70 - 130

Lab Sample ID: 880-25049-A-1-K MSD — **Client Sample ID: Matrix Spike Duplicate**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 46925 — **Prep Batch: 46948**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	<0.00198	U *+	0.0992	0.1275		mg/Kg		129	70 - 130	4	35
Toluene	<0.00198	U *+	0.0992	0.1178		mg/Kg		119	70 - 130	4	35
Ethylbenzene	<0.00198	U *+	0.0992	0.1169		mg/Kg		118	70 - 130	5	35
m-Xylene & p-Xylene	<0.00396	U *+	0.198	0.2401		mg/Kg		121	70 - 130	4	35
o-Xylene	<0.00198	U *+	0.0992	0.1168		mg/Kg		118	70 - 130	2	35

Surrogate	MSD %Recovery	MSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	187	S1+	70 - 130
1,4-Difluorobenzene (Surr)	80		70 - 130

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

Lab Sample ID: MB 880-47117/1-A — **Client Sample ID: Method Blank**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 46994 — **Prep Batch: 47117**

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0	mg/Kg		02/23/23 17:07	02/23/23 20:30	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		02/23/23 17:07	02/23/23 20:30	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		02/23/23 17:07	02/23/23 20:30	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	132	S1+	70 - 130	02/23/23 17:07	02/23/23 20:30	1
o-Terphenyl	155	S1+	70 - 130	02/23/23 17:07	02/23/23 20:30	1

QC Sample Results

Client: Ensolum
Project/Site: Cabo Wabo Fed Com 704-706H

Job ID: 890-4138-1
SDG: 03D2024144

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

Lab Sample ID: LCS 880-47117/2-A
Matrix: Solid
Analysis Batch: 46994

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 47117

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Gasoline Range Organics (GRO)-C6-C10			1000	1169		mg/Kg		117	70 - 130		
Diesel Range Organics (Over C10-C28)			1000	1008		mg/Kg		101	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1-Chlorooctane	*97*		*70 - 130*
o-Terphenyl	*104*		*70 - 130*

Lab Sample ID: LCSD 880-47117/3-A
Matrix: Solid
Analysis Batch: 46994

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 47117

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10			1000	1067		mg/Kg		107	70 - 130	9	20
Diesel Range Organics (Over C10-C28)			1000	999.2		mg/Kg		100	70 - 130	1	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1-Chlorooctane	*95*		*70 - 130*
o-Terphenyl	*103*		*70 - 130*

Lab Sample ID: 890-4138-1 MS
Matrix: Solid
Analysis Batch: 46994

Client Sample ID: SS01A
Prep Type: Total/NA
Prep Batch: 47117

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Gasoline Range Organics (GRO)-C6-C10	<49.8	U	1000	969.6		mg/Kg		92	70 - 130		
Diesel Range Organics (Over C10-C28)	<49.8	U	1000	936.4		mg/Kg		92	70 - 130		

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
1-Chlorooctane	*99*		*70 - 130*
o-Terphenyl	*97*		*70 - 130*

Lab Sample ID: 890-4138-1 MSD
Matrix: Solid
Analysis Batch: 46994

Client Sample ID: SS01A
Prep Type: Total/NA
Prep Batch: 47117

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	<49.8	U	1000	997.9		mg/Kg		95	70 - 130	3	20
Diesel Range Organics (Over C10-C28)	<49.8	U	1000	967.7		mg/Kg		95	70 - 130	3	20

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
1-Chlorooctane	*101*		*70 - 130*

QC Sample Results

Client: Ensolum
Project/Site: Cabo Wabo Fed Com 704-706H

Job ID: 890-4138-1
SDG: 03D2024144

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

Lab Sample ID: 890-4138-1 MSD
Matrix: Solid
Analysis Batch: 46994

Client Sample ID: SS01A
Prep Type: Total/NA
Prep Batch: 47117

Surrogate	MSD %Recovery	MSD Qualifier	Limits
o-Terphenyl	100		70 - 130

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-46849/1-A
Matrix: Solid
Analysis Batch: 46986

Client Sample ID: Method Blank
Prep Type: Soluble

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.00	U	5.00		mg/Kg			02/23/23 05:32	1

Lab Sample ID: LCS 880-46849/2-A
Matrix: Solid
Analysis Batch: 46986

Client Sample ID: Lab Control Sample
Prep Type: Soluble

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride			250	238.4		mg/Kg		95	90 - 110		

Lab Sample ID: LCSD 880-46849/3-A
Matrix: Solid
Analysis Batch: 46986

Client Sample ID: Lab Control Sample Dup
Prep Type: Soluble

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride			250	238.2		mg/Kg		95	90 - 110	0	20

Lab Sample ID: 890-4138-4 MS
Matrix: Solid
Analysis Batch: 46986

Client Sample ID: SS04A
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride	<4.97	U	249	241.0		mg/Kg		96	90 - 110		

Lab Sample ID: 890-4138-4 MSD
Matrix: Solid
Analysis Batch: 46986

Client Sample ID: SS04A
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	<4.97	U	249	241.2		mg/Kg		96	90 - 110	0	20

QC Association Summary

Client: Ensolum
Project/Site: Cabo Wabo Fed Com 704-706H

Job ID: 890-4138-1
SDG: 03D2024144

GC VOA

Prep Batch: 46866

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 880-46866/5-A	Method Blank	Total/NA	Solid	5035	

Prep Batch: 46868

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 880-46868/5-A	Method Blank	Total/NA	Solid	5035	

Analysis Batch: 46925

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4138-1	SS01A	Total/NA	Solid	8021B	46948
890-4138-2	SS02A	Total/NA	Solid	8021B	46948
890-4138-3	SS03A	Total/NA	Solid	8021B	46948
890-4138-4	SS04A	Total/NA	Solid	8021B	46948
890-4138-5	SS05A	Total/NA	Solid	8021B	46948
890-4138-6	SS06A	Total/NA	Solid	8021B	46948
890-4138-7	SS07A	Total/NA	Solid	8021B	46948
890-4138-8	SS08A	Total/NA	Solid	8021B	46948
890-4138-9	SS09	Total/NA	Solid	8021B	46948
890-4138-10	SS10	Total/NA	Solid	8021B	46948
MB 880-46866/5-A	Method Blank	Total/NA	Solid	8021B	46866
MB 880-46948/5-A	Method Blank	Total/NA	Solid	8021B	46948
LCS 880-46948/1-A	Lab Control Sample	Total/NA	Solid	8021B	46948
LCSD 880-46948/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	46948
880-25049-A-1-J MS	Matrix Spike	Total/NA	Solid	8021B	46948
880-25049-A-1-K MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	46948

Analysis Batch: 46928

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4138-11	SS11	Total/NA	Solid	8021B	46929
890-4138-12	SS12	Total/NA	Solid	8021B	46929
MB 880-46868/5-A	Method Blank	Total/NA	Solid	8021B	46868
MB 880-46929/5-A	Method Blank	Total/NA	Solid	8021B	46929
LCS 880-46929/1-A	Lab Control Sample	Total/NA	Solid	8021B	46929
LCSD 880-46929/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	46929
890-4123-A-1-B MS	Matrix Spike	Total/NA	Solid	8021B	46929
890-4123-A-1-C MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	46929

Prep Batch: 46929

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4138-11	SS11	Total/NA	Solid	5035	
890-4138-12	SS12	Total/NA	Solid	5035	
MB 880-46929/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-46929/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-46929/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
890-4123-A-1-B MS	Matrix Spike	Total/NA	Solid	5035	
890-4123-A-1-C MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	

Prep Batch: 46948

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4138-1	SS01A	Total/NA	Solid	5035	
890-4138-2	SS02A	Total/NA	Solid	5035	
890-4138-3	SS03A	Total/NA	Solid	5035	

QC Association Summary

Client: Ensolum
Project/Site: Cabo Wabo Fed Com 704-706H

Job ID: 890-4138-1
SDG: 03D2024144

GC VOA (Continued)

Prep Batch: 46948 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4138-4	SS04A	Total/NA	Solid	5035	
890-4138-5	SS05A	Total/NA	Solid	5035	
890-4138-6	SS06A	Total/NA	Solid	5035	
890-4138-7	SS07A	Total/NA	Solid	5035	
890-4138-8	SS08A	Total/NA	Solid	5035	
890-4138-9	SS09	Total/NA	Solid	5035	
890-4138-10	SS10	Total/NA	Solid	5035	
MB 880-46948/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-46948/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-46948/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
880-25049-A-1-J MS	Matrix Spike	Total/NA	Solid	5035	
880-25049-A-1-K MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	

Analysis Batch: 47042

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4138-1	SS01A	Total/NA	Solid	Total BTEX	
890-4138-2	SS02A	Total/NA	Solid	Total BTEX	
890-4138-3	SS03A	Total/NA	Solid	Total BTEX	
890-4138-4	SS04A	Total/NA	Solid	Total BTEX	
890-4138-5	SS05A	Total/NA	Solid	Total BTEX	
890-4138-6	SS06A	Total/NA	Solid	Total BTEX	
890-4138-7	SS07A	Total/NA	Solid	Total BTEX	
890-4138-8	SS08A	Total/NA	Solid	Total BTEX	
890-4138-9	SS09	Total/NA	Solid	Total BTEX	
890-4138-10	SS10	Total/NA	Solid	Total BTEX	
890-4138-11	SS11	Total/NA	Solid	Total BTEX	
890-4138-12	SS12	Total/NA	Solid	Total BTEX	

GC Semi VOA

Analysis Batch: 46994

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4138-1	SS01A	Total/NA	Solid	8015B NM	47117
890-4138-2	SS02A	Total/NA	Solid	8015B NM	47117
890-4138-3	SS03A	Total/NA	Solid	8015B NM	47117
890-4138-4	SS04A	Total/NA	Solid	8015B NM	47117
890-4138-5	SS05A	Total/NA	Solid	8015B NM	47117
890-4138-6	SS06A	Total/NA	Solid	8015B NM	47117
890-4138-7	SS07A	Total/NA	Solid	8015B NM	47117
890-4138-8	SS08A	Total/NA	Solid	8015B NM	47117
890-4138-9	SS09	Total/NA	Solid	8015B NM	47117
890-4138-10	SS10	Total/NA	Solid	8015B NM	47117
890-4138-11	SS11	Total/NA	Solid	8015B NM	47117
890-4138-12	SS12	Total/NA	Solid	8015B NM	47117
MB 880-47117/1-A	Method Blank	Total/NA	Solid	8015B NM	47117
LCS 880-47117/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	47117
LCSD 880-47117/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	47117
890-4138-1 MS	SS01A	Total/NA	Solid	8015B NM	47117
890-4138-1 MSD	SS01A	Total/NA	Solid	8015B NM	47117

QC Association Summary

Client: Ensolum
Project/Site: Cabo Wabo Fed Com 704-706H

Job ID: 890-4138-1
SDG: 03D2024144

GC Semi VOA

Prep Batch: 47117

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4138-1	SS01A	Total/NA	Solid	8015NM Prep	
890-4138-2	SS02A	Total/NA	Solid	8015NM Prep	
890-4138-3	SS03A	Total/NA	Solid	8015NM Prep	
890-4138-4	SS04A	Total/NA	Solid	8015NM Prep	
890-4138-5	SS05A	Total/NA	Solid	8015NM Prep	
890-4138-6	SS06A	Total/NA	Solid	8015NM Prep	
890-4138-7	SS07A	Total/NA	Solid	8015NM Prep	
890-4138-8	SS08A	Total/NA	Solid	8015NM Prep	
890-4138-9	SS09	Total/NA	Solid	8015NM Prep	
890-4138-10	SS10	Total/NA	Solid	8015NM Prep	
890-4138-11	SS11	Total/NA	Solid	8015NM Prep	
890-4138-12	SS12	Total/NA	Solid	8015NM Prep	
MB 880-47117/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-47117/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-47117/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
890-4138-1 MS	SS01A	Total/NA	Solid	8015NM Prep	
890-4138-1 MSD	SS01A	Total/NA	Solid	8015NM Prep	

Analysis Batch: 47169

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4138-1	SS01A	Total/NA	Solid	8015 NM	
890-4138-2	SS02A	Total/NA	Solid	8015 NM	
890-4138-3	SS03A	Total/NA	Solid	8015 NM	
890-4138-4	SS04A	Total/NA	Solid	8015 NM	
890-4138-5	SS05A	Total/NA	Solid	8015 NM	
890-4138-6	SS06A	Total/NA	Solid	8015 NM	
890-4138-7	SS07A	Total/NA	Solid	8015 NM	
890-4138-8	SS08A	Total/NA	Solid	8015 NM	
890-4138-9	SS09	Total/NA	Solid	8015 NM	
890-4138-10	SS10	Total/NA	Solid	8015 NM	
890-4138-11	SS11	Total/NA	Solid	8015 NM	
890-4138-12	SS12	Total/NA	Solid	8015 NM	

HPLC/IC

Leach Batch: 46849

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4138-1	SS01A	Soluble	Solid	DI Leach	
890-4138-2	SS02A	Soluble	Solid	DI Leach	
890-4138-3	SS03A	Soluble	Solid	DI Leach	
890-4138-4	SS04A	Soluble	Solid	DI Leach	
890-4138-5	SS05A	Soluble	Solid	DI Leach	
890-4138-6	SS06A	Soluble	Solid	DI Leach	
890-4138-7	SS07A	Soluble	Solid	DI Leach	
890-4138-8	SS08A	Soluble	Solid	DI Leach	
890-4138-9	SS09	Soluble	Solid	DI Leach	
890-4138-10	SS10	Soluble	Solid	DI Leach	
890-4138-11	SS11	Soluble	Solid	DI Leach	
890-4138-12	SS12	Soluble	Solid	DI Leach	
MB 880-46849/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-46849/2-A	Lab Control Sample	Soluble	Solid	DI Leach	

QC Association Summary

Client: Ensolum
Project/Site: Cabo Wabo Fed Com 704-706H

Job ID: 890-4138-1
SDG: 03D2024144

HPLC/IC (Continued)

Leach Batch: 46849 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCSD 880-46849/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
890-4138-4 MS	SS04A	Soluble	Solid	DI Leach	
890-4138-4 MSD	SS04A	Soluble	Solid	DI Leach	

Analysis Batch: 46986

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4138-1	SS01A	Soluble	Solid	300.0	46849
890-4138-2	SS02A	Soluble	Solid	300.0	46849
890-4138-3	SS03A	Soluble	Solid	300.0	46849
890-4138-4	SS04A	Soluble	Solid	300.0	46849
890-4138-5	SS05A	Soluble	Solid	300.0	46849
890-4138-6	SS06A	Soluble	Solid	300.0	46849
890-4138-7	SS07A	Soluble	Solid	300.0	46849
890-4138-8	SS08A	Soluble	Solid	300.0	46849
890-4138-9	SS09	Soluble	Solid	300.0	46849
890-4138-10	SS10	Soluble	Solid	300.0	46849
890-4138-11	SS11	Soluble	Solid	300.0	46849
890-4138-12	SS12	Soluble	Solid	300.0	46849
MB 880-46849/1-A	Method Blank	Soluble	Solid	300.0	46849
LCS 880-46849/2-A	Lab Control Sample	Soluble	Solid	300.0	46849
LCSD 880-46849/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	46849
890-4138-4 MS	SS04A	Soluble	Solid	300.0	46849
890-4138-4 MSD	SS04A	Soluble	Solid	300.0	46849

Lab Chronicle

Client: Ensolum
Project/Site: Cabo Wabo Fed Com 704-706H

Job ID: 890-4138-1
SDG: 03D2024144

Client Sample ID: SS01A
Date Collected: 02/16/23 09:25
Date Received: 02/17/23 15:27

Lab Sample ID: 890-4138-1
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.05 g	5 mL	46948	02/22/23 14:24	EL	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	46925	02/23/23 07:16	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			47042	02/23/23 12:26	AJ	EET MID
Total/NA	Analysis	8015 NM		1			47169	02/24/23 13:21	AJ	EET MID
Total/NA	Prep	8015NM Prep			10.04 g	10 mL	47117	02/23/23 17:07	AM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	46994	02/23/23 21:37	AJ	EET MID
Soluble	Leach	DI Leach			4.98 g	50 mL	46849	02/21/23 13:17	KS	EET MID
Soluble	Analysis	300.0		1			46986	02/23/23 06:58	CH	EET MID

Client Sample ID: SS02A
Date Collected: 02/16/23 09:30
Date Received: 02/17/23 15:27

Lab Sample ID: 890-4138-2
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.03 g	5 mL	46948	02/22/23 14:24	EL	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	46925	02/23/23 07:42	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			47042	02/23/23 12:26	AJ	EET MID
Total/NA	Analysis	8015 NM		1			47169	02/24/23 13:21	AJ	EET MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	47117	02/23/23 17:07	AM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	46994	02/23/23 22:43	AJ	EET MID
Soluble	Leach	DI Leach			5.05 g	50 mL	46849	02/21/23 13:17	KS	EET MID
Soluble	Analysis	300.0		1			46986	02/23/23 07:04	CH	EET MID

Client Sample ID: SS03A
Date Collected: 02/16/23 09:40
Date Received: 02/17/23 15:27

Lab Sample ID: 890-4138-3
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.95 g	5 mL	46948	02/22/23 14:24	EL	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	46925	02/23/23 08:09	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			47042	02/23/23 12:26	AJ	EET MID
Total/NA	Analysis	8015 NM		1			47169	02/24/23 13:21	AJ	EET MID
Total/NA	Prep	8015NM Prep			10.00 g	10 mL	47117	02/23/23 17:07	AM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	46994	02/23/23 23:06	AJ	EET MID
Soluble	Leach	DI Leach			4.99 g	50 mL	46849	02/21/23 13:17	KS	EET MID
Soluble	Analysis	300.0		1			46986	02/23/23 07:10	CH	EET MID

Client Sample ID: SS04A
Date Collected: 02/16/23 09:45
Date Received: 02/17/23 15:27

Lab Sample ID: 890-4138-4
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.99 g	5 mL	46948	02/22/23 14:24	EL	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	46925	02/23/23 09:02	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			47042	02/23/23 12:26	AJ	EET MID

Lab Chronicle

Client: Ensolum
Project/Site: Cabo Wabo Fed Com 704-706H

Job ID: 890-4138-1
SDG: 03D2024144

Client Sample ID: SS04A
Date Collected: 02/16/23 09:45
Date Received: 02/17/23 15:27

Lab Sample ID: 890-4138-4
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8015 NM		1			47169	02/24/23 13:21	AJ	EET MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	47117	02/23/23 17:07	AM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	46994	02/23/23 23:27	AJ	EET MID
Soluble	Leach	DI Leach			5.03 g	50 mL	46849	02/21/23 13:17	KS	EET MID
Soluble	Analysis	300.0		1			46986	02/23/23 07:17	CH	EET MID

Client Sample ID: SS05A
Date Collected: 02/16/23 09:55
Date Received: 02/17/23 15:27

Lab Sample ID: 890-4138-5
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.01 g	5 mL	46948	02/22/23 14:24	EL	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	46925	02/23/23 09:29	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			47042	02/23/23 12:26	AJ	EET MID
Total/NA	Analysis	8015 NM		1			47169	02/24/23 13:21	AJ	EET MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	47117	02/23/23 17:07	AM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	46994	02/23/23 23:50	AJ	EET MID
Soluble	Leach	DI Leach			5 g	50 mL	46849	02/21/23 13:17	KS	EET MID
Soluble	Analysis	300.0		1			46986	02/23/23 07:35	CH	EET MID

Client Sample ID: SS06A
Date Collected: 02/16/23 10:00
Date Received: 02/17/23 15:27

Lab Sample ID: 890-4138-6
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.04 g	5 mL	46948	02/22/23 14:24	EL	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	46925	02/23/23 09:55	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			47042	02/23/23 12:26	AJ	EET MID
Total/NA	Analysis	8015 NM		1			47169	02/24/23 13:21	AJ	EET MID
Total/NA	Prep	8015NM Prep			10.03 g	10 mL	47117	02/23/23 17:07	AM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	46994	02/24/23 00:11	AJ	EET MID
Soluble	Leach	DI Leach			5.01 g	50 mL	46849	02/21/23 13:17	KS	EET MID
Soluble	Analysis	300.0		1			46986	02/23/23 07:41	CH	EET MID

Client Sample ID: SS07A
Date Collected: 02/16/23 09:50
Date Received: 02/17/23 15:27

Lab Sample ID: 890-4138-7
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.98 g	5 mL	46948	02/22/23 14:24	EL	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	46925	02/23/23 10:21	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			47042	02/23/23 12:26	AJ	EET MID
Total/NA	Analysis	8015 NM		1			47169	02/24/23 13:21	AJ	EET MID
Total/NA	Prep	8015NM Prep			10.03 g	10 mL	47117	02/23/23 17:07	AM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	46994	02/24/23 00:33	AJ	EET MID

Lab Chronicle

Client: Ensolum
Project/Site: Cabo Wabo Fed Com 704-706H

Job ID: 890-4138-1
SDG: 03D2024144

Client Sample ID: SS07A
Date Collected: 02/16/23 09:50
Date Received: 02/17/23 15:27

Lab Sample ID: 890-4138-7
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			5.05 g	50 mL	46849	02/21/23 13:17	KS	EET MID
Soluble	Analysis	300.0		1			46986	02/23/23 08:00	CH	EET MID

Client Sample ID: SS08A
Date Collected: 02/16/23 09:35
Date Received: 02/17/23 15:27

Lab Sample ID: 890-4138-8
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.99 g	5 mL	46948	02/22/23 14:24	EL	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	46925	02/23/23 10:47	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			47042	02/23/23 12:26	AJ	EET MID
Total/NA	Analysis	8015 NM		1			47169	02/24/23 13:21	AJ	EET MID
Total/NA	Prep	8015NM Prep			10.00 g	10 mL	47117	02/23/23 17:07	AM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	46994	02/24/23 00:55	AJ	EET MID
Soluble	Leach	DI Leach			5.05 g	50 mL	46849	02/21/23 13:17	KS	EET MID
Soluble	Analysis	300.0		1			46986	02/23/23 08:06	CH	EET MID

Client Sample ID: SS09
Date Collected: 02/16/23 11:05
Date Received: 02/17/23 15:27

Lab Sample ID: 890-4138-9
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.02 g	5 mL	46948	02/22/23 14:24	EL	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	46925	02/23/23 11:13	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			47042	02/23/23 12:26	AJ	EET MID
Total/NA	Analysis	8015 NM		1			47169	02/24/23 13:21	AJ	EET MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	47117	02/23/23 17:07	AM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	46994	02/24/23 01:17	AJ	EET MID
Soluble	Leach	DI Leach			5.03 g	50 mL	46849	02/21/23 13:17	KS	EET MID
Soluble	Analysis	300.0		1			46986	02/23/23 08:12	CH	EET MID

Client Sample ID: SS10
Date Collected: 02/16/23 11:10
Date Received: 02/17/23 15:27

Lab Sample ID: 890-4138-10
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.05 g	5 mL	46948	02/22/23 14:24	EL	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	46925	02/23/23 11:39	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			47042	02/23/23 12:26	AJ	EET MID
Total/NA	Analysis	8015 NM		1			47169	02/24/23 13:21	AJ	EET MID
Total/NA	Prep	8015NM Prep			10.00 g	10 mL	47117	02/23/23 17:07	AM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	46994	02/24/23 01:39	AJ	EET MID
Soluble	Leach	DI Leach			4.96 g	50 mL	46849	02/21/23 13:17	KS	EET MID
Soluble	Analysis	300.0		1			46986	02/23/23 08:18	CH	EET MID

Lab Chronicle

Client: Ensolum
Project/Site: Cabo Wabo Fed Com 704-706H

Job ID: 890-4138-1
SDG: 03D2024144

Client Sample ID: SS11

Lab Sample ID: 890-4138-11

Date Collected: 02/16/23 11:15
Matrix: Solid
Date Received: 02/17/23 15:27

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.99 g	5 mL	46929	02/22/23 09:16	EL	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	46928	02/23/23 03:33	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			47042	02/23/23 12:18	AJ	EET MID
Total/NA	Analysis	8015 NM		1			47169	02/24/23 13:21	AJ	EET MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	47117	02/23/23 17:07	AM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	46994	02/24/23 02:23	AJ	EET MID
Soluble	Leach	DI Leach			5.01 g	50 mL	46849	02/21/23 13:17	KS	EET MID
Soluble	Analysis	300.0		1			46986	02/23/23 08:24	CH	EET MID

Client Sample ID: SS12

Lab Sample ID: 890-4138-12

Date Collected: 02/16/23 11:20
Matrix: Solid
Date Received: 02/17/23 15:27

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.03 g	5 mL	46929	02/22/23 09:16	EL	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	46928	02/23/23 03:54	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			47042	02/23/23 12:18	AJ	EET MID
Total/NA	Analysis	8015 NM		1			47169	02/24/23 13:21	AJ	EET MID
Total/NA	Prep	8015NM Prep			10.04 g	10 mL	47117	02/23/23 17:07	AM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	46994	02/24/23 02:45	AJ	EET MID
Soluble	Leach	DI Leach			5.04 g	50 mL	46849	02/21/23 13:17	KS	EET MID
Soluble	Analysis	300.0		1			46986	02/23/23 08:30	CH	EET MID

Laboratory References:

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

Accreditation/Certification Summary

Client: Ensolum
Project/Site: Cabo Wabo Fed Com 704-706H

Job ID: 890-4138-1
SDG: 03D2024144

Laboratory: Eurofins Midland

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

Authority	Program	Identification Number	Expiration Date
Texas	NELAP	T104704400-22-25	06-30-23

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

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

Method Summary

Client: Ensolum
Project/Site: Cabo Wabo Fed Com 704-706H

Job ID: 890-4138-1
SDG: 03D2024144

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

Protocol References:

ASTM = ASTM International

EPA = US Environmental Protection Agency

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

TAL SOP = TestAmerica Laboratories, Standard Operating Procedure

Laboratory References:

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

Sample Summary

Client: Ensolum
Project/Site: Cabo Wabo Fed Com 704-706H

Job ID: 890-4138-1
SDG: 03D2024144

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-4138-1	SS01A	Solid	02/16/23 09:25	02/17/23 15:27	1'
890-4138-2	SS02A	Solid	02/16/23 09:30	02/17/23 15:27	1'
890-4138-3	SS03A	Solid	02/16/23 09:40	02/17/23 15:27	1'
890-4138-4	SS04A	Solid	02/16/23 09:45	02/17/23 15:27	1'
890-4138-5	SS05A	Solid	02/16/23 09:55	02/17/23 15:27	1'
890-4138-6	SS06A	Solid	02/16/23 10:00	02/17/23 15:27	1'
890-4138-7	SS07A	Solid	02/16/23 09:50	02/17/23 15:27	1'
890-4138-8	SS08A	Solid	02/16/23 09:35	02/17/23 15:27	1'
890-4138-9	SS09	Solid	02/16/23 11:05	02/17/23 15:27	0.5'
890-4138-10	SS10	Solid	02/16/23 11:10	02/17/23 15:27	0.5'
890-4138-11	SS11	Solid	02/16/23 11:15	02/17/23 15:27	0.5'
890-4138-12	SS12	Solid	02/16/23 11:20	02/17/23 15:27	0.5'

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Chain of Custody

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

Work Order No: _____

www.xenco.com Page 1 of 2

Project Manager:	Hadlie Green	Bill to: (if different)	Kalei Jennings
Company Name:	Ensolum, LLC	Company Name:	Ensolum, LLC
Address:	601 N Marienfeld St Suite 400	Address:	601 N Marienfeld St Suite 400
City, State ZIP:	Midland, TX 79701	City, State ZIP:	Midland, TX 79701
Phone:	432-557-8895	Email:	kjennings@ensolum.com, hgreen@ensolum.com

Work Order Comments

Program: UST/PST ☐ PRP ☐ Brownfields ☐ RRC ☐ Superfund ☐
State of Project:
Reporting: Level II ☐ Level III ☐ PST/UST ☐ TRRP ☐ Level IV ☐
Deliverables: EDD ☐ ADaPT ☐ Other:

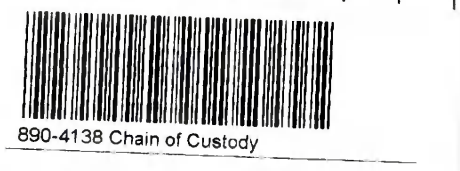
Project Name:	Cabo Wabo Fed Com704H-706H	Turn Around	
Project Number:	03D2024144	☑ Routine ☐ Rush	
Project Location:	32.1116,-103.9302	Due Date:	
Sampler's Name:	Peter Van Patten	TAT starts the day received by the lab, if received by 4:30pm	
PO #:			

SAMPLE RECEIPT			
Temp Blank:	Yes No	Wet Ice:	Yes No
Samples Received Intact:	Yes No	Thermometer ID:	Thm 50
Cooler Custody Seals:	Yes No N/A	Correction Factor:	-0.2
Sample Custody Seals:	Yes No N/A	Temperature Reading:	1.4
Total Containers:		Corrected Temperature:	1.2

Preservative Codes

None: NO; DI Water: H_2O; Cool: Cool; MeOH: Me; HCL: HC; HNO_3: HN; H_2S0_4: H_2; NaOH: Na; H_3PO_4: HP; $NaHSO_4$: NABIS; $Na_2S_2O_3$: $NaSO_3$; Zn Acetate+NaOH: Zn; NaOH+Ascorbic Acid: SAPC

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Grab/ Comp	# of Cont	Pres. Code	Parameters: CHLORIDES (EPA: 300.0)	TPH (8015)	BTEX (8021)	Sample Comments
SS01A	Soil	2/16/2023	925	1'	Comp	1		x	x	x	
SS02A	Soil	2/16/2023	930	1'	Comp	1		x	x	x	
SS03A	Soil	2/16/2023	940	1'	Comp	1		x	x	x	
SS04A	Soil	2/16/2023	945	1'	Comp	1		x	x	x	
SS05A	Soil	2/16/2023	955	1'	Comp	1		x	x	x	
SS06A	Soil	2/16/2023	1000	1'	Comp	1		x	x	x	
SS07A	Soil	2/16/2023	950	1'	Comp	1		x	x	x	
~~SS08A~~	~~Soil~~	~~2/16/2023~~	~~935~~	~~1'~~	~~Comp~~	~~1~~		~~x~~	~~x~~	~~x~~	



Total 200.7 / 6010 200.8 / 6020: 8RCRA 13PPM Texas 11 Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag SiO_2 Na Sr Tl Sn U V Zn

Circle Method(s) and Metal(s) to be analyzed **TCLP / SPLP 6010**: 8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Tl U Hg: 1631 / 245.1 / 7470 / 7471

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
1 Peter Van Patten	Amanda La Rue	2.17.23 15:27			
3			4		
5			6		

Revised Date: 08/25/2020 Rev. 2020.2

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Chain of Custody

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

Work Order No: _____

www.xenco.com Page 2 of 2

Project Manager:	Hadlie Green	Bill to: (if different)	Kalei Jennings
Company Name:	Ensolum, LLC	Company Name:	Ensolum, LLC
Address:	601 N Marienfeld St Suite 400	Address:	601 N Marienfeld St Suite 400
City, State ZIP:	Midland, TX 79701	City, State ZIP:	Midland, TX 79701
Phone:	432-557-8895	Email:	kjennings@ensolum.com, hgreen@ensolum.com

Work Order Comments

Program: UST/PST ☐ PRP ☐ Brownfields ☐ RRC ☐ Superfund ☐
State of Project:
Reporting: Level II ☐ Level III ☐ PST/UST ☐ TRRP ☐ Level IV ☐
Deliverables: EDD ☐ ADaPT ☐ Other:

Project Name:	Cabo Wabo Fed Com704H-706H	Turn Around	
Project Number:	03D2024144	☑ Routine ☐ Rush	
Project Location:	32.1116,-103.9302	Due Date:	
Sampler's Name:	Peter Van Patten	TAT starts the day received by the lab, if received by 4:30pm	
PO #:			

SAMPLE RECEIPT				
Temp Blank:	Yes No	Wet Ice:	Yes No	
Samples Received Intact:	Yes No	Thermometer ID:		
Cooler Custody Seals:	Yes No N/A	Correction Factor:		
Sample Custody Seals:	Yes No N/A	Temperature Reading:		
Total Containers:		Corrected Temperature:		

Preservative Codes

None: NO; DI Water: H_2O; Cool: Cool; MeOH: Me; HCL: HC; HNO_3: HN; H_2SO_4: H_2; NaOH: Na; H_3PO_4: HP; $NaHSO_4$: NABIS; $Na_2S_2O_3$: $NaSO_3$; Zn Acetate+NaOH: Zn; NaOH+Ascorbic Acid: SAPC

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Grab/ Comp	# of Cont	Pres. Code	Parameters: CHLORIDES (EPA: 300.0)	TPH (8015)	BTEX (8021)	Sample Comments
SS09	Soil	2/16/2023	1105	0.5'	Comp	1		x	x	x	
SS10	Soil	2/16/2023	1110	0.5'	Comp	1		x	x	x	
SS11	Soil	2/16/2023	1115	0.5'	Comp	1		x	x	x	
SS12	Soil	2/16/2023	1120	0.5'	Comp	1		x	x	x	

Total 200.7 / 6010 200.8 / 6020: 8RCRA 13PPM Texas 11 Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag SiO_2 Na Sr Tl Sn U V Zn

Circle Method(s) and Metal(s) to be analyzed TCLP / SPLP 6010: 8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Tl U Hg: 1631 / 245.1 / 7470 / 7471

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
1 Peter Van Patten	Amanda Stiff	2-17-23 15:27	2		
3			4		
5			6		

Revised Date: 08/25/2020 Rev. 2020.2

Login Sample Receipt Checklist

Client: Ensolum

Job Number: 890-4138-1
SDG Number: 03D2024144

Login Number: 4138
List Number: 1
Creator: Stutzman, Amanda

List Source: Eurofins Carlsbad

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

Login Sample Receipt Checklist

Client: Ensolum

Job Number: 890-4138-1
SDG Number: 03D2024144

Login Number: 4138
List Number: 2
Creator: Teel, Brianna

List Source: Eurofins Midland
List Creation: 02/21/23 11:18 AM

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

ENSOLUM

APPENDIX D

NMOCD Notifications

ENSOLUM

APPENDIX E

Final C-141

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	
District RP	
Facility ID	
Application ID	

Release Notification

Responsible Party

Responsible Party	OGRID
Contact Name	Contact Telephone
Contact email	Incident # *(assigned by OCD)*
Contact mailing address	

Location of Release Source

Latitude _____ Longitude _____
(NAD 83 in decimal degrees to 5 decimal places)

Site Name	Site Type
Date Release Discovered	API# *(if applicable)*

Unit Letter	Section	Township	Range	County

Surface Owner: ☐ State ☐ Federal ☐ Tribal ☐ Private (*Name:* _____)

Nature and Volume of Release

Material(s) Released (Select all that apply and attach calculations or specific justification for the volumes provided below)

☐ Crude Oil	Volume Released (bbls)	Volume Recovered (bbls)
☐ Produced Water	Volume Released (bbls)	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		

Form C-141 State of New Mexico
Page 2 Oil Conservation Division

Incident ID	
District RP	
Facility ID	
Application ID	

Was this a major release as defined by 19.15.29.7(A) NMAC? ☐ Yes ☐ No	If YES, for what reason(s) does the responsible party consider this a major release?
If YES, was immediate notice 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

☐ 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: _____ Title: _____

Signature: _____ Date: _____

email: _____ Telephone: _____

OCD Only

Received by: Jocelyn Harimon Date: 12/20/2022

L48 Spill Volume Estimate Form

NAPP2235437148

Facility Name & Number:	Cabo Wabo
Asset Area:	Deleware East
Release Discovery Date & Time:	12/16/22 3:00pm
Release Type:	Other
Provide any known details about the event:	During pressure testing 12" layflat, developed a hole and lost primary containment

Spill Calculation - On Pad Surface Pool Spill

Convert Irregular shape into a series of rectangles	Length (ft.)	Width (ft.)	Deepest point in each of the areas (in.)	No. of boundaries of "shore" in each area	Estimated *Pool* Area (sq. ft.)	Estimated Average Depth (ft.)	Estimated volume of each pool area (bbl.)	Penetration allowance (ft.)	Total Estimated Volume of Spill (bbl.)
Rectangle A	150.0	25.0	0.25	4	3750.000	0.005	3.477	0.000	3.477
Rectangle B	150.0	6.0	3.00	4	900.000	0.063	10.013	0.003	10.044
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!
Rectangle F					0.000	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
Rectangle G					0.000	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
Rectangle H					0.000	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
Rectangle I					0.000	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
					0.000	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
								Total Volume Release:	13.521

District I
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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: COG OPERATING LLC 600 W Illinois Ave Midland, TX 79701	OGRID: 229137
	Action Number: 168822
	Action Type: [C-141] Release Corrective Action (C-141)

CONDITIONS

Created By	Condition	Condition Date
jharimon	None	12/20/2022

Incident ID	NAPP2235437148
District RP	
Facility ID	fAPP2203847910
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?	>100 (ft bgs)
Did this release impact groundwater or surface water?	☐ Yes ☒ No
Are the lateral extents of the release within 300 feet of a continuously flowing watercourse or any other significant watercourse?	☐ Yes ☒ No
Are the lateral extents of the release within 200 feet of any lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark)?	☐ Yes ☒ No
Are the lateral extents of the release within 300 feet of an occupied permanent residence, school, hospital, institution, or church?	☐ Yes ☒ No
Are the lateral extents of the release within 500 horizontal feet of a spring or a private domestic fresh water well used by less than five households for domestic or stock watering purposes?	☐ Yes ☒ No
Are the lateral extents of the release within 1000 feet of any other fresh water well or spring?	☐ Yes ☒ No
Are the lateral extents of the release within incorporated municipal boundaries or within a defined municipal fresh water well field?	☐ Yes ☒ No
Are the lateral extents of the release within 300 feet of a wetland?	☐ Yes ☒ No
Are the lateral extents of the release overlying a subsurface mine?	☐ Yes ☒ No
Are the lateral extents of the release overlying an unstable area such as karst geology?	☐ Yes ☒ No
Are the lateral extents of the release within a 100-year floodplain?	☐ Yes ☒ No
Did the release impact areas **not** on an exploration, development, production, or storage site?	☒ Yes ☐ No

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

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

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

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

Form C-141
Page 4

State of New Mexico
Oil Conservation Division

Incident ID	NAPP2235437148
District RP	
Facility ID	fAPP2203847910
Application ID	

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

Printed Name: ___Justin Carlile_____ Title: _Senior Environmental Engineer_____

Signature:_____ Date: ____3/16/2023_____

email: ___Justin.Carlile@conocophillips.com_____ Telephone: ___432-202-4112_____

OCD Only

Received by: Jocelyn Harimon Date: 03/21/2023

Incident ID	NAPP2235437148
District RP	
Facility ID	fAPP2203847910
Application ID	

Closure

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

Closure Report Attachment Checklist: ***Each of the following items must be included in the closure report.***

☒ A scaled site and sampling diagram as described in 19.15.29.11 NMAC

☒ Photographs of the remediated site prior to backfill or photos of the liner integrity if applicable (Note: appropriate OCD District office must be notified 2 days prior to liner inspection)

☒ Laboratory analyses of final sampling (Note: appropriate ODC District office must be notified 2 days prior to final sampling)

☒ Description of remediation activities

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. The responsible party acknowledges they must substantially restore, reclaim, and re-vegetate the impacted surface area to the conditions that existed prior to the release or their final land use in accordance with 19.15.29.13 NMAC including notification to the OCD when reclamation and re-vegetation are complete.

Printed Name: ___ Justin Carlile _____ Title: _Senior Environmental Engineer_____

Signature: _____ Date: _____3/16/2023_____

email: __ Justin.Carlile@conocophillips.com _____ Telephone: ___432-202-4112_____

OCD Only

Received by: _____Jocelyn Harimon_____ Date: __03/21/2023____

Closure approval by the OCD does not relieve the responsible party of liability should their operations have failed to adequately investigate and remediate contamination that poses a threat to groundwater, surface water, human health, or the environment nor does not relieve the responsible party of compliance with any other federal, state, or local laws and/or regulations.

Closure Approved by: _____ Date: _____

Printed Name: _____ Title: _____

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Phone:(505) 476-3470 Fax:(505) 476-3462

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

CONDITIONS

Action 199230

CONDITIONS

Operator: COG OPERATING LLC 600 W Illinois Ave Midland, TX 79701	OGRID: 229137
	Action Number: 199230
	Action Type: [C-141] Release Corrective Action (C-141)

CONDITIONS

Created By	Condition	Condition Date
rhamlet	We have received your closure report and final C-141 for NAPP2235437148 CABO WABO FEDERAL COM 704H, 705H & 706H, thank you. This closure is approved. Please make sure on any release that occurs “off-pad” that the sidewalls come from the sides of the excavation and the sitemap reflects the actual location of the sidewalls. The sitemap makes It appear that the edge/sidewalls were not taken from the side of the excavation. If the sitemap doesn’t accurately reflect the location of the edge/sidewalls on future reports, the report will be immediately denied.	8/3/2023