



APPROVED

April 20, 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
Baseball Cap 25 M CTB
Incident Number NAPP2303037207
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, excavation, and soil sampling activities performed at the Baseball Cap 25 M CTB (Site). The purpose of the Site assessment, excavation, and soil sampling activities was to address impacts to soil resulting from a crude oil flare fire at the Site. Based on field observations, excavation activities, and laboratory analytical results from soil sampling events, COG is submitting this *Closure Request*, describing remediation that has occurred and requesting closure for Incident Number NAPP2303037207.

SITE DESCRIPTION AND RELEASE SUMMARY

The Site is located in Unit M, Section 25, Township 24 South, Range 34 East, in Lea County, New Mexico (32.1839°, -103.4289°) and is associated with oil and gas exploration and production operations on privately owned surface managed by Quail Ranch, LLC.

On January 26, 2023, a heater treater overfilled resulting in fluid being sent to the flare and resulted in a fire on pad. The released volume was estimated to be approximately 0.33 barrels (bbls) of crude oil. The released crude oil ignited and extinguished itself after reaching the ground. COG reported the release immediately to the New Mexico Oil Conservation Division (NMOCD) via email on January 26, 2023 and submitted a Release Notification Form C-141 (Form C-141) on January 30, 2023. The release was assigned Incident Number NAPP2303037207.

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) well C-03942 POD 1, located approximately 0.79 miles southwest of the Site. The groundwater well has a reported depth to groundwater of 222 feet bgs and a total depth of 420 feet bgs. Ground surface elevation at the

groundwater well location is 3,413 feet above mean sea level (amsl), which is approximately 19 feet lower in elevation than the Site. All wells used for depth to groundwater determination are depicted on Figure 1 and the associated well records are included in Appendix A.

The closest continuously flowing or significant watercourse to the Site is an unnamed drywash, located approximately 4,669 feet northeast 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

DELINEATION ACTIVITIES AND LABORATORY ANALYTICAL RESULTS

Between February 2, 2023, and March 7, 2023, Ensolum personnel were at the Site to complete assessment and delineation activities based on visible staining in the release area and information provided by the Form C-141. Soil samples SS01, SS02, and SS07, collected within the release extent via hand auger, were collected at depths ranging from 0.2 feet to 1-foot bgs. Soil Samples SS03 through SS06, collected around the release extent, were collected at a depth of 0.2 feet bgs to assess the lateral extent of the release. Soil from the delineation samples were field screened for volatile organic compounds (VOCs) utilizing a calibrated photoionization detector (PID) and chloride using Hach® chloride QuanTab® test strips. The release extent and soil sample locations were mapped utilizing a handheld Global Positioning System (GPS) unit and are depicted on Figure 2.

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 delineation soil samples SS03 through SS07 indicated all COC concentrations were compliant with the most stringent Table I Closure Criteria and successfully defined the lateral extent of the release. Laboratory analytical results for delineation soil samples SS01 and SS02, collected at 0.2 feet bgs and within the release extent, indicated TPH concentrations exceeded the Site Closure Criteria. Based on laboratory analytical results for soil samples SS01 and SS02, excavation activities were warranted to address impacted soil.

EXCAVATION ACTIVITIES AND LABORATORY ANALYTICAL RESULTS

On March 17, 2023, Ensolum personnel were at the Site to oversee excavation activities based on visible staining within the release extent and laboratory analytical results for soil samples SS01 and SS02. Excavation activities were performed using a backhoe and transport vehicles. To direct excavation activities, soil was screened for VOCs and chloride. The excavation was completed to a depth of 1-foot bgs. Photographic documentation of the excavation activities is included in Appendix B.

Following removal of impacted soil, 5-point composite soil samples were collected every 200 square feet from the floor of the excavation extent. The 5-point composite samples were collected by placing five equivalent aliquots of soil into a 1-gallon, resealable plastic bag and homogenizing the samples by thoroughly mixing. Due to the shallow depth of both excavation extent, the sidewalls were incorporated into the floor samples. Composite soil samples FS01 through FS06 were collected from the floor of the excavation at a depth of 1-foot bgs. The soil samples were collected, handled, and analyzed following the same procedures as described above. The excavation extent and excavation soil sample locations are presented on Figure 3.

Laboratory analytical results for the excavation soil samples FS01 through FS06 indicated all COC concentrations were compliant with the most stringent Table I Closure Criteria. Laboratory analytical results are summarized in Table 1 and laboratory analytical reports are included as Appendix C.

The excavation area measured approximately 1,175 square feet. A total of 44 cubic yards of impacted soil were removed during the excavation activities. The impacted soil was transported and properly disposed of at the R360 Facility in Hobbs, New Mexico.

CLOSURE REQUEST

Site assessment and excavation activities were conducted at the Site to address the January 26, 2023, crude oil flare fire. Laboratory analytical results for excavation soil samples, collected from the final excavation extent, indicated all COCs were compliant with the most stringent Table I Closure Criteria. In addition, soil samples SS03 through SS06 successfully defined the lateral extent of the release. Based on the soil sample analytical results, no further remediation was required.

Excavation of impacted soil has mitigated impacts at this Site. Depth to groundwater has been determined to be greater than 100 feet bgs and no other sensitive receptors were identified near the release extent. COG believes these remedial actions are protective of human health, the environment, and groundwater. As such, COG respectfully requests closure for Incident Number NAPP2303037207.

Baseball Cap 25 M CTB
Closure Request
COG Operating, LLC



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

Sincerely,
Ensolum, LLC

A handwritten signature in black ink that reads "Hadlie Green".

Hadlie Green
Project Geologist

A handwritten signature in black ink that appears to read "Daniel R. Moir".

Daniel R. Moir, PG
Senior Managing Geologist

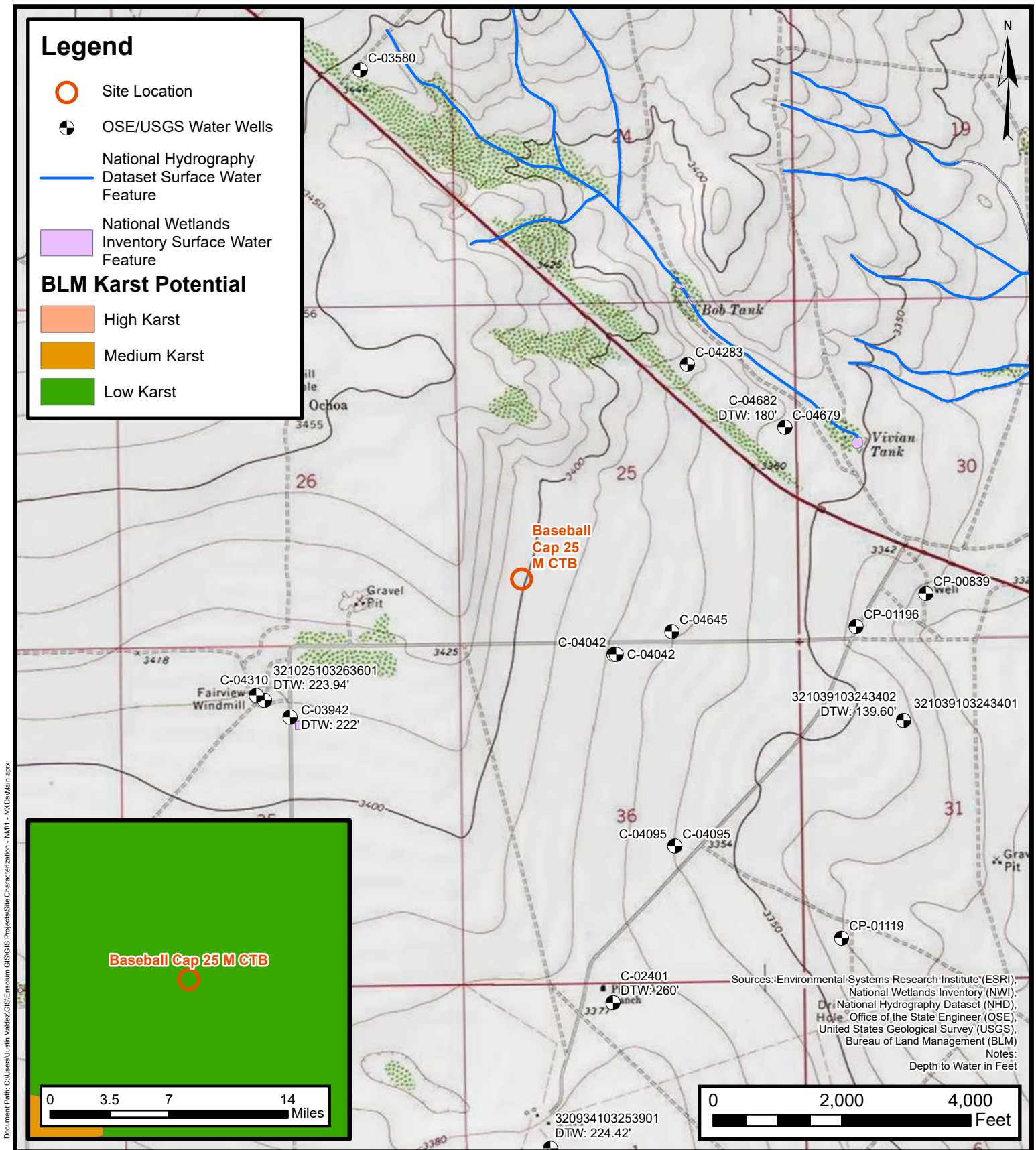
cc: Jacob Laird, COG Operating, LLC
Quail Ranch, LLC

Appendices:

Figure 1	Site Receptor Map
Figure 2	Soil Sample Locations
Figure 3	Excavation 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	Final C-141
Appendix E	NMOCD Notifications



FIGURES

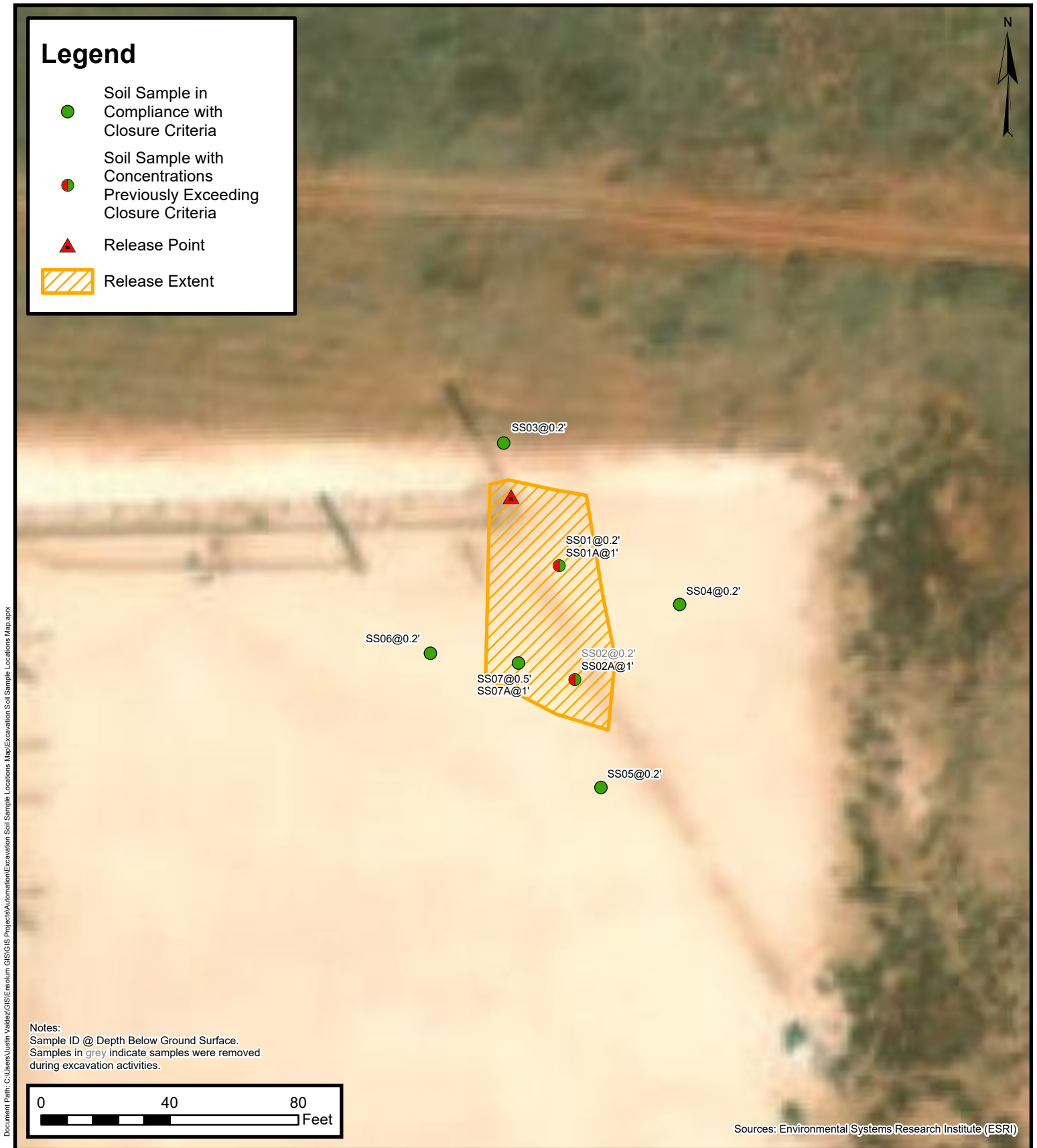


Site Receptor Map

COG Operating, LLC
 Baseball Cap 25 M CTB
 Incident Number: NAPP2303037207
 Unit M, Sec 25, T24S, R34E
 Lea County, New Mexico

FIGURE
 1








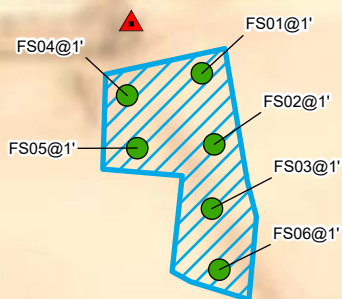
Soil Sample Locations

COG Operating, LLC
Baseball Cap 25 M CTB
Incident ID: NAPP2303037207
Unit M, Sec 25, T25S, R34E
Lea County, New Mexico

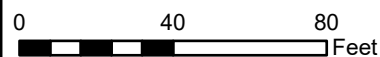
FIGURE
2

Legend

-  Release Point
-  Floor Sample in Compliance with Closure Criteria
-  Excavation Extent



Notes:
Sample ID @ Depth Below Ground Surface



Sources: Environmental Systems Research Institute (ESRI)



Excavation Soil Sample Locations

COG Operating, LLC
Baseball Cap 25 M CTB
Incident Number NAPP2303037207
Unit M, Sec 25, T25S, R34E
Lea County, New Mexico

FIGURE
3



TABLES



TABLE 1
SOIL SAMPLE ANALYTICAL RESULTS
 Baseball Cap 25 M CTB
 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
Assessment Soil Samples										
SS01	02/02/2023	0.2	<0.00199	0.410	<249	2,210	566	2,210	2,780	31.3
SS01A	03/07/2023	1	<0.00199	<0.00398	<50.0	65.0	<50.0	65.0	65.0	68.6
SS02	02/02/2023	0.2	<0.00198	<0.00396	<49.9	419	95.9	419	515	54.0
SS02A	03/07/2023	1	<0.00201	<0.00402	<50.0	<50.0	<50.0	<50.0	<50.0	63.5
SS03	02/02/2023	0.2	<0.00199	<0.00398	<49.9	<49.9	<49.9	<49.9	<49.9	<4.97
SS04	02/02/2023	0.2	<0.00201	<0.00402	<50.0	<50.0	<50.0	<50.0	<50.0	16.3
SS05	02/02/2023	0.2	<0.00201	<0.00402	<50.0	62.8	<50.0	62.8	62.8	69.4
SS06	02/02/2023	0.2	<0.00200	<0.00401	<49.9	<49.9	<49.9	<49.9	<49.9	7.27
SS07	03/07/2023	0.5	<0.00200	<0.00401	<50.0	93.6	<50.0	93.6	93.6	63.2
SS07A	03/07/2023	1	<0.00198	<0.00396	<50.0	<50.0	<50.0	<50.0	<50.0	39.7
Excavation Soil Samples										
FS01	03/17/2023	1	<0.00199	<0.00398	<49.9	54.3	<49.9	54.3	54.3	68.1
FS02	03/17/2023	1	<0.00200	<0.00399	<49.9	<49.9	<49.9	<49.9	<49.9	53.9
FS03	03/17/2023	1	<0.00201	<0.00402	<49.9	<49.9	<49.9	<49.9	<49.9	43.6
FS04	03/17/2023	1	<0.00199	<0.00398	<49.9	<49.9	<49.9	<49.9	<49.9	93.5
FS05	03/17/2023	1	<0.00199	<0.00398	<50.0	53.9	<50.0	53.9	53.9	47.5
FS06	03/17/2023	1	<0.00200	<0.00399	<49.9	80.6	<49.9	80.6	80.6	54.7

Notes:

bgs: below ground surface

mg/kg: milligrams per kilogram

NMOCD: New Mexico Oil Conservation Division

NMAC: New Mexico Administrative Code

BTEX: Benzene, Toluene, Ethylbenzene, and Xylenes

GRO: Gasoline Range Organics

DRO: Diesel Range Organics

ORO: Oil Range Organics

TPH: Total Petroleum Hydrocarbon

Concentrations in **bold** exceed the NMOCD Table I Closure Criteria or reclamation standard where applicable.**Grey** text represents samples that have been excavated




APPENDIX A

Referenced Well Records



New Mexico Office of the State Engineer

Point of Diversion Summary

		(quarters are 1=NW 2=NE 3=SW 4=SE) (quarters are smallest to largest)						(NAD83 UTM in meters)	
Well Tag	POD Number	Q64	Q16	Q4	Sec	Tws	Rng	X	Y
C	03942 POD1	3	1	2	35	24S	34E	647005	3561246 
<hr/>									
Driller License: 1737		Driller Company:				SHADE TREE DRILLING			
Driller Name:		MULLINS, JUSTINIEL.NER							
Drill Start Date: 05/12/2016		Drill Finish Date:				05/17/2016		Plug Date:	
Log File Date: 08/05/2021		PCW Rev Date:						Source: Shallow	
Pump Type:		Pipe Discharge Size:						Estimated Yield: 5 GPM	
Casing Size: 6.00		Depth Well:				420 feet		Depth Water: 222 feet	
<hr/>									
Water Bearing Stratifications:					Top	Bottom	Description		
					180	308	Sandstone/Gravel/Conglomerate		
					366	385	Sandstone/Gravel/Conglomerate		
<hr/>									
Casing Perforations:					Top	Bottom			
					240	260			
					360	380			
					400	420			
<hr/>									

The data is furnished by the NMOSE/ISC and is accepted by the recipient with the expressed understanding that the OSE/ISC make no warranties, expressed or implied, concerning the accuracy, completeness, reliability, usability, or suitability for any particular purpose of the data.

1/30/23 3:54 PM

POINT OF DIVERSION SUMMARY



USGS Home
Contact USGS
Search USGS

National Water Information System: Web Interface

USGS Water Resources

Data Category:
Groundwater

Geographic Area:
United States

GO

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 =

- 321025103263601

Minimum number of levels = 1
[Save file of selected sites](#) to local disk for future upload

USGS 321025103263601 24S.34E.35.12411

Lea County, New Mexico
Latitude 32°10'44.0", Longitude 103°26'31.2" NAD83
Land-surface elevation 3,409.00 feet above NGVD29
The depth of the well is 257 feet below land surface.
This well is completed in the Other aquifers (N9999OTHER) national aquifer.
This well is completed in the Ogallala Formation (121OGLL) 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 measu
1953-03-29			D 62610		3185.10	NGVD29	1		Z	
1953-03-29			D 62611		3186.69	NAVD88	1		Z	
1953-03-29			D 72019	223.90			1		Z	
1971-01-13			D 62610		3190.96	NGVD29	1		Z	
1971-01-13			D 62611		3192.55	NAVD88	1		Z	
1971-01-13			D 72019	218.04			1		Z	
1976-01-15			D 62610		3189.94	NGVD29	1		Z	
1976-01-15			D 62611		3191.53	NAVD88	1		Z	
1976-01-15			D 72019	219.06			1		Z	
1981-03-20			D 62610		3191.29	NGVD29	1		Z	
1981-03-20			D 62611		3192.88	NAVD88	1		Z	
1981-03-20			D 72019	217.71			1		Z	
1986-03-06			D 62610		3185.50	NGVD29	1		Z	
1986-03-06			D 62611		3187.09	NAVD88	1		Z	
1986-03-06			D 72019	223.50			1		Z	
1991-05-31			D 62610		3189.82	NGVD29	1		Z	

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 measu
1991-05-31		D	62611		3191.41	NAVD88	1	Z		
1991-05-31		D	72019	219.18			1	Z		
1996-03-14		D	62610		3189.81	NGVD29	1	S		
1996-03-14		D	62611		3191.40	NAVD88	1	S		
1996-03-14		D	72019	219.19			1	S		
2013-01-16	22:00 UTC	m	62610		3185.06	NGVD29	1	S	USGS	
2013-01-16	22:00 UTC	m	62611		3186.65	NAVD88	1	S	USGS	
2013-01-16	22:00 UTC	m	72019	223.94			1	S	USGS	

Explanation

Section	Code	Description
Water-level date-time accuracy	D	Date is accurate to the Day
Water-level date-time accuracy	m	Date is accurate to the Minute
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	1	Static
Method of measurement	S	Steel-tape measurement.
Method of measurement	Z	Other.
Measuring agency		Not determined
Measuring agency	USGS	U.S. Geological Survey
Source of measurement		Not determined
Source of measurement	S	Measured by personnel of reporting agency.
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](#)
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[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: 2023-01-30 17:51:25 EST

0.28 0.24 nadww01





APPENDIX B

Photographic Log



Photographic Log
 COG Operating, LLC
 Baseball Cap 25 M CTB
 NAPP2303037207



Photograph: 1 Date: 1/26/2023
 Description: Initial release discovery
 View: South



Photograph: 2 Date: 1/26/2023
 Description: Release extent
 View: North



Photograph: 3 Date: 3/17/2023
 Description: Excavation activities
 View: West



Photograph: 4 Date: 3/17/2023
 Description: Excavation Activities
 View: South



APPENDIX C

Laboratory Analytical Reports & Chain of Custody Documentation



Environment Testing

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ANALYTICAL REPORT

PREPARED FOR

Attn: Josh Adams

Ensolum

601 N. Marienfeld St.

Suite 400

Midland, Texas 79701

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JOB DESCRIPTION

Baseball Cap Federal

SDG NUMBER 03D2024151

JOB NUMBER

890-4014-1

Eurofins Carlsbad
1089 N Canal St.
Carlsbad NM 88220

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
2/13/2023 6:43:05 PM

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

Client: Ensolum
Project/Site: Baseball Cap Federal

Laboratory Job ID: 890-4014-1
SDG: 03D2024151

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Definitions/Glossary

Client: Ensolum
Project/Site: Baseball Cap Federal

Job ID: 890-4014-1
SDG: 03D2024151

Qualifiers

GC VOA

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

GC Semi VOA

Qualifier	Qualifier Description
F1	MS and/or MSD recovery exceeds control limits.
F2	MS/MSD RPD exceeds control limits
S1+	Surrogate recovery exceeds control limits, 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.
α	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: Baseball Cap Federal

Job ID: 890-4014-1
SDG: 03D2024151

Job ID: 890-4014-1

Laboratory: Eurofins Carlsbad

Narrative

Job Narrative
890-4014-1

Receipt

The sample was received on 2/3/2023 8:32 AM. Unless otherwise noted below, the sample arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 3.4°C

Receipt Exceptions

The following samples were received and analyzed from an unpreserved bulk soil jar: SS04 (890-4014-1).

GC VOA

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

GC Semi VOA

Method 8015MOD_NM: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 880-45763 and analytical batch 880-45729 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.

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: Baseball Cap Federal

Job ID: 890-4014-1
SDG: 03D2024151

Client Sample ID: SS04

Lab Sample ID: 890-4014-1

Date Collected: 02/02/23 10:30

Matrix: Solid

Date Received: 02/03/23 08:32

Sample Depth: 0.2

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		02/09/23 10:23	02/10/23 20:47	1
Toluene	<0.00201	U	0.00201	mg/Kg		02/09/23 10:23	02/10/23 20:47	1
Ethylbenzene	<0.00201	U	0.00201	mg/Kg		02/09/23 10:23	02/10/23 20:47	1
m-Xylene & p-Xylene	<0.00402	U	0.00402	mg/Kg		02/09/23 10:23	02/10/23 20:47	1
o-Xylene	<0.00201	U	0.00201	mg/Kg		02/09/23 10:23	02/10/23 20:47	1
Xylenes, Total	<0.00402	U	0.00402	mg/Kg		02/09/23 10:23	02/10/23 20:47	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	119		70 - 130	02/09/23 10:23	02/10/23 20:47	1
1,4-Difluorobenzene (Surr)	114		70 - 130	02/09/23 10:23	02/10/23 20:47	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			02/13/23 18:42	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 09:45	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		02/08/23 10:22	02/09/23 04:36	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		02/08/23 10:22	02/09/23 04:36	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		02/08/23 10:22	02/09/23 04:36	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	93		70 - 130	02/08/23 10:22	02/09/23 04:36	1
o-Terphenyl	100		70 - 130	02/08/23 10:22	02/09/23 04:36	1

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	16.3		5.00	mg/Kg			02/07/23 16:21	1

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Surrogate Summary

Client: Ensolum
Project/Site: Baseball Cap Federal

Job ID: 890-4014-1
SDG: 03D2024151

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)
880-24301-A-1-E MS	Matrix Spike	118	109
880-24301-A-1-F MSD	Matrix Spike Duplicate	118	105
890-4014-1	SS04	119	114
LCS 880-45890/1-A	Lab Control Sample	106	104
LCSD 880-45890/2-A	Lab Control Sample Dup	107	106
MB 880-45890/5-A	Method Blank	106	105
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)
880-24450-A-14-D MS	Matrix Spike	100	88
880-24450-A-14-E MSD	Matrix Spike Duplicate	113	102
890-4014-1	SS04	93	100
LCS 880-45763/2-A	Lab Control Sample	120	113
LCSD 880-45763/3-A	Lab Control Sample Dup	121	110
MB 880-45763/1-A	Method Blank	136 S1+	139 S1+
Surrogate Legend			
1CO = 1-Chlorooctane			
OTPH = o-Terphenyl			

QC Sample Results

Client: Ensolum
Project/Site: Baseball Cap Federal

Job ID: 890-4014-1
SDG: 03D2024151

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-45890/5-A

Matrix: Solid

Analysis Batch: 45955

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 45890

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		02/09/23 10:23	02/10/23 13:42	1
Toluene	<0.00200	U	0.00200	mg/Kg		02/09/23 10:23	02/10/23 13:42	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		02/09/23 10:23	02/10/23 13:42	1
m-Xylene & p-Xylene	<0.00400	U	0.00400	mg/Kg		02/09/23 10:23	02/10/23 13:42	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		02/09/23 10:23	02/10/23 13:42	1
Xylenes, Total	<0.00400	U	0.00400	mg/Kg		02/09/23 10:23	02/10/23 13:42	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	106		70 - 130	02/09/23 10:23	02/10/23 13:42	1
1,4-Difluorobenzene (Surr)	105		70 - 130	02/09/23 10:23	02/10/23 13:42	1

Lab Sample ID: LCS 880-45890/1-A

Matrix: Solid

Analysis Batch: 45955

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 45890

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	0.100	0.09992		mg/Kg		100	70 - 130
Toluene	0.100	0.1029		mg/Kg		103	70 - 130
Ethylbenzene	0.100	0.1033		mg/Kg		103	70 - 130
m-Xylene & p-Xylene	0.200	0.2205		mg/Kg		110	70 - 130
o-Xylene	0.100	0.1045		mg/Kg		104	70 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene (Surr)	106		70 - 130
1,4-Difluorobenzene (Surr)	104		70 - 130

Lab Sample ID: LCSD 880-45890/2-A

Matrix: Solid

Analysis Batch: 45955

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 45890

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	0.100	0.09865		mg/Kg		99	70 - 130	1	35
Toluene	0.100	0.1003		mg/Kg		100	70 - 130	3	35
Ethylbenzene	0.100	0.1014		mg/Kg		101	70 - 130	2	35
m-Xylene & p-Xylene	0.200	0.2169		mg/Kg		108	70 - 130	2	35
o-Xylene	0.100	0.1035		mg/Kg		104	70 - 130	1	35

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	107		70 - 130
1,4-Difluorobenzene (Surr)	106		70 - 130

Lab Sample ID: 880-24301-A-1-E MS

Matrix: Solid

Analysis Batch: 45955

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 45890

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	<0.00199	U	0.0998	0.1069		mg/Kg		107	70 - 130
Toluene	<0.00199	U	0.0998	0.1075		mg/Kg		108	70 - 130

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QC Sample Results

Client: Ensolum
Project/Site: Baseball Cap Federal

Job ID: 890-4014-1
SDG: 03D2024151

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

Lab Sample ID: 880-24301-A-1-E MS

Matrix: Solid

Analysis Batch: 45955

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 45890

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Ethylbenzene	<0.00199	U	0.0998	0.1083		mg/Kg		108	70 - 130
m-Xylene & p-Xylene	<0.00398	U	0.200	0.2317		mg/Kg		116	70 - 130
o-Xylene	<0.00199	U	0.0998	0.1102		mg/Kg		110	70 - 130

Surrogate	MS %Recovery	MS Qualifier	MS Limits
4-Bromofluorobenzene (Surr)	118		70 - 130
1,4-Difluorobenzene (Surr)	109		70 - 130

Lab Sample ID: 880-24301-A-1-F MSD

Matrix: Solid

Analysis Batch: 45955

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 45890

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	<0.00199	U	0.100	0.09775		mg/Kg		97	70 - 130	9	35
Toluene	<0.00199	U	0.100	0.09791		mg/Kg		98	70 - 130	9	35
Ethylbenzene	<0.00199	U	0.100	0.09845		mg/Kg		98	70 - 130	10	35
m-Xylene & p-Xylene	<0.00398	U	0.201	0.2108		mg/Kg		105	70 - 130	9	35
o-Xylene	<0.00199	U	0.100	0.1005		mg/Kg		100	70 - 130	9	35

Surrogate	MSD %Recovery	MSD Qualifier	MSD Limits
4-Bromofluorobenzene (Surr)	118		70 - 130
1,4-Difluorobenzene (Surr)	105		70 - 130

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

Lab Sample ID: MB 880-45763/1-A

Matrix: Solid

Analysis Batch: 45729

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 45763

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		02/08/23 10:22	02/08/23 21:23	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		02/08/23 10:22	02/08/23 21:23	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		02/08/23 10:22	02/08/23 21:23	1

Surrogate	MB %Recovery	MB Qualifier	MB Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	136	S1+	70 - 130	02/08/23 10:22	02/08/23 21:23	1
o-Terphenyl	139	S1+	70 - 130	02/08/23 10:22	02/08/23 21:23	1

Lab Sample ID: LCS 880-45763/2-A

Matrix: Solid

Analysis Batch: 45729

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 45763

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Gasoline Range Organics (GRO)-C6-C10	1000	852.5		mg/Kg		85	70 - 130
Diesel Range Organics (Over C10-C28)	1000	939.4		mg/Kg		94	70 - 130

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QC Sample Results

Client: Ensolum
Project/Site: Baseball Cap Federal

Job ID: 890-4014-1
SDG: 03D2024151

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

Lab Sample ID: LCS 880-45763/2-A

Matrix: Solid

Analysis Batch: 45729

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 45763

	LCS	LCS	
Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane	120		70 - 130
o-Terphenyl	113		70 - 130

Lab Sample ID: LCSD 880-45763/3-A

Matrix: Solid

Analysis Batch: 45729

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 45763

			Spike	LCSD	LCSD				%Rec			
Analyte			Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit	
Gasoline Range Organics (GRO)-C6-C10			1000	859.7		mg/Kg		86	70 - 130	1	20	
Diesel Range Organics (Over C10-C28)			1000	922.4		mg/Kg		92	70 - 130	2	20	

	LCSD	LCSD	
Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane	121		70 - 130
o-Terphenyl	110		70 - 130

Lab Sample ID: 880-24450-A-14-D MS

Matrix: Solid

Analysis Batch: 45729

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 45763

	Sample	Sample	Spike	MS	MS				%Rec			
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit	
Gasoline Range Organics (GRO)-C6-C10	<49.9	U F1 F2	999	684.7	F1	mg/Kg		67	70 - 130			
Diesel Range Organics (Over C10-C28)	<49.9	U F1	999	693.6	F1	mg/Kg		67	70 - 130			

	MS	MS	
Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane	100		70 - 130
o-Terphenyl	88		70 - 130

Lab Sample ID: 880-24450-A-14-E MSD

Matrix: Solid

Analysis Batch: 45729

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 45763

	Sample	Sample	Spike	MSD	MSD				%Rec			
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit	
Gasoline Range Organics (GRO)-C6-C10	<49.9	U F1 F2	999	1045	F2	mg/Kg		103	70 - 130	42	20	
Diesel Range Organics (Over C10-C28)	<49.9	U F1	999	806.9		mg/Kg		78	70 - 130	15	20	

	MSD	MSD	
Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane	113		70 - 130
o-Terphenyl	102		70 - 130

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QC Sample Results

Client: Ensolum
Project/Site: Baseball Cap Federal

Job ID: 890-4014-1
SDG: 03D2024151

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-45663/1-A

Matrix: Solid

Analysis Batch: 45708

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			02/07/23 14:48	1

Lab Sample ID: LCS 880-45663/2-A

Matrix: Solid

Analysis Batch: 45708

Client Sample ID: Lab Control Sample

Prep Type: Soluble

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	250	258.1		mg/Kg		103	90 - 110

Lab Sample ID: LCSD 880-45663/3-A

Matrix: Solid

Analysis Batch: 45708

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	255.5		mg/Kg		102	90 - 110	1	20

Lab Sample ID: 890-4013-A-11-B MS

Matrix: Solid

Analysis Batch: 45708

Client Sample ID: Matrix Spike

Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	64.8		249	311.1		mg/Kg		99	90 - 110

Lab Sample ID: 890-4013-A-11-C MSD

Matrix: Solid

Analysis Batch: 45708

Client Sample ID: Matrix Spike Duplicate

Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	64.8		249	309.4		mg/Kg		98	90 - 110	1	20

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QC Association Summary

Client: Ensolum
Project/Site: Baseball Cap Federal

Job ID: 890-4014-1
SDG: 03D2024151

GC VOA

Prep Batch: 45890

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4014-1	SS04	Total/NA	Solid	5035	
MB 880-45890/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-45890/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-45890/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
880-24301-A-1-E MS	Matrix Spike	Total/NA	Solid	5035	
880-24301-A-1-F MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	

Analysis Batch: 45955

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4014-1	SS04	Total/NA	Solid	8021B	45890
MB 880-45890/5-A	Method Blank	Total/NA	Solid	8021B	45890
LCS 880-45890/1-A	Lab Control Sample	Total/NA	Solid	8021B	45890
LCSD 880-45890/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	45890
880-24301-A-1-E MS	Matrix Spike	Total/NA	Solid	8021B	45890
880-24301-A-1-F MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	45890

Analysis Batch: 46220

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4014-1	SS04	Total/NA	Solid	Total BTEX	

GC Semi VOA

Analysis Batch: 45729

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4014-1	SS04	Total/NA	Solid	8015B NM	45763
MB 880-45763/1-A	Method Blank	Total/NA	Solid	8015B NM	45763
LCS 880-45763/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	45763
LCSD 880-45763/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	45763
880-24450-A-14-D MS	Matrix Spike	Total/NA	Solid	8015B NM	45763
880-24450-A-14-E MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	45763

Prep Batch: 45763

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4014-1	SS04	Total/NA	Solid	8015NM Prep	
MB 880-45763/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-45763/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-45763/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
880-24450-A-14-D MS	Matrix Spike	Total/NA	Solid	8015NM Prep	
880-24450-A-14-E MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	

Analysis Batch: 45864

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4014-1	SS04	Total/NA	Solid	8015 NM	

HPLC/IC

Leach Batch: 45663

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4014-1	SS04	Soluble	Solid	DI Leach	
MB 880-45663/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-45663/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-45663/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	

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QC Association Summary

Client: Ensolum
Project/Site: Baseball Cap Federal

Job ID: 890-4014-1
SDG: 03D2024151

HPLC/IC (Continued)

Leach Batch: 45663 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4013-A-11-B MS	Matrix Spike	Soluble	Solid	DI Leach	
890-4013-A-11-C MSD	Matrix Spike Duplicate	Soluble	Solid	DI Leach	

Analysis Batch: 45708

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4014-1	SS04	Soluble	Solid	300.0	45663
MB 880-45663/1-A	Method Blank	Soluble	Solid	300.0	45663
LCS 880-45663/2-A	Lab Control Sample	Soluble	Solid	300.0	45663
LCSD 880-45663/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	45663
890-4013-A-11-B MS	Matrix Spike	Soluble	Solid	300.0	45663
890-4013-A-11-C MSD	Matrix Spike Duplicate	Soluble	Solid	300.0	45663

Lab Chronicle

Client: Ensolum
Project/Site: Baseball Cap Federal

Job ID: 890-4014-1
SDG: 03D2024151

Client Sample ID: SS04

Lab Sample ID: 890-4014-1

Date Collected: 02/02/23 10:30

Matrix: Solid

Date Received: 02/03/23 08:32

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	45890	02/09/23 10:23	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	45955	02/10/23 20:47	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			46220	02/13/23 18:42	SM	EET MID
Total/NA	Analysis	8015 NM		1			45864	02/09/23 09:45	AJ	EET MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	45763	02/08/23 10:22	AJ	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	45729	02/09/23 04:36	AJ	EET MID
Soluble	Leach	DI Leach			5 g	50 mL	45663	02/07/23 09:26	KS	EET MID
Soluble	Analysis	300.0		1			45708	02/07/23 16:21	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: Baseball Cap Federal

Job ID: 890-4014-1
SDG: 03D2024151

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

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14

Method Summary

Client: Ensolum
Project/Site: Baseball Cap Federal

Job ID: 890-4014-1
SDG: 03D2024151

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: Baseball Cap Federal

Job ID: 890-4014-1
SDG: 03D2024151

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-4014-1	SS04	Solid	02/02/23 10:30	02/03/23 08:32	0.2

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14

Login Sample Receipt Checklist

Client: Ensolum

Job Number: 890-4014-1

SDG Number: 03D2024151

Login Number: 4014

List Number: 1

Creator: Clifton, Cloe

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: 890-4014-1

SDG Number: 03D2024151

Login Number: 4014

List Number: 2

Creator: Rodriguez, Leticia

List Source: Eurofins Midland

List Creation: 02/06/23 08:40 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	



Environment Testing

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ANALYTICAL REPORT

PREPARED FOR

Attn: Josh Adams

Ensolum

601 N. Marienfeld St.

Suite 400

Midland, Texas 79701

Generated 2/13/2023 6:43:36 PM

JOB DESCRIPTION

Baseball Cap Federal

SDG NUMBER 03D2024151

JOB NUMBER

890-4015-1

Eurofins Carlsbad
1089 N Canal St.
Carlsbad NM 88220

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
2/13/2023 6:43:36 PM

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

Client: Ensolum
Project/Site: Baseball Cap Federal

Laboratory Job ID: 890-4015-1
SDG: 03D2024151

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Definitions/Glossary

Client: Ensolum
Project/Site: Baseball Cap Federal

Job ID: 890-4015-1
SDG: 03D2024151

Qualifiers

GC VOA

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

GC Semi VOA

Qualifier	Qualifier Description
F1	MS and/or MSD recovery exceeds control limits.
F2	MS/MSD RPD exceeds control limits
S1+	Surrogate recovery exceeds control limits, 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.
α	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: Baseball Cap Federal

Job ID: 890-4015-1
SDG: 03D2024151

Job ID: 890-4015-1

Laboratory: Eurofins Carlsbad

Narrative

Job Narrative
890-4015-1

Receipt

The sample was received on 2/3/2023 8:53 AM. Unless otherwise noted below, the sample arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 3.4°C

Receipt Exceptions

The following sample was received and analyzed from an unpreserved bulk soil jar: SS03 (890-4015-1).

GC VOA

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

GC Semi VOA

Method 8015MOD_NM: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 880-45763 and analytical batch 880-45729 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.

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: Baseball Cap Federal

Job ID: 890-4015-1
SDG: 03D2024151

Client Sample ID: SS03

Lab Sample ID: 890-4015-1

Date Collected: 02/02/23 10:25

Matrix: Solid

Date Received: 02/03/23 08:53

Sample Depth: 0.2

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		02/09/23 10:23	02/10/23 21:07	1
Toluene	<0.00199	U	0.00199	mg/Kg		02/09/23 10:23	02/10/23 21:07	1
Ethylbenzene	<0.00199	U	0.00199	mg/Kg		02/09/23 10:23	02/10/23 21:07	1
m-Xylene & p-Xylene	<0.00398	U	0.00398	mg/Kg		02/09/23 10:23	02/10/23 21:07	1
o-Xylene	<0.00199	U	0.00199	mg/Kg		02/09/23 10:23	02/10/23 21:07	1
Xylenes, Total	<0.00398	U	0.00398	mg/Kg		02/09/23 10:23	02/10/23 21:07	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	123		70 - 130	02/09/23 10:23	02/10/23 21:07	1
1,4-Difluorobenzene (Surr)	110		70 - 130	02/09/23 10:23	02/10/23 21:07	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			02/13/23 18:42	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 09:45	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		02/08/23 10:22	02/09/23 04:57	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9	mg/Kg		02/08/23 10:22	02/09/23 04:57	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg		02/08/23 10:22	02/09/23 04:57	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	90		70 - 130	02/08/23 10:22	02/09/23 04:57	1
o-Terphenyl	95		70 - 130	02/08/23 10:22	02/09/23 04:57	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			02/07/23 16:26	1

Eurofins Carlsbad

Surrogate Summary

Client: Ensolum
Project/Site: Baseball Cap Federal

Job ID: 890-4015-1
SDG: 03D2024151

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)
880-24301-A-1-E MS	Matrix Spike	118	109
880-24301-A-1-F MSD	Matrix Spike Duplicate	118	105
890-4015-1	SS03	123	110
LCS 880-45890/1-A	Lab Control Sample	106	104
LCSD 880-45890/2-A	Lab Control Sample Dup	107	106
MB 880-45890/5-A	Method Blank	106	105
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)
880-24450-A-14-D MS	Matrix Spike	100	88
880-24450-A-14-E MSD	Matrix Spike Duplicate	113	102
890-4015-1	SS03	90	95
LCS 880-45763/2-A	Lab Control Sample	120	113
LCSD 880-45763/3-A	Lab Control Sample Dup	121	110
MB 880-45763/1-A	Method Blank	136 S1+	139 S1+
Surrogate Legend			
1CO = 1-Chlorooctane			
OTPH = o-Terphenyl			

QC Sample Results

Client: Ensolum
Project/Site: Baseball Cap Federal

Job ID: 890-4015-1
SDG: 03D2024151

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-45890/5-A

Matrix: Solid

Analysis Batch: 45955

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 45890

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		02/09/23 10:23	02/10/23 13:42	1
Toluene	<0.00200	U	0.00200	mg/Kg		02/09/23 10:23	02/10/23 13:42	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		02/09/23 10:23	02/10/23 13:42	1
m-Xylene & p-Xylene	<0.00400	U	0.00400	mg/Kg		02/09/23 10:23	02/10/23 13:42	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		02/09/23 10:23	02/10/23 13:42	1
Xylenes, Total	<0.00400	U	0.00400	mg/Kg		02/09/23 10:23	02/10/23 13:42	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	106		70 - 130	02/09/23 10:23	02/10/23 13:42	1
1,4-Difluorobenzene (Surr)	105		70 - 130	02/09/23 10:23	02/10/23 13:42	1

Lab Sample ID: LCS 880-45890/1-A

Matrix: Solid

Analysis Batch: 45955

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 45890

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	0.100	0.09992		mg/Kg		100	70 - 130
Toluene	0.100	0.1029		mg/Kg		103	70 - 130
Ethylbenzene	0.100	0.1033		mg/Kg		103	70 - 130
m-Xylene & p-Xylene	0.200	0.2205		mg/Kg		110	70 - 130
o-Xylene	0.100	0.1045		mg/Kg		104	70 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene (Surr)	106		70 - 130
1,4-Difluorobenzene (Surr)	104		70 - 130

Lab Sample ID: LCSD 880-45890/2-A

Matrix: Solid

Analysis Batch: 45955

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 45890

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	0.100	0.09865		mg/Kg		99	70 - 130	1	35
Toluene	0.100	0.1003		mg/Kg		100	70 - 130	3	35
Ethylbenzene	0.100	0.1014		mg/Kg		101	70 - 130	2	35
m-Xylene & p-Xylene	0.200	0.2169		mg/Kg		108	70 - 130	2	35
o-Xylene	0.100	0.1035		mg/Kg		104	70 - 130	1	35

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	107		70 - 130
1,4-Difluorobenzene (Surr)	106		70 - 130

Lab Sample ID: 880-24301-A-1-E MS

Matrix: Solid

Analysis Batch: 45955

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 45890

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	<0.00199	U	0.0998	0.1069		mg/Kg		107	70 - 130
Toluene	<0.00199	U	0.0998	0.1075		mg/Kg		108	70 - 130

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QC Sample Results

Client: Ensolum
Project/Site: Baseball Cap Federal

Job ID: 890-4015-1
SDG: 03D2024151

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

Lab Sample ID: 880-24301-A-1-E MS

Matrix: Solid

Analysis Batch: 45955

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 45890

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Ethylbenzene	<0.00199	U	0.0998	0.1083		mg/Kg		108	70 - 130
m-Xylene & p-Xylene	<0.00398	U	0.200	0.2317		mg/Kg		116	70 - 130
o-Xylene	<0.00199	U	0.0998	0.1102		mg/Kg		110	70 - 130

Surrogate	MS %Recovery	MS Qualifier	MS Limits
4-Bromofluorobenzene (Surr)	118		70 - 130
1,4-Difluorobenzene (Surr)	109		70 - 130

Lab Sample ID: 880-24301-A-1-F MSD

Matrix: Solid

Analysis Batch: 45955

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 45890

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	<0.00199	U	0.100	0.09775		mg/Kg		97	70 - 130	9	35
Toluene	<0.00199	U	0.100	0.09791		mg/Kg		98	70 - 130	9	35
Ethylbenzene	<0.00199	U	0.100	0.09845		mg/Kg		98	70 - 130	10	35
m-Xylene & p-Xylene	<0.00398	U	0.201	0.2108		mg/Kg		105	70 - 130	9	35
o-Xylene	<0.00199	U	0.100	0.1005		mg/Kg		100	70 - 130	9	35

Surrogate	MSD %Recovery	MSD Qualifier	MSD Limits
4-Bromofluorobenzene (Surr)	118		70 - 130
1,4-Difluorobenzene (Surr)	105		70 - 130

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

Lab Sample ID: MB 880-45763/1-A

Matrix: Solid

Analysis Batch: 45729

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 45763

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		02/08/23 10:22	02/08/23 21:23	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		02/08/23 10:22	02/08/23 21:23	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		02/08/23 10:22	02/08/23 21:23	1

Surrogate	MB %Recovery	MB Qualifier	MB Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	136	S1+	70 - 130	02/08/23 10:22	02/08/23 21:23	1
o-Terphenyl	139	S1+	70 - 130	02/08/23 10:22	02/08/23 21:23	1

Lab Sample ID: LCS 880-45763/2-A

Matrix: Solid

Analysis Batch: 45729

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 45763

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Gasoline Range Organics (GRO)-C6-C10	1000	852.5		mg/Kg		85	70 - 130
Diesel Range Organics (Over C10-C28)	1000	939.4		mg/Kg		94	70 - 130

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QC Sample Results

Client: Ensolum
Project/Site: Baseball Cap Federal

Job ID: 890-4015-1
SDG: 03D2024151

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

Lab Sample ID: LCS 880-45763/2-A

Matrix: Solid

Analysis Batch: 45729

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 45763

	LCS	LCS	
Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane	120		70 - 130
o-Terphenyl	113		70 - 130

Lab Sample ID: LCSD 880-45763/3-A

Matrix: Solid

Analysis Batch: 45729

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 45763

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	1000	859.7		mg/Kg		86	70 - 130	1	20
Diesel Range Organics (Over C10-C28)	1000	922.4		mg/Kg		92	70 - 130	2	20

	LCSD	LCSD	
Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane	121		70 - 130
o-Terphenyl	110		70 - 130

Lab Sample ID: 880-24450-A-14-D MS

Matrix: Solid

Analysis Batch: 45729

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 45763

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 F1 F2	999	684.7	F1	mg/Kg		67	70 - 130
Diesel Range Organics (Over C10-C28)	<49.9	U F1	999	693.6	F1	mg/Kg		67	70 - 130

	MS	MS	
Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane	100		70 - 130
o-Terphenyl	88		70 - 130

Lab Sample ID: 880-24450-A-14-E MSD

Matrix: Solid

Analysis Batch: 45729

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 45763

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 F1 F2	999	1045	F2	mg/Kg		103	70 - 130	42	20
Diesel Range Organics (Over C10-C28)	<49.9	U F1	999	806.9		mg/Kg		78	70 - 130	15	20

	MSD	MSD	
Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane	113		70 - 130
o-Terphenyl	102		70 - 130

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QC Sample Results

Client: Ensolum
Project/Site: Baseball Cap Federal

Job ID: 890-4015-1
SDG: 03D2024151

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-45663/1-A

Matrix: Solid

Analysis Batch: 45708

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			02/07/23 14:48	1

Lab Sample ID: LCS 880-45663/2-A

Matrix: Solid

Analysis Batch: 45708

Client Sample ID: Lab Control Sample

Prep Type: Soluble

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	250	258.1		mg/Kg		103	90 - 110

Lab Sample ID: LCSD 880-45663/3-A

Matrix: Solid

Analysis Batch: 45708

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	255.5		mg/Kg		102	90 - 110	1	20

Lab Sample ID: 890-4013-A-11-B MS

Matrix: Solid

Analysis Batch: 45708

Client Sample ID: Matrix Spike

Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	64.8		249	311.1		mg/Kg		99	90 - 110

Lab Sample ID: 890-4013-A-11-C MSD

Matrix: Solid

Analysis Batch: 45708

Client Sample ID: Matrix Spike Duplicate

Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	64.8		249	309.4		mg/Kg		98	90 - 110	1	20

Eurofins Carlsbad

QC Association Summary

Client: Ensolum
Project/Site: Baseball Cap Federal

Job ID: 890-4015-1
SDG: 03D2024151

GC VOA

Prep Batch: 45890

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4015-1	SS03	Total/NA	Solid	5035	
MB 880-45890/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-45890/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-45890/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
880-24301-A-1-E MS	Matrix Spike	Total/NA	Solid	5035	
880-24301-A-1-F MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	

Analysis Batch: 45955

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4015-1	SS03	Total/NA	Solid	8021B	45890
MB 880-45890/5-A	Method Blank	Total/NA	Solid	8021B	45890
LCS 880-45890/1-A	Lab Control Sample	Total/NA	Solid	8021B	45890
LCSD 880-45890/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	45890
880-24301-A-1-E MS	Matrix Spike	Total/NA	Solid	8021B	45890
880-24301-A-1-F MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	45890

Analysis Batch: 46221

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4015-1	SS03	Total/NA	Solid	Total BTEX	

GC Semi VOA

Analysis Batch: 45729

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4015-1	SS03	Total/NA	Solid	8015B NM	45763
MB 880-45763/1-A	Method Blank	Total/NA	Solid	8015B NM	45763
LCS 880-45763/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	45763
LCSD 880-45763/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	45763
880-24450-A-14-D MS	Matrix Spike	Total/NA	Solid	8015B NM	45763
880-24450-A-14-E MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	45763

Prep Batch: 45763

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4015-1	SS03	Total/NA	Solid	8015NM Prep	
MB 880-45763/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-45763/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-45763/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
880-24450-A-14-D MS	Matrix Spike	Total/NA	Solid	8015NM Prep	
880-24450-A-14-E MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	

Analysis Batch: 45865

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4015-1	SS03	Total/NA	Solid	8015 NM	

HPLC/IC

Leach Batch: 45663

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4015-1	SS03	Soluble	Solid	DI Leach	
MB 880-45663/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-45663/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-45663/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	

Eurofins Carlsbad

QC Association Summary

Client: Ensolum
Project/Site: Baseball Cap Federal

Job ID: 890-4015-1
SDG: 03D2024151

HPLC/IC (Continued)

Leach Batch: 45663 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4013-A-11-B MS	Matrix Spike	Soluble	Solid	DI Leach	
890-4013-A-11-C MSD	Matrix Spike Duplicate	Soluble	Solid	DI Leach	

Analysis Batch: 45708

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4015-1	SS03	Soluble	Solid	300.0	45663
MB 880-45663/1-A	Method Blank	Soluble	Solid	300.0	45663
LCS 880-45663/2-A	Lab Control Sample	Soluble	Solid	300.0	45663
LCSD 880-45663/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	45663
890-4013-A-11-B MS	Matrix Spike	Soluble	Solid	300.0	45663
890-4013-A-11-C MSD	Matrix Spike Duplicate	Soluble	Solid	300.0	45663

Lab Chronicle

Client: Ensolum
Project/Site: Baseball Cap Federal

Job ID: 890-4015-1
SDG: 03D2024151

Client Sample ID: SS03

Lab Sample ID: 890-4015-1

Date Collected: 02/02/23 10:25

Matrix: Solid

Date Received: 02/03/23 08:53

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	45890	02/09/23 10:23	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	45955	02/10/23 21:07	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			46221	02/13/23 18:42	SM	EET MID
Total/NA	Analysis	8015 NM		1			45865	02/09/23 09:45	AJ	EET MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	45763	02/08/23 10:22	AJ	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	45729	02/09/23 04:57	AJ	EET MID
Soluble	Leach	DI Leach			5.03 g	50 mL	45663	02/07/23 09:26	KS	EET MID
Soluble	Analysis	300.0		1			45708	02/07/23 16:26	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: Baseball Cap Federal

Job ID: 890-4015-1
SDG: 03D2024151

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

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Method Summary

Client: Ensolum
Project/Site: Baseball Cap Federal

Job ID: 890-4015-1
SDG: 03D2024151

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: Baseball Cap Federal

Job ID: 890-4015-1
SDG: 03D2024151

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-4015-1	SS03	Solid	02/02/23 10:25	02/03/23 08:53	0.2

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- 14

Login Sample Receipt Checklist

Client: Ensolum

Job Number: 890-4015-1

SDG Number: 03D2024151

Login Number: 4015

List Number: 1

Creator: Clifton, Cloe

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: 890-4015-1

SDG Number: 03D2024151

Login Number: 4015

List Number: 2

Creator: Rodriguez, Leticia

List Source: Eurofins Midland

List Creation: 02/06/23 08:40 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	



Environment Testing

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ANALYTICAL REPORT

PREPARED FOR

Attn: Josh Adams

Ensolum

601 N. Marienfeld St.

Suite 400

Midland, Texas 79701

Generated 2/13/2023 6:44:11 PM

JOB DESCRIPTION

Baseball Cap Federal

SDG NUMBER 03D2024151

JOB NUMBER

890-4016-1

Eurofins Carlsbad
1089 N Canal St.
Carlsbad NM 88220

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

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

Client: Ensolum
Project/Site: Baseball Cap Federal

Laboratory Job ID: 890-4016-1
SDG: 03D2024151

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Definitions/Glossary

Client: Ensolum
Project/Site: Baseball Cap Federal

Job ID: 890-4016-1
SDG: 03D2024151

Qualifiers

GC VOA

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

GC Semi VOA

Qualifier	Qualifier Description
F1	MS and/or MSD recovery exceeds control limits.
F2	MS/MSD RPD exceeds control limits
S1+	Surrogate recovery exceeds control limits, 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: Baseball Cap Federal

Job ID: 890-4016-1
SDG: 03D2024151

Job ID: 890-4016-1

Laboratory: Eurofins Carlsbad

Narrative

Job Narrative
890-4016-1

Receipt

The samples were received on 2/3/2023 8:32 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 3.4°C

Receipt Exceptions

The following samples were received and analyzed from an unpreserved bulk soil jar: SS01 (890-4016-1) and SS02 (890-4016-2).

GC VOA

Method 8021B: Surrogate recovery for the following sample was outside control limits: SS01 (890-4016-1). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

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

GC Semi VOA

Method 8015MOD_NM: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 880-45763 and analytical batch 880-45729 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.

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

HPLC/IC

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

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Client Sample Results

Client: Ensolum
Project/Site: Baseball Cap Federal

Job ID: 890-4016-1
SDG: 03D2024151

Client Sample ID: SS01

Lab Sample ID: 890-4016-1

Date Collected: 02/02/23 10:15

Matrix: Solid

Date Received: 02/03/23 08:32

Sample Depth: 0.2

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		02/09/23 10:23	02/10/23 21:28	1
Toluene	0.0123		0.00199	mg/Kg		02/09/23 10:23	02/10/23 21:28	1
Ethylbenzene	0.0591		0.00199	mg/Kg		02/09/23 10:23	02/10/23 21:28	1
m-Xylene & p-Xylene	0.227		0.00398	mg/Kg		02/09/23 10:23	02/10/23 21:28	1
o-Xylene	0.112		0.00199	mg/Kg		02/09/23 10:23	02/10/23 21:28	1
Xylenes, Total	0.339		0.00398	mg/Kg		02/09/23 10:23	02/10/23 21:28	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	133	S1+	70 - 130	02/09/23 10:23	02/10/23 21:28	1
1,4-Difluorobenzene (Surr)	98		70 - 130	02/09/23 10:23	02/10/23 21:28	1

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	0.410		0.00398	mg/Kg			02/13/23 18:42	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	2780		249	mg/Kg			02/09/23 09:45	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	<249	U	249	mg/Kg		02/08/23 10:22	02/09/23 05:37	5
Diesel Range Organics (Over C10-C28)	2210		249	mg/Kg		02/08/23 10:22	02/09/23 05:37	5
Oil Range Organics (Over C28-C36)	566		249	mg/Kg		02/08/23 10:22	02/09/23 05:37	5

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	92		70 - 130	02/08/23 10:22	02/09/23 05:37	5
o-Terphenyl	96		70 - 130	02/08/23 10:22	02/09/23 05:37	5

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	31.3		5.04	mg/Kg			02/07/23 16:40	1

Client Sample ID: SS02

Lab Sample ID: 890-4016-2

Date Collected: 02/02/23 10:20

Matrix: Solid

Date Received: 02/03/23 08:32

Sample Depth: 0.2

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		02/09/23 10:23	02/10/23 21:48	1
Toluene	0.00333		0.00198	mg/Kg		02/09/23 10:23	02/10/23 21:48	1
Ethylbenzene	<0.00198	U	0.00198	mg/Kg		02/09/23 10:23	02/10/23 21:48	1
m-Xylene & p-Xylene	<0.00396	U	0.00396	mg/Kg		02/09/23 10:23	02/10/23 21:48	1
o-Xylene	<0.00198	U	0.00198	mg/Kg		02/09/23 10:23	02/10/23 21:48	1
Xylenes, Total	<0.00396	U	0.00396	mg/Kg		02/09/23 10:23	02/10/23 21:48	1

Eurofins Carlsbad

Client Sample Results

Client: Ensolum
Project/Site: Baseball Cap Federal

Job ID: 890-4016-1
SDG: 03D2024151

Client Sample ID: SS02

Lab Sample ID: 890-4016-2

Date Collected: 02/02/23 10:20

Matrix: Solid

Date Received: 02/03/23 08:32

Sample Depth: 0.2

Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	123		70 - 130			02/09/23 10:23	02/10/23 21:48	1
1,4-Difluorobenzene (Surr)	105		70 - 130			02/09/23 10:23	02/10/23 21:48	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			02/13/23 18:42	1
Method: SW846 8015 NM - Diesel Range Organics (DRO) (GC)								
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	515		49.9	mg/Kg			02/09/23 09:45	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		02/08/23 10:22	02/09/23 05:58	1
Diesel Range Organics (Over C10-C28)	419		49.9	mg/Kg		02/08/23 10:22	02/09/23 05:58	1
Oil Range Organics (Over C28-C36)	95.9		49.9	mg/Kg		02/08/23 10:22	02/09/23 05:58	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	89		70 - 130			02/08/23 10:22	02/09/23 05:58	1
o-Terphenyl	91		70 - 130			02/08/23 10:22	02/09/23 05:58	1
Method: EPA 300.0 - Anions, Ion Chromatography - Soluble								
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	54.0		4.99	mg/Kg			02/07/23 16:45	1

Surrogate Summary

Client: Ensolum
Project/Site: Baseball Cap Federal

Job ID: 890-4016-1
SDG: 03D2024151

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)
880-24301-A-1-E MS	Matrix Spike	118	109
880-24301-A-1-F MSD	Matrix Spike Duplicate	118	105
890-4016-1	SS01	133 S1+	98
890-4016-2	SS02	123	105
LCS 880-45890/1-A	Lab Control Sample	106	104
LCSD 880-45890/2-A	Lab Control Sample Dup	107	106
MB 880-45890/5-A	Method Blank	106	105
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)
880-24450-A-14-D MS	Matrix Spike	100	88
880-24450-A-14-E MSD	Matrix Spike Duplicate	113	102
890-4016-1	SS01	92	96
890-4016-2	SS02	89	91
LCS 880-45763/2-A	Lab Control Sample	120	113
LCSD 880-45763/3-A	Lab Control Sample Dup	121	110
MB 880-45763/1-A	Method Blank	136 S1+	139 S1+
Surrogate Legend			
1CO = 1-Chlorooctane			
OTPH = o-Terphenyl			

QC Sample Results

Client: Ensolum
Project/Site: Baseball Cap Federal

Job ID: 890-4016-1
SDG: 03D2024151

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-45890/5-A

Matrix: Solid

Analysis Batch: 45955

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 45890

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		02/09/23 10:23	02/10/23 13:42	1
Toluene	<0.00200	U	0.00200	mg/Kg		02/09/23 10:23	02/10/23 13:42	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		02/09/23 10:23	02/10/23 13:42	1
m-Xylene & p-Xylene	<0.00400	U	0.00400	mg/Kg		02/09/23 10:23	02/10/23 13:42	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		02/09/23 10:23	02/10/23 13:42	1
Xylenes, Total	<0.00400	U	0.00400	mg/Kg		02/09/23 10:23	02/10/23 13:42	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	106		70 - 130	02/09/23 10:23	02/10/23 13:42	1
1,4-Difluorobenzene (Surr)	105		70 - 130	02/09/23 10:23	02/10/23 13:42	1

Lab Sample ID: LCS 880-45890/1-A

Matrix: Solid

Analysis Batch: 45955

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 45890

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	0.100	0.09992		mg/Kg		100	70 - 130
Toluene	0.100	0.1029		mg/Kg		103	70 - 130
Ethylbenzene	0.100	0.1033		mg/Kg		103	70 - 130
m-Xylene & p-Xylene	0.200	0.2205		mg/Kg		110	70 - 130
o-Xylene	0.100	0.1045		mg/Kg		104	70 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene (Surr)	106		70 - 130
1,4-Difluorobenzene (Surr)	104		70 - 130

Lab Sample ID: LCSD 880-45890/2-A

Matrix: Solid

Analysis Batch: 45955

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 45890

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	0.100	0.09865		mg/Kg		99	70 - 130	1	35
Toluene	0.100	0.1003		mg/Kg		100	70 - 130	3	35
Ethylbenzene	0.100	0.1014		mg/Kg		101	70 - 130	2	35
m-Xylene & p-Xylene	0.200	0.2169		mg/Kg		108	70 - 130	2	35
o-Xylene	0.100	0.1035		mg/Kg		104	70 - 130	1	35

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	107		70 - 130
1,4-Difluorobenzene (Surr)	106		70 - 130

Lab Sample ID: 880-24301-A-1-E MS

Matrix: Solid

Analysis Batch: 45955

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 45890

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	<0.00199	U	0.0998	0.1069		mg/Kg		107	70 - 130
Toluene	<0.00199	U	0.0998	0.1075		mg/Kg		108	70 - 130

Eurofins Carlsbad

QC Sample Results

Client: Ensolum
Project/Site: Baseball Cap Federal

Job ID: 890-4016-1
SDG: 03D2024151

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

Lab Sample ID: 880-24301-A-1-E MS

Matrix: Solid

Analysis Batch: 45955

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 45890

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Ethylbenzene	<0.00199	U	0.0998	0.1083		mg/Kg		108	70 - 130
m-Xylene & p-Xylene	<0.00398	U	0.200	0.2317		mg/Kg		116	70 - 130
o-Xylene	<0.00199	U	0.0998	0.1102		mg/Kg		110	70 - 130

Surrogate	MS %Recovery	MS Qualifier	Limits
4-Bromofluorobenzene (Surr)	118		70 - 130
1,4-Difluorobenzene (Surr)	109		70 - 130

Lab Sample ID: 880-24301-A-1-F MSD

Matrix: Solid

Analysis Batch: 45955

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 45890

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	<0.00199	U	0.100	0.09775		mg/Kg		97	70 - 130	9	35
Toluene	<0.00199	U	0.100	0.09791		mg/Kg		98	70 - 130	9	35
Ethylbenzene	<0.00199	U	0.100	0.09845		mg/Kg		98	70 - 130	10	35
m-Xylene & p-Xylene	<0.00398	U	0.201	0.2108		mg/Kg		105	70 - 130	9	35
o-Xylene	<0.00199	U	0.100	0.1005		mg/Kg		100	70 - 130	9	35

Surrogate	MSD %Recovery	MSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	118		70 - 130
1,4-Difluorobenzene (Surr)	105		70 - 130

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

Lab Sample ID: MB 880-45763/1-A

Matrix: Solid

Analysis Batch: 45729

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 45763

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		02/08/23 10:22	02/08/23 21:23	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		02/08/23 10:22	02/08/23 21:23	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		02/08/23 10:22	02/08/23 21:23	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	136	S1+	70 - 130	02/08/23 10:22	02/08/23 21:23	1
o-Terphenyl	139	S1+	70 - 130	02/08/23 10:22	02/08/23 21:23	1

Lab Sample ID: LCS 880-45763/2-A

Matrix: Solid

Analysis Batch: 45729

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 45763

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Gasoline Range Organics (GRO)-C6-C10	1000	852.5		mg/Kg		85	70 - 130
Diesel Range Organics (Over C10-C28)	1000	939.4		mg/Kg		94	70 - 130

Eurofins Carlsbad

QC Sample Results

Client: Ensolum
Project/Site: Baseball Cap Federal

Job ID: 890-4016-1
SDG: 03D2024151

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

Lab Sample ID: LCS 880-45763/2-A

Matrix: Solid

Analysis Batch: 45729

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 45763

	LCS	LCS	
Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane	120		70 - 130
o-Terphenyl	113		70 - 130

Lab Sample ID: LCSD 880-45763/3-A

Matrix: Solid

Analysis Batch: 45729

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 45763

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	1000	859.7		mg/Kg		86	70 - 130	1	20
Diesel Range Organics (Over C10-C28)	1000	922.4		mg/Kg		92	70 - 130	2	20

	LCSD	LCSD	
Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane	121		70 - 130
o-Terphenyl	110		70 - 130

Lab Sample ID: 880-24450-A-14-D MS

Matrix: Solid

Analysis Batch: 45729

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 45763

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 F1 F2	999	684.7	F1	mg/Kg		67	70 - 130
Diesel Range Organics (Over C10-C28)	<49.9	U F1	999	693.6	F1	mg/Kg		67	70 - 130

	MS	MS	
Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane	100		70 - 130
o-Terphenyl	88		70 - 130

Lab Sample ID: 880-24450-A-14-E MSD

Matrix: Solid

Analysis Batch: 45729

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 45763

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 F1 F2	999	1045	F2	mg/Kg		103	70 - 130	42	20
Diesel Range Organics (Over C10-C28)	<49.9	U F1	999	806.9		mg/Kg		78	70 - 130	15	20

	MSD	MSD	
Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane	113		70 - 130
o-Terphenyl	102		70 - 130

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QC Sample Results

Client: Ensolum
Project/Site: Baseball Cap Federal

Job ID: 890-4016-1
SDG: 03D2024151

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-45663/1-A

Matrix: Solid

Analysis Batch: 45708

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			02/07/23 14:48	1

Lab Sample ID: LCS 880-45663/2-A

Matrix: Solid

Analysis Batch: 45708

Client Sample ID: Lab Control Sample

Prep Type: Soluble

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	250	258.1		mg/Kg		103	90 - 110

Lab Sample ID: LCSD 880-45663/3-A

Matrix: Solid

Analysis Batch: 45708

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	255.5		mg/Kg		102	90 - 110	1	20

Lab Sample ID: 890-4013-A-11-B MS

Matrix: Solid

Analysis Batch: 45708

Client Sample ID: Matrix Spike

Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	64.8		249	311.1		mg/Kg		99	90 - 110

Lab Sample ID: 890-4013-A-11-C MSD

Matrix: Solid

Analysis Batch: 45708

Client Sample ID: Matrix Spike Duplicate

Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	64.8		249	309.4		mg/Kg		98	90 - 110	1	20

Eurofins Carlsbad

QC Association Summary

Client: Ensolum
Project/Site: Baseball Cap Federal

Job ID: 890-4016-1
SDG: 03D2024151

GC VOA

Prep Batch: 45890

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4016-1	SS01	Total/NA	Solid	5035	
890-4016-2	SS02	Total/NA	Solid	5035	
MB 880-45890/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-45890/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-45890/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
880-24301-A-1-E MS	Matrix Spike	Total/NA	Solid	5035	
880-24301-A-1-F MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	

Analysis Batch: 45955

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4016-1	SS01	Total/NA	Solid	8021B	45890
890-4016-2	SS02	Total/NA	Solid	8021B	45890
MB 880-45890/5-A	Method Blank	Total/NA	Solid	8021B	45890
LCS 880-45890/1-A	Lab Control Sample	Total/NA	Solid	8021B	45890
LCSD 880-45890/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	45890
880-24301-A-1-E MS	Matrix Spike	Total/NA	Solid	8021B	45890
880-24301-A-1-F MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	45890

Analysis Batch: 46222

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4016-1	SS01	Total/NA	Solid	Total BTEX	
890-4016-2	SS02	Total/NA	Solid	Total BTEX	

GC Semi VOA

Analysis Batch: 45729

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4016-1	SS01	Total/NA	Solid	8015B NM	45763
890-4016-2	SS02	Total/NA	Solid	8015B NM	45763
MB 880-45763/1-A	Method Blank	Total/NA	Solid	8015B NM	45763
LCS 880-45763/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	45763
LCSD 880-45763/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	45763
880-24450-A-14-D MS	Matrix Spike	Total/NA	Solid	8015B NM	45763
880-24450-A-14-E MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	45763

Prep Batch: 45763

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4016-1	SS01	Total/NA	Solid	8015NM Prep	
890-4016-2	SS02	Total/NA	Solid	8015NM Prep	
MB 880-45763/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-45763/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-45763/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
880-24450-A-14-D MS	Matrix Spike	Total/NA	Solid	8015NM Prep	
880-24450-A-14-E MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	

Analysis Batch: 45867

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4016-1	SS01	Total/NA	Solid	8015 NM	
890-4016-2	SS02	Total/NA	Solid	8015 NM	

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QC Association Summary

Client: Ensolum
Project/Site: Baseball Cap Federal

Job ID: 890-4016-1
SDG: 03D2024151

HPLC/IC

Leach Batch: 45663

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4016-1	SS01	Soluble	Solid	DI Leach	
890-4016-2	SS02	Soluble	Solid	DI Leach	
MB 880-45663/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-45663/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-45663/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
890-4013-A-11-B MS	Matrix Spike	Soluble	Solid	DI Leach	
890-4013-A-11-C MSD	Matrix Spike Duplicate	Soluble	Solid	DI Leach	

Analysis Batch: 45708

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4016-1	SS01	Soluble	Solid	300.0	45663
890-4016-2	SS02	Soluble	Solid	300.0	45663
MB 880-45663/1-A	Method Blank	Soluble	Solid	300.0	45663
LCS 880-45663/2-A	Lab Control Sample	Soluble	Solid	300.0	45663
LCSD 880-45663/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	45663
890-4013-A-11-B MS	Matrix Spike	Soluble	Solid	300.0	45663
890-4013-A-11-C MSD	Matrix Spike Duplicate	Soluble	Solid	300.0	45663

Lab Chronicle

Client: Ensolum
Project/Site: Baseball Cap Federal

Job ID: 890-4016-1
SDG: 03D2024151

Client Sample ID: SS01
Date Collected: 02/02/23 10:15
Date Received: 02/03/23 08:32

Lab Sample ID: 890-4016-1
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			5.03 g	5 mL	45890	02/09/23 10:23	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	45955	02/10/23 21:28	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			46222	02/13/23 18:42	SM	EET MID
Total/NA	Analysis	8015 NM		1			45867	02/09/23 09:45	AJ	EET MID
Total/NA	Prep	8015NM Prep			10.03 g	10 mL	45763	02/08/23 10:22	AJ	EET MID
Total/NA	Analysis	8015B NM		5	1 uL	1 uL	45729	02/09/23 05:37	AJ	EET MID
Soluble	Leach	DI Leach			4.96 g	50 mL	45663	02/07/23 09:26	KS	EET MID
Soluble	Analysis	300.0		1			45708	02/07/23 16:40	CH	EET MID

Client Sample ID: SS02
Date Collected: 02/02/23 10:20
Date Received: 02/03/23 08:32

Lab Sample ID: 890-4016-2
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			5.05 g	5 mL	45890	02/09/23 10:23	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	45955	02/10/23 21:48	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			46222	02/13/23 18:42	SM	EET MID
Total/NA	Analysis	8015 NM		1			45867	02/09/23 09:45	AJ	EET MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	45763	02/08/23 10:22	AJ	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	45729	02/09/23 05:58	AJ	EET MID
Soluble	Leach	DI Leach			5.01 g	50 mL	45663	02/07/23 09:26	KS	EET MID
Soluble	Analysis	300.0		1			45708	02/07/23 16:45	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: Baseball Cap Federal

Job ID: 890-4016-1
SDG: 03D2024151

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

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14

Method Summary

Client: Ensolum
Project/Site: Baseball Cap Federal

Job ID: 890-4016-1
SDG: 03D2024151

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: Baseball Cap Federal

Job ID: 890-4016-1
SDG: 03D2024151

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-4016-1	SS01	Solid	02/02/23 10:15	02/03/23 08:32	0.2
890-4016-2	SS02	Solid	02/02/23 10:20	02/03/23 08:32	0.2

- 1
- 2
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Login Sample Receipt Checklist

Client: Ensolum

Job Number: 890-4016-1

SDG Number: 03D2024151

Login Number: 4016

List Number: 1

Creator: Clifton, Cloe

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: 890-4016-1

SDG Number: 03D2024151

Login Number: 4016

List Number: 2

Creator: Rodriguez, Leticia

List Source: Eurofins Midland

List Creation: 02/06/23 08:40 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	



Environment Testing

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ANALYTICAL REPORT

PREPARED FOR

Attn: Josh Adams

Ensolum

601 N. Marienfeld St.

Suite 400

Midland, Texas 79701

Generated 2/13/2023 6:37:59 PM

JOB DESCRIPTION

Baseball Cap Federal

SDG NUMBER 03D2024151

JOB NUMBER

890-4018-1

Eurofins Carlsbad
1089 N Canal St.
Carlsbad NM 88220

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
2/13/2023 6:37:59 PM

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

Client: Ensolum
Project/Site: Baseball Cap Federal

Laboratory Job ID: 890-4018-1
SDG: 03D2024151

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Definitions/Glossary

Client: Ensolum
Project/Site: Baseball Cap Federal

Job ID: 890-4018-1
SDG: 03D2024151

Qualifiers

GC VOA

Qualifier	Qualifier Description
F1	MS and/or MSD recovery exceeds control limits.
F2	MS/MSD RPD exceeds control limits
S1-	Surrogate recovery exceeds control limits, low biased.
U	Indicates the analyte was analyzed for but not detected.

GC Semi VOA

Qualifier	Qualifier Description
*-	LCS and/or LCSD is outside acceptance limits, low biased.
S1-	Surrogate recovery exceeds control limits, low 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.
α	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: Baseball Cap Federal

Job ID: 890-4018-1
SDG: 03D2024151

Job ID: 890-4018-1**Laboratory: Eurofins Carlsbad****Narrative****Job Narrative
890-4018-1****Receipt**

The sample was received on 2/3/2023 8:33 AM. Unless otherwise noted below, the sample arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 3.4°C

Receipt Exceptions

The following sample was received and analyzed from an unpreserved bulk soil jar: SS05 (890-4018-1).

GC VOA

Method 8021B: Surrogate recovery for the following samples were outside control limits: SS05 (890-4018-1) and (880-24559-A-1-C). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

Method 8021B: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 880-45966 and analytical batch 880-45954 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.

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 880-45800 and analytical batch 880-46050 was outside the control limits.

Method 8015MOD_NM: Surrogate recovery for the following samples were outside control limits: SS05 (890-4018-1), (890-4017-A-2-B), (890-4017-A-2-C MS) and (890-4017-A-2-D MSD). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

Method 8015MOD_NM: The laboratory control sample (LCS) associated with preparation batch 880-45800 and analytical batch 880-46050 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.

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: Baseball Cap Federal

Job ID: 890-4018-1
SDG: 03D2024151

Client Sample ID: SS05

Lab Sample ID: 890-4018-1

Date Collected: 02/02/23 10:35

Matrix: Solid

Date Received: 02/03/23 08:33

Sample Depth: 0.2

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		02/10/23 10:23	02/11/23 04:15	1
Toluene	<0.00201	U	0.00201	mg/Kg		02/10/23 10:23	02/11/23 04:15	1
Ethylbenzene	<0.00201	U	0.00201	mg/Kg		02/10/23 10:23	02/11/23 04:15	1
m-Xylene & p-Xylene	<0.00402	U	0.00402	mg/Kg		02/10/23 10:23	02/11/23 04:15	1
o-Xylene	<0.00201	U	0.00201	mg/Kg		02/10/23 10:23	02/11/23 04:15	1
Xylenes, Total	<0.00402	U	0.00402	mg/Kg		02/10/23 10:23	02/11/23 04:15	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	64	S1-	70 - 130	02/10/23 10:23	02/11/23 04:15	1
1,4-Difluorobenzene (Surr)	92		70 - 130	02/10/23 10:23	02/11/23 04:15	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			02/13/23 19:09	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	62.8		50.0	mg/Kg			02/13/23 14:26	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		02/08/23 13:01	02/11/23 12:53	1
Diesel Range Organics (Over C10-C28)	62.8	*-	50.0	mg/Kg		02/08/23 13:01	02/11/23 12:53	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		02/08/23 13:01	02/11/23 12:53	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	47	S1-	70 - 130	02/08/23 13:01	02/11/23 12:53	1
o-Terphenyl	48	S1-	70 - 130	02/08/23 13:01	02/11/23 12:53	1

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	69.4		4.97	mg/Kg			02/07/23 16:59	1

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Surrogate Summary

Client: Ensolum
Project/Site: Baseball Cap Federal

Job ID: 890-4018-1
SDG: 03D2024151

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)
880-24559-A-1-A MS	Matrix Spike	88	115
880-24559-A-1-B MSD	Matrix Spike Duplicate	113	97
890-4018-1	SS05	64 S1-	92
LCS 880-45966/1-A	Lab Control Sample	111	94
LCSD 880-45966/2-A	Lab Control Sample Dup	108	102
MB 880-45957/5-A	Method Blank	72	95
MB 880-45966/5-A	Method Blank	78	93
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)
890-4017-A-2-C MS	Matrix Spike	58 S1-	54 S1-
890-4017-A-2-D MSD	Matrix Spike Duplicate	54 S1-	47 S1-
890-4018-1	SS05	47 S1-	48 S1-
LCS 880-45800/2-A	Lab Control Sample	78	79
LCSD 880-45800/3-A	Lab Control Sample Dup	93	96
MB 880-45800/1-A	Method Blank	67 S1-	72
Surrogate Legend			
1CO = 1-Chlorooctane			
OTPH = o-Terphenyl			

QC Sample Results

Client: Ensolum
Project/Site: Baseball Cap Federal

Job ID: 890-4018-1
SDG: 03D2024151

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-45957/5-A

Matrix: Solid

Analysis Batch: 45954

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 45957

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		02/10/23 08:55	02/10/23 11:27	1
Toluene	<0.00200	U	0.00200	mg/Kg		02/10/23 08:55	02/10/23 11:27	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		02/10/23 08:55	02/10/23 11:27	1
m-Xylene & p-Xylene	<0.00400	U	0.00400	mg/Kg		02/10/23 08:55	02/10/23 11:27	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		02/10/23 08:55	02/10/23 11:27	1
Xylenes, Total	<0.00400	U	0.00400	mg/Kg		02/10/23 08:55	02/10/23 11:27	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	72		70 - 130	02/10/23 08:55	02/10/23 11:27	1
1,4-Difluorobenzene (Surr)	95		70 - 130	02/10/23 08:55	02/10/23 11:27	1

Lab Sample ID: MB 880-45966/5-A

Matrix: Solid

Analysis Batch: 45954

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 45966

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		02/10/23 10:23	02/10/23 22:25	1
Toluene	<0.00200	U	0.00200	mg/Kg		02/10/23 10:23	02/10/23 22:25	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		02/10/23 10:23	02/10/23 22:25	1
m-Xylene & p-Xylene	<0.00400	U	0.00400	mg/Kg		02/10/23 10:23	02/10/23 22:25	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		02/10/23 10:23	02/10/23 22:25	1
Xylenes, Total	<0.00400	U	0.00400	mg/Kg		02/10/23 10:23	02/10/23 22:25	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	78		70 - 130	02/10/23 10:23	02/10/23 22:25	1
1,4-Difluorobenzene (Surr)	93		70 - 130	02/10/23 10:23	02/10/23 22:25	1

Lab Sample ID: LCS 880-45966/1-A

Matrix: Solid

Analysis Batch: 45954

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 45966

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	0.100	0.09252		mg/Kg		93	70 - 130
Toluene	0.100	0.08882		mg/Kg		89	70 - 130
Ethylbenzene	0.100	0.09392		mg/Kg		94	70 - 130
m-Xylene & p-Xylene	0.200	0.1981		mg/Kg		99	70 - 130
o-Xylene	0.100	0.1039		mg/Kg		104	70 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene (Surr)	111		70 - 130
1,4-Difluorobenzene (Surr)	94		70 - 130

Lab Sample ID: LCSD 880-45966/2-A

Matrix: Solid

Analysis Batch: 45954

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 45966

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	0.100	0.1118		mg/Kg		112	70 - 130	19	35

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QC Sample Results

Client: Ensolum
Project/Site: Baseball Cap Federal

Job ID: 890-4018-1
SDG: 03D2024151

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

Lab Sample ID: LCSD 880-45966/2-A

Matrix: Solid

Analysis Batch: 45954

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 45966

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Toluene	0.100	0.1016		mg/Kg		102	70 - 130	13	35
Ethylbenzene	0.100	0.1056		mg/Kg		106	70 - 130	12	35
m-Xylene & p-Xylene	0.200	0.2195		mg/Kg		110	70 - 130	10	35
o-Xylene	0.100	0.1110		mg/Kg		111	70 - 130	7	35

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	108		70 - 130
1,4-Difluorobenzene (Surr)	102		70 - 130

Lab Sample ID: 880-24559-A-1-A MS

Matrix: Solid

Analysis Batch: 45954

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 45966

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	<0.00202	U	0.100	0.07380		mg/Kg		74	70 - 130
Toluene	<0.00202	U F1	0.100	0.06681	F1	mg/Kg		66	70 - 130
Ethylbenzene	<0.00202	U F1	0.100	0.06471	F1	mg/Kg		64	70 - 130
m-Xylene & p-Xylene	<0.00403	U F1 F2	0.201	0.1170	F1	mg/Kg		58	70 - 130
o-Xylene	<0.00202	U F1	0.100	0.06982	F1	mg/Kg		69	70 - 130

Surrogate	MS %Recovery	MS Qualifier	Limits
4-Bromofluorobenzene (Surr)	88		70 - 130
1,4-Difluorobenzene (Surr)	115		70 - 130

Lab Sample ID: 880-24559-A-1-B MSD

Matrix: Solid

Analysis Batch: 45954

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 45966

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	<0.00202	U	0.0990	0.09166		mg/Kg		93	70 - 130	22	35
Toluene	<0.00202	U F1	0.0990	0.08122		mg/Kg		82	70 - 130	19	35
Ethylbenzene	<0.00202	U F1	0.0990	0.08147		mg/Kg		82	70 - 130	23	35
m-Xylene & p-Xylene	<0.00403	U F1 F2	0.198	0.1690	F2	mg/Kg		85	70 - 130	36	35
o-Xylene	<0.00202	U F1	0.0990	0.08322		mg/Kg		83	70 - 130	18	35

Surrogate	MSD %Recovery	MSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	113		70 - 130
1,4-Difluorobenzene (Surr)	97		70 - 130

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

Lab Sample ID: MB 880-45800/1-A

Matrix: Solid

Analysis Batch: 46050

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 45800

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9	mg/Kg		02/08/23 13:01	02/11/23 09:08	1

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QC Sample Results

Client: Ensolum
Project/Site: Baseball Cap Federal

Job ID: 890-4018-1
SDG: 03D2024151

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

Lab Sample ID: MB 880-45800/1-A

Matrix: Solid

Analysis Batch: 46050

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 45800

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9	mg/Kg		02/08/23 13:01	02/11/23 09:08	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg		02/08/23 13:01	02/11/23 09:08	1
Surrogate	MB %Recovery	MB Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	67	S1-	70 - 130			02/08/23 13:01	02/11/23 09:08	1
o-Terphenyl	72		70 - 130			02/08/23 13:01	02/11/23 09:08	1

Lab Sample ID: LCS 880-45800/2-A

Matrix: Solid

Analysis Batch: 46050

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 45800

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Gasoline Range Organics (GRO)-C6-C10	998	881.9		mg/Kg		88	70 - 130
Diesel Range Organics (Over C10-C28)	998	670.6	*-	mg/Kg		67	70 - 130
Surrogate	LCS %Recovery	LCS Qualifier	Limits				
1-Chlorooctane	78		70 - 130				
o-Terphenyl	79		70 - 130				

Lab Sample ID: LCSD 880-45800/3-A

Matrix: Solid

Analysis Batch: 46050

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 45800

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	1000	840.2		mg/Kg		84	70 - 130	5	20
Diesel Range Organics (Over C10-C28)	1000	817.7		mg/Kg		82	70 - 130	20	20
Surrogate	LCSD %Recovery	LCSD Qualifier	Limits						
1-Chlorooctane	93		70 - 130						
o-Terphenyl	96		70 - 130						

Lab Sample ID: 890-4017-A-2-C MS

Matrix: Solid

Analysis Batch: 46050

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 45800

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	999	969.9		mg/Kg		94	70 - 130
Diesel Range Organics (Over C10-C28)	<50.0	U *-	999	948.8		mg/Kg		92	70 - 130
Surrogate	MS %Recovery	MS Qualifier	Limits						
1-Chlorooctane	58	S1-	70 - 130						
o-Terphenyl	54	S1-	70 - 130						

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QC Sample Results

Client: Ensolum
Project/Site: Baseball Cap Federal

Job ID: 890-4018-1
SDG: 03D2024151

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

Lab Sample ID: 890-4017-A-2-D MSD

Matrix: Solid

Analysis Batch: 46050

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 45800

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	<50.0	U	998	808.5		mg/Kg		78	70 - 130	18	20
Diesel Range Organics (Over C10-C28)	<50.0	U *	998	816.6		mg/Kg		79	70 - 130	15	20
Surrogate	MSD %Recovery	MSD Qualifier	Limits								
1-Chlorooctane	54	S1-	70 - 130								
o-Terphenyl	47	S1-	70 - 130								

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-45663/1-A

Matrix: Solid

Analysis Batch: 45708

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			02/07/23 14:48	1

Lab Sample ID: LCS 880-45663/2-A

Matrix: Solid

Analysis Batch: 45708

Client Sample ID: Lab Control Sample

Prep Type: Soluble

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	250	258.1		mg/Kg		103	90 - 110

Lab Sample ID: LCSD 880-45663/3-A

Matrix: Solid

Analysis Batch: 45708

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	255.5		mg/Kg		102	90 - 110	1	20

Lab Sample ID: 890-4013-A-11-B MS

Matrix: Solid

Analysis Batch: 45708

Client Sample ID: Matrix Spike

Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	64.8		249	311.1		mg/Kg		99	90 - 110

Lab Sample ID: 890-4013-A-11-C MSD

Matrix: Solid

Analysis Batch: 45708

Client Sample ID: Matrix Spike Duplicate

Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	64.8		249	309.4		mg/Kg		98	90 - 110	1	20

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QC Association Summary

Client: Ensolum
Project/Site: Baseball Cap Federal

Job ID: 890-4018-1
SDG: 03D2024151

GC VOA

Analysis Batch: 45954

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4018-1	SS05	Total/NA	Solid	8021B	45966
MB 880-45957/5-A	Method Blank	Total/NA	Solid	8021B	45957
MB 880-45966/5-A	Method Blank	Total/NA	Solid	8021B	45966
LCS 880-45966/1-A	Lab Control Sample	Total/NA	Solid	8021B	45966
LCSD 880-45966/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	45966
880-24559-A-1-A MS	Matrix Spike	Total/NA	Solid	8021B	45966
880-24559-A-1-B MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	45966

Prep Batch: 45957

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 880-45957/5-A	Method Blank	Total/NA	Solid	5035	

Prep Batch: 45966

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4018-1	SS05	Total/NA	Solid	5035	
MB 880-45966/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-45966/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-45966/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
880-24559-A-1-A MS	Matrix Spike	Total/NA	Solid	5035	
880-24559-A-1-B MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	

Analysis Batch: 46234

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4018-1	SS05	Total/NA	Solid	Total BTEX	

GC Semi VOA

Prep Batch: 45800

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4018-1	SS05	Total/NA	Solid	8015NM Prep	
MB 880-45800/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-45800/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-45800/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
890-4017-A-2-C MS	Matrix Spike	Total/NA	Solid	8015NM Prep	
890-4017-A-2-D MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	

Analysis Batch: 46050

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4018-1	SS05	Total/NA	Solid	8015B NM	45800
MB 880-45800/1-A	Method Blank	Total/NA	Solid	8015B NM	45800
LCS 880-45800/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	45800
LCSD 880-45800/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	45800
890-4017-A-2-C MS	Matrix Spike	Total/NA	Solid	8015B NM	45800
890-4017-A-2-D MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	45800

Analysis Batch: 46161

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4018-1	SS05	Total/NA	Solid	8015 NM	

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QC Association Summary

Client: Ensolum
Project/Site: Baseball Cap Federal

Job ID: 890-4018-1
SDG: 03D2024151

HPLC/IC

Leach Batch: 45663

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4018-1	SS05	Soluble	Solid	DI Leach	
MB 880-45663/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-45663/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-45663/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
890-4013-A-11-B MS	Matrix Spike	Soluble	Solid	DI Leach	
890-4013-A-11-C MSD	Matrix Spike Duplicate	Soluble	Solid	DI Leach	

Analysis Batch: 45708

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4018-1	SS05	Soluble	Solid	300.0	45663
MB 880-45663/1-A	Method Blank	Soluble	Solid	300.0	45663
LCS 880-45663/2-A	Lab Control Sample	Soluble	Solid	300.0	45663
LCSD 880-45663/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	45663
890-4013-A-11-B MS	Matrix Spike	Soluble	Solid	300.0	45663
890-4013-A-11-C MSD	Matrix Spike Duplicate	Soluble	Solid	300.0	45663

Lab Chronicle

Client: Ensolum
Project/Site: Baseball Cap Federal

Job ID: 890-4018-1
SDG: 03D2024151

Client Sample ID: SS05

Lab Sample ID: 890-4018-1

Date Collected: 02/02/23 10:35

Matrix: Solid

Date Received: 02/03/23 08:33

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	45966	02/10/23 10:23	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	45954	02/11/23 04:15	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			46234	02/13/23 19:09	SM	EET MID
Total/NA	Analysis	8015 NM		1			46161	02/13/23 14:26	SM	EET MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	45800	02/08/23 13:01	AJ	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	46050	02/11/23 12:53	SM	EET MID
Soluble	Leach	DI Leach			5.03 g	50 mL	45663	02/07/23 09:26	KS	EET MID
Soluble	Analysis	300.0		1			45708	02/07/23 16:59	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: Baseball Cap Federal

Job ID: 890-4018-1
SDG: 03D2024151

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

1
2
3
4
5
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8
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10
11
12
13
14

Method Summary

Client: Ensolum
Project/Site: Baseball Cap Federal

Job ID: 890-4018-1
SDG: 03D2024151

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: Baseball Cap Federal

Job ID: 890-4018-1
SDG: 03D2024151

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-4018-1	SS05	Solid	02/02/23 10:35	02/03/23 08:33	0.2

- 1
- 2
- 3
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- 14

Login Sample Receipt Checklist

Client: Ensolum

Job Number: 890-4018-1

SDG Number: 03D2024151

Login Number: 4018

List Number: 1

Creator: Clifton, Cloe

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: 890-4018-1

SDG Number: 03D2024151

Login Number: 4018

List Number: 2

Creator: Rodriguez, Leticia

List Source: Eurofins Midland

List Creation: 02/06/23 08:40 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	



Environment Testing

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ANALYTICAL REPORT

PREPARED FOR

Attn: Josh Adams

Ensolum

601 N. Marienfeld St.

Suite 400

Midland, Texas 79701

Generated 2/14/2023 10:46:21 AM Revision 1

JOB DESCRIPTION

Baseball Cap Federal

SDG NUMBER 03D2024151

JOB NUMBER

890-4019-1

Eurofins Carlsbad
1089 N Canal St.
Carlsbad NM 88220

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

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

Generated
2/14/2023 10:46:21 AM
Revision 1

Client: Ensolum
Project/Site: Baseball Cap Federal

Laboratory Job ID: 890-4019-1
SDG: 03D2024151

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Definitions/Glossary

Client: Ensolum
Project/Site: Baseball Cap Federal

Job ID: 890-4019-1
SDG: 03D2024151

Qualifiers

GC VOA

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

GC Semi VOA

Qualifier	Qualifier Description
*-	LCS and/or LCSD is outside acceptance limits, low biased.
S1-	Surrogate recovery exceeds control limits, low 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: Baseball Cap Federal

Job ID: 890-4019-1
SDG: 03D2024151

Job ID: 890-4019-1

Laboratory: Eurofins Carlsbad

Narrative

Job Narrative 890-4019-1

REVISION

The report being provided is a revision of the original report sent on 2/13/2023. The report (revision 1) is being revised due to Per client email, correcting sample depth to 0.2'.

Report revision history

Receipt

The sample was received on 2/3/2023 8:32 AM. Unless otherwise noted below, the sample arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 3.4°C

Receipt Exceptions

The following sample was received and analyzed from an unpreserved bulk soil jar: SS06 (890-4019-1).

GC VOA

Method 8021B: Surrogate recovery for the following sample was outside control limits: (880-24559-A-1-C). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

Method 8021B: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 880-45966 and analytical batch 880-45954 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.

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 880-45800 and analytical batch 880-46050 was outside the control limits.

Method 8015MOD_NM: Surrogate recovery for the following samples were outside control limits: SS06 (890-4019-1), (890-4017-A-2-B), (890-4017-A-2-C MS) and (890-4017-A-2-D MSD). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

Method 8015MOD_NM: The laboratory control sample (LCS) associated with preparation batch 880-45800 and analytical batch 880-46050 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.

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: Baseball Cap Federal

Job ID: 890-4019-1
SDG: 03D2024151

Client Sample ID: SS06

Lab Sample ID: 890-4019-1

Date Collected: 02/02/23 10:40

Matrix: Solid

Date Received: 02/03/23 08:32

Sample Depth: 0.2'

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		02/10/23 10:23	02/11/23 04:36	1
Toluene	<0.00200	U	0.00200	mg/Kg		02/10/23 10:23	02/11/23 04:36	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		02/10/23 10:23	02/11/23 04:36	1
m-Xylene & p-Xylene	<0.00401	U	0.00401	mg/Kg		02/10/23 10:23	02/11/23 04:36	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		02/10/23 10:23	02/11/23 04:36	1
Xylenes, Total	<0.00401	U	0.00401	mg/Kg		02/10/23 10:23	02/11/23 04:36	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	86		70 - 130	02/10/23 10:23	02/11/23 04:36	1
1,4-Difluorobenzene (Surr)	88		70 - 130	02/10/23 10:23	02/11/23 04:36	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			02/13/23 19:09	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			02/13/23 14:26	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		02/08/23 13:01	02/11/23 13:15	1
Diesel Range Organics (Over C10-C28)	<49.9	U *	49.9	mg/Kg		02/08/23 13:01	02/11/23 13:15	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg		02/08/23 13:01	02/11/23 13:15	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	53	S1-	70 - 130	02/08/23 13:01	02/11/23 13:15	1
o-Terphenyl	54	S1-	70 - 130	02/08/23 13:01	02/11/23 13:15	1

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	7.27		4.95	mg/Kg			02/08/23 14:08	1

Eurofins Carlsbad

Surrogate Summary

Client: Ensolum
Project/Site: Baseball Cap Federal

Job ID: 890-4019-1
SDG: 03D2024151

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)
880-24559-A-1-A MS	Matrix Spike	88	115
880-24559-A-1-B MSD	Matrix Spike Duplicate	113	97
890-4019-1	SS06	86	88
LCS 880-45966/1-A	Lab Control Sample	111	94
LCSD 880-45966/2-A	Lab Control Sample Dup	108	102
MB 880-45957/5-A	Method Blank	72	95
MB 880-45966/5-A	Method Blank	78	93

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)
890-4017-A-2-C MS	Matrix Spike	58 S1-	54 S1-
890-4017-A-2-D MSD	Matrix Spike Duplicate	54 S1-	47 S1-
890-4019-1	SS06	53 S1-	54 S1-
LCS 880-45800/2-A	Lab Control Sample	78	79
LCSD 880-45800/3-A	Lab Control Sample Dup	93	96
MB 880-45800/1-A	Method Blank	67 S1-	72

Surrogate Legend

1CO = 1-Chlorooctane

OTPH = o-Terphenyl

QC Sample Results

Client: Ensolum
Project/Site: Baseball Cap Federal

Job ID: 890-4019-1
SDG: 03D2024151

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-45957/5-A

Matrix: Solid

Analysis Batch: 45954

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 45957

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		02/10/23 08:55	02/10/23 11:27	1
Toluene	<0.00200	U	0.00200	mg/Kg		02/10/23 08:55	02/10/23 11:27	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		02/10/23 08:55	02/10/23 11:27	1
m-Xylene & p-Xylene	<0.00400	U	0.00400	mg/Kg		02/10/23 08:55	02/10/23 11:27	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		02/10/23 08:55	02/10/23 11:27	1
Xylenes, Total	<0.00400	U	0.00400	mg/Kg		02/10/23 08:55	02/10/23 11:27	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	72		70 - 130	02/10/23 08:55	02/10/23 11:27	1
1,4-Difluorobenzene (Surr)	95		70 - 130	02/10/23 08:55	02/10/23 11:27	1

Lab Sample ID: MB 880-45966/5-A

Matrix: Solid

Analysis Batch: 45954

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 45966

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		02/10/23 10:23	02/10/23 22:25	1
Toluene	<0.00200	U	0.00200	mg/Kg		02/10/23 10:23	02/10/23 22:25	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		02/10/23 10:23	02/10/23 22:25	1
m-Xylene & p-Xylene	<0.00400	U	0.00400	mg/Kg		02/10/23 10:23	02/10/23 22:25	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		02/10/23 10:23	02/10/23 22:25	1
Xylenes, Total	<0.00400	U	0.00400	mg/Kg		02/10/23 10:23	02/10/23 22:25	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	78		70 - 130	02/10/23 10:23	02/10/23 22:25	1
1,4-Difluorobenzene (Surr)	93		70 - 130	02/10/23 10:23	02/10/23 22:25	1

Lab Sample ID: LCS 880-45966/1-A

Matrix: Solid

Analysis Batch: 45954

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 45966

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	0.100	0.09252		mg/Kg		93	70 - 130
Toluene	0.100	0.08882		mg/Kg		89	70 - 130
Ethylbenzene	0.100	0.09392		mg/Kg		94	70 - 130
m-Xylene & p-Xylene	0.200	0.1981		mg/Kg		99	70 - 130
o-Xylene	0.100	0.1039		mg/Kg		104	70 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene (Surr)	111		70 - 130
1,4-Difluorobenzene (Surr)	94		70 - 130

Lab Sample ID: LCSD 880-45966/2-A

Matrix: Solid

Analysis Batch: 45954

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 45966

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	0.100	0.1118		mg/Kg		112	70 - 130	19	35

Eurofins Carlsbad

QC Sample Results

Client: Ensolum
Project/Site: Baseball Cap Federal

Job ID: 890-4019-1
SDG: 03D2024151

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

Lab Sample ID: LCSD 880-45966/2-A

Matrix: Solid

Analysis Batch: 45954

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 45966

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Toluene	0.100	0.1016		mg/Kg		102	70 - 130	13	35
Ethylbenzene	0.100	0.1056		mg/Kg		106	70 - 130	12	35
m-Xylene & p-Xylene	0.200	0.2195		mg/Kg		110	70 - 130	10	35
o-Xylene	0.100	0.1110		mg/Kg		111	70 - 130	7	35

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	108		70 - 130
1,4-Difluorobenzene (Surr)	102		70 - 130

Lab Sample ID: 880-24559-A-1-A MS

Matrix: Solid

Analysis Batch: 45954

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 45966

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	<0.00202	U	0.100	0.07380		mg/Kg		74	70 - 130
Toluene	<0.00202	U F1	0.100	0.06681	F1	mg/Kg		66	70 - 130
Ethylbenzene	<0.00202	U F1	0.100	0.06471	F1	mg/Kg		64	70 - 130
m-Xylene & p-Xylene	<0.00403	U F1 F2	0.201	0.1170	F1	mg/Kg		58	70 - 130
o-Xylene	<0.00202	U F1	0.100	0.06982	F1	mg/Kg		69	70 - 130

Surrogate	MS %Recovery	MS Qualifier	Limits
4-Bromofluorobenzene (Surr)	88		70 - 130
1,4-Difluorobenzene (Surr)	115		70 - 130

Lab Sample ID: 880-24559-A-1-B MSD

Matrix: Solid

Analysis Batch: 45954

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 45966

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	<0.00202	U	0.0990	0.09166		mg/Kg		93	70 - 130	22	35
Toluene	<0.00202	U F1	0.0990	0.08122		mg/Kg		82	70 - 130	19	35
Ethylbenzene	<0.00202	U F1	0.0990	0.08147		mg/Kg		82	70 - 130	23	35
m-Xylene & p-Xylene	<0.00403	U F1 F2	0.198	0.1690	F2	mg/Kg		85	70 - 130	36	35
o-Xylene	<0.00202	U F1	0.0990	0.08322		mg/Kg		83	70 - 130	18	35

Surrogate	MSD %Recovery	MSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	113		70 - 130
1,4-Difluorobenzene (Surr)	97		70 - 130

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

Lab Sample ID: MB 880-45800/1-A

Matrix: Solid

Analysis Batch: 46050

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 45800

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9	mg/Kg		02/08/23 13:01	02/11/23 09:08	1

Eurofins Carlsbad

QC Sample Results

Client: Ensolum
Project/Site: Baseball Cap Federal

Job ID: 890-4019-1
SDG: 03D2024151

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

Lab Sample ID: MB 880-45800/1-A

Matrix: Solid

Analysis Batch: 46050

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 45800

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9	mg/Kg		02/08/23 13:01	02/11/23 09:08	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg		02/08/23 13:01	02/11/23 09:08	1
Surrogate	MB %Recovery	MB Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	67	S1-	70 - 130			02/08/23 13:01	02/11/23 09:08	1
o-Terphenyl	72		70 - 130			02/08/23 13:01	02/11/23 09:08	1

Lab Sample ID: LCS 880-45800/2-A

Matrix: Solid

Analysis Batch: 46050

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 45800

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Gasoline Range Organics (GRO)-C6-C10	998	881.9		mg/Kg		88	70 - 130
Diesel Range Organics (Over C10-C28)	998	670.6	*-	mg/Kg		67	70 - 130
Surrogate	LCS %Recovery	LCS Qualifier	Limits				
1-Chlorooctane	78		70 - 130				
o-Terphenyl	79		70 - 130				

Lab Sample ID: LCSD 880-45800/3-A

Matrix: Solid

Analysis Batch: 46050

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 45800

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	1000	840.2		mg/Kg		84	70 - 130	5	20
Diesel Range Organics (Over C10-C28)	1000	817.7		mg/Kg		82	70 - 130	20	20
Surrogate	LCSD %Recovery	LCSD Qualifier	Limits						
1-Chlorooctane	93		70 - 130						
o-Terphenyl	96		70 - 130						

Lab Sample ID: 890-4017-A-2-C MS

Matrix: Solid

Analysis Batch: 46050

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 45800

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	999	969.9		mg/Kg		94	70 - 130
Diesel Range Organics (Over C10-C28)	<50.0	U *-	999	948.8		mg/Kg		92	70 - 130
Surrogate	MS %Recovery	MS Qualifier	Limits						
1-Chlorooctane	58	S1-	70 - 130						
o-Terphenyl	54	S1-	70 - 130						

Eurofins Carlsbad

QC Sample Results

Client: Ensolum
Project/Site: Baseball Cap Federal

Job ID: 890-4019-1
SDG: 03D2024151

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

Lab Sample ID: 890-4017-A-2-D MSD

Matrix: Solid

Analysis Batch: 46050

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 45800

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	<50.0	U	998	808.5		mg/Kg		78	70 - 130	18	20
Diesel Range Organics (Over C10-C28)	<50.0	U *	998	816.6		mg/Kg		79	70 - 130	15	20
Surrogate	MSD %Recovery	MSD Qualifier	Limits								
1-Chlorooctane	54	S1-	70 - 130								
o-Terphenyl	47	S1-	70 - 130								

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-45663/1-A

Matrix: Solid

Analysis Batch: 45708

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			02/07/23 14:48	1

Lab Sample ID: LCS 880-45663/2-A

Matrix: Solid

Analysis Batch: 45708

Client Sample ID: Lab Control Sample

Prep Type: Soluble

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	250	258.1		mg/Kg		103	90 - 110

Lab Sample ID: LCSD 880-45663/3-A

Matrix: Solid

Analysis Batch: 45708

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	255.5		mg/Kg		102	90 - 110	1	20

Lab Sample ID: 890-4013-A-11-B MS

Matrix: Solid

Analysis Batch: 45708

Client Sample ID: Matrix Spike

Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	64.8		249	311.1		mg/Kg		99	90 - 110

Lab Sample ID: 890-4013-A-11-C MSD

Matrix: Solid

Analysis Batch: 45708

Client Sample ID: Matrix Spike Duplicate

Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	64.8		249	309.4		mg/Kg		98	90 - 110	1	20

Eurofins Carlsbad

QC Association Summary

Client: Ensolum
Project/Site: Baseball Cap Federal

Job ID: 890-4019-1
SDG: 03D2024151

GC VOA

Analysis Batch: 45954

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4019-1	SS06	Total/NA	Solid	8021B	45966
MB 880-45957/5-A	Method Blank	Total/NA	Solid	8021B	45957
MB 880-45966/5-A	Method Blank	Total/NA	Solid	8021B	45966
LCS 880-45966/1-A	Lab Control Sample	Total/NA	Solid	8021B	45966
LCSD 880-45966/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	45966
880-24559-A-1-A MS	Matrix Spike	Total/NA	Solid	8021B	45966
880-24559-A-1-B MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	45966

Prep Batch: 45957

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 880-45957/5-A	Method Blank	Total/NA	Solid	5035	

Prep Batch: 45966

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4019-1	SS06	Total/NA	Solid	5035	
MB 880-45966/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-45966/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-45966/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
880-24559-A-1-A MS	Matrix Spike	Total/NA	Solid	5035	
880-24559-A-1-B MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	

Analysis Batch: 46235

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4019-1	SS06	Total/NA	Solid	Total BTEX	

GC Semi VOA

Prep Batch: 45800

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4019-1	SS06	Total/NA	Solid	8015NM Prep	
MB 880-45800/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-45800/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-45800/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
890-4017-A-2-C MS	Matrix Spike	Total/NA	Solid	8015NM Prep	
890-4017-A-2-D MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	

Analysis Batch: 46050

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4019-1	SS06	Total/NA	Solid	8015B NM	45800
MB 880-45800/1-A	Method Blank	Total/NA	Solid	8015B NM	45800
LCS 880-45800/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	45800
LCSD 880-45800/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	45800
890-4017-A-2-C MS	Matrix Spike	Total/NA	Solid	8015B NM	45800
890-4017-A-2-D MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	45800

Analysis Batch: 46162

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4019-1	SS06	Total/NA	Solid	8015 NM	

Eurofins Carlsbad

QC Association Summary

Client: Ensolum
Project/Site: Baseball Cap Federal

Job ID: 890-4019-1
SDG: 03D2024151

HPLC/IC

Leach Batch: 45663

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4019-1	SS06	Soluble	Solid	DI Leach	
MB 880-45663/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-45663/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-45663/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
890-4013-A-11-B MS	Matrix Spike	Soluble	Solid	DI Leach	
890-4013-A-11-C MSD	Matrix Spike Duplicate	Soluble	Solid	DI Leach	

Analysis Batch: 45708

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4019-1	SS06	Soluble	Solid	300.0	45663
MB 880-45663/1-A	Method Blank	Soluble	Solid	300.0	45663
LCS 880-45663/2-A	Lab Control Sample	Soluble	Solid	300.0	45663
LCSD 880-45663/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	45663
890-4013-A-11-B MS	Matrix Spike	Soluble	Solid	300.0	45663
890-4013-A-11-C MSD	Matrix Spike Duplicate	Soluble	Solid	300.0	45663

Lab Chronicle

Client: Ensolum
Project/Site: Baseball Cap Federal

Job ID: 890-4019-1
SDG: 03D2024151

Client Sample ID: SS06
Date Collected: 02/02/23 10:40
Date Received: 02/03/23 08:32

Lab Sample ID: 890-4019-1
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			4.99 g	5 mL	45966	02/10/23 10:23	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	45954	02/11/23 04:36	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			46235	02/13/23 19:09	SM	EET MID
Total/NA	Analysis	8015 NM		1			46162	02/13/23 14:26	SM	EET MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	45800	02/08/23 13:01	AJ	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	46050	02/11/23 13:15	SM	EET MID
Soluble	Leach	DI Leach			5.05 g	50 mL	45663	02/07/23 09:26	KS	EET MID
Soluble	Analysis	300.0		1			45708	02/08/23 14:08	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: Baseball Cap Federal

Job ID: 890-4019-1
SDG: 03D2024151

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

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14

Method Summary

Client: Ensolum
Project/Site: Baseball Cap Federal

Job ID: 890-4019-1
SDG: 03D2024151

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: Baseball Cap Federal

Job ID: 890-4019-1
SDG: 03D2024151

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-4019-1	SS06	Solid	02/02/23 10:40	02/03/23 08:32	0.2'

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14

Login Sample Receipt Checklist

Client: Ensolum

Job Number: 890-4019-1

SDG Number: 03D2024151

Login Number: 4019

List Number: 1

Creator: Clifton, Cloe

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: 890-4019-1

SDG Number: 03D2024151

Login Number: 4019**List Number: 2****Creator: Rodriguez, Leticia****List Source: Eurofins Midland****List Creation: 02/06/23 08:40 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	



Environment Testing

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ANALYTICAL REPORT

PREPARED FOR

Attn: Hadlie Green

Ensolum

601 N. Marienfeld St.

Suite 400

Midland, Texas 79701

Generated 3/19/2023 5:18:57 PM

JOB DESCRIPTION

Baseball Cap 25 M CTB

SDG NUMBER 03D2024151

JOB NUMBER

890-4248-1

Eurofins Carlsbad
1089 N Canal St.
Carlsbad NM 88220

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
3/19/2023 5:18:57 PM

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

Client: Ensolum
Project/Site: Baseball Cap 25 M CTB

Laboratory Job ID: 890-4248-1
SDG: 03D2024151

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Definitions/Glossary

Client: Ensolum
Project/Site: Baseball Cap 25 M CTB

Job ID: 890-4248-1
SDG: 03D2024151

Qualifiers

GC VOA

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

GC Semi VOA

Qualifier	Qualifier Description
F1	MS and/or MSD recovery exceeds control limits.
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: Baseball Cap 25 M CTB

Job ID: 890-4248-1
SDG: 03D2024151

Job ID: 890-4248-1

Laboratory: Eurofins Carlsbad

Narrative

**Job Narrative
890-4248-1**

Receipt

The samples were received on 3/7/2023 3:13 PM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 4.0°C

Receipt Exceptions

The following samples were received and analyzed from an unpreserved bulk soil jar: SS02A (890-4248-1), SS07 (890-4248-2), SS07A (890-4248-3) and SS01A (890-4248-4).

GC VOA

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

GC Semi VOA

Method 8015MOD_NM: The method blank for preparation batch 880-48322 and analytical batch 880-48386 contained Gasoline Range Organics (GRO)-C6-C10 above the method detection limit. This target analyte concentration was less than the reporting limit (RL); therefore, re-extraction and/or re-analysis of samples was not performed.

Method 8015MOD_NM: The surrogate recovery for the blank associated with preparation batch 880-48252 and analytical batch 880-48274 was outside the upper control limits.

Method 8015MOD_NM: The method blank for preparation batch 880-48252 and analytical batch 880-48274 contained Oil Range Organics (Over C28-C36) above the method detection limit. This target analyte concentration was less than the reporting limit (RL); therefore, re-extraction and/or re-analysis of samples was not performed.

Method 8015MOD_NM: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 880-48252 and analytical batch 880-48274 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.

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

HPLC/IC

Method 300_ORGFM_28D: The matrix spike / matrix spike duplicate (MS/MSD) recoveries and precision for preparation batch 880-48204 and analytical batch 880-48263 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample / laboratory sample control duplicate (LCS/LCSD) precision was within acceptance limits.

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

Client Sample Results

Client: Ensolum
Project/Site: Baseball Cap 25 M CTB

Job ID: 890-4248-1
SDG: 03D2024151

Client Sample ID: SS02A

Lab Sample ID: 890-4248-1

Date Collected: 03/07/23 09:30

Matrix: Solid

Date Received: 03/07/23 15:13

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		03/16/23 10:29	03/17/23 17:05	1
Toluene	<0.00201	U	0.00201	mg/Kg		03/16/23 10:29	03/17/23 17:05	1
Ethylbenzene	<0.00201	U	0.00201	mg/Kg		03/16/23 10:29	03/17/23 17:05	1
m-Xylene & p-Xylene	<0.00402	U	0.00402	mg/Kg		03/16/23 10:29	03/17/23 17:05	1
o-Xylene	<0.00201	U	0.00201	mg/Kg		03/16/23 10:29	03/17/23 17:05	1
Xylenes, Total	<0.00402	U	0.00402	mg/Kg		03/16/23 10:29	03/17/23 17:05	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	85		70 - 130	03/16/23 10:29	03/17/23 17:05	1
1,4-Difluorobenzene (Surr)	86		70 - 130	03/16/23 10:29	03/17/23 17:05	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			03/19/23 17:50	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			03/13/23 16:48	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		03/10/23 13:27	03/11/23 14:34	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		03/10/23 13:27	03/11/23 14:34	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		03/10/23 13:27	03/11/23 14:34	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	89		70 - 130	03/10/23 13:27	03/11/23 14:34	1
o-Terphenyl	99		70 - 130	03/10/23 13:27	03/11/23 14:34	1

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	63.5		5.02	mg/Kg			03/10/23 00:05	1

Client Sample ID: SS07

Lab Sample ID: 890-4248-2

Date Collected: 03/07/23 09:50

Matrix: Solid

Date Received: 03/07/23 15:13

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		03/16/23 10:29	03/17/23 17:25	1
Toluene	<0.00200	U	0.00200	mg/Kg		03/16/23 10:29	03/17/23 17:25	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		03/16/23 10:29	03/17/23 17:25	1
m-Xylene & p-Xylene	<0.00401	U	0.00401	mg/Kg		03/16/23 10:29	03/17/23 17:25	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		03/16/23 10:29	03/17/23 17:25	1
Xylenes, Total	<0.00401	U	0.00401	mg/Kg		03/16/23 10:29	03/17/23 17:25	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	97		70 - 130	03/16/23 10:29	03/17/23 17:25	1

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Client Sample Results

Client: Ensolum
Project/Site: Baseball Cap 25 M CTB

Job ID: 890-4248-1
SDG: 03D2024151

Client Sample ID: SS07

Lab Sample ID: 890-4248-2

Date Collected: 03/07/23 09:50

Matrix: Solid

Date Received: 03/07/23 15:13

Sample Depth: 1'

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

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,4-Difluorobenzene (Surr)	74		70 - 130	03/16/23 10:29	03/17/23 17:25	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			03/19/23 17:50	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	93.6		50.0	mg/Kg			03/13/23 16:53	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		03/09/23 15:59	03/10/23 17:35	1
Diesel Range Organics (Over C10-C28)	93.6		50.0	mg/Kg		03/09/23 15:59	03/10/23 17:35	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		03/09/23 15:59	03/10/23 17:35	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	87		70 - 130			03/09/23 15:59	03/10/23 17:35	1
o-Terphenyl	98		70 - 130			03/09/23 15:59	03/10/23 17:35	1

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	63.2		4.98	mg/Kg			03/10/23 00:11	1

Client Sample ID: SS07A

Lab Sample ID: 890-4248-3

Date Collected: 03/07/23 10:00

Matrix: Solid

Date Received: 03/07/23 15:13

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		03/16/23 10:29	03/17/23 17:46	1
Toluene	<0.00198	U	0.00198	mg/Kg		03/16/23 10:29	03/17/23 17:46	1
Ethylbenzene	<0.00198	U	0.00198	mg/Kg		03/16/23 10:29	03/17/23 17:46	1
m-Xylene & p-Xylene	<0.00396	U	0.00396	mg/Kg		03/16/23 10:29	03/17/23 17:46	1
o-Xylene	<0.00198	U	0.00198	mg/Kg		03/16/23 10:29	03/17/23 17:46	1
Xylenes, Total	<0.00396	U	0.00396	mg/Kg		03/16/23 10:29	03/17/23 17:46	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	95		70 - 130	03/16/23 10:29	03/17/23 17:46	1
1,4-Difluorobenzene (Surr)	76		70 - 130	03/16/23 10:29	03/17/23 17:46	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			03/19/23 17:50	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			03/13/23 16:53	1

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Client Sample Results

Client: Ensolum
Project/Site: Baseball Cap 25 M CTB

Job ID: 890-4248-1
SDG: 03D2024151

Client Sample ID: SS07A

Lab Sample ID: 890-4248-3

Date Collected: 03/07/23 10:00

Matrix: Solid

Date Received: 03/07/23 15:13

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		03/09/23 15:59	03/10/23 17:57	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		03/09/23 15:59	03/10/23 17:57	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		03/09/23 15:59	03/10/23 17:57	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	89		70 - 130			03/09/23 15:59	03/10/23 17:57	1
o-Terphenyl	100		70 - 130			03/09/23 15:59	03/10/23 17:57	1

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	39.7		4.95	mg/Kg			03/10/23 00:17	1

Client Sample ID: SS01A

Lab Sample ID: 890-4248-4

Date Collected: 03/07/23 10:30

Matrix: Solid

Date Received: 03/07/23 15:13

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		03/16/23 10:29	03/17/23 18:06	1
Toluene	<0.00199	U	0.00199	mg/Kg		03/16/23 10:29	03/17/23 18:06	1
Ethylbenzene	<0.00199	U	0.00199	mg/Kg		03/16/23 10:29	03/17/23 18:06	1
m-Xylene & p-Xylene	<0.00398	U	0.00398	mg/Kg		03/16/23 10:29	03/17/23 18:06	1
o-Xylene	<0.00199	U	0.00199	mg/Kg		03/16/23 10:29	03/17/23 18:06	1
Xylenes, Total	<0.00398	U	0.00398	mg/Kg		03/16/23 10:29	03/17/23 18:06	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	82		70 - 130			03/16/23 10:29	03/17/23 18:06	1
1,4-Difluorobenzene (Surr)	84		70 - 130			03/16/23 10:29	03/17/23 18:06	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			03/19/23 17:50	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	65.0		50.0	mg/Kg			03/13/23 16:53	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		03/09/23 15:59	03/10/23 18:18	1
Diesel Range Organics (Over C10-C28)	65.0		50.0	mg/Kg		03/09/23 15:59	03/10/23 18:18	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		03/09/23 15:59	03/10/23 18:18	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	87		70 - 130			03/09/23 15:59	03/10/23 18:18	1
o-Terphenyl	97		70 - 130			03/09/23 15:59	03/10/23 18:18	1

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Client Sample Results

Client: Ensolum
Project/Site: Baseball Cap 25 M CTB

Job ID: 890-4248-1
SDG: 03D2024151

Client Sample ID: SS01A
Date Collected: 03/07/23 10:30
Date Received: 03/07/23 15:13
Sample Depth: 1'

Lab Sample ID: 890-4248-4
Matrix: Solid

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble									
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
Chloride	68.6		4.97	mg/Kg			03/10/23 00:23	1	

Surrogate Summary

Client: Ensolum
Project/Site: Baseball Cap 25 M CTB

Job ID: 890-4248-1
SDG: 03D2024151

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)
890-4245-A-21-E MS	Matrix Spike	95	100
890-4245-A-21-F MSD	Matrix Spike Duplicate	100	104
890-4248-1	SS02A	85	86
890-4248-2	SS07	97	74
890-4248-3	SS07A	95	76
890-4248-4	SS01A	82	84
LCS 880-48734/1-A	Lab Control Sample	76	112
LCSD 880-48734/2-A	Lab Control Sample Dup	75	111
MB 880-48734/5-A	Method Blank	75	88
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)
890-4248-1	SS02A	89	99
890-4248-2	SS07	87	98
890-4248-3	SS07A	89	100
890-4248-4	SS01A	87	97
890-4249-A-61-B MS	Matrix Spike	115	112
890-4249-A-61-C MSD	Matrix Spike Duplicate	111	107
890-4252-A-1-E MS	Matrix Spike	102	100
890-4252-A-1-F MSD	Matrix Spike Duplicate	102	100
LCS 880-48252/2-A	Lab Control Sample	87	98
LCS 880-48322/2-A	Lab Control Sample	106	98
LCSD 880-48252/3-A	Lab Control Sample Dup	87	98
LCSD 880-48322/3-A	Lab Control Sample Dup	108	105
MB 880-48252/1-A	Method Blank	117	132 S1+
MB 880-48322/1-A	Method Blank	121	129
Surrogate Legend			
1CO = 1-Chlorooctane			
OTPH = o-Terphenyl			

QC Sample Results

Client: Ensolum
Project/Site: Baseball Cap 25 M CTB

Job ID: 890-4248-1
SDG: 03D2024151

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-48734/5-A

Matrix: Solid

Analysis Batch: 48800

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 48734

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		03/16/23 10:29	03/17/23 11:13	1
Toluene	<0.00200	U	0.00200	mg/Kg		03/16/23 10:29	03/17/23 11:13	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		03/16/23 10:29	03/17/23 11:13	1
m-Xylene & p-Xylene	<0.00400	U	0.00400	mg/Kg		03/16/23 10:29	03/17/23 11:13	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		03/16/23 10:29	03/17/23 11:13	1
Xylenes, Total	<0.00400	U	0.00400	mg/Kg		03/16/23 10:29	03/17/23 11:13	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	75		70 - 130	03/16/23 10:29	03/17/23 11:13	1
1,4-Difluorobenzene (Surr)	88		70 - 130	03/16/23 10:29	03/17/23 11:13	1

Lab Sample ID: LCS 880-48734/1-A

Matrix: Solid

Analysis Batch: 48800

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 48734

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	0.100	0.1196		mg/Kg		120	70 - 130
Toluene	0.100	0.09895		mg/Kg		99	70 - 130
Ethylbenzene	0.100	0.08461		mg/Kg		85	70 - 130
m-Xylene & p-Xylene	0.200	0.1714		mg/Kg		86	70 - 130
o-Xylene	0.100	0.08373		mg/Kg		84	70 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene (Surr)	76		70 - 130
1,4-Difluorobenzene (Surr)	112		70 - 130

Lab Sample ID: LCSD 880-48734/2-A

Matrix: Solid

Analysis Batch: 48800

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 48734

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	0.100	0.1123		mg/Kg		112	70 - 130	6	35
Toluene	0.100	0.09162		mg/Kg		92	70 - 130	8	35
Ethylbenzene	0.100	0.07942		mg/Kg		79	70 - 130	6	35
m-Xylene & p-Xylene	0.200	0.1615		mg/Kg		81	70 - 130	6	35
o-Xylene	0.100	0.07825		mg/Kg		78	70 - 130	7	35

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	75		70 - 130
1,4-Difluorobenzene (Surr)	111		70 - 130

Lab Sample ID: 890-4245-A-21-E MS

Matrix: Solid

Analysis Batch: 48800

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 48734

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	<0.00198	U	0.0998	0.09126		mg/Kg		91	70 - 130
Toluene	<0.00198	U	0.0998	0.08128		mg/Kg		81	70 - 130

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QC Sample Results

Client: Ensolum
Project/Site: Baseball Cap 25 M CTB

Job ID: 890-4248-1
SDG: 03D2024151

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

Lab Sample ID: 890-4245-A-21-E MS

Matrix: Solid

Analysis Batch: 48800

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 48734

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Ethylbenzene	<0.00198	U	0.0998	0.07297		mg/Kg		73	70 - 130
m-Xylene & p-Xylene	<0.00396	U	0.200	0.1585		mg/Kg		79	70 - 130
o-Xylene	<0.00198	U	0.0998	0.07854		mg/Kg		78	70 - 130

Surrogate	MS %Recovery	MS Qualifier	Limits
4-Bromofluorobenzene (Surr)	95		70 - 130
1,4-Difluorobenzene (Surr)	100		70 - 130

Lab Sample ID: 890-4245-A-21-F MSD

Matrix: Solid

Analysis Batch: 48800

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 48734

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	<0.00198	U	0.100	0.09758		mg/Kg		97	70 - 130	7	35
Toluene	<0.00198	U	0.100	0.08296		mg/Kg		83	70 - 130	2	35
Ethylbenzene	<0.00198	U	0.100	0.07313		mg/Kg		73	70 - 130	0	35
m-Xylene & p-Xylene	<0.00396	U	0.201	0.1582		mg/Kg		79	70 - 130	0	35
o-Xylene	<0.00198	U	0.100	0.08147		mg/Kg		81	70 - 130	4	35

Surrogate	MSD %Recovery	MSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	100		70 - 130
1,4-Difluorobenzene (Surr)	104		70 - 130

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

Lab Sample ID: MB 880-48252/1-A

Matrix: Solid

Analysis Batch: 48274

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 48252

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		03/09/23 15:58	03/10/23 08:23	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		03/09/23 15:58	03/10/23 08:23	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		03/09/23 15:58	03/10/23 08:23	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	117		70 - 130	03/09/23 15:58	03/10/23 08:23	1
o-Terphenyl	132	S1+	70 - 130	03/09/23 15:58	03/10/23 08:23	1

Lab Sample ID: LCS 880-48252/2-A

Matrix: Solid

Analysis Batch: 48274

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 48252

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Gasoline Range Organics (GRO)-C6-C10	1000	1046		mg/Kg		105	70 - 130
Diesel Range Organics (Over C10-C28)	1000	771.2		mg/Kg		77	70 - 130

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QC Sample Results

Client: Ensolum
Project/Site: Baseball Cap 25 M CTB

Job ID: 890-4248-1
SDG: 03D2024151

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

Lab Sample ID: LCS 880-48252/2-A

Matrix: Solid

Analysis Batch: 48274

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 48252

	LCS	LCS	
Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane	87		70 - 130
o-Terphenyl	98		70 - 130

Lab Sample ID: LCSD 880-48252/3-A

Matrix: Solid

Analysis Batch: 48274

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 48252

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	1000	1029		mg/Kg		103	70 - 130	2	20
Diesel Range Organics (Over C10-C28)	1000	756.2		mg/Kg		76	70 - 130	2	20

	LCSD	LCSD	
Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane	87		70 - 130
o-Terphenyl	98		70 - 130

Lab Sample ID: 890-4249-A-61-B MS

Matrix: Solid

Analysis Batch: 48274

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 48252

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Gasoline Range Organics (GRO)-C6-C10	168		1000	1162		mg/Kg		99	70 - 130
Diesel Range Organics (Over C10-C28)	2110	F1	1000	2544	F1	mg/Kg		44	70 - 130

	MS	MS	
Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane	115		70 - 130
o-Terphenyl	112		70 - 130

Lab Sample ID: 890-4249-A-61-C MSD

Matrix: Solid

Analysis Batch: 48274

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 48252

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	168		1000	1139		mg/Kg		97	70 - 130	2	20
Diesel Range Organics (Over C10-C28)	2110	F1	1000	2356	F1	mg/Kg		25	70 - 130	8	20

	MSD	MSD	
Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane	111		70 - 130
o-Terphenyl	107		70 - 130

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QC Sample Results

Client: Ensolum
Project/Site: Baseball Cap 25 M CTB

Job ID: 890-4248-1
SDG: 03D2024151

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

Lab Sample ID: MB 880-48322/1-A

Matrix: Solid

Analysis Batch: 48386

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 48322

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		03/10/23 13:27	03/11/23 09:21	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		03/10/23 13:27	03/11/23 09:21	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		03/10/23 13:27	03/11/23 09:21	1
Surrogate	MB %Recovery	MB Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	121		70 - 130			03/10/23 13:27	03/11/23 09:21	1
o-Terphenyl	129		70 - 130			03/10/23 13:27	03/11/23 09:21	1

Lab Sample ID: LCS 880-48322/2-A

Matrix: Solid

Analysis Batch: 48386

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 48322

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Gasoline Range Organics (GRO)-C6-C10	1000	873.6		mg/Kg		87	70 - 130
Diesel Range Organics (Over C10-C28)	1000	893.0		mg/Kg		89	70 - 130
Surrogate	LCS %Recovery	LCS Qualifier	Limits				
1-Chlorooctane	106		70 - 130				
o-Terphenyl	98		70 - 130				

Lab Sample ID: LCSD 880-48322/3-A

Matrix: Solid

Analysis Batch: 48386

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 48322

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	1000	946.7		mg/Kg		95	70 - 130	8	20
Diesel Range Organics (Over C10-C28)	1000	946.7		mg/Kg		95	70 - 130	6	20
Surrogate	LCSD %Recovery	LCSD Qualifier	Limits						
1-Chlorooctane	108		70 - 130						
o-Terphenyl	105		70 - 130						

Lab Sample ID: 890-4252-A-1-E MS

Matrix: Solid

Analysis Batch: 48386

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 48322

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	998	915.6		mg/Kg		87	70 - 130
Diesel Range Organics (Over C10-C28)	<49.9	U	998	958.7		mg/Kg		96	70 - 130

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QC Sample Results

Client: Ensolum
Project/Site: Baseball Cap 25 M CTB

Job ID: 890-4248-1
SDG: 03D2024151

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

Lab Sample ID: 890-4252-A-1-E MS

Matrix: Solid

Analysis Batch: 48386

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 48322

	MS	MS	
Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane	102		70 - 130
o-Terphenyl	100		70 - 130

Lab Sample ID: 890-4252-A-1-F MSD

Matrix: Solid

Analysis Batch: 48386

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 48322

	Sample	Sample	Spike	MSD	MSD				%Rec		RPD
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	999	941.1		mg/Kg		90	70 - 130	3	20
Diesel Range Organics (Over C10-C28)	<49.9	U	999	969.8		mg/Kg		97	70 - 130	1	20

	MSD	MSD	
Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane	102		70 - 130
o-Terphenyl	100		70 - 130

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-48204/1-A

Matrix: Solid

Analysis Batch: 48263

Client Sample ID: Method Blank

Prep Type: Soluble

	MB	MB								
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac		
Chloride	<5.00	U	5.00	mg/Kg			03/09/23 22:51	1		

Lab Sample ID: LCS 880-48204/2-A

Matrix: Solid

Analysis Batch: 48263

Client Sample ID: Lab Control Sample

Prep Type: Soluble

	Spike	LCS	LCS				%Rec		
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits		
Chloride	250	253.2		mg/Kg		101	90 - 110		

Lab Sample ID: LCSD 880-48204/3-A

Matrix: Solid

Analysis Batch: 48263

Client Sample ID: Lab Control Sample Dup

Prep Type: Soluble

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

Lab Sample ID: 890-4243-A-10-C MS

Matrix: Solid

Analysis Batch: 48263

Client Sample ID: Matrix Spike

Prep Type: Soluble

	Sample	Sample	Spike	MS	MS				%Rec	
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Chloride	116		250	388.4		mg/Kg		109	90 - 110	

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QC Sample Results

Client: Ensolum
Project/Site: Baseball Cap 25 M CTB

Job ID: 890-4248-1
SDG: 03D2024151

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: 890-4243-A-10-D MSD					Client Sample ID: Matrix Spike Duplicate							
Matrix: Solid					Prep Type: Soluble							
Analysis Batch: 48263												
Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit	
Chloride	116		250	388.0		mg/Kg		109	90 - 110	0	20	

QC Association Summary

Client: Ensolum
Project/Site: Baseball Cap 25 M CTB

Job ID: 890-4248-1
SDG: 03D2024151

GC VOA

Prep Batch: 48734

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4248-1	SS02A	Total/NA	Solid	5035	
890-4248-2	SS07	Total/NA	Solid	5035	
890-4248-3	SS07A	Total/NA	Solid	5035	
890-4248-4	SS01A	Total/NA	Solid	5035	
MB 880-48734/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-48734/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-48734/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
890-4245-A-21-E MS	Matrix Spike	Total/NA	Solid	5035	
890-4245-A-21-F MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	

Analysis Batch: 48800

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4248-1	SS02A	Total/NA	Solid	8021B	48734
890-4248-2	SS07	Total/NA	Solid	8021B	48734
890-4248-3	SS07A	Total/NA	Solid	8021B	48734
890-4248-4	SS01A	Total/NA	Solid	8021B	48734
MB 880-48734/5-A	Method Blank	Total/NA	Solid	8021B	48734
LCS 880-48734/1-A	Lab Control Sample	Total/NA	Solid	8021B	48734
LCSD 880-48734/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	48734
890-4245-A-21-E MS	Matrix Spike	Total/NA	Solid	8021B	48734
890-4245-A-21-F MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	48734

Analysis Batch: 48939

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4248-1	SS02A	Total/NA	Solid	Total BTEX	
890-4248-2	SS07	Total/NA	Solid	Total BTEX	
890-4248-3	SS07A	Total/NA	Solid	Total BTEX	
890-4248-4	SS01A	Total/NA	Solid	Total BTEX	

GC Semi VOA

Prep Batch: 48252

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4248-2	SS07	Total/NA	Solid	8015NM Prep	
890-4248-3	SS07A	Total/NA	Solid	8015NM Prep	
890-4248-4	SS01A	Total/NA	Solid	8015NM Prep	
MB 880-48252/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-48252/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-48252/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
890-4249-A-61-B MS	Matrix Spike	Total/NA	Solid	8015NM Prep	
890-4249-A-61-C MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	

Analysis Batch: 48274

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4248-2	SS07	Total/NA	Solid	8015B NM	48252
890-4248-3	SS07A	Total/NA	Solid	8015B NM	48252
890-4248-4	SS01A	Total/NA	Solid	8015B NM	48252
MB 880-48252/1-A	Method Blank	Total/NA	Solid	8015B NM	48252
LCS 880-48252/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	48252
LCSD 880-48252/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	48252
890-4249-A-61-B MS	Matrix Spike	Total/NA	Solid	8015B NM	48252

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QC Association Summary

Client: Ensolum
Project/Site: Baseball Cap 25 M CTB

Job ID: 890-4248-1
SDG: 03D2024151

GC Semi VOA (Continued)

Analysis Batch: 48274 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4249-A-61-C MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	48252

Prep Batch: 48322

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4248-1	SS02A	Total/NA	Solid	8015NM Prep	
MB 880-48322/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-48322/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-48322/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
890-4252-A-1-E MS	Matrix Spike	Total/NA	Solid	8015NM Prep	
890-4252-A-1-F MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	

Analysis Batch: 48386

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4248-1	SS02A	Total/NA	Solid	8015B NM	48322
MB 880-48322/1-A	Method Blank	Total/NA	Solid	8015B NM	48322
LCS 880-48322/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	48322
LCSD 880-48322/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	48322
890-4252-A-1-E MS	Matrix Spike	Total/NA	Solid	8015B NM	48322
890-4252-A-1-F MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	48322

Analysis Batch: 48524

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4248-1	SS02A	Total/NA	Solid	8015 NM	
890-4248-2	SS07	Total/NA	Solid	8015 NM	
890-4248-3	SS07A	Total/NA	Solid	8015 NM	
890-4248-4	SS01A	Total/NA	Solid	8015 NM	

HPLC/IC

Leach Batch: 48204

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4248-1	SS02A	Soluble	Solid	DI Leach	
890-4248-2	SS07	Soluble	Solid	DI Leach	
890-4248-3	SS07A	Soluble	Solid	DI Leach	
890-4248-4	SS01A	Soluble	Solid	DI Leach	
MB 880-48204/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-48204/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-48204/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
890-4243-A-10-C MS	Matrix Spike	Soluble	Solid	DI Leach	
890-4243-A-10-D MSD	Matrix Spike Duplicate	Soluble	Solid	DI Leach	

Analysis Batch: 48263

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4248-1	SS02A	Soluble	Solid	300.0	48204
890-4248-2	SS07	Soluble	Solid	300.0	48204
890-4248-3	SS07A	Soluble	Solid	300.0	48204
890-4248-4	SS01A	Soluble	Solid	300.0	48204
MB 880-48204/1-A	Method Blank	Soluble	Solid	300.0	48204
LCS 880-48204/2-A	Lab Control Sample	Soluble	Solid	300.0	48204
LCSD 880-48204/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	48204
890-4243-A-10-C MS	Matrix Spike	Soluble	Solid	300.0	48204

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QC Association Summary

Client: Ensolum
Project/Site: Baseball Cap 25 M CTB

Job ID: 890-4248-1
SDG: 03D2024151

HPLC/IC (Continued)

Analysis Batch: 48263 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4243-A-10-D MSD	Matrix Spike Duplicate	Soluble	Solid	300.0	48204

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- 2
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- 13
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Lab Chronicle

Client: Ensolum
Project/Site: Baseball Cap 25 M CTB

Job ID: 890-4248-1
SDG: 03D2024151

Client Sample ID: SS02A

Lab Sample ID: 890-4248-1

Date Collected: 03/07/23 09:30

Matrix: Solid

Date Received: 03/07/23 15:13

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	48734	03/16/23 10:29	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	48800	03/17/23 17:05	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			48939	03/19/23 17:50	AJ	EET MID
Total/NA	Analysis	8015 NM		1			48524	03/13/23 16:48	SM	EET MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	48322	03/10/23 13:27	AJ	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	48386	03/11/23 14:34	SM	EET MID
Soluble	Leach	DI Leach			4.98 g	50 mL	48204	03/09/23 11:30	KS	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	48263	03/10/23 00:05	CH	EET MID

Client Sample ID: SS07

Lab Sample ID: 890-4248-2

Date Collected: 03/07/23 09:50

Matrix: Solid

Date Received: 03/07/23 15:13

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	48734	03/16/23 10:29	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	48800	03/17/23 17:25	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			48939	03/19/23 17:50	AJ	EET MID
Total/NA	Analysis	8015 NM		1			48524	03/13/23 16:53	SM	EET MID
Total/NA	Prep	8015NM Prep			10.00 g	10 mL	48252	03/09/23 15:59	AJ	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	48274	03/10/23 17:35	SM	EET MID
Soluble	Leach	DI Leach			5.02 g	50 mL	48204	03/09/23 11:30	KS	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	48263	03/10/23 00:11	CH	EET MID

Client Sample ID: SS07A

Lab Sample ID: 890-4248-3

Date Collected: 03/07/23 10:00

Matrix: Solid

Date Received: 03/07/23 15:13

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	48734	03/16/23 10:29	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	48800	03/17/23 17:46	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			48939	03/19/23 17:50	AJ	EET MID
Total/NA	Analysis	8015 NM		1			48524	03/13/23 16:53	SM	EET MID
Total/NA	Prep	8015NM Prep			10.00 g	10 mL	48252	03/09/23 15:59	AJ	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	48274	03/10/23 17:57	SM	EET MID
Soluble	Leach	DI Leach			5.05 g	50 mL	48204	03/09/23 11:30	KS	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	48263	03/10/23 00:17	CH	EET MID

Client Sample ID: SS01A

Lab Sample ID: 890-4248-4

Date Collected: 03/07/23 10:30

Matrix: Solid

Date Received: 03/07/23 15:13

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	48734	03/16/23 10:29	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	48800	03/17/23 18:06	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			48939	03/19/23 17:50	AJ	EET MID

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Lab Chronicle

Client: Ensolum
Project/Site: Baseball Cap 25 M CTB

Job ID: 890-4248-1
SDG: 03D2024151

Client Sample ID: SS01A
Date Collected: 03/07/23 10:30
Date Received: 03/07/23 15:13

Lab Sample ID: 890-4248-4
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			48524	03/13/23 16:53	SM	EET MID
Total/NA	Prep	8015NM Prep			10.00 g	10 mL	48252	03/09/23 15:59	AJ	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	48274	03/10/23 18:18	SM	EET MID
Soluble	Leach	DI Leach			5.03 g	50 mL	48204	03/09/23 11:30	KS	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	48263	03/10/23 00:23	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: Baseball Cap 25 M CTB

Job ID: 890-4248-1
SDG: 03D2024151

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: Baseball Cap 25 M CTB

Job ID: 890-4248-1
SDG: 03D2024151

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: Baseball Cap 25 M CTB

Job ID: 890-4248-1
SDG: 03D2024151

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-4248-1	SS02A	Solid	03/07/23 09:30	03/07/23 15:13	1'
890-4248-2	SS07	Solid	03/07/23 09:50	03/07/23 15:13	1'
890-4248-3	SS07A	Solid	03/07/23 10:00	03/07/23 15:13	1'
890-4248-4	SS01A	Solid	03/07/23 10:30	03/07/23 15:13	1'

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Login Sample Receipt Checklist

Client: Ensolum

Job Number: 890-4248-1

SDG Number: 03D2024151

Login Number: 4248

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: 890-4248-1

SDG Number: 03D2024151

Login Number: 4248

List Number: 2

Creator: Teel, Brianna

List Source: Eurofins Midland

List Creation: 03/09/23 10:55 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	
TCEQ Mtd 1005 soil sample was frozen/delivered for prep within 48H of sampling.	True	



Environment Testing

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ANALYTICAL REPORT

PREPARED FOR

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

Generated 3/30/2023 2:23:27 PM

JOB DESCRIPTION

Baseball Cap 25 M CTB
SDG NUMBER 03D2024151

JOB NUMBER

890-4355-1

Eurofins Carlsbad
1089 N Canal St.
Carlsbad NM 88220

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

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3/30/2023 2:23:27 PM

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Client: Ensolum
Project/Site: Baseball Cap 25 M CTB

Laboratory Job ID: 890-4355-1
SDG: 03D2024151

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Definitions/Glossary

Client: Ensolum
Project/Site: Baseball Cap 25 M CTB

Job ID: 890-4355-1
SDG: 03D2024151

Qualifiers

GC VOA

Qualifier	Qualifier Description
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: Baseball Cap 25 M CTB

Job ID: 890-4355-1
SDG: 03D2024151

Job ID: 890-4355-1

Laboratory: Eurofins Carlsbad

Narrative

**Job Narrative
890-4355-1**

Receipt

The samples were received on 3/17/2023 4:34 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 3.0°C

Receipt Exceptions

The following samples were received and analyzed from an unpreserved bulk soil jar: FS01 (890-4355-1), FS02 (890-4355-2), FS03 (890-4355-3), FS04 (890-4355-4), FS05 (890-4355-5) and FS06 (890-4355-6).

GC VOA

Method 8021B: Surrogate recovery for the following samples were outside control limits: FS01 (890-4355-1), FS02 (890-4355-2), FS03 (890-4355-3), FS04 (890-4355-4), FS05 (890-4355-5), FS06 (890-4355-6), (890-4353-A-34-C), (890-4353-A-34-A MS) and (890-4353-A-34-B MSD). 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: (890-4352-A-1-A). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

Method 8015MOD_NM: Surrogate recovery for the following samples were outside control limits: FS03 (890-4355-3), FS04 (890-4355-4), FS05 (890-4355-5) and FS06 (890-4355-6). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

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

HPLC/IC

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

Client Sample Results

Client: Ensolum
Project/Site: Baseball Cap 25 M CTB

Job ID: 890-4355-1
SDG: 03D2024151

Client Sample ID: FS01

Lab Sample ID: 890-4355-1

Date Collected: 03/17/23 11:05

Matrix: Solid

Date Received: 03/17/23 16:34

Sample Depth: 1.0

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		03/24/23 14:10	03/28/23 23:40	1
Toluene	<0.00199	U	0.00199	mg/Kg		03/24/23 14:10	03/28/23 23:40	1
Ethylbenzene	<0.00199	U	0.00199	mg/Kg		03/24/23 14:10	03/28/23 23:40	1
m-Xylene & p-Xylene	<0.00398	U	0.00398	mg/Kg		03/24/23 14:10	03/28/23 23:40	1
o-Xylene	<0.00199	U	0.00199	mg/Kg		03/24/23 14:10	03/28/23 23:40	1
Xylenes, Total	<0.00398	U	0.00398	mg/Kg		03/24/23 14:10	03/28/23 23:40	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	150	S1+	70 - 130	03/24/23 14:10	03/28/23 23:40	1
1,4-Difluorobenzene (Surr)	85		70 - 130	03/24/23 14:10	03/28/23 23:40	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			03/29/23 12:47	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	54.3		49.9	mg/Kg			03/27/23 11:26	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		03/24/23 14:17	03/25/23 12:44	1
Diesel Range Organics (Over C10-C28)	54.3		49.9	mg/Kg		03/24/23 14:17	03/25/23 12:44	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg		03/24/23 14:17	03/25/23 12:44	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	113		70 - 130	03/24/23 14:17	03/25/23 12:44	1
o-Terphenyl	114		70 - 130	03/24/23 14:17	03/25/23 12:44	1

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	68.1		5.01	mg/Kg			03/29/23 23:12	1

Client Sample ID: FS02

Lab Sample ID: 890-4355-2

Date Collected: 03/17/23 11:10

Matrix: Solid

Date Received: 03/17/23 16:34

Sample Depth: 1.0

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		03/24/23 14:10	03/29/23 00:07	1
Toluene	<0.00200	U	0.00200	mg/Kg		03/24/23 14:10	03/29/23 00:07	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		03/24/23 14:10	03/29/23 00:07	1
m-Xylene & p-Xylene	<0.00399	U	0.00399	mg/Kg		03/24/23 14:10	03/29/23 00:07	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		03/24/23 14:10	03/29/23 00:07	1
Xylenes, Total	<0.00399	U	0.00399	mg/Kg		03/24/23 14:10	03/29/23 00:07	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	164	S1+	70 - 130	03/24/23 14:10	03/29/23 00:07	1

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Client Sample Results

Client: Ensolum
Project/Site: Baseball Cap 25 M CTB

Job ID: 890-4355-1
SDG: 03D2024151

Client Sample ID: FS02

Lab Sample ID: 890-4355-2

Date Collected: 03/17/23 11:10

Matrix: Solid

Date Received: 03/17/23 16:34

Sample Depth: 1.0

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

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,4-Difluorobenzene (Surr)	86		70 - 130	03/24/23 14:10	03/29/23 00:07	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			03/29/23 12:47	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			03/27/23 11:26	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		03/24/23 14:17	03/25/23 11:38	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9	mg/Kg		03/24/23 14:17	03/25/23 11:38	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg		03/24/23 14:17	03/25/23 11:38	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	97		70 - 130			03/24/23 14:17	03/25/23 11:38	1
o-Terphenyl	101		70 - 130			03/24/23 14:17	03/25/23 11:38	1

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	53.9		5.03	mg/Kg			03/29/23 13:34	1

Client Sample ID: FS03

Lab Sample ID: 890-4355-3

Date Collected: 03/17/23 11:15

Matrix: Solid

Date Received: 03/17/23 16:34

Sample Depth: 1.0

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		03/24/23 14:10	03/29/23 00:33	1
Toluene	<0.00201	U	0.00201	mg/Kg		03/24/23 14:10	03/29/23 00:33	1
Ethylbenzene	<0.00201	U	0.00201	mg/Kg		03/24/23 14:10	03/29/23 00:33	1
m-Xylene & p-Xylene	<0.00402	U	0.00402	mg/Kg		03/24/23 14:10	03/29/23 00:33	1
o-Xylene	<0.00201	U	0.00201	mg/Kg		03/24/23 14:10	03/29/23 00:33	1
Xylenes, Total	<0.00402	U	0.00402	mg/Kg		03/24/23 14:10	03/29/23 00:33	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	159	S1+	70 - 130	03/24/23 14:10	03/29/23 00:33	1
1,4-Difluorobenzene (Surr)	90		70 - 130	03/24/23 14:10	03/29/23 00:33	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			03/29/23 12:47	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			03/27/23 11:30	1

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Client Sample Results

Client: Ensolum
Project/Site: Baseball Cap 25 M CTB

Job ID: 890-4355-1
SDG: 03D2024151

Client Sample ID: FS03

Lab Sample ID: 890-4355-3

Date Collected: 03/17/23 11:15

Matrix: Solid

Date Received: 03/17/23 16:34

Sample Depth: 1.0

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		03/24/23 16:46	03/26/23 17:39	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9	mg/Kg		03/24/23 16:46	03/26/23 17:39	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg		03/24/23 16:46	03/26/23 17:39	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	136	S1+	70 - 130			03/24/23 16:46	03/26/23 17:39	1
o-Terphenyl	133	S1+	70 - 130			03/24/23 16:46	03/26/23 17:39	1

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	43.6		5.04	mg/Kg			03/29/23 13:48	1

Client Sample ID: FS04

Lab Sample ID: 890-4355-4

Date Collected: 03/17/23 13:20

Matrix: Solid

Date Received: 03/17/23 16:34

Sample Depth: 1.0

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		03/24/23 14:10	03/29/23 00:59	1
Toluene	<0.00199	U	0.00199	mg/Kg		03/24/23 14:10	03/29/23 00:59	1
Ethylbenzene	<0.00199	U	0.00199	mg/Kg		03/24/23 14:10	03/29/23 00:59	1
m-Xylene & p-Xylene	<0.00398	U	0.00398	mg/Kg		03/24/23 14:10	03/29/23 00:59	1
o-Xylene	<0.00199	U	0.00199	mg/Kg		03/24/23 14:10	03/29/23 00:59	1
Xylenes, Total	<0.00398	U	0.00398	mg/Kg		03/24/23 14:10	03/29/23 00:59	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	150	S1+	70 - 130			03/24/23 14:10	03/29/23 00:59	1
1,4-Difluorobenzene (Surr)	83		70 - 130			03/24/23 14:10	03/29/23 00:59	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			03/29/23 12:47	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			03/27/23 11:30	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		03/24/23 16:46	03/26/23 18:01	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9	mg/Kg		03/24/23 16:46	03/26/23 18:01	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg		03/24/23 16:46	03/26/23 18:01	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	144	S1+	70 - 130			03/24/23 16:46	03/26/23 18:01	1
o-Terphenyl	146	S1+	70 - 130			03/24/23 16:46	03/26/23 18:01	1

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Client Sample Results

Client: Ensolum
Project/Site: Baseball Cap 25 M CTB

Job ID: 890-4355-1
SDG: 03D2024151

Client Sample ID: FS04

Lab Sample ID: 890-4355-4

Date Collected: 03/17/23 13:20

Matrix: Solid

Date Received: 03/17/23 16:34

Sample Depth: 1.0

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	93.5		5.00	mg/Kg			03/29/23 13:52	1

Client Sample ID: FS05

Lab Sample ID: 890-4355-5

Date Collected: 03/17/23 13:25

Matrix: Solid

Date Received: 03/17/23 16:34

Sample Depth: 1.0

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		03/24/23 14:10	03/29/23 01:26	1
Toluene	<0.00199	U	0.00199	mg/Kg		03/24/23 14:10	03/29/23 01:26	1
Ethylbenzene	<0.00199	U	0.00199	mg/Kg		03/24/23 14:10	03/29/23 01:26	1
m-Xylene & p-Xylene	<0.00398	U	0.00398	mg/Kg		03/24/23 14:10	03/29/23 01:26	1
o-Xylene	<0.00199	U	0.00199	mg/Kg		03/24/23 14:10	03/29/23 01:26	1
Xylenes, Total	<0.00398	U	0.00398	mg/Kg		03/24/23 14:10	03/29/23 01:26	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	162	S1+	70 - 130			03/24/23 14:10	03/29/23 01:26	1
1,4-Difluorobenzene (Surr)	87		70 - 130			03/24/23 14:10	03/29/23 01:26	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			03/29/23 12:47	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	53.9		50.0	mg/Kg			03/27/23 11:30	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		03/24/23 16:46	03/26/23 18:23	1
Diesel Range Organics (Over C10-C28)	53.9		50.0	mg/Kg		03/24/23 16:46	03/26/23 18:23	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		03/24/23 16:46	03/26/23 18:23	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	145	S1+	70 - 130			03/24/23 16:46	03/26/23 18:23	1
o-Terphenyl	146	S1+	70 - 130			03/24/23 16:46	03/26/23 18:23	1

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	47.5		5.00	mg/Kg			03/29/23 13:57	1

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Client Sample Results

Client: Ensolum
Project/Site: Baseball Cap 25 M CTB

Job ID: 890-4355-1
SDG: 03D2024151

Client Sample ID: FS06

Lab Sample ID: 890-4355-6

Date Collected: 03/17/23 13:30

Matrix: Solid

Date Received: 03/17/23 16:34

Sample Depth: 1.0

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		03/24/23 14:10	03/29/23 01:52	1
Toluene	<0.00200	U	0.00200	mg/Kg		03/24/23 14:10	03/29/23 01:52	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		03/24/23 14:10	03/29/23 01:52	1
m-Xylene & p-Xylene	<0.00399	U	0.00399	mg/Kg		03/24/23 14:10	03/29/23 01:52	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		03/24/23 14:10	03/29/23 01:52	1
Xylenes, Total	<0.00399	U	0.00399	mg/Kg		03/24/23 14:10	03/29/23 01:52	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	154	S1+	70 - 130	03/24/23 14:10	03/29/23 01:52	1
1,4-Difluorobenzene (Surr)	85		70 - 130	03/24/23 14:10	03/29/23 01:52	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			03/29/23 12:47	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	80.6		49.9	mg/Kg			03/27/23 11:30	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		03/24/23 16:46	03/26/23 18:45	1
Diesel Range Organics (Over C10-C28)	80.6		49.9	mg/Kg		03/24/23 16:46	03/26/23 18:45	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg		03/24/23 16:46	03/26/23 18:45	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	138	S1+	70 - 130	03/24/23 16:46	03/26/23 18:45	1
o-Terphenyl	136	S1+	70 - 130	03/24/23 16:46	03/26/23 18:45	1

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	54.7		5.00	mg/Kg			03/29/23 14:01	1

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Surrogate Summary

Client: Ensolum
Project/Site: Baseball Cap 25 M CTB

Job ID: 890-4355-1
SDG: 03D2024151

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)
890-4353-A-34-A MS	Matrix Spike	143 S1+	94
890-4353-A-34-B MSD	Matrix Spike Duplicate	138 S1+	99
890-4355-1	FS01	150 S1+	85
890-4355-2	FS02	164 S1+	86
890-4355-3	FS03	159 S1+	90
890-4355-4	FS04	150 S1+	83
890-4355-5	FS05	162 S1+	87
890-4355-6	FS06	154 S1+	85
LCS 880-49447/1-A	Lab Control Sample	114	102
LCSD 880-49447/2-A	Lab Control Sample Dup	114	107
MB 880-49447/5-A	Method Blank	92	81
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)
890-4352-A-1-B MS	Matrix Spike	79	76
890-4355-1	FS01	113	114
890-4355-2	FS02	97	101
890-4355-2 MS	FS02	110	95
890-4355-2 MSD	FS02	108	93
890-4355-3	FS03	136 S1+	133 S1+
890-4355-4	FS04	144 S1+	146 S1+
890-4355-5	FS05	145 S1+	146 S1+
890-4355-6	FS06	138 S1+	136 S1+
LCS 880-49449/2-A	Lab Control Sample	90	100
LCS 880-49456/2-A	Lab Control Sample	77	83
LCSD 880-49449/3-A	Lab Control Sample Dup	81	93
LCSD 880-49456/3-A	Lab Control Sample Dup	76	85
MB 880-49449/1-A	Method Blank	95	104
MB 880-49456/1-A	Method Blank	107	111
Surrogate Legend			
1CO = 1-Chlorooctane			
OTPH = o-Terphenyl			

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QC Sample Results

Client: Ensolum
Project/Site: Baseball Cap 25 M CTB

Job ID: 890-4355-1
SDG: 03D2024151

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-49447/5-A

Matrix: Solid

Analysis Batch: 49735

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 49447

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		03/24/23 14:10	03/28/23 15:20	1
Toluene	<0.00200	U	0.00200	mg/Kg		03/24/23 14:10	03/28/23 15:20	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		03/24/23 14:10	03/28/23 15:20	1
m-Xylene & p-Xylene	<0.00400	U	0.00400	mg/Kg		03/24/23 14:10	03/28/23 15:20	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		03/24/23 14:10	03/28/23 15:20	1
Xylenes, Total	<0.00400	U	0.00400	mg/Kg		03/24/23 14:10	03/28/23 15:20	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	92		70 - 130	03/24/23 14:10	03/28/23 15:20	1
1,4-Difluorobenzene (Surr)	81		70 - 130	03/24/23 14:10	03/28/23 15:20	1

Lab Sample ID: LCS 880-49447/1-A

Matrix: Solid

Analysis Batch: 49735

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 49447

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	0.100	0.1130		mg/Kg		113	70 - 130
Toluene	0.100	0.09973		mg/Kg		100	70 - 130
Ethylbenzene	0.100	0.1082		mg/Kg		108	70 - 130
m-Xylene & p-Xylene	0.200	0.2222		mg/Kg		111	70 - 130
o-Xylene	0.100	0.1057		mg/Kg		106	70 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene (Surr)	114		70 - 130
1,4-Difluorobenzene (Surr)	102		70 - 130

Lab Sample ID: LCSD 880-49447/2-A

Matrix: Solid

Analysis Batch: 49735

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 49447

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	0.100	0.1239		mg/Kg		124	70 - 130	9	35
Toluene	0.100	0.1039		mg/Kg		104	70 - 130	4	35
Ethylbenzene	0.100	0.1134		mg/Kg		113	70 - 130	5	35
m-Xylene & p-Xylene	0.200	0.2319		mg/Kg		116	70 - 130	4	35
o-Xylene	0.100	0.1103		mg/Kg		110	70 - 130	4	35

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	114		70 - 130
1,4-Difluorobenzene (Surr)	107		70 - 130

Lab Sample ID: 890-4353-A-34-A MS

Matrix: Solid

Analysis Batch: 49735

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 49447

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	<0.00200	U	0.100	0.1071		mg/Kg		107	70 - 130
Toluene	<0.00200	U	0.100	0.1079		mg/Kg		107	70 - 130

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QC Sample Results

Client: Ensolum
Project/Site: Baseball Cap 25 M CTB

Job ID: 890-4355-1
SDG: 03D2024151

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

Lab Sample ID: 890-4353-A-34-A MS

Matrix: Solid

Analysis Batch: 49735

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 49447

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Ethylbenzene	<0.00200	U	0.100	0.1227		mg/Kg		122	70 - 130
m-Xylene & p-Xylene	<0.00399	U	0.201	0.2515		mg/Kg		125	70 - 130
o-Xylene	<0.00200	U	0.100	0.1199		mg/Kg		119	70 - 130

Surrogate	MS %Recovery	MS Qualifier	MS Limits
4-Bromofluorobenzene (Surr)	143	S1+	70 - 130
1,4-Difluorobenzene (Surr)	94		70 - 130

Lab Sample ID: 890-4353-A-34-B MSD

Matrix: Solid

Analysis Batch: 49735

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 49447

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	<0.00200	U	0.0996	0.1282		mg/Kg		129	70 - 130	18	35
Toluene	<0.00200	U	0.0996	0.1114		mg/Kg		112	70 - 130	3	35
Ethylbenzene	<0.00200	U	0.0996	0.1226		mg/Kg		123	70 - 130	0	35
m-Xylene & p-Xylene	<0.00399	U	0.199	0.2519		mg/Kg		126	70 - 130	0	35
o-Xylene	<0.00200	U	0.0996	0.1190		mg/Kg		120	70 - 130	1	35

Surrogate	MSD %Recovery	MSD Qualifier	MSD Limits
4-Bromofluorobenzene (Surr)	138	S1+	70 - 130
1,4-Difluorobenzene (Surr)	99		70 - 130

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

Lab Sample ID: MB 880-49449/1-A

Matrix: Solid

Analysis Batch: 49473

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 49449

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		03/24/23 14:17	03/25/23 08:46	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		03/24/23 14:17	03/25/23 08:46	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		03/24/23 14:17	03/25/23 08:46	1

Surrogate	MB %Recovery	MB Qualifier	MB Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	95		70 - 130	03/24/23 14:17	03/25/23 08:46	1
o-Terphenyl	104		70 - 130	03/24/23 14:17	03/25/23 08:46	1

Lab Sample ID: LCS 880-49449/2-A

Matrix: Solid

Analysis Batch: 49473

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 49449

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Gasoline Range Organics (GRO)-C6-C10	1000	891.8		mg/Kg		89	70 - 130
Diesel Range Organics (Over C10-C28)	1000	953.0		mg/Kg		95	70 - 130

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QC Sample Results

Client: Ensolum
Project/Site: Baseball Cap 25 M CTB

Job ID: 890-4355-1
SDG: 03D2024151

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

Lab Sample ID: LCS 880-49449/2-A
Matrix: Solid
Analysis Batch: 49473

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 49449

	LCS	LCS	
Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane	90		70 - 130
o-Terphenyl	100		70 - 130

Lab Sample ID: LCSD 880-49449/3-A
Matrix: Solid
Analysis Batch: 49473

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 49449

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	1000	891.4		mg/Kg		89	70 - 130	0	20
Diesel Range Organics (Over C10-C28)	1000	869.7		mg/Kg		87	70 - 130	9	20

	LCSD	LCSD	
Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane	81		70 - 130
o-Terphenyl	93		70 - 130

Lab Sample ID: 890-4355-2 MS
Matrix: Solid
Analysis Batch: 49473

Client Sample ID: FS02
Prep Type: Total/NA
Prep Batch: 49449

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	999	818.7		mg/Kg		80	70 - 130		
Diesel Range Organics (Over C10-C28)	<49.9	U	999	886.4		mg/Kg		86	70 - 130		

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

Lab Sample ID: 890-4355-2 MSD
Matrix: Solid
Analysis Batch: 49473

Client Sample ID: FS02
Prep Type: Total/NA
Prep Batch: 49449

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	998	799.4		mg/Kg		78	70 - 130	2	20
Diesel Range Organics (Over C10-C28)	<49.9	U	998	872.7		mg/Kg		85	70 - 130	2	20

	MSD	MSD	
Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane	108		70 - 130
o-Terphenyl	93		70 - 130

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QC Sample Results

Client: Ensolum
Project/Site: Baseball Cap 25 M CTB

Job ID: 890-4355-1
SDG: 03D2024151

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

Lab Sample ID: MB 880-49456/1-A

Matrix: Solid

Analysis Batch: 49514

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 49456

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		03/24/23 16:46	03/26/23 08:27	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		03/24/23 16:46	03/26/23 08:27	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		03/24/23 16:46	03/26/23 08:27	1
Surrogate	MB %Recovery	MB Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	107		70 - 130			03/24/23 16:46	03/26/23 08:27	1
o-Terphenyl	111		70 - 130			03/24/23 16:46	03/26/23 08:27	1

Lab Sample ID: LCS 880-49456/2-A

Matrix: Solid

Analysis Batch: 49514

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 49456

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Gasoline Range Organics (GRO)-C6-C10	1000	882.5		mg/Kg		88	70 - 130
Diesel Range Organics (Over C10-C28)	1000	790.5		mg/Kg		79	70 - 130
Surrogate	LCS %Recovery	LCS Qualifier	Limits				
1-Chlorooctane	77		70 - 130				
o-Terphenyl	83		70 - 130				

Lab Sample ID: LCSD 880-49456/3-A

Matrix: Solid

Analysis Batch: 49514

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 49456

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	1000	935.9		mg/Kg		94	70 - 130	6	20
Diesel Range Organics (Over C10-C28)	1000	802.7		mg/Kg		80	70 - 130	2	20
Surrogate	LCSD %Recovery	LCSD Qualifier	Limits						
1-Chlorooctane	76		70 - 130						
o-Terphenyl	85		70 - 130						

Lab Sample ID: 890-4352-A-1-B MS

Matrix: Solid

Analysis Batch: 49514

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 49456

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	998	831.5		mg/Kg		79	70 - 130
Diesel Range Organics (Over C10-C28)	<49.9	U	998	797.6		mg/Kg		80	70 - 130

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QC Sample Results

Client: Ensolum
Project/Site: Baseball Cap 25 M CTB

Job ID: 890-4355-1
SDG: 03D2024151

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

Lab Sample ID: 890-4352-A-1-B MS

Matrix: Solid

Analysis Batch: 49514

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 49456

	MS	MS	
Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane	79		70 - 130
o-Terphenyl	76		70 - 130

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-49797/1-A

Matrix: Solid

Analysis Batch: 49898

Client Sample ID: Method Blank

Prep Type: Soluble

	MB	MB							
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil	Fac
Chloride	<5.00	U	5.00	mg/Kg			03/29/23 20:47		1

Lab Sample ID: LCS 880-49797/2-A

Matrix: Solid

Analysis Batch: 49898

Client Sample ID: Lab Control Sample

Prep Type: Soluble

			Spike	LCS	LCS				%Rec	
Analyte			Added	Result	Qualifier	Unit	D	%Rec	Limits	
Chloride			250	262.4		mg/Kg		105	90 - 110	

Lab Sample ID: LCSD 880-49797/3-A

Matrix: Solid

Analysis Batch: 49898

Client Sample ID: Lab Control Sample Dup

Prep Type: Soluble

			Spike	LCSD	LCSD				%Rec		RPD
Analyte			Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Chloride			250	261.9		mg/Kg		105	90 - 110	0	20

Lab Sample ID: 890-4349-A-8-E MSD

Matrix: Solid

Analysis Batch: 49898

Client Sample ID: Matrix Spike Duplicate

Prep Type: Soluble

	Sample	Sample	Spike	MSD	MSD				%Rec		RPD
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Chloride	37.6		252	312.6		mg/Kg		109	90 - 110	0	20

Lab Sample ID: 890-4349-A-8-G MS

Matrix: Solid

Analysis Batch: 49898

Client Sample ID: Matrix Spike

Prep Type: Soluble

	Sample	Sample	Spike	MS	MS				%Rec	
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Chloride	37.6		252	313.3		mg/Kg		110	90 - 110	

Lab Sample ID: MB 880-49798/1-A

Matrix: Solid

Analysis Batch: 49899

Client Sample ID: Method Blank

Prep Type: Soluble

	MB	MB							
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil	Fac
Chloride	<5.00	U	5.00	mg/Kg			03/29/23 13:20		1

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QC Sample Results

Client: Ensolum
Project/Site: Baseball Cap 25 M CTB

Job ID: 890-4355-1
SDG: 03D2024151

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: LCS 880-49798/2-A
Matrix: Solid
Analysis Batch: 49899

Client Sample ID: Lab Control Sample
Prep Type: Soluble

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	250	235.8		mg/Kg		94	90 - 110

Lab Sample ID: LCSD 880-49798/3-A
Matrix: Solid
Analysis Batch: 49899

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	237.6		mg/Kg		95	90 - 110	1	20

Lab Sample ID: 890-4355-2 MS
Matrix: Solid
Analysis Batch: 49899

Client Sample ID: FS02
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	53.9		252	310.7		mg/Kg		102	90 - 110

Lab Sample ID: 890-4355-2 MSD
Matrix: Solid
Analysis Batch: 49899

Client Sample ID: FS02
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	53.9		252	313.7		mg/Kg		103	90 - 110	1	20

QC Association Summary

Client: Ensolum
Project/Site: Baseball Cap 25 M CTB

Job ID: 890-4355-1
SDG: 03D2024151

GC VOA

Prep Batch: 49447

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4355-1	FS01	Total/NA	Solid	5035	
890-4355-2	FS02	Total/NA	Solid	5035	
890-4355-3	FS03	Total/NA	Solid	5035	
890-4355-4	FS04	Total/NA	Solid	5035	
890-4355-5	FS05	Total/NA	Solid	5035	
890-4355-6	FS06	Total/NA	Solid	5035	
MB 880-49447/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-49447/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-49447/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
890-4353-A-34-A MS	Matrix Spike	Total/NA	Solid	5035	
890-4353-A-34-B MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	

Analysis Batch: 49735

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4355-1	FS01	Total/NA	Solid	8021B	49447
890-4355-2	FS02	Total/NA	Solid	8021B	49447
890-4355-3	FS03	Total/NA	Solid	8021B	49447
890-4355-4	FS04	Total/NA	Solid	8021B	49447
890-4355-5	FS05	Total/NA	Solid	8021B	49447
890-4355-6	FS06	Total/NA	Solid	8021B	49447
MB 880-49447/5-A	Method Blank	Total/NA	Solid	8021B	49447
LCS 880-49447/1-A	Lab Control Sample	Total/NA	Solid	8021B	49447
LCSD 880-49447/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	49447
890-4353-A-34-A MS	Matrix Spike	Total/NA	Solid	8021B	49447
890-4353-A-34-B MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	49447

Analysis Batch: 49845

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4355-1	FS01	Total/NA	Solid	Total BTEX	
890-4355-2	FS02	Total/NA	Solid	Total BTEX	
890-4355-3	FS03	Total/NA	Solid	Total BTEX	
890-4355-4	FS04	Total/NA	Solid	Total BTEX	
890-4355-5	FS05	Total/NA	Solid	Total BTEX	
890-4355-6	FS06	Total/NA	Solid	Total BTEX	

GC Semi VOA

Prep Batch: 49449

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4355-1	FS01	Total/NA	Solid	8015NM Prep	
890-4355-2	FS02	Total/NA	Solid	8015NM Prep	
MB 880-49449/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-49449/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-49449/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
890-4355-2 MS	FS02	Total/NA	Solid	8015NM Prep	
890-4355-2 MSD	FS02	Total/NA	Solid	8015NM Prep	

Prep Batch: 49456

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4355-3	FS03	Total/NA	Solid	8015NM Prep	
890-4355-4	FS04	Total/NA	Solid	8015NM Prep	

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QC Association Summary

Client: Ensolum
Project/Site: Baseball Cap 25 M CTB

Job ID: 890-4355-1
SDG: 03D2024151

GC Semi VOA (Continued)

Prep Batch: 49456 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4355-5	FS05	Total/NA	Solid	8015NM Prep	
890-4355-6	FS06	Total/NA	Solid	8015NM Prep	
MB 880-49456/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-49456/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-49456/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
890-4352-A-1-B MS	Matrix Spike	Total/NA	Solid	8015NM Prep	

Analysis Batch: 49473

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4355-1	FS01	Total/NA	Solid	8015B NM	49449
890-4355-2	FS02	Total/NA	Solid	8015B NM	49449
MB 880-49449/1-A	Method Blank	Total/NA	Solid	8015B NM	49449
LCS 880-49449/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	49449
LCSD 880-49449/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	49449
890-4355-2 MS	FS02	Total/NA	Solid	8015B NM	49449
890-4355-2 MSD	FS02	Total/NA	Solid	8015B NM	49449

Analysis Batch: 49514

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4355-3	FS03	Total/NA	Solid	8015B NM	49456
890-4355-4	FS04	Total/NA	Solid	8015B NM	49456
890-4355-5	FS05	Total/NA	Solid	8015B NM	49456
890-4355-6	FS06	Total/NA	Solid	8015B NM	49456
MB 880-49456/1-A	Method Blank	Total/NA	Solid	8015B NM	49456
LCS 880-49456/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	49456
LCSD 880-49456/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	49456
890-4352-A-1-B MS	Matrix Spike	Total/NA	Solid	8015B NM	49456

Analysis Batch: 49618

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4355-1	FS01	Total/NA	Solid	8015 NM	
890-4355-2	FS02	Total/NA	Solid	8015 NM	
890-4355-3	FS03	Total/NA	Solid	8015 NM	
890-4355-4	FS04	Total/NA	Solid	8015 NM	
890-4355-5	FS05	Total/NA	Solid	8015 NM	
890-4355-6	FS06	Total/NA	Solid	8015 NM	

HPLC/IC

Leach Batch: 49797

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4355-1	FS01	Soluble	Solid	DI Leach	
MB 880-49797/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-49797/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-49797/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
890-4349-A-8-E MSD	Matrix Spike Duplicate	Soluble	Solid	DI Leach	
890-4349-A-8-G MS	Matrix Spike	Soluble	Solid	DI Leach	

Leach Batch: 49798

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4355-2	FS02	Soluble	Solid	DI Leach	

Eurofins Carlsbad

QC Association Summary

Client: Ensolum
Project/Site: Baseball Cap 25 M CTB

Job ID: 890-4355-1
SDG: 03D2024151

HPLC/IC (Continued)

Leach Batch: 49798 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4355-3	FS03	Soluble	Solid	DI Leach	
890-4355-4	FS04	Soluble	Solid	DI Leach	
890-4355-5	FS05	Soluble	Solid	DI Leach	
890-4355-6	FS06	Soluble	Solid	DI Leach	
MB 880-49798/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-49798/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-49798/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
890-4355-2 MS	FS02	Soluble	Solid	DI Leach	
890-4355-2 MSD	FS02	Soluble	Solid	DI Leach	

Analysis Batch: 49898

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4355-1	FS01	Soluble	Solid	300.0	49797
MB 880-49797/1-A	Method Blank	Soluble	Solid	300.0	49797
LCS 880-49797/2-A	Lab Control Sample	Soluble	Solid	300.0	49797
LCSD 880-49797/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	49797
890-4349-A-8-E MSD	Matrix Spike Duplicate	Soluble	Solid	300.0	49797
890-4349-A-8-G MS	Matrix Spike	Soluble	Solid	300.0	49797

Analysis Batch: 49899

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4355-2	FS02	Soluble	Solid	300.0	49798
890-4355-3	FS03	Soluble	Solid	300.0	49798
890-4355-4	FS04	Soluble	Solid	300.0	49798
890-4355-5	FS05	Soluble	Solid	300.0	49798
890-4355-6	FS06	Soluble	Solid	300.0	49798
MB 880-49798/1-A	Method Blank	Soluble	Solid	300.0	49798
LCS 880-49798/2-A	Lab Control Sample	Soluble	Solid	300.0	49798
LCSD 880-49798/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	49798
890-4355-2 MS	FS02	Soluble	Solid	300.0	49798
890-4355-2 MSD	FS02	Soluble	Solid	300.0	49798

Lab Chronicle

Client: Ensolum
Project/Site: Baseball Cap 25 M CTB

Job ID: 890-4355-1
SDG: 03D2024151

Client Sample ID: FS01

Lab Sample ID: 890-4355-1

Date Collected: 03/17/23 11:05

Matrix: Solid

Date Received: 03/17/23 16:34

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	49447	03/24/23 14:10	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	49735	03/28/23 23:40	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			49845	03/29/23 12:47	AJ	EET MID
Total/NA	Analysis	8015 NM		1			49618	03/27/23 11:26	SM	EET MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	49449	03/24/23 14:17	AJ	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	49473	03/25/23 12:44	SM	EET MID
Soluble	Leach	DI Leach			4.99 g	50 mL	49797	03/29/23 09:37	KS	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	49898	03/29/23 23:12	SMC	EET MID

Client Sample ID: FS02

Lab Sample ID: 890-4355-2

Date Collected: 03/17/23 11:10

Matrix: Solid

Date Received: 03/17/23 16:34

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	49447	03/24/23 14:10	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	49735	03/29/23 00:07	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			49845	03/29/23 12:47	AJ	EET MID
Total/NA	Analysis	8015 NM		1			49618	03/27/23 11:26	SM	EET MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	49449	03/24/23 14:17	AJ	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	49473	03/25/23 11:38	SM	EET MID
Soluble	Leach	DI Leach			4.97 g	50 mL	49798	03/29/23 09:38	KS	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	49899	03/29/23 13:34	SMC	EET MID

Client Sample ID: FS03

Lab Sample ID: 890-4355-3

Date Collected: 03/17/23 11:15

Matrix: Solid

Date Received: 03/17/23 16:34

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	49447	03/24/23 14:10	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	49735	03/29/23 00:33	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			49845	03/29/23 12:47	AJ	EET MID
Total/NA	Analysis	8015 NM		1			49618	03/27/23 11:30	SM	EET MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	49456	03/24/23 16:46	AJ	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	49514	03/26/23 17:39	SM	EET MID
Soluble	Leach	DI Leach			4.96 g	50 mL	49798	03/29/23 09:38	KS	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	49899	03/29/23 13:48	SMC	EET MID

Client Sample ID: FS04

Lab Sample ID: 890-4355-4

Date Collected: 03/17/23 13:20

Matrix: Solid

Date Received: 03/17/23 16:34

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	49447	03/24/23 14:10	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	49735	03/29/23 00:59	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			49845	03/29/23 12:47	AJ	EET MID

Eurofins Carlsbad

Lab Chronicle

Client: Ensolum
Project/Site: Baseball Cap 25 M CTB

Job ID: 890-4355-1
SDG: 03D2024151

Client Sample ID: FS04

Lab Sample ID: 890-4355-4

Date Collected: 03/17/23 13:20

Matrix: Solid

Date Received: 03/17/23 16:34

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			49618	03/27/23 11:30	SM	EET MID
Total/NA	Prep	8015NM Prep			10.03 g	10 mL	49456	03/24/23 16:46	AJ	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	49514	03/26/23 18:01	SM	EET MID
Soluble	Leach	DI Leach			5 g	50 mL	49798	03/29/23 09:38	KS	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	49899	03/29/23 13:52	SMC	EET MID

Client Sample ID: FS05

Lab Sample ID: 890-4355-5

Date Collected: 03/17/23 13:25

Matrix: Solid

Date Received: 03/17/23 16:34

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	49447	03/24/23 14:10	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	49735	03/29/23 01:26	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			49845	03/29/23 12:47	AJ	EET MID
Total/NA	Analysis	8015 NM		1			49618	03/27/23 11:30	SM	EET MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	49456	03/24/23 16:46	AJ	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	49514	03/26/23 18:23	SM	EET MID
Soluble	Leach	DI Leach			5 g	50 mL	49798	03/29/23 09:38	KS	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	49899	03/29/23 13:57	SMC	EET MID

Client Sample ID: FS06

Lab Sample ID: 890-4355-6

Date Collected: 03/17/23 13:30

Matrix: Solid

Date Received: 03/17/23 16:34

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	49447	03/24/23 14:10	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	49735	03/29/23 01:52	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			49845	03/29/23 12:47	AJ	EET MID
Total/NA	Analysis	8015 NM		1			49618	03/27/23 11:30	SM	EET MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	49456	03/24/23 16:46	AJ	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	49514	03/26/23 18:45	SM	EET MID
Soluble	Leach	DI Leach			5 g	50 mL	49798	03/29/23 09:38	KS	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	49899	03/29/23 14:01	SMC	EET MID

Laboratory References:

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

Accreditation/Certification Summary

Client: Ensolum
Project/Site: Baseball Cap 25 M CTB

Job ID: 890-4355-1
SDG: 03D2024151

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

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14

Method Summary

Client: Ensolum
Project/Site: Baseball Cap 25 M CTB

Job ID: 890-4355-1
SDG: 03D2024151

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: Baseball Cap 25 M CTB

Job ID: 890-4355-1
SDG: 03D2024151

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-4355-1	FS01	Solid	03/17/23 11:05	03/17/23 16:34	1.0
890-4355-2	FS02	Solid	03/17/23 11:10	03/17/23 16:34	1.0
890-4355-3	FS03	Solid	03/17/23 11:15	03/17/23 16:34	1.0
890-4355-4	FS04	Solid	03/17/23 13:20	03/17/23 16:34	1.0
890-4355-5	FS05	Solid	03/17/23 13:25	03/17/23 16:34	1.0
890-4355-6	FS06	Solid	03/17/23 13:30	03/17/23 16:34	1.0

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14



Environment Testing
Xenco

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 1

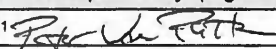
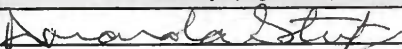
Project Manager:	Hadlie Green	Bill to: (if different)	Hadlie Green
Company Name:	Ensolum, LLC	Company Name:	Ensolum, LLC
Address:	601 N Marienfeld St Suite 400	Address:	601 N Marienfeld St Suite 400
City, State ZIP:	Midland, TX 79701	City, State ZIP:	Midland, TX 79701
Phone:	432-557-8895	Email:	hgreen@ensolum.com

Work Order Comments	
Program:	UST/PST <input type="checkbox"/> PRP <input type="checkbox"/> Brownfields <input type="checkbox"/> RRC <input type="checkbox"/> Superfund <input type="checkbox"/>
State of Project:	
Reporting:	Level II <input type="checkbox"/> Level III <input type="checkbox"/> PST/UST <input type="checkbox"/> TRRP <input type="checkbox"/> Level IV <input type="checkbox"/>
Deliverables:	EDD <input type="checkbox"/> ADaPT <input type="checkbox"/> Other: _____

Project Name:		Turn Around		ANALYSIS REQUEST										Preservative Codes			
Project Number:	03D2024151	<input checked="" type="checkbox"/> Routine <input type="checkbox"/> Rush		Pres. Code												None: NO	DI Water: H ₂ O
Project Location:	32.1839, -103.4289	Due Date:		Parameters	CHLORIDES (EPA: 300.0)	TPH (8015)	BTEX (8021)		890-4355 Chain of Custody							Cool: Cool	MeOH: Me
Sampler's Name:	Peter Van Patten	TAT starts the day received by the lab, if received by 4:30pm														HCL: HC	HNO ₃ : HN
PO #:																H ₂ SO ₄ : H ₂	NaOH: Na
																H ₃ PO ₄ : HP	
SAMPLE RECEIPT		Temp Blank:	Yes No	Wet Ice:	Yes No											NaHSO ₄ : NABIS	
Samples Received Intact:	Yes No	Thermometer ID:												Na ₂ S ₂ O ₃ : NaSO ₃			
Cooler Custody Seals:	Yes No N/A	Correction Factor:												Zn Acetate+NaOH: Zn			
Sample Custody Seals:	Yes No N/A	Temperature Reading:												NaOH+Ascorbic Acid: SAPC			
Total Containers:		Corrected Temperature:															
Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Grab/Comp	# of Cont											Sample Comments
FS01	Soil	3/17/2023	1105	1.0'	Comp	1	x	x	x								
FS02	Soil	3/17/2023	1110	1.0'	Comp	1	x	x	x								
FS03	Soil	3/17/2023	1115	1.0'	Comp	1	x	x	x								
FS04	Soil	3/17/2023	1320	1.0'	Comp	1	x	x	x								
FS05	Soil	3/17/2023	1325	1.0'	Comp	1	x	x	x								
FS06	Soil	3/17/2023	1330	1.0'	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 Ti 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 Ti U Hg: 1631 / 245.1 / 7470 / 7471

Notice: Signature of this document and relinquishment of samples constitutes a valid purchase order from client company to Eurofins Xenco, its affiliates and subcontractors. It assigns standard terms and conditions of service. Eurofins Xenco will be liable only for the cost of samples and shall not assume any responsibility for any losses or expenses incurred by the client if such losses are due to circumstances beyond the control of Eurofins Xenco. A minimum charge of \$85.00 will be applied to each project and a charge of \$5 for each sample submitted to Eurofins Xenco, but not analyzed. These terms will be enforced unless previously negotiated.

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
1 		3/17/23 1659			
3					
5					

Revised Date 08/25/2020 Rev 2020.2

1211 W Florida Ave
Midland TX 79701
Phone: 432-704-5440

Chain of Custody Record



eurofins

Environment Testing

3/30/2023

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Released to Imaging: 7/20/2023 9:30:56 AM

Client Information (Sub Contract Lab)						Lab PM Kramer Jessica								Carrier Tracking No(s) 							COC No' 880-6566 1																				
Client Contact: Shipping/Receiving						Phone:						E-Mail Jessica.Kramer@et.eurofinsus.com						State of Origin New Mexico							Page Page 1 of 1																
Company Eurofins Environment Testing South Centr													Accreditations Required (See note) NELAP - Texas													Job # 890-4355-1															
Address 1211 W Florida Ave						Due Date Requested 3/23/2023						<div style="text-align: center;">Analysis Requested</div>																					<div>Preservation Codes</div> A HCL M HexaneB NaOH N NoneC Zn Acetate O AsNaO2D Nitric Acid P Na2O4SE NaHSO4 Q Na2SO3F MeOH R Na2S2O3G Amchlor S H2SO4H Ascorbic Acid T TSP DodecahydrateI Ice U AcetoneJ DI Water V - MCAA K EDTA W pH 4-5L EDA Y - Trizma Z other (specify)Other:								
City Midland						TAT Requested (days)																																			
State Zip TX 79701																																									
Phone 432-704-5440(Tel)						PO #																																			
Email						WO #																																			
Project Name Baseball Cap 25 M CTB						Project # 89000094																																			
Site						SSOW#																																			
Sample Identification - Client ID (Lab ID)						Sample Date		Sample Time		Sample Type (C=Comp, G=grab)		Matrix (W=water S=solid O=waste/oil, BT=Tissue, A=Air)		Field Filtered Sample (Yes or No)		Perform MS/MSD (Yes or No)		8015MOD_NM/8015NM_S_Prep (MOD) Full TPH		8015MOD_Calc		300_ORGFPM_28/D/L_LEACH Chloride		8021BI/5036FP_Calc (MOD) BTEX		Total_BTEX_GCV		Total Number of containers		Special Instructions/Note											
														X X		X X		X X		X X		X X		X X		X X															
FS01 (890-4355-1)						3/17/23		11 05 Mountain				Solid						X		X		X		X		X				1											
FS02 (890-4355-2)						3/17/23		11 10 Mountain				Solid						X		X		X		X		X				1											
FS03 (890-4355-3)						3/17/23		11 15 Mountain				Solid						X		X		X		X		X				1											
FS04 (890-4355-4)						3/17/23		13 20 Mountain				Solid						X		X		X		X		X				1											
FS05 (890-4355-5)						3/17/23		13 25 Mountain				Solid						X		X		X		X		X				1											
FS06 (890-4355-6)						3/17/23		13 30 Mountain				Solid						X		X		X		X		X				1											
Note Since laboratory accreditations are subject to change Eurofins Environment Testing South Central LLC places the ownership of method analyte & accreditation compliance upon our subcontract laboratories. This sample shipment is forwarded under chain-of-custody If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed the samples must be shipped back to the Eurofins Environment Testing South Central LLC laboratory or other instructions will be provided Any changes to accreditation status should be brought to Eurofins Environment Testing South Central LLC attention immediately If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to Eurofins Environment Testing South Central LLC																																									
Possible Hazard Identification															Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)																										
Unconfirmed															<input type="checkbox"/> Return To Client <input type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months																										
Deliverable Requested I II III IV Other (specify)										Primary Deliverable Rank 2					Special Instructions/QC Requirements.																										
Empty Kit Relinquished by										Date					Time					Method of Shipment:																					
Relinquished by: Cio										Date/Time:					Company					Received by: [Signature]					Date/Time					Company											
Relinquished by:										Date/Time:					Company					Received by:					Date/Time					Company											
Relinquished by:										Date/Time:					Company					Received by:					Date/Time					Company											
Custody Seals Intact:					Custody Seal No					Cooler Temperature(s) °C and Other Remarks																															
Δ Yes Δ No																																									

Ver: 06/08/2021

Login Sample Receipt Checklist

Client: Ensolum

Job Number: 890-4355-1

SDG Number: 03D2024151

Login Number: 4355

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: 890-4355-1

SDG Number: 03D2024151

Login Number: 4355

List Number: 2

Creator: Teel, Brianna

List Source: Eurofins Midland

List Creation: 03/21/23 11:22 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	



APPENDIX D

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)

<input type="checkbox"/> Crude Oil	Volume Released (bbls)	Volume Recovered (bbls)
<input type="checkbox"/> Produced Water	Volume Released (bbls)	Volume Recovered (bbls)
	Is the concentration of dissolved chloride in the produced water >10,000 mg/l?	<input type="checkbox"/> Yes <input type="checkbox"/> No
<input type="checkbox"/> Condensate	Volume Released (bbls)	Volume Recovered (bbls)
<input type="checkbox"/> Natural Gas	Volume Released (Mcf)	Volume Recovered (Mcf)
<input type="checkbox"/> Other (describe)	Volume/Weight Released (provide units)	Volume/Weight Recovered (provide units)

Cause of Release

Incident ID	
District RP	
Facility ID	
Application ID	

Was this a major release as defined by 19.15.29.7(A) NMAC? <input type="checkbox"/> Yes <input type="checkbox"/> 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

<input type="checkbox"/> The source of the release has been stopped.	
<input type="checkbox"/> The impacted area has been secured to protect human health and the environment.	
<input type="checkbox"/> Released materials have been contained via the use of berms or dikes, absorbent pads, or other containment devices.	
<input type="checkbox"/> All free liquids and recoverable materials have been removed and managed appropriately.	
If all the actions described above have <u>not</u> been undertaken, explain why:	
Per 19.15.29.8 B. (4) NMAC the responsible party may commence remediation immediately after discovery of a release. If remediation has begun, please attach a narrative of actions to date. If remedial efforts have been successfully completed or if the release occurred within a lined containment area (see 19.15.29.11(A)(5)(a) NMAC), please attach all information needed for closure evaluation.	
I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to OCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the OCD does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In addition, OCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.	
Printed Name: _____	Title: _____
Signature: <u>Patricia Zapanta</u>	Date: _____
email: _____	Telephone: _____
<u>OCD Only</u>	
Received by: <u>Jocelyn Harimon</u>	Date: <u>01/30/2023</u>

Spill Calculation - On-Pad Surface Pool Spill

<i>Received by OCD: 4/24/2023 11:28:10 AM</i>							NAPP2303037207
Convert Irregular shape into a series of rectangles	Length (ft.)	Width (ft.)	Average Depth (in.)	Estimated <u>Pool</u> Area (sq. ft.)	Estimated volume of each pool area (bbl.)	Penetration allowance (ft.)	Total Estimated Volume of Spill (bbl.)
Rectangle A	30.00	42.00	0.10	1260.00	1.87	0.00	1.87
Rectangle B	33.00	26.00	0.10	858.00	1.27	0.00	1.27
Rectangle C				0.00	0.00	0.00	0.00
Rectangle D				0.00	0.00	0.00	0.00
Rectangle E				0.00	0.00	0.00	0.00
Rectangle F				0.00	0.00	0.00	0.00
Rectangle G				0.00	0.00	0.00	0.00
Rectangle H				0.00	0.00	0.00	0.00
Rectangle I				0.00	0.00	0.00	0.00
Rectangle J				0.00	0.00	0.00	0.00
<i>Released to Imaging: 7/20/2023 9:30:56 AM</i>			Total Surface Pool Volume Released, Release to Soil/Caliche:				3.14

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

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Phone:(575) 748-1283 Fax:(575) 748-9720

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

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

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

CONDITIONS

Action 180607

CONDITIONS

Operator: COG OPERATING LLC 600 W Illinois Ave Midland, TX 79701	OGRID: 229137
	Action Number: 180607
	Action Type: [C-141] Release Corrective Action (C-141)

CONDITIONS

Created By	Condition	Condition Date
jharimon	None	1/31/2023

Incident ID	NAPP2303037207
District RP	
Facility ID	fAPP2135130425
Application ID	

Site Assessment/Characterization

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

What is the shallowest depth to groundwater beneath the area affected by the release?	<u>>100</u> (ft bgs)
Did this release impact groundwater or surface water?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 300 feet of a continuously flowing watercourse or any other significant watercourse?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> 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)?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 300 feet of an occupied permanent residence, school, hospital, institution, or church?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> 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?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 1000 feet of any other fresh water well or spring?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within incorporated municipal boundaries or within a defined municipal fresh water well field?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 300 feet of a wetland?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release overlying a subsurface mine?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release overlying an unstable area such as karst geology?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within a 100-year floodplain?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Did the release impact areas not on an exploration, development, production, or storage site?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> 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.

State of New Mexico
Oil Conservation Division

Page 4

Incident ID	NAPP2303037207
District RP	
Facility ID	fAPP2135130425
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: _Jacob Laird_____ Title: _Environmental Engineer_____

Signature: Jacob Laird Date: ___04/26/2023_____

email: _Jacob.Laird@conocophillips.com_____ Telephone: ___575-703-5482_____

OCD Only

Received by: _____ Jocelyn Harimon _____ Date: ___04/24/2023_____

Incident ID	NAPP2303037207
District RP	
Facility ID	fAPP2135130425
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: Jacob Laird Title: Environmental Engineer

Signature: *Jacob Laird* Date: 04/26/2023

email: Jacob.Laird@connocophillips.com Telephone: 575-703-5482

OCD Only

Received by: Jocelyn Harimon Date: 04/26/2023

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: *Nelson Velez* Date: 07/20/2023

Printed Name: Nelson Velez Title: Environmental Specialist - Adv



APPENDIX E

NMOCD Notifications

From: [Enviro, OCD, EMNRD](#)
To: [Hadlie Green](#)
Cc: [Nobui, Jennifer, EMNRD](#); [Bratcher, Michael, EMNRD](#)
Subject: RE: [EXTERNAL] Sampling Notification (Week of 3/6/2023)
Date: Wednesday, March 1, 2023 5:17:02 PM
Attachments: [image006.png](#)
[image007.png](#)
[image008.png](#)
[image009.png](#)

[**EXTERNAL EMAIL**]

Hadlie,

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

JH

Jocelyn Harimon • Environmental Specialist
Environmental Bureau
EMNRD - Oil Conservation Division
1220 South St. Francis Drive | Santa Fe, NM 87505
(505)469-2821 | Jocelyn.Harimon@emnrd.nm.gov
[http:// www.emnrd.nm.gov](http://www.emnrd.nm.gov)



From: Hadlie Green <hgreen@ensolum.com>
Sent: Wednesday, March 1, 2023 8:43 AM
To: Enviro, OCD, EMNRD <OCD.Enviro@emnrd.nm.gov>
Cc: Kalei Jennings <kjennings@ensolum.com>
Subject: [EXTERNAL] Sampling Notification (Week of 3/6/2023)

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

All,

ConocoPhillips Company (COP) plans to complete sampling activities at the following site the week of March 6, 2023.

- Baseball Cap 25 M CTB / NAPP2303037207
- Wild Cobra 1 State 002H / NAPP2233946889
- Cabo Wabo Federal Com 705H / NAPP2236129464

Thank you,



Hadlie Green

Staff Geologist

432-557-8895

hgreen@ensolum.com

Ensolum, LLC

in f 

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

CONDITIONS

Action 210116

CONDITIONS

Operator: COG OPERATING LLC 600 W Illinois Ave Midland, TX 79701	OGRID: 229137
	Action Number: 210116
	Action Type: [C-141] Release Corrective Action (C-141)

CONDITIONS

Created By	Condition	Condition Date
nvelez	None	7/20/2023