

November 1, 2022

#### **New Mexico Oil Conservation Division**

New Mexico Energy, Minerals, and Natural Resources Department 1220 S. St. Francis Drive Santa Fe, New Mexico 87505

Re: Remediation Work Plan

**EVGSAU Satellite 5** 

**Incident Number NAPP2213957732** 

Lea County, New Mexico

#### To Whom It May Concern:

Ensolum, LLC (Ensolum), on behalf of Maverick Natural Resources, LLC (Maverick), has prepared the following *Remediation Work Plan* (Work Plan) to document assessment and soil sampling activities completed to date and propose additional delineation of the extent of the release at the East Vacuum Grayburg – San Andreas Unit (EVGSAU) Satellite 5 (Site), resulting from a flow line release of crude oil and produced water into the surrounding pasture. The following Work Plan proposes vertical delineation of the release.

#### SITE DESCRIPTION AND RELEASE SUMMARY

The Site is located in Unit F, Section 26, Township 17 South, Range 35 East, in Lea County, New Mexico (32.806667° N, 103.431389° W) and is associated with oil and gas exploration and production operations on New Mexico State Land.

On May 5, 2022, a transfer pump leak resulted in the release of approximately 17.4 barrels (bbls) of produced water and 0.9 bbls of crude oil into the pasture where fluids pooled. A vacuum truck was dispatched to the Site to recover free-standing fluids; approximately 2 bbls of produced water were recovered. The previous operator, ConocoPhillips Company, reported the release to the New Mexico Oil Conservation Division (NMOCD) on a Release Notification Form C-141 (Form C-141) on May 19, 2022. The release was assigned Incident Number NAPP2213957732.

#### SITE CHARACTERIZATION AND CLOSURE CRITERIA

The Site was characterized according to Table I, Closure Criteria for Soils Impacted by a Release, of Title 19, Chapter 15, Part 29, Section 12 (19.15.29.12) of the New Mexico Administrative Code (NMAC). Results from the characterization desktop review are presented on 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 less than 50 feet below ground surface (bgs) based on the nearest groundwater well data. The nearest groundwater well with depth to groundwater data is New Mexico Office of the State Engineer (NMOSE) well L-04881, located approximately 0.4 miles

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Texas PG Firm No. 50588 | Texas PE Firm No. F-21843



southwest of the Site. The groundwater well has a reported depth to groundwater of 50 feet bgs and a total depth of 137 feet bgs. All wells used for depth to water determination are depicted on Figure 1 and the referenced well records are included in Appendix A.

The closest continuously flowing or significant watercourse to the Site is a dry wash, located approximately 2,220 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 for the following chemicals of concern (COCs):

- Benzene: 10 milligrams per kilogram (mg/kg)
- Benzene, toluene, ethylbenzene, and total xylenes (BTEX): 50 mg/kg
- Total Petroleum Hydrocarbons (TPH): 100 mg/kg
- Chloride: 600 mg/kg

#### SITE ASSESSMENT ACTIVITIES

On July 27, 2022, personnel completed a Site visit to evaluate the release extent based on information provided on the Form C-141 and visual observations. Seven preliminary soil samples (SS01 through SS07) were collected within and around the release extent at a depth of approximately 0.5 feet bgs. The preliminary soil samples were field screened for volatile organic compounds (VOCs) utilizing a calibrated photoionization detector (PID) and chloride Hach® chloride QuanTab® test strips. The release extent and preliminary soil sample locations were mapped utilizing a handheld Global Positioning System (GPS) unit and are depicted on Figure 2. Photographic documentation was completed during the Site visit and a photographic log is included in Appendix B.

The preliminary soil samples were placed directly into pre-cleaned glass jars, labeled with the location, date, time, sampler name, method of analysis, and immediately placed on ice. The soil samples were transported at or below 4 degrees Celsius (°C) under strict chain-of-custody procedures to Eurofins Laboratories (Eurofins) in Carlsbad, New Mexico, for analysis of the following COCs: BTEX following United States Environmental Protection Agency (EPA) Method 8021B; TPH-gasoline range organics (GRO), TPH-diesel range organics (DRO), and TPH-oil range organics (ORO) following EPA Method 8015M/D; and chloride following EPA Method 300.0.

#### LABORATORY ANALYTICAL RESULTS

Laboratory analytical results for preliminary soil samples SS02, SS03, and SS07 indicated chloride concentrations exceeded the Site Closure Criteria. Laboratory analytical results for preliminary soil samples SS01, SS04, SS05, and SS06 indicated concentrations of all COCs were compliant with the Site Closure Criteria. A summary of soil analtyical restults are presented in Table 1 and the full laboratory analytical report is included in Appendix C.

Based on visible staining in the release area, elevated field screening results, and laboratory analytical results for the preliminary soil samples, delineation activities appear to be warranted to define the vertical extent of impacts to soil following the July 27, 2022 release.



#### PROPOSED REMEDIATION WORK PLAN

The results from the preliminary soil sampling suggest soil containing elevated chloride concentrations is present across portions of the 4,027 square foot release area. As such, Maverick requests approval to complete the following remediation activities:

- Complete vertical delineation of impacted soil until analytical results indicate soil beneath the
  release is compliant with the Site Closure Criteria. Proposed delineation points are depicted on
  Figure 3; however, they are representative locations and may adjust based on the situation of
  active subsurface utilities or above-ground pipelines/equipment that may interfere with
  advancement.
- Address lateral surface sample SS07 through the collection of soil samples south to define the lateral extent of impacted soil.
- Soil samples will be field screened for VOCs and chloride. Soils samples exhibiting the highest field screening concentration and deepest depth from each sample location will be submitted for laboratory analysis of BTEX, TPH, and chloride.
- Following successful vertical delineation through laboratory analytical results, Maverick will proceed with providing NMOCD an addendum Work Plan detailing delineation results and proposing additional remedial action, if applicable, based on results of delineation activities.

Maverick will complete the delineation activities within 60 days of the date of approval of this Work Plan by the NMOCD. A Work Plan Addendum detailing remedial action will be submitted within 30 days of receipt of laboratory analytical results. Maverick believes the scope of work described above will meet requirements set forth in 19.15.29.13 NMAC and are protective of human health, the environment, and groundwater. As such, Maverick respectfully requests approval of this Work Plan from NMOCD.

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

Sincerely, **Ensolum, LLC** 

Hadlie Green Staff Geologist Kalei Jennings Senior Scientist

cc: Bryce Wagoner, Maverick Natural Resources, LLC

New Mexico State Land Office

#### Appendices:

Figure 1 Site Location Map

Figure 2 Preliminary Soil Sample Locations
Figure 3 Proposed Delineation Locations
Table 1 Soil Sample Analytical Results
Appendix A Referenced Well Records

Appendix B Photographic Log

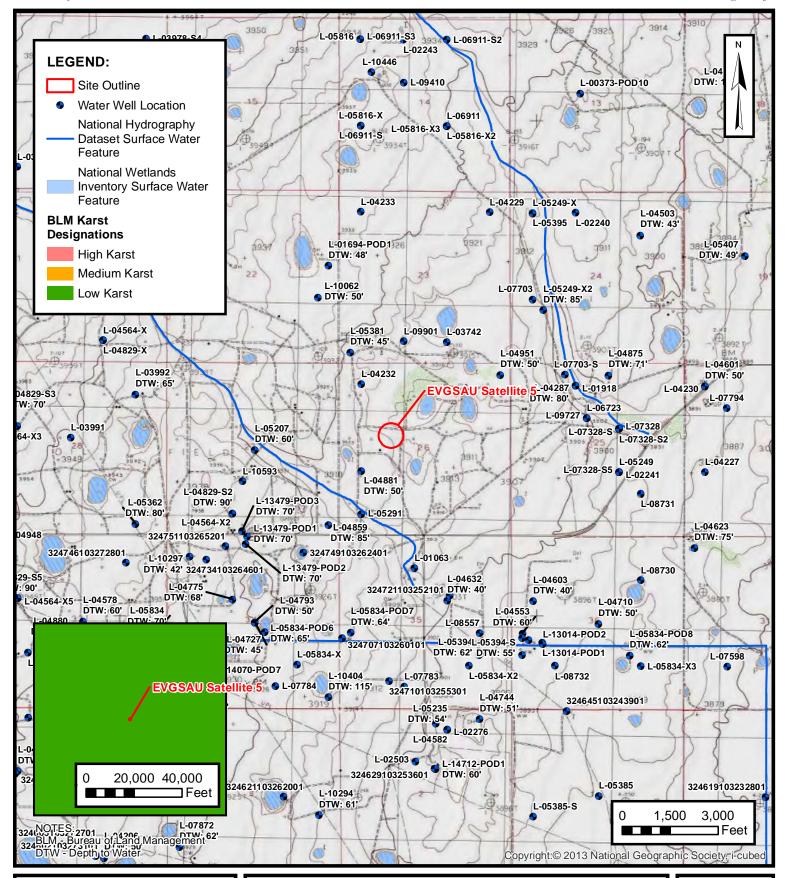
Appendix C Laboratory Analytical Reports & Chain-of-Custody Documentation

Appendix D NMOCD Notifications

Appendix E Final C-141



**FIGURES** 



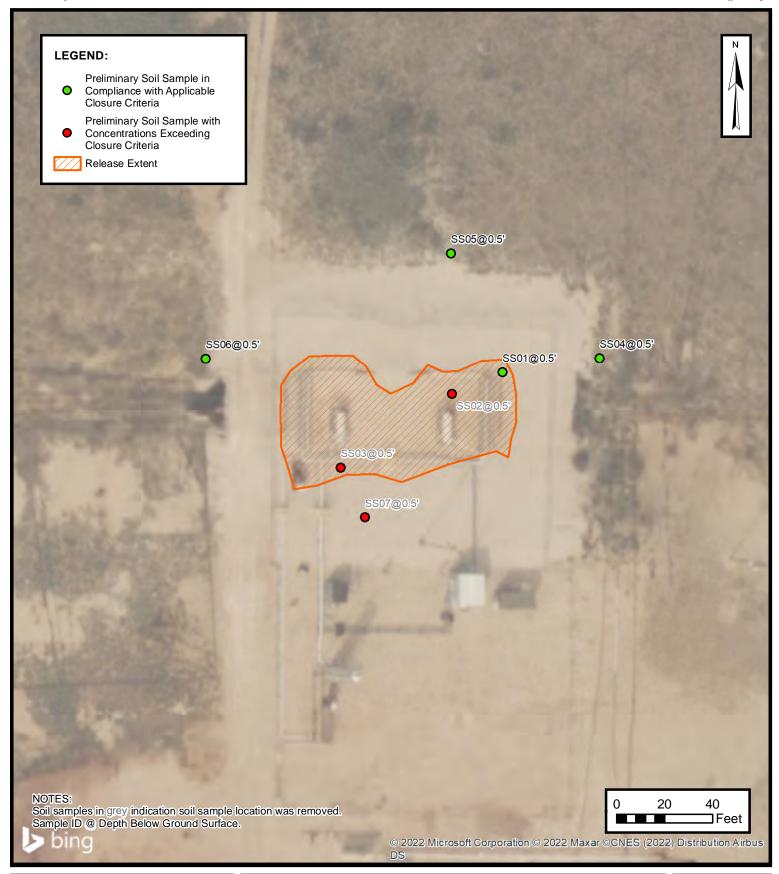


#### SITE RECEPTOR MAP

MAVERICK NATURAL RESOURCES, LLC EVGSAU SATELLITE 5

> NAPP2213957732 Unit F, Sec 26, T17S, R35E Lea County, New Mexico

FIGURE



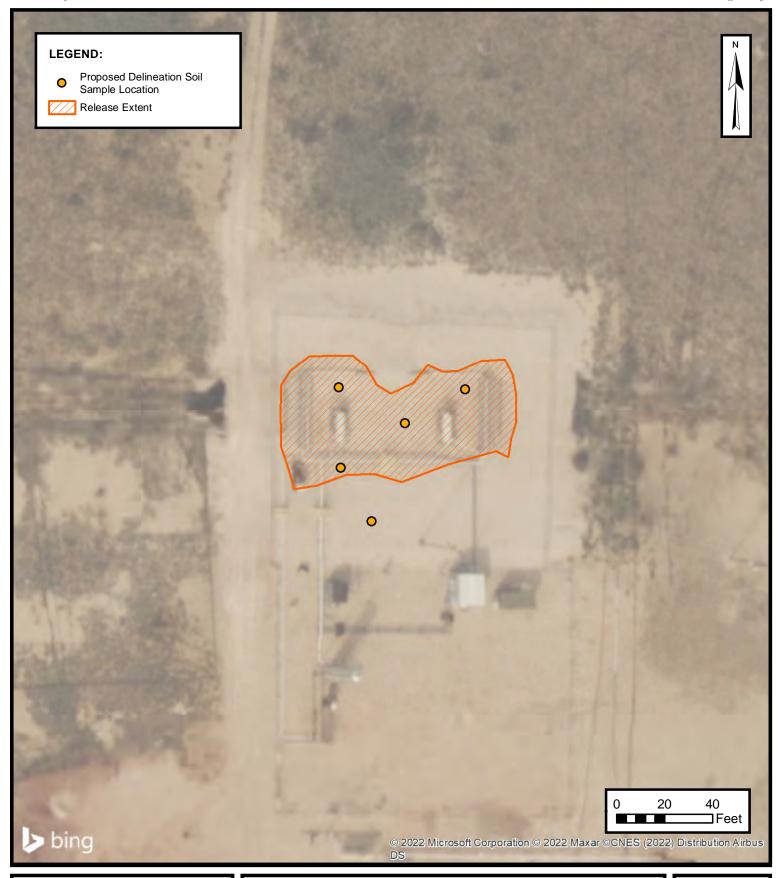


#### PRELIMINARY SOIL SAMPLE LOCATIONS

MAVERICK NATURAL RESOURCES, LLC EVGSAU SATELLITE 5

> Incident Number Unit F, Sec 26, T17S, R35E Lea County, New Mexico

FIGURE





#### PROPOSED DELINEATION SOIL SAMPLE LOCATIONS

MAVERICK NATURAL RESOURCES, LLC EVGSAU SATELLITE 5

Incident Number Unit F, Sec 26, T17S, R35E Lea County, New Mexico FIGURE



**TABLES** 



#### TABLE 1

#### **SOIL SAMPLE ANALYTICAL RESULTS**

**EVGSAU Satellite 5** 

Maverick Natural Resources, LLC
Lea County, New Mexico

					County, New Mc	AIOO				
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 1	Closure Criteria	(NMAC 19.15.29)	10	50	NE	NE	NE	NE	100	600
	Preliminary Assessment Soil Samples									
SS01	07/27/2022	0.5	<0.00198	<0.00397	<49.9	<49.9	<49.9	<49.9	<49.9	456
SS02	07/27/2022	0.5	<0.00200	<0.00399	<49.9	<49.9	<49.9	<49.9	<49.9	9,950
SS03	07/27/2022	0.5	<0.00199	<0.00398	<50.0	<50.0	<50.0	<50.0	<50.0	8,470
SS04	07/27/2022	0.5	<0.00199	<0.00398	<49.8	<49.8	<49.8	<49.8	<49.8	91
SS05	07/27/2022	0.5	<0.00200	<0.00399	<50.0	<50.0	<50.0	<50.0	<50.0	127
SS06	07/27/2022	0.5	<0.00201	<0.00402	<49.8	<49.8	<49.8	<49.8	<49.8	205
SS07	07/27/2022	0.5	<0.00200	<0.00401	<49.9	<49.9	<49.9	<49.9	<49.9	696

#### Notes:

bgs: below ground surface mg/kg: milligrams per kilogram

NMOCD: New Mexico Oil Conservation Division BTEX: Benzene, Toluene, Ethylbenzene, and Xylenes

GRO: Gasoline Range Organics DRO: Diesel Range Organics ORO: Oil Range Organics

TPH: Total Petroleum Hydrocarbon

Concentrations in **bold** exceed the NMOCD Table 1 Closure Criteria or reclamation standard where applicable.



**APPENDIX A** 

Referenced Well Records

## **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

L 04881

26 17S 35E

646556 3630644\*

Driller License:

Driller Company:

O.R. MUSSELWHITE WATER WELL SE

Driller Name: O R MUSSLEWHITE

Drill Start Date:

04/22/1962

Drill Finish Date:

04/24/1962

Plug Date:

03/01/1964

Log File Date:

02/18/1963

PCW Rcy Date:

Source:

Shallow

Pump Type:

Pipe Discharge Size:

Estimated Yield:

Casing Size:

6.63

Depth Well:

137 feet

Depth Water:

50 feet

Water Bearing Stratifications:

85

Bottom Description

130 Sandstone/Gravel/Conglomerate

Casing Perforations:

82

Bottom

137

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.

7/18/22 9:56 AM

POINT OF DIVERSION SUMMARY

<sup>\*</sup>UTM location was derived from PLSS - see Help

#### URGINATION 07/4003:2460PM01 17S.35E.35.31133

Lea County, New Mexico
Latitude 32°47'23", Longitude 103°26'10" NAD27
Land-surface elevation 3,915.00 feet above NGVD29
The depth of the well is 220 feet below land surface.
This well is completed in the High Plains aquifer (N100HGHPLN) national aquifer.
This well is completed in the Ogallala Formation (1210GLL) local aquifer.

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





**APPENDIX B** 

Photographic Log



# Photographic Log Maverick Natural Resources, LLC EVGAU Satellite 5

Incident Number NAPP2213957732



Photograph 1 Date: 7/12/2022

Description: Photo of release extent taken during initial site assessment activities.



Photograph 2 Date: 7/12/2022

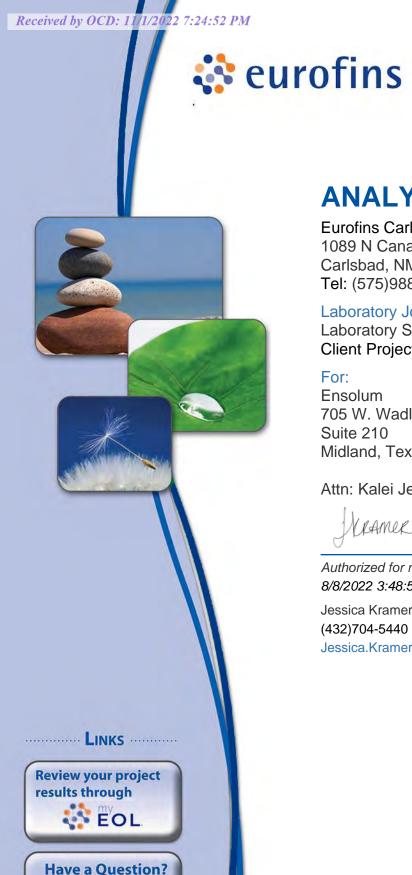
Description: Photo of release extent taken during initial site assessment activities.



APPENDIX C

Laboratory Analytical Reports & Chain of Custody Documentation





Visit us at:

www.eurofinsus.com/Env

Released to Imaging: 11/29/2022 10:44:38 AM

### **Environment Testing America**

### **ANALYTICAL REPORT**

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

Laboratory Job ID: 890-2686-1

Laboratory Sample Delivery Group: 03D2057012

Client Project/Site: EVGSAU

For:

Ensolum 705 W. Wadley Suite 210 Midland, Texas 79701

Attn: Kalei Jennings

RAMER

Authorized for release by: 8/8/2022 3:48:59 PM

Jessica Kramer, Project Manager (432)704-5440

Jessica.Kramer@et.eurofinsus.com

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

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

Client: Ensolum
Project/Site: EVGSAU
Laboratory Job ID: 890-2686-1
SDG: 03D2057012

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#### **Definitions/Glossary**

Job ID: 890-2686-1 Client: Ensolum Project/Site: EVGSAU SDG: 03D2057012

#### **Qualifiers**

**GC VOA** Qualifier **Qualifier Description** 

LCS and/or LCSD is outside acceptance limits, low biased.

MS and/or MSD recovery exceeds control limits.

\*1 LCS/LCSD RPD exceeds control limits.

U Indicates the analyte was analyzed for but not detected.

**GC Semi VOA** 

Qualifier **Qualifier Description** 

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

HPLC/IC

F1

Qualifier **Qualifier Description** 

F1 MS and/or MSD recovery exceeds control limits.

F2 MS/MSD RPD exceeds control limits

U Indicates the analyte was analyzed for but not detected.

#### **Glossary**

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

CFU Colony Forming Unit CNF Contains No Free Liquid DER

Duplicate Error Ratio (normalized absolute difference)

Dil Fac **Dilution Factor** 

Detection Limit (DoD/DOE) DL

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

DLC Decision Level Concentration (Radiochemistry)

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

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

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

NC Not Calculated

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

NEG Negative / Absent POS Positive / Present

Practical Quantitation Limit **PQL** 

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

RER Relative Error Ratio (Radiochemistry)

RL Reporting Limit or Requested Limit (Radiochemistry)

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

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

Released to Imaging: 11/29/2022 10:44:38 AM

**TNTC** Too Numerous To Count

#### Case Narrative

 Client: Ensolum
 Job ID: 890-2686-1

 Project/Site: EVGSAU
 SDG: 03D2057012

Job ID: 890-2686-1

**Laboratory: Eurofins Carlsbad** 

Narrative

Job Narrative 890-2686-1

#### Receipt

The samples were received on 7/28/2022 1:48 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 10.4°C

#### **Receipt Exceptions**

The following samples were received at the laboratory outside the required temperature criteria: SS01 (890-2686-1), SS02 (890-2686-2), SS03 (890-2686-3), SS04 (890-2686-4), SS05 (890-2686-5), SS06 (890-2686-6) and SS07 (890-2686-7). This does not meet regulatory requirements. The client was contacted regarding this issue, and the laboratory was instructed to <CHOOSE\_ONE> proceed with/cancel analysis. Samples received out of temp range client notified and wanted to proceed

#### GC VOA

Method 8021B: The RPD of the laboratory control sample (LCS) and laboratory control sample duplicate (LCSD) for preparation batch 880-31335 and analytical batch 880-31540 recovered outside control limits for the following analytes: Ethylbenzene, m-Xylene & p-Xylene, o-Xylene and Xylenes, Total.

Method 8021B: Spike compounds were inadvertently omitted during the extraction process for the matrix spike duplicate (MSD); therefore, matrix spike duplicate recoveries are unavailable for preparation batch 880-31335 and analytical batch 880-31540. The associated laboratory control sample (LCS) met acceptance criteria.

Method 8021B: LCSD biased low. Since only an acceptable LCS is required per the method, the data has been qualified and reported. (LCSD 880-31569/2-A)

Method 8021B: The RPD of the laboratory control sample (LCS) and laboratory control sample duplicate (LCSD) for preparation batch 880-31569 and analytical batch 880-31653 recovered outside control limits for the following analytes: Benzene, Toluene, Ethylbenzene, m-Xylene & p-Xylene, o-Xylene and Xylenes, Total.

Method 8021B: The matrix spike (MS) recoveries for preparation batch 880-31569 and analytical batch 880-31653 were outside control limits. Non-homogeneity is suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.

Method 8021B: Spike compounds were inadvertently omitted during the extraction process for the matrix spike duplicate (MSD); therefore, matrix spike recoveries are unavailable for preparation batch 880-31569 and analytical batch 880-31653. The associated laboratory control sample (LCS) met acceptance criteria.

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: SS04 (890-2686-4). 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

Method 300\_ORGFM\_28D: The matrix spike / matrix spike duplicate (MS/MSD) recoveries and precision for preparation batch 880-31214 and analytical batch 880-31338 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.

Method 300\_ORGFM\_28D: The matrix spike / matrix spike duplicate (MS/MSD) recoveries and precision for preparation batch 880-31214 and 880-31214 and analytical batch 880-31338 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.

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#### **Case Narrative**

Client: Ensolum Job ID: 890-2686-1
Project/Site: EVGSAU SDG: 03D2057012

Job ID: 890-2686-1 (Continued)

**Laboratory: Eurofins Carlsbad (Continued)** 

Method 300\_ORGFM\_28D: The matrix spike / matrix spike duplicate (MS/MSD) recoveries and precision for preparation batch 880-31219 and analytical batch 880-31436 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.

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

0) 01

Eurofins Carlsbad 8/8/2022

**Client Sample ID: SS01** Lab Sample ID: 890-2686-1

Date Collected: 07/27/22 13:00 Matrix: Solid Date Received: 07/28/22 13:48

Sample Depth: 0.5

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00198	U	0.00198	mg/Kg		08/02/22 14:31	08/05/22 20:16	1
Toluene	<0.00198	U	0.00198	mg/Kg		08/02/22 14:31	08/05/22 20:16	1
Ethylbenzene	<0.00198	U *1	0.00198	mg/Kg		08/02/22 14:31	08/05/22 20:16	1
m-Xylene & p-Xylene	<0.00397	U *1	0.00397	mg/Kg		08/02/22 14:31	08/05/22 20:16	1
o-Xylene	<0.00198	U *1	0.00198	mg/Kg		08/02/22 14:31	08/05/22 20:16	1
Xylenes, Total	<0.00397	U *1	0.00397	mg/Kg		08/02/22 14:31	08/05/22 20:16	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	114		70 - 130			08/02/22 14:31	08/05/22 20:16	1
1,4-Difluorobenzene (Surr)	93		70 - 130			08/02/22 14:31	08/05/22 20:16	1
Method: Total BTEX - Total BTE	X Calculation							
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00397	U	0.00397	mg/Kg			08/08/22 14:27	1
Analyte Total TPH		Qualifier	RL 49.9	Unit mg/Kg	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9	ma/Ka				
				mg/itg			08/03/22 11:13	1
Method: 8015B NM - Diesel Ran	ge Organics (D	RO) (GC)		mg/ixg			08/03/22 11:13	1
		RO) (GC) Qualifier	RL	Unit	D	Prepared		Dil Fac
Analyte Gasoline Range Organics		Qualifier	<b>RL</b> 49.9		<u>D</u>	Prepared 08/02/22 08:40	08/03/22 11:13  Analyzed  08/02/22 11:19	Dil Fac
Analyte Gasoline Range Organics (GRO)-C6-C10	Result	Qualifier U		Unit	<u>D</u>		Analyzed	Dil Fac
Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over	<b>Result</b> <49.9	Qualifier U	49.9	<mark>Unit</mark> mg/Kg	<u>D</u>	08/02/22 08:40	Analyzed 08/02/22 11:19	Dil Fac
Method: 8015B NM - Diesel Rang Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) Oll Range Organics (Over C28-C36)	<b>Result</b> <49.9	Qualifier U	49.9	<mark>Unit</mark> mg/Kg	<u> </u>	08/02/22 08:40	Analyzed 08/02/22 11:19	Dil Fac
Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28)	Result <49.9 <49.9	Qualifier U U U	49.9	<b>Unit</b> mg/Kg mg/Kg	<u>D</u>	08/02/22 08:40 08/02/22 08:40	Analyzed 08/02/22 11:19 08/02/22 11:19	Dil Fac
Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) Oll Range Organics (Over C28-C36)	Result   <49.9   <49.9   <49.9	Qualifier U U U	49.9 49.9 49.9	<b>Unit</b> mg/Kg mg/Kg	<u>D</u>	08/02/22 08:40 08/02/22 08:40 08/02/22 08:40	Analyzed 08/02/22 11:19 08/02/22 11:19 08/02/22 11:19	Dil Fac
Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) OII Range Organics (Over C28-C36)  Surrogate 1-Chlorooctane	Result   <49.9   <49.9   <49.9   <49.9     <80.9   <80.9     <80.9   <80.9   <80.9   <80.9   <80.9   <80.9   <80.9   <80.9   <80.9   <80.9   <80.9   <80.9   <80.9   <80.9   <80.9   <80.9   <80.9   <80.9   <80.9   <80.9   <80.9   <80.9   <80.9   <80.9   <80.9   <80.9   <80.9   <80.9   <80.9   <80.9   <80.9   <80.9   <80.9   <80.9   <80.9   <80.9   <80.9   <80.9   <80.9   <80.9   <80.9   <80.9   <80.9   <80.9   <80.9   <80.9   <80.9   <80.9   <80.9   <80.9   <80.9   <80.9   <80.9   <80.9   <80.9   <80.9   <80.9   <80.9   <80.9   <80.9   <80.9   <80.9   <80.9   <80.9   <80.9   <80.9   <80.9   <80.9   <80.9   <80.9   <80.9   <80.9   <80.9   <80.9   <80.9   <80.9   <80.9   <80.9   <80.9   <80.9   <80.9   <80.9   <80.9   <80.9   <80.9   <80.9   <80.9   <80.9   <80.9   <80.9   <80.9   <80.9   <80.9   <80.9   <80.9   <80.9   <80.9   <80.9   <80.9   <80.9   <80.9   <80.9   <80.9   <80.9   <80.9   <80.9   <80.9   <80.9   <80.9   <80.9   <80.9   <80.9   <80.9   <80.9   <80.9   <80.9   <80.9   <80.9   <80.9   <80.9   <80.9   <80.9   <80.9   <80.9   <80.9   <80.9   <80.9   <80.9   <80.9   <80.9   <80.9   <80.9   <80.9   <80.9   <80.9   <80.9   <80.9   <80.9   <80.9   <80.9   <80.9   <80.9   <80.9   <80.9   <80.9   <80.9   <80.9   <80.9   <80.9   <80.9   <80.9   <80.9   <80.9   <80.9   <80.9   <80.9   <80.9   <80.9   <80.9   <80.9   <80.9   <80.9   <80.9   <80.9   <80.9   <80.9   <80.9   <80.9   <80.9   <80.9   <80.9   <80.9   <80.9   <80.9   <80.9   <80.9   <80.9   <80.9   <80.9   <80.9   <80.9   <80.9   <80.9   <80.9   <80.9   <80.9   <80.9   <80.9   <80.9   <80.9   <80.9   <80.9   <80.9   <80.9   <80.9   <80.9   <80.9   <80.9   <80.9   <80.9   <80.9   <80.9   <80.9   <80.9   <80.9   <80.9   <80.9   <80.9   <80.9   <80.9   <80.9   <80.9   <80.9   <80.9   <80.9   <80.9   <80.9   <80.9   <80.9   <80.9   <80.9   <80.9   <80.9   <80.9   <80.9   <80.9   <80.9   <80.9   <80.9   <80.9   <80.9   <80.9   <80.9   <80.9   <80.9   <80.9   <80.9   <80.9   <80.9   <80.9   <80.9   <80.9   <80.9   <80.9   <80.9   <80.9   <80.9   <80.9	Qualifier U U U	49.9 49.9 49.9 <b>Limits</b>	<b>Unit</b> mg/Kg mg/Kg	<u>D</u>	08/02/22 08:40 08/02/22 08:40 08/02/22 08:40 <b>Prepared</b>	Analyzed  08/02/22 11:19  08/02/22 11:19  08/02/22 11:19  Analyzed	Dil Fac
Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) Oll Range Organics (Over C28-C36)  Surrogate	Result	Qualifier  U  U  Qualifier	49.9 49.9 49.9 <b>Limits</b> 70 - 130	<b>Unit</b> mg/Kg mg/Kg	<u>D</u>	08/02/22 08:40 08/02/22 08:40 08/02/22 08:40  Prepared 08/02/22 08:40	Analyzed  08/02/22 11:19  08/02/22 11:19  08/02/22 11:19  Analyzed  08/02/22 11:19	
Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) OII Range Organics (Over C28-C36)  Surrogate 1-Chlorooctane o-Terphenyl	Result	Qualifier  U  U  Qualifier	49.9 49.9 49.9 <b>Limits</b> 70 - 130	<b>Unit</b> mg/Kg mg/Kg	D_	08/02/22 08:40 08/02/22 08:40 08/02/22 08:40  Prepared 08/02/22 08:40	Analyzed  08/02/22 11:19  08/02/22 11:19  08/02/22 11:19  Analyzed  08/02/22 11:19	Dil Face

**Client Sample ID: SS02** Lab Sample ID: 890-2686-2 Matrix: Solid

Date Collected: 07/27/22 13:05 Date Received: 07/28/22 13:48

Sample Depth: 0.5

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U *- *1 F1	0.00200	mg/Kg		08/05/22 10:43	08/07/22 15:45	1
Toluene	<0.00200	U *- *1 F1	0.00200	mg/Kg		08/05/22 10:43	08/07/22 15:45	1
Ethylbenzene	<0.00200	U *- *1 F1	0.00200	mg/Kg		08/05/22 10:43	08/07/22 15:45	1
m-Xylene & p-Xylene	<0.00399	U *- *1 F1	0.00399	mg/Kg		08/05/22 10:43	08/07/22 15:45	1
o-Xylene	<0.00200	U *- *1 F1	0.00200	mg/Kg		08/05/22 10:43	08/07/22 15:45	1
Xylenes, Total	<0.00399	U *- *1 F1	0.00399	mg/Kg		08/05/22 10:43	08/07/22 15:45	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	124		70 - 130			08/05/22 10:43	08/07/22 15:45	

**Client Sample ID: SS02** Lab Sample ID: 890-2686-2 Matrix: Solid

Date Collected: 07/27/22 13:05 Date Received: 07/28/22 13:48

Sample Depth: 0.5

ganic Compounds	(GC) (Continued)
	ganic Compounds

Surrogate	%Recovery Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,4-Difluorobenzene (Surr)	82	70 - 130	08/05/22 10:43	08/07/22 15:45	1

ı				
ı	Method:	Total RTFX	: - Total BTEX	Calculation
ı	mictilou.	TOTAL DIE	- IOLAI DIEA	Oulculation

Analyte	Result Qualifi		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00399 U	0.00399	ma/Ka			08/08/22 14:27	1

Method: 8015 NM - Diese	I Range Organics (DRO) (GC)
motifical contribution bicot	in italigo organios (bito) (oo)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9	mg/Kg			08/03/22 11:13	1

Method: 8015B NM - Diese	I Range Organics	(DRO)	(GC)
moundar of ros run Sido	tungo organioo	()	1/

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics	<49.9	U	49.9	mg/Kg		08/02/22 08:40	08/02/22 12:23	1
(GRO)-C6-C10								
Diesel Range Organics (Over	<49.9	U	49.9	mg/Kg		08/02/22 08:40	08/02/22 12:23	1
C10-C28)								
Oll Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg		08/02/22 08:40	08/02/22 12:23	1
	24-							
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac

Surrogate	%Recovery	Qualifier	Limits		Prepared	Analyzed	Dil Fac
1-Chlorooctane	75		70 - 130	08/	/02/22 08:40	08/02/22 12:23	1
o-Terphenyl	82		70 - 130	08/	/02/22 08:40	08/02/22 12:23	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

	Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
l	Chloride	9950		100	mg/Kg			08/04/22 15:27	20

**Client Sample ID: SS03** Lab Sample ID: 890-2686-3 Matrix: Solid

Date Collected: 07/27/22 13:10 Date Received: 07/28/22 13:48

Sample Depth: 0.5

Method: 8021B -	Volatile Organi	ic Compounds	៖ (GC)
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mounda. our ib volutile orga	ino compoundo (	(33)						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U *- *1	0.00199	mg/Kg		08/05/22 10:43	08/07/22 16:12	1
Toluene	< 0.00199	U *- *1	0.00199	mg/Kg		08/05/22 10:43	08/07/22 16:12	1
Ethylbenzene	< 0.00199	U *- *1	0.00199	mg/Kg		08/05/22 10:43	08/07/22 16:12	1
m-Xylene & p-Xylene	<0.00398	U *- *1	0.00398	mg/Kg		08/05/22 10:43	08/07/22 16:12	1
o-Xylene	< 0.00199	U *- *1	0.00199	mg/Kg		08/05/22 10:43	08/07/22 16:12	1
Xylenes, Total	<0.00398	U *- *1	0.00398	mg/Kg		08/05/22 10:43	08/07/22 16:12	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	122		70 - 130			08/05/22 10:43	08/07/22 16:12	1
1,4-Difluorobenzene (Surr)	81		70 - 130			08/05/22 10:43	08/07/22 16:12	1

ı						
ı	Mothod	Total	DTEV	Total	DTEV	Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398	mg/Kg			08/08/22 14:27	1

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0	mg/Kg			08/03/22 11:13	1

**Client Sample ID: SS03** Lab Sample ID: 890-2686-3

Date Collected: 07/27/22 13:10 Matrix: Solid Date Received: 07/28/22 13:48

Sample Depth: 0.5

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics	<50.0	U	50.0	mg/Kg		08/02/22 08:40	08/02/22 12:44	1
(GRO)-C6-C10								
Diesel Range Organics (Over	<50.0	U	50.0	mg/Kg		08/02/22 08:40	08/02/22 12:44	1
C10-C28)								
Oll Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		08/02/22 08:40	08/02/22 12:44	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	72		70 - 130			08/02/22 08:40	08/02/22 12:44	1
o-Terphenyl	80		70 - 130			08/02/22 08:40	08/02/22 12:44	1
Method: 300.0 - Anions, Ion Chro	omatography -	Soluble						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac

Lab Sample ID: 890-2686-4 **Client Sample ID: SS04** Date Collected: 07/27/22 13:15 Matrix: Solid

Date Received: 07/28/22 13:48

Sample Depth: 0.5

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U *- *1	0.00199	mg/Kg		08/05/22 10:43	08/07/22 16:38	1
Toluene	< 0.00199	U *- *1	0.00199	mg/Kg		08/05/22 10:43	08/07/22 16:38	1
Ethylbenzene	< 0.00199	U *- *1	0.00199	mg/Kg		08/05/22 10:43	08/07/22 16:38	1
m-Xylene & p-Xylene	<0.00398	U *- *1	0.00398	mg/Kg		08/05/22 10:43	08/07/22 16:38	1
o-Xylene	< 0.00199	U *- *1	0.00199	mg/Kg		08/05/22 10:43	08/07/22 16:38	1
Xylenes, Total	<0.00398	U *- *1	0.00398	mg/Kg		08/05/22 10:43	08/07/22 16:38	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	116		70 - 130			08/05/22 10:43	08/07/22 16:38	1
1,4-Difluorobenzene (Surr)	90		70 - 130			08/05/22 10:43	08/07/22 16:38	1
Method: Total BTEX - Total BTEX	Calculation							
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398	mg/Kg			08/08/22 14:27	1
Method: 8015 NM - Diesel Range	Organics (DR	O) (GC)						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Analyte Total TPH	<b>Result</b> <49.8	Qualifier	<b>RL</b> 49.8	Unit mg/Kg	<u>D</u>	Prepared	Analyzed 08/03/22 11:13	Dil Fac
Total TPH	<49.8	Qualifier U			<u>D</u>	Prepared		
Total TPH  Method: 8015B NM - Diesel Rang	<49.8 e Organics (D	Qualifier U			<u>D</u>	Prepared Prepared		
<del>·</del>	<49.8 e Organics (D	Qualifier U RO) (GC) Qualifier	49.8	mg/Kg			08/03/22 11:13	1 Dil Fac
Total TPH  Method: 8015B NM - Diesel Rang Analyte  Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over	<49.8 ge Organics (D Result	Qualifier U  RO) (GC) Qualifier U	49.8	mg/Kg		Prepared	08/03/22 11:13  Analyzed	1 Dil Fac
Total TPH  Method: 8015B NM - Diesel Rang Analyte  Gasoline Range Organics	<49.8  e Organics (D  Result  <49.8	Qualifier U  RO) (GC) Qualifier U	49.8  RL 49.8	mg/Kg  Unit  mg/Kg		Prepared 08/02/22 08:40	08/03/22 11:13  Analyzed  08/02/22 13:05	Dil Fac
Total TPH  Method: 8015B NM - Diesel Rang Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) Oll Range Organics (Over C28-C36)	<49.8 ge Organics (D) Result <49.8 <49.8	Qualifier U  RO) (GC) Qualifier U	49.8  RL 49.8  49.8	mg/Kg  Unit  mg/Kg  mg/Kg		Prepared 08/02/22 08:40 08/02/22 08:40	08/03/22 11:13  Analyzed  08/02/22 13:05  08/02/22 13:05	Dil Fac
Total TPH  Method: 8015B NM - Diesel Rang Analyte  Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28)	<49.8 ge Organics (D) Result <49.8 <49.8 <49.8	Qualifier U  RO) (GC) Qualifier U	49.8 RL 49.8 49.8 49.8	mg/Kg  Unit  mg/Kg  mg/Kg		Prepared 08/02/22 08:40 08/02/22 08:40 08/02/22 08:40	08/03/22 11:13  Analyzed  08/02/22 13:05  08/02/22 13:05	1 Dil Fac

Job ID: 890-2686-1 SDG: 03D2057012

**Client Sample ID: SS04** 

Lab Sample ID: 890-2686-4 Date Collected: 07/27/22 13:15 Matrix: Solid Date Received: 07/28/22 13:48

Sample Depth: 0.5

Client: Ensolum

Project/Site: EVGSAU

Method: 300.0 - Anions, Ion Chromatography - Soluble									
	Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
	Chloride	90.5		4.98	mg/Kg			08/04/22 15:43	1

**Client Sample ID: SS05** Lab Sample ID: 890-2686-5 **Matrix: Solid** 

Date Collected: 07/27/22 13:20 Date Received: 07/28/22 13:48

Sample Donth: 0.5

Method: 8021B - Volatile Organic	Compounds (	GC)						
Analyte		Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fa
Benzene	<0.00200	U *- *1	0.00200	mg/Kg		08/05/22 10:43	08/07/22 17:05	
Toluene	<0.00200	U *- *1	0.00200	mg/Kg		08/05/22 10:43	08/07/22 17:05	
Ethylbenzene	<0.00200	U *- *1	0.00200	mg/Kg		08/05/22 10:43	08/07/22 17:05	
m-Xylene & p-Xylene	< 0.00399	U *- *1	0.00399	mg/Kg		08/05/22 10:43	08/07/22 17:05	
o-Xylene	<0.00200	U *- *1	0.00200	mg/Kg		08/05/22 10:43	08/07/22 17:05	
Xylenes, Total	<0.00399	U *- *1	0.00399	mg/Kg		08/05/22 10:43	08/07/22 17:05	
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fa
4-Bromofluorobenzene (Surr)	121		70 - 130			08/05/22 10:43	08/07/22 17:05	
1,4-Difluorobenzene (Surr)	90		70 - 130			08/05/22 10:43	08/07/22 17:05	
Method: Total BTEX - Total BTEX	Calculation							
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fa
Total BTEX	<0.00399	U	0.00399	mg/Kg			08/08/22 14:27	
Method: 8015 NM - Diesel Range	Organics (DR	O) (GC)						
Analyte		Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fa
Total TPH	<50.0	U	50.0	mg/Kg			08/03/22 11:13	
Method: 8015B NM - Diesel Rang	e Organics (D	RO) (GC)						
Analyte	•	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fa
Gasoline Range Organics	<50.0	U	50.0	mg/Kg		08/02/22 08:40	08/02/22 13:26	
(GRO)-C6-C10	<50.0		50.0	m = /// =		08/02/22 08:40	08/02/22 13:26	
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		06/02/22 06.40	06/02/22 13:26	
Oll Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		08/02/22 08:40	08/02/22 13:26	
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fa
1-Chlorooctane	75		70 - 130			08/02/22 08:40	08/02/22 13:26	
o-Terphenyl	82		70 - 130			08/02/22 08:40	08/02/22 13:26	
Method: 300.0 - Anions, Ion Chro	matography -	Soluble						
Analyte	0	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fa

### **Client Sample Results**

Client: Ensolum Job ID: 890-2686-1 Project/Site: EVGSAU SDG: 03D2057012

**Client Sample ID: SS06** 

Lab Sample ID: 890-2686-6 Date Collected: 07/27/22 13:25 Matrix: Solid

Date Received: 07/28/22 13:48 Sample Depth: 0.5

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00201	U *- *1	0.00201	mg/Kg		08/05/22 10:43	08/07/22 17:31	1
Toluene	<0.00201	U *- *1	0.00201	mg/Kg		08/05/22 10:43	08/07/22 17:31	1
Ethylbenzene	<0.00201	U *- *1	0.00201	mg/Kg		08/05/22 10:43	08/07/22 17:31	1
m-Xylene & p-Xylene	<0.00402	U *- *1	0.00402	mg/Kg		08/05/22 10:43	08/07/22 17:31	1
o-Xylene	< 0.00201	U *- *1	0.00201	mg/Kg		08/05/22 10:43	08/07/22 17:31	1
Xylenes, Total	<0.00402	U *- *1	0.00402	mg/Kg		08/05/22 10:43	08/07/22 17:31	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)			70 - 130			08/05/22 10:43	08/07/22 17:31	1
1,4-Difluorobenzene (Surr)	88		70 - 130			08/05/22 10:43	08/07/22 17:31	1
Method: Total BTEX - Total BTE	X Calculation							
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00402	U	0.00402	mg/Kg			08/08/22 14:27	1
_	organios (En	o, (00)						
_			RL	Unit	D	Prepared	Analyzed	Dil Fac
Analyte		Qualifier	RL 49.8	Unit mg/Kg	<u>D</u>	Prepared	Analyzed 08/03/22 11:13	
Method: 8015 NM - Diesel Range Analyte Total TPH		Qualifier U			<u>D</u>	Prepared		
Analyte Total TPH  Method: 8015B NM - Diesel Rang	Result <49.8  ge Organics (Di	Qualifier U RO) (GC)	49.8	mg/Kg	<u> </u>		08/03/22 11:13	1
Analyte Total TPH  Method: 8015B NM - Diesel Rang Analyte	Result <49.8  ge Organics (Dige Result	Qualifier U RO) (GC) Qualifier	49.8	mg/Kg	<u>D</u>	Prepared	08/03/22 11:13  Analyzed	Dil Fac
Analyte Total TPH  Method: 8015B NM - Diesel Rang Analyte Gasoline Range Organics	Result <49.8  ge Organics (Di	Qualifier U RO) (GC) Qualifier	49.8	mg/Kg	<u> </u>		08/03/22 11:13	Dil Fac
Analyte Total TPH  Method: 8015B NM - Diesel Rang Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over	Result <49.8  ge Organics (Dige Result	Qualifier U  RO) (GC) Qualifier U	49.8	mg/Kg	<u> </u>	Prepared	08/03/22 11:13  Analyzed	Dil Fac
Analyte Total TPH  Method: 8015B NM - Diesel Rang Analyte Gasoline Range Organics (GRO)-C6-C10	ge Organics (D) Result <49.8	Qualifier U  RO) (GC) Qualifier U	49.8  RL 49.8	mg/Kg  Unit  mg/Kg	<u> </u>	Prepared 08/02/22 08:40	08/03/22 11:13  Analyzed  08/02/22 13:47	Dil Fac
Analyte Total TPH  Method: 8015B NM - Diesel Rang Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28)	Result   <49.8	Qualifier U  RO) (GC) Qualifier U  U	49.8  RL 49.8  49.8	mg/Kg  Unit  mg/Kg	<u> </u>	Prepared 08/02/22 08:40 08/02/22 08:40	08/03/22 11:13  Analyzed  08/02/22 13:47  08/02/22 13:47	Dil Fac
Analyte Total TPH  Method: 8015B NM - Diesel Range Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) Oll Range Organics (Over C28-C36)	Result   <49.8	Qualifier U  RO) (GC) Qualifier U  U	49.8  RL 49.8  49.8  49.8	mg/Kg  Unit  mg/Kg	<u> </u>	Prepared 08/02/22 08:40 08/02/22 08:40 08/02/22 08:40	08/03/22 11:13  Analyzed 08/02/22 13:47 08/02/22 13:47	Dil Face 1 1 1 Dil Face
Analyte Total TPH  Method: 8015B NM - Diesel Range Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) Oll Range Organics (Over C28-C36)  Surrogate	Result   <49.8	Qualifier U  RO) (GC) Qualifier U  U	49.8  RL 49.8  49.8  49.8  Limits	mg/Kg  Unit  mg/Kg	<u> </u>	Prepared 08/02/22 08:40 08/02/22 08:40 08/02/22 08:40 Prepared	08/03/22 11:13  Analyzed  08/02/22 13:47  08/02/22 13:47  08/02/22 13:47  Analyzed	Dil Fac
Analyte Total TPH  Method: 8015B NM - Diesel Range Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) Oll Range Organics (Over C28-C36)  Surrogate 1-Chlorooctane	Result   <49.8	Qualifier U  RO) (GC) Qualifier U  U  Qualifier	49.8  RL 49.8  49.8  49.8  Limits 70 - 130	mg/Kg  Unit  mg/Kg	<u> </u>	Prepared 08/02/22 08:40 08/02/22 08:40 08/02/22 08:40  Prepared 08/02/22 08:40	08/03/22 11:13  Analyzed 08/02/22 13:47  08/02/22 13:47  Analyzed  08/02/22 13:47	Dil Fac
Analyte Total TPH  Method: 8015B NM - Diesel Range Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) OII Range Organics (Over C28-C36)  Surrogate 1-Chlorooctane o-Terphenyl	Result   <49.8	Qualifier U  RO) (GC) Qualifier U  U  Qualifier	49.8  RL 49.8  49.8  49.8  Limits 70 - 130	mg/Kg  Unit  mg/Kg	<u> </u>	Prepared 08/02/22 08:40 08/02/22 08:40 08/02/22 08:40  Prepared 08/02/22 08:40	08/03/22 11:13  Analyzed 08/02/22 13:47  08/02/22 13:47  Analyzed  08/02/22 13:47	Dil Fac

**Client Sample ID: SS07** Lab Sample ID: 890-2686-7 Matrix: Solid

Date Collected: 07/27/22 13:30 Date Received: 07/28/22 13:48

Sample Depth: 0.5

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U *- *1	0.00200	mg/Kg		08/05/22 10:43	08/07/22 17:58	1
Toluene	<0.00200	U *- *1	0.00200	mg/Kg		08/05/22 10:43	08/07/22 17:58	1
Ethylbenzene	<0.00200	U *- *1	0.00200	mg/Kg		08/05/22 10:43	08/07/22 17:58	1
m-Xylene & p-Xylene	<0.00401	U *- *1	0.00401	mg/Kg		08/05/22 10:43	08/07/22 17:58	1
o-Xylene	<0.00200	U *- *1	0.00200	mg/Kg		08/05/22 10:43	08/07/22 17:58	1
Xylenes, Total	<0.00401	U *- *1	0.00401	mg/Kg		08/05/22 10:43	08/07/22 17:58	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	120		70 - 130			08/05/22 10:43	08/07/22 17:58	

### **Client Sample Results**

Client: Ensolum Job ID: 890-2686-1
Project/Site: EVGSAU SDG: 03D2057012

Client Sample ID: SS07 Lab Sample ID: 890-2686-7

Date Collected: 07/27/22 13:30 Matrix: Solid
Date Received: 07/28/22 13:48

Sample Depth: 0.5

Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1,4-Difluorobenzene (Surr)	91		70 - 130			08/05/22 10:43	08/07/22 17:58	1
Method: Total BTEX - Total BTEX	Calculation							
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00401	U	0.00401	mg/Kg			08/08/22 14:27	1
Method: 8015 NM - Diesel Range	Organics (DR	O) (GC)						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9	mg/Kg			08/03/22 11:13	1
Analyte Gasoline Range Organics	<49.9	Qualifier U	<b>RL</b> 49.9	Unit mg/Kg	D	Prepared 08/02/22 08:40	Analyzed 08/02/22 14:09	Dil Fac
Gasoline Range Organics GRO)-C6-C10	<49.9	U	49.9	mg/Kg		08/02/22 08:40	08/02/22 14:09	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9	mg/Kg		08/02/22 08:40	08/02/22 14:09	1
Oll Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg		08/02/22 08:40	08/02/22 14:09	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	75		70 - 130			08/02/22 08:40	08/02/22 14:09	1
o-Terphenyl	84		70 - 130			08/02/22 08:40	08/02/22 14:09	1
Method: 300.0 - Anions, Ion Chro	matography -	Soluble						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
						•	•	

### **Surrogate Summary**

Client: Ensolum Job ID: 890-2686-1
Project/Site: EVGSAU SDG: 03D2057012

Method: 8021B - Volatile Organic Compounds (GC)

Matrix: Solid Prep Type: Total/NA

		BFB1	DFBZ1	Percent Surrogate Re
Lab Sample ID	Client Sample ID	(70-130)	(70-130)	
890-2645-A-1-G MS	Matrix Spike	107	99	
890-2645-A-1-H MSD	Matrix Spike Duplicate	102	86	
890-2686-1	SS01	114	93	
890-2686-2	SS02	124	82	
890-2686-2 MS	SS02	122	87	
890-2686-2 MSD	SS02	85	83	
890-2686-3	SS03	122	81	
890-2686-4	SS04	116	90	
890-2686-5	SS05	121	90	
890-2686-6	SS06	117	88	
890-2686-7	SS07	120	91	
890-2689-A-2-G MS	Matrix Spike	124	98	
890-2689-A-2-H MSD	Matrix Spike Duplicate	112	93	
LCS 880-31335/1-A	Lab Control Sample	116	100	
LCS 880-31569/1-A	Lab Control Sample	123	89	
LCS 880-31573/1-A	Lab Control Sample	106	90	
LCSD 880-31335/2-A	Lab Control Sample Dup	106	98	
LCSD 880-31569/2-A	Lab Control Sample Dup	118	95	
LCSD 880-31573/2-A	Lab Control Sample Dup	112	94	
MB 880-31335/5-A	Method Blank	99	89	
MB 880-31569/5-A	Method Blank	90	78	
MB 880-31573/5-A	Method Blank	101	91	

BFB = 4-Bromofluorobenzene (Surr)

DFBZ = 1,4-Difluorobenzene (Surr)

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

Matrix: Solid Prep Type: Total/NA

Lab Sample ID		1CO1	OTPH1	
ah Samnie ID			011111	
Lab Gampic ib	Client Sample ID	(70-130)	(70-130)	
390-2686-1	SS01	74	81	
390-2686-1 MS	SS01	97	97	
390-2686-1 MSD	SS01	84	82	
390-2686-2	SS02	75	82	
390-2686-3	SS03	72	80	
390-2686-4	SS04	69 S1-	75	
390-2686-5	SS05	75	82	
390-2686-6	SS06	75	83	
390-2686-7	SS07	75	84	
_CS 880-31286/2-A	Lab Control Sample	104	102	
LCSD 880-31286/3-A	Lab Control Sample Dup	104	108	
MB 880-31286/1-A	Method Blank	90	103	

**Eurofins Carlsbad** 

OTPH = o-Terphenyl

Client: Ensolum Job ID: 890-2686-1 SDG: 03D2057012 Project/Site: EVGSAU

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-31335/5-A

**Matrix: Solid** Analysis Batch: 31540 Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 31335

	МВ	MB						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		08/02/22 14:31	08/05/22 11:25	1
Toluene	<0.00200	U	0.00200	mg/Kg		08/02/22 14:31	08/05/22 11:25	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		08/02/22 14:31	08/05/22 11:25	1
m-Xylene & p-Xylene	<0.00400	U	0.00400	mg/Kg		08/02/22 14:31	08/05/22 11:25	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		08/02/22 14:31	08/05/22 11:25	1
Xylenes, Total	<0.00400	U	0.00400	mg/Kg		08/02/22 14:31	08/05/22 11:25	1

MB MB

Surrogate	%Recovery	Qualifier	Limits	Prepa	red	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	99		70 - 130	08/02/22	14:31	08/05/22 11:25	1
1,4-Difluorobenzene (Surr)	89		70 - 130	08/02/22	14:31	08/05/22 11:25	1

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 31335

Prep Type: Total/NA

Prep Batch: 31335

Lab Sample ID: LCS 880-31335/1-A Matrix: Solid

Analysis Batch: 31540

	Spike	LCS	LCS				%Rec	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Benzene	0.100	0.1114	-	mg/Kg		111	70 - 130	
Toluene	0.100	0.1046		mg/Kg		105	70 - 130	
Ethylbenzene	0.100	0.1239		mg/Kg		124	70 - 130	
m-Xylene & p-Xylene	0.200	0.2398		mg/Kg		120	70 - 130	
o-Xylene	0.100	0.1296		mg/Kg		130	70 - 130	

LCS LCS

Surrogate	%Recovery Qualifier	Limits
4-Bromofluorobenzene (Surr)	116	70 - 130
1,4-Difluorobenzene (Surr)	100	70 - 130

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

**Matrix: Solid** 

**Analysis Batch: 31540** 

Lab Sample ID: LCSD 880-31335/2-A

•	Spike	LCSD	LCSD				%Rec		RPD	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit	
Benzene	0.100	0.08982		mg/Kg		90	70 - 130	21	35	
Toluene	0.100	0.08489		mg/Kg		85	70 - 130	21	35	
Ethylbenzene	0.100	0.08074	*1	mg/Kg		81	70 - 130	42	35	
m-Xylene & p-Xylene	0.200	0.1641	*1	mg/Kg		82	70 - 130	38	35	
o-Xvlene	0.100	0.09044	*1	ma/Ka		90	70 - 130	36	35	

LCSD LCSD

Surrogate	%Recovery	Qualifier	Limits
4-Bromofluorobenzene (Surr)	106		70 - 130
1,4-Difluorobenzene (Surr)	98		70 - 130

Lab Sample ID: 890-2645-A-1-G MS

**Matrix: Solid** 

Analysis Batch: 31540

Client Sample ID: I	Matrix Spike
Prep Ty	pe: Total/NA

Prep Batch: 31335

	Sample	Sample	Spike	MS	MS				%Rec	
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Benzene	<0.00202	U F1	0.101	0.1014		mg/Kg		101	70 - 130	
Toluene	<0.00202	U F1	0.101	0.09230		mg/Kg		91	70 - 130	

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

Lab Sample ID: 890-2645-A-1-G MS

**Matrix: Solid** 

Analysis Batch: 31540

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 31335

	Sample	Sample	Spike	MS	MS				%Rec	
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Ethylbenzene	<0.00202	U *1 F1	0.101	0.08894		mg/Kg		88	70 - 130	
m-Xylene & p-Xylene	<0.00403	U *1 F1	0.201	0.1784		mg/Kg		87	70 - 130	
o-Xylene	0.00264	*1 F1	0.101	0.09574		mg/Kg		93	70 - 130	

MS MS

Surrogate	%Recovery C	ualifier	Limits
4-Bromofluorobenzene (Surr)	107		70 - 130
1,4-Difluorobenzene (Surr)	99		70 - 130

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 31335

RPD

**Matrix: Solid** Analysis Batch: 31540

Lab Sample ID: 890-2645-A-1-H MSD

Sample Sample Spike MSD MSD Result Qualifier Added Result Qualifier %Rec Limits RPD Limit Analyte Unit 0.0998 Benzene <0.00202 UF1 <0.00200 UF1 mg/Kg 0 70 - 130 NC 35 Toluene 0.0998 70 - 130 <0.00202 UF1 <0.00200 UF1 mg/Kg 0 NC 35 Ethylbenzene <0.00202 U \*1 F1 0.0998 <0.00200 UF1 mg/Kg 0 70 - 130 NC 35 m-Xylene & p-Xylene <0.00403 U\*1F1 0.200 <0.00399 UF1 0 70 - 130 NC 35 mg/Kg 0.0998 NC o-Xylene 0.00264 \*1 F1 <0.00200 U F1 70 - 130 mg/Kg

MSD MSD

Surrogate	%Recovery	Qualifier	Limits
4-Bromofluorobenzene (Surr)	102		70 - 130
1,4-Difluorobenzene (Surr)	86		70 - 130

Lab Sample ID: MB 880-31569/5-A

**Matrix: Solid** 

Analysis Batch: 31653

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 31569

MB MB

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		08/05/22 10:43	08/07/22 15:18	1
Toluene	<0.00200	U	0.00200	mg/Kg		08/05/22 10:43	08/07/22 15:18	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		08/05/22 10:43	08/07/22 15:18	1
m-Xylene & p-Xylene	<0.00400	U	0.00400	mg/Kg		08/05/22 10:43	08/07/22 15:18	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		08/05/22 10:43	08/07/22 15:18	1
Xylenes, Total	<0.00400	U	0.00400	mg/Kg		08/05/22 10:43	08/07/22 15:18	1

MB MB

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	90		70 - 130	08/05/22 10:43	08/07/22 15:18	1
1,4-Difluorobenzene (Surr)	78		70 - 130	08/05/22 10:43	08/07/22 15:18	1

Lab Sample ID: LCS 880-31569/1-A

**Matrix: Solid** 

Analysis Batch: 31653

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 31569

	Spike	LCS	LCS				%Rec	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Benzene	0.100	0.08998		mg/Kg		90	70 - 130	
Toluene	0.100	0.09347		mg/Kg		93	70 - 130	
Ethylbenzene	0.100	0.09527		mg/Kg		95	70 - 130	
m-Xylene & p-Xylene	0.200	0.1947		mg/Kg		97	70 - 130	

Prep Batch: 31569

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Client: Ensolum Job ID: 890-2686-1
Project/Site: EVGSAU SDG: 03D2057012

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

Lab Sample ID: LCS 880-31569/1-A

Matrix: Solid

Analysis Batch: 31653

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 31569
Spike
LCS LCS

\*\*Rec.

	Opike	L03	LUU				/01 <b>\C</b> C	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	
o-Xylene	 0.100	0.1030		mg/Kg		103	70 - 130	

	LCS	LCS	
Surrogate	%Recovery	Qualifier	Limits
4-Bromofluorobenzene (Surr)	123		70 - 130
1,4-Difluorobenzene (Surr)	89		70 - 130

Lab Sample ID: LCSD 880-31569/2-A

Client Sample ID: Lab Control Sample Dup

Matrix: Solid

Prep Type: Total/NA

Analysis Batch: 31653

o-Xylene

Spike LCSD LCSD Added Result Qualifier Analyte Unit %Rec Limits **RPD** Limit 0.01251 \*- \*1 Benzene 0.100 mg/Kg 13 70 - 130 151 35 Toluene 0.100 0.01494 \*- \*1 mg/Kg 15 70 - 130 145 35 0.100 0.01482 \*- \*1 70 - 130 Ethylbenzene mg/Kg 15 146 35 0.200 0.02999 \*- \*1 15 70 - 130 35 m-Xylene & p-Xylene mg/Kg 147

0.100

0.01531 \*- \*1

mg/Kg

15

70 - 130

	LCSD	LCSD	
Surrogate	%Recovery	Qualifier	Limits
4-Bromofluorobenzene (Surr)	118		70 - 130
1,4-Difluorobenzene (Surr)	95		70 - 130

Lab Sample ID: 890-2686-2 MS

Matrix: Solid

Client Sample ID: SS02

Prep Type: Total/NA

Analysis Batch: 31653 Prep Batch: 31569

	Sample	Sample	<b>Бріке</b>	IVIS	IVIS				%Rec	
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Benzene	<0.00200	U *- *1 F1	0.101	0.08135		mg/Kg		81	70 - 130	
Toluene	<0.00200	U *- *1 F1	0.101	0.07032		mg/Kg		70	70 - 130	
Ethylbenzene	<0.00200	U *- *1 F1	0.101	0.06003	F1	mg/Kg		60	70 - 130	
m-Xylene & p-Xylene	<0.00399	U *- *1 F1	0.201	0.1175	F1	mg/Kg		58	70 - 130	
o-Xylene	<0.00200	U *- *1 F1	0.101	0.06370	F1	mg/Kg		63	70 - 130	

	MS	MS	
Surrogate	%Recovery	Qualifier	Limits
4-Bromofluorobenzene (Surr)	122		70 - 130
1.4-Difluorobenzene (Surr)	87		70 - 130

Lab Sample ID: 890-2686-2 MSD

Client Sample ID: SS02

Matrix: Solid Prep Type: Total/NA
Analysis Batch: 31653 Prep Batch: 31569

	Sample	Sample	Spike	MSD	MSD				%Rec		RPD
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Benzene	<0.00200	U *- *1 F1	0.0990	<0.00198	U F1	mg/Kg		0	70 - 130	NC	35
Toluene	<0.00200	U *- *1 F1	0.0990	<0.00198	U F1	mg/Kg		0	70 - 130	NC	35
Ethylbenzene	<0.00200	U *- *1 F1	0.0990	<0.00198	U F1	mg/Kg		0	70 - 130	NC	35
m-Xylene & p-Xylene	<0.00399	U *- *1 F1	0.198	<0.00396	U F1	mg/Kg		0	70 - 130	NC	35
o-Xylene	<0.00200	U *- *1 F1	0.0990	<0.00198	U F1	mg/Kg		0	70 - 130	NC	35

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

Lab Sample ID: 890-2686-2 MSD

**Matrix: Solid** 

**Analysis Batch: 31653** 

Client Sample ID: SS02 Prep Type: Total/NA

Prep Batch: 31569

MSD MSD

Surrogate	%Recovery	Qualifier	Limits
4-Bromofluorobenzene (Surr)	85		70 - 130
1,4-Difluorobenzene (Surr)	83		70 - 130

Lab Sample ID: MB 880-31573/5-A Client Sample ID: Method Blank

**Matrix: Solid** 

Analysis Batch: 31540

Prep Type: Total/NA

Prep Batch: 31573

MB MB

Analyte Result Qualifier RL Unit D Prepared Analyzed Dil Fac Benzene <0.00200 U 0.00200 08/05/22 11:19 08/06/22 00:00 mg/Kg Toluene <0.00200 U 0.00200 mg/Kg 08/05/22 11:19 08/06/22 00:00 Ethylbenzene <0.00200 U 0.00200 mg/Kg 08/05/22 11:19 08/06/22 00:00 m-Xylene & p-Xylene <0.00400 U 0.00400 mg/Kg 08/05/22 11:19 08/06/22 00:00 o-Xylene <0.00200 U 0.00200 mg/Kg 08/05/22 11:19 08/06/22 00:00 <0.00400 U 0.00400 Xylenes, Total mg/Kg 08/05/22 11:19 08/06/22 00:00

MB MB

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	101		70 - 130	08/05/22 11:19	08/06/22 00:00	1
1,4-Difluorobenzene (Surr)	91		70 - 130	08/05/22 11:19	08/06/22 00:00	1

Lab Sample ID: LCS 880-31573/1-A

**Matrix: Solid** 

Analysis Batch: 31540

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

Prep Batch: 31573

	Spike	LCS	LCS				%Rec	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Benzene	0.100	0.09897	-	mg/Kg		99	70 - 130	
Toluene	0.100	0.1022		mg/Kg		102	70 - 130	
Ethylbenzene	0.100	0.1050		mg/Kg		105	70 - 130	
m-Xylene & p-Xylene	0.200	0.2137		mg/Kg		107	70 - 130	
o-Xylene	0.100	0.1208		mg/Kg		121	70 - 130	

LCS LCS

Surrogate	%Recovery	Qualifier	Limits
4-Bromofluorobenzene (Surr)	106		70 - 130
1,4-Difluorobenzene (Surr)	90		70 - 130

Lab Sample ID: LCSD 880-31573/2-A

Released to Imaging: 11/29/2022 10:44:38 AM

**Matrix: Solid** 

Analysis Batch: 31540

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 31573

	Spike	LCSD	LCSD				%Rec		RPD
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Benzene	0.100	0.09262		mg/Kg		93	70 - 130	7	35
Toluene	0.100	0.09534		mg/Kg		95	70 - 130	7	35
Ethylbenzene	0.100	0.1047		mg/Kg		105	70 - 130	0	35
m-Xylene & p-Xylene	0.200	0.2146		mg/Kg		107	70 - 130	0	35
o-Xylene	0.100	0.1189		mg/Kg		119	70 - 130	2	35

LCSD LCSD

Surrogate	%Recovery Qualifier	Limits
4-Bromofluorobenzene (Surr)	112	70 - 130

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

Lab Sample ID: LCSD 880-31573/2-A

**Matrix: Solid** 

Analysis Batch: 31540

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 31573

LCSD LCSD

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

Lab Sample ID: 890-2689-A-2-G MS Client Sample ID: Matrix Spike

**Matrix: Solid** 

Analysis Batch: 31540

Prep Type: Total/NA

Prep Batch: 31573

	Sample	Sample	Spike	MS	MS				%Rec	
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Benzene	<0.00200	U	0.101	0.09178		mg/Kg		91	70 - 130	
Toluene	<0.00200	U	0.101	0.1004		mg/Kg		100	70 - 130	
Ethylbenzene	<0.00200	U	0.101	0.1071		mg/Kg		107	70 - 130	
m-Xylene & p-Xylene	<0.00399	U	0.201	0.2218		mg/Kg		110	70 - 130	
o-Xylene	<0.00200	U	0.101	0.1258		mg/Kg		125	70 - 130	

MS MS

Surrogate	%Recovery Qualifier	Limits
4-Bromofluorobenzene (Surr)	124	70 - 130
1,4-Difluorobenzene (Surr)	98	70 - 130

Lab Sample ID: 890-2689-A-2-H MSD Client Sample ID: Matrix Spike Duplicate

**Matrix: Solid** 

Analysis Batch: 31540

Prep Type: Total/NA

Prep Batch: 31573

	Sample	Sample	Spike	MSD	MSD				%Rec		RPD
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Benzene	<0.00200	U	0.0998	0.08524		mg/Kg		85	70 - 130	7	35
Toluene	<0.00200	U	0.0998	0.08780		mg/Kg		88	70 - 130	13	35
Ethylbenzene	<0.00200	U	0.0998	0.08996		mg/Kg		90	70 - 130	17	35
m-Xylene & p-Xylene	<0.00399	U	0.200	0.1787		mg/Kg		90	70 - 130	22	35
o-Xylene	<0.00200	U	0.0998	0.1036		mg/Kg		104	70 - 130	19	35

MSD MSD

мв мв

<50.0 U

Surrogate	%Recovery Qualifier	Limits
4-Bromofluorobenzene (Surr)	112	70 - 130
1,4-Difluorobenzene (Surr)	93	70 - 130

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

Lab Sample ID: MB 880-31286/1-A

**Matrix: Solid** 

**Analysis Batch: 31239** 

OII Range Organics (Over C28-C36)

Client Sample ID: Method Blank

08/02/22 10:16

08/02/22 08:40

Prep Type: Total/NA Prep Batch: 31286

Analyte Result Qualifier RL Unit Prepared Analyzed Dil Fac Gasoline Range Organics <50.0 U 50.0 mg/Kg 08/02/22 08:40 08/02/22 10:16 (GRO)-C6-C10 Diesel Range Organics (Over <50.0 U 50.0 mg/Kg 08/02/22 08:40 08/02/22 10:16 C10-C28)

50.0

mg/Kg

мв мв

Surrogate	%Recovery Qualifi	er Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	90	70 - 130	08/02/22 08:40	08/02/22 10:16	1
o-Terphenyl	103	70 - 130	08/02/22 08:40	08/02/22 10:16	1

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#### QC Sample Results

Job ID: 890-2686-1 Client: Ensolum Project/Site: EVGSAU SDG: 03D2057012

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

Lab Sample ID: LCS 880-31286/2-A Client Sample ID: Lab Control Sample **Matrix: Solid** Prep Type: Total/NA

**Analysis Batch: 31239** 

Prep Batch: 31286 Spike LCS LCS Analyte Added Result Qualifier Unit %Rec Limits D Gasoline Range Organics 1000 1060 mg/Kg 106 70 - 130 (GRO)-C6-C10 Diesel Range Organics (Over 1000 1036 104 70 - 130 mg/Kg

C10-C28)

LCS LCS %Recovery Qualifier Limits Surrogate 1-Chlorooctane 70 - 130 104 o-Terphenyl 102 70 - 130

Lab Sample ID: LCSD 880-31286/3-A Client Sample ID: Lab Control Sample Dup

**Matrix: Solid** 

**Analysis Batch: 31239** 

Prep Batch: 31286 Spike LCSD LCSD %Rec RPD Analyte Added Result Qualifier Unit D %Rec Limits **RPD** Limit 1000 0 Gasoline Range Organics 1063 mg/Kg 106 70 - 130

1092

802.5

mg/Kg

mg/Kg

109

80

70 - 130

70 - 130

1000

Diesel Range Organics (Over C10-C28)

(GRO)-C6-C10

LCSD LCSD Qualifier Surrogate %Recovery Limits 1-Chlorooctane 104 70 - 130 108 70 - 130 o-Terphenyl

Lab Sample ID: 890-2686-1 MS **Client Sample ID: SS01 Matrix: Solid** Prep Type: Total/NA

**Analysis Batch: 31239** Prep Batch: 31286 Sample Sample Spike MS MS %Rec Analyte Result Qualifier Added Result Qualifier Unit %Rec Limits <49.9 U 999 94 Gasoline Range Organics 941.9 70 - 130 mg/Kg

999

70 - 130

Diesel Range Organics (Over C10-C28)

o-Terphenyl

(GRO)-C6-C10

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

<49.9 LI

97

Lab Sample ID: 890-2686-1 MSD

**Matrix: Solid** 

**Analysis Batch: 31239** 

MSD MSD Sample Sample Spike %Rec Result Qualifier %Rec Analyte Added Result Qualifier Limits RPD Unit D Gasoline Range Organics <49.9 U 999 829.1 83 70 - 130 13 20 mg/Kg (GRO)-C6-C10 700.8 Diesel Range Organics (Over <49.9 U 999 mg/Kg 70 70 - 13014 20

C10-C28)

MSD MSD %Recovery Surrogate Qualifier Limits 1-Chlorooctane 70 - 130 84

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20

20

Prep Type: Total/NA

5

Prep Batch: 31286

RPD Limit

**Client Sample ID: SS01** 

Job ID: 890-2686-1 SDG: 03D2057012

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

Lab Sample ID: 890-2686-1 MSD **Matrix: Solid** 

Analysis Batch: 31239

Client: Ensolum Project/Site: EVGSAU

> Prep Type: Total/NA Prep Batch: 31286

MSD MSD

Surrogate %Recovery Qualifier Limits o-Terphenyl 82 70 - 130

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-31214/1-A Client Sample ID: Method Blank **Prep Type: Soluble** 

Matrix: Solid

**Analysis Batch: 31338** 

MB MB

Analyte Result Qualifier RL Unit D Dil Fac Prepared Analyzed Chloride <5.00 5.00 08/03/22 09:56 U mg/Kg

Lab Sample ID: LCS 880-31214/2-A Client Sample ID: Lab Control Sample Matrix: Solid **Prep Type: Soluble** 

**Analysis Batch: 31338** 

LCS LCS Spike %Rec Added Result Qualifier Analyte Unit %Rec Limits Chloride 250 272.9 mg/Kg 109 90 - 110

Lab Sample ID: LCSD 880-31214/3-A Client Sample ID: Lab Control Sample Dup **Prep Type: Soluble** 

**Matrix: Solid** 

**Analysis Batch: 31338** 

Spike LCSD LCSD %Rec RPD Analyte Added Result Qualifier Unit D %Rec Limits RPD Limit Chloride 250 90 - 110 273.1 mg/Kg 109 20

Lab Sample ID: 880-17520-A-21-E MS Client Sample ID: Matrix Spike **Prep Type: Soluble** 

**Matrix: Solid** 

**Analysis Batch: 31338** 

Spike MS MS %Rec Sample Sample Analyte Result Qualifier Added Qualifier Unit %Rec Result Limits Chloride 20.9 F1 F2 250 268.5 99 90 - 110 mg/Kg

Lab Sample ID: 880-17520-A-21-F MSD Client Sample ID: Matrix Spike Duplicate

**Matrix: Solid** 

**Analysis Batch: 31338** 

Sample Sample Spike MSD MSD %Rec RPD Result Qualifier Added Qualifier RPD Limit Analyte Result Unit %Rec Limits Chloride 20.9 F1 F2 250 204.1 F1 F2 73 90 - 110 mg/Kg

Lab Sample ID: 880-17588-A-1-D MS

Matrix: Solid

**Analysis Batch: 31338** 

Sample Sample Spike MS MS %Rec Qualifier Added Result Qualifier Analyte Result %Rec Limits Unit 12500 Chloride 14900 F1 36280 F1 171 90 - 110 mg/Kg

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**Prep Type: Soluble** 

**Prep Type: Soluble** 

Client Sample ID: Matrix Spike

#### QC Sample Results

Client: Ensolum Job ID: 890-2686-1 Project/Site: EVGSAU SDG: 03D2057012

Method: 300.0 - Anions, Ion Chromatography (Continued)

MB MB

Lab Sample ID: 880-17588-A-1-E MSD Client Sample ID: Matrix Spike Duplicate **Matrix: Solid Prep Type: Soluble** 

**Analysis Batch: 31338** 

	Sample	Sample	Spike	MSD	MSD				%Rec		RPD
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Chloride	14900	F1	12500	36230	F1	mg/Kg		171	90 - 110	0	20

Lab Sample ID: MB 880-31219/1-A Client Sample ID: Method Blank **Matrix: Solid Prep Type: Soluble** 

**Analysis Batch: 31436** 

Unit Analyte Result Qualifier RL Prepared Analyzed Dil Fac Chloride <5.00 U 5.00 mg/Kg 08/04/22 08:50

Lab Sample ID: LCS 880-31219/2-A **Client Sample ID: Lab Control Sample Prep Type: Soluble** 

**Matrix: Solid** 

Analysis Batch: 31436

LCS LCS %Rec Spike Analyte Added Result Qualifier Unit Limits Chloride 250 266.3 mg/Kg 107 90 - 110

Lab Sample ID: LCSD 880-31219/3-A Client Sample ID: Lab Control Sample Dup **Matrix: Solid Prep Type: Soluble** 

**Analysis Batch: 31436** 

Spike LCSD LCSD RPD %Rec Analyte Added Result Qualifier %Rec RPD Limit Unit Limits 250 236.4 Chloride 90 - 110 mg/Kg

Lab Sample ID: 890-2682-A-6-E MS Client Sample ID: Matrix Spike **Prep Type: Soluble** 

**Matrix: Solid** 

Analysis Batch: 31436

	Sample	Sample	Spike	MS	MS				%Rec	
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Chloride	765	F1	252	1167	F1	ma/Ka		160	90 - 110	

Lab Sample ID: 890-2682-A-6-F MSD Client Sample ID: Matrix Spike Duplicate **Matrix: Solid Prep Type: Soluble** 

**Analysis Batch: 31436** 

	Sample	Sample	Spike	MSD	MSD				%Rec		RPD
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Chloride	765	F1	252	980.9	F1	mg/Kg		86	90 - 110	17	20

Client: EnsolumJob ID: 890-2686-1Project/Site: EVGSAUSDG: 03D2057012

## **GC VOA**

#### Prep Batch: 31335

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2686-1	SS01	Total/NA	Solid	5035	
MB 880-31335/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-31335/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-31335/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
890-2645-A-1-G MS	Matrix Spike	Total/NA	Solid	5035	
890-2645-A-1-H MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	

## Analysis Batch: 31540

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2686-1	SS01	Total/NA	Solid	8021B	31335
MB 880-31335/5-A	Method Blank	Total/NA	Solid	8021B	31335
MB 880-31573/5-A	Method Blank	Total/NA	Solid	8021B	31573
LCS 880-31335/1-A	Lab Control Sample	Total/NA	Solid	8021B	31335
LCS 880-31573/1-A	Lab Control Sample	Total/NA	Solid	8021B	31573
LCSD 880-31335/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	31335
LCSD 880-31573/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	31573
890-2645-A-1-G MS	Matrix Spike	Total/NA	Solid	8021B	31335
890-2645-A-1-H MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	31335
890-2689-A-2-G MS	Matrix Spike	Total/NA	Solid	8021B	31573
890-2689-A-2-H MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	31573

#### Prep Batch: 31569

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2686-2	SS02	Total/NA	Solid	5035	
890-2686-3	SS03	Total/NA	Solid	5035	
890-2686-4	SS04	Total/NA	Solid	5035	
890-2686-5	SS05	Total/NA	Solid	5035	
890-2686-6	SS06	Total/NA	Solid	5035	
890-2686-7	SS07	Total/NA	Solid	5035	
MB 880-31569/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-31569/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-31569/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
890-2686-2 MS	SS02	Total/NA	Solid	5035	
890-2686-2 MSD	SS02	Total/NA	Solid	5035	

#### Prep Batch: 31573

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 880-31573/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-31573/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-31573/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
890-2689-A-2-G MS	Matrix Spike	Total/NA	Solid	5035	
890-2689-A-2-H MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	

#### Analysis Batch: 31653

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2686-2	SS02	Total/NA	Solid	8021B	31569
890-2686-3	SS03	Total/NA	Solid	8021B	31569
890-2686-4	SS04	Total/NA	Solid	8021B	31569
890-2686-5	SS05	Total/NA	Solid	8021B	31569
890-2686-6	SS06	Total/NA	Solid	8021B	31569
890-2686-7	SS07	Total/NA	Solid	8021B	31569

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Client: Ensolum Job ID: 890-2686-1 Project/Site: EVGSAU SDG: 03D2057012

# **GC VOA (Continued)**

## **Analysis Batch: 31653 (Continued)**

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 880-31569/5-A	Method Blank	Total/NA	Solid	8021B	31569
LCS 880-31569/1-A	Lab Control Sample	Total/NA	Solid	8021B	31569
LCSD 880-31569/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	31569
890-2686-2 MS	SS02	Total/NA	Solid	8021B	31569
890-2686-2 MSD	SS02	Total/NA	Solid	8021B	31569

#### **Analysis Batch: 31778**

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2686-1	SS01	Total/NA	Solid	Total BTEX	- <del></del>
890-2686-2	SS02	Total/NA	Solid	Total BTEX	
890-2686-3	SS03	Total/NA	Solid	Total BTEX	
890-2686-4	SS04	Total/NA	Solid	Total BTEX	
890-2686-5	SS05	Total/NA	Solid	Total BTEX	
890-2686-6	SS06	Total/NA	Solid	Total BTEX	
890-2686-7	SS07	Total/NA	Solid	Total BTEX	

## GC Semi VOA

#### Analysis Batch: 31239

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2686-1	SS01	Total/NA	Solid	8015B NM	31286
890-2686-2	SS02	Total/NA	Solid	8015B NM	31286
890-2686-3	SS03	Total/NA	Solid	8015B NM	31286
890-2686-4	SS04	Total/NA	Solid	8015B NM	31286
890-2686-5	SS05	Total/NA	Solid	8015B NM	31286
890-2686-6	SS06	Total/NA	Solid	8015B NM	31286
890-2686-7	SS07	Total/NA	Solid	8015B NM	31286
MB 880-31286/1-A	Method Blank	Total/NA	Solid	8015B NM	31286
LCS 880-31286/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	31286
LCSD 880-31286/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	31286
890-2686-1 MS	SS01	Total/NA	Solid	8015B NM	31286
890-2686-1 MSD	SS01	Total/NA	Solid	8015B NM	31286

#### Prep Batch: 31286

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batcl
890-2686-1	SS01	Total/NA	Solid	8015NM Prep	
890-2686-2	SS02	Total/NA	Solid	8015NM Prep	
890-2686-3	SS03	Total/NA	Solid	8015NM Prep	
890-2686-4	SS04	Total/NA	Solid	8015NM Prep	
890-2686-5	SS05	Total/NA	Solid	8015NM Prep	
890-2686-6	SS06	Total/NA	Solid	8015NM Prep	
890-2686-7	SS07	Total/NA	Solid	8015NM Prep	
MB 880-31286/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-31286/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-31286/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
890-2686-1 MS	SS01	Total/NA	Solid	8015NM Prep	
890-2686-1 MSD	SS01	Total/NA	Solid	8015NM Prep	

#### Analysis Batch: 31399

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2686-1	SS01	Total/NA	Solid	8015 NM	

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Client: EnsolumJob ID: 890-2686-1Project/Site: EVGSAUSDG: 03D2057012

## GC Semi VOA (Continued)

## **Analysis Batch: 31399 (Continued)**

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2686-2	SS02	Total/NA	Solid	8015 NM	
890-2686-3	SS03	Total/NA	Solid	8015 NM	
890-2686-4	SS04	Total/NA	Solid	8015 NM	
890-2686-5	SS05	Total/NA	Solid	8015 NM	
890-2686-6	SS06	Total/NA	Solid	8015 NM	
890-2686-7	SS07	Total/NA	Solid	8015 NM	

#### HPLC/IC

## Leach Batch: 31214

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2686-6	SS06	Soluble	Solid	DI Leach	
890-2686-7	SS07	Soluble	Solid	DI Leach	
MB 880-31214/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-31214/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-31214/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
880-17520-A-21-E MS	Matrix Spike	Soluble	Solid	DI Leach	
880-17520-A-21-F MSD	Matrix Spike Duplicate	Soluble	Solid	DI Leach	
880-17588-A-1-D MS	Matrix Spike	Soluble	Solid	DI Leach	
880-17588-A-1-E MSD	Matrix Spike Duplicate	Soluble	Solid	DI Leach	

#### Leach Batch: 31219

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2686-1	SS01	Soluble	Solid	DI Leach	
890-2686-2	SS02	Soluble	Solid	DI Leach	
890-2686-3	SS03	Soluble	Solid	DI Leach	
890-2686-4	SS04	Soluble	Solid	DI Leach	
890-2686-5	SS05	Soluble	Solid	DI Leach	
MB 880-31219/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-31219/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-31219/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
890-2682-A-6-E MS	Matrix Spike	Soluble	Solid	DI Leach	
890-2682-A-6-F MSD	Matrix Spike Duplicate	Soluble	Solid	DI Leach	

### Analysis Batch: 31338

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2686-6	SS06	Soluble	Solid	300.0	31214
890-2686-7	SS07	Soluble	Solid	300.0	31214
MB 880-31214/1-A	Method Blank	Soluble	Solid	300.0	31214
LCS 880-31214/2-A	Lab Control Sample	Soluble	Solid	300.0	31214
LCSD 880-31214/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	31214
880-17520-A-21-E MS	Matrix Spike	Soluble	Solid	300.0	31214
880-17520-A-21-F MSD	Matrix Spike Duplicate	Soluble	Solid	300.0	31214
880-17588-A-1-D MS	Matrix Spike	Soluble	Solid	300.0	31214
880-17588-A-1-E MSD	Matrix Spike Duplicate	Soluble	Solid	300.0	31214

#### Analysis Batch: 31436

Released to Imaging: 11/29/2022 10:44:38 AM

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2686-1	SS01	Soluble	Solid	300.0	31219
890-2686-2	SS02	Soluble	Solid	300.0	31219
890-2686-3	SS03	Soluble	Solid	300.0	31219

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Client: Ensolum
Project/Site: EVGSAU
Job ID: 890-2686-1
SDG: 03D2057012

## **HPLC/IC** (Continued)

## **Analysis Batch: 31436 (Continued)**

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2686-4	SS04	Soluble	Solid	300.0	31219
890-2686-5	SS05	Soluble	Solid	300.0	31219
MB 880-31219/1-A	Method Blank	Soluble	Solid	300.0	31219
LCS 880-31219/2-A	Lab Control Sample	Soluble	Solid	300.0	31219
LCSD 880-31219/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	31219
890-2682-A-6-E MS	Matrix Spike	Soluble	Solid	300.0	31219
890-2682-A-6-F MSD	Matrix Spike Duplicate	Soluble	Solid	300.0	31219

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Client: Ensolum Job ID: 890-2686-1 Project/Site: EVGSAU SDG: 03D2057012

**Client Sample ID: SS01** Lab Sample ID: 890-2686-1

Date Collected: 07/27/22 13:00 **Matrix: Solid** Date Received: 07/28/22 13:48

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.04 g	5 mL	31335	08/02/22 14:31	MR	EETSC MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	31540	08/05/22 20:16	MR	EETSC MIC
Total/NA	Analysis	Total BTEX		1			31778	08/08/22 14:27	SM	EETSC MII
Total/NA	Analysis	8015 NM		1			31399	08/03/22 11:13	SM	EETSC MII
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	31286	08/02/22 08:40	DM	EETSC MIC
Total/NA	Analysis	8015B NM		1			31239	08/02/22 11:19	SM	EETSC MIC
Soluble	Leach	DI Leach			5.03 g	50 mL	31219	08/01/22 16:08	SMC	EETSC MII
Soluble	Analysis	300.0		5			31436	08/04/22 15:19	CH	EETSC MID

**Client Sample ID: SS02** Lab Sample ID: 890-2686-2

Date Collected: 07/27/22 13:05 Matrix: Solid Date Received: 07/28/22 13:48

Batch Dil Initial Final Batch Batch Prepared Prep Type Туре Method Run Factor Amount Amount Number or Analyzed Analyst Lab Prep 5035 Total/NA 5.01 g 31569 08/05/22 10:43 MR EETSC MID 5 mL Total/NA 8021B 31653 08/07/22 15:45 EETSC MID Analysis 1 MR Total/NA Total BTEX 31778 EETSC MIE Analysis 1 08/08/22 14:27 SM Total/NA Analysis 8015 NM 31399 08/03/22 11:13 SM EETSC MID Total/NA 31286 Prep 8015NM Prep 10.03 g 08/02/22 08:40 DM EETSC MIE 10 mL Total/NA Analysis 8015B NM 31239 08/02/22 12:23 SM EETSC MID Soluble EETSC MIE Leach DI Leach 4.98 g 50 mL 31219 08/01/22 16:08 SMC Soluble Analysis 300.0 20 31436 08/04/22 15:27 СН EETSC MIE

Lab Sample ID: 890-2686-3 **Client Sample ID: SS03** Date Collected: 07/27/22 13:10 **Matrix: Solid** 

Date Received: 07/28/22 13:48

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.03 g	5 mL	31569	08/05/22 10:43	MR	EETSC MID
Total/NA	Analysis	8021B		1			31653	08/07/22 16:12	MR	EETSC MID
Total/NA	Analysis	Total BTEX		1			31778	08/08/22 14:27	SM	EETSC MID
Total/NA	Analysis	8015 NM		1			31399	08/03/22 11:13	SM	EETSC MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	31286	08/02/22 08:40	DM	EETSC MID
Total/NA	Analysis	8015B NM		1			31239	08/02/22 12:44	SM	EETSC MID
Soluble	Leach	DI Leach			4.96 g	50 mL	31219	08/01/22 16:08	SMC	EETSC MI
Soluble	Analysis	300.0		20			31436	08/04/22 15:35	CH	EETSC MID

**Client Sample ID: SS04** Lab Sample ID: 890-2686-4 Date Collected: 07/27/22 13:15 Matrix: Solid

Date Received: 07/28/22 13:48

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.02 g	5 mL	31569	08/05/22 10:43	MR	EETSC MID
Total/NA	Analysis	8021B		1			31653	08/07/22 16:38	MR	EETSC MII
Total/NA	Analysis	Total BTEX		1			31778	08/08/22 14:27	SM	EETSC MIC

**Eurofins Carlsbad** 

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Released to Imaging: 11/29/2022 10:44:38 AM

## **Lab Chronicle**

Client: Ensolum Job ID: 890-2686-1 Project/Site: EVGSAU SDG: 03D2057012

**Client Sample ID: SS04** Lab Sample ID: 890-2686-4

Matrix: Solid

Date Collected: 07/27/22 13:15 Date Received: 07/28/22 13:48

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	8015 NM		1			31399	08/03/22 11:13	SM	EETSC MID
Total/NA	Prep	8015NM Prep			10.04 g	10 mL	31286	08/02/22 08:40	DM	EETSC MIC
Total/NA	Analysis	8015B NM		1			31239	08/02/22 13:05	SM	EETSC MII
Soluble	Leach	DI Leach			5.02 g	50 mL	31219	08/01/22 16:08	SMC	EETSC MIC
Soluble	Analysis	300.0		1			31436	08/04/22 15:43	CH	EETSC MIC

**Client Sample ID: SS05** Lab Sample ID: 890-2686-5

Date Collected: 07/27/22 13:20 **Matrix: Solid** 

Date Received: 07/28/22 13:48

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.01 g	5 mL	31569	08/05/22 10:43	MR	EETSC MID
Total/NA	Analysis	8021B		1			31653	08/07/22 17:05	MR	EETSC MII
Total/NA	Analysis	Total BTEX		1			31778	08/08/22 14:27	SM	EETSC MII
Total/NA	Analysis	8015 NM		1			31399	08/03/22 11:13	SM	EETSC MII
Total/NA	Prep	8015NM Prep			10.00 g	10 mL	31286	08/02/22 08:40	DM	EETSC MID
Total/NA	Analysis	8015B NM		1			31239	08/02/22 13:26	SM	EETSC MII
Soluble	Leach	DI Leach			4.99 g	50 mL	31219	08/01/22 16:08	SMC	EETSC MII
Soluble	Analysis	300.0		1			31436	08/04/22 15:50	CH	EETSC MID

**Client Sample ID: SS06** Lab Sample ID: 890-2686-6

Date Collected: 07/27/22 13:25 Date Received: 07/28/22 13:48

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.97 g	5 mL	31569	08/05/22 10:43	MR	EETSC MID
Total/NA	Analysis	8021B		1			31653	08/07/22 17:31	MR	EETSC MIC
Total/NA	Analysis	Total BTEX		1			31778	08/08/22 14:27	SM	EETSC MII
Total/NA	Analysis	8015 NM		1			31399	08/03/22 11:13	SM	EETSC MII
Total/NA	Prep	8015NM Prep			10.05 g	10 mL	31286	08/02/22 08:40	DM	EETSC MIE
Total/NA	Analysis	8015B NM		1			31239	08/02/22 13:47	SM	EETSC MIC
Soluble	Leach	DI Leach			5.04 g	50 mL	31214	08/02/22 12:00	SMC	EETSC MII
Soluble	Analysis	300.0		1			31338	08/03/22 12:09	CH	EETSC MIC

**Client Sample ID: SS07** Lab Sample ID: 890-2686-7

Date Collected: 07/27/22 13:30 Date Received: 07/28/22 13:48

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.99 g	5 mL	31569	08/05/22 10:43	MR	EETSC MID
Total/NA	Analysis	8021B		1			31653	08/07/22 17:58	MR	EETSC MII
Total/NA	Analysis	Total BTEX		1			31778	08/08/22 14:27	SM	EETSC MIC
Total/NA	Analysis	8015 NM		1			31399	08/03/22 11:13	SM	EETSC MIC
Total/NA Total/NA	Prep Analysis	8015NM Prep 8015B NM		1	10.02 g	10 mL	31286 31239	08/02/22 08:40 08/02/22 14:09	DM SM	EETSC MIL

**Eurofins Carlsbad** 

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**Matrix: Solid** 

**Matrix: Solid** 

## **Lab Chronicle**

Client: Ensolum Job ID: 890-2686-1 Project/Site: EVGSAU SDG: 03D2057012

**Client Sample ID: SS07** Lab Sample ID: 890-2686-7

Date Collected: 07/27/22 13:30 Matrix: Solid Date Received: 07/28/22 13:48

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			5.05 g	50 mL	31214	08/02/22 12:00	SMC	EETSC MID
Soluble	Analysis	300.0		1			31338	08/03/22 12:40	CH	EETSC MII

#### **Laboratory References:**

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

**Eurofins Carlsbad** 

# **Accreditation/Certification Summary**

Client: Ensolum Job ID: 890-2686-1
Project/Site: EVGSAU SDG: 03D2057012

#### **Laboratory: Eurofins Midland**

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

uthority F		ogram	Identification Number	Expiration Date
Texas	NE	ELAP	T104704400-22-24	06-30-23
The following analytes	are included in this report by	it the leberatory is not contiffi	iad butba gaugeming authority. This list ma	
the agency does not of	' '	it the laboratory is not certifi	ied by the governing authority. This list ma	ay include analytes for v
0 ,	' '	Matrix	Analyte	ay include analytes for v
the agency does not of	fer certification.	•	, , ,	ay include analytes for v

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9

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## **Method Summary**

Client: Ensolum Job ID: 890-2686-1 Project/Site: EVGSAU SDG: 03D2057012

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

#### **Protocol References:**

ASTM = ASTM International

MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions. SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

TAL SOP = TestAmerica Laboratories, Standard Operating Procedure

#### Laboratory References:

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

**Eurofins Carlsbad** 

# **Sample Summary**

Client: Ensolum Project/Site: EVGSAU Job ID: 890-2686-1

SDG: 03D2057012

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-2686-1	SS01	Solid	07/27/22 13:00	07/28/22 13:48	0.5
890-2686-2	SS02	Solid	07/27/22 13:05	07/28/22 13:48	0.5
890-2686-3	SS03	Solid	07/27/22 13:10	07/28/22 13:48	0.5
890-2686-4	SS04	Solid	07/27/22 13:15	07/28/22 13:48	0.5
890-2686-5	SS05	Solid	07/27/22 13:20	07/28/22 13:48	0.5
890-2686-6	SS06	Solid	07/27/22 13:25	07/28/22 13:48	0.5
890-2686-7	SS07	Solid	07/27/22 13:30	07/28/22 13:48	0.5

eurofins

**Environment Testing** 

Phone:

303-887-2946 Carlsbad, NM 88220 3122 National Parks Hwy

Email:

Address: City, State ZIP:

Bill to: (if different) Company Name:

Ensolum Kalei Jennings

Turn Around

Rush

Pres. Code

ANALYSIS REQUEST

None: NO

MeOH: Me DI Water: H<sub>2</sub>O **Preservative Codes** 

EVGSAU

Project Number: Project Name:

32.8066, 103.4313 03D2057012

Due Date: ✓ Routine Address:

City, State ZIP:

Project Manager:

Company Name:

Ensolum Kalei Jennings

# Chain of Custody

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

Work Order No:

www.xenco.com	Page /	of /
Work Order Comments	nments	
Program: UST/PST 🗌 PRP 🗌 Brownfields 🔲 RRC 🔲 Superfund 📗	elds 🗌 RRC 🗌	Superfund [
State of Project:		
Reporting: Level II  Level III  PST/JST TRRP Level IV	ST   TRRP [	] Level IV
Deliverables: EDD	☐ Other:	

Project Localism:   28,086,9,103,431   Die Balte:   Project Localism:   Kase Parker   Project Localism:   Kase Parker   Project Localism:   Proj			6				V			
Cool: Cool HCL: HC H <sub>2</sub> S0 <sub>4</sub> : H <sub>2</sub> H <sub>3</sub> PO <sub>4</sub> : HP NaHSO <sub>4</sub> : NABIS Na <sub>2</sub> S <sub>2</sub> O <sub>3</sub> : NaSO <sub>3</sub> Zn Acetate+NaOH NaOH+Ascorbic A Sample Co Incident ID: NAPP22139577 Cost Center: AFE: AFE: AFE: Dairies			4				7			,
Cool: Cool HCL: HC H <sub>2</sub> S0 <sub>4</sub> : H <sub>2</sub> H <sub>3</sub> PO <sub>4</sub> : HP NaHSO <sub>4</sub> : NABIS Na <sub>2</sub> S <sub>2</sub> O <sub>3</sub> : NASO <sub>3</sub> Zn Acetate+NAOH NAOH+Ascorbic A Sample Co Incident ID: NAPP22139577 Cost Center: AFE:  AFE:  AFE: Daire) Daire			Z		10 gg.		0	live (e	7	1
Cool: Cool HCL: HC H <sub>2</sub> S0 <sub>4</sub> : H <sub>2</sub> H <sub>3</sub> PO <sub>4</sub> : HP NaHSO <sub>4</sub> : NABIS Na <sub>2</sub> S <sub>2</sub> O <sub>3</sub> : NASO <sub>3</sub> Zn Acetate+NAOH NAOH+Ascorbic A Sample Co Incident ID: NAPP22139577 Cost Center: AFE: AFE: AFE: AFE: AFE: AFE: AFE: AFE	Date/Time	Received by: (Signature)		ime	Date/		by: (Signature)	Received	nature)	Relipquished by: (Sign
Coulcidor   32.8066 103.4313   Due Date:   Total control   T		standard terms and conditions ircumstances beyond the control forced unless previously negotiated.	nco, its affiliates and subcontractors. It assigns incurred by the client if such losses are due to ci xenco, but not analyzed. These terms will be ent	to Eurofins Xe or expenses ed to Eurofins	nt company or any losses spie submitt	se order from cile ny responsibility fo of \$5 for each san	utes a valid purcha shall not assume ar oject and a charge	of samples constit t of samples and t applied to each pr	nt and relinquishment of all able only for the costarge of \$85.00 will be	ice: Signature of this docume ervice. Eurofins Xenco will b urofins Xenco. A minimum c
Coulcidory Seals:   Ves No   NA Temperature Reading:   Coulcidory Seals:   Coulcidory Seals:   Ves No   NA Temperature Reading:   Coulcidory Seals:	/4/0 / /4/1	Ng TI U Hg: 1631 / 245.1 / /	2d Cr Co Cu Pb Mn Mo Ni Se A	Ba Be C	A Sb A	6010: 8RCR	TCLP / SPLP	red	tal(s) to be analyz	rcle Method(s) and Me
Sample   Identification   32,8066   103,4313   Due Date	Sn U V Zn	Mo Ni K Se Ag SiO <sub>2</sub> Na Sr Tl	Cd Ca Cr Co Cu Fe Pb Mg Mn	Ba Be B	Sb As	Texas 11 A	13PPM	8R(	200.8 / 6020:	Total 200.7 / 6010
Rase Parker   Temp Blank:   Yes No   The momenter ID:   Null Corrected remperature:   Locations   Lo										
Sample										
Sample					×	5		7/27/2022	s	SS07
Sample   Scole   Sco				$\vdash$	×	5	-	7/27/2022	S	SS06
Cool: Cool   Cool: Co		AFE:		-	×	61		7/27/2022	S	\$\$05
Cool: Cool					×	61		7/27/2022	S	SS04
Sample   Second   S	nter:	Cost Ce		-	×	6		7/27/2022	S	\$\$03
Elocation: 32.8066, 103.4313 Due Date:  In Cool:	213957732	NAPP22		$\vdash$	×	5		7/27/2022	S	\$\$02
Sample Identification:  32.8066, 103.4313  Due Date:  TAT starts the day received by the lab, if received by 4:30pm the lab,	D:	Incident		-	×	5		7/27/2022	s	SS01
Tall stants the day received by the lab. if received by 4:30pm  PLE RECEIPT Temp Blank: Yes No Wet Ice: Yes No Received Intact: Yes No Thermometer ID: No No Received Intact: Yes No No Thermometer ID: No No No Thermometer ID: No No No No Thermometer ID: No	mple Comments	Sa		-		Grab/ Comp		-		Sample Identificat
In Coolic	ASCORDIC ACIO. SAFC	NaOH+A			RIDE	1		Corrected Terr		al Containers:
Temp Blank: Yes No NA Correction Factor: PLE RECEIPT Temp Blank: Yes No NA Correction Factor: P. A. Sase Parker Total stants the day received by 4:30pm the lab, if received by 4:30pm the	ite+NaOH: Zn	Zn Aceta	890-2686 Chain of Custody		S (E	0.6		Temperature R	No N/A	mple Custody Seals:
It Location: 32.8066, 103.4313 Due Date:    Cool: Cool   Cool	NasO <sub>3</sub>	Na <sub>2</sub> S <sub>2</sub> C <sub>3</sub>				(e)		Correction Fac		oler Custody Seals:
Cool: Cool   Cool: Cool: Cool   Cool: Cool   Cool: Cool   Cool: Cool: Cool   Cool: Cool	NABIS	NaHSO.				150		Thermometer I	No	mples Received Intact:
tLocation: 32.8066, 103.4313 Due Date: Cool: Cool ler's Name: Kase Parker TAT starts the day received by 4:30pm the lab, if	Ŧ	H <sub>3</sub> PO <sub>4</sub> : H				S	-		Temp Blank:	SAMPLE RECEIPT
32.8066, 103.4313 Due Date: Cool: Cool Kase Parker TAT starts the day received by HCL: HC		H <sub>2</sub> SO <sub>4</sub> : H				L	he lab, if received	)		PO#:
32.8066, 103.4313 Due Date: Cool: Cool		HCE: HC	1_			eceived by	AT starts the day i	1	Kase Parker	Sampler's Name:
	<u>~</u>	Cool: Co					ue Date:		32.8066, 103.4	Project Location:

## **Login Sample Receipt Checklist**

Client: Ensolum Job Number: 890-2686-1 SDG Number: 03D2057012

Login Number: 2686 List Source: Eurofins Carlsbad

List Number: 1

Creator: Stutzman, Amanda

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

**Eurofins Carlsbad** 

## **Login Sample Receipt Checklist**

Client: Ensolum Job Number: 890-2686-1

SDG Number: 03D2057012

Login Number: 2686 **List Source: Eurofins Midland** List Number: 2

List Creation: 08/01/22 08:22 AM

Creator: Rodriguez, Leticia

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

**Eurofins Carlsbad** 

Released to Imaging: 11/29/2022 10:44:38 AM

<6mm (1/4").



APPENDIX D

**NMOCD Notifications** 

From: Nobui, Jennifer, EMNRD

To: <u>Kalei Jennings</u>

Cc: Bratcher, Mike, EMNRD; Hamlet, Robert, EMNRD; Harimon, Jocelyn, EMNRD

Subject: FW: [EXTERNAL] Maverick- Sampling Notification (Week of 07/11/22-07/15/22)

**Date:** Friday, July 8, 2022 9:33:10 AM

Attachments: <u>image001.png</u>

image002.png image003.png image004.png

#### [ \*\*EXTERNAL EMAIL\*\*]

Kalei

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.

Thanks,

Jennifer Nobui

From: Enviro, OCD, EMNRD < OCD. Enviro@state.nm.us>

Sent: Friday, July 8, 2022 8:13 AM

**To:** Bratcher, Mike, EMNRD <mike.bratcher@state.nm.us>; Nobui, Jennifer, EMNRD <Jennifer.Nobui@state.nm.us>; Harimon, Jocelyn, EMNRD <Jocelyn.Harimon@state.nm.us>; Hamlet, Robert, EMNRD <Robert.Hamlet@state.nm.us>; Velez, Nelson, EMNRD

<Nelson.Velez@state.nm.us>

Subject: Fw: [EXTERNAL] Maverick- Sampling Notification (Week of 07/11/22-07/15/22)

**From:** Kalei Jennings < <u>kjennings@ensolum.com</u>>

**Sent:** Thursday, July 7, 2022 2:19 PM

To: Enviro, OCD, EMNRD < OCD. Enviro@state.nm.us >

Subject: [EXTERNAL] Maverick- Sampling Notification (Week of 07/11/22-07/15/22)

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

All,

Maverick Natural Resources plans to complete final sampling activities at the following sites the week of July 11, 2022.

Monday:

Tuesday:

EVGSAU Satellite 5 / NAPP2213957732

Wed	nesc	lay:
-----	------	------

Thursday:

• MCA 417 / NAPP2204841206

Friday:

Thank you,



## Kalei Jennings Senior Scientist 817-683-2503 Ensolum, LLC



APPENDIX E

Final C-141

District I
1625 N. French Dr., Hobbs, NM 88240
District II
811 S. First St., Artesia, NM 88210
District III
1000 Rio Brazos Road, Aztec, NM 87410
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico Energy Minerals and Natural Resources Department

Oil Conservation Division 1220 South St. Francis Dr. Santa Fe, NM 87505 Form C-141 Revised August 24, 2018 Submit to appropriate OCD District office

Incident ID	NAPP2213957732
District RP	
Facility ID	
Application ID	

# **Release Notification**

# **Responsible Party**

Responsible	Responsible Party OGRID			OGRID			
Contact Nam	ie			Contact T	elephone		
Contact emai	il			Incident #	# (assigned by OCD)		
Contact mail:	ing address			<u>.</u>			
L							
			Location	of Release S	ource		
Latitude				Longitude			
			(NAD 83 in dec	cimal degrees to 5 decir	mal places)		
Site Name Sit				Site Type			
Date Release	Date Release Discovered API#			API# (if app	applicable)		
Unit Letter	Section	Township Range Cou		Cour	nty		
Surface Owner	r: $\square$ State	☐ Federal ☐ Tr	ibal	Name:	)		
			Nature and	l Volume of	Release		
				calculations or specific	e justification for the volumes provided below)		
Crude Oil		Volume Release	d (bbls)		Volume Recovered (bbls)		
Produced	Water	Volume Release	d (bbls)		Volume Recovered (bbls)		
		Is the concentrat produced water	ion of dissolved cl	hloride in the	Yes No		
Condensa	te	Volume Release			Volume Recovered (bbls)		
☐ Natural G	as	Volume Release	d (Mcf)		Volume Recovered (Mcf)		
Other (des	scribe)	Volume/Weight	Released (provide	e units)	Volume/Weight Recovered (provide units)		
Cause of Rele	ease						

Received by OCD: 11/1/2022 7:24:52 PM State of New Mexico
Page 2 Oil Conservation Division

73	ZD		~ ~	1 11
	nore	CO CO	OT	DL
	45 00		NI	UE

Incident ID	NAPP2213957732
District RP	
Facility ID	
Application ID	

	If YES, for what reason(s) does the respon	sible party consider this a major release?
release as defined by 19.15.29.7(A) NMAC?		
☐ Yes 🏿 No		
If YES, was immediate no	otice given to the OCD? By whom? To who	om? When and by what means (phone, email, etc)?
	Initial Re	esponse
The responsible po	varty must undertake the following actions immediately	unless they could create a safety hazard that would result in injury
☐ The source of the relea	ase has been stopped.	
	s been secured to protect human health and	the environment.
Released materials have	ve been contained via the use of berms or d	ikes, absorbent pads, or other containment devices.
All free liquids and rec	coverable materials have been removed and	managed appropriately.
If all the actions described	l above have <u>not</u> been undertaken, explain w	/hy:
		mediation immediately after discovery of a release. If remediation
<u> </u>		efforts have been successfully completed or if the release occurred lease attach all information needed for closure evaluation.
		est of my knowledge and understand that pursuant to OCD rules and
		ications and perform corrective actions for releases which may endanger CD does not relieve the operator of liability should their operations have
failed to adequately investiga	ate and remediate contamination that pose a threa	at to groundwater, surface water, human health or the environment. In esponsibility for compliance with any other federal, state, or local laws
and/or regulations.	a c 1 11 report aces not reneve the operation of r	esponsionity for compilation with any other reading, state, or room tank
Printed Name		Title:
Signature:	tanigoparize	Date:
email:		Telephone:
OCD Only		
Received by:		Date:

#### L48 Spill Volume Estimate Form Received by OCD: 11/1/2022 7:24:52 PM umber: EVGSAU SATELLITE 5 Page 5630f 61 NAPP2213957732 Asset Area: SENM (Buckeye) Release Discovery Date & Time: 5/5/2022 Release Type: Oil Mixture Provide any known details about the event. COMING INTO WORK MY ROUTE PARTNER SMELLED OIL AND DROVE BY SATELLITE 5 AND FOUND TRANFER PUMP LEAKING. RECOVERED 2 BBLS Spill Calculation - Subsurface Spill - Rectangle On Pad - 10.5%; Off Pad - 15.12% soil spilled-fluid saturation factor

Estimated volume of each area

(bbl.)

37.083

106.800

0.000

0.000

0.000

0.000

0.000

0.000

0.000

0.000

Total Volume Release:

Yes, On Pad - 8%: Off Pad - 13.57% soil spilled-fluid saturation factor; if No. use factors above.

Total Estimated

Volume of Spill

(bbl.)

3.894

14.418

0.000

0.000

0.000

0.000

0.000

0.000

0.000

0.000

18.312

Percentage of Oil if

Spilled Fluid is a

Mixture

5.00%

5.00%

Total Estimated

Volume of Spilled Oil

(bbl.)

0.195

0.721

0.000

0.000

0.000

0.000

0.000

0.000

0.000

0.000

0.916

Total Estimated

Volume of Spilled

Liquid other than Oil

(bbl.)

3.699

13.697

0.000

0.000

0.000

0.000

0.000

0.000

0.000

0.000

17.396

Was the release on pad or o	ff-pad?
Has it rained at least a half inch in the last 24	hours?

Width

50.0

400

Depth

(in.)

200

3 00

Soil Spilled-Fluid Saturation

10.50%

13.50%

Length

25.0

60 0

Released to Imaging: 11/29/2022/10:44:38 AM

Convert Irregular shape

nto a series of rectangles

Rectangle A

Rectangle B

Rectangle C

Rectangle D

Rectangle E

Rectangle F

Rectangle G

Rectangle H

Rectangle I

District I
1625 N. French Dr., Hobbs, NM 88240
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District II 811 S. First St., Artesia, NM 88210 Phone:(575) 748-1283 Fax:(575) 748-9720 District III

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

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

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

CONDITIONS

Action 108869

#### **CONDITIONS**

Operator:	OGRID:
CONOCOPHILLIPS COMPANY	217817
600 W. Illinois Avenue	Action Number:
Midland, TX 79701	108869
	Action Type:
	[C-141] Release Corrective Action (C-141)

#### CONDITIONS

Created By		Condition Date
jharimon	None	5/19/2022

	Page 58 of 6	1
Incident ID	NAPP2213957732	
District RP		
Facility ID		
Application ID		

# **Site Assessment/Characterization**

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

What is the shallowest depth to groundwater beneath the area affected by the release?	<u>&lt;50</u> (ft bgs)	
Did this release impact groundwater or surface water?	☐ Yes ⊠ No	
Are the lateral extents of the release within 300 feet of a continuously flowing watercourse or any other significant watercourse?	☐ Yes ⊠ No	
Are the lateral extents of the release within 200 feet of any lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark)?	☐ Yes ⊠ No	
Are the lateral extents of the release within 300 feet of an occupied permanent residence, school, hospital, institution, or church?	☐ Yes ⊠ No	
Are the lateral extents of the release within 500 horizontal feet of a spring or a private domestic fresh water well used by less than five households for domestic or stock watering purposes?	☐ Yes ⊠ No	
Are the lateral extents of the release within 1000 feet of any other fresh water well or spring?	☐ Yes ⊠ No	
Are the lateral extents of the release within incorporated municipal boundaries or within a defined municipal fresh water well field?	☐ Yes ⊠ No	
Are the lateral extents of the release within 300 feet of a wetland?	☐ Yes ⊠ No	
Are the lateral extents of the release overlying a subsurface mine?	☐ Yes ⊠ No	
Are the lateral extents of the release overlying an unstable area such as karst geology?	☐ Yes ⊠ No	
Are the lateral extents of the release within a 100-year floodplain?	☐ Yes ⊠ No	
Did the release impact areas <b>not</b> on an exploration, development, production, or storage site?	☐ Yes ⊠ No	
Attach a comprehensive report (electronic submittals in .pdf format are preferred) demonstrating the lateral and vertical extents of soil contamination associated with the release have been determined. Refer to 19.15.29.11 NMAC for specifics.		
Characterization Report Checklist: Each of the following items must be included in the report.		
<ul> <li>Scaled site map showing impacted area, surface features, subsurface features, delineation points, and monitoring wells.</li> <li>Field data</li> <li>Data table of soil contaminant concentration data</li> <li>Depth to water determination</li> </ul>		

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.

Determination of water sources and significant watercourses within ½-mile of the lateral extents of the release

Photographs including date and GIS information

□ Laboratory data including chain of custody

Boring or excavation logs

Topographic/Aerial maps

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Incident ID	NAPP2213957732
District RP	
Facility ID	
Application ID	

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to OCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the OCD does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In addition, OCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations. Printed Name: \_\_\_Bryce Wagoner Title: \_HSE Specialist\_\_\_ Date: \_\_11/01/2022\_\_\_\_ Signature: email: \_bryce.wagoner@mavresources.com \_\_\_ Telephone: \_\_\_\_928-241-1862\_\_\_\_\_ **OCD Only** Received by: \_\_Jocelyn Harimon Date: 11/02/2022

State of New Mexico

Incident ID	NAPP2213957732
District RP	
Facility ID	
Application ID	

# **Remediation Plan**

Remediation Plan Checklist: Each of the following items must be included in the plan.		
<ul> <li>☑ Detailed description of proposed remediation technique</li> <li>☑ Scaled sitemap with GPS coordinates showing delineation points</li> <li>☑ Estimated volume of material to be remediated</li> <li>☑ Closure criteria is to Table 1 specifications subject to 19.15.29.12(C)(4) NMAC</li> </ul>		
Proposed schedule for remediation (note if remediation plan timeline is more than 90 days OCD approval is required)		
Deferral Requests Only: Each of the following items must be confirmed as part of any request for deferral of remediation.		
Contamination must be in areas immediately under or around production equipment where remediation could cause a major facility leconstruction.		
Extents of contamination must be fully delineated.		
Contamination does not cause an imminent risk to human health, the environment, or groundwater.		
hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to OCD ules 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 iability should their operations have failed to adequately investigate and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In addition, OCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.  Printed Name:Bryce Wagoner Title:Permian HSE Specialist		
Signature: Date:11/01/2022		
email:bryce.wagoner@mavresources.com Telephone:928-241-1862		
OCD Only		
Received by: Jocelyn Harimon Date:11/02/2022		
■ Approved with Attached Conditions of Approval    □ Denied    □ Deferral Approved		
Signature: Jennifer Nobui Date: 11/29/2022		

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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 155449

#### **CONDITIONS**

Operator:	OGRID:
Maverick Permian LLC	331199
1111 Bagby Street Suite 1600	Action Number:
Houston, TX 77002	155449
	Action Type:
	[C-141] Release Corrective Action (C-141)

#### CONDITIONS

Created By	Condition	Condition Date
jnobui	Remediation Plan Approved.	11/29/2022