

July 21, 2022

District 1 New Mexico Oil Conservation Division 1625 North French Drive Hobbs, New Mexico 88240

Re: Closure Request

Jaguar 18 State Com 002H & 003H Incident Number NAPP2213643210 Lea County, New Mexico

To Whom It May Concern:

Ensolum, LLC (Ensolum), on behalf of COG Operating, LLC (COG), has prepared this Closure Request to document site assessment and soil sampling activities performed at the Jaguar 18 State Com 002H and 003H (Site; Figure 1). The purpose of the site assessment and soil sampling activities was to assess for the presence or absence of impacts to soil resulting from a crude oil flare fire at the Site. Based on site assessment activities and laboratory analytical results from the soil sampling event, COG is requesting closure for Incident Number NAPP2213643210.

# SITE DESCRIPTION AND RELEASE SUMMARY

The Site is located in Unit P, Section 18, Township 23 South, Range 33 East, in Lea County, New Mexico (32.29832°N, 103.60652°W) and is associated with oil and gas exploration and production operations on New Mexico State Land.

On May 6, 2022, oil made its way up the flare stack resulting in the release of approximately 0.134 barrels (bbls) of crude oil. No fluids were recovered due to the fire burning off any residual fluids. COG reported the release immediately via email to the New Mexico Oil Conservation Division (NMOCD) on May 8, 2022 and submitted a Release Notification Form C-141 (Form C-141) on May 16, 2022. The release was assigned Incident Number NAPP2213643210.

# SITE CHARACTERIZATION AND CLOSURE CRITERIA

The Site was characterized according to Table 1, 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 page 3 of the Form C-141, Site Assessment/Characterization. Potential site receptors are identified on Figure 1.

Depth to groundwater at the Site is estimated to be greater than 100 feet below ground surface (bgs) based on the nearest groundwater well data. The closest permitted groundwater well with depth to groundwater data is New Mexico Office of the State Engineer (NMOSE) permitted well C-2275, located approximately 1/2 mile southwest of the Site. The groundwater well has a reported depth to groundwater of 400 feet bgs and a total depth of 650 feet bgs. Ground surface elevation at the groundwater well

Ensolum, LLC | Environmental, Engineering & Hydrogeologic Consultants
601 North Marienfeld Street | Midland, TX 79701 | ensolum.com
Texas PG Firm No. 50588 | Texas PE Firm No. F-21843



location is 3,700 feet above mean sea level (amsl), which is approximately 1-foot higher in elevation than the Site. All wells used for depth to groundwater determination are presented on Figure 1. The referenced well records are included in Appendix A.

The closest continuously flowing or significant watercourse to the Site is an intermittent stream, located approximately 3.8 miles east 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 1 Closure Criteria (Closure Criteria) apply:

- Benzene: 10 milligrams per kilogram (mg/kg)
- Benzene, toluene, ethylbenzene, and total xylenes (BTEX): 50 mg/kg
- Total petroleum hydrocarbons (TPH)-Desiel Range Organics (DRO) + TPH-Gasoline Range Organics (GRO): 1,000 mg/kg
- TPH: 2,500 mg/kg
- Chloride: 20,000 mg/kg

### SITE ASSESSMENT ACTIVITIES

On June 15, 2022, site assessment activities were conducted to evaluate the release based on information provided on the Form C-141 and visual observations. No visible indications of the release or fire were observed. Four assessment soil samples (SS01 through SS04) were collected beneath the flare stack at a depth of 0.5 feet bgs, to assess for the presence or absence of impacted soil resulting from the crude oil flare fire. The assessment soil samples were field screened for volatile organic compounds (VOCs) utilizing a calibrated photoionization detector (PID) and chloride using Hach® chloride QuanTab® test strips. The soil sample locations were mapped utilizing a handheld Global Positioning System (GPS) unit and are depicted on Figure 2. Photographic documentation was conducted during the Site visit. A photograpgic log is included in Appendix B.

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

### **ANALYTICAL RESULTS**

Laboratory analytical results for assessment soil samples SS01through SS04 indicated benzene, BTEX, TPH-GRO/TPH-DRO, TPH, and chloride concentrations were compliant with the Site Closure Criteria and compliant with the most stringent of NMOCD Table 1 Closure Criteria. Laboratory analytical results are summarized in Table 1 and the complete laboratory analytical report is included as Appendix C.

### **CLOSURE REQUEST**



Site assessment activities were conducted at the Site to assess for the presence or absence of impacted soil resulting from the May 6, 2022, crude oil flare fire. Laboratory analytical results for soil samples collected beneath the flare stack indicated benzene, BTEX, TPH-GRO/TPH-DRO, TPH, and chloride concentrations were compliant with the Site Closure Criteria and compliant with the most stringent Table 1 Closure Criteria. Additionally, no visible indications of the release or fire were observed.

Based on soil sample laboratory analytical results compliant with the most stringent Table 1 Closure Criteria, no impacted soil was identified and as a result, no excavation appeared warranted related to the crude oil fire. COG believes these remedial actions are protective of human health, the environment, and groundwater. As such, COG respectfully requests closure for Incident Number NAPP2213643210. Required notifications are included as Appendix D. The Final C-141 is included in Appendix E.

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

Sincerely,

**Ensolum, LLC** 

Josh Adams, P.G. Project Geologist

Kalei Jennings Senior Scientist

Kalui Jennings

cc: Charles Beauvais, COG Operating, LLC

# Appendices:

Figure 1 Site Receptor Map Figure 2 Soil Sample Locations

Table 1 Soil Sample Analytical Results
Appendix A Referenced Well Records

Appendix B Photographic Log

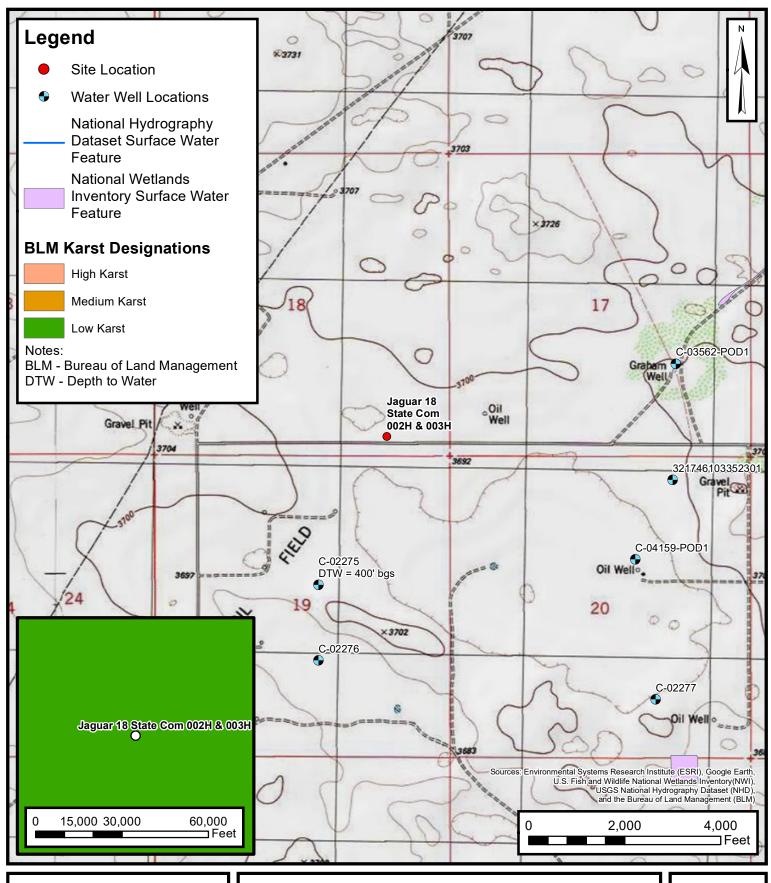
Appendix C Laboratory Analytical Reports & Chain-of-Custody

Appendix D NMOCD Notifications

Appendix E Final C-141



**FIGURES** 





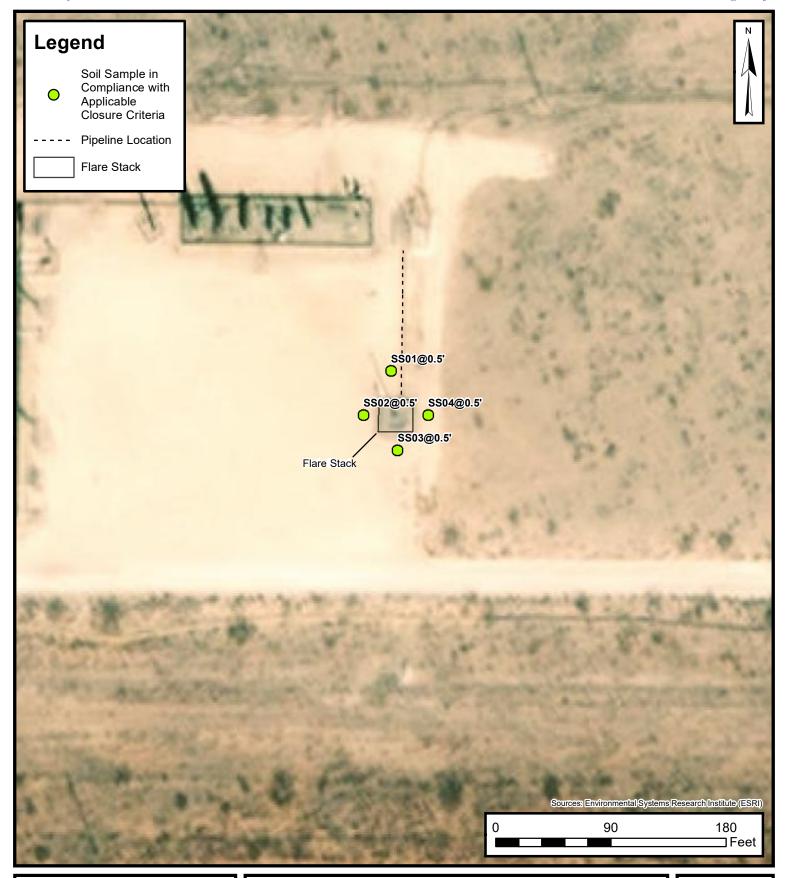
# **Site Receptor Map**

COG Operating, LLC Jaguar State Com 002H&003H NAPP2213643210

> Unit P Sec 18 T23S-R33E Lea County, NM

FIGURE

Released to Imaging: 8/2/2022 11:57:33 AM





# **Soil Sample Locations**

COG Operating, LLC Jaguar State Com 002H&003H NAPP2213643210

Unit P Sec 18 T23S-R33E Lea County, NM FIGURE

2



**TABLE** 

Received by OCD: 7/27/2022 3:52:13 PM



# TABLE 1

# **SOIL SAMPLE ANALYTICAL RESULTS**

Jaguar 18 State Com 2H&3H COG Operating, LLC Lea County, New Mexico

Sample I.D.	Sample Date	Sample Depth (feet bgs)	Benzene (mg/kg)	Total BTEX (mg/kg)	TPH GRO (mg/kg)	TPH DRO (mg/kg)	TPH ORO (mg/kg)	GRO+DRO (mg/kg)	Total TPH (mg/kg)	Chloride (mg/kg)
NMOCD Table 1 C	losure Criteria (	NMAC 19.15.29)	10	50	NE	NE	NE	1,000	2,500	20,000
	Surface Soil Samples									
SS01	06/15/2022	0.5	<0.00199	<0.00398	<50.0	<50.0	<50.0	<50.0	<50.0	11.6
SS02	06/15/2022	0.5	<0.00200	<0.00401	<50.0	<50.0	<50.0	<50.0	<50.0	16.8
SS03	06/15/2022	0.5	<0.00199	0.00520	<49.9	<49.9	<49.9	<49.9	<49.9	9.12
SS04	06/15/2022	0.5	<0.00199	<0.00398	<50.0	<50.0	<50.0	<50.0	<50.0	9.24

### 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

Ensolum 1 of 1



**APPENDIX A** 

Reference Well Logs



# New Mexico Office of the State Engineer

# **Point of Diversion Summary**

(quarters are 1=NW 2=NE 3=SW 4=SE)

(quarters are smallest to largest)

(NAD83 UTM in meters)

Well Tag **POD Number**  Q64 Q16 Q4 Sec Tws Rng

C 02275

2 19 23S 33E

630843 3573557\*

**Driller License:** 

**Driller Company:** 

**Driller Name:** 

ABBOTT BROTHERS

**Drill Start Date:** 

**Drill Finish Date:** 

12/31/1980

Plug Date:

Log File Date:

**PCW Rcv Date:** 

Depth Well:

Source:

Shallow

Pump Type:

Pipe Discharge Size:

Estimated Yield: 40 GPM 650 feet Depth Water:

**Casing Size:** 

400 feet

**Meter Number:** 

8.63

514

Meter Make:

MASTER METER

Meter Serial Number: 1527874

Gallons

Meter Multiplier:

10.0000

**Number of Dials:** 

**Meter Type: Return Flow Percent:**  Diversion

**Unit of Measure: Usage Multiplier:** 

**Reading Frequency:** 

Quarterly

Meter Readings (in Acre-Feet)

Read Date	Year	Mtr Reading	Flag	Rdr Comment	Mtr Amount Online
02/28/1999	1999	260142	A	ms	0
04/15/1999	1999	294352	A	ms	1.050
07/18/1999	1999	320962	A	ms	0.817
11/28/1999	1999	367317	A	ms	1.423
04/06/2000	2000	413837	A	mb	1.428
08/16/2000	2000	474649	A	mb	1.866
09/15/2000	2000	485983	A	RPT	0.348
01/19/2001	2000	530107	A	RPT	1.354
04/27/2001	2001	569967	A	RPT	1.223
07/16/2001	2001	620178	A	ms	1.541
01/12/2002	2002	652573	A	tg	0.994
04/13/2002	2002	662745	A	RPT	0.312
07/12/2002	2002	674878	A	rm	0.372
01/01/2003	2002	714899	A	ms	1.228
07/11/2003	2003	751760	A	ms	1.131
10/01/2003	2003	778772	A	ab	0.829
01/08/2004	2003	802123	A	ab	0.717
04/07/2004	2004	821801	A	RPT	0.604
07/15/2004	2004	836507	A	RPT	0.451
10/12/2004	2004	844068	A	RPT	0.232
01/26/2005	2004	877058	A	RPT	1.012
04/15/2005	2005	889933	A	RPT	0.395
08/03/2005	2005	891339	Α	RPT	0.043
10/31/2005	2005	927761	A	RPT	1.118
01/31/2006	2005	941723	A	RPT	0.428

2772022 5.52.	10 1 171					
04/20/2006	2006	966263	A	RPT		0.753
07/19/2006	2006	9421	R	tw	Meter Rollover	1.324
11/27/2006	2006	90114	A	RPT		2.476
04/16/2007	2007	124935	A	tw		1.069
07/13/2007	2007	148838	A	tw		0.734
11/03/2007	2007	189325	A	RPT		1.243
04/15/2008	2008	230341	A	RPT		1.259
07/11/2008	2008	273176	A	RPT		1.315
01/08/2009	2008	375616	A	RPT		3.144
05/07/2009	2009	432782	A	RPT		1.754
07/06/2009	2009	465558	A	RPT		1.006
11/02/2009	2009	537994	A	tw		2.223
05/13/2010	2010	592265	A	RPT		1.666
08/23/2010	2010	598613	A	RPT		0.195
11/09/2010	2010	598791	A	RPT		0.005
02/13/2011	2011	599215	A	RPT		0.013
07/12/2011	2011	607344	A	RPT		0.249
01/10/2012	2012	608458	A	RPT		0.034
04/15/2012	2012	608566	A	RPT		0.003
03/20/2013	2012	608566	A	RPT		0
07/18/2013	2013	608566	A	RPT		0
07/22/2019	2019	896990	A	RPT		8.851
04/01/2020	2020	120850	R	RPT	Meter Rollover	6.870
**YTD Mete	r Amounts:	Year		Amount		
		1999		3.290		
		2000		4.996		
		2001		2.764		
		2002		2.906		
		2003		2.677		
		2004		2.299		
		2005		1.984		
		2006		4.553		
		2007		3.046		
		2008		5.718		
		2009		4.983		
		2010		1.866		
		2011		0.262		
		2012		0.037		
		2013		0		
		2019		8.851		

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

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, or suitability for any particular purpose of the data.

6.870

2020

7/5/22 1:43 PM

POINT OF DIVERSION SUMMARY

**USGS** Home **Contact USGS** Search USGS

# **National Water Information System: Web Interface**

**USGS Water Resources** 

Data Category:		Geographic Area:		
Groundwater	~	United States	~	GO

# Click to hideNews Bulletins

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

Groundwater levels for the Nation

Important: <u>Next Generation Monitoring Location Page</u>

# Search Results -- 1 sites found

site no list =

• 323109103323801

# Minimum number of levels = 1

Save file of selected sites to local disk for future upload

# USGS 323109103323801 20S.34E.34.43421

Available data for this site Groundwater: Field measurements GO

Lea County, New Mexico

Hydrologic Unit Code 13060011

Latitude 32°31'26.6", Longitude 103°32'40.6" NAD83

Land-surface elevation 3,776 feet above NAVD88

The depth of the well is 100 feet below land surface.

This well is completed in the Other aguifers (N9999OTHER) national aguifer.

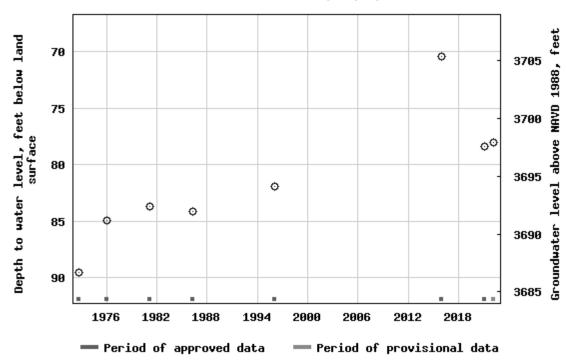
Received by OCD: 7/27/2022 3:52:13 PM

This well is completed in the Alluvium, Bolson Deposits and Other Surface Deposits (110AVMB) local aquifer.

**Output formats** 



### USGS 323109103323801 205.34E.34.43421



Breaks in the plot represent a gap of at least one year between field measurements. <u>Download a presentation-quality graph</u>

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Data Tips
Explanation of terms

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U.S. Department of the Interior | U.S. Geological Survey

Title: Groundwater for USA: Water Levels

URL: https://nwis.waterdata.usgs.gov/nwis/gwlevels?

Page Contact Information: <u>USGS Water Data Support Team</u>

Page Last Modified: 2022-05-31 17:57:36 EDT

0.69 0.47 nadww01





**APPENDIX B** 

Photographic Log



# Photographic Log

COG Operating, LLC
Jaguar State Com 002H & 003H
Incident Number NAPP2213643210





Photograph 1 Date: June 15, 2022

Description: Flare area during assessment activities.

Photograph 2 Date: June 15, 2022

Description: Flare area during assessment activities.





Photograph 3

Date: June 15, 2022

Description: Flare area during assessment activities.

Photograph 4

Date: June 15, 2022

Description: Flare area during assessment activities.



APPENDIX C

Laboratory Analytical Reports & Chain-of-Custody

# **Environment Testing America**

# **ANALYTICAL REPORT**

Eurofins Midland 1211 W. Florida Ave Midland, TX 79701 Tel: (432)704-5440

Laboratory Job ID: 880-15967-1

Laboratory Sample Delivery Group: 03E20240047 Client Project/Site: Jaguar 18 Stat Com 2H&3H

Revision: 1

For:

Ensolum 705 W. Wadley Suite 210 Midland, Texas 79701

Attn: Kalei Jennings

MAMER

Authorized for release by: 6/24/2022 2:51:01 PM

Jessica Kramer, Project Manager (432)704-5440

Jessica.Kramer@et.eurofinsus.com

Review your project results through

------ LINKS ------

Have a Question?



Visit us at:

www.eurofinsus.com/Env
Released to Imaging: 8/2/2022 11:57:33 AM

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 signature.

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

1

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<u>ي</u>

5

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11

13

Laboratory Job ID: 880-15967-1 Client: Ensolum SDG: 03E20240047 Project/Site: Jaguar 18 Stat Com 2H&3H

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# **Definitions/Glossary**

Client: Ensolum Job ID: 880-15967-1 Project/Site: Jaguar 18 Stat Com 2H&3H

SDG: 03E20240047

**Qualifiers** 

**GC VOA** 

Qualifier **Qualifier Description** 

Indicates the analyte was analyzed for but not detected.

**GC Semi VOA** 

Qualifier **Qualifier Description** 

\*1 LCS/LCSD RPD exceeds control limits.

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

**HPLC/IC** 

Qualifier **Qualifier Description** 

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

Duplicate Error Ratio (normalized absolute difference) **DER** 

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)

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

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

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

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 QC **Quality Control** 

**RER** Relative Error Ratio (Radiochemistry)

RL Reporting Limit or Requested Limit (Radiochemistry)

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

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

**TNTC** Too Numerous To Count

# Case Narrative

Client: Ensolum

Job ID: 880-15967-1 SDG: 03E20240047 Project/Site: Jaguar 18 Stat Com 2H&3H

Job ID: 880-15967-1

**Laboratory: Eurofins Midland** 

Narrative

Job Narrative 880-15967-1

## REVISION

The report being provided is a revision of the original report sent on 6/23/2022. The report (revision 1) is being revised due to Per client email, requesting TPH re run on sample #4.

Report revision history

### Receipt

The samples were received on 6/16/2022 10:40 AM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 0.1°C

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

## GC Semi VOA

Method 8015MOD NM: The RPD of the laboratory control sample (LCS) and laboratory control sample duplicate (LCSD) for preparation batch 880-27720 and analytical batch 880-27643 recovered outside control limits for the following analytes: Gasoline Range Organics (GRO)-C6-C10.

Method 8015MOD NM: The RPD of the laboratory control sample (LCS) and laboratory control sample duplicate (LCSD) for preparation batch 880-28233 and analytical batch 880-28190 recovered outside control limits for the following analytes: Gasoline Range Organics (GRO)-C6-C10.

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 880-27817 and analytical batch 880-28123 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.

**Eurofins Midland** 6/24/2022 (Rev. 1)

**Matrix: Solid** 

Client: Ensolum Job ID: 880-15967-1

Project/Site: Jaguar 18 Stat Com 2H&3H SDG: 03E20240047

**Client Sample ID: SS01** Lab Sample ID: 880-15967-1 Date Collected: 06/15/22 08:35 Date Received: 06/16/22 10:40

Sample Depth: 0.5

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199	mg/Kg		06/20/22 16:31	06/21/22 12:42	1
Toluene	< 0.00199	U	0.00199	mg/Kg		06/20/22 16:31	06/21/22 12:42	1
Ethylbenzene	< 0.00199	U	0.00199	mg/Kg		06/20/22 16:31	06/21/22 12:42	1
m-Xylene & p-Xylene	<0.00398	U	0.00398	mg/Kg		06/20/22 16:31	06/21/22 12:42	1
o-Xylene	< 0.00199	U	0.00199	mg/Kg		06/20/22 16:31	06/21/22 12:42	1
Xylenes, Total	<0.00398	U	0.00398	mg/Kg		06/20/22 16:31	06/21/22 12:42	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	106		70 - 130			06/20/22 16:31	06/21/22 12:42	1
1,4-Difluorobenzene (Surr)	91		70 - 130			06/20/22 16:31	06/21/22 12:42	1
Method: Total BTEX - Total B	ΓEX Calcula	tion						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398	mg/Kg			06/21/22 14:49	1
Method: 8015 NM - Diesel Rar	nge Organic	s (DRO) (0	SC)					
Analyte		Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0	mg/Kg			06/17/22 08:55	1
Method: 8015B NM - Diesel R	ange Organ	ics (DRO)	(GC)					
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U *1	50.0	mg/Kg		06/16/22 15:34	06/17/22 03:33	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		06/16/22 15:34	06/17/22 03:33	1
Oll Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		06/16/22 15:34	06/17/22 03:33	1
Total TPH	<50.0	U	50.0	mg/Kg		06/16/22 15:34	06/17/22 03:33	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	120		70 - 130			06/16/22 15:34	06/17/22 03:33	1
o-Terphenyl	131	S1+	70 - 130			06/16/22 15:34	06/17/22 03:33	1

Client Sample ID: SS02 Lab Sample ID: 880-15967-2 **Matrix: Solid** 

RL

4.99

Unit

mg/Kg

Prepared

Analyzed

06/23/22 06:30

Dil Fac

Result Qualifier

11.6

Date Collected: 06/15/22 08:37 Date Received: 06/16/22 10:40

Sample Depth: 0.5

Analyte

Chloride

Analyte	Result (	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200 U	U	0.00200	mg/Kg		06/20/22 16:31	06/21/22 13:03	1
Toluene	<0.00200 l	U	0.00200	mg/Kg		06/20/22 16:31	06/21/22 13:03	1
Ethylbenzene	<0.00200 l	U	0.00200	mg/Kg		06/20/22 16:31	06/21/22 13:03	1
m-Xylene & p-Xylene	<0.00401 l	U	0.00401	mg/Kg		06/20/22 16:31	06/21/22 13:03	1
o-Xylene	<0.00200 l	U	0.00200	mg/Kg		06/20/22 16:31	06/21/22 13:03	1
Xylenes, Total	<0.00401 l	U	0.00401	mg/Kg		06/20/22 16:31	06/21/22 13:03	1

Job ID: 880-15967-1

Client: Ensolum Project/Site: Jaguar 18 Stat Com 2H&3H SDG: 03E20240047

**Client Sample ID: SS02** Lab Sample ID: 880-15967-2 Date Collected: 06/15/22 08:37 **Matrix: Solid** Date Received: 06/16/22 10:40

Sample Depth: 0.5

Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)			70 - 130			06/20/22 16:31	06/21/22 13:03	1
1,4-Difluorobenzene (Surr)	92		70 - 130			06/20/22 16:31	06/21/22 13:03	1
- Method: Total BTEX - Total	BTEX Calcula	tion						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00401	U	0.00401	mg/Kg			06/21/22 14:49	1
Analyte Total TPH	Result <50.0	Qualifier U		Unit mg/Kg	_ D	Prepared	Analyzed 06/17/22 08:55	Dil Fac
	<50.0	U	50.0	mg/Kg				1
Method: 8015B NM - Diesel	Range Organ	ics (DRO)	(GC)					
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics	<50.0	U *1	50.0	mg/Kg		06/16/22 15:34	06/17/22 03:54	1
(GRO)-C6-C10								
Diesel Range Organics (Over	<50.0	U	50.0	mg/Kg		06/16/22 15:34	06/17/22 03:54	1
C10-C28)								

Total TPH	<50.0 U	50.0	mg/Kg 06/16/22 15:34	06/17/22 03:54	1
Surrogate	%Recovery Qua	alifier Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	100	70 - 130	06/16/22 15:34	06/17/22 03:54	1
o-Terphenyl	109	70 - 130	06/16/22 15:34	06/17/22 03:54	1

50.0

mg/Kg

06/16/22 15:34 06/17/22 03:54

Method: 300.0 - Anions, Ion Chromatography - Soluble

<50.0 U

Analyte	Result	Qualifier	RL	Uni	t D	)	Prepared	Analyzed	Dil Fac
Chloride	16.8		4.97	mg/	Kg			06/23/22 06:58	1

**Client Sample ID: SS03** Lab Sample ID: 880-15967-3 Date Collected: 06/15/22 08:39 **Matrix: Solid** 

Date Received: 06/16/22 10:40

Oll Range Organics (Over C28-C36)

Sample Depth: 0.5

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199	mg/Kg		06/20/22 16:31	06/21/22 17:09	1
Toluene	< 0.00199	U	0.00199	mg/Kg		06/20/22 16:31	06/21/22 17:09	1
Ethylbenzene	0.00202		0.00199	mg/Kg		06/20/22 16:31	06/21/22 17:09	1
m-Xylene & p-Xylene	<0.00398	U	0.00398	mg/Kg		06/20/22 16:31	06/21/22 17:09	1
o-Xylene	0.00318		0.00199	mg/Kg		06/20/22 16:31	06/21/22 17:09	1
Xylenes, Total	<0.00398	U	0.00398	mg/Kg		06/20/22 16:31	06/21/22 17:09	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	91		70 - 130			06/20/22 16:31	06/21/22 17:09	1
1,4-Difluorobenzene (Surr)	88		70 - 130			06/20/22 16:31	06/21/22 17:09	1
Method: Total BTEX - Total	BTEX Calcula	tion						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	0.00520		0.00398	mg/Kg			06/21/22 14:49	

**Matrix: Solid** 

Lab Sample ID: 880-15967-3

Client: Ensolum Job ID: 880-15967-1 Project/Site: Jaguar 18 Stat Com 2H&3H SDG: 03E20240047

**Client Sample ID: SS03** 

Date Collected: 06/15/22 08:39 Date Received: 06/16/22 10:40

Sample Depth: 0.5

Method: 8015 NM - Diesel Range Organics (DRO) (GC)											
Analyte	Result Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac				
Total TPH	<49.9 U	49.9	ma/Ka			06/17/22 08:55	1				

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U *1	49.9	mg/Kg		06/16/22 15:34	06/17/22 04:16	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9	mg/Kg		06/16/22 15:34	06/17/22 04:16	1
Oll Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg		06/16/22 15:34	06/17/22 04:16	1
Total TPH	<49.9	U	49.9	mg/Kg		06/16/22 15:34	06/17/22 04:16	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	98		70 - 130			06/16/22 15:34	06/17/22 04:16	1
o-Terphenyl	108		70 - 130			06/16/22 15:34	06/17/22 04:16	1

Method: 300.0 - Anions, Ion Chr							
Analyte	Result Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	9.12	5.00	mg/Kg			06/23/22 07:07	1

Lab Sample ID: 880-15967-4 **Client Sample ID: SS04 Matrix: Solid** 

Date Collected: 06/15/22 08:41 Date Received: 06/16/22 10:40

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199	mg/Kg		06/20/22 16:31	06/21/22 17:30	1
Toluene	< 0.00199	U	0.00199	mg/Kg		06/20/22 16:31	06/21/22 17:30	1
Ethylbenzene	< 0.00199	U	0.00199	mg/Kg		06/20/22 16:31	06/21/22 17:30	1
m-Xylene & p-Xylene	<0.00398	U	0.00398	mg/Kg		06/20/22 16:31	06/21/22 17:30	1
o-Xylene	< 0.00199	U	0.00199	mg/Kg		06/20/22 16:31	06/21/22 17:30	1
Xylenes, Total	<0.00398	U	0.00398	mg/Kg		06/20/22 16:31	06/21/22 17:30	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	105		70 - 130			06/20/22 16:31	06/21/22 17:30	1
1,4-Difluorobenzene (Surr)	91		70 - 130			06/20/22 16:31	06/21/22 17:30	1
Method: Total BTEX - Total	BTEX Calcula	tion						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398	mg/Kg			06/21/22 14:49	1

ſ	Method: 8015 NM - Diesel Rang	ge Organic	s (DRO) (G	iC)					
	Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Į	Total TPH	<50.0	U	50.0	mg/Kg			06/17/22 08:55	1

Method: 8015B NM - Diesel Rar	nge Organi	ics (DRO) (	GC)					
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U *1	50.0	mg/Kg		06/23/22 11:40	06/24/22 02:11	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		06/23/22 11:40	06/24/22 02:11	1
Oll Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		06/23/22 11:40	06/24/22 02:11	1

**Eurofins Midland** 

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# **Client Sample Results**

Client: Ensolum Job ID: 880-15967-1
Project/Site: Jaguar 18 Stat Com 2H&3H SDG: 03E20240047

Client Sample ID: SS04

Lab Sample ID: 880-15967-4

Date Collected: 06/15/22 08:41

Date Received: 06/16/22 10:40

Matrix: Solid

Sample Depth: 0.5

Chloride

<50.0 U		50.0	mg/Kg		06/23/22 11:40	00/04/00 00 44	
			9/1.9		00/23/22 11.40	06/24/22 02:11	
Recovery Qua	alifier	Limits			Prepared	Analyzed	Dil Fac
107		70 - 130			06/23/22 11:40	06/24/22 02:11	1
116		70 - 130			06/23/22 11:40	06/24/22 02:11	1
	107		107 70 - 130	70 - 130	70 - 130	70 - 130 06/23/22 11:40	107     70 - 130       06/23/22 11:40     06/24/22 02:11

4.99

mg/Kg

9.24

**5** 

0

10

06/23/22 07:16

12

13

14

# **Surrogate Summary**

Client: Ensolum Job ID: 880-15967-1
Project/Site: Jaguar 18 Stat Com 2H&3H SDG: 03E20240047

Method: 8021B - Volatile Organic Compounds (GC)

Matrix: Solid Prep Type: Total/NA

			Perce	ent Surrogate Recovery (Acceptance Limits)
		BFB1	DFBZ1	
Lab Sample ID	Client Sample ID	(70-130)	(70-130)	
880-15967-1	SS01	106	91	
880-15967-1 MS	SS01	117	95	
880-15967-1 MSD	SS01	108	98	
880-15967-2	SS02	111	92	
880-15967-3	SS03	91	88	
880-15967-4	SS04	105	91	
LCS 880-27986/1-A	Lab Control Sample	109	99	
LCSD 880-27986/2-A	Lab Control Sample Dup	109	98	
MB 880-27986/5-A	Method Blank	101	90	
Surrogate Legend				
BFB = 4-Bromofluorob	enzene (Surr)			

BFB = 4-Bromofluorobenzene (Surr) DFBZ = 1,4-Difluorobenzene (Surr)

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

Matrix: Solid Prep Type: Total/NA

			Percent	Surrogate Recovery (Acceptance Limi
		1CO1	OTPH1	
b Sample ID	Client Sample ID	(70-130)	(70-130)	
0-15961-A-21-B MS	Matrix Spike	91	92	
0-15961-A-21-C MSD	Matrix Spike Duplicate	105	104	
)-15967-1	SS01	120	131 S1+	
)-15967-2	SS02	100	109	
-15967-3	SS03	98	108	
-15967-4	SS04	107	116	
-2448-A-1-H MS	Matrix Spike	96	95	
-2448-A-1-I MSD	Matrix Spike Duplicate	101	94	
880-27720/2-A	Lab Control Sample	99	109	
880-28233/2-A	Lab Control Sample	93	98	
SD 880-27720/3-A	Lab Control Sample Dup	107	117	
SD 880-28233/3-A	Lab Control Sample Dup	101	106	
880-27720/1-A	Method Blank	97	109	
880-28233/1-A	Method Blank	103	106	

Surrogate Legend

1CO = 1-Chlorooctane OTPH = o-Terphenyl

Client: Ensolum Job ID: 880-15967-1 Project/Site: Jaguar 18 Stat Com 2H&3H SDG: 03E20240047

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

Lab Sample ID: MB 880-27986/5-A

**Matrix: Solid** 

**Analysis Batch: 28004** 

**Client Sample ID: Method Blank** 

**Prep Type: Total/NA** 

Prep Batch: 27986

•	MB	MB					•	
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		06/20/22 16:31	06/21/22 12:20	1
Toluene	<0.00200	U	0.00200	mg/Kg		06/20/22 16:31	06/21/22 12:20	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		06/20/22 16:31	06/21/22 12:20	1
m-Xylene & p-Xylene	<0.00400	U	0.00400	mg/Kg		06/20/22 16:31	06/21/22 12:20	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		06/20/22 16:31	06/21/22 12:20	1
Xylenes, Total	<0.00400	U	0.00400	mg/Kg		06/20/22 16:31	06/21/22 12:20	1

MB MB

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	101		70 - 130	06/20/22 16:31	06/21/22 12:20	1
1,4-Difluorobenzene (Surr)	90		70 - 130	06/20/22 16:31	06/21/22 12:20	1

Lab Sample ID: LCS 880-27986/1-A

Matrix: Solid

**Analysis Batch: 28004** 

**Client Sample ID: Lab Control Sample** 

**Prep Type: Total/NA** 

Prep Batch: 27986

	Spike	LCS	LCS				%Rec	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Benzene	0.100	0.1056		mg/Kg		106	70 - 130	
Toluene	0.100	0.1036		mg/Kg		104	70 - 130	
Ethylbenzene	0.100	0.1095		mg/Kg		110	70 - 130	
m-Xylene & p-Xylene	0.200	0.2214		mg/Kg		111	70 - 130	
o-Xylene	0.100	0.1106		mg/Kg		111	70 - 130	

LCS LCS

Surrogate	%Recovery	Qualifier	Limits
4-Bromofluorobenzene (Surr)	109		70 - 130
1,4-Difluorobenzene (Surr)	99		70 - 130

Lab Sample ID: LCSD 880-27986/2-A

**Matrix: Solid** 

**Analysis Batch: 28004** 

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

Prep Type: Total/NA

Prep Batch: 27986

	Spike	LCSD L	.CSD				%Rec		RPD
Analyte	Added	Result C	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Benzene	0.100	0.1081		mg/Kg		108	70 - 130	2	35
Toluene	0.100	0.1076		mg/Kg		108	70 - 130	4	35
Ethylbenzene	0.100	0.1125		mg/Kg		113	70 - 130	3	35
m-Xylene & p-Xylene	0.200	0.2307		mg/Kg		115	70 - 130	4	35
o-Xylene	0.100	0.1162		mg/Kg		116	70 - 130	5	35

LCSD LCSD

Surrogate	%Recovery	Qualifier	Limits
4-Bromofluorobenzene (Surr)	109		70 - 130
1,4-Difluorobenzene (Surr)	98		70 - 130

Lab Sample ID: 880-15967-1 MS

**Matrix: Solid** 

**Analysis Batch: 28004** 

**Client Sample ID: SS01** Prep Type: Total/NA

Prep Batch: 27986

	Sample	Sample	Spike	MS	MS				%Rec	
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Benzene	<0.00199	U	0.100	0.09619		mg/Kg		96	70 - 130	
Toluene	<0.00199	U	0.100	0.1013		mg/Kg		101	70 - 130	

# QC Sample Results

Client: Ensolum Job ID: 880-15967-1 Project/Site: Jaguar 18 Stat Com 2H&3H SDG: 03E20240047

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

Lab Sample ID: 880-15967-1 MS

**Matrix: Solid** 

**Analysis Batch: 28004** 

Client Sample ID: SS01 **Prep Type: Total/NA** 

MSD MSD

0.1046

0.1013

0.1027

0.2104

0.1053

Result Qualifier

Unit

mg/Kg

mg/Kg

mg/Kg

mg/Kg

mg/Kg

Prep Batch: 27986

MS MS Sample Sample Spike %Rec Analyte Result Qualifier Added Result Qualifier Unit %Rec Limits Ethylbenzene <0.00199 U 0.100 0.1048 mg/Kg 105 70 - 130 m-Xylene & p-Xylene <0.00398 U 0.200 0.2176 mg/Kg 109 70 - 130 <0.00199 U 0.100 0.1103 o-Xylene mg/Kg 110 70 \_ 130

Spike

Added

0.0996

0.0996

0.0996

0.199

0.0996

MS MS

Surrogate	%Recovery Qualifier	Limits
4-Bromofluorobenzene (Surr)	117	70 - 130
1,4-Difluorobenzene (Surr)	95	70 - 130

Client Sample ID: SS01

Prep Type: Total/NA

5

**Matrix: Solid** 

Analyte

Benzene

Toluene

o-Xylene

Ethylbenzene

m-Xylene & p-Xylene

**Analysis Batch: 28004** 

Lab Sample ID: 880-15967-1 MSD

Prep Batch: 27986

%Rec **RPD** D %Rec Limits RPD Limit 105 70 - 130 8 35 102 70 - 130 35 0 103 70 - 130 2 35 106 70 - 130 3 35 106

MSD MSD

Sample Sample

<0.00199 U

<0.00199 U

<0.00199 U

<0.00398 U

<0.00199 U

Result Qualifier

Surrogate	%Recovery	Qualifier	Limits
4-Bromofluorobenzene (Surr)	108		70 - 130
1,4-Difluorobenzene (Surr)	98		70 - 130

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

Lab Sample ID: MB 880-27720/1-A

**Matrix: Solid** 

**Analysis Batch: 27643** 

**Client Sample ID: Method Blank** Prep Type: Total/NA

70 - 130

Prep Batch: 27720

MB MB Analyte Result Qualifier RL Unit **Prepared** Analyzed Dil Fac <50.0 U 50.0 06/16/22 15:34 06/16/22 21:26 Gasoline Range Organics mg/Kg (GRO)-C6-C10 Diesel Range Organics (Over <50.0 U 50.0 06/16/22 15:34 06/16/22 21:26 mg/Kg C10-C28) Oll Range Organics (Over C28-C36) <50.0 U 50.0 mg/Kg 06/16/22 15:34 06/16/22 21:26 Total TPH <50.0 U 50.0 06/16/22 15:34 06/16/22 21:26 mg/Kg

MB MB

Surrogate	%Recovery	Qualifier	Limits	Prepared Analyzed	Dil Fac
1-Chlorooctane	97		70 - 130	06/16/22 15:34 06/16/22 21:26	1
o-Terphenyl	109		70 - 130	06/16/22 15:34 06/16/22 21:26	1

Lab Sample ID: LCS 880-27720/2-A

**Matrix: Solid** 

**Analysis Batch: 27643** 

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

Prep Batch: 27720

Spike LCS LCS %Rec Added Result Qualifier Limits **Analyte** Unit %Rec Gasoline Range Organics 1000 871.6 mg/Kg 87 70 - 130

(GRO)-C6-C10

Client: Ensolum Project/Site: Jaguar 18 Stat Com 2H&3H

Job ID: 880-15967-1

SDG: 03E20240047

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

Lab Sample ID: LCS 880-27720/2-A **Client Sample ID: Lab Control Sample Matrix: Solid Analysis Batch: 27643** 

**Prep Type: Total/NA** Prep Batch: 27720

LCS LCS Spike %Rec Added Result Qualifier Unit D %Rec Limits Diesel Range Organics (Over 1000 1033 mg/Kg 103 70 - 130

C10-C28)

LCS LCS Surrogate %Recovery Qualifier Limits 1-Chlorooctane 99 70 - 130 o-Terphenyl 109 70 - 130

**Matrix: Solid** 

**Analysis Batch: 27643** 

Lab Sample ID: LCSD 880-27720/3-A

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

Prep Batch: 27720

Alialysis Datell. 21040							I ICP L	Jacon. 2	-1120	
-	Spike	LCSD	LCSD				%Rec		RPD	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit	
Gasoline Range Organics	 1000	1162	*1	mg/Kg		116	70 - 130	29	20	
(GRO)-C6-C10										
Diesel Range Organics (Over	1000	1129		mg/Kg		113	70 - 130	9	20	
C40 C20)										

C10-C28)

LCSD LCSD

Surrogate	%Recovery Qual	ifier Limits
1-Chlorooctane	107	70 - 130
o-Terphenyl	117	70 - 130

**Client Sample ID: Method Blank** Prep Type: Total/NA

Prep Batch: 28233

**Matrix: Solid** 

Lab Sample ID: MB 880-28233/1-A

**Analysis Batch: 28190** 

	MB	MB						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0	mg/Kg		06/23/22 11:40	06/23/22 20:34	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		06/23/22 11:40	06/23/22 20:34	1
Oll Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		06/23/22 11:40	06/23/22 20:34	1
Total TPH	<50.0	U	50.0	mg/Kg		06/23/22 11:40	06/23/22 20:34	1

MB MB

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	103		70 - 130	06/23/22 11:40	06/23/22 20:34	1
o-Terphenyl	106		70 - 130	06/23/22 11:40	06/23/22 20:34	1

Lab Sample ID: LCS 880-28233/2-A **Matrix: Solid** 

**Analysis Batch: 28190** 

**Client Sample ID: Lab Control Sample** 

Prep Type: Total/NA Prep Batch: 28233

	<b>Spike</b>	LCS LC	55		%Rec	
Analyte	Added	Result Q	ualifier Unit	D %Rec	Limits	
Gasoline Range Organics	1000	1169	mg/Kg	117	70 - 130	
(GRO)-C6-C10						
Diesel Range Organics (Over	1000	889.0	mg/Kg	89	70 - 130	
C10-C28)						

LCS LCS

Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane	93		70 - 130

Client: Ensolum Job ID: 880-15967-1 Project/Site: Jaguar 18 Stat Com 2H&3H SDG: 03E20240047

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

Lab Sample ID: LCS 880-28233/2-A **Client Sample ID: Lab Control Sample** Prep Type: Total/NA

**Matrix: Solid Analysis Batch: 28190** Prep Batch: 28233

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

Lab Sample ID: LCSD 880-28233/3-A Client Sample ID: Lab Control Sample Dup

**Matrix: Solid** 

Prep Type: Total/NA **Analysis Batch: 28190** Prep Batch: 28233

Spike LCSD LCSD %Rec **RPD** Added Result Qualifier Limits RPD Limit Analyte Unit %Rec 832.6 \*1 Gasoline Range Organics 1000 mg/Kg 83 70 - 130 34 20 (GRO)-C6-C10 1000 925.0 92 70 - 130 20 Diesel Range Organics (Over mg/Kg 4 C10-C28)

LCSD LCSD Surrogate %Recovery Qualifier Limits 1-Chlorooctane 70 - 130 101 o-Terphenyl 106 70 - 130

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-27817/1-A Client Sample ID: Method Blank **Matrix: Solid Prep Type: Soluble** 

**Analysis Batch: 28123** 

MB MB

Analyte Result Qualifier RL Unit Prepared Analyzed Dil Fac mg/Kg Chloride <5.00 U 5.00 06/23/22 03:16

Lab Sample ID: LCS 880-27817/2-A **Client Sample ID: Lab Control Sample Matrix: Solid Prep Type: Soluble** 

**Analysis Batch: 28123** 

Spike LCS LCS %Rec Analyte Added Result Qualifier Unit %Rec Limits Chloride 250 264.7 mg/Kg 106 90 - 110

Lab Sample ID: LCSD 880-27817/3-A Client Sample ID: Lab Control Sample Dup **Matrix: Solid Prep Type: Soluble** 

**Analysis Batch: 28123** 

Spike LCSD LCSD RPD %Rec Analyte Added Result Qualifier Unit %Rec Limits RPD Limit Chloride 250 264.6 106 90 - 110 0 20 mg/Kg

# **QC Association Summary**

Job ID: 880-15967-1 Client: Ensolum Project/Site: Jaguar 18 Stat Com 2H&3H SDG: 03E20240047

**GC VOA** 

Prep Batch: 27986

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-15967-1	SS01	Total/NA	Solid	5035	
880-15967-2	SS02	Total/NA	Solid	5035	
880-15967-3	SS03	Total/NA	Solid	5035	
880-15967-4	SS04	Total/NA	Solid	5035	
MB 880-27986/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-27986/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-27986/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
880-15967-1 MS	SS01	Total/NA	Solid	5035	
880-15967-1 MSD	SS01	Total/NA	Solid	5035	

**Analysis Batch: 28004** 

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-15967-1	SS01	Total/NA	Solid	8021B	27986
880-15967-2	SS02	Total/NA	Solid	8021B	27986
880-15967-3	SS03	Total/NA	Solid	8021B	27986
880-15967-4	SS04	Total/NA	Solid	8021B	27986
MB 880-27986/5-A	Method Blank	Total/NA	Solid	8021B	27986
LCS 880-27986/1-A	Lab Control Sample	Total/NA	Solid	8021B	27986
LCSD 880-27986/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	27986
880-15967-1 MS	SS01	Total/NA	Solid	8021B	27986
880-15967-1 MSD	SS01	Total/NA	Solid	8021B	27986

**Analysis Batch: 28064** 

<b>Lab Sample ID</b> 880-15967-1	Client Sample ID SS01	Prep Type Total/NA	Matrix Solid	Method Total BTEX	Prep Batch
880-15967-2	SS02	Total/NA	Solid	Total BTEX	
880-15967-3	SS03	Total/NA	Solid	Total BTEX	
880-15967-4	SS04	Total/NA	Solid	Total BTEX	

**GC Semi VOA** 

**Analysis Batch: 27643** 

<b>Lab Sample ID</b> 880-15967-1	Client Sample ID SS01	Prep Type Total/NA	Matrix Solid	Method 8015B NM	Prep Batch 27720
880-15967-2	SS02	Total/NA	Solid	8015B NM	27720
880-15967-3	SS03	Total/NA	Solid	8015B NM	27720
MB 880-27720/1-A	Method Blank	Total/NA	Solid	8015B NM	27720
LCS 880-27720/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	27720
LCSD 880-27720/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	27720

Prep Batch: 27720

<b>Lab Sample ID</b> 880-15967-1	Client Sample ID SS01	Prep Type Total/NA	Matrix Solid	Method 8015NM Prep	Prep Batch
880-15967-2	SS02	Total/NA	Solid	8015NM Prep	
880-15967-3	SS03	Total/NA	Solid	8015NM Prep	
MB 880-27720/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-27720/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-27720/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	

# **QC Association Summary**

Client: Ensolum

Project/Site: Jaguar 18 Stat Com 2H&3H

Job ID: 880-15967-1 SDG: 03E20240047

# GC Semi VOA

# **Analysis Batch: 27754**

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-15967-1	SS01	Total/NA	Solid	8015 NM	
880-15967-2	SS02	Total/NA	Solid	8015 NM	
880-15967-3	SS03	Total/NA	Solid	8015 NM	
880-15967-4	SS04	Total/NA	Solid	8015 NM	

# **Analysis Batch: 28190**

<b>Lab Sample ID</b> 880-15967-4	Client Sample ID SS04	Prep Type Total/NA	Matrix Solid	Method 8015B NM	Prep Batch 28233
MB 880-28233/1-A	Method Blank	Total/NA	Solid	8015B NM	28233
LCS 880-28233/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	28233
LCSD 880-28233/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	28233

# Prep Batch: 28233

<b>Lab Sample ID</b> 880-15967-4	Client Sample ID SS04	Prep Type Total/NA	Matrix Solid	Method 8015NM Prep	Prep Batch
MB 880-28233/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-28233/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-28233/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	

# HPLC/IC

# Leach Batch: 27817

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-15967-1	SS01	Soluble	Solid	DI Leach	
880-15967-2	SS02	Soluble	Solid	DI Leach	
880-15967-3	SS03	Soluble	Solid	DI Leach	
880-15967-4	SS04	Soluble	Solid	DI Leach	
MB 880-27817/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-27817/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-27817/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	

# **Analysis Batch: 28123**

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-15967-1	SS01	Soluble	Solid	300.0	27817
880-15967-2	SS02	Soluble	Solid	300.0	27817
880-15967-3	SS03	Soluble	Solid	300.0	27817
880-15967-4	SS04	Soluble	Solid	300.0	27817
MB 880-27817/1-A	Method Blank	Soluble	Solid	300.0	27817
LCS 880-27817/2-A	Lab Control Sample	Soluble	Solid	300.0	27817
LCSD 880-27817/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	27817

1

28123 06/23/22 06:30 CH

SDG: 03E20240047

Project/Site: Jaguar 18 Stat Com 2H&3H

Lab Sample ID: 880-15967-1

**Matrix: Solid** 

Client Sample ID: SS01 Date Collected: 06/15/22 08:35

Date Received: 06/16/22 10:40

Client: Ensolum

Batch Batch Dilution Batch **Prepared** Method or Analyzed **Prep Type** Type Run **Factor** Number Analyst Lab 5035 06/20/22 16:31 XEN MID Total/NA Prep 27986 Total/NA 8021B 28004 06/21/22 12:42 Analysis 1 XEN MID Total/NA Analysis Total BTEX 1 28064 06/21/22 14:49 SM XEN MID Total/NA Analysis 8015 NM 1 06/17/22 08:55 AJ XEN MID 27754 Total/NA Prep 8015NM Prep 27720 06/16/22 15:34 DM XEN MID XEN MID Total/NA Analysis 8015B NM 1 27643 06/17/22 03:33 AJ 27817 06/17/22 12:13 SC XEN MID Soluble Leach DI Leach

Lab Sample ID: 880-15967-2

XEN MID

**Matrix: Solid** 

**Matrix: Solid** 

Client Sample ID: SS02 Date Collected: 06/15/22 08:37

Analysis

300.0

Soluble

Date Received: 06/16/22 10:40

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035			27986	06/20/22 16:31	MR	XEN MID
Total/NA	Analysis	8021B		1	28004	06/21/22 13:03	MR	XEN MID
Total/NA	Analysis	Total BTEX		1	28064	06/21/22 14:49	SM	XEN MID
Total/NA	Analysis	8015 NM		1	27754	06/17/22 08:55	AJ	XEN MID
Total/NA	Prep	8015NM Prep			27720	06/16/22 15:34	DM	XEN MID
Total/NA	Analysis	8015B NM		1	27643	06/17/22 03:54	AJ	XEN MID
Soluble	Leach	DI Leach			27817	06/17/22 12:13	SC	XEN MID
Soluble	Analysis	300.0		1	28123	06/23/22 06:58	CH	XEN MID

Lab Sample ID: 880-15967-3 Client Sample ID: SS03

Date Collected: 06/15/22 08:39 Date Received: 06/16/22 10:40

Batch Dilution Batch Batch Prepared **Prep Type** Type Method Run **Factor** Number or Analyzed Analyst Lab Prep 5035 Total/NA 27986 06/20/22 16:31 MR XEN MID Total/NA 8021B Analysis 1 28004 06/21/22 17:09 MR **XEN MID** Total/NA Analysis Total BTEX 1 28064 06/21/22 14:49 SM XEN MID Total/NA Analysis 8015 NM 1 27754 06/17/22 08:55 AJ XEN MID Total/NA 8015NM Prep 27720 06/16/22 15:34 DM XEN MID Prep Total/NA Analysis 8015B NM 1 27643 06/17/22 04:16 AJ XEN MID XEN MID Soluble Leach DI Leach 27817 06/17/22 12:13 SC Soluble Analysis 300.0 1 28123 06/23/22 07:07 CH XEN MID

Client Sample ID: SS04 Lab Sample ID: 880-15967-4 Date Collected: 06/15/22 08:41 Matrix: Solid

Date Received: 06/16/22 10:40

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035			27986	06/20/22 16:31	MR	XEN MID
Total/NA	Analysis	8021B		1	28004	06/21/22 17:30	MR	XEN MID
Total/NA	Analysis	Total BTEX		1	28064	06/21/22 14:49	SM	XEN MID

# **Lab Chronicle**

Client: Ensolum Job ID: 880-15967-1 Project/Site: Jaguar 18 Stat Com 2H&3H

SDG: 03E20240047

**Client Sample ID: SS04** Lab Sample ID: 880-15967-4 Date Collected: 06/15/22 08:41

**Matrix: Solid** 

Date Received: 06/16/22 10:40

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	8015 NM			27754	06/17/22 08:55	AJ	XEN MID
Total/NA	Prep	8015NM Prep			28233	06/23/22 11:40	DM	XEN MID
Total/NA	Analysis	8015B NM		1	28190	06/24/22 02:11	SM	XEN MID
Soluble	Leach	DI Leach			27817	06/17/22 12:13	SC	XEN MID
Soluble	Analysis	300.0		1	28123	06/23/22 07:16	CH	XEN MID

# **Laboratory References:**

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

# **Accreditation/Certification Summary**

Client: Ensolum Job ID: 880-15967-1 Project/Site: Jaguar 18 Stat Com 2H&3H

SDG: 03E20240047

# **Laboratory: Eurofins Midland**

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

Authority		rogram	Identification Number	Expiration Date	
Texas	N	ELAP	T104704400-21-22	06-30-22	
The following analyte the agency does not	•	ort, but the laboratory is ı	not certified by the governing authority.	This list may include analytes for which	
0 ,					
Analysis Method	Prep Method	Matrix	Analyte		
0 ,		Matrix Solid	Analyte Total TPH		
Analysis Method					

# **Method Summary**

Client: Ensolum

Project/Site: Jaguar 18 Stat Com 2H&3H

Job ID: 880-15967-1

SDG: 03E20240047

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

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

# **Sample Summary**

Client: Ensolum

Project/Site: Jaguar 18 Stat Com 2H&3H

Job ID: 880-15967-1

SDG: 03E20240047

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
880-15967-1	SS01	Solid	06/15/22 08:35	06/16/22 10:40	0.5
880-15967-2	SS02	Solid	06/15/22 08:37	06/16/22 10:40	0.5
880-15967-3	SS03	Solid	06/15/22 08:39	06/16/22 10:40	0.5
880-15967-4	SS04	Solid	06/15/22 08:41	06/16/22 10:40	0.5

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Revised Date: 08/25/2020 Rev 2020.2

environment lesting

# Chain of Custody

Midland TX (432) 704-5440 San Antonio, TX (210) 509-3334 Houston TX (281) 240-4200, Dallas TX (214) 902-0300

REQUEST Preservative Codes	ANALYSIS REQ	Turn Around	JAGUAR 18 STAT COM ZHG 3H	Project Name.
Deliverables EDD ADaPT L. Other	ENSULVALORI	Email FUCNINGISCE ENSULUMI-WIVE	1 1 - 8 2 - C > C 3	Tione
Reporting Level II   PST/UST   TRRP   Level IV		City, State ZIP	MINIMUS IV 14 101	late ZIF
State of Project:	<b>製工の内心のはのののではない</b>	Address:	SOLV MERCENTICO	
Program: UST/PST ☐ PRP ☐ Brownfields ☐ RRC ☐ Superfund ☐	MUUSUS ENSULUM	Company Name	CNJOLOW	Company Name
Work Order Comments	AMBRITANIO KALEI JENWINGS	Bill to (if different)	KHICH JENNINGS	Project Manager
www.xenco.com Page of I			MAIN TENNINGS	
-	Hobbs NM (575) 392-7550 Carlsbad, NM (575) 988-3199	Hobbs NM		
	EL Paso TX (915) 585-3443 Lubbock, TX (806) 794-1296	EL Paso T		

Phone

				200	0000	A			THE TOTAL PROPERTY.	Jaarry Ciger
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	Date/Time	Received by (Signature)	Relinquished by (Signature)	Date/Time R	Dat	ture)	Received by (Signature)	Receiv	Signature) /	Relinquished by: (Signature)
		forced unless previously negotiated.	arou a change of so for each summered to Euronns Aenco, but not analyzed. These terms will be enforced unless previously negotiated.	inted to Eurotins Xenco	i sampie supri	large of ap for eac	ii project ailu a ci	applied to car	30 00 000 000	
		ircumstances beyond the control	of service. Eurofins Xenco will be liable only for the cost of samples and shall not assume any responsibility for any losses or expenses incurred by the client if such losses are due to circumstances beyond the control of Eurofins Xenco. A minimum charge of \$85.00 will be applied to each project and a shall not assume any responsibility for any losses or expenses incurred by the client if such losses are due to circumstances beyond the control	ses or expenses incurr	lity for any los	ime any responsib	and shall not assu	st of samples	vill be liable only for the co	of service. Eurofins Xenco v of Eurofins Xenco. A minim
		s standard terms and conditions	Notice: Signature of this document and relinquishment of samples constitutes a valid purchase order from client company to Eurofins Xenco, its affiliates and subcontractors. It assums standard forms and conditions	ny to Eurofins Xenco. it	n client compa	urchase order from	nstitutes a valid p	t of samples co	ument and relinquishmen	Notice: Signature of this doc
/0	470 / 7471	Ag TI U Hg 1631 / 245 1 / 7470 / 7471	Cd Cr Co Cu Pb Mn Mo Ni Se Ag	Sb As Ba Be Cd C	8RCRA Sb	TCLP / SPLP 6010 8F	TCLP / SI	/zed	Metal(s) to be analy	Circle Method(s) and Metal(s) to be analyzed
(0.0.5	Sn U V Zn	Ph Mg Mn Mo Ni K Se Ag SiO <sub>2</sub> Na Sr Ti Sn U V Zn	Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn	∖s BaBeBCd	Al Sb /	8RCRA 13PPM Texas 11 Al Sb As	8RCRA 13P		200.8 / 6020:	Total 200.7 / 6010
						<u>\</u>		_		
						-				
			880-15967 Chain of Custody							
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	nter:	Cost Center	1 1				0839			2003
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	₽	Incident ID		×	×	200	0035	6-15-22	78	1935
Pa	Sample Comments	San			Cont	Comp	Sampled	Sampled		
age				H (80	# Q	Donth Grab/	Time	Date	cation Matrix	Sample Identification
e 2	NaOH+Ascorbic Acid SAPC	NaOH+As		)15) B021	IDE	0	Corrected Temperature	Corrected		Total Containers:
1 c	Zn Acetate+NaOH Zn	Zn Acetat			S (E	<b>ა</b>	re Reading:	Temperature Reading	Yes No NIA	Sample Custody Seals:
f 2	NaSO <sub>3</sub>	Na <sub>2</sub> S <sub>2</sub> O <sub>3</sub> NaSO <sub>3</sub>				7.7.	Factor:	Correction Factor:	Yes No (N/A	Cooler Custody Seals:
2	NABIS	NaHSO <sub>4</sub> NABIS				202	er io	Thermometer ID	at: \ Yes No	Samples Received Intact
	י <del>ס</del>	H <sub>3</sub> PO <sub>4</sub> HP			nete .0)	Yes No	) Wet Ice.	Yes No	Temp Blank	SAMPLE RECEIPT
		H <sub>2</sub> S0 <sub>4</sub> H <sub>2</sub>			ers	the lab, if received by 4.30pm	the lab, if rece			PO#:
		HCL HC				TAT starts the day received by	TAT starts the	٥	HADLIE GREEN	ler's Name.
	MeOH Me	Cool Cool					Due Date	Sapo	32.29932, -103.1606S	Project Location: 3
	DI Water: H <sub>2</sub> O	None NO			Code	Rush	☑ Routine		Chach 202380	Project Number: 0
	Preservative Codes	Pres	ANALYSIS REQUEST			Turn Around		15 SH2 DAG	JAGUAR 18 STAT COM ZHG 3H	Project Name.
			Constitution of the conference		-		-	,		

Work Order No:
15967

## **Login Sample Receipt Checklist**

Client: Ensolum Job Number: 880-15967-1 SDG Number: 03E20240047

Login Number: 15967 **List Source: Eurofins Midland** 

List Number: 1

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 <6mm (1/4").	N/A	



APPENDIX D

**NMOCD Notification** 

From: Nobui, Jennifer, EMNRD

To: Kalei Jennings

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

Subject: FW: [EXTERNAL] Sampling Notification (Week of 06/13/22-06/17/22)

**Date:** Wednesday, June 8, 2022 4:31:39 PM

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: Wednesday, June 8, 2022 4:21 PM

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

**Subject:** Fw: [EXTERNAL] Sampling Notification (Week of 06/13/22-06/17/22)

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

Sent: Wednesday, June 8, 2022 4:11 PM

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

**Subject:** [EXTERNAL] Sampling Notification (Week of 06/13/22-06/17/22)

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

All,

COP plans to complete final sampling activities at the following sites the week of June 13, 2022.

#### Monday

Columbus Fed 021 & 022H CTB / NAPP2203830124

#### Tuesday

- Battle Axe Federal Com 002H / NAPP2134740531
- Broadcaster 29 Federal 3H / NAPP2201938653 & NAPP2132773092

- Super Cobra State Com #001H / NAPP2211531225
- Raspberry State Com 001H / NAPP2213029810

## Wednesday

- Raspberry State Com 001H / NAPP2213029810
- Jaguar 18 State Com 002H & 003H / NAPP2213643210

•

Thursday

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	
District RP	
Facility ID	
Application ID	

# **Release Notification**

## **Responsible Party**

Responsible Party			OGRID				
Contact Nam	ie			Contact	et Telephone		
Contact emai	i1			Inciden	t # (assigned by OCD	)	
Contact mail	ing address			<b>'</b>			
					~		
			Location	of Release	Source		
Latitude				Longitud	e		
			(NAD 83 in dec	cimal degrees to 5 de	ecimal places)		
Site Name				Site Typ	e		
Date Release Discovered			API# (if	API# (if applicable)			
Unit Letter   Section   Township   Range			Co	ounty			
Ont Letter	Section	Township	Runge		, unity	-	
						_	
Surface Owner	r: State	☐ Federal ☐ Tr	ribal Private (I	Name:		)	
			Nature and	d Volume o	f Release		
Crude Oil		l(s) Released (Select al Volume Release		calculations or spec	Volume Reco	e volumes provided below) overed (bbls)	
Produced	Water	Volume Release	` ,		Volume Recovered (bbls)		
			ion of dissolved c	chloride in the	Yes No		
		produced water					
Condensa	te	Volume Release	d (bbls)		Volume Reco	overed (bbls)	
Natural G	as	Volume Release	d (Mcf)		Volume Reco	Volume Recovered (Mcf)	
Other (des	scribe)	Volume/Weight	Released (provide	e units)	Volume/Weight Recovered (provide units)		
Cause of Rele	ease						

Received by OCD: 7/27/2022 3:52:13 PM Form C-141 State of New Mexico Page 2 Oil Conservation Division

	Page 45 of	<i>50</i>
Incident ID		
District RP		
Facility ID		

Application ID

Was this a major release as defined by	If YES, for what reason(s) does the responsible party consider this a major release?
19.15.29.7(A) NMAC?	
☐ Yes ☐ No	
If VES, was immediate no	otice given to the OCD? By whom? To whom? When and by what means (phone, email, etc)?
II 1E3, was illinediate no	once given to the OCD: By whom: To whom: when and by what means (phone, eman, etc):
	Initial Response
The responsible p	party must undertake the following actions immediately unless they could create a safety hazard that would result in injury
☐ The source of the rele	ease has been stopped.
☐ The impacted area ha	s been secured to protect human health and the environment.
Released materials ha	we been contained via the use of berms or dikes, absorbent pads, or other containment devices.
	ecoverable materials have been removed and managed appropriately.
If all the actions described	d above have <u>not</u> been undertaken, explain why:
D 1017.00 0 D (1) 1114	
has begun, please attach	AC the responsible party may commence remediation immediately after discovery of a release. If remediation a narrative of actions to date. If remedial efforts have been successfully completed or if the release occurred at area (see 19.15.29.11(A)(5)(a) NMAC), please attach all information needed for closure evaluation.
regulations all operators are public health or the environment failed to adequately investigation	rmation given above is true and complete to the best of my knowledge and understand that pursuant to OCD rules and required to report and/or file certain release notifications and perform corrective actions for releases which may endanger nent. The acceptance of a C-141 report by the OCD does not relieve the operator of liability should their operations have ate and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In f a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws
Printed Name	Title:
Signature: _	Title: Date:
	Telephone:
OCD Only	
Received by:	Date:

Spill Calculation - On Pad Surface Pool Spill

Estimated volume

of each pool area

(bbl.)

0.134

#DIV/0!

#DIV/0!

#DIV/0!

#DIV/0!

#DIV/0!

#DIV/0!

#DIV/0!

#DIV/0!

#DIV/0!

Penetration

allowance

(ft.)

0.000

#DIV/0!

#DIV/0!

#DIV/0!

#DIV/0!

#DIV/0!

#DIV/0!

#DIV/0!

#DIV/0!

#DIV/0!

Total Volume Release:

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Total Estimated

Volume of Spill

(bbl.)

0.134

#DIV/0!

#DIV/0!

#DIV/0!

#DIV/0!

#DIV/0!

#DIV/0!

#DIV/0!

#DIV/0!

#DIV/0!

0.134

D ' 11 OCD #/28/2022 2 52 12 DM	L48 Spill Volume Estimate Form
Received by OCD: 7/27/2022 3:52:13 PM mber: Jaguar 18 State #2 & #3 Battery	

Asset Area: DBE Release Discovery Date & Time: 5/7/2022 19:45 Release Type: Oil

of "shore" in each

area

Length

(ft.)

18.0

Refeased to Imaging: 8/2/2022 11:57:33 AM

Convert Irregular shape

into a series of

rectangles

Rectangle A

Rectangle B

Rectangle C

Rectangle D

Rectangle E

Rectangle F

Rectangle G

Rectangle H

Rectangle I

Provide any known details about the event: Oil to flare due to flow line restriction between ko and heater

Width

(ft.)

8.0

Deepest point in

each of the

areas

(in.)

0.25

Estimated No. of boundaries Estimated Pool Average

Depth

(ft.)

0.005

#DIV/0!

#DIV/0!

#DIV/0!

#DIV/0!

#DIV/0!

#DIV/0!

#DIV/0!

#DIV/0!

#DIV/0!

Area

(sq. ft.)

144,000

0.000

0.000

0.000

0.000

0.000

0.000

0.000

0.000

0.000

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Incident ID	NAPP2213643210
District RP	
Facility ID	fAPP2203953388
Application ID	

# Site Assessment/Characterization

This information must be provided to the appropriate district office no taler than 70 days after the release discovery date.				
What is the shallowest depth to groundwater beneath the area affected by the release?	>100 (ft bgs)			
Did this release impact groundwater or surface water?	☐ Yes ⊠ No			
Are the lateral extents of the release within 300 feet of a continuously flowing watercourse or any other significant watercourse?	☐ Yes ⊠ No			
Are the lateral extents of the release within 200 feet of any lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark)?	☐ Yes ⊠ No			
Are the lateral extents of the release within 300 feet of an occupied permanent residence, school, hospital, institution, or church?	☐ Yes ⊠ No			
Are the lateral extents of the release within 500 horizontal feet of a spring or a private domestic fresh water well used by less than five households for domestic or stock watering purposes?	☐ Yes ⊠ No			
Are the lateral extents of the release within 1000 feet of any other fresh water well or spring?	☐ Yes ⊠ No			
Are the lateral extents of the release within incorporated municipal boundaries or within a defined municipal fresh water well field?	☐ Yes ⊠ No			
Are the lateral extents of the release within 300 feet of a wetland?	☐ Yes ⊠ No			
Are the lateral extents of the release overlying a subsurface mine?	☐ Yes ⊠ No			
Are the lateral extents of the release overlying an unstable area such as karst geology?	☐ Yes ⊠ No			
Are the lateral extents of the release within a 100-year floodplain?	☐ Yes ⊠ No			
Did the release impact areas <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 well</li> <li>Field data</li> <li>Data table of soil contaminant concentration data</li> <li>Depth to water determination</li> </ul>	ls.			

Characterization Report Checklist: Each of the following items must be included in the report.					
Characterization Report Checking. Due of the following terms must be included in the report.					
Scaled site map showing impacted area, surface features, subsurface features, delineation points, and monitoring wells.					
🔀 Field data					
Data table of soil contaminant concentration data					
Depth to water determination					
Determination of water sources and significant watercourses within ½-mile of the lateral extents of the release					
Boring or excavation logs					
Photographs including date and GIS information					
☐ Topographic/Aerial maps					
☐ Laboratory data including chain of custody					

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

Received by OCD: 7/27/2022 3:52:13 PM Form C-141 State of New Mexico Page 4 Oil Conservation Division

	P	ag	;e	4	8	of	5	0
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Incident ID	NAPP2213643210
District RP	
Facility ID	fAPP2203953388
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:Charles Beauvais	Title: Senior Environmental Engineer			
Signature: Charles R. Beauvais 19	Date:07/22/2022			
email: Charles.R.Beauvais@conocophillips.com	Telephone:(575) 988-2043			
OCD Only				
Received by:	Date:			

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Incident ID	NAPP2213643210
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Facility ID	fAPP2203953388
Application ID	

# Closure

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

Closure Report Attachment Checklist: Each of the following	g items must be included in the closure report.					
Photographs of the remediated site prior to backfill or photos of the liner integrity if applicable (Note: appropriate OCD District office must be notified 2 days prior to liner inspection)						
☐ Laboratory analyses of final sampling (Note: appropriate OI	DC District office must be notified 2 days prior to final sampling)					
Description of remediation activities						
and regulations all operators are required to report and/or file certamay endanger public health or the environment. The acceptance of should their operations have failed to adequately investigate and rehuman health or the environment. In addition, OCD acceptance of compliance with any other federal, state, or local laws and/or regulatestore, reclaim, and re-vegetate the impacted surface area to the caccordance with 19.15.29.13 NMAC including notification to the Printed Name:	Title:Senior Environmental Engineer					
Signature: Charles R. Beauvais 99						
email: Charles.R.Beauvais@conocophilips.com	Telephone:(575) 988-2043					
OCD Only						
Received by:	Date:					
	ty of liability should their operations have failed to adequately investigate and e water, human health, or the environment nor does not relieve the responsible d/or regulations.					
Closure Approved by:	Date: 08/02/2022					
Closure Approved by:	Title: Environmental Specialist A					

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

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

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

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 129255

### **CONDITIONS**

Operator:	OGRID:
CONOCOPHILLIPS COMPANY	217817
600 W. Illinois Avenue	Action Number:
Midland, TX 79701	129255
	Action Type:
	[C-141] Release Corrective Action (C-141)

#### CONDITIONS

Created By	Condition	Condition Date
jnobui	Closure Report Approved.	8/2/2022