ENSOLUM

May 24, 2023

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

Re: Closure Request
Treasure Island Federal 001H
Incident Number NAPP2310337528
Lea County, New Mexico

To Whom It May Concern:

Ensolum, LLC (Ensolum), on behalf of COG Operating, LLC (COG), has prepared this *Closure Request* to document assessment and soil sampling activities performed at the Treasure Island Federal 001H (Site). The purpose of the Site assessment and soil sampling activities was to assess for the presence or absence of impacts to soil following small a crude oil flare fire at the Site. Based on field observations, field screening activities, and soil sample laboratory analytical results, COG is submitting this *Closure Request,* requesting closure for Incident Number NAPP2310337528.

SITE DESCRIPTION AND RELEASE SUMMARY

The Site is located in Unit P, Section 23, Township 24 South, Range 32 East, in Lea County, New Mexico (32.1961°, -103.6383°) and is associated with oil and gas exploration and production operations on Federal Land managed by the Bureau of Land Management (BLM).

On March 31, 2023, an oil dump malfunction caused approximately 0.01 barrels (bbls) of crude oil to be sent to the flare. The crude oil ignited and extinguished itself after reaching the ground. COG reported the release immediately to the New Mexico Oil Conservation Division (NMOCD) via email on March 31, 2023, and submitted a Release Notification Form C-141 (Form C-141) on April 13, 2023. The release was assigned Incident Number NAPP2310337528.

SITE CHARACTERIZATION AND CLOSURE CRITERIA

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

Depth to groundwater at the Site is estimated to be greater than 55 feet below ground surface (bgs) based on the nearest groundwater well data. The closest permitted groundwater well with depth to groundwater data is New Mexico Office of the State Engineer (NMOSE) C-04622, located approximately 0.68 miles east of the Site. The groundwater well was drilled during June 2022 to a total depth of 55 feet bgs, and no groundwater was encountered. All wells used for depth to groundwater determination are presented on Figure 1. The associated well records are included in Appendix A.

The closest continuously flowing or significant watercourse to the Site is a wetland, located approximately 1.8 miles northwest of the Site. The Site is greater than 200 feet from a lakebed, sinkhole, or playa lake and greater than 300 feet from an occupied residence, school, hospital, institution, church, or wetland. The Site is greater than 1,000 feet to a freshwater well or spring and is not within a 100-year floodplain or overlying a subsurface mine. The Site is not underlain by unstable geology (low potential karst designation area). Site receptors are identified on Figure 1.

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

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

SITE ASSESSMENT ACTIVITIES AND LABORATORY ANALYTICAL RESULTS

On April 28, 2023, Ensolum personnel were at the Site to evaluate the release extent based on information provided on the Form C-141 and visual observations. No visible indications of the release or fire were observed. Four soil samples (SS01 through SS04) were collected around the flare stack at a depth of approximately 0.5 feet bgs to confirm the lateral extent of the release. One borehole was advanced via hand-auger beneath the flare stack to assess for the presence or absence of impacted soil resulting from the crude oil flare fire. Discrete soil samples SS05 and SS05A were collected from the borehole at depths of approximately 0.5 feet bgs and 1-foot bgs, respectively. The soil samples were field screened for volatile organic compounds (VOCs) utilizing a calibrated photoionization detector (PID) and chloride using Hach® chloride QuanTab® test strips. Field screening results and observations for the borehole were logged on a lithologic soil sampling log, which is included in Appendix B. The soil sample locations were mapped utilizing a handheld Global Positioning System (GPS) unit and are depicted on Figure 2. Photographic documentation was completed during the Site visit and a photographic log is included as Appendix C.

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

Laboratory analytical results for soil samples SS01 through SS04 and SS05/SS05A, collected within and around the flare stack, indicated all COC concentrations were compliant with the most stringent Table I Closure Criteria. Laboratory analytical results are summarized in Table 1 and the complete laboratory analytical reports are included as Appendix D.

CLOSURE REQUEST

Site assessment activities were conducted at the Site to assess for the presence or absence of impacted soil resulting from the March 31, 2023, crude oil flare fire. Laboratory analytical results for the soil samples, collected within and around the flare stack, indicated all COC concentrations were compliant with the most stringent Table I Closure Criteria.

Depth to groundwater has been estimated to be between 51 and 100 feet bgs and no other sensitive receptors were identified near the release extent. Based on soil sample laboratory analytical results compliant with the most stringent Table 1 Closure Criteria, no impacted soil was identified, and no excavation was warranted as a result of the small crude oil fire. As such, COG respectfully requests closure for Incident Number NAPP2310337528. The C-141 is included in Appendix F.

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

Sincerely,
Ensolum, LLC

Peter Van Patten
Project Geologist

Aimee Cole
Senior Managing Scientist

cc: Jacob Laird, COG Operating, LLC
Bureau of Land Management

Appendices:

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

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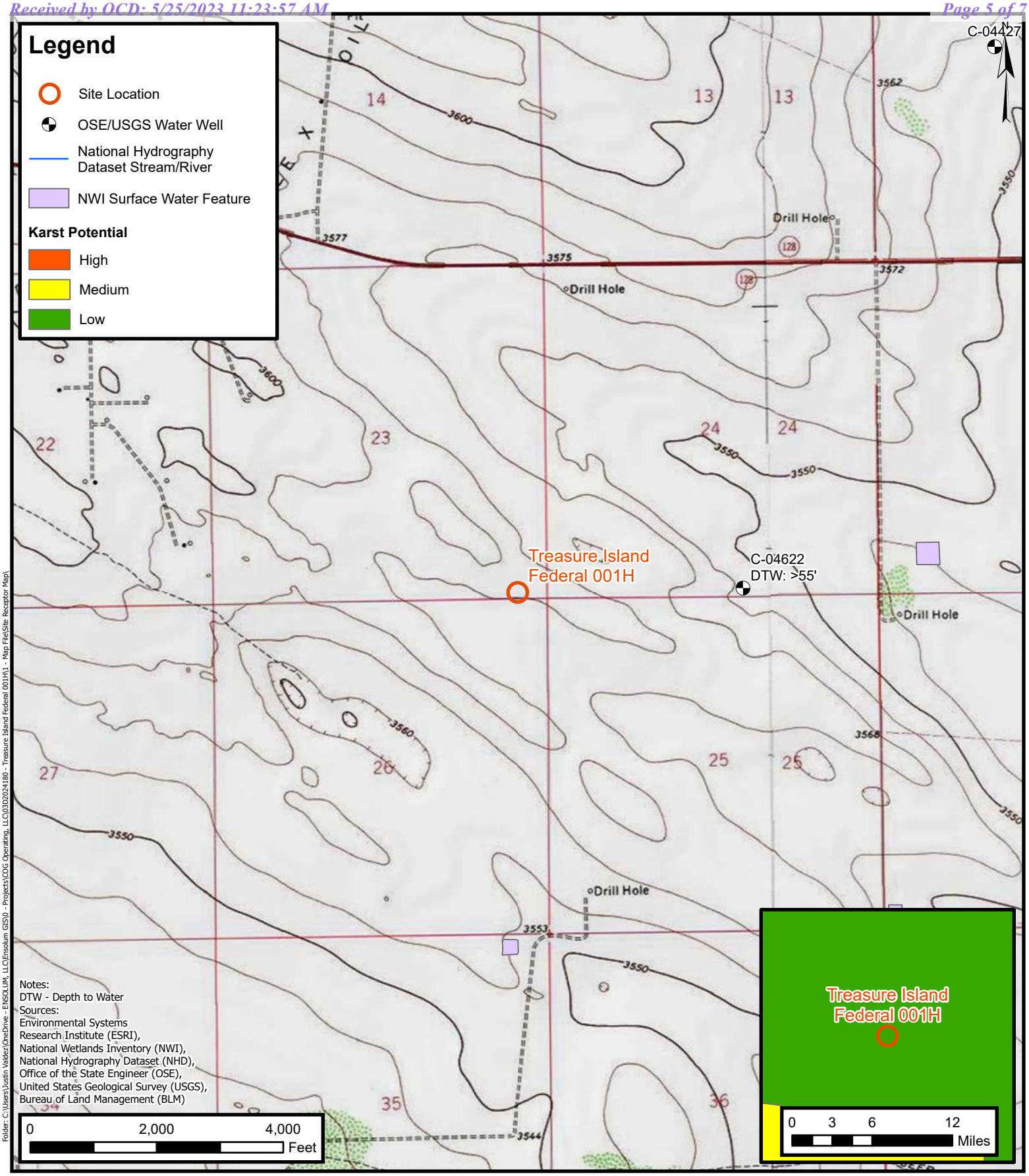
FIGURES



Folder: C:\Users\Justin Valdez\OneDrive - ENSOLUM, LLC\Ensolum GIS\0 - Projects\COG Operating, LLC\03202024180 - Treasure Island Federal 001H\1 - Map File\Site Receptor Map\

ENSOLUM
Environmental, Engineering and Hydrogeologic Consultants

Site Receptor Map

COG Operating, LLC
Treasure Island Federal 001H
Incident Number: NAPP2310337528
Unit P, Sec 23, T24S, R32E
Lea County, New Mexico

FIGURE 1

Folder: C:\Users\Justin Valdez\OneDrive - ENSOLUM, LLC\Ensolum GIS\0 - Projects\COG Operating, LLC\03202024180 - Treasure Island Federal 001H\1 - Map File\Delineation Soil Sample Locations Map\

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Environmental, Engineering and Hydrogeologic Consultants

Soil Sample Locations

COG Operating, LLC
Treasure Island Federal 001H
Incident Number: NAPP2310337528
Unit P, Sec 23, T24S, R32E
Lea County, New Mexico

FIGURE 2

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TABLES

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TABLE 1
SOIL SAMPLE ANALYTICAL RESULTS
Treasure Island Federal 001H
COG Operating, LLC
Lea County, New Mexico

Sample Designation	Date	Depth (feet bgs)	Benzene (mg/kg)	Total BTEX (mg/kg)	TPH GRO (mg/kg)	TPH DRO (mg/kg)	TPH ORO (mg/kg)	GRO+DRO (mg/kg)	Total TPH (mg/kg)	Chloride (mg/kg)
NMOCD Table I Closure Criteria (NMAC 19.15.29)			**10**	**50**	**NE**	**NE**	**NE**	**1,000**	**2,500**	**10,000**
Preliminary Assessment Soil Samples										
SS01	4/28/2023	0.5	<0.00198	<0.00396	<49.8	<49.8	<49.8	<49.8	<49.8	73.8
SS02	4/28/2023	0.5	<0.00201	<0.00402	<50.0	<50.0	<50.0	<50.0	<50.0	76.9
SS03	4/28/2023	0.5	<0.00200	<0.00401	<50.0	<50.0	<50.0	<50.0	<50.0	59.0
SS04	4/28/2023	0.5	<0.00199	<0.00398	<50.0	<50.0	<50.0	<50.0	<50.0	73.6
SS05	4/28/2023	0.5	<0.00199	<0.00398	<50.0	<50.0	<50.0	<50.0	<50.0	72.7
SS05A	4/28/2023	1	<0.00202	<0.00403	<50.0	<50.0	<50.0	<50.0	<50.0	76.7

Notes:

bgs: below ground surface
mg/kg: milligrams per kilogram
NMOCD: New Mexico Oil Conservation Division
NMAC: New Mexico Administrative Code
BTEX: Benzene, Toluene, Ethylbenzene, and Xylenes
GRO: Gasoline Range Organics
DRO: Diesel Range Organics
ORO: Oil Range Organics
TPH: Total Petroleum Hydrocarbon

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APPENDIX A

Referenced Well Records

WELL RECORD & LOG

OFFICE OF THE STATE ENGINEER

www.ose.state.nm.us

1. GENERAL AND WELL LOCATION

OSE POD NO. (WELL NO.)	WELL TAG ID NO.	OSE FILE NO(S).
POD 1 (TW-1)	N/A	C-4622

WELL OWNER NAME(S)	PHONE (OPTIONAL)
Devon Energy	575-748-1838

WELL OWNER MAILING ADDRESS	CITY	STATE	ZIP
6488 7 Rivers Hwy	Artesia	NM	88210

WELL LOCATION (FROM GPS)		DEGREES	MINUTES	SECONDS	
	LATITUDE	32	11	46.22	N
	LONGITUDE	103	37	36.41	W

* ACCURACY REQUIRED: ONE TENTH OF A SECOND
* DATUM REQUIRED: WGS 84

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

SW SW SE Sec.24 T24S R32S NMPM

2. DRILLING & CASING INFORMATION

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

DRILLING STARTED	DRILLING ENDED	DEPTH OF COMPLETED WELL (FT)	BORE HOLE DEPTH (FT)	DEPTH WATER FIRST ENCOUNTERED (FT)
6/7/2022	6/7/2022	Temporary Well	±55	N/A

COMPLETED WELL IS: ☐ ARTESIAN ☑ DRY HOLE ☐ SHALLOW (UNCONFINED)

STATIC WATER LEVEL IN COMPLETED WELL (FT): N/A

DATE STATIC MEASURED: 6/13/2022

DRILLING FLUID: ☐ AIR ☐ MUD ADDITIVES – SPECIFY:

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

CHECK HERE IF PITLESS ADAPTER IS INSTALLED ☐

DEPTH (feet bgl) FROM	DEPTH (feet bgl) TO	BORE HOLE DIAM (inches)	CASING MATERIAL AND/OR GRADE (include each casing string, and note sections of screen)	CASING CONNECTION TYPE (add coupling diameter)	CASING INSIDE DIAM. (inches)	CASING WALL THICKNESS (inches)	SLOT SIZE (inches)
0	55	±6.5	Boring-HSA	--	--	--	--

3. ANNULAR MATERIAL

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

OSE DII JUN 16 2022 PM3:03

FOR OSE INTERNAL USE

WR-20 WELL RECORD & LOG (Version 01/28/2022)

FILE NO. C-4622-POD1	POD NO. 1	TRN NO. 726166
LOCATION 24.32.24.334	WELL TAG ID NO. —	PAGE 1 OF 2

4. HYDROGEOLOGIC LOG OF WELL

DEPTH (feet bgl) FROM	DEPTH (feet bgl) TO	THICKNESS (feet)	COLOR AND TYPE OF MATERIAL ENCOUNTERED - INCLUDE WATER-BEARING CAVITIES OR FRACTURE ZONES (attach supplemental sheets to fully describe all units)	WATER BEARING? (YES / NO)	ESTIMATED YIELD FOR WATER-BEARING ZONES (gpm)
0	4	4	Sand, Fine-grained, poorly graded, 2.5 YR 3/6, Dark Red	Y ✓ N	
4	13	9	Caliche, with Fine-grained sand, 7.5 YR 7/4, Pink	Y ✓ N	
13	34	21	Sand, Fine-grained, poorly graded, with Caliche, 7.5 YR 7/6, Reddish Yellow	Y ✓ N	
34	55	21	Sand, Fine-grained, poorly graded,unconsolidated, 7.5 YR 7/6, Reddish Yellow	Y ✓ N	
				Y N	
				Y N	
				Y N	
				Y N	
				Y N	
				Y N	
				Y N	
				Y N	
				Y N	
				Y N	
				Y N	
				Y N	
				Y N	
				Y N	
				Y N	
				Y N	
				Y N	

METHOD USED TO ESTIMATE YIELD OF WATER-BEARING STRATA:

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

TOTAL ESTIMATED WELL YIELD (gpm): 0.00

5. TEST; RIG SUPERVISION

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

MISCELLANEOUS INFORMATION: Temporary well material removed and soil boring backfilled using drill cuttings from total depth to ten feet below ground surface(bgs), then hydrated bentonite chips ten feet bgs to surface.
15
Bell Lake 24 Fed 4

OSE DII JUN 16 2022 PM3:09

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

Shane Eldridge, Cameron Pruitt

6. SIGNATURE

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

Jack Atkins — Jackie D. Atkins — 6/16/2022

SIGNATURE OF DRILLER / PRINT SIGNEE NAME — DATE

FOR OSE INTERNAL USE — WR-20 WELL RECORD & LOG (Version 01/28/2022)

FILE NO. C-4622-POD1	POD NO. 1	TRN NO. 726166	
LOCATION 24.32.24.334		WELL TAG ID NO. —	PAGE 2 OF 2

Mike A. Hamman, P.E.
State Engineer

Roswell Office
1900 WEST SECOND STREET
ROSWELL, NM 88201

STATE OF NEW MEXICO
OFFICE OF THE STATE ENGINEER

Trn Nbr: 726166
File Nbr: C 04622
Well File Nbr: C 04622 POD1

Jun. 16, 2022

DALE WOODALL
DEVON ENERGY
6488 7 RIVERS HWY
ARTESIA, NM 88210

Greetings:

The above numbered permit was issued in your name on 05/23/2022.

The Well Record was received in this office on 06/16/2022, stating that it had been completed on 06/07/2022, and was a dry well. The well is to be plugged according to 19.27.4.30 NMAC.

Please note that another well can be drilled under this permit if the well is completed and the well log filed on or before 05/23/2023.

If you have any questions, please feel free to contact us.

Sincerely,

Maret Amaral
(575)622-6521

drywell

Atkins
ENGINEERING ASSOCIATES INC.

2904 W 2nd St.
Roswell, NM 88201
voice: 575.624.2420
fax: 575.624.2421
www.atkinseng.com

June 8, 2022

DII-NMOSE
1900 W 2nd Street
Roswell, NM 88201

Hand Delivered to the DII Office of the State Engineer

Re: Well Record C-4622 Pod1 at Bell Lake 24 Fed 4

To whom it may concern:

Attached please find a well log & record and a plugging record, in duplicate, for a one (1) soil borings, C-4622 Pod1.

If you have any questions, please contact me at 575.499.9244 or lucas@atkinseng.com.

Sincerely,

Lucas Middleton

Enclosures: as noted above

OSE DII JUN 16 2022 PM3:09

OSE DIT JUL 9 2021 PM1:52

WELL RECORD & LOG

OFFICE OF THE STATE ENGINEER

www.ose.state.nm.us

OSE DIT JUN 2L 2021 PM10:14

1. GENERAL AND WELL LOCATION

OSE POD NO. (WELL NO.)	WELL TAG ID NO.	OSE FILE NO(S).
~~C-4536~~ POD 1	20E37	C-4536

WELL OWNER NAME(S)	PHONE (OPTIONAL)
BASIN PROPERTIES RANCHES LLC	

WELL OWNER MAILING ADDRESS	CITY	STATE	ZIP
3300 N A STREET, BLDG 1, STE 220	MIDLAND	TX	79705

WELL LOCATION (FROM GPS)		DEGREES	MINUTES	SECONDS	
	LATITUDE	32	10	50.8	N
	LONGITUDE	103	40	25.9	W

* ACCURACY REQUIRED: ONE TENTH OF A SECOND

* DATUM REQUIRED: WGS 84

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

2. DRILLING & CASING INFORMATION

LICENSE NO.	NAME OF LICENSED DRILLER	NAME OF WELL DRILLING COMPANY
WD1706	Bryce Wallace	Elite Drillers Corporation

DRILLING STARTED	DRILLING ENDED	DEPTH OF COMPLETED WELL (FT)	BORE HOLE DEPTH (FT)	DEPTH WATER FIRST ENCOUNTERED (FT)
06/09/21	06/10/21	500	500	314

COMPLETED WELL IS: ☐ ARTESIAN ☐ DRY HOLE ☑ SHALLOW (UNCONFINED)

STATIC WATER LEVEL IN COMPLETED WELL (FT): 314

DRILLING FLUID: ☑ AIR ☐ MUD ADDITIVES – SPECIFY:

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

DEPTH (feet bgl) FROM	DEPTH (feet bgl) TO	BORE HOLE DIAM (inches)	CASING MATERIAL AND/OR GRADE (include each casing string, and note sections of screen)	CASING CONNECTION TYPE (add coupling diameter)	CASING INSIDE DIAM. (inches)	CASING WALL THICKNESS (inches)	SLOT SIZE (inches)
0	20	12 3/4	STEEL	N/A	8.28	.337	
0	300	7 7/8	SDR17 PVC	SPLINE	4.3	SDR17	
300	500	7 7/8	SDR17 PVC	SPLINE	4.3	SDR17	.032

3. ANNULAR MATERIAL

DEPTH (feet bgl) FROM	DEPTH (feet bgl) TO	BORE HOLE DIAM. (inches)	LIST ANNULAR SEAL MATERIAL AND GRAVEL PACK SIZE-RANGE BY INTERVAL	AMOUNT (cubic feet)	METHOD OF PLACEMENT
0	20	12 3/4	CEMENT	10	TOP FILL
0	20	7 7/8	CEMENT	6	TOP FILL
300	500	7 7/8	8/16 SILICA SAND	46	TOP FILL

FOR OSE INTERNAL USE

WR-20 WELL RECORD & LOG (Version 06/30/17)

FILE NO. C-4536-POD1	POD NO. 1	TRN NO. 695378	
LOCATION STK 24.32.33.122		WELL TAG ID NO. 20E37	PAGE 1 OF 2

OSE DIT JUL 9 2021 PM1:53

OSE DIT JUN 21 2021 PM10:14

4. HYDROGEOLOGIC LOG OF WELL

DEPTH (feet bgl) FROM	DEPTH (feet bgl) TO	THICKNESS (feet)	COLOR AND TYPE OF MATERIAL ENCOUNTERED - INCLUDE WATER-BEARING CAVITIES OR FRACTURE ZONES (attach supplemental sheets to fully describe all units)	WATER BEARING? (YES / NO)	ESTIMATED YIELD FOR WATER-BEARING ZONES (gpm)
0	3	3	RED SAND	Y ✓ N	
3	12	9	CALICHE	Y ✓ N	
12	180	168	RED CLAY	Y ✓ N	
180	235	415	TAN SANDSTONE	Y ✓ N	
235	480	245	TAN SANDSTONE & CLAY STRINGERS	✓ Y N	4.00
480	500	20	RED CLAY WITH SAND STRINGERS	Y ✓ N	
				Y N	
				Y N	
				Y N	
				Y N	
				Y N	
				Y N	
				Y N	
				Y N	
				Y N	
				Y N	
				Y N	
				Y N	
				Y N	
				Y N	

METHOD USED TO ESTIMATE YIELD OF WATER-BEARING STRATA:

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

TOTAL ESTIMATED WELL YIELD (gpm): 4.00

5. TEST; RIG SUPERVISION

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

MISCELLANEOUS INFORMATION:

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

6. SIGNATURE

THE UNDERSIGNED HEREBY CERTIFIES THAT, TO THE BEST OF HIS OR HER KNOWLEDGE AND BELIEF, THE FOREGOING IS A TRUE AND CORRECT RECORD OF THE ABOVE DESCRIBED HOLE AND THAT HE OR SHE WILL FILE THIS WELL RECORD WITH THE STATE ENGINEER AND THE PERMIT HOLDER WITHIN 20 DAYS AFTER COMPLETION OF WELL DRILLING:

Bryce Wallace — SIGNATURE OF DRILLER / PRINT SIGNEE NAME

06/16/2021 — DATE

FOR OSE INTERNAL USE

WR-20 WELL RECORD & LOG (Version 06/30/2017)

FILE NO. C-4536-POD1	POD NO. 1	TRN NO. 695378	
LOCATION STK-24.32.33.122		WELL TAG ID NO. 20E37	PAGE 2 OF 2

USGS 321021103402301 24S.32E.33.42241

Available data for this site SUMMARY OF ALL AVAILABLE DATA GO

Well Site

DESCRIPTION:

Latitude 32°10'21.6", Longitude 103°40'18.9" NAD83
Lea County, New Mexico , Hydrologic Unit 13070001
Well depth: 367 feet
Land surface altitude: 3,499.00 feet above NGVD29.
Well completed in "Other aquifers" (N9999OTHER) national aquifer.
Well completed in "Chinle Formation" (231CHNL) local aquifer

AVAILABLE DATA:

Data Type	Begin Date	End Date	Count
Field groundwater-level measurements	1959-02-18	2013-01-17	7
Revisions	Unavailable (site:0) (timeseries:0)		

OPERATION:

Record for this site is maintained by the USGS New Mexico Water Science Center
Email questions about this site to New Mexico Water Science Center Water-Data Inquiries

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APPENDIX B

Lithologic Soil Sampling Logs

ENSOLUM	Sample Name: SS05	Date: 4/28/2023
	Site Name: Treasure Island Federal 001H	
	Incident Number: NAPP2310337528	
	Job Number: 03D2024180	
LITHOLOGIC / SOIL SAMPLING LOG	Logged By: Ronni Hayes	Method: Hand Auger
Coordinates:	Hole Diameter:	Total Depth: 1'

Comments: Field screening conducted with HACH Chloride Test Strips and PID for chloride and vapor, respectively. Chloride test performed with 1:4 dilution factor of soil to distilled water. 40% correction factors included.

Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample ID	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithologic Descriptions
Dry	ND	0.8	N	SS05	0.5	0	CHHE	Caliche: off white, light tan, no stain, no odor
Dry	173.8	0.7	N	SS05A	1	1	SP-SM	Sand: brown, tan, medium to fine grain, poorly graded, some caliche gravel, no stain, no odor
								TD at 1' bgs
						2		
						3		
						4		
						5		
						6		
						7		
						8		
						9		
						10		
						11		
						12		

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APPENDIX C

Photographic Log

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Photographic Log
COG Operating, LLC
Treasure Island Federal 001H
Incident Number: NAPP2310337528

Photograph: 1 Date: 4/18/2023
Description: View of flare stack
View: Southwest

Photograph: 2 Date: 4/18/2023
Description: View of flare stack
View: South

Photograph: 3 Date: 4/28/2023
Description: Site assessment activities
View: Southwest

Photograph: 4 Date: 4/28/2023
Description: Site assessment activities
View: Southwest

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APPENDIX D

Laboratory Analytical Reports & Chain of Custody Documentation

eurofins | Environment Testing

ANALYTICAL REPORT

PREPARED FOR

Attn: Kelly Lowery
Ensolum
601 N. Marienfeld St.
Suite 400
Midland, Texas 79701

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JOB DESCRIPTION

Treasure Island Fed 001H
SDG NUMBER 03D2024180

JOB NUMBER

890-4597-1

Eurofins Carlsbad
1089 N Canal St.
Carlsbad NM 88220

See page two for job notes and contact information.

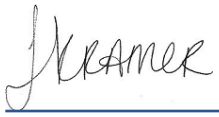
Eurofins Carlsbad

Job Notes

This report may not be reproduced except in full, and with written approval from the laboratory. The results relate only to the samples tested. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

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

Authorization



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

Client: Ensolum
Project/Site: Treasure Island Fed 001H

Laboratory Job ID: 890-4597-1
SDG: 03D2024180

Table of Contents

Definitions/Glossary

Client: Ensolum Job ID: 890-4597-1
Project/Site: Treasure Island Fed 001H SDG: 03D2024180

Qualifiers

GC VOA

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

GC Semi VOA

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

HPLC/IC

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

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Case Narrative

Client: Ensolum
Project/Site: Treasure Island Fed 001H

Job ID: 890-4597-1
SDG: 03D2024180

Job ID: 890-4597-1

Laboratory: Eurofins Carlsbad

Narrative

Job Narrative
890-4597-1

Receipt
The samples were received on 4/28/2023 3:09 PM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 1.0°C

Receipt Exceptions
The following samples were received and analyzed from an unpreserved bulk soil jar: SS05 (890-4597-1) and SS05A (890-4597-2).

GC VOA
Method 8021B: Surrogate recovery for the following samples were outside control limits: SS05 (890-4597-1) and (MB 880-52339/5-A). Evidence of matrix interferences is not obvious.

Method 8021B: Surrogate recovery for the following sample was outside control limits: (MB 880-52362/8). Evidence of matrix interferences is not obvious.

Method 8021B: The continuing calibration verification (CCV) associated with batch 880-52362 recovered above the upper control limit for Toluene. An acceptable CCV was ran within the 12 hour window therefore, the data have been reported. The associated sample is impacted: (CCV 880-52362/29).

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 samples were outside control limits: (LCS 880-52400/2-A) and (LCSD 880-52400/3-A). Evidence of matrix interferences is not obvious.

Method 8015MOD_NM: Surrogate recovery for the following samples were outside control limits: (890-4592-A-5-D MS) and (890-4592-A-5-E MSD). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

Method 8015MOD_NM: Surrogate recovery for the following sample was outside control limits: SS05A (890-4597-2). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

Method 8015MOD_NM: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 880-52400 and analytical batch 880-52354 were outside control limits for one or more analytes, see QC Sample Results for detail. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery is within acceptance limits.

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

HPLC/IC
Method 300_ORGFM_28D: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 880-52486 and analytical batch 880-52596 were outside control limits for one or more analytes. See QC Sample Results for detail. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery is within acceptance limits.The associated samples are: SS05 (890-4597-1), SS05A (890-4597-2), (890-4597-A-1-G MS) and (890-4597-A-1-H MSD).

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

Client Sample Results

Client: Ensolum
Project/Site: Treasure Island Fed 001H

Job ID: 890-4597-1
SDG: 03D2024180

Client Sample ID: SS05

Lab Sample ID: 890-4597-1
Matrix: Solid
Date Collected: 04/28/23 12:15
Date Received: 04/28/23 15:09
Sample Depth: 0.5'

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199		mg/Kg		05/02/23 16:00	05/03/23 01:24	1
Toluene	<0.00199	U	0.00199		mg/Kg		05/02/23 16:00	05/03/23 01:24	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		05/02/23 16:00	05/03/23 01:24	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		05/02/23 16:00	05/03/23 01:24	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		05/02/23 16:00	05/03/23 01:24	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		05/02/23 16:00	05/03/23 01:24	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*140*	*S1+*	*70 - 130*	*05/02/23 16:00*	*05/03/23 01:24*	*1*
1,4-Difluorobenzene (Surr)	*88*		*70 - 130*	*05/02/23 16:00*	*05/03/23 01:24*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398		mg/Kg			05/03/23 11:14	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0		mg/Kg			05/03/23 09:18	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		05/02/23 11:49	05/02/23 16:22	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		05/02/23 11:49	05/02/23 16:22	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		05/02/23 11:49	05/02/23 16:22	1
Total TPH	<50.0	U	50.0		mg/Kg		05/02/23 11:49	05/02/23 16:22	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*90*		*70 - 130*	*05/02/23 11:49*	*05/02/23 16:22*	*1*
o-Terphenyl	*72*		*70 - 130*	*05/02/23 11:49*	*05/02/23 16:22*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**72.7**	**F1**	5.03		mg/Kg			05/04/23 04:22	1

Client Sample ID: SS05A

Lab Sample ID: 890-4597-2
Matrix: Solid
Date Collected: 04/28/23 12:30
Date Received: 04/28/23 15:09
Sample Depth: 1'

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00202	U	0.00202		mg/Kg		05/02/23 16:00	05/03/23 01:50	1
Toluene	<0.00202	U	0.00202		mg/Kg		05/02/23 16:00	05/03/23 01:50	1
Ethylbenzene	<0.00202	U	0.00202		mg/Kg		05/02/23 16:00	05/03/23 01:50	1
m-Xylene & p-Xylene	<0.00403	U	0.00403		mg/Kg		05/02/23 16:00	05/03/23 01:50	1
o-Xylene	<0.00202	U	0.00202		mg/Kg		05/02/23 16:00	05/03/23 01:50	1
Xylenes, Total	<0.00403	U	0.00403		mg/Kg		05/02/23 16:00	05/03/23 01:50	1

Client Sample Results

Client: Ensolum
Project/Site: Treasure Island Fed 001H

Job ID: 890-4597-1
SDG: 03D2024180

Client Sample ID: SS05A

Date Collected: 04/28/23 12:30
Date Received: 04/28/23 15:09
Sample Depth: 1'

Lab Sample ID: 890-4597-2

Matrix: Solid

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*130*		*70 - 130*	*05/02/23 16:00*	*05/03/23 01:50*	*1*
1,4-Difluorobenzene (Surr)	*87*		*70 - 130*	*05/02/23 16:00*	*05/03/23 01:50*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00403	U	0.00403		mg/Kg			05/03/23 11:14	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0		mg/Kg			05/03/23 09:18	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		05/02/23 11:49	05/02/23 16:43	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		05/02/23 11:49	05/02/23 16:43	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		05/02/23 11:49	05/02/23 16:43	1
Total TPH	<50.0	U	50.0		mg/Kg		05/02/23 11:49	05/02/23 16:43	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*86*		*70 - 130*	*05/02/23 11:49*	*05/02/23 16:43*	*1*
o-Terphenyl	*69*	*S1-*	*70 - 130*	*05/02/23 11:49*	*05/02/23 16:43*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**76.7**		4.98		mg/Kg			05/04/23 04:38	1

Surrogate Summary

Client: Ensolum
Project/Site: Treasure Island Fed 001H

Job ID: 890-4597-1
SDG: 03D2024180

Method: 8021B - Volatile Organic Compounds (GC)

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

		Percent Surrogate Recovery (Acceptance Limits)	
		BFB1	DFBZ1
Lab Sample ID	Client Sample ID	(70-130)	(70-130)
880-27759-A-1-C MS	Matrix Spike	105	74
880-27759-A-1-D MSD	Matrix Spike Duplicate	127	97
890-4597-1	SS05	140 S1+	88
890-4597-2	SS05A	130	87
LCS 880-52339/1-A	Lab Control Sample	106	75
LCSD 880-52339/2-A	Lab Control Sample Dup	104	76
MB 880-52339/5-A	Method Blank	68 S1-	83
MB 880-52362/8	Method Blank	69 S1-	78

Surrogate Legend

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

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

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

		Percent Surrogate Recovery (Acceptance Limits)	
		1CO1	OTPH1
Lab Sample ID	Client Sample ID	(70-130)	(70-130)
890-4592-A-5-D MS	Matrix Spike	84	62 S1-
890-4592-A-5-E MSD	Matrix Spike Duplicate	85	62 S1-
890-4597-1	SS05	90	72
890-4597-2	SS05A	86	69 S1-
LCS 880-52400/2-A	Lab Control Sample	82	63 S1-
LCSD 880-52400/3-A	Lab Control Sample Dup	87	66 S1-
MB 880-52400/1-A	Method Blank	112	92

Surrogate Legend

1CO = 1-Chlorooctane
OTPH = o-Terphenyl

QC Sample Results

Client: Ensolum
Project/Site: Treasure Island Fed 001H

Job ID: 890-4597-1
SDG: 03D2024180

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-52339/5-A
Matrix: Solid
Analysis Batch: 52362

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 52339

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		05/01/23 15:45	05/02/23 15:51	1
Toluene	<0.00200	U	0.00200		mg/Kg		05/01/23 15:45	05/02/23 15:51	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		05/01/23 15:45	05/02/23 15:51	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		05/01/23 15:45	05/02/23 15:51	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		05/01/23 15:45	05/02/23 15:51	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		05/01/23 15:45	05/02/23 15:51	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*68*	*S1-*	*70 - 130*	*05/01/23 15:45*	*05/02/23 15:51*	*1*
1,4-Difluorobenzene (Surr)	*83*		*70 - 130*	*05/01/23 15:45*	*05/02/23 15:51*	*1*

Lab Sample ID: LCS 880-52339/1-A
Matrix: Solid
Analysis Batch: 52362

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 52339

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Benzene			0.100	0.1083		mg/Kg		108	70 - 130		
Toluene			0.100	0.1119		mg/Kg		112	70 - 130		
Ethylbenzene			0.100	0.1003		mg/Kg		100	70 - 130		
m-Xylene & p-Xylene			0.200	0.2057		mg/Kg		103	70 - 130		
o-Xylene			0.100	0.09980		mg/Kg		100	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*106*		*70 - 130*
1,4-Difluorobenzene (Surr)	*75*		*70 - 130*

Lab Sample ID: LCSD 880-52339/2-A
Matrix: Solid
Analysis Batch: 52362

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 52339

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene			0.100	0.1077		mg/Kg		108	70 - 130	0	35
Toluene			0.100	0.1129		mg/Kg		113	70 - 130	1	35
Ethylbenzene			0.100	0.09984		mg/Kg		100	70 - 130	1	35
m-Xylene & p-Xylene			0.200	0.2036		mg/Kg		102	70 - 130	1	35
o-Xylene			0.100	0.09853		mg/Kg		99	70 - 130	1	35

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*104*		*70 - 130*
1,4-Difluorobenzene (Surr)	*76*		*70 - 130*

Lab Sample ID: 880-27759-A-1-C MS
Matrix: Solid
Analysis Batch: 52362

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 52339

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Benzene	<0.00199	U	0.0998	0.09929		mg/Kg		99	70 - 130		
Toluene	<0.00199	U	0.0998	0.09626		mg/Kg		96	70 - 130		

QC Sample Results

Client: Ensolum
Project/Site: Treasure Island Fed 001H

Job ID: 890-4597-1
SDG: 03D2024180

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

Lab Sample ID: 880-27759-A-1-C MS
Matrix: Solid
Analysis Batch: 52362

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 52339

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Ethylbenzene	<0.00199	U	0.0998	0.08149		mg/Kg		82	70 - 130
m-Xylene & p-Xylene	<0.00398	U	0.200	0.1636		mg/Kg		82	70 - 130
o-Xylene	<0.00199	U	0.0998	0.08188		mg/Kg		82	70 - 130

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*105*		*70 - 130*
1,4-Difluorobenzene (Surr)	*74*		*70 - 130*

Lab Sample ID: 880-27759-A-1-D MSD
Matrix: Solid
Analysis Batch: 52362

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 52339

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	<0.00199	U	0.100	0.1128		mg/Kg		112	70 - 130	13	35
Toluene	<0.00199	U	0.100	0.1033		mg/Kg		103	70 - 130	7	35
Ethylbenzene	<0.00199	U	0.100	0.08989		mg/Kg		90	70 - 130	10	35
m-Xylene & p-Xylene	<0.00398	U	0.201	0.1810		mg/Kg		90	70 - 130	10	35
o-Xylene	<0.00199	U	0.100	0.08771		mg/Kg		87	70 - 130	7	35

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*127*		*70 - 130*
1,4-Difluorobenzene (Surr)	*97*		*70 - 130*

Lab Sample ID: MB 880-52362/8
Matrix: Solid
Analysis Batch: 52362

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

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg			05/02/23 11:47	1
Toluene	<0.00200	U	0.00200	mg/Kg			05/02/23 11:47	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg			05/02/23 11:47	1
m-Xylene & p-Xylene	<0.00400	U	0.00400	mg/Kg			05/02/23 11:47	1
o-Xylene	<0.00200	U	0.00200	mg/Kg			05/02/23 11:47	1
Xylenes, Total	<0.00400	U	0.00400	mg/Kg			05/02/23 11:47	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*69*	*S1-*	*70 - 130*		*05/02/23 11:47*	*1*
1,4-Difluorobenzene (Surr)	*78*		*70 - 130*		*05/02/23 11:47*	*1*

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

Lab Sample ID: MB 880-52400/1-A
Matrix: Solid
Analysis Batch: 52354

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 52400

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0	mg/Kg		05/02/23 08:49	05/02/23 09:01	1

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QC Sample Results

Client: Ensolum
Project/Site: Treasure Island Fed 001H

Job ID: 890-4597-1
SDG: 03D2024180

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

Lab Sample ID: MB 880-52400/1-A
Matrix: Solid
Analysis Batch: 52354

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 52400

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		05/02/23 08:49	05/02/23 09:01	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		05/02/23 08:49	05/02/23 09:01	1
Total TPH	<50.0	U	50.0		mg/Kg		05/02/23 08:49	05/02/23 09:01	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*112*		*70 - 130*	*05/02/23 08:49*	*05/02/23 09:01*	*1*
o-Terphenyl	*92*		*70 - 130*	*05/02/23 08:49*	*05/02/23 09:01*	*1*

Lab Sample ID: LCS 880-52400/2-A
Matrix: Solid
Analysis Batch: 52354

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 52400

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Gasoline Range Organics (GRO)-C6-C10			1000	1037		mg/Kg		104	70 - 130		
Diesel Range Organics (Over C10-C28)			1000	939.7		mg/Kg		94	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1-Chlorooctane	*82*		*70 - 130*
o-Terphenyl	*63*	*S1-*	*70 - 130*

Lab Sample ID: LCSD 880-52400/3-A
Matrix: Solid
Analysis Batch: 52354

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 52400

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10			1000	1024		mg/Kg		102	70 - 130	1	20
Diesel Range Organics (Over C10-C28)			1000	986.2		mg/Kg		99	70 - 130	5	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1-Chlorooctane	*87*		*70 - 130*
o-Terphenyl	*66*	*S1-*	*70 - 130*

Lab Sample ID: 890-4592-A-5-D MS
Matrix: Solid
Analysis Batch: 52354

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 52400

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	998	1281		mg/Kg		124	70 - 130		
Diesel Range Organics (Over C10-C28)	<49.9	U F1	998	580.6	F1	mg/Kg		54	70 - 130		

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
1-Chlorooctane	*84*		*70 - 130*

QC Sample Results

Client: Ensolum
Project/Site: Treasure Island Fed 001H

Job ID: 890-4597-1
SDG: 03D2024180

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

Lab Sample ID: 890-4592-A-5-D MS
Matrix: Solid
Analysis Batch: 52354

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 52400

Surrogate	MS %Recovery	MS Qualifier	Limits
o-Terphenyl	62	S1-	70 - 130

Lab Sample ID: 890-4592-A-5-E MSD
Matrix: Solid
Analysis Batch: 52354

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 52400

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	997	1283		mg/Kg		124	70 - 130	0	20
Diesel Range Organics (Over C10-C28)	<49.9	U F1	997	586.4	F1	mg/Kg		55	70 - 130	1	20

Surrogate	MSD %Recovery	MSD Qualifier	Limits
1-Chlorooctane	85		70 - 130
o-Terphenyl	62	S1-	70 - 130

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-52486/1-A
Matrix: Solid
Analysis Batch: 52596

Client Sample ID: Method Blank
Prep Type: Soluble

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.00	U	5.00		mg/Kg			05/04/23 04:06	1

Lab Sample ID: LCS 880-52486/2-A
Matrix: Solid
Analysis Batch: 52596

Client Sample ID: Lab Control Sample
Prep Type: Soluble

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

Lab Sample ID: LCSD 880-52486/3-A
Matrix: Solid
Analysis Batch: 52596

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

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride			250	236.8		mg/Kg		95	90 - 110	0	20

Lab Sample ID: 890-4597-1 MS
Matrix: Solid
Analysis Batch: 52596

Client Sample ID: SS05
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride	72.7	F1	252	294.2	F1	mg/Kg		88	90 - 110		

QC Sample Results

Client: Ensolum
Project/Site: Treasure Island Fed 001H

Job ID: 890-4597-1
SDG: 03D2024180

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: 890-4597-1 MSD
Matrix: Solid
Analysis Batch: 52596

Client Sample ID: SS05
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	72.7	F1	252	294.7	F1	mg/Kg		88	90 - 110	0	20

QC Association Summary

Client: Ensolum
Project/Site: Treasure Island Fed 001H

Job ID: 890-4597-1
SDG: 03D2024180

GC VOA

Prep Batch: 52339

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4597-1	SS05	Total/NA	Solid	5035	
890-4597-2	SS05A	Total/NA	Solid	5035	
MB 880-52339/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-52339/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-52339/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
880-27759-A-1-C MS	Matrix Spike	Total/NA	Solid	5035	
880-27759-A-1-D MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	

Analysis Batch: 52362

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4597-1	SS05	Total/NA	Solid	8021B	52339
890-4597-2	SS05A	Total/NA	Solid	8021B	52339
MB 880-52339/5-A	Method Blank	Total/NA	Solid	8021B	52339
MB 880-52362/8	Method Blank	Total/NA	Solid	8021B	
LCS 880-52339/1-A	Lab Control Sample	Total/NA	Solid	8021B	52339
LCSD 880-52339/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	52339
880-27759-A-1-C MS	Matrix Spike	Total/NA	Solid	8021B	52339
880-27759-A-1-D MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	52339

Analysis Batch: 52496

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4597-1	SS05	Total/NA	Solid	Total BTEX	
890-4597-2	SS05A	Total/NA	Solid	Total BTEX	

GC Semi VOA

Analysis Batch: 52354

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4597-1	SS05	Total/NA	Solid	8015B NM	52400
890-4597-2	SS05A	Total/NA	Solid	8015B NM	52400
MB 880-52400/1-A	Method Blank	Total/NA	Solid	8015B NM	52400
LCS 880-52400/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	52400
LCSD 880-52400/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	52400
890-4592-A-5-D MS	Matrix Spike	Total/NA	Solid	8015B NM	52400
890-4592-A-5-E MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	52400

Prep Batch: 52400

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4597-1	SS05	Total/NA	Solid	8015NM Prep	
890-4597-2	SS05A	Total/NA	Solid	8015NM Prep	
MB 880-52400/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-52400/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-52400/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
890-4592-A-5-D MS	Matrix Spike	Total/NA	Solid	8015NM Prep	
890-4592-A-5-E MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	

Analysis Batch: 52466

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4597-1	SS05	Total/NA	Solid	8015 NM	
890-4597-2	SS05A	Total/NA	Solid	8015 NM	

QC Association Summary

Client: Ensolum
Project/Site: Treasure Island Fed 001H

Job ID: 890-4597-1
SDG: 03D2024180

HPLC/IC

Leach Batch: 52486

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4597-1	SS05	Soluble	Solid	DI Leach	
890-4597-2	SS05A	Soluble	Solid	DI Leach	
MB 880-52486/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-52486/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-52486/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
890-4597-1 MS	SS05	Soluble	Solid	DI Leach	
890-4597-1 MSD	SS05	Soluble	Solid	DI Leach	

Analysis Batch: 52596

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4597-1	SS05	Soluble	Solid	300.0	52486
890-4597-2	SS05A	Soluble	Solid	300.0	52486
MB 880-52486/1-A	Method Blank	Soluble	Solid	300.0	52486
LCS 880-52486/2-A	Lab Control Sample	Soluble	Solid	300.0	52486
LCSD 880-52486/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	52486
890-4597-1 MS	SS05	Soluble	Solid	300.0	52486
890-4597-1 MSD	SS05	Soluble	Solid	300.0	52486

Lab Chronicle

Client: Ensolum
Project/Site: Treasure Island Fed 001H

Job ID: 890-4597-1
SDG: 03D2024180

Client Sample ID: SS05

Date Collected: 04/28/23 12:15
Date Received: 04/28/23 15:09

Lab Sample ID: 890-4597-1

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.03 g	5 mL	52339	05/02/23 16:00	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	52362	05/03/23 01:24	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			52496	05/03/23 11:14	SM	EET MID
Total/NA	Analysis	8015 NM		1			52466	05/03/23 09:18	SM	EET MID
Total/NA	Prep	8015NM Prep			10.00 g	10 mL	52400	05/02/23 11:49	AJ	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	52354	05/02/23 16:22	SM	EET MID
Soluble	Leach	DI Leach			4.97 g	50 mL	52486	05/03/23 10:38	KS	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	52596	05/04/23 04:22	SMC	EET MID

Client Sample ID: SS05A

Date Collected: 04/28/23 12:30
Date Received: 04/28/23 15:09

Lab Sample ID: 890-4597-2

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.96 g	5 mL	52339	05/02/23 16:00	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	52362	05/03/23 01:50	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			52496	05/03/23 11:14	SM	EET MID
Total/NA	Analysis	8015 NM		1			52466	05/03/23 09:18	SM	EET MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	52400	05/02/23 11:49	AJ	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	52354	05/02/23 16:43	SM	EET MID
Soluble	Leach	DI Leach			5.02 g	50 mL	52486	05/03/23 10:38	KS	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	52596	05/04/23 04:38	SMC	EET MID

Laboratory References:

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

Accreditation/Certification Summary

Client: Ensolum
Project/Site: Treasure Island Fed 001H

Job ID: 890-4597-1
SDG: 03D2024180

Laboratory: Eurofins Midland

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

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

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

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

Method Summary

Client: Ensolum
Project/Site: Treasure Island Fed 001H

Job ID: 890-4597-1
SDG: 03D2024180

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

Protocol References:

ASTM = ASTM International

EPA = US Environmental Protection Agency

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

TAL SOP = TestAmerica Laboratories, Standard Operating Procedure

Laboratory References:

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

Sample Summary

Client: Ensolum
Project/Site: Treasure Island Fed 001H

Job ID: 890-4597-1
SDG: 03D2024180

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-4597-1	SS05	Solid	04/28/23 12:15	04/28/23 15:09	0.5'
890-4597-2	SS05A	Solid	04/28/23 12:30	04/28/23 15:09	1'

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Chain of Custody

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

Work Order No: _____

www.xenco.com Page 1 of 1

Project Manager:	Hadlie Green	Bill to: (if different)	Kalei Jennings
Company Name:	Ensolum LLC	Company Name:	Ensolum LLC
Address:	3122 National Parks Hwy	Address:	
City, State ZIP:	Carlsbad, NM 88220	City, State ZIP:	
Phone:	432-557-8895	Email:	hgreen@ensolum.com

Work Order Comments

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

Project Name:	Treasure Island Federal 1H	Turn Around	
Project Number:	03D1024190	☒ Routine ☐ Rush	
Project Location:	32.1961, -103.6383	Due Date:	5 days
Sampler's Name:	Ronni Hayes	TAT starts the day received by the lab, if received by 4:30pm	
PO #:			

SAMPLE RECEIPT				
Temp Blank:	Yes No	Wet Ice:	Yes No	
Samples Received Intact:	Yes No	Thermometer ID:	IR-8	
Cooler Custody Seals:	Yes No N/A	Correction Factor:	-0.2	
Sample Custody Seals:	Yes No N/A	Temperature Reading:	1.2	
Total Containers:		Corrected Temperature:	1.0	

ANALYSIS REQUEST

Preservative Codes

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

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Grab/ Comp	# of Cont	Pres. Code	Parameters: Cl⁻	BTEX	TPH	Sample Comments
SS05	S	4/28/23	1215	0.5'	G	1		X	X	X	
SS05A	↓	↓	1230	1'	↓	↓		X	X	X	

Total 200.7 / 6010 200.8 / 6020: 8RCRA 13PPM Texas 11 Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag SiO_2 Na Sr Tl Sn U V Zn
Circle Method(s) and Metal(s) to be analyzed TCLP / SPLP 6010 : 8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Tl U Hg: 1631 / 245.1 / 7470 / 7471

Notice: Signature of this document and relinquishment of samples constitutes a valid purchase order from client company to Eurofins Xenco, its affiliates and subcontractors. It assigns standard terms and conditions of service. Eurofins Xenco will be liable only for the cost of samples and shall not assume any responsibility for any losses or expenses incurred by the client if such losses are due to circumstances beyond the control of Eurofins Xenco. A minimum charge of $85.00 will be applied to each project and a charge of $5 for each sample submitted to Eurofins Xenco, but not analyzed. These terms will be enforced unless previously negotiated.

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
1	Amanda Stoff	4/28/23 1509	2		
3			4		
5			6		

Revised Date: 08/25/2020 Rev. 2020.2

Login Sample Receipt Checklist

Client: Ensolum

Job Number: 890-4597-1
SDG Number: 03D2024180

Login Number: 4597
List Number: 1
Creator: Stutzman, Amanda

List Source: Eurofins Carlsbad

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

Login Sample Receipt Checklist

Client: Ensolum

Job Number: 890-4597-1
SDG Number: 03D2024180

Login Number: 4597
List Number: 2
Creator: Rodriguez, Leticia

List Source: Eurofins Midland
List Creation: 05/02/23 10:54 AM

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

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ANALYTICAL REPORT

PREPARED FOR

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

Generated 5/4/2023 4:04:37 PM

JOB DESCRIPTION

Treasure Island Fed 001H
SDG NUMBER 03D2024180

JOB NUMBER

890-4598-1

Eurofins Carlsbad
1089 N Canal St.
Carlsbad NM 88220

See page two for job notes and contact information.

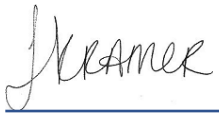
Eurofins Carlsbad

Job Notes

This report may not be reproduced except in full, and with written approval from the laboratory. The results relate only to the samples tested. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

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

Authorization



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

Client: Ensolum
Project/Site: Treasure Island Fed 001H

Laboratory Job ID: 890-4598-1
SDG: 03D2024180

Table of Contents

Definitions/Glossary

Client: Ensolum Job ID: 890-4598-1
Project/Site: Treasure Island Fed 001H SDG: 03D2024180

Qualifiers

GC VOA

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

GC Semi VOA

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

HPLC/IC

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

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Case Narrative

Client: Ensolum
Project/Site: Treasure Island Fed 001H

Job ID: 890-4598-1
SDG: 03D2024180

Job ID: 890-4598-1

Laboratory: Eurofins Carlsbad

Narrative

Job Narrative
890-4598-1

Receipt
The samples were received on 4/28/2023 3:09 PM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 1.0°C

Receipt Exceptions
The following samples were received and analyzed from an unpreserved bulk soil jar: SS01 (890-4598-1), SS02 (890-4598-2), SS03 (890-4598-3) and SS04 (890-4598-4).

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

GC Semi VOA
Method 8015MOD_NM: Surrogate recovery for the following samples were outside control limits: (LCS 880-52400/2-A) and (LCSD 880-52400/3-A). Evidence of matrix interferences is not obvious.

Method 8015MOD_NM: Surrogate recovery for the following samples were outside control limits: (890-4592-A-5-D MS) and (890-4592-A-5-E MSD). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

Method 8015MOD_NM: Surrogate recovery for the following samples were outside control limits: SS02 (890-4598-2), SS03 (890-4598-3) and SS04 (890-4598-4). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

Method 8015MOD_NM: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 880-52400 and analytical batch 880-52354 were outside control limits for one or more analytes, see QC Sample Results for detail. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery is within acceptance limits.

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

HPLC/IC
Method 300_ORGFM_28D: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 880-52486 and analytical batch 880-52596 were outside control limits for one or more analytes. See QC Sample Results for detail. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery is within acceptance limits.The associated samples are: SS01 (890-4598-1), SS02 (890-4598-2), SS03 (890-4598-3), SS04 (890-4598-4), (890-4597-A-1-F), (890-4597-A-1-G MS) and (890-4597-A-1-H MSD).

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

Client Sample Results

Client: Ensolum
Project/Site: Treasure Island Fed 001H

Job ID: 890-4598-1
SDG: 03D2024180

Client Sample ID: SS01

Lab Sample ID: 890-4598-1
Matrix: Solid
Date Collected: 04/28/23 11:55
Date Received: 04/28/23 15:09
Sample Depth: 0.5'

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00198	U	0.00198		mg/Kg		05/02/23 09:11	05/03/23 17:54	1
Toluene	<0.00198	U	0.00198		mg/Kg		05/02/23 09:11	05/03/23 17:54	1
Ethylbenzene	<0.00198	U	0.00198		mg/Kg		05/02/23 09:11	05/03/23 17:54	1
m-Xylene & p-Xylene	<0.00396	U	0.00396		mg/Kg		05/02/23 09:11	05/03/23 17:54	1
o-Xylene	<0.00198	U	0.00198		mg/Kg		05/02/23 09:11	05/03/23 17:54	1
Xylenes, Total	<0.00396	U	0.00396		mg/Kg		05/02/23 09:11	05/03/23 17:54	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*90*		*70 - 130*	*05/02/23 09:11*	*05/03/23 17:54*	*1*
1,4-Difluorobenzene (Surr)	*108*		*70 - 130*	*05/02/23 09:11*	*05/03/23 17:54*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00396	U	0.00396		mg/Kg			05/04/23 12:48	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.8	U	49.8		mg/Kg			05/03/23 09:18	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.8	U	49.8		mg/Kg		05/02/23 11:49	05/02/23 17:27	1
Diesel Range Organics (Over C10-C28)	<49.8	U	49.8		mg/Kg		05/02/23 11:49	05/02/23 17:27	1
OII Range Organics (Over C28-C36)	<49.8	U	49.8		mg/Kg		05/02/23 11:49	05/02/23 17:27	1
Total TPH	<49.8	U	49.8		mg/Kg		05/02/23 11:49	05/02/23 17:27	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*93*		*70 - 130*	*05/02/23 11:49*	*05/02/23 17:27*	*1*
o-Terphenyl	*73*		*70 - 130*	*05/02/23 11:49*	*05/02/23 17:27*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**73.8**		5.00		mg/Kg			05/04/23 04:44	1

Client Sample ID: SS02

Lab Sample ID: 890-4598-2
Matrix: Solid
Date Collected: 04/28/23 12:00
Date Received: 04/28/23 15:09
Sample Depth: 0.5'

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00201	U	0.00201		mg/Kg		05/02/23 09:11	05/03/23 18:14	1
Toluene	<0.00201	U	0.00201		mg/Kg		05/02/23 09:11	05/03/23 18:14	1
Ethylbenzene	<0.00201	U	0.00201		mg/Kg		05/02/23 09:11	05/03/23 18:14	1
m-Xylene & p-Xylene	<0.00402	U	0.00402		mg/Kg		05/02/23 09:11	05/03/23 18:14	1
o-Xylene	<0.00201	U	0.00201		mg/Kg		05/02/23 09:11	05/03/23 18:14	1
Xylenes, Total	<0.00402	U	0.00402		mg/Kg		05/02/23 09:11	05/03/23 18:14	1

Client Sample Results

Client: Ensolum
Project/Site: Treasure Island Fed 001H

Job ID: 890-4598-1
SDG: 03D2024180

Client Sample ID: SS02

Lab Sample ID: 890-4598-2
Matrix: Solid
Date Collected: 04/28/23 12:00
Date Received: 04/28/23 15:09
Sample Depth: 0.5'

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	105		70 - 130	05/02/23 09:11	05/03/23 18:14	1
1,4-Difluorobenzene (Surr)	121		70 - 130	05/02/23 09:11	05/03/23 18:14	1

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00402	U	0.00402	mg/Kg			05/04/23 12:48	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0	mg/Kg			05/03/23 09:18	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0	mg/Kg		05/02/23 11:49	05/02/23 17:48	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		05/02/23 11:49	05/02/23 17:48	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		05/02/23 11:49	05/02/23 17:48	1
Total TPH	<50.0	U	50.0	mg/Kg		05/02/23 11:49	05/02/23 17:48	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	83		70 - 130	05/02/23 11:49	05/02/23 17:48	1
o-Terphenyl	64	S1-	70 - 130	05/02/23 11:49	05/02/23 17:48	1

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**76.9**		5.01	mg/Kg			05/04/23 04:49	1

Client Sample ID: SS03

Lab Sample ID: 890-4598-3
Matrix: Solid
Date Collected: 04/28/23 12:05
Date Received: 04/28/23 15:09
Sample Depth: 0.5'

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		05/02/23 09:11	05/03/23 18:35	1
Toluene	<0.00200	U	0.00200	mg/Kg		05/02/23 09:11	05/03/23 18:35	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		05/02/23 09:11	05/03/23 18:35	1
m-Xylene & p-Xylene	<0.00401	U	0.00401	mg/Kg		05/02/23 09:11	05/03/23 18:35	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		05/02/23 09:11	05/03/23 18:35	1
Xylenes, Total	<0.00401	U	0.00401	mg/Kg		05/02/23 09:11	05/03/23 18:35	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	104		70 - 130	05/02/23 09:11	05/03/23 18:35	1
1,4-Difluorobenzene (Surr)	117		70 - 130	05/02/23 09:11	05/03/23 18:35	1

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00401	U	0.00401	mg/Kg			05/04/23 12:48	1

Client Sample Results

Client: Ensolum
Project/Site: Treasure Island Fed 001H

Job ID: 890-4598-1
SDG: 03D2024180

Client Sample ID: SS03

Lab Sample ID: 890-4598-3
Matrix: Solid
Date Collected: 04/28/23 12:05
Date Received: 04/28/23 15:09
Sample Depth: 0.5'

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0		mg/Kg			05/03/23 09:18	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		05/02/23 11:49	05/02/23 18:10	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		05/02/23 11:49	05/02/23 18:10	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		05/02/23 11:49	05/02/23 18:10	1
Total TPH	<50.0	U	50.0		mg/Kg		05/02/23 11:49	05/02/23 18:10	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*72*		*70 - 130*	*05/02/23 11:49*	*05/02/23 18:10*	*1*
o-Terphenyl	*54*	*S1-*	*70 - 130*	*05/02/23 11:49*	*05/02/23 18:10*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**59.0**		5.02		mg/Kg			05/04/23 04:54	1

Client Sample ID: SS04

Lab Sample ID: 890-4598-4
Matrix: Solid
Date Collected: 04/28/23 12:10
Date Received: 04/28/23 15:09
Sample Depth: 0.5'

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199		mg/Kg		05/02/23 09:11	05/03/23 18:55	1
Toluene	<0.00199	U	0.00199		mg/Kg		05/02/23 09:11	05/03/23 18:55	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		05/02/23 09:11	05/03/23 18:55	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		05/02/23 09:11	05/03/23 18:55	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		05/02/23 09:11	05/03/23 18:55	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		05/02/23 09:11	05/03/23 18:55	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*96*		*70 - 130*	*05/02/23 09:11*	*05/03/23 18:55*	*1*
1,4-Difluorobenzene (Surr)	*116*		*70 - 130*	*05/02/23 09:11*	*05/03/23 18:55*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398		mg/Kg			05/04/23 12:48	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0		mg/Kg			05/03/23 09:18	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		05/02/23 11:49	05/02/23 18:31	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		05/02/23 11:49	05/02/23 18:31	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		05/02/23 11:49	05/02/23 18:31	1

Client Sample Results

Client: Ensolum
Project/Site: Treasure Island Fed 001H

Job ID: 890-4598-1
SDG: 03D2024180

Client Sample ID: SS04
Date Collected: 04/28/23 12:10
Date Received: 04/28/23 15:09
Sample Depth: 0.5'

Lab Sample ID: 890-4598-4
Matrix: Solid

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0		mg/Kg		05/02/23 11:49	05/02/23 18:31	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*76*		*70 - 130*	*05/02/23 11:49*	*05/02/23 18:31*	*1*
o-Terphenyl	*58*	*S1-*	*70 - 130*	*05/02/23 11:49*	*05/02/23 18:31*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**73.6**		4.97		mg/Kg			05/04/23 05:11	1

Surrogate Summary

Client: Ensolum
Project/Site: Treasure Island Fed 001H

Job ID: 890-4598-1
SDG: 03D2024180

Method: 8021B - Volatile Organic Compounds (GC)

Matrix: Solid

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	BFB1 (70-130)	DFBZ1 (70-130)
890-4590-A-11-F MS	Matrix Spike	105	105
890-4590-A-11-G MSD	Matrix Spike Duplicate	99	101
890-4598-1	SS01	90	108
890-4598-2	SS02	105	121
890-4598-3	SS03	104	117
890-4598-4	SS04	96	116
LCS 880-52364/1-A	Lab Control Sample	93	95
LCSD 880-52364/2-A	Lab Control Sample Dup	103	110
MB 880-52364/5-A	Method Blank	89	125

Surrogate Legend

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

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

Matrix: Solid

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	1CO1 (70-130)	OTPH1 (70-130)
890-4592-A-5-D MS	Matrix Spike	84	62 S1-
890-4592-A-5-E MSD	Matrix Spike Duplicate	85	62 S1-
890-4598-1	SS01	93	73
890-4598-2	SS02	83	64 S1-
890-4598-3	SS03	72	54 S1-
890-4598-4	SS04	76	58 S1-
LCS 880-52400/2-A	Lab Control Sample	82	63 S1-
LCSD 880-52400/3-A	Lab Control Sample Dup	87	66 S1-
MB 880-52400/1-A	Method Blank	112	92

Surrogate Legend

1CO = 1-Chlorooctane
OTPH = o-Terphenyl

QC Sample Results

Client: Ensolum
Project/Site: Treasure Island Fed 001H

Job ID: 890-4598-1
SDG: 03D2024180

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-52364/5-A
Matrix: Solid
Analysis Batch: 52442

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 52364

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		05/02/23 09:11	05/03/23 11:26	1
Toluene	<0.00200	U	0.00200		mg/Kg		05/02/23 09:11	05/03/23 11:26	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		05/02/23 09:11	05/03/23 11:26	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		05/02/23 09:11	05/03/23 11:26	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		05/02/23 09:11	05/03/23 11:26	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		05/02/23 09:11	05/03/23 11:26	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*89*		*70 - 130*	*05/02/23 09:11*	*05/03/23 11:26*	*1*
1,4-Difluorobenzene (Surr)	*125*		*70 - 130*	*05/02/23 09:11*	*05/03/23 11:26*	*1*

Lab Sample ID: LCS 880-52364/1-A
Matrix: Solid
Analysis Batch: 52442

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 52364

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Benzene			0.100	0.09521		mg/Kg		95	70 - 130		
Toluene			0.100	0.09767		mg/Kg		98	70 - 130		
Ethylbenzene			0.100	0.07738		mg/Kg		77	70 - 130		
m-Xylene & p-Xylene			0.200	0.1738		mg/Kg		87	70 - 130		
o-Xylene			0.100	0.08612		mg/Kg		86	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*93*		*70 - 130*
1,4-Difluorobenzene (Surr)	*95*		*70 - 130*

Lab Sample ID: LCSD 880-52364/2-A
Matrix: Solid
Analysis Batch: 52442

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 52364

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene			0.100	0.1071		mg/Kg		107	70 - 130	12	35
Toluene			0.100	0.1056		mg/Kg		106	70 - 130	8	35
Ethylbenzene			0.100	0.08302		mg/Kg		83	70 - 130	7	35
m-Xylene & p-Xylene			0.200	0.1909		mg/Kg		95	70 - 130	9	35
o-Xylene			0.100	0.09567		mg/Kg		96	70 - 130	11	35

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

Lab Sample ID: 890-4590-A-11-F MS
Matrix: Solid
Analysis Batch: 52442

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 52364

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Benzene	<0.00202	U	0.0998	0.1146		mg/Kg		115	70 - 130		
Toluene	<0.00202	U	0.0998	0.1113		mg/Kg		111	70 - 130		

QC Sample Results

Client: Ensolum
Project/Site: Treasure Island Fed 001H

Job ID: 890-4598-1
SDG: 03D2024180

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

Lab Sample ID: 890-4590-A-11-F MS
Matrix: Solid
Analysis Batch: 52442

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 52364

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Ethylbenzene	<0.00202	U	0.0998	0.09152		mg/Kg		92	70 - 130
m-Xylene & p-Xylene	<0.00403	U	0.200	0.2071		mg/Kg		104	70 - 130
o-Xylene	<0.00202	U	0.0998	0.1003		mg/Kg		100	70 - 130

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

Lab Sample ID: 890-4590-A-11-G MSD
Matrix: Solid
Analysis Batch: 52442

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 52364

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	<0.00202	U	0.0990	0.1085		mg/Kg		110	70 - 130	5	35
Toluene	<0.00202	U	0.0990	0.1052		mg/Kg		106	70 - 130	6	35
Ethylbenzene	<0.00202	U	0.0990	0.08578		mg/Kg		87	70 - 130	6	35
m-Xylene & p-Xylene	<0.00403	U	0.198	0.2005		mg/Kg		101	70 - 130	3	35
o-Xylene	<0.00202	U	0.0990	0.09889		mg/Kg		100	70 - 130	1	35

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*99*		*70 - 130*
1,4-Difluorobenzene (Surr)	*101*		*70 - 130*

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

Lab Sample ID: MB 880-52400/1-A
Matrix: Solid
Analysis Batch: 52354

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 52400

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0	mg/Kg		05/02/23 08:49	05/02/23 09:01	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		05/02/23 08:49	05/02/23 09:01	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		05/02/23 08:49	05/02/23 09:01	1
Total TPH	<50.0	U	50.0	mg/Kg		05/02/23 08:49	05/02/23 09:01	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*112*		*70 - 130*	*05/02/23 08:49*	*05/02/23 09:01*	*1*
o-Terphenyl	*92*		*70 - 130*	*05/02/23 08:49*	*05/02/23 09:01*	*1*

Lab Sample ID: LCS 880-52400/2-A
Matrix: Solid
Analysis Batch: 52354

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 52400

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Gasoline Range Organics (GRO)-C6-C10	1000	1037		mg/Kg		104	70 - 130

QC Sample Results

Client: Ensolum
Project/Site: Treasure Island Fed 001H

Job ID: 890-4598-1
SDG: 03D2024180

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

Lab Sample ID: LCS 880-52400/2-A
Matrix: Solid
Analysis Batch: 52354

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 52400

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Diesel Range Organics (Over C10-C28)			1000	939.7		mg/Kg		94	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1-Chlorooctane	*82*		*70 - 130*
o-Terphenyl	*63*	*S1-*	*70 - 130*

Lab Sample ID: LCSD 880-52400/3-A
Matrix: Solid
Analysis Batch: 52354

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 52400

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10			1000	1024		mg/Kg		102	70 - 130	1	20
Diesel Range Organics (Over C10-C28)			1000	986.2		mg/Kg		99	70 - 130	5	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1-Chlorooctane	*87*		*70 - 130*
o-Terphenyl	*66*	*S1-*	*70 - 130*

Lab Sample ID: 890-4592-A-5-D MS
Matrix: Solid
Analysis Batch: 52354

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 52400

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	998	1281		mg/Kg		124	70 - 130		
Diesel Range Organics (Over C10-C28)	<49.9	U F1	998	580.6	F1	mg/Kg		54	70 - 130		

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
1-Chlorooctane	*84*		*70 - 130*
o-Terphenyl	*62*	*S1-*	*70 - 130*

Lab Sample ID: 890-4592-A-5-E MSD
Matrix: Solid
Analysis Batch: 52354

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 52400

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	997	1283		mg/Kg		124	70 - 130	0	20
Diesel Range Organics (Over C10-C28)	<49.9	U F1	997	586.4	F1	mg/Kg		55	70 - 130	1	20

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
1-Chlorooctane	*85*		*70 - 130*
o-Terphenyl	*62*	*S1-*	*70 - 130*

QC Sample Results

Client: Ensolum
Project/Site: Treasure Island Fed 001H

Job ID: 890-4598-1
SDG: 03D2024180

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-52486/1-A
Matrix: Solid
Analysis Batch: 52596

Client Sample ID: Method Blank
Prep Type: Soluble

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.00	U	5.00		mg/Kg			05/04/23 04:06	1

Lab Sample ID: LCS 880-52486/2-A
Matrix: Solid
Analysis Batch: 52596

Client Sample ID: Lab Control Sample
Prep Type: Soluble

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

Lab Sample ID: LCSD 880-52486/3-A
Matrix: Solid
Analysis Batch: 52596

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

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride			250	236.8		mg/Kg		95	90 - 110	0	20

Lab Sample ID: 890-4597-A-1-G MS
Matrix: Solid
Analysis Batch: 52596

Client Sample ID: Matrix Spike
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride	72.7	F1	252	294.2	F1	mg/Kg		88	90 - 110		

Lab Sample ID: 890-4597-A-1-H MSD
Matrix: Solid
Analysis Batch: 52596

Client Sample ID: Matrix Spike Duplicate
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	72.7	F1	252	294.7	F1	mg/Kg		88	90 - 110	0	20

QC Association Summary

Client: Ensolum
Project/Site: Treasure Island Fed 001H

Job ID: 890-4598-1
SDG: 03D2024180

GC VOA

Prep Batch: 52364

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4598-1	SS01	Total/NA	Solid	5035	
890-4598-2	SS02	Total/NA	Solid	5035	
890-4598-3	SS03	Total/NA	Solid	5035	
890-4598-4	SS04	Total/NA	Solid	5035	
MB 880-52364/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-52364/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-52364/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
890-4590-A-11-F MS	Matrix Spike	Total/NA	Solid	5035	
890-4590-A-11-G MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	

Analysis Batch: 52442

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4598-1	SS01	Total/NA	Solid	8021B	52364
890-4598-2	SS02	Total/NA	Solid	8021B	52364
890-4598-3	SS03	Total/NA	Solid	8021B	52364
890-4598-4	SS04	Total/NA	Solid	8021B	52364
MB 880-52364/5-A	Method Blank	Total/NA	Solid	8021B	52364
LCS 880-52364/1-A	Lab Control Sample	Total/NA	Solid	8021B	52364
LCSD 880-52364/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	52364
890-4590-A-11-F MS	Matrix Spike	Total/NA	Solid	8021B	52364
890-4590-A-11-G MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	52364

Analysis Batch: 52610

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4598-1	SS01	Total/NA	Solid	Total BTEX	
890-4598-2	SS02	Total/NA	Solid	Total BTEX	
890-4598-3	SS03	Total/NA	Solid	Total BTEX	
890-4598-4	SS04	Total/NA	Solid	Total BTEX	

GC Semi VOA

Analysis Batch: 52354

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4598-1	SS01	Total/NA	Solid	8015B NM	52400
890-4598-2	SS02	Total/NA	Solid	8015B NM	52400
890-4598-3	SS03	Total/NA	Solid	8015B NM	52400
890-4598-4	SS04	Total/NA	Solid	8015B NM	52400
MB 880-52400/1-A	Method Blank	Total/NA	Solid	8015B NM	52400
LCS 880-52400/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	52400
LCSD 880-52400/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	52400
890-4592-A-5-D MS	Matrix Spike	Total/NA	Solid	8015B NM	52400
890-4592-A-5-E MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	52400

Prep Batch: 52400

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4598-1	SS01	Total/NA	Solid	8015NM Prep	
890-4598-2	SS02	Total/NA	Solid	8015NM Prep	
890-4598-3	SS03	Total/NA	Solid	8015NM Prep	
890-4598-4	SS04	Total/NA	Solid	8015NM Prep	
MB 880-52400/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-52400/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	

QC Association Summary

Client: Ensolum
Project/Site: Treasure Island Fed 001H

Job ID: 890-4598-1
SDG: 03D2024180

GC Semi VOA (Continued)

Prep Batch: 52400 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCSD 880-52400/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
890-4592-A-5-D MS	Matrix Spike	Total/NA	Solid	8015NM Prep	
890-4592-A-5-E MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	

Analysis Batch: 52467

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4598-1	SS01	Total/NA	Solid	8015 NM	
890-4598-2	SS02	Total/NA	Solid	8015 NM	
890-4598-3	SS03	Total/NA	Solid	8015 NM	
890-4598-4	SS04	Total/NA	Solid	8015 NM	

HPLC/IC

Leach Batch: 52486

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4598-1	SS01	Soluble	Solid	DI Leach	
890-4598-2	SS02	Soluble	Solid	DI Leach	
890-4598-3	SS03	Soluble	Solid	DI Leach	
890-4598-4	SS04	Soluble	Solid	DI Leach	
MB 880-52486/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-52486/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-52486/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
890-4597-A-1-G MS	Matrix Spike	Soluble	Solid	DI Leach	
890-4597-A-1-H MSD	Matrix Spike Duplicate	Soluble	Solid	DI Leach	

Analysis Batch: 52596

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4598-1	SS01	Soluble	Solid	300.0	52486
890-4598-2	SS02	Soluble	Solid	300.0	52486
890-4598-3	SS03	Soluble	Solid	300.0	52486
890-4598-4	SS04	Soluble	Solid	300.0	52486
MB 880-52486/1-A	Method Blank	Soluble	Solid	300.0	52486
LCS 880-52486/2-A	Lab Control Sample	Soluble	Solid	300.0	52486
LCSD 880-52486/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	52486
890-4597-A-1-G MS	Matrix Spike	Soluble	Solid	300.0	52486
890-4597-A-1-H MSD	Matrix Spike Duplicate	Soluble	Solid	300.0	52486

Lab Chronicle

Client: Ensolum
Project/Site: Treasure Island Fed 001H

Job ID: 890-4598-1
SDG: 03D2024180

Client Sample ID: SS01

Date Collected: 04/28/23 11:55
Date Received: 04/28/23 15:09

Lab Sample ID: 890-4598-1
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.05 g	5 mL	52364	05/02/23 09:11	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	52442	05/03/23 17:54	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			52610	05/04/23 12:48	AJ	EET MID
Total/NA	Analysis	8015 NM		1			52467	05/03/23 09:18	SM	EET MID
Total/NA	Prep	8015NM Prep			10.04 g	10 mL	52400	05/02/23 11:49	AJ	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	52354	05/02/23 17:27	SM	EET MID
Soluble	Leach	DI Leach			5 g	50 mL	52486	05/03/23 10:38	KS	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	52596	05/04/23 04:44	SMC	EET MID

Client Sample ID: SS02

Date Collected: 04/28/23 12:00
Date Received: 04/28/23 15:09

Lab Sample ID: 890-4598-2
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.97 g	5 mL	52364	05/02/23 09:11	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	52442	05/03/23 18:14	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			52610	05/04/23 12:48	AJ	EET MID
Total/NA	Analysis	8015 NM		1			52467	05/03/23 09:18	SM	EET MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	52400	05/02/23 11:49	AJ	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	52354	05/02/23 17:48	SM	EET MID
Soluble	Leach	DI Leach			4.99 g	50 mL	52486	05/03/23 10:38	KS	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	52596	05/04/23 04:49	SMC	EET MID

Client Sample ID: SS03

Date Collected: 04/28/23 12:05
Date Received: 04/28/23 15:09

Lab Sample ID: 890-4598-3
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.99 g	5 mL	52364	05/02/23 09:11	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	52442	05/03/23 18:35	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			52610	05/04/23 12:48	AJ	EET MID
Total/NA	Analysis	8015 NM		1			52467	05/03/23 09:18	SM	EET MID
Total/NA	Prep	8015NM Prep			10.00 g	10 mL	52400	05/02/23 11:49	AJ	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	52354	05/02/23 18:10	SM	EET MID
Soluble	Leach	DI Leach			4.98 g	50 mL	52486	05/03/23 10:38	KS	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	52596	05/04/23 04:54	SMC	EET MID

Client Sample ID: SS04

Date Collected: 04/28/23 12:10
Date Received: 04/28/23 15:09

Lab Sample ID: 890-4598-4
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.02 g	5 mL	52364	05/02/23 09:11	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	52442	05/03/23 18:55	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			52610	05/04/23 12:48	AJ	EET MID

Lab Chronicle

Client: Ensolum
Project/Site: Treasure Island Fed 001H

Job ID: 890-4598-1
SDG: 03D2024180

Client Sample ID: SS04

Date Collected: 04/28/23 12:10
Date Received: 04/28/23 15:09

Lab Sample ID: 890-4598-4

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8015 NM		1			52467	05/03/23 09:18	SM	EET MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	52400	05/02/23 11:49	AJ	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	52354	05/02/23 18:31	SM	EET MID
Soluble	Leach	DI Leach			5.03 g	50 mL	52486	05/03/23 10:38	KS	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	52596	05/04/23 05:11	SMC	EET MID

Laboratory References:

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

Accreditation/Certification Summary

Client: Ensolum
Project/Site: Treasure Island Fed 001H

Job ID: 890-4598-1
SDG: 03D2024180

Laboratory: Eurofins Midland

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

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

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

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

Method Summary

Client: Ensolum
Project/Site: Treasure Island Fed 001H

Job ID: 890-4598-1
SDG: 03D2024180

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

Protocol References:

ASTM = ASTM International

EPA = US Environmental Protection Agency

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

TAL SOP = TestAmerica Laboratories, Standard Operating Procedure

Laboratory References:

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

Sample Summary

Client: Ensolum
Project/Site: Treasure Island Fed 001H

Job ID: 890-4598-1
SDG: 03D2024180

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-4598-1	SS01	Solid	04/28/23 11:55	04/28/23 15:09	0.5'
890-4598-2	SS02	Solid	04/28/23 12:00	04/28/23 15:09	0.5'
890-4598-3	SS03	Solid	04/28/23 12:05	04/28/23 15:09	0.5'
890-4598-4	SS04	Solid	04/28/23 12:10	04/28/23 15:09	0.5'

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Chain of Custody

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

Work Order No: _____

www.xenco.com Page 1 of 1

Project Manager:	Hailie Green	Bill to: (if different)	Kalei Jennings
Company Name:	Ensolum LLC	Company Name:	Ensolum LLC
Address:	3122 National Parks Hwy	Address:	
City, State ZIP:	Carlsbad, NM 88220	City, State ZIP:	
Phone:	432-557-8895	Email:	hgreen@ensolum.com

Work Order Comments

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

Project Name:	Treasure Island Federal H	Turn Around	
Project Number:	03D2024480	☒ Routine ☐ Rush	
Project Location:	32.1961, -103.6383	Due Date:	5 days
Sampler's Name:	Ryan Hayes	TAT starts the day received by the lab, if received by 4:30pm	
PO #:			

SAMPLE RECEIPT			
Temp Blank:	Yes No	Wet Ice:	Yes No
Samples Received Intact:	Yes No	Thermometer ID:	TAM 007
Cooler Custody Seals:	Yes No N/A	Correction Factor:	-0.2
Sample Custody Seals:	Yes No N/A	Temperature Reading:	1.3
Total Containers:		Corrected Temperature:	1.0

Preservative Codes

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

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Grab/ Comp	# of Cont	Pres. Code	Parameters: Cl-	BTEX	TPH	Sample Comments
SS01	S	4/28/23	1155	0.5'	G	1		X	X	X	
SS02			1200								
SS03			1205								
SS04			1210								
			AH								

890-4598 Chain of Custody

Total 200.7 / 6010 200.8 / 6020: 8RCRA 13PPM Texas 11 Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag SiO_2 Na Sr Tl Sn U V Zn
Circle Method(s) and Metal(s) to be analyzed TCLP / SPLP 6010 : 8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Tl U Hg: 1631 / 245.1 / 7470 / 7471

Notice: Signature of this document and relinquishment of samples constitutes a valid purchase order from client company to Eurofins Xenco, its affiliates and subcontractors. It assigns standard terms and conditions of service. Eurofins Xenco will be liable only for the cost of samples and shall not assume any responsibility for any losses or expenses incurred by the client if such losses are due to circumstances beyond the control of Eurofins Xenco. A minimum charge of $85.00 will be applied to each project and a charge of $5 for each sample submitted to Eurofins Xenco, but not analyzed. These terms will be enforced unless previously negotiated.

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
1	Amanda Stuf	4/28/23 1589			
3			4		
5			6		

Revised Date: 08/25/2020 Rev. 2020.2

Login Sample Receipt Checklist

Client: Ensolum

Job Number: 890-4598-1
SDG Number: 03D2024180

Login Number: 4598
List Number: 1
Creator: Stutzman, Amanda

List Source: Eurofins Carlsbad

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

Login Sample Receipt Checklist

Client: Ensolum

Job Number: 890-4598-1
SDG Number: 03D2024180

Login Number: 4598
List Number: 2
Creator: Rodriguez, Leticia

List Source: Eurofins Midland
List Creation: 05/02/23 10:54 AM

Question	Answer	Comment
The cooler's custody seal, if present, is intact.	N/A	
Sample custody seals, if present, are intact.	False	
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	

ENSOLUM

APPENDIX E

NMOCD Notifications

From: Hadlie Green
To: OCD.Enviro@state.nm.us
Cc: Kalei Jennings
Subject: COP - Sampling Notification (Week of 4/24/2023)
Date: Thursday, April 20, 2023 3:33:28 PM
Attachments: image001.png
image002.png
image003.png
image004.png

All,

ConocoPhillips Company (COP) plans to complete sampling activities at the following sites the week of April 24, 2023.

- Bandit 15 Federal Com 002H / NAPP2307544597
  - Sampling Date: 4/24-26/2023 @ 10:00 AM MST
- Jazzmaster 17 ST 3H / NAPP2306543550
  - Sampling Date: 4/27/2023 @ 10:00 AM MST
- Treasure Island Federal 1H / NAPP2310337528
  - Sampling Date: 4/28/2023 @ 10:00 AM MST

Thank you,

Hadlie Green
Project Geologist
432-557-8895
hgreen@ensolum.com
Ensolum, LLC

ENSOLUM

APPENDIX F

FinalC-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	NAPP2310337528
District RP	
Facility ID	fAPP2129347708
Application ID	

Release Notification

Responsible Party

Responsible Party	COG Operating, LLC	OGRID	229137
Contact Name	Jacob Laird	Contact Telephone	(575) 703-5482
Contact email	Jacon.Laird@ConocoPhillips.com	Incident # *(assigned by OCD)*	NAPP2310337528
Contact mailing address	600 West Illinois Avenue, Midland, Texas 79701		

Location of Release Source

Latitude 32.1961 Longitude -103.6383
(NAD 83 in decimal degrees to 5 decimal places)

Site Name	Treasure Island Federal 001H	Site Type	Tank Battery
Date Release Discovered	March 31, 2023	API# *(if applicable)*	30-025-41776

Unit Letter	Section	Township	Range	County
P	23	24S	32E	Lea

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

Nature and Volume of Release

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

■ Crude Oil	Volume Released (bbls) 0.01	Volume Recovered (bbls) 0
☐ Produced Water	Volume Released (bbls)	Volume Recovered (bbls)
	Is the concentration of dissolved chloride in the produced water >10,000 mg/l?	☐ Yes ☐ No
☐ Condensate	Volume Released (bbls)	Volume Recovered (bbls)
☐ Natural Gas	Volume Released (Mcf)	Volume Recovered (Mcf)
☐ Other (describe)	Volume/Weight Released (provide units)	Volume/Weight Recovered (provide units)

Cause of Release

The release was caused by a oil dump malfunction resulting in a flare fire on the pad.
No fluid was recovered due to the fire burning off any standing fluid.

State of New Mexico
Oil Conservation Division

Incident ID	NAPP2310337528
District RP	
Facility ID	fAPP2129347708
Application ID	

Was this a major release as defined by 19.15.29.7(A) NMAC? ☒ Yes ☐ No	If YES, for what reason(s) does the responsible party consider this a major release? The release involved a fire.

If YES, was immediate notice given to the OCD? By whom? To whom? When and by what means (phone, email, etc)?
Immediate notice was given by Jacob Laird via e-mail March 31, 2023 at 7:33 pm to ocd.enviro@state.nm.us and blm_nm_cfo_spill@blm.gov.

Initial Response

The responsible party must undertake the following actions immediately unless they could create a safety hazard that would result in injury

- ☒ The source of the release has been stopped.
- ☒ The impacted area has been secured to protect human health and the environment.
- ☒ Released materials have been contained via the use of berms or dikes, absorbent pads, or other containment devices.
- ☒ All free liquids and recoverable materials have been removed and managed appropriately.

If all the actions described above have not been undertaken, explain why:

Per 19.15.29.8 B. (4) NMAC the responsible party may commence remediation immediately after discovery of a release. If remediation has begun, please attach a narrative of actions to date. If remedial efforts have been successfully completed or if the release occurred within a lined containment area (see 19.15.29.11(A)(5)(a) NMAC), please attach all information needed for closure evaluation.

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

Printed Name: Brittany N. Esparza Title: Environmental Technician

Signature: Brittany Esparza Date: 4/13/2023

email: Brittany.Esparza@ConocoPhillips.com Telephone: (432) 221-0398

OCD Only

Received by: Jocelyn Harimon Date: 04/13/2023

District I
1625 N. French Dr., Hobbs, NM 88240
Phone:(575) 393-6161 Fax:(575) 393-0720
District II
811 S. First St., Artesia, NM 88210
Phone:(575) 748-1283 Fax:(575) 748-9720
District III
1000 Rio Brazos Rd., Aztec, NM 87410
Phone:(505) 334-6178 Fax:(505) 334-6170
District IV
1220 S. St Francis Dr., Santa Fe, NM 87505
Phone:(505) 476-3470 Fax:(505) 476-3462

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

CONDITIONS

Action 207448

CONDITIONS

Operator: COG OPERATING LLC 600 W Illinois Ave Midland, TX 79701	OGRID: 229137
	Action Number: 207448
	Action Type: [C-141] Release Corrective Action (C-141)

CONDITIONS

Created By	Condition	Condition Date
jharimon	None	4/13/2023

Incident ID	NAPP2310337528
District RP	
Facility ID	fAPP2129347708
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?	>55 (ft bgs)
Did this release impact groundwater or surface water?	☐ Yes ☒ No
Are the lateral extents of the release within 300 feet of a continuously flowing watercourse or any other significant watercourse?	☐ Yes ☒ No
Are the lateral extents of the release within 200 feet of any lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark)?	☐ Yes ☒ No
Are the lateral extents of the release within 300 feet of an occupied permanent residence, school, hospital, institution, or church?	☐ Yes ☒ No
Are the lateral extents of the release within 500 horizontal feet of a spring or a private domestic fresh water well used by less than five households for domestic or stock watering purposes?	☐ Yes ☒ No
Are the lateral extents of the release within 1000 feet of any other fresh water well or spring?	☐ Yes ☒ No
Are the lateral extents of the release within incorporated municipal boundaries or within a defined municipal fresh water well field?	☐ Yes ☒ No
Are the lateral extents of the release within 300 feet of a wetland?	☐ Yes ☒ No
Are the lateral extents of the release overlying a subsurface mine?	☐ Yes ☒ No
Are the lateral extents of the release overlying an unstable area such as karst geology?	☐ Yes ☒ No
Are the lateral extents of the release within a 100-year floodplain?	☐ Yes ☒ No
Did the release impact areas **not** on an exploration, development, production, or storage site?	☐ Yes ☒ No

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

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

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

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

State of New Mexico
Oil Conservation Division

Incident ID	NAPP2310337528
District RP	
Facility ID	fAPP2129347708
Application ID	

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

Printed Name: _Jacob Laird_____ Title: _Environmental Engineer_____

Signature: Jacob Laird Date: 5/24/2023

email: _Jacob.Laird@Conocophillips.com_____ Telephone: 575-703-5482

OCD Only

Received by: Jocelyn Harimon Date: 05/25/2023

State of New Mexico
Oil Conservation Division

Incident ID	NAPP2310337528
District RP	
Facility ID	fAPP2129347708
Application ID	

Closure

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

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

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

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

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

☒ Description of remediation activities

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to OCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the OCD does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In addition, OCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations. The responsible party acknowledges they must substantially restore, reclaim, and re-vegetate the impacted surface area to the conditions that existed prior to the release or their final land use in accordance with 19.15.29.13 NMAC including notification to the OCD when reclamation and re-vegetation are complete.

Printed Name: _Jacob Laird_____ Title: _ Environmental Engineer_____

Signature: Jacob Laird Date:__5/24/2023_____

email: __Jacob.Laird@Conocophillips.com_____ Telephone: ___575-703-5482_____

OCD Only

Received by: Jocelyn Harimon Date: 05/25/2023

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

Closure Approved by: Nelson Velez Date: 08/11/2023

Printed Name: Nelson Velez Title: Environmental Specialist – Adv

District I
1625 N. French Dr., Hobbs, NM 88240
Phone:(575) 393-6161 Fax:(575) 393-0720
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811 S. First St., Artesia, NM 88210
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District III
1000 Rio Brazos Rd., Aztec, NM 87410
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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 220660

CONDITIONS

Operator: COG OPERATING LLC 600 W Illinois Ave Midland, TX 79701	OGRID: 229137
	Action Number: 220660
	Action Type: [C-141] Release Corrective Action (C-141)

CONDITIONS

Created By	Condition	Condition Date
nvelez	None	8/11/2023