ENSOLUM

June 9, 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
Chiso 14 #3 & 4 / Chiso 14 State 8711 #3H Flare Stack
Incident Numbers nOY1829542961 and nCH1903548008
Lea County, New Mexico

To Whom It May Concern:

Ensolum, LLC (Ensolum), on behalf of BTA Oil Producers, LLC (BTA), has prepared this *Closure Request* to document assessment, excavation, and soil sampling activities performed at the Chiso 14 #3 & 4 and Chiso 14 State 8711 #3H Flare Stack (collectively referred to as the Site). The purpose of the excavation and soil sampling activities was to address impacts to soil resulting from two release events at the Site. Based on the excavation activities and laboratory analytical results from soil sampling events, BTA is submitting this *Closure Request*, describing remediation that has occurred and requesting closure for Incident Numbers nOY1829542961 and nCH1903548008.

SITE DESCRIPTION AND RELEASE SUMMARY

The Site is located in Unit P, Section 14, Township 22 South, Range 34 East, in Lea County, New Mexico (32.38521°, -103.435077°) and is associated with oil and gas exploration and production operations on private land owned by Merchant Livestock Company.

nOY1829542961

On October 4, 2018, a dump valve on a scrubber failed, causing approximately less than 5 barrels (bbls) of crude oil to be sent to the flare. The crude oil ignited and extinguished itself after reaching the ground. The fire affected the well pad beneath the flare and the surrounding pasture. BTA reported the release to the New Mexico Oil Conservation Division (NMOCD) and submitted a *Release Notification Form C-141* (Form C-141) on October 19, 2018. The release was assigned Incident Number nOY1829542961.

nCH1903548008

On January 8, 2019, a dump valve on a separator failed, causing approximately 2 bbls of crude oil to be sent to the flare. The crude oil ignited and extinguished itself after reaching the ground. The fire affected the well pad beneath the flare. BTA reported the release to the NMOCD and submitted a Form C-141 on January 9, 2019. The release was assigned Incident Number nCH1903548008.

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-141s, Site Assessment/Characterization. Potential Site receptors are identified on Figure 1.

Depth to groundwater at the Site is estimated to be less than 50 feet below ground surface (bgs) based on the nearest groundwater well data. The closest permitted groundwater well with depth to groundwater is New Mexico Office of the State Engineer (NMOSE) well CP-01682, located approximately 0.14 miles southwest of the Site. The groundwater well has a reported depth to groundwater of 42 feet bgs and a total depth of 294 feet bgs. Ground surface elevation at the groundwater well location is 3,42 feet above mean sea leavel (amsl), which is approximately 23 feet lower in elevation than the Site. All wells used for depth to groundwater determination are depicted on Figure 1 and the associated well records are included in Appendix A.

The closest continuously flowing or significant watercourse to the Site is a riverine, located approximately 2,773 feet west 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): 100 mg/kg
- Chloride: 600 mg/kg

DELINEATION ACTIVITIES AND LABORATORY ANALYTICAL RESULTS

Between May 24, 2023, and June 1, 2023, Ensolum personnel were at the Site to evaluate the release extents based on the Form C141s and visual observations. No visible indications of the historical releases were observed during the Site visit. Five delineation boreholes (SS01 through SS05) were advanced via hand-auger within the inferred release areas, to assess for the presence or absence of impacted soil. Delineation soil samples were collected from each borehole at depths ranging from 0.25 feet to 4 feet bgs In addition, four soil samples (SS06 through SS09) were collected around the release extent from a depth of 0.25 feet bgs to assess the lateral extent of the impacted soil.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. Visual observations and field screening results were logged on lithologic soil sampling logs which are included in Appendix B. The inferred release areas and soil sample locations were mapped utilizing a handheld Global Positioning System (GPS) unit and are depicted on Figure 2. Photographic documentation was completed during site assessment and a photographic log is included in Appendix C.

The soil samples were placed directly into pre-cleaned glass jars, labeled with the location, date, time, sampler name, method of analysis, and immediately placed on ice. The soil samples were transported under strict chain-of-custody procedures to Cardinal Laboratories (Cardinal) in Hobbs, New Mexico, for

analysis of the following chemicals of concern (COCs): BTEX following United States Environmental Protection Agency (EPA) Method 8021B; TPH-gasoline range organics (GRO) and TPH-diesel range organics (DRO) , and TPH-oil range organics (ORO) following EPA Method 8015M/D; and chloride following EPA Method 4500.0.

Laboratory analytical results for delineation soil samples SS06 through SS09 indicated all COC concentrations were compliant with the Site Closure Criteria and successfully defined the lateral extent of the inferred release areas. Laboratory analytical results for delineation soil samples SS01, SS03, and SS05, collected at depths ranging from 0.25 feet to 4 feet bgs within the inferred release areas, indicated all COC concentrations were compliant with the Site Closure Criteria. Laboratory analytical results for SS02 and SS04, collected within the inferred area at a depth of 0.25 feet bgs, indicated TPH concentrations exceeded the Site Closure Criteria. Based on laboratory analytical results for soil sample SS02 and SS04, excavation activities were warranted.

EXCAVATION ACTIVITIES AND LABORATORY ANALYTICAL RESULTS

Between June 6, 2023 and June 7, 2023, Ensolum personnel were at the Site to oversee excavation activities based on laboratory analytical results for soil samples SS02 and SS04. Excavation activities were performed utilizing hand shovels and back-hoe. To direct excavation activities, soil was screened for VOCs and chloride. The excavation was completed to a maximum depth of 1.25 feet bgs. Photographic documentation of the excavation activities is included in Appendix C.

Following removal of impacted soil, 5-point composite soil samples were collected every 200 square feet from the floor and sidewall of the excavation extents. The 5-point composite samples were collected by placing five equivalent aliquots of soil into a 1-gallon, resealable plastic bag and homogenizing the samples by thoroughly mixing. Due to the shallow depth of the excavation extent, the sidewalls were incorporated into the floor samples. Composite soil samples FS01 through FS07 were collected from the floor of the excavation at a depth of 1-foot bgs. The soil samples were collected, handled, and analyzed following the same procedures as described above.

Laboratory analytical results for the excavation soil samples FS02 through FS07 indicated all COC concentrations were compliant with the Site Closure Criteria. Laboratory analytical results for soil sample FS01 indicated TPH concentrations exceeded the Site Closure Criteria at 1-foot bgs. Additional soil was removed in the vicinity of floor sample FS01 and subsequent sample FS01A was collected from the floor of the excavation at a depth of 1.25 feet bgs. The excavation extent and excavation soil sample locations are presented on Figure 3. Laboratory analytical results are summarized in Table 1 and laboratory analytical reports are included as Appendix D.

The excavation area measured approximately 1,366 square feet. A total of approximately 63 cubic yards of impacted soil were removed during the excavation activities. The impacted soil was transported and properly disposed of at the OWL Landfill Services, LLC in Jal, New Mexico.

CLOSURE REQUEST

Site assessment and excavation activities were conducted at the Site to address impacted soil resulting from two historical release events at the Site. Laboratory analytical results for the excavation soil samples, collected from the final excavation extents, indicated all COCs were compliant with the Site Closure Criteria. Delineation soil samples indicated all COCs were compliant with the Site Closure Criteria confirming the lateral and vertical extent of the inferred release areas. Based on the soil sample laboratory analytical results, no further remediation was required.

No visible indications of the releases were observed, and excavation of impacted soil has mitigated impacts at this Site. BTA believes these remedial actions are protective of human health, the environment, and groundwater. As such, BTA respectfully requests closure for Incident Numbers nOY1829542961 and nCH1903548008. Notifications submitted to the NMOCD are included in Appendix E and the final Form C-141 is included in Appendix F.

If you have any questions or comments, please contact Ms. Tacoma Morrissey at (337) 257-8307 or tmorrissey@ensolum.com.

Sincerely,
Ensolum, LLC

Hadlie Green
Project Geologist

Daniel R. Moir, PG
Senior Managing Geologist

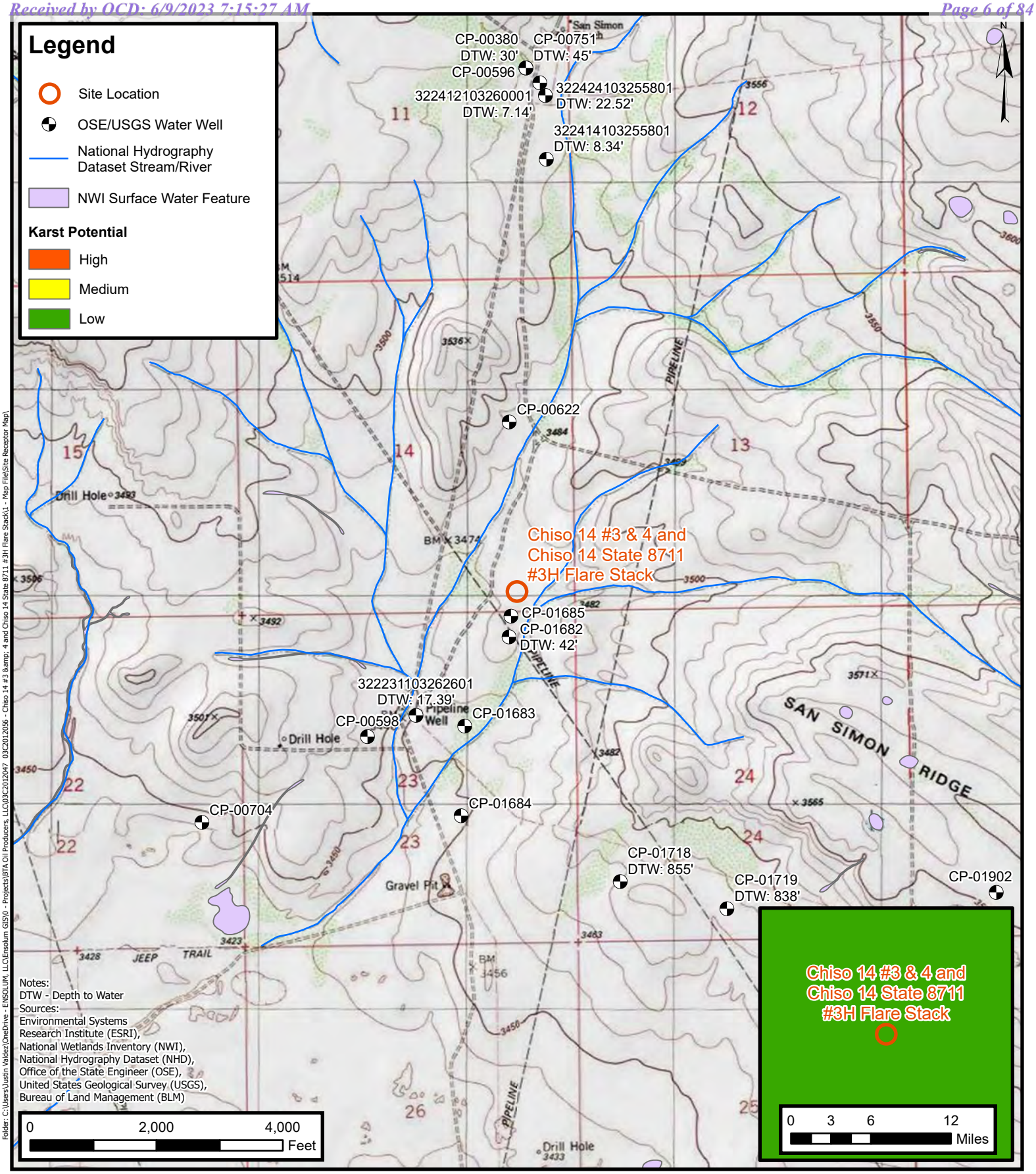
cc: Kelton Beaird, BTA
Nathan Sirgo, BTA
Merchant Livestock Company

Appendices:

Figure 1	Site Receptor Map
Figure 2	Delineation Soil Sample Locations
Figure 3	Excavation Soil Sample Locations
Table 1	Soil Sample Analytical Results
Appendix A	Referenced Well Records
Appendix B	Lithologic/Soil Sampling Logs
Appendix C	Photographic Log
Appendix D	Laboratory Analytical Reports & Chain-of-Custody Documentation
Appendix E	NMOCD Notifications
Appendix F	Final C-141

ENSOLUM

FIGURES



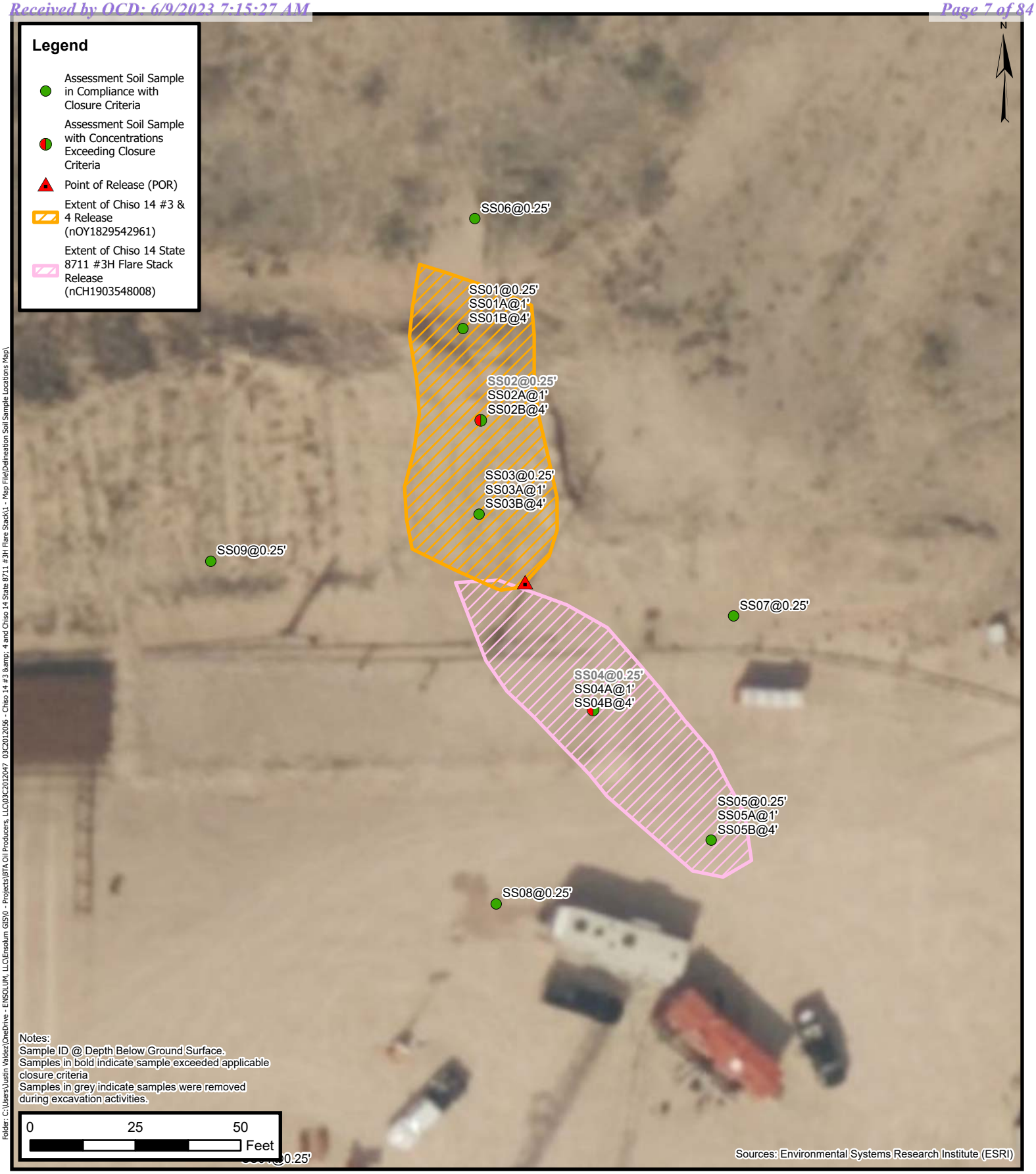
Folder: C:\Users\Justin Valdez\OneDrive - ENSOLUM, LLC\Ensolum GIS\0 - Projects\BTA Oil Producers, LLC\03C2012056 03C2012047 - Chiso 14 #3 & 4 and Chiso 14 State 8711 #3H Flare Stack\1 - Map File\Site Receptor Map\

ENSOLUM
Environmental, Engineering and Hydrogeologic Consultants

Site Receptor Map

BTA Oil Producers, LLC
Chiso 14 #3 & 4 and Chiso 14 State 8711 #3H Flare Stack
Incident Number: nOY1829542961 and nCH1903548008
Unit P, Sec 14, 22S, R34E
Lea County, New Mexico

FIGURE 1



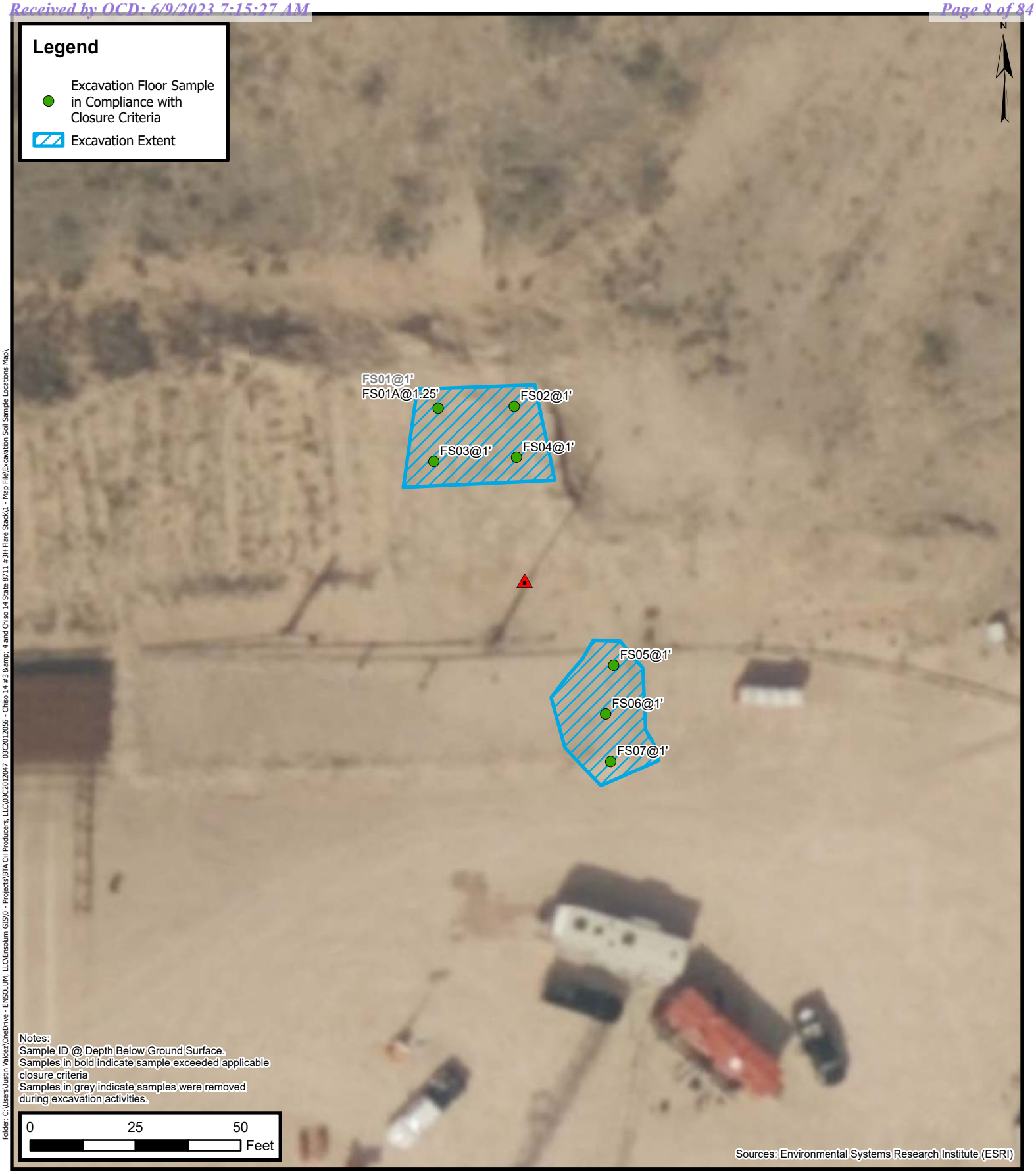
Folder: C:\Users\Justin Valdez\OneDrive - ENSOLUM, LLC\Ensolum GIS\0 - Projects\BTA Oil Producers, LLC\03C2012056 - Chiso 14 #3 & 4 and Chiso 14 State 8711 #3H Flare Stack\1 - Map File\Delineation Soil Sample Locations Map\

ENSOLUM
Environmental, Engineering and Hydrogeologic Consultants

Delineation Soil Sample Locations

BTA Oil Producers, LLC
Chiso 14 #3 & 4 and Chiso 14 State 8711 #3H Flare Stack
Incident Number: nOY1829542961 and nCH1903548008
Unit P, Sec 14, 22S, R34E
Lea County, New Mexico

FIGURE 2



Folder: C:\Users\Justin Valdez\OneDrive - ENSOLUM, LLC\Ensolum GIS\0 - Projects\BTA Oil Producers, LLC\03C2012047 03C2012056 - Chiso 14 #3 & 4 and Chiso 14 State 8711 #3H Flare Stack\1 - Map File\Excavation Soil Sample Locations Map\

ENSOLUM
Environmental, Engineering and Hydrogeologic Consultants

Excavation Soil Sample Locations

BTA Oil Producers, LLC
Chiso 14 #3 & 4 and Chiso 14 State 8711 #3H Flare Stack
Incident Number: nOY1829542961 and nCH1903548008
Unit P, Sec 14, 22S, R34E
Lea County, New Mexico

FIGURE 3

ENSOLUM

TABLES

ENSOLUM

TABLE 1
SOIL SAMPLE ANALYTICAL RESULTS
Chiso 14 #3 & 4 and Chiso 14 State 8711 #3H Flare Stack
BTA Oil Producers, LLC
Lea County, New Mexico

Sample I.D.	Sample Date	Sample Depth (feet bgs)	Benzene (mg/kg)	Total BTEX (mg/kg)	TPH GRO (mg/kg)	TPH DRO (mg/kg)	TPH ORO (mg/kg)	GRO+DRO (mg/kg)	Total TPH (mg/kg)	Chloride (mg/kg)
NMOCD Table I Closure Criteria (NMAC 19.15.29)			10	50	NE	NE	NE	NE	100	600
Delineation Soil Samples										
SS01	05/24/2023	0.25	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	32.0
SS01A	06/01/2023	1	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	32.0
SS01B	06/01/2023	4	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	16.0
SS02	05/24/2023	0.25	<0.050	<0.300	<10.0	347	129	347	**476**	48.0
SS02A	06/01/2023	1	<0.050	<0.300	<10.0	42.7	39.2	42.7	81.9	32.0
SS02B	06/01/2023	4	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	32.0
SS03	05/24/2023	0.25	<0.050	<0.300	<10.0	20.6	<10.0	20.6	20.6	64.0
SS03A	06/01/2023	1	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	16.0
SS03B	06/01/2023	4	<0.050	<0.300	<10.0	52.0	23.9	52.0	75.9	48.0
SS04	05/24/2023	0.25	<0.050	<0.300	<10.0	1,280	864	1,280	**2,144**	80.0
SS04A	06/01/2023	1	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	64.0
SS04B	06/01/2023	4	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	48.0
SS05	05/24/2023	0.25	<0.050	<0.300	<10.0	14.7	<10.0	14.7	14.7	352
SS05A	06/01/2023	1	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	48.0
SS05B	06/01/2023	4	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	80.0
SS06	05/24/2023	0.25	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	48.0
SS07	05/24/2023	0.25	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	96.0
SS08	05/24/2023	0.25	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	240
SS09	05/24/2023	0.25	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0

ENSOLUM

TABLE 1
SOIL SAMPLE ANALYTICAL RESULTS
Chiso 14 #3 & 4 and Chiso 14 State 8711 #3H Flare Stack
BTA Oil Producers, LLC
Lea County, New Mexico

Sample I.D.	Sample Date	Sample Depth (feet bgs)	Benzene (mg/kg)	Total BTEX (mg/kg)	TPH GRO (mg/kg)	TPH DRO (mg/kg)	TPH ORO (mg/kg)	GRO+DRO (mg/kg)	Total TPH (mg/kg)	Chloride (mg/kg)
NMOCD Table I Closure Criteria (NMAC 19.15.29)			10	50	NE	NE	NE	NE	100	600
Excavation Soil Samples										
FS01	06/06/2023	1	<0.050	<0.300	<10.0	129	48.9	129	**178**	32.0
FS01A	06/07/2023	1.25	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	<16.0
FS02	06/06/2023	1	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	32.0
FS03	06/06/2023	1	<0.050	<0.300	<10.0	56.5	12.1	56.5	68.6	32.0
FS04	06/06/2023	1	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	16.0
FS05	06/06/2023	1	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	64.0
FS06	06/06/2023	1	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	64.0
FS07	06/06/2023	1	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	48.0

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

GRO: Gasoline Range Organics
DRO: Diesel Range Organics
ORO: Oil Range Organics
TPH: Total Petroleum Hydrocarbon
Grey text indicates sample was excavated

ENSOLUM

APPENDIX A

Referenced Well Records

WELL RECORD & LOG

OFFICE OF THE STATE ENGINEER

www.ose.state.nm.us

2019 SEP 13 ... STATE ROSWELL

1. GENERAL AND WELL LOCATION

OSE POD NO. (WELL NO.)	WELL TAG ID NO.	OSE FILE NO(S).
CP-1682-POD1 South 2	2062A	CP-1682

WELL OWNER NAME(S)	PHONE (OPTIONAL)
Merchant Livestock Company/Glenn's Water Well Service, Inc.	575-398-2424

WELL OWNER MAILING ADDRESS	CITY	STATE	ZIP
PO Box 692	Tatum	NM	88267

WELL LOCATION (FROM GPS)		DEGREES	MINUTES	SECONDS	
	LATITUDE	32	22	59.66	N
	LONGITUDE	-103	26	7.87	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

NW1/4 NE1/4 NE1/4 Section 23, Township 22 South, Range 34 East on Merchant Livestock Company Land

2. DRILLING & CASING INFORMATION

LICENSE NO.	NAME OF LICENSED DRILLER	NAME OF WELL DRILLING COMPANY
WD 421	Corky Glenn	Glenn's Water Well Service, Inc.

DRILLING STARTED	DRILLING ENDED	DEPTH OF COMPLETED WELL (FT)	BORE HOLE DEPTH (FT)	DEPTH WATER FIRST ENCOUNTERED (FT)
09/10/19	09/13/19	294	294	42

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

STATIC WATER LEVEL IN COMPLETED WELL (FT): 31

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	22.5'	20"	Steel 12 3/4" OD	Plain End	12.25	.25	---
0	294'	20"	Steel Casing 8 5/8" / 8.625" OD	Plain End	8.125	.25	1/8"
			Bottom 252 Perforated				

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	22.5'	20"	Cemented Redi Mix	Fill to Top	Top Pour
0	294'	20"	3/8" Veilmore Gravel	18.52 CY	Top Pour

FOR OSE INTERNAL USE

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

FILE NO. CP-1682	POD NO. 1	TRN NO. 632044	
LOCATION 212 Sec23 T22S R34E		WELL TAG ID NO. 2062A	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	6	6	Soil	Y ✓N	
6	9	3	Soil & Sand	Y ✓N	
9	16	7	Caliche	Y ✓N	
16	20	4	Clay & Sand	Y ✓N	
20	42	22	Red Clay	Y ✓N	
42	56	14	Brown Sandrock	✓Y N	5.00
56	63	7	Red Clay	Y ✓N	
63	68	5	White & Green Clay	Y ✓N	
68	92	24	Brown Sandrock	✓Y N	9.00
92	122	30	Red Clay	Y ✓N	
122	128	6	Brown Shale	Y ✓N	
128	165	37	Red Clay with Stringers of Brown Sandrock	Y ✓N	
165	187	22	Brown Shale	Y ✓N	
187	225	38	Red Clay & Red Shale	Y ✓N	
225	242	17	Brown Shale	Y ✓N	
242	274	32	Blue Sandrock & Shale	✓Y N	1.00
274	294	20	Red Shale	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): 15.00

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:

Travis Glenn License # 1719 (Glenn's Water Well Service, Inc.)

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:

Corky Glenn — SIGNATURE OF DRILLER / PRINT SIGNEE NAME

9/12/19 — DATE

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

FILE NO. CP-1682	POD NO. 1	TRN NO. 632044	
LOCATION 21 2 Sec 23 T22S R34E		WELL TAG ID NO. 2062A	PAGE 2 OF 2

USGS 322211103262601 22S.34E.23.23131

Lea County, New Mexico
Latitude 32°22'47.6", Longitude 103°26'25.3" NAD83
Land-surface elevation 3,452 feet above NAVD88
The depth of the well is 60 feet below land surface.
This well is completed in the Other aquifers (N9999OTHER) national aquifer.
This well is completed in the Alluvium, Bolson Deposits and Other Surface Deposits (110AVMB) local aquifer.

Output formats

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

Date	Time	Water-level date-time accuracy	Parameter code	Water level, feet below land surface	Water level, feet above specific vertical datum	Referenced vertical datum	Status	Method of measurement	Measuring agency	Source of measurement	Water-level approval status
1968-06-10		D	62610		3425.15	NGVD29	1	Z			A
1968-06-10		D	62611		3426.75	NAVD88	1	Z			A
1968-06-10		D	72019	25.25			1	Z			A
1971-09-08		D	62610		3423.42	NGVD29	P	Z			A
1971-09-08		D	62611		3425.02	NAVD88	P	Z			A
1971-09-08		D	72019	26.98			P	Z			A
1976-12-16		D	62610		3426.10	NGVD29	1	Z			A
1976-12-16		D	62611		3427.70	NAVD88	1	Z			A
1976-12-16		D	72019	24.30			1	Z			A
1981-03-18		D	62610		3427.03	NGVD29	1	Z			A
1981-03-18		D	62611		3428.63	NAVD88	1	Z			A
1981-03-18		D	72019	23.37			1	Z			A
1986-04-10		D	62610		3427.57	NGVD29	1	Z			A
1986-04-10		D	62611		3429.17	NAVD88	1	Z			A
1986-04-10		D	72019	22.83			1	Z			A
1991-05-03		D	62610		3427.87	NGVD29	1	Z			A
1991-05-03		D	62611		3429.47	NAVD88	1	Z			A
1991-05-03		D	72019	22.53			1	Z			A
1996-02-21		D	62610		3428.27	NGVD29	1	S			A
1996-02-21		D	62611		3429.87	NAVD88	1	S			A
1996-02-21		D	72019	22.13			1	S			A
2015-12-18	21:30 UTC	m	62610		3433.01	NGVD29	1	S	USGS	S	A
2015-12-18	21:30 UTC	m	62611		3434.61	NAVD88	1	S	USGS	S	A
2015-12-18	21:30 UTC	m	72019	17.39			1	S	USGS	S	A

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).
CP-1718-POD1 MLP West		

WELL OWNER NAME(S)	PHONE (OPTIONAL)
Merchant Livestock Company/Glenn's Water Well Service, Inc.	575-398-2424

WELL OWNER MAILING ADDRESS	CITY	STATE	ZIP
PO Box 692	Tatum	NM	88267

WELL LOCATION (FROM GPS)		DEGREES	MINUTES	SECONDS	
	LATITUDE	32	22	21.06	N
	LONGITUDE	-103	25	48.00	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

NW1/4 NE1/4 SW1/4 Section 24, Township 22 South, Range 34 East on Merchant Livestock Company Land

2. DRILLING & CASING INFORMATION

LICENSE NO.	NAME OF LICENSED DRILLER	NAME OF WELL DRILLING COMPANY
WD 421	Corky Glenn	Glenn's Water Well Service, Inc.

DRILLING STARTED	DRILLING ENDED	DEPTH OF COMPLETED WELL (FT)	BORE HOLE DEPTH (FT)	DEPTH WATER FIRST ENCOUNTERED (FT)
05/09/19	05/13/19	1,172	1,172	855'

COMPLETED WELL IS: [x] ARTESIAN [ ] DRY HOLE [ ] SHALLOW (UNCONFINED)

STATIC WATER LEVEL IN COMPLETED WELL (FT): 403'

DRILLING FLUID: [ ] AIR [x] MUD ADDITIVES – SPECIFY:

DRILLING METHOD: [x] 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	40	20"	ASTM A53 Sch 40 Steel 16" OD	None	15.5	.25	---
0	800	14.75"	API Steel Grade J-55/K-55 10.75" OD	Thread & Collar	10.05	.35	---
752	1,172	9.875"	Steel Casing 8 5/8" / 8.625" OD	Plain End	8.125	.25	1/8"
			(420' Total) Bottom 378 Perforated				

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	40'	20"	Cemented	2 yards	Top Pour
0	800'	14.75"	Float and Shoe Cemented to Surface 28 Barrels	345 Sacks Pumped	Circulated

FOR OSE INTERNAL USE

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

FILE NO.	CP-1718	POD NO.	1	TRN NO.	628247
LOCATION	22S.34E.24.3.3.2	EXPL		WELL TAG ID NO.	N/A

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	5	5	Sand	Y ✓ N	
5	25	20	Caliche	Y ✓ N	
25	125	100	Sand & Red Clay	Y ✓ N	
125	550	425	Red Clay & Shale	Y ✓ N	
550	800	250	Red Shale & Clay	Y ✓ N	
800	855	55	Sandrock & Shale	✓ Y N	
855	918	63	Sandrock & Shale	✓ Y N	
918	950	32	Sandrock& Blue & Red Shale	✓ Y N	
950	1,139	189	Sand	✓ Y N	120.00
1,139	1,172	33	Red Shale	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): 120.00

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:

0' to 800' drilled with mud.
800' to 1,172' drilled with air and foam.

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 30 DAYS AFTER COMPLETION OF WELL DRILLING:

Corky Glenn — SIGNATURE OF DRILLER / PRINT SIGNEE NAME

5/22/19 — DATE

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

FILE NO. CP-1718	POD NO. 1	TRN NO. 628247	
LOCATION 225.34E.24.3.3.2 EXPL		WELL TAG ID NO. N/A	PAGE 2 OF 2

ENSOLUM

APPENDIX B

Lithologic Soil Sampling Logs

ENSOLUM

	Sample Name: SS01	Date: 6/1/2023
	Site Name: Chiso 14 State 8711 #3H Flare Stack/ #3&4 Tank Battery	
	Incident Number:	
	Job Number: 03C2012056/ 03C2012047	
LITHOLOGIC / SOIL SAMPLING LOG	Logged By: MR	Method: Backhoe
Coordinates: 32.385817, -103.435085	Hole Diameter: NA	Total Depth: 4

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. A 40% error factor is included in all chloride screenings.

Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample ID	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithologic Descriptions
						0	SP-SM	0-4' SAND with trace silt, medium to fine grained, medium brown, poorly sorted, no stain, no odor, dry.
D	<173.6	0.0	N	SS01A	1	1		
D	<173.6	0.4				2		
D	<173.6	0.6				3		
D	<173.6	0.3	N	SS01B	4	4		
						TD		Total Depth @ 4' bgs.

ENSOLUM

	Sample Name: SS02	Date: 6/1/2023
	Site Name: Chiso 14 State 8711 #3H Flare Stack/ #3&4 Tank Battery	
	Incident Number:	
	Job Number: 03C2012056/ 03C2012047	
LITHOLOGIC / SOIL SAMPLING LOG	Logged By: MR	Method: Hand Auger
Coordinates: 32.385695, -103.435074	Hole Diameter: 4"	Total Depth: 4'

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. A 40% error factor is included in all chloride screenings.

Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample ID	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithologic Descriptions
						0	SP-SM	0-4' SAND with trace silt, medium to fine grained, medium brown, poorly sorted, no stain, no odor, moist.
M	<173.6	0.4	N	SS02A	1	1		
M	<173.6	0.2	N			2		
M	<173.6	0.5	N			3		
M	<173.6	0.1	N	SS02B	4	4		
						TD		Total Depth @ 4' bgs.

ENSOLUM

	Sample Name: SS03	Date: 6/1/2023
	Site Name: Chiso 14 State 8711 #3H Flare Stack/ #3&4 Tank Battery	
	Incident Number:	
	Job Number: 03C2012056/ 03C2012047	
LITHOLOGIC / SOIL SAMPLING LOG	Logged By: MR	Method: Hand Auger
Coordinates: 32.385695, -103.435074	Hole Diameter: 4"	Total Depth: 4'

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. A 40% error factor is included in all chloride screenings.

Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample ID	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithologic Descriptions
						0	SP-SM	0-4' SAND with trace silt, medium to fine grained, medium brown, poorly sorted, no stain, no odor, moist.
M	<173.6	0.3	N	SS03A	1	1		
M	<173.6	0.6	N			2		
M	<173.6	0.5	N			3		
M	<173.6	0.2	N	SS03B	4	4		
						TD		Total Depth @ 4' bgs.

ENSOLUM

	Sample Name: SS04	Date: 6/1/2023
	Site Name: Chiso 14 State 8711 #3H Flare Stack/ #3&4 Tank Battery	
	Incident Number:	
	Job Number: 03C2012056/ 03C2012047	
LITHOLOGIC / SOIL SAMPLING LOG	Logged By: MR	Method: Backhoe
Coordinates: 32.385564, -103.435008	Hole Diameter: NA	Total Depth: 4'

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. A 40% error factor is included in all chloride screenings.

Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample ID	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithologic Descriptions
						0	SP-SM	0-4' SAND with trace silt, medium to fine grained, medium brown, poorly sorted, no stain, no odor, dry.
D	<173.6	0.0	N	SS04A	1	1		
D	<173.6	0.1	N			2		
D	<173.6	0.0	N			3		
D	<173.6	0.2	N	SS04B	4	4	CCHE	4' CALICHE with sand, light/medium brown, poorly sorted, sub-rounded grains, no stain/odor, dry.
						TD		Total Depth @ 4' bgs.

ENSOLUM

	Sample Name: SS05	Date: 6/1/2023
	Site Name: Chiso 14 State 8711 #3H Flare Stack/ #3&4 Tank Battery	
	Incident Number:	
	Job Number: 03C2012056/ 03C2012047	
LITHOLOGIC / SOIL SAMPLING LOG	Logged By: MR	Method: Backhoe
Coordinates: 32.385480, -103.434899	Hole Diameter: NA	Total Depth: 4'

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. A 40% error factor is included in all chloride screenings.

Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample ID	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithologic Descriptions
						0	CCHE	0-2' CALICHE, medium brown, poorly sorted, sub-rounded grains, no stain, no odor, dry.
D	<173.6	0.0	N	SS05A	1	1		
D	<173.6	0.0	N			2	SP-SM	2-4' SAND with silt, medium to fine grained, med. brown, poorly sorted, no stain, no odor, dry.
D	<173.6	0.0	N			3		
D	<173.6	0.1	N	SS05B	4	4	CCHE	4' CALICHE with sand, light/medium brown, poorly sorted, sub-rounded grains, no stain/odor, dry.
						TD		Total Depth @ 4' bgs.

ENSOLUM

APPENDIX C

Photographic Log

ENSOLUM

Photographic Log

BTA Oil Producers, LLC

Chiso14 #3 & 4 and Chiso 14 State 8711 #3H Flare Stack

Incident Numbers nOY1829542961 and nCH1903548008

Photograph: 1 Date: 10/4/2018

Description: Incident Number nOY1829542961 release footprint

Photograph: 2 Date: 1/8/2019

Description: Incident Number nCH1903548008 release footprint

Photograph: 3 Date: 5/25/2023

Description: Assessment activities

View: southeast

Photograph: 4 Date: 6/1/2023

Description: Assessent activities

View: West

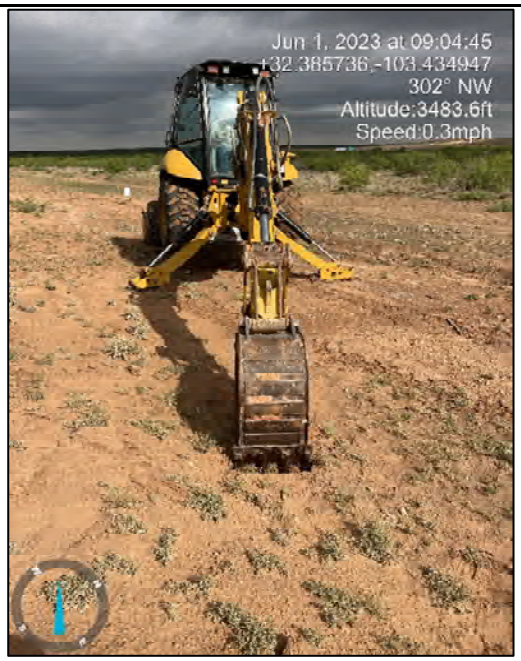
ENSOLUM

Photographic Log

BTA Oil Producers, LLC

Chiso14 #3 & 4 and Chiso 14 State 8711 #3H Flare Stack

Incident Numbers nOY1829542961 and nCH1903548008



Photograph: 1 Date: 6/1/2023
Description: Assessment activities
View: Northwest

Photograph: 2 Date: 6/6/2023
Description: Excavation activities
View: Northwest

Photograph: 3 Date: 6/6/2023
Description: Excavation activities
View: Southeast

Photograph: 4 Date: 6/6/2023
Description: Excavation activities
View: North

ENSOLUM

APPENDIX D

Laboratory Analytical Reports & Chain of Custody Documentation

CARDINAL Laboratories

PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

June 02, 2023

HADLIE GREEN

ENSOLUM, LLC

705 W WADLEY AVE.

MIDLAND, TX 79705

RE: CHISO 14 #3 & 4 TANK FLARE

Enclosed are the results of analyses for samples received by the laboratory on 05/26/23 12:05.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-22-15. Accreditation applies to drinking water, non-potable water and solid and chemical materials. All accredited analytes are denoted by an asterisk (*). For a complete list of accredited analytes and matrices visit the TCEQ website at www.tceq.texas.gov/field/qa/lab_accred_certif.html.

Cardinal Laboratories is accreditated through the State of Colorado Department of Public Health and Environment for:

Method EPA 552.2	Haloacetic Acids (HAA-5)
Method EPA 524.2	Total Trihalomethanes (TTHM)
Method EPA 524.4	Regulated VOCs (V1, V2, V3)

Accreditation applies to public drinking water matrices.

This report meets NELAP requirements and is made up of a cover page, analytical results, and a copy of the original chain-of-custody. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Celey D. Keene

Celey D. Keene

Lab Director/Quality Manager

CARDINAL Laboratories

PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

Analytical Results For:

ENSOLUM, LLC
HADLIE GREEN
705 W WADLEY AVE.
MIDLAND TX, 79705
Fax To:

Received:	05/26/2023	Sampling Date:	05/24/2023
Reported:	06/02/2023	Sampling Type:	Soil
Project Name:	CHISO 14 #3 & 4 TANK FLARE	Sampling Condition:	Cool & Intact
Project Number:	03C2012047	Sample Received By:	Tamara Oldaker
Project Location:	BTA 32.385621,-103.435077		

Sample ID: SS 01 0.25' (H232703-01)

BTEX 8021B mg/kg Analyzed By: JH

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	05/27/2023	ND	2.08	104	2.00	1.75	
Toluene*	<0.050	0.050	05/27/2023	ND	2.11	105	2.00	0.353	
Ethylbenzene*	<0.050	0.050	05/27/2023	ND	2.19	110	2.00	0.0157	
Total Xylenes*	<0.150	0.150	05/27/2023	ND	6.41	107	6.00	0.392	
Total BTEX	<0.300	0.300	05/27/2023	ND					

Surrogate: 4-Bromofluorobenzene (PID *100 %* *71.5-134*

Chloride, SM4500Cl-B mg/kg Analyzed By: GM

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**32.0**	16.0	05/30/2023	ND	400	100	400	7.69	

TPH 8015M mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	05/30/2023	ND	178	88.8	200	5.72	
DRO >C10-C28*	<10.0	10.0	05/30/2023	ND	181	90.4	200	5.11	
EXT DRO >C28-C36	<10.0	10.0	05/30/2023	ND					

Surrogate: 1-Chlorooctane *99.0 %* *48.2-134*

Surrogate: 1-Chlorooctadecane *104 %* *49.1-148*

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

Analytical Results For:

ENSOLUM, LLC
HADLIE GREEN
705 W WADLEY AVE.
MIDLAND TX, 79705
Fax To:

Received:	05/26/2023	Sampling Date:	05/24/2023
Reported:	06/02/2023	Sampling Type:	Soil
Project Name:	CHISO 14 #3 & 4 TANK FLARE	Sampling Condition:	Cool & Intact
Project Number:	03C2012047	Sample Received By:	Tamara Oldaker
Project Location:	BTA 32.385621,-103.435077		

Sample ID: SS 02 0.25' (H232703-02)

BTEX 8021B mg/kg Analyzed By: JH

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	05/27/2023	ND	2.08	104	2.00	1.75	
Toluene*	<0.050	0.050	05/27/2023	ND	2.11	105	2.00	0.353	
Ethylbenzene*	<0.050	0.050	05/27/2023	ND	2.19	110	2.00	0.0157	
Total Xylenes*	<0.150	0.150	05/27/2023	ND	6.41	107	6.00	0.392	
Total BTEX	<0.300	0.300	05/27/2023	ND					

Surrogate: 4-Bromofluorobenzene (PID *102 %* *71.5-134*

Chloride, SM4500Cl-B mg/kg Analyzed By: GM

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**48.0**	16.0	05/30/2023	ND	400	100	400	7.69	

TPH 8015M mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	05/30/2023	ND	178	88.8	200	5.72	
DRO >C10-C28*	**347**	10.0	05/30/2023	ND	181	90.4	200	5.11	
EXT DRO >C28-C36	**129**	10.0	05/30/2023	ND					

Surrogate: 1-Chlorooctane *80.8 %* *48.2-134*

Surrogate: 1-Chlorooctadecane *82.7 %* *49.1-148*

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

Analytical Results For:

ENSOLUM, LLC
HADLIE GREEN
705 W WADLEY AVE.
MIDLAND TX, 79705
Fax To:

Received:	05/26/2023	Sampling Date:	05/24/2023
Reported:	06/02/2023	Sampling Type:	Soil
Project Name:	CHISO 14 #3 & 4 TANK FLARE	Sampling Condition:	Cool & Intact
Project Number:	03C2012047	Sample Received By:	Tamara Oldaker
Project Location:	BTA 32.385621,-103.435077		

Sample ID: SS 03 0.25' (H232703-03)

BTEX 8021B mg/kg Analyzed By: JH/

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	05/27/2023	ND	2.01	101	2.00	0.179	
Toluene*	<0.050	0.050	05/27/2023	ND	2.06	103	2.00	0.733	
Ethylbenzene*	<0.050	0.050	05/27/2023	ND	2.03	101	2.00	0.0765	
Total Xylenes*	<0.150	0.150	05/27/2023	ND	6.30	105	6.00	1.20	
Total BTEX	<0.300	0.300	05/27/2023	ND					

Surrogate: 4-Bromofluorobenzene (PID *107 %* *71.5-134*

Chloride, SM4500Cl-B mg/kg Analyzed By: GM

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**64.0**	16.0	05/30/2023	ND	400	100	400	7.69	

TPH 8015M mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	05/30/2023	ND	178	88.8	200	5.72	
DRO >C10-C28*	**20.6**	10.0	05/30/2023	ND	181	90.4	200	5.11	
EXT DRO >C28-C36	<10.0	10.0	05/30/2023	ND					

Surrogate: 1-Chlorooctane *70.0 %* *48.2-134*

Surrogate: 1-Chlorooctadecane *76.1 %* *49.1-148*

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

Analytical Results For:

ENSOLUM, LLC
HADLIE GREEN
705 W WADLEY AVE.
MIDLAND TX, 79705
Fax To:

Received:	05/26/2023	Sampling Date:	05/24/2023
Reported:	06/02/2023	Sampling Type:	Soil
Project Name:	CHISO 14 #3 & 4 TANK FLARE	Sampling Condition:	Cool & Intact
Project Number:	03C2012047	Sample Received By:	Tamara Oldaker
Project Location:	BTA 32.385621,-103.435077		

Sample ID: SS 04 0.25' (H232703-04)

BTEX 8021B mg/kg Analyzed By: JH/

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	05/27/2023	ND	2.01	101	2.00	0.179	
Toluene*	<0.050	0.050	05/27/2023	ND	2.06	103	2.00	0.733	
Ethylbenzene*	<0.050	0.050	05/27/2023	ND	2.03	101	2.00	0.0765	
Total Xylenes*	<0.150	0.150	05/27/2023	ND	6.30	105	6.00	1.20	
Total BTEX	<0.300	0.300	05/27/2023	ND					

Surrogate: 4-Bromofluorobenzene (PID *106 %* *71.5-134*

Chloride, SM4500Cl-B mg/kg Analyzed By: GM

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**80.0**	16.0	05/30/2023	ND	400	100	400	7.69	

TPH 8015M mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	05/30/2023	ND	199	99.5	200	3.39	
DRO >C10-C28*	**1280**	10.0	05/30/2023	ND	181	90.6	200	22.0	
EXT DRO >C28-C36	**864**	10.0	05/30/2023	ND					

Surrogate: 1-Chlorooctane *100 %* *48.2-134*

Surrogate: 1-Chlorooctadecane *148 %* *49.1-148*

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

Analytical Results For:

ENSOLUM, LLC
HADLIE GREEN
705 W WADLEY AVE.
MIDLAND TX, 79705
Fax To:

Received:	05/26/2023	Sampling Date:	05/24/2023
Reported:	06/02/2023	Sampling Type:	Soil
Project Name:	CHISO 14 #3 & 4 TANK FLARE	Sampling Condition:	Cool & Intact
Project Number:	03C2012047	Sample Received By:	Tamara Oldaker
Project Location:	BTA 32.385621,-103.435077		

Sample ID: SS 05 0.25' (H232703-05)

BTEX 8021B mg/kg Analyzed By: JH/

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	05/27/2023	ND	2.01	101	2.00	0.179	
Toluene*	<0.050	0.050	05/27/2023	ND	2.06	103	2.00	0.733	
Ethylbenzene*	<0.050	0.050	05/27/2023	ND	2.03	101	2.00	0.0765	
Total Xylenes*	<0.150	0.150	05/27/2023	ND	6.30	105	6.00	1.20	
Total BTEX	<0.300	0.300	05/27/2023	ND					

Surrogate: 4-Bromofluorobenzene (PID *106 %* *71.5-134*

Chloride, SM4500Cl-B mg/kg Analyzed By: GM

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**352**	16.0	05/30/2023	ND	400	100	400	7.69	

TPH 8015M mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	06/02/2023	ND	199	99.5	200	3.39	
DRO >C10-C28*	**14.7**	10.0	06/02/2023	ND	181	90.6	200	22.0	
EXT DRO >C28-C36	<10.0	10.0	06/02/2023	ND					

Surrogate: 1-Chlorooctane *94.8 %* *48.2-134*

Surrogate: 1-Chlorooctadecane *97.5 %* *49.1-148*

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

Notes and Definitions

S-04	The surrogate recovery for this sample is outside of established control limits due to a sample matrix effect.
QR-04	The RPD for the BS/BSD was outside of historical limits.
QM-07	The spike recovery was outside acceptance limits for the MS and/or MSD. The batch was accepted based on acceptable LCS recovery.
ND	Analyte NOT DETECTED at or above the reporting limit
RPD	Relative Percent Difference
**	Samples not received at proper temperature of 6°C or below.
***	Insufficient time to reach temperature.
-	Chloride by SM4500Cl-B does not require samples be received at or below 6°C
	Samples reported on an as received basis (wet) unless otherwise noted on report

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

101 East Marland, Hobbs, NM 88240
(575) 393-2326 FAX (575) 393-2476

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

Company Name:	Ensolum, LLC
Project Manager:	Hadlie Green
Address:	601 N. Marienfeld St. STE 400
City:	Midland State: TX Zip: 79701
Phone #:	432-557-8895 Fax #:
Project #:	03C2012047 Project Owner:
Project Name:	Chiso 14 #3 & 4 Tank Flare
Project Location:	32.385621, -103.435077
Sampler Name:	Dmitry Nikanorov

BILL TO

P.O. #:	
Company:	BTA Oil
Attn:	Kevin Jones
Address:	104 S Pecos St
City:	Midland,
State:	TX Zip: 79701
Phone #:	432-312-2203
Fax #:	

ANALYSIS REQUEST

FOR LAB USE ONLY Lab I.D.	Sample I.D.	Sample Depth (feet)	(G)RAB OR (C)OMP.	# CONTAINERS	MATRIX: GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER :	PRESERV.: ACID/BASE:	ICE / COOL	OTHER :	SAMPLING: DATE	TIME	TPH	BTEX	CHLORIDES
H232703																		
1	S S 0 1	0.25'	G	1			X					X		5/24/23	0940	1	1	1
2	S S 0 2	0.25'	G	1			X					X			0950			
3	S S 0 3	0.25'	G	1			X					X			1000			
4	S S 0 4	0.25'	G	1			X					X			1010			
5	S S 0 5	0.25'	G	1			X					X			1020			

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising whether based in contract or tort, shall be limited to the amount paid by the client for the analyses. All claims including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within 30 days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise.

Relinquished By:	Date: 5/24/23 Time: 0720	Received By:	
Relinquished By:	Date: 5-26-23 Time: 1205	Received By:	Tamara Oldaker
Delivered By: (Circle One) Sampler - UPS - Bus - Other:	Observed Temp. °C 6.4 Corrected Temp. °C 5.8	Sample Condition Cool: Yes / No Intact: Yes / No	CHECKED BY: (Initials)

Verbal Result: ☐ Yes ☐ No Add'l Phone #:
All Results are emailed. Please provide Email address: hgreen@ensolum.com
B.Jennings@ensolum.com dnikanorov@ensolum.com
REMARKS:

Turnaround Time: Standard ☑ Rush ☐
Thermometer ID #113
Correction Factor -0.5°C
Bacteria (only) Sample Condition: Cool ☐ Yes ☐ No Intact ☐ Yes ☐ No Observed Temp. °C Corrected Temp. °C

† Cardinal cannot accept verbal changes. Please email changes to celey.keene@cardinallabsnm.com

FORM-006 R 3.2 10/07/21

CARDINAL Laboratories

PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

June 01, 2023

HADLIE GREEN

ENSOLUM, LLC

705 W WADLEY AVE.

MIDLAND, TX 79705

RE: CHISO 14 #3 & 4 TANK FLARE

Enclosed are the results of analyses for samples received by the laboratory on 05/26/23 12:05.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-22-15. Accreditation applies to drinking water, non-potable water and solid and chemical materials. All accredited analytes are denoted by an asterisk (*). For a complete list of accredited analytes and matrices visit the TCEQ website at www.tceq.texas.gov/field/qa/lab_accred_certif.html.

Cardinal Laboratories is accreditated through the State of Colorado Department of Public Health and Environment for:

Method EPA 552.2	Haloacetic Acids (HAA-5)
Method EPA 524.2	Total Trihalomethanes (TTHM)
Method EPA 524.4	Regulated VOCs (V1, V2, V3)

Accreditation applies to public drinking water matrices.

This report meets NELAP requirements and is made up of a cover page, analytical results, and a copy of the original chain-of-custody. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Celey D. Keene

Celey D. Keene

Lab Director/Quality Manager

CARDINAL Laboratories

PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

Analytical Results For:

ENSOLUM, LLC
HADLIE GREEN
705 W WADLEY AVE.
MIDLAND TX, 79705
Fax To:

Received:	05/26/2023	Sampling Date:	05/24/2023
Reported:	06/01/2023	Sampling Type:	Soil
Project Name:	CHISO 14 #3 & 4 TANK FLARE	Sampling Condition:	Cool & Intact
Project Number:	03C2012047	Sample Received By:	Tamara Oldaker
Project Location:	BTA 32.385621,-103.435077		

Sample ID: SS 06 0.25' (H232704-01)

BTEX 8021B mg/kg Analyzed By: JH/

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	05/27/2023	ND	2.01	101	2.00	0.179	
Toluene*	<0.050	0.050	05/27/2023	ND	2.06	103	2.00	0.733	
Ethylbenzene*	<0.050	0.050	05/27/2023	ND	2.03	101	2.00	0.0765	
Total Xylenes*	<0.150	0.150	05/27/2023	ND	6.30	105	6.00	1.20	
Total BTEX	<0.300	0.300	05/27/2023	ND					

Surrogate: 4-Bromofluorobenzene (PID *106 %* *71.5-134*

Chloride, SM4500Cl-B mg/kg Analyzed By: GM

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**48.0**	16.0	05/30/2023	ND	400	100	400	7.69	

TPH 8015M mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	05/30/2023	ND	199	99.5	200	3.39	
DRO >C10-C28*	<10.0	10.0	05/30/2023	ND	181	90.6	200	22.0	
EXT DRO >C28-C36	<10.0	10.0	05/30/2023	ND					

Surrogate: 1-Chlorooctane *93.1 %* *48.2-134*

Surrogate: 1-Chlorooctadecane *103 %* *49.1-148*

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

Analytical Results For:

ENSOLUM, LLC
HADLIE GREEN
705 W WADLEY AVE.
MIDLAND TX, 79705
Fax To:

Received:	05/26/2023	Sampling Date:	05/24/2023
Reported:	06/01/2023	Sampling Type:	Soil
Project Name:	CHISO 14 #3 & 4 TANK FLARE	Sampling Condition:	Cool & Intact
Project Number:	03C2012047	Sample Received By:	Tamara Oldaker
Project Location:	BTA 32.385621,-103.435077		

Sample ID: SS 07 0.25' (H232704-02)

BTEX 8021B mg/kg Analyzed By: JH/

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	05/27/2023	ND	2.01	101	2.00	0.179	
Toluene*	<0.050	0.050	05/27/2023	ND	2.06	103	2.00	0.733	
Ethylbenzene*	<0.050	0.050	05/27/2023	ND	2.03	101	2.00	0.0765	
Total Xylenes*	<0.150	0.150	05/27/2023	ND	6.30	105	6.00	1.20	
Total BTEX	<0.300	0.300	05/27/2023	ND					

Surrogate: 4-Bromofluorobenzene (PID *105 %* *71.5-134*

Chloride, SM4500Cl-B mg/kg Analyzed By: GM

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**96.0**	16.0	05/30/2023	ND	400	100	400	7.69	

TPH 8015M mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	05/30/2023	ND	199	99.5	200	3.39	
DRO >C10-C28*	<10.0	10.0	05/30/2023	ND	181	90.6	200	22.0	
EXT DRO >C28-C36	<10.0	10.0	05/30/2023	ND					

Surrogate: 1-Chlorooctane *94.3 %* *48.2-134*

Surrogate: 1-Chlorooctadecane *104 %* *49.1-148*

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

Analytical Results For:

ENSOLUM, LLC
HADLIE GREEN
705 W WADLEY AVE.
MIDLAND TX, 79705
Fax To:

Received:	05/26/2023	Sampling Date:	05/24/2023
Reported:	06/01/2023	Sampling Type:	Soil
Project Name:	CHISO 14 #3 & 4 TANK FLARE	Sampling Condition:	Cool & Intact
Project Number:	03C2012047	Sample Received By:	Tamara Oldaker
Project Location:	BTA 32.385621,-103.435077		

Sample ID: SS 08 0.25' (H232704-03)

BTEX 8021B mg/kg Analyzed By: JH/

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	05/27/2023	ND	2.01	101	2.00	0.179	
Toluene*	<0.050	0.050	05/27/2023	ND	2.06	103	2.00	0.733	
Ethylbenzene*	<0.050	0.050	05/27/2023	ND	2.03	101	2.00	0.0765	
Total Xylenes*	<0.150	0.150	05/27/2023	ND	6.30	105	6.00	1.20	
Total BTEX	<0.300	0.300	05/27/2023	ND					

Surrogate: 4-Bromofluorobenzene (PID *105 %* *71.5-134*

Chloride, SM4500Cl-B mg/kg Analyzed By: GM

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**240**	16.0	05/30/2023	ND	416	104	400	7.41	

TPH 8015M mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	05/30/2023	ND	199	99.5	200	3.39	
DRO >C10-C28*	<10.0	10.0	05/30/2023	ND	181	90.6	200	22.0	
EXT DRO >C28-C36	<10.0	10.0	05/30/2023	ND					

Surrogate: 1-Chlorooctane *103 %* *48.2-134*

Surrogate: 1-Chlorooctadecane *113 %* *49.1-148*

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

Analytical Results For:

ENSOLUM, LLC
HADLIE GREEN
705 W WADLEY AVE.
MIDLAND TX, 79705
Fax To:

Received:	05/26/2023	Sampling Date:	05/24/2023
Reported:	06/01/2023	Sampling Type:	Soil
Project Name:	CHISO 14 #3 & 4 TANK FLARE	Sampling Condition:	Cool & Intact
Project Number:	03C2012047	Sample Received By:	Tamara Oldaker
Project Location:	BTA 32.385621,-103.435077		

Sample ID: SS 09 0.25' (H232704-04)

BTEX 8021B mg/kg Analyzed By: JH/

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	05/27/2023	ND	2.01	101	2.00	0.179	
Toluene*	<0.050	0.050	05/27/2023	ND	2.06	103	2.00	0.733	
Ethylbenzene*	<0.050	0.050	05/27/2023	ND	2.03	101	2.00	0.0765	
Total Xylenes*	<0.150	0.150	05/27/2023	ND	6.30	105	6.00	1.20	
Total BTEX	<0.300	0.300	05/27/2023	ND					

Surrogate: 4-Bromofluorobenzene (PID *106 %* *71.5-134*

Chloride, SM4500Cl-B mg/kg Analyzed By: GM

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**32.0**	16.0	05/30/2023	ND	416	104	400	7.41	

TPH 8015M mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	05/30/2023	ND	199	99.5	200	3.39	
DRO >C10-C28*	<10.0	10.0	05/30/2023	ND	181	90.6	200	22.0	
EXT DRO >C28-C36	<10.0	10.0	05/30/2023	ND					

Surrogate: 1-Chlorooctane *84.8 %* *48.2-134*

Surrogate: 1-Chlorooctadecane *94.6 %* *49.1-148*

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

Notes and Definitions

S-04	The surrogate recovery for this sample is outside of established control limits due to a sample matrix effect.
QR-04	The RPD for the BS/BSD was outside of historical limits.
ND	Analyte NOT DETECTED at or above the reporting limit
RPD	Relative Percent Difference
**	Samples not received at proper temperature of 6°C or below.
***	Insufficient time to reach temperature.
-	Chloride by SM4500Cl-B does not require samples be received at or below 6°C
	Samples reported on an as received basis (wet) unless otherwise noted on report

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories
101 East Marland, Hobbs, NM 88240
(575) 393-2326 FAX (575) 393-2476

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

Company Name: Ensolum, LLC	**BILL TO**
Project Manager: Hadlie Green	P.O. #:
Address: 601 N. Marienfeld St. STE 400	Company: BTA Oil
City: Midland State: TX Zip: 79701	Attn: Kevin Jones
Phone #: 432-557-8895 Fax #:	Address: 104 S Pecos St
Project #: 03C2012047 Project Owner:	City: Midland,
Project Name: Chiso 14 #3 & 4 Tank Flare	State: TX Zip: 79701
Project Location: 32.385621, -103.435077	Phone #: 432-312-2203
Sampler Name: Dmitry Nikanorov	Fax #:

ANALYSIS REQUEST: BTEX, TPH, CHLORIDES

FOR LAB USE ONLY Lab I.D.	Sample I.D.	Sample Depth (feet)	(G)RAB OR (C)OMP.	# CONTAINERS	MATRIX: GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER :	PRESERV.: ACID/BASE:	ICE / COOL	OTHER :	SAMPLING: DATE	TIME
H232704															
1	SS06 ~~16~~	0.25'	G	1			X					X		5/24/23	1030
2	SS0 ~~2~~ 7	0.25'	G	1			X					X			1040
3	SS0 ~~3~~ 8	0.25'	G	1			X					X			1050
4	SS0 ~~4~~ 9	0.25'	G	1			X					X			1100
	~~SS05~~	~~0.25'~~	G	1			X					X			

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising whether based in contract or tort, shall be limited to the amount paid by the client for the analyses. All claims including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within 30 days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise.

Relinquished By:	Date: 5/26/23 Time: 0725	Received By:	Verbal Result: ☐ Yes ☐ No Add'l Phone #:
Relinquished By:	Date: 5.26.23 Time: 1205	Received By:	All Results are emailed. Please provide Email address: hgreen@ensolum.com ~~BJennings@ensolum.com~~ dnikanorov@ensolum.com
			REMARKS:

Delivered By: (Circle One) Sampler - UPS - Bus - Other:	Observed Temp. °C 6.4 Corrected Temp. °C 5.8	Sample Condition Cool ☑ Yes ☐ No Intact ☑ Yes ☐ No	CHECKED BY: (Initials)	Turnaround Time: Standard ☑ Rush ☐ Thermometer ID #113 Correction Factor -0.6°C

Bacteria (only) Sample Condition: Cool ☐ Yes ☐ No Intact ☐ Yes ☐ No Observed Temp. °C Corrected Temp. °C

FORM-006 R 3.2 10/07/21

† Cardinal cannot accept verbal changes. Please email changes to celey.keene@cardinallabsnm.com

CARDINAL Laboratories

PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

June 05, 2023

HADLIE GREEN

ENSOLUM

3122 NATIONAL PARKS HWY

CARLSBAD, NM 88220

RE: CHISO 14 (STATE 8711 #3H/ #3 & #4)

Enclosed are the results of analyses for samples received by the laboratory on 06/02/23 8:34.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-22-15. Accreditation applies to drinking water, non-potable water and solid and chemical materials. All accredited analytes are denoted by an asterisk (*). For a complete list of accredited analytes and matrices visit the TCEQ website at www.tceq.texas.gov/field/qa/lab_accred_certif.html.

Cardinal Laboratories is accreditated through the State of Colorado Department of Public Health and Environment for:

Method EPA 552.2	Haloacetic Acids (HAA-5)
Method EPA 524.2	Total Trihalomethanes (TTHM)
Method EPA 524.4	Regulated VOCs (V1, V2, V3)

Accreditation applies to public drinking water matrices.

This report meets NELAP requirements and is made up of a cover page, analytical results, and a copy of the original chain-of-custody. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Mike Snyder For Celey D. Keene

Lab Director/Quality Manager

CARDINAL Laboratories

PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

Analytical Results For:

ENSOLUM
HADLIE GREEN
3122 NATIONAL PARKS HWY
CARLSBAD NM, 88220
Fax To:

Received:	06/02/2023	Sampling Date:	06/01/2023
Reported:	06/05/2023	Sampling Type:	Soil
Project Name:	CHISO 14 (STATE 8711 #3H/ #3 & #4)	Sampling Condition:	Cool & Intact
Project Number:	03C2012056/03C2012047	Sample Received By:	Shalyn Rodriguez
Project Location:	32.38560,-103.43508		

Sample ID: SS 01 A 1' (H232786-01)

BTEX 8021B mg/kg Analyzed By: JH/

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	06/02/2023	ND	1.97	98.5	2.00	9.75	
Toluene*	<0.050	0.050	06/02/2023	ND	2.02	101	2.00	11.3	
Ethylbenzene*	<0.050	0.050	06/02/2023	ND	1.92	96.1	2.00	9.47	
Total Xylenes*	<0.150	0.150	06/02/2023	ND	5.92	98.7	6.00	10.0	
Total BTEX	<0.300	0.300	06/02/2023	ND					

Surrogate: 4-Bromofluorobenzene (PID *107 %* *71.5-134*

Chloride, SM4500Cl-B mg/kg Analyzed By: AC

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**32.0**	16.0	06/02/2023	ND	416	104	400	3.77	

TPH 8015M mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	06/02/2023	ND	181	90.6	200	2.18	
DRO >C10-C28*	<10.0	10.0	06/02/2023	ND	172	85.9	200	0.336	
EXT DRO >C28-C36	<10.0	10.0	06/02/2023	ND					

Surrogate: 1-Chlorooctane *71.3 %* *48.2-134*

Surrogate: 1-Chlorooctadecane *71.5 %* *49.1-148*

Cardinal Laboratories *=Accredited Analyte

Mike Snyder For Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

Analytical Results For:

ENSOLUM
HADLIE GREEN
3122 NATIONAL PARKS HWY
CARLSBAD NM, 88220
Fax To:

Received:	06/02/2023	Sampling Date:	06/01/2023
Reported:	06/05/2023	Sampling Type:	Soil
Project Name:	CHISO 14 (STATE 8711 #3H/ #3 & #4)	Sampling Condition:	Cool & Intact
Project Number:	03C2012056/03C2012047	Sample Received By:	Shalyn Rodriguez
Project Location:	32.38560,-103.43508		

Sample ID: SS 01 B 4' (H232786-02)

BTEX 8021B mg/kg Analyzed By: JH/

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	06/02/2023	ND	1.97	98.5	2.00	9.75	
Toluene*	<0.050	0.050	06/02/2023	ND	2.02	101	2.00	11.3	
Ethylbenzene*	<0.050	0.050	06/02/2023	ND	1.92	96.1	2.00	9.47	
Total Xylenes*	<0.150	0.150	06/02/2023	ND	5.92	98.7	6.00	10.0	
Total BTEX	<0.300	0.300	06/02/2023	ND					

Surrogate: 4-Bromofluorobenzene (PID *108 %* *71.5-134*

Chloride, SM4500Cl-B mg/kg Analyzed By: AC

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**16.0**	16.0	06/02/2023	ND	416	104	400	3.77	

TPH 8015M mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	06/02/2023	ND	181	90.6	200	2.18	
DRO >C10-C28*	<10.0	10.0	06/02/2023	ND	172	85.9	200	0.336	
EXT DRO >C28-C36	<10.0	10.0	06/02/2023	ND					

Surrogate: 1-Chlorooctane *75.3 %* *48.2-134*

Surrogate: 1-Chlorooctadecane *74.7 %* *49.1-148*

Cardinal Laboratories *=Accredited Analyte

Mike Snyder For Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

Analytical Results For:

ENSOLUM
HADLIE GREEN
3122 NATIONAL PARKS HWY
CARLSBAD NM, 88220
Fax To:

Received:	06/02/2023	Sampling Date:	06/01/2023
Reported:	06/05/2023	Sampling Type:	Soil
Project Name:	CHISO 14 (STATE 8711 #3H/ #3 & #4)	Sampling Condition:	Cool & Intact
Project Number:	03C2012056/03C2012047	Sample Received By:	Shalyn Rodriguez
Project Location:	32.38560,-103.43508		

Sample ID: SS 02 A 1' (H232786-03)

BTEX 8021B mg/kg Analyzed By: JH/

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	06/02/2023	ND	1.97	98.5	2.00	9.75	
Toluene*	<0.050	0.050	06/02/2023	ND	2.02	101	2.00	11.3	
Ethylbenzene*	<0.050	0.050	06/02/2023	ND	1.92	96.1	2.00	9.47	
Total Xylenes*	<0.150	0.150	06/02/2023	ND	5.92	98.7	6.00	10.0	
Total BTEX	<0.300	0.300	06/02/2023	ND					

Surrogate: 4-Bromofluorobenzene (PID *104 %* *71.5-134*

Chloride, SM4500Cl-B mg/kg Analyzed By: AC

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**32.0**	16.0	06/02/2023	ND	416	104	400	3.77	

TPH 8015M mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	06/02/2023	ND	181	90.6	200	2.18	
DRO >C10-C28*	**42.7**	10.0	06/02/2023	ND	172	85.9	200	0.336	
EXT DRO >C28-C36	**39.2**	10.0	06/02/2023	ND					

Surrogate: 1-Chlorooctane *72.7 %* *48.2-134*

Surrogate: 1-Chlorooctadecane *75.0 %* *49.1-148*

Cardinal Laboratories *=Accredited Analyte

Mike Snyder For Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

Analytical Results For:

ENSOLUM
HADLIE GREEN
3122 NATIONAL PARKS HWY
CARLSBAD NM, 88220
Fax To:

Received:	06/02/2023	Sampling Date:	06/01/2023
Reported:	06/05/2023	Sampling Type:	Soil
Project Name:	CHISO 14 (STATE 8711 #3H/ #3 & #4)	Sampling Condition:	Cool & Intact
Project Number:	03C2012056/03C2012047	Sample Received By:	Shalyn Rodriguez
Project Location:	32.38560,-103.43508		

Sample ID: SS 02 B 4' (H232786-04)

BTEX 8021B mg/kg Analyzed By: JH/

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	06/02/2023	ND	1.97	98.5	2.00	9.75	
Toluene*	<0.050	0.050	06/02/2023	ND	2.02	101	2.00	11.3	
Ethylbenzene*	<0.050	0.050	06/02/2023	ND	1.92	96.1	2.00	9.47	
Total Xylenes*	<0.150	0.150	06/02/2023	ND	5.92	98.7	6.00	10.0	
Total BTEX	<0.300	0.300	06/02/2023	ND					

Surrogate: 4-Bromofluorobenzene (PID *108 %* *71.5-134*

Chloride, SM4500Cl-B mg/kg Analyzed By: AC

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**32.0**	16.0	06/02/2023	ND	416	104	400	3.77	

TPH 8015M mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	06/02/2023	ND	181	90.6	200	2.18	
DRO >C10-C28*	<10.0	10.0	06/02/2023	ND	172	85.9	200	0.336	
EXT DRO >C28-C36	<10.0	10.0	06/02/2023	ND					

Surrogate: 1-Chlorooctane *74.0 %* *48.2-134*

Surrogate: 1-Chlorooctadecane *74.0 %* *49.1-148*

Cardinal Laboratories *=Accredited Analyte

Mike Snyder For Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

Analytical Results For:

ENSOLUM
HADLIE GREEN
3122 NATIONAL PARKS HWY
CARLSBAD NM, 88220
Fax To:

Received:	06/02/2023	Sampling Date:	06/01/2023
Reported:	06/05/2023	Sampling Type:	Soil
Project Name:	CHISO 14 (STATE 8711 #3H/ #3 & #4)	Sampling Condition:	Cool & Intact
Project Number:	03C2012056/03C2012047	Sample Received By:	Shalyn Rodriguez
Project Location:	32.38560,-103.43508		

Sample ID: SS 03 A 1' (H232786-05)

BTEX 8021B mg/kg Analyzed By: JH/

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	06/02/2023	ND	1.97	98.5	2.00	9.75	
Toluene*	<0.050	0.050	06/02/2023	ND	2.02	101	2.00	11.3	
Ethylbenzene*	<0.050	0.050	06/02/2023	ND	1.92	96.1	2.00	9.47	
Total Xylenes*	<0.150	0.150	06/02/2023	ND	5.92	98.7	6.00	10.0	
Total BTEX	<0.300	0.300	06/02/2023	ND					

Surrogate: 4-Bromofluorobenzene (PID *104 %* *71.5-134*

Chloride, SM4500Cl-B mg/kg Analyzed By: AC

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**16.0**	16.0	06/02/2023	ND	416	104	400	3.77	

TPH 8015M mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	06/02/2023	ND	181	90.6	200	2.18	
DRO >C10-C28*	<10.0	10.0	06/02/2023	ND	172	85.9	200	0.336	
EXT DRO >C28-C36	<10.0	10.0	06/02/2023	ND					

Surrogate: 1-Chlorooctane *69.2 %* *48.2-134*

Surrogate: 1-Chlorooctadecane *68.6 %* *49.1-148*

Cardinal Laboratories *=Accredited Analyte

Mike Snyder For Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

Analytical Results For:

ENSOLUM
HADLIE GREEN
3122 NATIONAL PARKS HWY
CARLSBAD NM, 88220
Fax To:

Received:	06/02/2023	Sampling Date:	06/01/2023
Reported:	06/05/2023	Sampling Type:	Soil
Project Name:	CHISO 14 (STATE 8711 #3H/ #3 & #4)	Sampling Condition:	Cool & Intact
Project Number:	03C2012056/03C2012047	Sample Received By:	Shalyn Rodriguez
Project Location:	32.38560,-103.43508		

Sample ID: SS 03 B 4' (H232786-06)

BTEX 8021B mg/kg Analyzed By: JH/

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	06/02/2023	ND	1.97	98.5	2.00	9.75	
Toluene*	<0.050	0.050	06/02/2023	ND	2.02	101	2.00	11.3	
Ethylbenzene*	<0.050	0.050	06/02/2023	ND	1.92	96.1	2.00	9.47	
Total Xylenes*	<0.150	0.150	06/02/2023	ND	5.92	98.7	6.00	10.0	
Total BTEX	<0.300	0.300	06/02/2023	ND					

Surrogate: 4-Bromofluorobenzene (PID *105 %* *71.5-134*

Chloride, SM4500Cl-B mg/kg Analyzed By: AC

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**48.0**	16.0	06/02/2023	ND	416	104	400	3.77	

TPH 8015M mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	06/02/2023	ND	181	90.6	200	2.18	
DRO >C10-C28*	**52.0**	10.0	06/02/2023	ND	172	85.9	200	0.336	
EXT DRO >C28-C36	**23.9**	10.0	06/02/2023	ND					

Surrogate: 1-Chlorooctane *68.3 %* *48.2-134*

Surrogate: 1-Chlorooctadecane *70.2 %* *49.1-148*

Cardinal Laboratories *=Accredited Analyte

Mike Snyder For Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

Analytical Results For:

ENSOLUM
HADLIE GREEN
3122 NATIONAL PARKS HWY
CARLSBAD NM, 88220
Fax To:

Received:	06/02/2023	Sampling Date:	06/01/2023
Reported:	06/05/2023	Sampling Type:	Soil
Project Name:	CHISO 14 (STATE 8711 #3H/ #3 & #4)	Sampling Condition:	Cool & Intact
Project Number:	03C2012056/03C2012047	Sample Received By:	Shalyn Rodriguez
Project Location:	32.38560,-103.43508		

Sample ID: SS 04 A 1' (H232786-07)

BTEX 8021B mg/kg Analyzed By: JH/

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	06/02/2023	ND	1.97	98.5	2.00	9.75	
Toluene*	<0.050	0.050	06/02/2023	ND	2.02	101	2.00	11.3	
Ethylbenzene*	<0.050	0.050	06/02/2023	ND	1.92	96.1	2.00	9.47	
Total Xylenes*	<0.150	0.150	06/02/2023	ND	5.92	98.7	6.00	10.0	
Total BTEX	<0.300	0.300	06/02/2023	ND					

Surrogate: 4-Bromofluorobenzene (PID *106 %* *71.5-134*

Chloride, SM4500Cl-B mg/kg Analyzed By: AC

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**64.0**	16.0	06/02/2023	ND	416	104	400	3.77	

TPH 8015M mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	06/02/2023	ND	181	90.6	200	2.18	
DRO >C10-C28*	<10.0	10.0	06/02/2023	ND	172	85.9	200	0.336	
EXT DRO >C28-C36	<10.0	10.0	06/02/2023	ND					

Surrogate: 1-Chlorooctane *74.9 %* *48.2-134*

Surrogate: 1-Chlorooctadecane *74.2 %* *49.1-148*

Cardinal Laboratories *=Accredited Analyte

Mike Snyder For Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

Analytical Results For:

ENSOLUM
HADLIE GREEN
3122 NATIONAL PARKS HWY
CARLSBAD NM, 88220
Fax To:

Received:	06/02/2023	Sampling Date:	06/01/2023
Reported:	06/05/2023	Sampling Type:	Soil
Project Name:	CHISO 14 (STATE 8711 #3H/ #3 & #4)	Sampling Condition:	Cool & Intact
Project Number:	03C2012056/03C2012047	Sample Received By:	Shalyn Rodriguez
Project Location:	32.38560,-103.43508		

Sample ID: SS 04 B 4' (H232786-08)

BTEX 8021B mg/kg Analyzed By: JH/

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	06/02/2023	ND	1.97	98.5	2.00	9.75	
Toluene*	<0.050	0.050	06/02/2023	ND	2.02	101	2.00	11.3	
Ethylbenzene*	<0.050	0.050	06/02/2023	ND	1.92	96.1	2.00	9.47	
Total Xylenes*	<0.150	0.150	06/02/2023	ND	5.92	98.7	6.00	10.0	
Total BTEX	<0.300	0.300	06/02/2023	ND					

Surrogate: 4-Bromofluorobenzene (PID *106 %* *71.5-134*

Chloride, SM4500Cl-B mg/kg Analyzed By: AC

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**48.0**	16.0	06/02/2023	ND	416	104	400	3.77	

TPH 8015M mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	06/02/2023	ND	181	90.6	200	2.18	
DRO >C10-C28*	<10.0	10.0	06/02/2023	ND	172	85.9	200	0.336	
EXT DRO >C28-C36	<10.0	10.0	06/02/2023	ND					

Surrogate: 1-Chlorooctane *73.0 %* *48.2-134*

Surrogate: 1-Chlorooctadecane *72.4 %* *49.1-148*

Cardinal Laboratories *=Accredited Analyte

Mike Snyder For Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

Analytical Results For:

ENSOLUM
HADLIE GREEN
3122 NATIONAL PARKS HWY
CARLSBAD NM, 88220
Fax To:

Received:	06/02/2023	Sampling Date:	06/01/2023
Reported:	06/05/2023	Sampling Type:	Soil
Project Name:	CHISO 14 (STATE 8711 #3H/ #3 & #4)	Sampling Condition:	Cool & Intact
Project Number:	03C2012056/03C2012047	Sample Received By:	Shalyn Rodriguez
Project Location:	32.38560,-103.43508		

Sample ID: SS 05 A 1' (H232786-09)

BTEX 8021B mg/kg Analyzed By: JH/

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	06/02/2023	ND	1.97	98.5	2.00	9.75	
Toluene*	<0.050	0.050	06/02/2023	ND	2.02	101	2.00	11.3	
Ethylbenzene*	<0.050	0.050	06/02/2023	ND	1.92	96.1	2.00	9.47	
Total Xylenes*	<0.150	0.150	06/02/2023	ND	5.92	98.7	6.00	10.0	
Total BTEX	<0.300	0.300	06/02/2023	ND					

Surrogate: 4-Bromofluorobenzene (PID *105 %* *71.5-134*

Chloride, SM4500Cl-B mg/kg Analyzed By: AC

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**48.0**	16.0	06/02/2023	ND	416	104	400	3.77	

TPH 8015M mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	06/02/2023	ND	181	90.6	200	2.18	
DRO >C10-C28*	<10.0	10.0	06/02/2023	ND	172	85.9	200	0.336	
EXT DRO >C28-C36	<10.0	10.0	06/02/2023	ND					

Surrogate: 1-Chlorooctane *73.2 %* *48.2-134*

Surrogate: 1-Chlorooctadecane *73.3 %* *49.1-148*

Cardinal Laboratories *=Accredited Analyte

Mike Snyder For Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

Analytical Results For:

ENSOLUM
HADLIE GREEN
3122 NATIONAL PARKS HWY
CARLSBAD NM, 88220
Fax To:

Received:	06/02/2023	Sampling Date:	06/01/2023
Reported:	06/05/2023	Sampling Type:	Soil
Project Name:	CHISO 14 (STATE 8711 #3H/ #3 & #4)	Sampling Condition:	Cool & Intact
Project Number:	03C2012056/03C2012047	Sample Received By:	Shalyn Rodriguez
Project Location:	32.38560,-103.43508		

Sample ID: SS 05 B 4' (H232786-10)

BTEX 8021B mg/kg Analyzed By: JH/

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	06/02/2023	ND	1.97	98.5	2.00	9.75	
Toluene*	<0.050	0.050	06/02/2023	ND	2.02	101	2.00	11.3	
Ethylbenzene*	<0.050	0.050	06/02/2023	ND	1.92	96.1	2.00	9.47	
Total Xylenes*	<0.150	0.150	06/02/2023	ND	5.92	98.7	6.00	10.0	
Total BTEX	<0.300	0.300	06/02/2023	ND					

Surrogate: 4-Bromofluorobenzene (PID *105 %* *71.5-134*

Chloride, SM4500Cl-B mg/kg Analyzed By: AC

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**80.0**	16.0	06/02/2023	ND	416	104	400	3.77	

TPH 8015M mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	06/02/2023	ND	181	90.6	200	2.18	
DRO >C10-C28*	<10.0	10.0	06/02/2023	ND	172	85.9	200	0.336	
EXT DRO >C28-C36	<10.0	10.0	06/02/2023	ND					

Surrogate: 1-Chlorooctane *62.1 %* *48.2-134*

Surrogate: 1-Chlorooctadecane *61.7 %* *49.1-148*

Cardinal Laboratories *=Accredited Analyte

Mike Snyder For Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

Notes and Definitions

QM-07	The spike recovery was outside acceptance limits for the MS and/or MSD. The batch was accepted based on acceptable LCS recovery.
ND	Analyte NOT DETECTED at or above the reporting limit
RPD	Relative Percent Difference
**	Samples not received at proper temperature of 6°C or below.
***	Insufficient time to reach temperature.
-	Chloride by SM4500Cl-B does not require samples be received at or below 6°C
	Samples reported on an as received basis (wet) unless otherwise noted on report

Cardinal Laboratories *=Accredited Analyte

Mike Snyder For Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

101 East Marland, Hobbs, NM 88240
(575) 393-2326 FAX (575) 393-2476

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

Company Name: Ensolum, LLC	**BILL TO**
Project Manager: Hadlie Green	P.O. #:
Address: 3122 Nat'l Parks Hwy	Company: BTA Oil
City: Carlsbad State: NM Zip: 88220	Attn: Kelton Beaird
Phone #: 432'557-8895 Fax #:	Address: 104 S. Pecos St.
Project #: ~~Encore~~ 03C2012056/03C2020247 Project Owner:	City: Midland
Project Name: Chiso 14 State ~~Batt~~ #3H Flare Stack/ Chiso 14 #3+4 Tank Battery	State: TX Zip: 79701
Project Location: 32.38560, -103.43508	Phone #:
Sampler Name: Meredith Roberts	Fax #:

FOR LAB USE ONLY					MATRIX						PRESERV.			SAMPLING		ANALYSIS REQUEST		
Lab I.D.	Sample I.D.	Depth (feet)	(G)RAB OR (C)OMP.	# CONTAINERS	GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER :	ACID/BASE:	ICE / COOL	OTHER :	DATE	TIME	BTEX	TPH	Chlorides
H232786																		
1	SS01A	1'	G				X					X		6/1/23	0900	X	X	X
2	SS01B	4'													0915			
3	SS02A	1'													0920			
4	SS02B	4'													0935			
5	SS03A	1'													0940			
6	SS03B	4'													0955			
7	SS04A	1'													1000			
8	SS04B	4'													1015			
9	SS05A	1'													1020			
10	SS05B	4													1035			

Relinquished By:	Date: 6/2/23	Received By:	Verbal Result: ☐ Yes ☐ No Add'l Phone #:
	Time: 0709		All Results are emailed. Please provide Email address:
Relinquished By:	Date: 6/2/23	Received By:	ngreen@ensolum.com mroberts@ensolum.com
	Time: 0834		tmorrissey@ensolum.com
Delivered By: (Circle One)	Observed Temp. °C -0.4	Sample Condition Cool Intact	CHECKED BY: (Initials)
Sampler - UPS - Bus - Other:	Corrected Temp. °C -1.0	☐ Yes ☑ Yes ☐ No ☐ No	

REMARKS:

Turnaround Time: Standard ☐ Rush ☑ 24 hr

Thermometer ID #113
Correction Factor -0.5°C

Bacteria (only) Sample Condition
Cool Intact Observed Temp. °C
☐ Yes ☐ Yes
☐ No ☐ No Corrected Temp. °C

† Cardinal cannot accept verbal changes. Please email changes to celey.keene@cardinallabsnm.com

FORM-006 R 3.2 10/07/21

CARDINAL Laboratories

PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

June 07, 2023

HADLIE GREEN

ENSOLUM

3122 NATIONAL PARKS HWY

CARLSBAD, NM 88220

RE: CHISO 14 (STATE 8711 #3H/ #3 & #4)

Enclosed are the results of analyses for samples received by the laboratory on 06/06/23 12:30.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-22-15. Accreditation applies to drinking water, non-potable water and solid and chemical materials. All accredited analytes are denoted by an asterisk (*). For a complete list of accredited analytes and matrices visit the TCEQ website at www.tceq.texas.gov/field/qa/lab_accred_certif.html.

Cardinal Laboratories is accreditated through the State of Colorado Department of Public Health and Environment for:

Method EPA 552.2	Haloacetic Acids (HAA-5)
Method EPA 524.2	Total Trihalomethanes (TTHM)
Method EPA 524.4	Regulated VOCs (V1, V2, V3)

Accreditation applies to public drinking water matrices.

This report meets NELAP requirements and is made up of a cover page, analytical results, and a copy of the original chain-of-custody. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Celey D. Keene

Celey D. Keene

Lab Director/Quality Manager

CARDINAL Laboratories

PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

Analytical Results For:

ENSOLUM
HADLIE GREEN
3122 NATIONAL PARKS HWY
CARLSBAD NM, 88220
Fax To:

Received:	06/06/2023	Sampling Date:	06/06/2023
Reported:	06/07/2023	Sampling Type:	Soil
Project Name:	CHISO 14 (STATE 8711 #3H/ #3 & #4)	Sampling Condition:	Cool & Intact
Project Number:	03C2012056/03C2012047	Sample Received By:	Tamara Oldaker
Project Location:	BTA 32.38560,-103.43508		

Sample ID: FS 01 1' (H232862-01)

BTEX 8021B mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	06/06/2023	ND	2.21	111	2.00	7.90	
Toluene*	<0.050	0.050	06/06/2023	ND	2.24	112	2.00	7.78	
Ethylbenzene*	<0.050	0.050	06/06/2023	ND	2.31	115	2.00	6.58	
Total Xylenes*	<0.150	0.150	06/06/2023	ND	6.79	113	6.00	7.34	
Total BTEX	<0.300	0.300	06/06/2023	ND					

Surrogate: 4-Bromofluorobenzene (PID *104 %* *71.5-134*

Chloride, SM4500Cl-B mg/kg Analyzed By: AC

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**32.0**	16.0	06/06/2023	ND	448	112	400	3.64	

TPH 8015M mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	06/06/2023	ND	209	105	200	24.5	
DRO >C10-C28*	**129**	10.0	06/06/2023	ND	211	106	200	20.9	
EXT DRO >C28-C36	**48.9**	10.0	06/06/2023	ND					

Surrogate: 1-Chlorooctane *99.1 %* *48.2-134*

Surrogate: 1-Chlorooctadecane *110 %* *49.1-148*

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

Analytical Results For:

ENSOLUM
HADLIE GREEN
3122 NATIONAL PARKS HWY
CARLSBAD NM, 88220
Fax To:

Received:	06/06/2023	Sampling Date:	06/06/2023
Reported:	06/07/2023	Sampling Type:	Soil
Project Name:	CHISO 14 (STATE 8711 #3H/ #3 & #4)	Sampling Condition:	Cool & Intact
Project Number:	03C2012056/03C2012047	Sample Received By:	Tamara Oldaker
Project Location:	BTA 32.38560,-103.43508		

Sample ID: FS 02 1' (H232862-02)

BTEX 8021B mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	06/06/2023	ND	2.38	119	2.00	6.34	
Toluene*	<0.050	0.050	06/06/2023	ND	2.36	118	2.00	5.49	
Ethylbenzene*	<0.050	0.050	06/06/2023	ND	2.30	115	2.00	6.32	
Total Xylenes*	<0.150	0.150	06/06/2023	ND	6.99	116	6.00	6.57	
Total BTEX	<0.300	0.300	06/06/2023	ND					

Surrogate: 4-Bromofluorobenzene (PID *104 %* *71.5-134*

Chloride, SM4500Cl-B mg/kg Analyzed By: AC

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**32.0**	16.0	06/06/2023	ND	448	112	400	3.64	

TPH 8015M mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	06/06/2023	ND	209	105	200	24.5	
DRO >C10-C28*	<10.0	10.0	06/06/2023	ND	211	106	200	20.9	
EXT DRO >C28-C36	<10.0	10.0	06/06/2023	ND					

Surrogate: 1-Chlorooctane *81.2 %* *48.2-134*

Surrogate: 1-Chlorooctadecane *83.9 %* *49.1-148*

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

Analytical Results For:

ENSOLUM
HADLIE GREEN
3122 NATIONAL PARKS HWY
CARLSBAD NM, 88220
Fax To:

Received:	06/06/2023	Sampling Date:	06/06/2023
Reported:	06/07/2023	Sampling Type:	Soil
Project Name:	CHISO 14 (STATE 8711 #3H/ #3 & #4)	Sampling Condition:	Cool & Intact
Project Number:	03C2012056/03C2012047	Sample Received By:	Tamara Oldaker
Project Location:	BTA 32.38560,-103.43508		

Sample ID: FS 03 1' (H232862-03)

BTEX 8021B mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	06/06/2023	ND	2.38	119	2.00	6.34	
Toluene*	<0.050	0.050	06/06/2023	ND	2.36	118	2.00	5.49	
Ethylbenzene*	<0.050	0.050	06/06/2023	ND	2.30	115	2.00	6.32	
Total Xylenes*	<0.150	0.150	06/06/2023	ND	6.99	116	6.00	6.57	
Total BTEX	<0.300	0.300	06/06/2023	ND					

Surrogate: 4-Bromofluorobenzene (PID *104 %* *71.5-134*

Chloride, SM4500Cl-B mg/kg Analyzed By: AC

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**32.0**	16.0	06/06/2023	ND	448	112	400	3.64	

TPH 8015M mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	06/06/2023	ND	209	105	200	24.5	
DRO >C10-C28*	**56.5**	10.0	06/06/2023	ND	211	106	200	20.9	
EXT DRO >C28-C36	**12.1**	10.0	06/06/2023	ND					

Surrogate: 1-Chlorooctane *81.0 %* *48.2-134*

Surrogate: 1-Chlorooctadecane *87.4 %* *49.1-148*

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

Analytical Results For:

ENSOLUM
HADLIE GREEN
3122 NATIONAL PARKS HWY
CARLSBAD NM, 88220
Fax To:

Received:	06/06/2023	Sampling Date:	06/06/2023
Reported:	06/07/2023	Sampling Type:	Soil
Project Name:	CHISO 14 (STATE 8711 #3H/ #3 & #4)	Sampling Condition:	Cool & Intact
Project Number:	03C2012056/03C2012047	Sample Received By:	Tamara Oldaker
Project Location:	BTA 32.38560,-103.43508		

Sample ID: FS 04 1' (H232862-04)

BTEX 8021B mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	06/06/2023	ND	2.38	119	2.00	6.34	
Toluene*	<0.050	0.050	06/06/2023	ND	2.36	118	2.00	5.49	
Ethylbenzene*	<0.050	0.050	06/06/2023	ND	2.30	115	2.00	6.32	
Total Xylenes*	<0.150	0.150	06/06/2023	ND	6.99	116	6.00	6.57	
Total BTEX	<0.300	0.300	06/06/2023	ND					

Surrogate: 4-Bromofluorobenzene (PID *104 %* *71.5-134*

Chloride, SM4500Cl-B mg/kg Analyzed By: AC

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**16.0**	16.0	06/06/2023	ND	448	112	400	3.64	

TPH 8015M mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	06/06/2023	ND	209	105	200	24.5	
DRO >C10-C28*	<10.0	10.0	06/06/2023	ND	211	106	200	20.9	
EXT DRO >C28-C36	<10.0	10.0	06/06/2023	ND					

Surrogate: 1-Chlorooctane *80.6 %* *48.2-134*

Surrogate: 1-Chlorooctadecane *84.0 %* *49.1-148*

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

Analytical Results For:

ENSOLUM
HADLIE GREEN
3122 NATIONAL PARKS HWY
CARLSBAD NM, 88220
Fax To:

Received:	06/06/2023	Sampling Date:	06/06/2023
Reported:	06/07/2023	Sampling Type:	Soil
Project Name:	CHISO 14 (STATE 8711 #3H/ #3 & #4)	Sampling Condition:	Cool & Intact
Project Number:	03C2012056/03C2012047	Sample Received By:	Tamara Oldaker
Project Location:	BTA 32.38560,-103.43508		

Sample ID: FS 05 1' (H232862-05)

BTEX 8021B mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	06/06/2023	ND	2.38	119	2.00	6.34	
Toluene*	<0.050	0.050	06/06/2023	ND	2.36	118	2.00	5.49	
Ethylbenzene*	<0.050	0.050	06/06/2023	ND	2.30	115	2.00	6.32	
Total Xylenes*	<0.150	0.150	06/06/2023	ND	6.99	116	6.00	6.57	
Total BTEX	<0.300	0.300	06/06/2023	ND					

Surrogate: 4-Bromofluorobenzene (PID *104 %* *71.5-134*

Chloride, SM4500Cl-B mg/kg Analyzed By: AC

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**64.0**	16.0	06/06/2023	ND	448	112	400	3.64	

TPH 8015M mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	06/06/2023	ND	209	105	200	24.5	
DRO >C10-C28*	<10.0	10.0	06/06/2023	ND	211	106	200	20.9	
EXT DRO >C28-C36	<10.0	10.0	06/06/2023	ND					

Surrogate: 1-Chlorooctane *87.3 %* *48.2-134*

Surrogate: 1-Chlorooctadecane *90.6 %* *49.1-148*

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

Analytical Results For:

ENSOLUM
HADLIE GREEN
3122 NATIONAL PARKS HWY
CARLSBAD NM, 88220
Fax To:

Received:	06/06/2023	Sampling Date:	06/06/2023
Reported:	06/07/2023	Sampling Type:	Soil
Project Name:	CHISO 14 (STATE 8711 #3H/ #3 & #4)	Sampling Condition:	Cool & Intact
Project Number:	03C2012056/03C2012047	Sample Received By:	Tamara Oldaker
Project Location:	BTA 32.38560,-103.43508		

Sample ID: FS 06 1' (H232862-06)

BTEX 8021B mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	06/06/2023	ND	2.38	119	2.00	6.34	
Toluene*	<0.050	0.050	06/06/2023	ND	2.36	118	2.00	5.49	
Ethylbenzene*	<0.050	0.050	06/06/2023	ND	2.30	115	2.00	6.32	
Total Xylenes*	<0.150	0.150	06/06/2023	ND	6.99	116	6.00	6.57	
Total BTEX	<0.300	0.300	06/06/2023	ND					

Surrogate: 4-Bromofluorobenzene (PID *104 %* *71.5-134*

Chloride, SM4500Cl-B mg/kg Analyzed By: AC

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**64.0**	16.0	06/06/2023	ND	448	112	400	3.64	

TPH 8015M mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	06/06/2023	ND	209	105	200	24.5	
DRO >C10-C28*	<10.0	10.0	06/06/2023	ND	211	106	200	20.9	
EXT DRO >C28-C36	<10.0	10.0	06/06/2023	ND					

Surrogate: 1-Chlorooctane *83.6 %* *48.2-134*

Surrogate: 1-Chlorooctadecane *85.7 %* *49.1-148*

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

Analytical Results For:

ENSOLUM
HADLIE GREEN
3122 NATIONAL PARKS HWY
CARLSBAD NM, 88220
Fax To:

Received:	06/06/2023	Sampling Date:	06/06/2023
Reported:	06/07/2023	Sampling Type:	Soil
Project Name:	CHISO 14 (STATE 8711 #3H/ #3 & #4)	Sampling Condition:	Cool & Intact
Project Number:	03C2012056/03C2012047	Sample Received By:	Tamara Oldaker
Project Location:	BTA 32.38560,-103.43508		

Sample ID: FS 07 1' (H232862-07)

BTEX 8021B mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	06/06/2023	ND	2.38	119	2.00	6.34	
Toluene*	<0.050	0.050	06/06/2023	ND	2.36	118	2.00	5.49	
Ethylbenzene*	<0.050	0.050	06/06/2023	ND	2.30	115	2.00	6.32	
Total Xylenes*	<0.150	0.150	06/06/2023	ND	6.99	116	6.00	6.57	
Total BTEX	<0.300	0.300	06/06/2023	ND					

Surrogate: 4-Bromofluorobenzene (PID *104 %* *71.5-134*

Chloride, SM4500Cl-B mg/kg Analyzed By: AC

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**48.0**	16.0	06/06/2023	ND	448	112	400	3.64	

TPH 8015M mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	06/06/2023	ND	209	105	200	24.5	
DRO >C10-C28*	<10.0	10.0	06/06/2023	ND	211	106	200	20.9	
EXT DRO >C28-C36	<10.0	10.0	06/06/2023	ND					

Surrogate: 1-Chlorooctane *79.5 %* *48.2-134*

Surrogate: 1-Chlorooctadecane *81.2 %* *49.1-148*

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

Notes and Definitions

QR-04	The RPD for the BS/BSD was outside of historical limits.
BS-3	Blank spike recovery outside of lab established statistical limits, but still within method limits. Data is not adversely affected.
ND	Analyte NOT DETECTED at or above the reporting limit
RPD	Relative Percent Difference
**	Samples not received at proper temperature of 6°C or below.
***	Insufficient time to reach temperature.
-	Chloride by SM4500Cl-B does not require samples be received at or below 6°C
	Samples reported on an as received basis (wet) unless otherwise noted on report

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

101 East Marland, Hobbs, NM 88240
(575) 393-2326 FAX (575) 393-2476

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

Company Name: Ensolum, LLC
Project Manager: Hadlie Green
Address: 3122 Nat'l Parks Hwy
City: Carlsbad State: NM Zip: 88220
Phone #: 432-557-8895 Fax #:
Project #: 03C2052056/03C2052047 Project Owner:
Project Name: CHISO 14 STATE 8711 #3H FLARE STACK/ CHISO 14 #3+4 TANK BATTERY
Project Location: 32.38560, -103.43508
Sampler Name: Meredith Roberts

BILL TO
P.O. #:
Company: BTA Oil
Attn: Kelton Beaird
Address: 104 S. Pecos St.
City: Midland
State: TX Zip: 79701
Phone #:
Fax #:

ANALYSIS REQUEST

FOR LAB USE ONLY Lab I.D.	Sample I.D.	Depth (feet)	(G)RAB OR (C)OMP.	# CONTAINERS	MATRIX: GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER :	PRESERV.: ACID/BASE:	ICE / COOL	OTHER :	SAMPLING: DATE	TIME	BTEX	Chlorides	TPH
H232862																		
1	FS01	1'	C	1			X					X		6/6/23	1000	X	X	X
2	FS02														1005			
3	FS03														1010			
4	FS04														1015			
5	FS05														1105			
6	FS06														1110			
7	FS07														1115			

MR

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising whether based in contract or tort, shall be limited to the amount paid by the client for the analyses. All claims including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within 30 days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise.

Relinquished By: Meads Date: 6-6-23 Time: 1230 Received By:
Relinquished By: Date: Time: Received By:

Verbal Result: ☐ Yes ☑ No Add'l Phone #:
All Results are emailed. Please provide Email address:
hgreen@ensolum.com mroberts@ensolum.com
tmorrissey@ensolum.com
REMARKS:

Delivered By: (Circle One)
Sampler - UPS - Bus - Other:
Observed Temp. °C 5.4
Corrected Temp. °C 4.8
Sample Condition: Cool ☑ Yes ☐ No Intact ☑ Yes ☐ No
CHECKED BY: (Initials) TR

Turnaround Time: Standard ☐ Rush ☑ 24Hr
Thermometer ID #113
Correction Factor -0.5°C
Bacteria (only) Sample Condition: Cool ☐ Yes ☐ No Intact ☐ Yes ☐ No Observed Temp. °C Corrected Temp. °C

FORM-006 R 3.2 10/07/21

† Cardinal cannot accept verbal changes. Please email changes to celey.keene@cardinallabsnm.com

CARDINAL Laboratories

PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

June 08, 2023

HADLIE GREEN

ENSOLUM

3122 NATIONAL PARKS HWY

CARLSBAD, NM 88220

RE: CHISO 14 (STATE 8711 #3H/ #3 & #4)

Enclosed are the results of analyses for samples received by the laboratory on 06/07/23 15:15.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-22-15. Accreditation applies to drinking water, non-potable water and solid and chemical materials. All accredited analytes are denoted by an asterisk (*). For a complete list of accredited analytes and matrices visit the TCEQ website at www.tceq.texas.gov/field/qa/lab_accred_certif.html.

Cardinal Laboratories is accreditated through the State of Colorado Department of Public Health and Environment for:

Method EPA 552.2	Haloacetic Acids (HAA-5)
Method EPA 524.2	Total Trihalomethanes (TTHM)
Method EPA 524.4	Regulated VOCs (V1, V2, V3)

Accreditation applies to public drinking water matrices.

This report meets NELAP requirements and is made up of a cover page, analytical results, and a copy of the original chain-of-custody. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Celey D. Keene

Celey D. Keene

Lab Director/Quality Manager

CARDINAL Laboratories

PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

Analytical Results For:

ENSOLUM
HADLIE GREEN
3122 NATIONAL PARKS HWY
CARLSBAD NM, 88220
Fax To:

Received:	06/07/2023	Sampling Date:	06/07/2023
Reported:	06/08/2023	Sampling Type:	Soil
Project Name:	CHISO 14 (STATE 8711 #3H/ #3 & #4)	Sampling Condition:	Cool & Intact
Project Number:	03C2012056/03C2012047	Sample Received By:	Tamara Oldaker
Project Location:	BTA 32.38560,-103.43508		

Sample ID: FS 01 A 1.25' (H232904-01)

BTEX 8021B mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	06/08/2023	ND	1.94	97.2	2.00	0.736	
Toluene*	<0.050	0.050	06/08/2023	ND	1.93	96.3	2.00	1.94	
Ethylbenzene*	<0.050	0.050	06/08/2023	ND	1.91	95.4	2.00	1.17	
Total Xylenes*	<0.150	0.150	06/08/2023	ND	5.86	97.7	6.00	1.10	
Total BTEX	<0.300	0.300	06/08/2023	ND					

Surrogate: 4-Bromofluorobenzene (PID *103 %* *71.5-134*

Chloride, SM4500Cl-B mg/kg Analyzed By: AC

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	<16.0	16.0	06/07/2023	ND	432	108	400	0.00	

TPH 8015M mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	06/07/2023	ND	201	101	200	4.36	
DRO >C10-C28*	<10.0	10.0	06/07/2023	ND	168	84.2	200	0.635	
EXT DRO >C28-C36	<10.0	10.0	06/07/2023	ND					

Surrogate: 1-Chlorooctane *79.0 %* *48.2-134*

Surrogate: 1-Chlorooctadecane *78.5 %* *49.1-148*

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

Notes and Definitions

QM-07	The spike recovery was outside acceptance limits for the MS and/or MSD. The batch was accepted based on acceptable LCS recovery.
ND	Analyte NOT DETECTED at or above the reporting limit
RPD	Relative Percent Difference
**	Samples not received at proper temperature of 6°C or below.
***	Insufficient time to reach temperature.
-	Chloride by SM4500Cl-B does not require samples be received at or below 6°C
	Samples reported on an as received basis (wet) unless otherwise noted on report

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

101 East Marland, Hobbs, NM 88240
(575) 393-2326 FAX (575) 393-2476

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

Company Name: Ensolum, LLC	**BILL TO**
Project Manager: Hadlie Green	P.O. #:
Address: 3122 Nat'l Parks Hwy	Company: BTA Oil
City: Carlsbad State: NM Zip: 88220	Attn: Kelton Beaird
Phone #: 432-557-8895 Fax #:	Address: 104 S. Pecos St.
Project #: 03C2012056/03C2001207 Project Owner:	City: Midland
Project Name: CHISO 14 STATE 8711 #3H FLARE STACK CHISO 14 #3-4 TANK BATTERY	State: TX Zip: 79701
Project Location: 32.38560, -103.43508	Phone #:
Sampler Name: Meredith Roberts	Fax #:

FOR LAB USE ONLY					MATRIX						PRESERV.			SAMPLING		ANALYSIS REQUEST														
Lab I.D.	Sample I.D.	Depth (feet)	(G)RAB OR (C)OMP.	# CONTAINERS	GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER :	ACID/BASE:	ICE / COOL	OTHER :	DATE	TIME	BTEX	Chlorides	TPH													
H232704 1	FS01A	1.25'	C	1			X					X		6/7/23	1405	X	X	X												

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising whether based in contract or tort, shall be limited to the amount paid by the client for the analyses. All claims including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within 30 days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequental damages, including without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise.

Relinquished By:	Date: 6-7-23	Received By:	Verbal Result: ☐ Yes ☐ No Add'l Phone #:
	Time: 1515		All Results are emailed. Please provide Email address: momissey@ensolum.com mroberts@ensolum.com hgreen@ensolum.com
Relinquished By:	Date:	Received By:	REMARKS:
	Time:		

Delivered By: (Circle One)	Observed Temp. °C 3.9	Sample Condition Cool Intact ☑ Yes ☑ Yes ☐ No ☐ No	CHECKED BY: (Initials)	Turnaround Time: Standard ☐ Rush ☑ 24 hr
Sampler - UPS - Bus - Other:	Corrected Temp. °C 3.3			Thermometer ID #113 Correction Factor -0.5°C

Bacteria (only) Sample Condition Cool Intact ☐ Yes ☐ Yes ☐ No ☐ No Observed Temp. °C Corrected Temp. °C

† Cardinal cannot accept verbal changes. Please email changes to celey.keene@cardinallabsnm.com

FORM-006 R 3.2 10/07/21

ENSOLUM

APPENDIX E

NMOCD Notifications

From: Enviro, OCD, EMNRD
To: Hadlie Green
Cc: Bratcher, Michael, EMNRD; Hamlet, Robert, EMNRD
Subject: RE: [EXTERNAL] BTA - Sampling Notification - Week of 05/29/2023
Date: Wednesday, May 24, 2023 4:30:12 PM
Attachments: image005.jpg
image006.png
image007.png
image008.png
image009.png

[**EXTERNAL EMAIL**]

Hadlie,

Thank you for the notification. Please include a copy of this and all notifications in the remedial and/or closure reports to ensure the notifications are documented in the project file.

JH

Jocelyn Harimon ● Environmental Specialist
Environmental Bureau
EMNRD - Oil Conservation Division
1220 South St. Francis Drive | Santa Fe, NM 87505
(505)469-2821 | Jocelyn.Harimon@emnrd.nm.gov
http:// **www.emnrd.nm.gov**

From: Hadlie Green <hgreen@ensolum.com>
Sent: Wednesday, May 24, 2023 2:14 PM
To: Enviro, OCD, EMNRD <OCD.Enviro@emnrd.nm.gov>
Cc: Tacoma Morrissey <tmorrissey@ensolum.com>; Nathan Sirgo <nsirgo@btaoil.com>; Kevin Jones (kjones@btaoil.com) <kjones@btaoil.com>; Kelton Beaird <KBeaird@btaoil.com>
Subject: [EXTERNAL] BTA - Sampling Notification - Week of 05/29/2023

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

All,

BTA anticipates collecting confirmation samples at the following locations the week of May 29, 2023.

- Rojo D 7811 JV P Com #003H / nOY1814130699
  - Sampling Date: 6/1/2023 @ 9:00 AM MST

- Harroun Ranch #005 / nAPP2200455573
    - Sampling Date: 6/2/2023 @ 9:00 AM MST
- Mesa Dolphin CTB / nAPP2313555368
    - Sampling Date: 5/25/2023 @ 9:00 AM MST
- Mesa #2H Production Facility / nAPP2115531696
    - Sampling Date: 5/25/2023 @ 9:00 AM MST
- Chiso 14 #3 & 4 Tank Flare / nOY1829542961
- Chiso 14 Sate 8711 #3H Flare Stack / nCH1903548008
- Chiso 14 State 8711 #003H Wellhead / nAB1917652490
- Chiso 14 State 8711 Flowline / nRM2034960665
    - Sampling Dates: 6/1-5/2023 @ 9:00 AM MST

Thank you,

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

ENSOLUM

APPENDIX F

Final C-141

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

State of New Mexico
Energy Minerals and Natural Resources Department

Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, NM 87505

Form C-141
Revised August 24, 2018
Submit to appropriate OCD District office

Incident ID	nOY1829542961
District RP	
Facility ID	
Application ID	

Release Notification

Responsible Party

Responsible Party: BTA Oil Producers, LLC	OGRID: 260297
Contact Name: John Allen	Contact Telephone: 432-701-5808
Contact email: jallen@btaoil.com	Incident # *(assigned by OCD)*
Contact mailing address: 104 S. Pecos St., Midland, TX 79701	

Location of Release Source

Latitude: 32.385621° Longitude: -103.435077°
(NAD 83 in decimal degrees to 5 decimal places)

Site Name: Chiso 14 #3 & 4	Site Type: Production facility
Date Release Discovered: 10/4/18	API# *(if applicable)*

Unit Letter	Section	Township	Range	County
P	14	22S	34E	Lea

Surface Owner: ☐ State ☐ Federal ☐ Tribal ☒ Private (*Name: Merchant Livestock, PO Box 1105, Eunice, NM 88231*)

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) <5	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 dump valve on a scrubber failed, which allowed oil spray out of the flare and catch fire. The spray went off site to the north and burned about 1,000 ft^2 of brush.

Form C-141
Page 2

State of New Mexico
Oil Conservation Division

Incident ID	nOY1829542961
District RP	
Facility ID	
Application ID	

Was this a major release as defined by 19.15.29.7(A) NMAC? ☒ Yes ☐ No	If YES, for what reason(s) does the responsible party consider this a major release? The oil caught fire when it went through the flare.
If YES, was immediate notice given to the OCD? By whom? To whom? When and by what means (phone, email, etc)? Yes, by John Allen by phone to the district office and by email to the bureau chief.	

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: John Allen Title: Environmental Manager

Signature: _____ Date: 10/19/18

email: jallen@btaoil.com Telephone: 432-701-5808

OCD Only

Received by: _____ Date: _____

State of New Mexico
Oil Conservation Division

Incident ID	nOY1829542961
District RP	
Facility ID	
Application ID	

Site Assessment/Characterization

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

What is the shallowest depth to groundwater beneath the area affected by the release?	<50 (ft bgs)
Did this release impact groundwater or surface water?	☐ Yes ☒ No
Are the lateral extents of the release within 300 feet of a continuously flowing watercourse or any other significant watercourse?	☐ Yes ☒ No
Are the lateral extents of the release within 200 feet of any lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark)?	☐ Yes ☒ No
Are the lateral extents of the release within 300 feet of an occupied permanent residence, school, hospital, institution, or church?	☐ Yes ☒ No
Are the lateral extents of the release within 500 horizontal feet of a spring or a private domestic fresh water well used by less than five households for domestic or stock watering purposes?	☐ Yes ☒ No
Are the lateral extents of the release within 1000 feet of any other fresh water well or spring?	☐ Yes ☒ No
Are the lateral extents of the release within incorporated municipal boundaries or within a defined municipal fresh water well field?	☐ Yes ☒ No
Are the lateral extents of the release within 300 feet of a wetland?	☐ Yes ☒ No
Are the lateral extents of the release overlying a subsurface mine?	☐ Yes ☒ No
Are the lateral extents of the release overlying an unstable area such as karst geology?	☐ Yes ☒ No
Are the lateral extents of the release within a 100-year floodplain?	☐ Yes ☒ No
Did the release impact areas **not** on an exploration, development, production, or storage site?	☒ Yes ☐ No

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

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

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

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

Form C-141
Page 4

State of New Mexico
Oil Conservation Division

Incident ID	nOY1829542961
District RP	
Facility ID	
Application ID	

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

Printed Name: Kelton Beaird Title: Environmental Manager

Signature: Date: 6/9/2023

email: KBeaird@btaoil.com Telephone: 432-312-2203

OCD Only

Received by: Jocelyn Harimon Date: 06/09/2023

Form C-141
Page 6

State of New Mexico
Oil Conservation Division

Incident ID	nOY1829542961
District RP	
Facility ID	
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: Kelton Beaird Title: Environmental Manager

Signature: Date: 6/9/2023

email: KBeaird@btaoil.com Telephone: 432-312-2203

OCD Only

Received by: Jocelyn Harimon Date: 06/09/2023

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

Closure Approved by: Date:

Printed Name: Title:

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	NCH1903548008
District RP	1RP-5328
Facility ID	
Application ID	pCH1903548256

Release Notification

Responsible Party

Responsible Party: BTA Oil Producers, LLC	OGRID: 260297
Contact Name: Bob Hall	Contact Telephone: 432-682-3753
Contact email: bhall@btaoil.com	Incident # NCH1903548008 CHISO 14 STATE 8711 #3H FLARE STACK @ 30-025-43614
Contact mailing address: 104 S. Pecos St., Midland, TX 79701	

Location of Release Source

Latitude: 32.38560° Longitude: -103.43508°
(NAD 83 in decimal degrees to 5 decimal places)

Site Name: Chiso 14 State 8711 #3H Flare Stack	Site Type: Flare Stack
Date Release Discovered: 1/8/2019	API# *(if applicable)* Nearest well: Chiso 14 State 8711 #3H API #30-025-43614

Unit Letter	Section	Township	Range	County
P	14	22S	34E	Lea

Surface Owner: ☐ State ☐ Federal ☐ Tribal ☒ Private (*Name: Merchant Livestock, PO Box 1105, Eunice, NM 88231*)

State Minerals

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) 2 BBL (based upon volume contained in scrubber and flare line)	Volume Recovered (bbls) ~~2 BBL (Burned Off)~~
☐ 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
A loss of supply gas that operates the dump valve on the Chiso 14 State 8711 #3H well's 6X15 horizontal gas separator caused crude oil to be dumped into the flare line. Then, a malfunction at the flare gas scrubber allowed the oil to become ignited and burned at the flare line outlet.

Form C-141
Page 2

State of New Mexico
Oil Conservation Division

Incident ID	nCH1903548008
District RP	
Facility ID	
Application ID	

Was this a major release as defined by 19.15.29.7(A) NMAC? ☒ Yes ☐ No	If YES, for what reason(s) does the responsible party consider this a major release? The fire was the result of an unauthorized release, which the NMOCD Rules define as a major release.
If YES, was immediate notice given to the OCD? By whom? To whom? When and by what means (phone, email, etc)? No, I was notified of this release on the morning of 1/9/2019. I obtained information from the field and filed the present C-141 Report of the release.	

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:

Additional Initial Response Details: None of the 2 BBL of crude oil was reclaimed, it was burned off at the flare outlet. Trinity provide a vacuum truck to empty the flare line and the sales gas line. A backhoe was used to clean the charred dirt in the flare stack's containment area.

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: Bob Hall Title: Environmental Manager

Signature: Bob Hall Date: 1/9/2019

email: bhall@btaoil.com Telephone: 432-682-3753

OCD Only

Received by: **RECEIVED** By CHernandez at 1:32 pm, Feb 04, 2019 Date:

State of New Mexico
Oil Conservation Division

Incident ID	nCH1903548008
District RP	
Facility ID	
Application ID	

Site Assessment/Characterization

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

What is the shallowest depth to groundwater beneath the area affected by the release?	<50 (ft bgs)
Did this release impact groundwater or surface water?	☐ Yes ☒ No
Are the lateral extents of the release within 300 feet of a continuously flowing watercourse or any other significant watercourse?	☐ Yes ☒ No
Are the lateral extents of the release within 200 feet of any lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark)?	☐ Yes ☒ No
Are the lateral extents of the release within 300 feet of an occupied permanent residence, school, hospital, institution, or church?	☐ Yes ☒ No
Are the lateral extents of the release within 500 horizontal feet of a spring or a private domestic fresh water well used by less than five households for domestic or stock watering purposes?	☐ Yes ☒ No
Are the lateral extents of the release within 1000 feet of any other fresh water well or spring?	☐ Yes ☒ No
Are the lateral extents of the release within incorporated municipal boundaries or within a defined municipal fresh water well field?	☐ Yes ☒ No
Are the lateral extents of the release within 300 feet of a wetland?	☐ Yes ☒ No
Are the lateral extents of the release overlying a subsurface mine?	☐ Yes ☒ No
Are the lateral extents of the release overlying an unstable area such as karst geology?	☐ Yes ☒ No
Are the lateral extents of the release within a 100-year floodplain?	☐ Yes ☒ No
Did the release impact areas **not** on an exploration, development, production, or storage site?	☐ Yes ☒ No

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

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

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

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

Form C-141
Page 4

State of New Mexico
Oil Conservation Division

Incident ID	nCH1903548008
District RP	
Facility ID	
Application ID	

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

Printed Name: Kelton Beaird Title: Environmental Manager

Signature: Date: 6/9/2023

email: KBeaird@btaoil.com Telephone: 432-312-2203

OCD Only

Received by: Date:

Form C-141
Page 6

State of New Mexico
Oil Conservation Division

Incident ID	nCH1903548008
District RP	
Facility ID	
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: Kelton Beaird Title: Environmental Manager

Signature: Date: 6/9/2023

email: KBeaird@btaoil.com Telephone: 432-312-2203

OCD Only

Received by: Date:

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: 06/15/2023

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
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 225733

CONDITIONS

Operator: BTA OIL PRODUCERS, LLC 104 S Pecos Midland, TX 79701	OGRID: 260297
	Action Number: 225733
	Action Type: [C-141] Release Corrective Action (C-141)

CONDITIONS

Created By	Condition	Condition Date
nvelez	None	6/15/2023