ENSOLUM

May 31, 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
Rojo 18 ELL and Rojo 18/19 & 38/39 Tank Battery
Incident Numbers nAPP2222753156 and nAPP2123047003
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 excavation, and soil sampling activities performed at the Rojo 18 ELL and Rojo 18/19 & 38/39 Tank Battery (collectively referred to as the Site), in accordance with an approved *Remediation Work Plan (Work Plan)* submitted February 14, 2023. The *Work Plan* detailed Site assessment activities and proposed the installation of a soil boring to confirm depth to water; delineation of the releases; and excavation of identified impacted soil. Based on the excavation activities completed and laboratory analytical results from the soil sampling events in accordance with the *Work Plan*, BTA is submitting this *Closure Request*, describing remediation that has occurred and requesting closure for Incident Numbers nAPP2222753156 and nAPP2123047003.

BACKGROUND

The Site is located in Unit F, Section 34, Township 25 South, Range 33 East, in Lea County, New Mexico (32.08958°, -103.56642°) and is associated with oil and gas exploration and production operations on Federal Land managed by the Bureau of Land Management (BLM).

nAPP2222753156

On August 14, 2022, a fitting failed on the separator resulting in the release of approximately 43 barrels (bbls) of produced water onto the well pad. A vacuum truck was dispatched to the Site to recover free-standing fluids; approximately 35 bbls of produced water were recovered. BTA reported the release immediately to the New Mexico Oil Conservation Division (NMOCD) on August 14, 2022 and submitted a *Release Notification Form C-141* (Form C-141) on August 15, 2022. The release was assigned Incident Number nAPP2222753156.

nAPP2123047003

On August 17, 2022, a piping tee connected under the separator washed out, resulting in the release of approximately 17 bbls of produced water and 8 bbls of crude oil onto the well pad. A vacuum truck was dispatched to the Site to recover free-standing fluids; approximately 14 bbls of produced water and 6 bbls of crude oil were recovered. BTA reported the release immediately to the NMOCD on August 17,

2022 and submitted a Form C-141 on August 18, 2022. The release was assigned Incident Number nAPP2123047003.

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). Based on the results of the Site Characterization reported in the October 2022 *Work Plan*, the following NMOCD Table I Closure Criteria (Closure Criteria) apply:

- Benzene: 10 milligrams per kilogram (mg/kg)
- Benzene, toluene, ethylbenzene, and total xylenes (BTEX): 50 mg/kg
- Total petroleum hydrocarbons (TPH) - gasoline range organics (GRO) and TPH-diesel range organics (DRO): 1,000 mg/kg
- TPH: 2,500 mg/kg
- Chloride: 20,000 mg/kg

Site assessment and soil sampling activities were completed in October 2022. A *Work Plan* was submitted to the NMOCD on February 14, 2023 proposing the following:

- Additional evaluation of the regional depth to groundwater via installation of a soil boring;
- Delineation within the release extent; and
- Excavation of impacted soil identified.

The *Work Plan* was approved February 24, 2023 and the following details the remediation activities completed.

DEPTH TO WATER CONFIRMATION

On April 19, 2023, a borehole (C-04732) was advanced to a depth of 106 feet below ground surface (bgs) via hollow stem auger rig. The borehole was located approximately 205 feet south of the Site and is depicted on Figure 1. A field geologist logged and described soils continuously. The borehole was left open for over 72 hours to allow for potential slow infill of groundwater. After the 72-hour waiting period without observing groundwater, it was confirmed that groundwater beneath the Site is greater than 100 feet bgs. The borehole was properly abandoned using drill cuttings and hydrated bentonite chips. Based on the soil boring depth to groundwater at the Site is confirmed to be greater than 100 feet below ground surface (bgs). All wells used for depth to water determination are depicted on Figure 1 and the referenced well records are included in Appendix A.

Based on the results of depth to water beneath the Site and the absence of any other sensitive receptors, the Site-specific Closure Criteria listed above appears appropriate to apply to the the two Incident Numbers associated with the Site.

DELINEATION ACTIVITIES AND ANALYTICAL RESULTS

Between October 24, 2022, and April 25, 2023, Ensolum personnel were at the Site to evaluate the release extents based on information provided on the Form C-141s and visual observations. Seven delineation soil samples (SS01 through SS07) were collected within and around the release extents at depths ranging from approximately 0.5 feet to 1-foot bgs to assess lateral and vertical extent of the release. The delineation soil samples were field screened for volatile organic compounds (VOCs) utilizing a calibrated photoionization detector (PID) and chloride utilizing Hach® chloride QuanTab® test

strips. The soil sample locations were mapped utilizing a handheld Global Positioning System (GPS) unit and are depicted on Figure 2. Photographic documentation was completed during the Site visit and a photographic log is included in Appendix B.

The soil samples were placed directly into pre-cleaned glass jars, labeled with the location, date, time, sampler name, method of analysis, and immediately placed on ice. The soil samples were transported 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-GRO, TPH-DRO, and TPH-oil range organics (ORO) following EPA Method 8015M/D; and chloride following EPA Method SM4500.

Laboratory analytical results for delineation soil sample SS02, collected within the release extents, indicated TPH concentrations exceeded the Closure Criteria. Laboratory analytical results for delineation soil samples SS01/SS01A, SS03 through SS06, and SS07/SS07A, indicated all COC concentrations were compliant with the Closure Criteria and successfully defined the lateral and vertical extent of the release to the strictest Table I Closure Criteria. Based on visible staining in the release areas in the vicinity of soil sample SS02 and analytical results, excavation activities appeared to be warranted.

EXCAVATION ACTIVITIES AND ANALYTICAL RESULTS

On April 25, 2023, Ensolum personnel were at the Site to oversee excavation activities. Impacted soil was excavated as indicated by laboratory analytical results for preliminary soil sample SS02. Excavation activities were performed via hand shoveling. To direct excavation activities, soil was screened for VOCs and chloride. The excavation was completed to a depth of 1-foot bgs.

Following the excavation activities, a 5-point composite sample was collected from the floor of the excavation. The 5-point composite sample was collected by placing five equivalent aliquots of soil into a 1-gallon, resealable plastic bag and homogenizing the samples by thoroughly mixing. Composite soil sample FS01 was collected from the floor of the excavation at a depth of 1-foot bgs. Due to the shallow depth of the excavation, soil from the sidewalls was incorporated into the floor sample. The soil sample was collected, handled, and analyzed following the same procedures as described above. The excavation extent and excavation soil sample locations were mapped utilizing a handheld GPS unit and are depicted on Figure 3. A photographic log of the excavation is included as Appendix B.

Laboratory analytical results for excavation soil sample FS01, collected from the final excavation extent, indicated concentrations of all COCs were compliant with the Site Closure Criteria. The laboratory analytical results are summarized on Table 1 and the complete laboratory analytical reports are included as Appendix C.

The excavation measured approximately 90 square feet in areal extent. A total of approximately 4 cubic yards of impacted soil was removed during the excavation activities. The impacted soil was transported and properly disposed of at the R360 Disposal Facility located in Hobbs, New Mexico. After completion of confirmation sampling, the excavation was secured with fencing.

CLOSURE REQUEST

Site assessment and excavation activities were conducted at the Site to address impacted soil resulting from two release events at the Site. Laboratory analytical results for excavation floor soil sample FS01 indicated all COC concentrations were compliant with the Site Closure Criteria. Delineation samples meet the strictest Closure Criteria confirming the lateral and vertical extent of the release. Based on the soil sample analytical results, no further remediation appears to be required.

Depth to groundwater has been estimated to be greater than 100 feet bgs and no other sensitive receptors were identified near the release extents. BTA believes these remedial actions are protective of human health, the environment, and groundwater. As such, BTA respectfully requests closure for Incident Numbers nAPP2222753156 and nAPP2123047003. The Form C-141 is included as Appendix E.

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

Tacoma Morrissey
Senior Geologist

cc: Nathan Sirgo, BTA
Kelton Beaird, BTA
Kevin Jones, BTA
Bureau of Land Management

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	Photographic Log
Appendix C	Laboratory Analytical Reports & Chain-of-Custody Documentation
Appendix D	NMOCD Notifications
Appendix E	Final C-141

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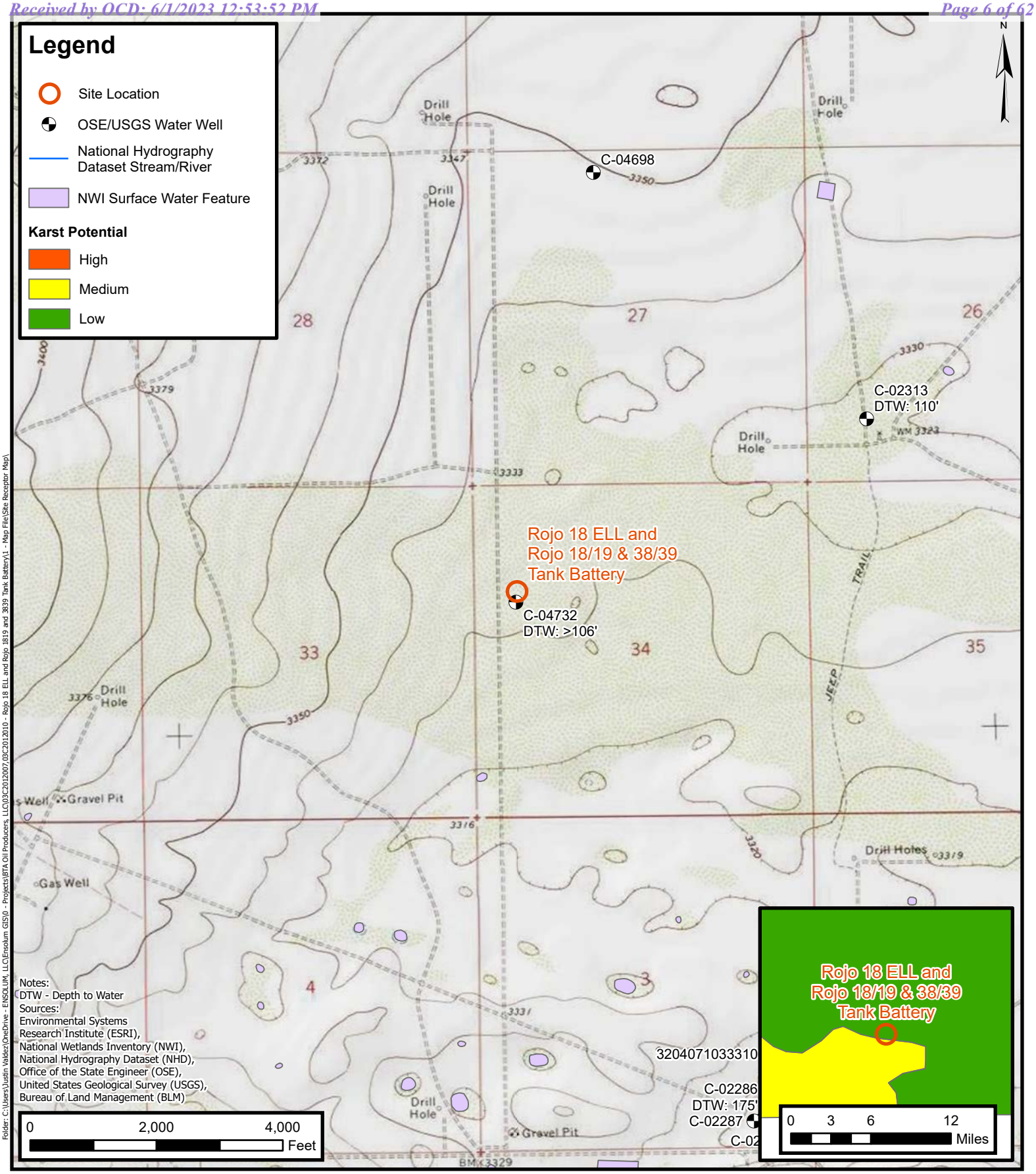
FIGURES



Folder: C:\Users\Justin Valdez\OneDrive - ENSOLUM, LLC\Ensolum GIS\0 - Projects\BTA Oil Producers, LLC\03C2012007_03C2012010 - Rojo 18 ELL and Rojo 1819 and 3839 Tank Battery\1 - Map File\Site Receptor Map\

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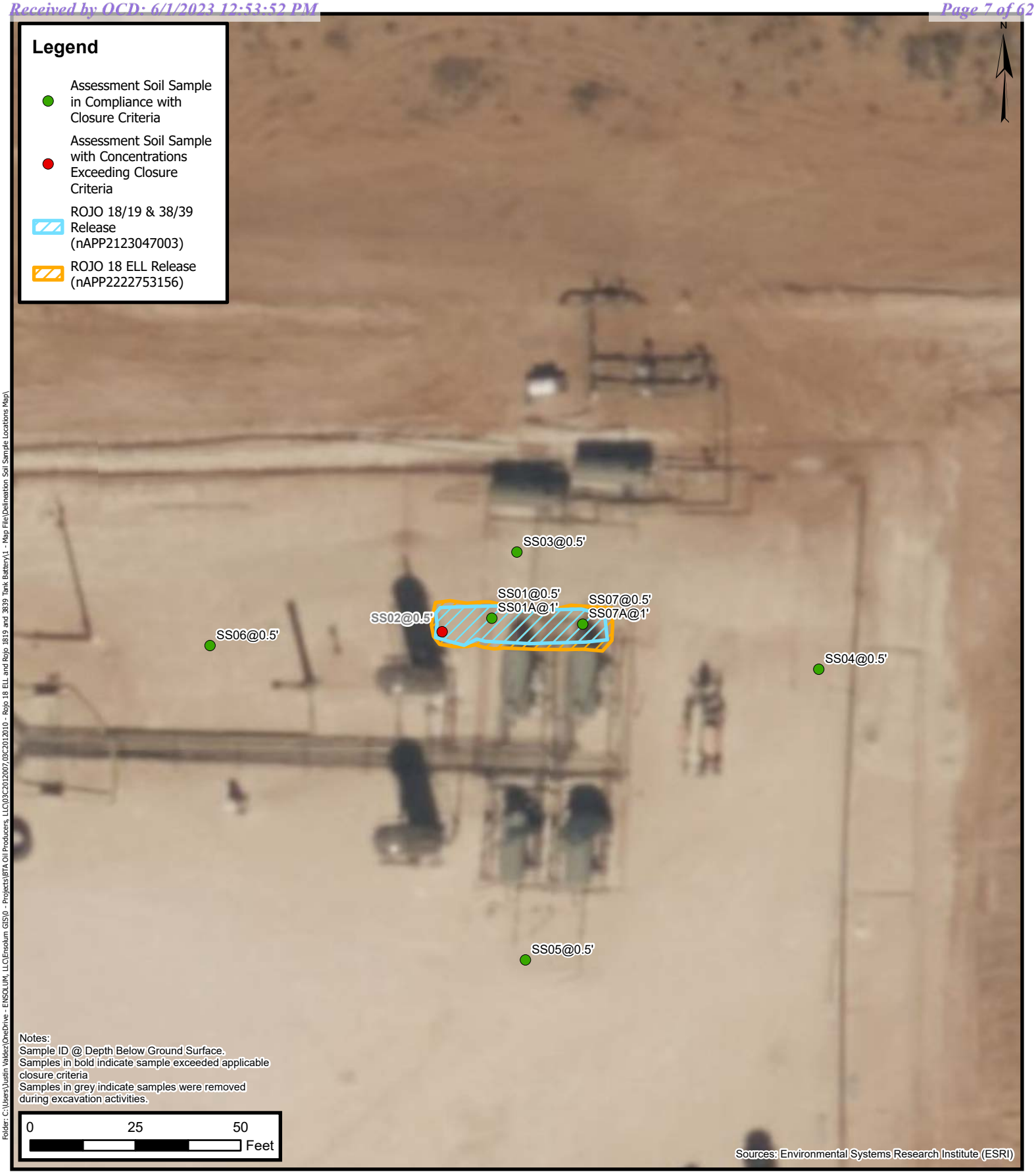
Environmental, Engineering and Hydrogeologic Consultants

Site Receptor Map

BTA Oil Producers, LLC
Rojo 18 ELL and Rojo 18/19 & 38/39 Tank Battery
Incident Number: nAPP2222753156 and nAPP2123047003
Unit F, Section 34, T25S, R33E
Lea County, New Mexico

FIGURE 1



Folder: C:\Users\Justin Valdez\OneDrive - ENSOLUM, LLC\Ensolum GIS\0 - Projects\BTA Oil Producers, LLC\03C2012007_03C2012010 - Rojo 18 ELL and Rojo 1819 and 3839 Tank Battery\1 - Map File\Delineation Soil Sample Locations Map\

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Assessment Soil Sample Locations

BTA Oil Producers, LLC
Rojo 18 ELL and Rojo 18/19 & 38/39 Tank Battery
Incident Number: nAPP2222753156 and nAPP2123047003
Unit F, Section 34, T25S, R33E
Lea County, New Mexico

FIGURE 2

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EXCAVATION SOIL SAMPLE LOCATIONS

BTA OIL PRODUCERS, LLC
ROJO 18 ELL & ROJO 18/19 & 38/39 TANK BATTERY
Incident Numbers: nAPP2222753156 & nAPP2123047003
Unit F, Section 34, T25S, R33E
Lea County, New Mexico

FIGURE
3

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TABLES

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TABLE 1
SOIL SAMPLE ANALYTICAL RESULTS
Rojo 18 ELL and Rojo 18/19 & 38/39 Tank Battery
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	1,000	2,500	20,000
Delineation Soil Samples										
SS01	10/24/2022	0.5	<0.050	<0.300	<10.0	46.0	13.8	46.0	46.0	480
SS01A	04/25/2023	1	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	96.0
SS02	10/24/2022	0.5	<0.050	<0.300	71.9	2,690	573	**2,690**	**2,690**	7,200
SS03	10/24/2022	0.5	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	80.0
SS04	10/24/2022	0.5	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	32.0
SS05	10/24/2022	0.5	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	48.0
SS06	10/24/2022	0.5	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	48.0
SS07	04/25/2023	0.5	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	32.0
SS07A	04/25/2023	1	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	16.0
Excavation Soil Samples										
FS01	04/25/2023	1	<0.050	<0.300	<10.0	148	67.6	216	216	10,000

Notes:

bgs: below ground surface
mg/kg: milligrams per kilogram
NMOCD: New Mexico Oil Conservation Division
NMAC: New Mexico Adminstrative Code
BTEX: Benzene, Toluene, Ethylbenzene, and Xylenes
Concentrations in **bold** exceed the NMOCD Table I Closure Criteria or reclamation standard where applicable.
Gray text represents samples that have been excavated

GRO: Gasoline Range Organics
DRO: Diesel Range Organics
ORO: Oil Range Organics
TPH: Total Petroleum Hydrocarbon

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APPENDIX A

Referenced Well Records

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	Sample Name: C-04732	Date: 04/19/2023
	Site Name: Rojo 18 ELL	
	Incident Number: nAPP2222753156	
	Job Number: 03C2012007	
LITHOLOGIC / SOIL SAMPLING LOG	Logged By: J.falcomata	Method: Air Rotary
Coordinates: 32.089035, -103.566486	Hole Diameter: 5"	Total Depth: 106'

Comments: Soil boring was advanced to a total depth of 106' bgs. No water was observed within the soil boring after at least 72 hours. On 04/24/2023 the soil boring was plugged and abandoned using hydrated bentonite chips.

Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample ID	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithologic Descriptions
								Note: Driller injected well with a water and soap mixture @ 55' to help stabilize well and prevent cave in. Due to collapse, well cased @ 102' with 2" polypipe casing.
Dry	-	-	N	-	-	10	SP-SM	(10') SAND: fine grained - medium grained, trace amounts small gravel, poorly graded, tan, no odor, non plastic non cohesive
Dry	-	-	N	-	-	20	SP-SM	(20') SAND: fine grained, silty, poorly graded, medium brown, no odor, non plastic, non cohesive.
Dry	-	-	N	-	-	30	SP-SM	(30') SAND: fine - medium grained, silty, trace amount small gravel, poorly graded, light brown, no odor, non plastic, non cohesive
Dry	-	-	N	-	-	40	SP-SM	(40') SAND: fine grained, silty, poorly graded, light to orangish brown, no odor, non plastic, non cohesive
Dry	-	-	N	-	-	50	SP-SM	(50') SAND: fine grained, silty, poorly graded, light to orangish brown, no odor, non plastic, non cohesive
Dry	-	-	N	-	-	60	SP-SM	(60') SAND: fine grained, silty, poorly graded, orangish brown, wet from injection, no odor, non plastic, non cohesive
Dry	-	-	N	-	-	70	SP-SM	(70') SAND: fine grained, silty, poorly graded, medium brown, wet from injection, no odor, non plastic, non cohesive
Dry	-	-	N	-	-	80	SP-SM	(80') SAND: fine grained, silty, poorly graded, medium brown, wet from injection, no odor, non plastic, non cohesive
Dry	-	-	N	-	-	90	SP-SM	(90') SAND: fine grained, silty, poorly graded, orangish brown, wet from injection, no odor, non plastic, non cohesive
Dry	-	-	N	-	-	100	SP-SM	(100') SAND: fine grained, silty, poorly graded, tan, wet from injection, no odor, non plastic, non cohesive
Dry	-	-	N	-	-	106	SP-SM	AA

Total Depth @ 106 feet bgs

New Mexico Office of the State Engineer
Point of Diversion Summary

(quarters are 1=NW 2=NE 3=SW 4=SE)
(quarters are smallest to largest) (NAD83 UTM in meters)

Well Tag	POD Number	Q64	Q16	Q4	Sec	Twn	Rng	X	Y
	C 02313	2	3	3	26	25S	33E	636971	3552098*

Driller License: **Driller Company:**

Driller Name: UNKNOWN

Drill Start Date:	01/01/1925	**Drill Finish Date:**	06/30/1925	**Plug Date:**	
Log File Date:		**PCW Rcv Date:**		**Source:**	
Pump Type:		**Pipe Discharge Size:**		**Estimated Yield:**	60 GPM
Casing Size:	6.88	**Depth Well:**	150 feet	**Depth Water:**	110 feet

***UTM location was derived from PLSS - see Help**

National Water Information System: Web Interface

USGS Water Resources

Data Category: Site Information | Geographic Area: United States | GO

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- Full News

USGS 320407103331001 26S.33E.03.444110

Available data for this site SUMMARY OF ALL AVAILABLE DATA | GO

Well Site

DESCRIPTION:

Latitude 32°04'07", Longitude 103°33'10" NAD27
Lea County, New Mexico , Hydrologic Unit 13070007
Well depth: 180 feet
Land surface altitude: 3,311 feet above NAVD88.
Well completed in "Other aquifers" (N9999OTHER) national aquifer.
Well completed in "Alluvium, Bolson Deposits and Other Surface Deposits" (110AVMB) local aquifer

AVAILABLE DATA:

Data Type	Begin Date	End Date	Count
Field groundwater-level measurements	1954-07-23	1954-07-23	1
Revisions	Unavailable (site:0) (timeseries:0)		

OPERATION:

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

---

Questions about sites/data?
Feedback on this web site
Automated retrievals
Help
Data Tips
Explanation of terms

Subscribe for system changes
News

Title: NWIS Site Information for USA: Site Inventory
URL: https://waterdata.usgs.gov/nwis/inventory?agency_code=USGS&site_no=320407103331001

Page Contact Information: New Mexico Water Data Support Team
Page Last Modified: 2022-10-10 17:07:57 EDT
0.26 0.26 caww01

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- Full News

Groundwater levels for the Nation

Important: Next Generation Monitoring Location Page

Search Results -- 1 sites found

Agency code = usgs
site_no list =
- 320407103331001

Minimum number of levels = 1
Save file of selected sites to local disk for future upload

USGS 320407103331001 26S.33E.03.444110

Lea County, New Mexico
Latitude 32°04'07", Longitude 103°33'10" NAD27
Land-surface elevation 3,311 feet above NAVD88
The depth of the well is 180 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 measu
1954-07-23		D	62610		3206.62	NGVD29	1	Z		
1954-07-23		D	62611		3208.20	NAVD88	1	Z		
1954-07-23		D	72019	102.80			1	Z		

Explanation

Section	Code	Description
Water-level date-time accuracy	D	Date is accurate to the Day
Parameter code	62610	Groundwater level above NGVD 1929, feet
Parameter code	62611	Groundwater level above NAVD 1988, feet
Parameter code	72019	Depth to water level, feet below land surface
Referenced vertical datum	NAVD88	North American Vertical Datum of 1988
Referenced vertical datum	NGVD29	National Geodetic Vertical Datum of 1929
Status	1	Static
Method of measurement	Z	Other.
Measuring agency		Not determined

Section	Code	Description
Source of measurement		Not determined
Water-level approval status	A	Approved for publication -- Processing and review completed.

Questions about sites/data?
Feedback on this web site
Automated retrievals
Help
Data Tips
Explanation of terms
Subscribe for system changes
News

Accessibility FOIA Privacy Policies and Notices

U.S. Department of the Interior | U.S. Geological Survey
Title: Groundwater for USA: Water Levels
URL: https://nwis.waterdata.usgs.gov/nwis/gwlevels?

Page Contact Information: USGS Water Data Support Team
Page Last Modified: 2022-10-10 17:09:01 EDT
0.32 0.28 nadww01

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APPENDIX B

Photographic Log

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Photographic Log
BTA Oil Producers, LLC
Rojo 18 ELL and Rojo 18/19 & 38/39 Tank Battery
nAPP2222753156 & nAPP2123047003

Photograph: 1 Date: 8/14/2022
Description: Soil staining in release footprint
View: Northwest

Photograph: 2 Date: 8/17/2022
Description: Soil staining in release footprint
View: East

Photograph: 3 Date: 10/20/2022
Description: Initial assessment activities
View: Northwest

Photograph: 4 Date: 4/25/2023
Description: Excavation activities
View: Northwest

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APPENDIX C

Laboratory Analytical Reports & Chain of Custody Documentation

CARDINAL Laboratories

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

October 31, 2022

HADLIE GREEN

ENSOLUM, LLC

705 W WADLEY AVE.

MIDLAND, TX 79705

RE: ROJO 18 ELL

Enclosed are the results of analyses for samples received by the laboratory on 10/24/22 14:22.

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:	10/24/2022	Sampling Date:	10/20/2022
Reported:	10/31/2022	Sampling Type:	Soil
Project Name:	ROJO 18 ELL	Sampling Condition:	Cool & Intact
Project Number:	03C2012007	Sample Received By:	Shalyn Rodriguez
Project Location:	BTA		

Sample ID: SS 01 .5' (H224991-01)

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	10/30/2022	ND	1.95	97.7	2.00	11.3	
Toluene*	<0.050	0.050	10/30/2022	ND	2.12	106	2.00	11.9	
Ethylbenzene*	<0.050	0.050	10/30/2022	ND	2.10	105	2.00	12.5	
Total Xylenes*	<0.150	0.150	10/30/2022	ND	6.28	105	6.00	12.4	
Total BTEX	<0.300	0.300	10/30/2022	ND					

Surrogate: 4-Bromofluorobenzene (PID *90.8 %* *69.9-140*

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

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**480**	16.0	10/27/2022	ND	400	100	400	11.3	

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	10/28/2022	ND	191	95.5	200	1.86	
DRO >C10-C28*	**46.0**	10.0	10/28/2022	ND	192	96.1	200	2.07	
EXT DRO >C28-C36	**13.8**	10.0	10/28/2022	ND					

Surrogate: 1-Chlorooctane *87.5 %* *45.3-161*

Surrogate: 1-Chlorooctadecane *89.2 %* *46.3-178*

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:	10/24/2022	Sampling Date:	10/20/2022
Reported:	10/31/2022	Sampling Type:	Soil
Project Name:	ROJO 18 ELL	Sampling Condition:	Cool & Intact
Project Number:	03C2012007	Sample Received By:	Shalyn Rodriguez
Project Location:	BTA		

Sample ID: SS 02 .5' (H224991-02)

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	10/30/2022	ND	1.95	97.7	2.00	11.3	
Toluene*	<0.050	0.050	10/30/2022	ND	2.12	106	2.00	11.9	
Ethylbenzene*	<0.050	0.050	10/30/2022	ND	2.10	105	2.00	12.5	
Total Xylenes*	<0.150	0.150	10/30/2022	ND	6.28	105	6.00	12.4	
Total BTEX	<0.300	0.300	10/30/2022	ND					

Surrogate: 4-Bromofluorobenzene (PID *108 %* *69.9-140*

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

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**7200**	16.0	10/27/2022	ND	400	100	400	11.3	

TPH 8015M mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	**71.9**	10.0	10/28/2022	ND	191	95.5	200	1.86	
DRO >C10-C28*	**2690**	10.0	10/28/2022	ND	192	96.1	200	2.07	
EXT DRO >C28-C36	**573**	10.0	10/28/2022	ND					

Surrogate: 1-Chlorooctane *114 %* *45.3-161*

Surrogate: 1-Chlorooctadecane *101 %* *46.3-178*

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

Notes and Definitions

S-06	The recovery of this surrogate is outside control limits due to sample dilution required from high analyte concentration and/or matrix interference's.
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

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

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

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 505 798 2608 Fax #:
Project #:	03C2012007 Project Owner: BTA
Project Name:	Rojo 18 ELL
Project Location:	
Sampler Name:	Connor Whitmore

BILL TO

P.O. #:	
Company:	BTA Oil
Attn:	Bob Hall
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	BTEX	TPH	Chloride
H224991																		
1	SS01	.5	G	1			✓					✓		10/20/22	1220	✓	✓	✓
2	SS02	.5	G	1			✓					✓		10/20/22	1225	✓	✓	✓

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: 10.24.22 Time: 1422	Received By:	Verbal Result: ☐ Yes ☐ No Add'l Phone #:
			All Results are emailed. Please provide Email address: BJennings@ensolum.com
Relinquished By:	Date: Time:	Received By:	REMARKS: hgreen@ensolum.com

Delivered By: (Circle One) Sampler - UPS - Bus - Other:

Observed Temp. °C 1.2 Corrected Temp. °C 0.6

Sample Condition: Cool ☑ Yes ☐ No Intact ☑ Yes ☐ No

CHECKED BY: (Initials) SR

Turnaround Time: Standard ☑ Rush ☐

Thermometer ID #113 Correction Factor -0.6°C TO. 10/24/22

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

November 04, 2022

HADLIE GREEN

ENSOLUM, LLC

705 W WADLEY AVE.

MIDLAND, TX 79705

RE: ROJO 18 ELL

Enclosed are the results of analyses for samples received by the laboratory on 10/24/22 14:22.

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

Received:	10/24/2022	Sampling Date:	10/20/2022
Reported:	11/04/2022	Sampling Type:	Soil
Project Name:	ROJO 18 ELL	Sampling Condition:	Cool & Intact
Project Number:	03C2012007	Sample Received By:	Shalyn Rodriguez
Project Location:	BTA		

Sample ID: SS 03 .5' (H224992-01)

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	10/30/2022	ND	1.95	97.7	2.00	11.3	
Toluene*	<0.050	0.050	10/30/2022	ND	2.12	106	2.00	11.9	
Ethylbenzene*	<0.050	0.050	10/30/2022	ND	2.10	105	2.00	12.5	
Total Xylenes*	<0.150	0.150	10/30/2022	ND	6.28	105	6.00	12.4	
Total BTEX	<0.300	0.300	10/30/2022	ND					

Surrogate: 4-Bromofluorobenzene (PID *90.7 %* *69.9-140*

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	10/27/2022	ND	400	100	400	11.3	

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	10/31/2022	ND	191	95.5	200	1.86	
DRO >C10-C28*	<10.0	10.0	10/31/2022	ND	192	96.1	200	2.07	
EXT DRO >C28-C36	<10.0	10.0	10/31/2022	ND					

Surrogate: 1-Chlorooctane *86.4 %* *45.3-161*

Surrogate: 1-Chlorooctadecane *105 %* *46.3-178*

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

Received:	10/24/2022	Sampling Date:	10/20/2022
Reported:	11/04/2022	Sampling Type:	Soil
Project Name:	ROJO 18 ELL	Sampling Condition:	Cool & Intact
Project Number:	03C2012007	Sample Received By:	Shalyn Rodriguez
Project Location:	BTA		

Sample ID: SS 04 .5' (H224992-02)

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	10/30/2022	ND	1.95	97.7	2.00	11.3	
Toluene*	<0.050	0.050	10/30/2022	ND	2.12	106	2.00	11.9	
Ethylbenzene*	<0.050	0.050	10/30/2022	ND	2.10	105	2.00	12.5	
Total Xylenes*	<0.150	0.150	10/30/2022	ND	6.28	105	6.00	12.4	
Total BTEX	<0.300	0.300	10/30/2022	ND					

Surrogate: 4-Bromofluorobenzene (PID *92.8 %* *69.9-140*

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	10/27/2022	ND	400	100	400	11.3	

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	10/28/2022	ND	191	95.5	200	1.86	
DRO >C10-C28*	<10.0	10.0	10/28/2022	ND	192	96.1	200	2.07	
EXT DRO >C28-C36	<10.0	10.0	10/28/2022	ND					

Surrogate: 1-Chlorooctane *78.5 %* *45.3-161*

Surrogate: 1-Chlorooctadecane *80.3 %* *46.3-178*

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

Received:	10/24/2022	Sampling Date:	10/20/2022
Reported:	11/04/2022	Sampling Type:	Soil
Project Name:	ROJO 18 ELL	Sampling Condition:	Cool & Intact
Project Number:	03C2012007	Sample Received By:	Shalyn Rodriguez
Project Location:	BTA		

Sample ID: SS 05 .5' (H224992-03)

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	10/30/2022	ND	1.95	97.7	2.00	11.3	
Toluene*	<0.050	0.050	10/30/2022	ND	2.12	106	2.00	11.9	
Ethylbenzene*	<0.050	0.050	10/30/2022	ND	2.10	105	2.00	12.5	
Total Xylenes*	<0.150	0.150	10/30/2022	ND	6.28	105	6.00	12.4	
Total BTEX	<0.300	0.300	10/30/2022	ND					

Surrogate: 4-Bromofluorobenzene (PID *90.8 %* *69.9-140*

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	10/27/2022	ND	400	100	400	11.3	

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	10/28/2022	ND	191	95.5	200	1.86	
DRO >C10-C28*	<10.0	10.0	10/28/2022	ND	192	96.1	200	2.07	
EXT DRO >C28-C36	<10.0	10.0	10/28/2022	ND					

Surrogate: 1-Chlorooctane *88.1 %* *45.3-161*

Surrogate: 1-Chlorooctadecane *86.6 %* *46.3-178*

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

Received:	10/24/2022	Sampling Date:	10/20/2022
Reported:	11/04/2022	Sampling Type:	Soil
Project Name:	ROJO 18 ELL	Sampling Condition:	Cool & Intact
Project Number:	03C2012007	Sample Received By:	Shalyn Rodriguez
Project Location:	BTA		

Sample ID: SS 06 .5' (H224992-04)

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	10/30/2022	ND	1.95	97.7	2.00	11.3	
Toluene*	<0.050	0.050	10/30/2022	ND	2.12	106	2.00	11.9	
Ethylbenzene*	<0.050	0.050	10/30/2022	ND	2.10	105	2.00	12.5	
Total Xylenes*	<0.150	0.150	10/30/2022	ND	6.28	105	6.00	12.4	
Total BTEX	<0.300	0.300	10/30/2022	ND					

Surrogate: 4-Bromofluorobenzene (PID *90.3 %* *69.9-140*

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	10/27/2022	ND	400	100	400	11.3	

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	10/28/2022	ND	191	95.5	200	1.86	
DRO >C10-C28*	<10.0	10.0	10/28/2022	ND	192	96.1	200	2.07	
EXT DRO >C28-C36	<10.0	10.0	10/28/2022	ND					

Surrogate: 1-Chlorooctane *80.7 %* *45.3-161*

Surrogate: 1-Chlorooctadecane *79.9 %* *46.3-178*

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

S-06	The recovery of this surrogate is outside control limits due to sample dilution required from high analyte concentration and/or matrix interference's.
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
Project Manager: Hadlie Green
Address: 601 N. Marienfeld St. STE 400
City: Midland State: TX Zip: 79701
Phone #: 432-557-8895 405 708 2608 Fax #:
Project #: 03C2012007 Project Owner: BTA Oil
Project Name: Rojo 18 ELL
Project Location:
Sampler Name: Connor Whitman

BILL TO
P.O. #:
Company: BTA Oil
Attn: Bob Hall
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	BTEX	TPH	Chlorides
H224992																		
1	SS03	.5'	G	1			X					X		10/20/22	11:30	X	X	X
2	SS04	.5'	G	1			X					X			11:35	X	X	X
3	SS05	.5'	G	1			X					X			11:40	X	X	X
4	SS06	.5'	G	1			X					X			11:45	X	X	X

SR 11/4/22

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: 10.24.22 Time: 1432 Received By: Shodriguez
Relinquished By: Date: Time: Received By:

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

Delivered By: (Circle One) Sampler - UPS - Bus - Other:
Observed Temp. °C 1.2 Corrected Temp. °C 0.6
Sample Condition: Cool ☑ Yes ☐ No Intact ☑ Yes ☐ No
CHECKED BY: (Initials) SR

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

May 16, 2023

HADLIE GREEN

ENSOLUM

3122 NATIONAL PARKS HWY

CARLSBAD, NM 88220

RE: ROJO 18EU

Enclosed are the results of analyses for samples received by the laboratory on 04/26/23 13:40.

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

Cardinal Laboratories is accredited through the State of New Mexico Environment Department for:

Method SM 9223-B	Total Coliform and E. coli (Colilert MMO-MUG)
Method EPA 524.2	Regulated VOCs and Total Trihalomethanes (TTHM)
Method EPA 552.2	Total Haloacetic Acids (HAA-5)

Accreditation applies to public drinking water matrices for State of Colorado and New Mexico.

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 3122 NATIONAL PARKS HWY CARLSBAD NM, 88220	Project: ROJO 18EU Project Number: 03C2012007 (32.08958-103.1566 Project Manager: HADLIE GREEN Fax To:	Reported: 16-May-23 16:25

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
FS 01 @ 1'	H232031-01	Soil	25-Apr-23 09:30	26-Apr-23 13:40
SS 01 @ 1'	H232031-02	Soil	25-Apr-23 09:35	26-Apr-23 13:40
SS 07 @ 0.5'	H232031-03	Soil	25-Apr-23 09:40	26-Apr-23 13:40
SS 07 A @ 1'	H232031-04	Soil	25-Apr-23 09:45	26-Apr-23 13:40

05/16/23 - Client requested sample ID changes (see COC). This is the revised report and will replace the one sent on 05/02/23.

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 3122 NATIONAL PARKS HWY CARLSBAD NM, 88220	Project: ROJO 18EU Project Number: 03C2012007 (32.08958-103.1566 Project Manager: HADLIE GREEN Fax To:	Reported: 16-May-23 16:25

FS 01 @ 1'

H232031-01 (Soil)

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
Cardinal Laboratories										
Inorganic Compounds										
Chloride	**10000**		16.0	mg/kg	4	3042745	AC	28-Apr-23	4500-Cl-B	
Volatile Organic Compounds by EPA Method 8021										
Benzene*	<0.050		0.050	mg/kg	50	3042634	JH/	28-Apr-23	8021B	
Toluene*	<0.050		0.050	mg/kg	50	3042634	JH/	28-Apr-23	8021B	
Ethylbenzene*	<0.050		0.050	mg/kg	50	3042634	JH/	28-Apr-23	8021B	
Total Xylenes*	<0.150		0.150	mg/kg	50	3042634	JH/	28-Apr-23	8021B	
Total BTEX	<0.300		0.300	mg/kg	50	3042634	JH/	28-Apr-23	8021B	
Surrogate: 4-Bromofluorobenzene (PID)			*106 %*	*71.5-134*		*3042634*	JH/	*28-Apr-23*	*8021B*	
Petroleum Hydrocarbons by GC FID										
GRO C6-C10*	<10.0		10.0	mg/kg	1	3042632	MS	26-Apr-23	8015B	
DRO >C10-C28*	**148**		10.0	mg/kg	1	3042632	MS	26-Apr-23	8015B	
EXT DRO >C28-C36	**67.6**		10.0	mg/kg	1	3042632	MS	26-Apr-23	8015B	
Surrogate: 1-Chlorooctane			*88.0 %*	*48.2-134*		*3042632*	MS	*26-Apr-23*	*8015B*	
Surrogate: 1-Chlorooctadecane			*102 %*	*49.1-148*		*3042632*	MS	*26-Apr-23*	*8015B*	

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 3122 NATIONAL PARKS HWY CARLSBAD NM, 88220	Project: ROJO 18EU Project Number: 03C2012007 (32.08958-103.1566 Project Manager: HADLIE GREEN Fax To:	Reported: 16-May-23 16:25

SS 01 @ 1'

H232031-02 (Soil)

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
Cardinal Laboratories										
Inorganic Compounds										
Chloride	**96.0**		16.0	mg/kg	4	3042745	AC	28-Apr-23	4500-Cl-B	
Volatile Organic Compounds by EPA Method 8021										
Benzene*	<0.050		0.050	mg/kg	50	3042634	JH/	28-Apr-23	8021B	
Toluene*	<0.050		0.050	mg/kg	50	3042634	JH/	28-Apr-23	8021B	
Ethylbenzene*	<0.050		0.050	mg/kg	50	3042634	JH/	28-Apr-23	8021B	
Total Xylenes*	<0.150		0.150	mg/kg	50	3042634	JH/	28-Apr-23	8021B	
Total BTEX	<0.300		0.300	mg/kg	50	3042634	JH/	28-Apr-23	8021B	
Surrogate: 4-Bromofluorobenzene (PID)			*105 %*	*71.5-134*		*3042634*	JH/	*28-Apr-23*	*8021B*	
Petroleum Hydrocarbons by GC FID										
GRO C6-C10*	<10.0		10.0	mg/kg	1	3042632	MS	26-Apr-23	8015B	
DRO >C10-C28*	<10.0		10.0	mg/kg	1	3042632	MS	26-Apr-23	8015B	
EXT DRO >C28-C36	<10.0		10.0	mg/kg	1	3042632	MS	26-Apr-23	8015B	
Surrogate: 1-Chlorooctane			*96.0 %*	*48.2-134*		*3042632*	MS	*26-Apr-23*	*8015B*	
Surrogate: 1-Chlorooctadecane			*102 %*	*49.1-148*		*3042632*	MS	*26-Apr-23*	*8015B*	

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 3122 NATIONAL PARKS HWY CARLSBAD NM, 88220	Project: ROJO 18EU Project Number: 03C2012007 (32.08958-103.1566 Project Manager: HADLIE GREEN Fax To:	Reported: 16-May-23 16:25

SS 07 @ 0.5'

H232031-03 (Soil)

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
Cardinal Laboratories										
Inorganic Compounds										
Chloride	**32.0**		16.0	mg/kg	4	3042745	AC	28-Apr-23	4500-Cl-B	
Volatile Organic Compounds by EPA Method 8021										
Benzene*	<0.050		0.050	mg/kg	50	3042634	JH/	28-Apr-23	8021B	
Toluene*	<0.050		0.050	mg/kg	50	3042634	JH/	28-Apr-23	8021B	
Ethylbenzene*	<0.050		0.050	mg/kg	50	3042634	JH/	28-Apr-23	8021B	
Total Xylenes*	<0.150		0.150	mg/kg	50	3042634	JH/	28-Apr-23	8021B	
Total BTEX	<0.300		0.300	mg/kg	50	3042634	JH/	28-Apr-23	8021B	
Surrogate: 4-Bromofluorobenzene (PID)			*105 %*	*71.5-134*		*3042634*	JH/	*28-Apr-23*	*8021B*	
Petroleum Hydrocarbons by GC FID										
GRO C6-C10*	<10.0		10.0	mg/kg	1	3042632	MS	26-Apr-23	8015B	
DRO >C10-C28*	<10.0		10.0	mg/kg	1	3042632	MS	26-Apr-23	8015B	
EXT DRO >C28-C36	<10.0		10.0	mg/kg	1	3042632	MS	26-Apr-23	8015B	
Surrogate: 1-Chlorooctane			*97.1 %*	*48.2-134*		*3042632*	MS	*26-Apr-23*	*8015B*	
Surrogate: 1-Chlorooctadecane			*103 %*	*49.1-148*		*3042632*	MS	*26-Apr-23*	*8015B*	

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 3122 NATIONAL PARKS HWY CARLSBAD NM, 88220	Project: ROJO 18EU Project Number: 03C2012007 (32.08958-103.1566 Project Manager: HADLIE GREEN Fax To:	Reported: 16-May-23 16:25

SS 07 A @ 1'

H232031-04 (Soil)

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
Cardinal Laboratories										
Inorganic Compounds										
Chloride	**16.0**		16.0	mg/kg	4	3042745	AC	28-Apr-23	4500-Cl-B	
Volatile Organic Compounds by EPA Method 8021										
Benzene*	<0.050		0.050	mg/kg	50	3042634	JH/	28-Apr-23	8021B	
Toluene*	<0.050		0.050	mg/kg	50	3042634	JH/	28-Apr-23	8021B	
Ethylbenzene*	<0.050		0.050	mg/kg	50	3042634	JH/	28-Apr-23	8021B	
Total Xylenes*	<0.150		0.150	mg/kg	50	3042634	JH/	28-Apr-23	8021B	
Total BTEX	<0.300		0.300	mg/kg	50	3042634	JH/	28-Apr-23	8021B	
Surrogate: 4-Bromofluorobenzene (PID)			*103 %*	*71.5-134*		*3042634*	JH/	*28-Apr-23*	*8021B*	
Petroleum Hydrocarbons by GC FID										
GRO C6-C10*	<10.0		10.0	mg/kg	1	3042632	MS	26-Apr-23	8015B	
DRO >C10-C28*	<10.0		10.0	mg/kg	1	3042632	MS	26-Apr-23	8015B	
EXT DRO >C28-C36	<10.0		10.0	mg/kg	1	3042632	MS	26-Apr-23	8015B	
Surrogate: 1-Chlorooctane			*95.5 %*	*48.2-134*		*3042632*	MS	*26-Apr-23*	*8015B*	
Surrogate: 1-Chlorooctadecane			*101 %*	*49.1-148*		*3042632*	MS	*26-Apr-23*	*8015B*	

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 3122 NATIONAL PARKS HWY CARLSBAD NM, 88220	Project: ROJO 18EU Project Number: 03C2012007 (32.08958-103.1566 Project Manager: HADLIE GREEN Fax To:	Reported: 16-May-23 16:25

Inorganic Compounds - Quality Control

Cardinal Laboratories

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 3042745 - 1:4 DI Water										
Blank (3042745-BLK1)				Prepared: 27-Apr-23 Analyzed: 28-Apr-23						
Chloride	ND	16.0	mg/kg							
LCS (3042745-BS1)				Prepared: 27-Apr-23 Analyzed: 28-Apr-23						
Chloride	384	16.0	mg/kg	400		96.0	80-120			
LCS Dup (3042745-BSD1)				Prepared: 27-Apr-23 Analyzed: 28-Apr-23						
Chloride	416	16.0	mg/kg	400		104	80-120	8.00	20	

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Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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

Analytical Results For:

ENSOLUM 3122 NATIONAL PARKS HWY CARLSBAD NM, 88220	Project: ROJO 18EU Project Number: 03C2012007 (32.08958-103.1566 Project Manager: HADLIE GREEN Fax To:	Reported: 16-May-23 16:25

Volatile Organic Compounds by EPA Method 8021 - Quality Control

Cardinal Laboratories

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 3042634 - Volatiles										
Blank (3042634-BLK1)				Prepared: 26-Apr-23 Analyzed: 28-Apr-23						
Benzene	ND	0.050	mg/kg							
Toluene	ND	0.050	mg/kg							
Ethylbenzene	ND	0.050	mg/kg							
Total Xylenes	ND	0.150	mg/kg							
Total BTEX	ND	0.300	mg/kg							
Surrogate: 4-Bromofluorobenzene (PID)	*0.0537*		mg/kg	*0.0500*		*107*	*71.5-134*			
LCS (3042634-BS1)				Prepared: 26-Apr-23 Analyzed: 28-Apr-23						
Benzene	2.17	0.050	mg/kg	2.00		108	81.4-118			
Toluene	2.24	0.050	mg/kg	2.00		112	88.7-121			
Ethylbenzene	2.20	0.050	mg/kg	2.00		110	86.1-120			
m,p-Xylene	4.63	0.100	mg/kg	4.00		116	88.2-124			
o-Xylene	2.16	0.050	mg/kg	2.00		108	84.9-118			
Total Xylenes	6.80	0.150	mg/kg	6.00		113	87.3-122			
Surrogate: 4-Bromofluorobenzene (PID)	*0.0515*		mg/kg	*0.0500*		*103*	*71.5-134*			
LCS Dup (3042634-BSD1)				Prepared: 26-Apr-23 Analyzed: 28-Apr-23						
Benzene	1.95	0.050	mg/kg	2.00		97.4	81.4-118	10.7	15.8	
Toluene	2.01	0.050	mg/kg	2.00		100	88.7-121	11.2	15.9	
Ethylbenzene	1.97	0.050	mg/kg	2.00		98.4	86.1-120	10.9	16	
m,p-Xylene	4.15	0.100	mg/kg	4.00		104	88.2-124	11.0	16.2	
o-Xylene	1.96	0.050	mg/kg	2.00		98.0	84.9-118	9.87	16.7	
Total Xylenes	6.11	0.150	mg/kg	6.00		102	87.3-122	10.6	16.3	
Surrogate: 4-Bromofluorobenzene (PID)	*0.0521*		mg/kg	*0.0500*		*104*	*71.5-134*			

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Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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

Analytical Results For:

ENSOLUM 3122 NATIONAL PARKS HWY CARLSBAD NM, 88220	Project: ROJO 18EU Project Number: 03C2012007 (32.08958-103.1566 Project Manager: HADLIE GREEN Fax To:	Reported: 16-May-23 16:25

Petroleum Hydrocarbons by GC FID - Quality Control

Cardinal Laboratories

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 3042632 - General Prep - Organics										
Blank (3042632-BLK1)				Prepared: 26-Apr-23 Analyzed: 27-Apr-23						
GRO C6-C10	ND	10.0	mg/kg							
DRO >C10-C28	ND	10.0	mg/kg							
EXT DRO >C28-C36	ND	10.0	mg/kg							
Surrogate: 1-Chlorooctane	*42.4*		mg/kg	*49.6*		*85.6*	*48.2-134*			
Surrogate: 1-Chlorooctadecane	*45.5*		mg/kg	*50.0*		*90.9*	*49.1-148*			
LCS (3042632-BS1)				Prepared: 26-Apr-23 Analyzed: 27-Apr-23						
GRO C6-C10	199	10.0	mg/kg	200		99.7	78.5-124			
DRO >C10-C28	188	10.0	mg/kg	200		93.9	72.5-126			
Total TPH C6-C28	387	10.0	mg/kg	400		96.8	77.6-123			
Surrogate: 1-Chlorooctane	*49.9*		mg/kg	*49.6*		*101*	*48.2-134*			
Surrogate: 1-Chlorooctadecane	*50.2*		mg/kg	*50.0*		*100*	*49.1-148*			
LCS Dup (3042632-BSD1)				Prepared: 26-Apr-23 Analyzed: 27-Apr-23						
GRO C6-C10	201	10.0	mg/kg	200		100	78.5-124	0.671	17.7	
DRO >C10-C28	189	10.0	mg/kg	200		94.4	72.5-126	0.459	21	
Total TPH C6-C28	390	10.0	mg/kg	400		97.4	77.6-123	0.568	18.5	
Surrogate: 1-Chlorooctane	*50.1*		mg/kg	*49.6*		*101*	*48.2-134*			
Surrogate: 1-Chlorooctadecane	*50.6*		mg/kg	*50.0*		*101*	*49.1-148*			

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Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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

Notes and Definitions

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

		BILL TO	
Company Name:	Ensolum, LLC	P.O. #:	
Project Manager:	Hadlie Green	Company:	BTA OIL
Address:	3122 Nat'l Parks Hwy	Attn:	Bob Hall
City:	Carlsbad State: NM Zip: 88220	Address:	104 S Pecos St
Phone #:	432-557-8895 Fax #:	City:	Midland
Project #:	03C2012007 Project Owner: BTA	State:	TX Zip: 79701
Project Name:	Rojo 18 ELL	Phone #:	432-312-2203
Project Location:	32.098458, -103.516642	Fax #:	
Sampler Name:	Juliana Falcomata		

FOR LAB USE ONLY

Lab I.D.	Sample I.D.	(G)RAB OR (C)OMP.	# CONTAINERS	MATRIX: GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER:	PRESERV.: ACID/BASE:	ICE / COOL	OTHER:	SAMPLING: DATE	TIME	BTEX	TPH	Chlorides
H232631																	
1	FS01 @1'	C	1			X							4/25/23	0930	X	X	X
2	SS01 @1'	G	1										4/25/23	0935			
*OR 3	SS07 @ ~~.5'~~ 0.5'	G	1										4/25/23	0940			
5/16/23 4	SS08A @ 1'	G	1										4/25/23	0945			

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: ~~4/25~~ 4/26/23	Received By:	Verbal Result: ☐ Yes ☒ No Add'l Phone #:
Falcomata	Time: 1340	Rodriguez	All Results are emailed. Please provide Email address: hgreen@ensolum.com
Relinquished By:	Date:	Received By:	REMARKS: *Customer requested sample ID changes
	Time:		

Delivered By: (Circle One)	Observed Temp. °C 1.5	Sample Condition: Cool ☑ Yes ☐ No; Intact ☑ Yes ☐ No	CHECKED BY: (Initials) SR	Turnaround Time: Standard ☑ Rush ☐
Sampler - UPS - Bus - Other:	Corrected Temp. °C 0.9			Thermometer ID #113 Correction Factor -0.6°C

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

FORM-006 R 3.3 07/18/22

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

ENSOLUM

APPENDIX D

NMOCD Notifications

From: OCDOnline@state.nm.us
To: Bob Hall
Subject: The Oil Conservation Division (OCD) has approved the application, Application ID: 186129
Date: Friday, February 24, 2023 10:51:19 AM

To whom it may concern (c/o Bob Hall for BTA OIL PRODUCERS, LLC),

The OCD has approved the submitted *Application for administrative approval of a release notification and corrective action* (C-141), for incident ID (n#) nAPP2222753156, with the following conditions:

- **Remediation Plan Approved with Conditions. During excavation activities, sidewall samples should be delineated to 600 mg/kg for chlorides and 100 mg/kg for TPH to define the edge of the release, regardless of depth to groundwater.**

The signed C-141 can be found in the OCD Online: Imaging under the incident ID (n#).

If you have any questions regarding this application, please contact me.

Thank you,
Jennifer Nobui
Environmental Specialist-Advanced
505-470-3407
Jennifer.Nobui@emnrd.nm.gov

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

ENSOLUM

APPENDIX E

Final C-141

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

State of New Mexico
Energy Minerals and Natural Resources Department

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

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

Incident ID	nAPP2222753156
District RP	
Facility ID	fAPP2135653071
Application ID	

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 # (assigned by OCD) nAPP2222753156
Contact mailing address: 104 S. Pecos St., Midland, TX 79701	

Location of Release Source

Latitude: 32.08958 Longitude: -103.56642
(NAD 83 in decimal degrees to 5 decimal places)

Site Name: Rojo 18 ELL	Site Type: Tank Battery
Date Release Discovered: 8/14/2022	API# *(if applicable)* Nearest well:

Unit Letter	Section	Township	Range	County
F	34	25S	33E	Lea

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

Nature and Volume of Release

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

☐ Crude Oil	Volume Released (bbls)	Volume Recovered (bbls)
☒ Produced Water	Volume Released (bbls) 43 BBL	Volume Recovered (bbls) 35 BBL
	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
Fitting Failure. An ell on the bottom of the separator washed out. Produced water released under the vessel into unlined containment area. Recovered 35 BW with vacuum truck. Spill volume calculation is included.

State of New Mexico
Oil Conservation Division

Incident ID	nAPP2222753156
District RP	
Facility ID	fAPP2130022003
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? Yes – Release greater than 25 BBL.

If YES, was immediate notice given to the OCD? By whom? To whom? When and by what means (phone, email, etc)?
Yes, by filing a Notice of Release (NOR) on the NMOCD Permitting website on 8/15/2022. The Incident ID listed above was assigned after the NOR was acknowledged by the NMOCD.

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: Bob Hall Title: Environmental Manager

Signature: Bob Hall Date: 8/15/2022

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

OCD Only

Received by: Jocelyn Harimon Date: 08/15/2022

Location Rojo #18 Separator
API #
Spill Date 8/14/2022

Spill Dimensions

ENTER - Length of Spill	21	**feet**
ENTER - Width of Spill	21	**feet**
ENTER - Saturation Depth of Spill	6	**inches**
ENTER - Porosity Factor	0.2	**decimal**

Oil Cut - Well Test / Vessel Throughput or Contents

Oil	0.001
Water	99.999
Calculated Oil Cut	0.00001

Volume Recovered in Truck / Containment

ENTER - Recovered Oil		**BBL**
ENTER - Recovered Water	35	**BBL**

Calculated Values	*calculated*	
Release of Oil in Soil - Unrecovered	0	***BBL***
Release of Water in Soil - Unrecovered	8	***BBL***
Unrecovered Total Release	8	***BBL***

Calculated Values	*calculated*	
Total Release of Oil	0	***BBL***
Total Release of Water	43	***BBL***
Total Release	43	***BBL***

Types of Soil	Porosity Factor
Gravel	0.25
Sand	0.20
Clay/silt/sand Mix	0.15
Clay	0.05
Caliche	0.03
Unknown	0.25

$$\frac{\text{(Length X Width X Depth X 1 ft/12 in) X Porosity}}{5.615\ ft^3 / BBL} \times \text{Oil Cut (or Water Cut)}$$

Rojo 18 ELL
8/14/2022

Incident #nAPP2222753156

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 134191

CONDITIONS

Operator: BTA OIL PRODUCERS, LLC 104 S Pecos Midland, TX 79701	OGRID: 260297
	Action Number: 134191
	Action Type: [C-141] Release Corrective Action (C-141)

CONDITIONS

Created By	Condition	Condition Date
jharimon	None	8/15/2022

State of New Mexico
Oil Conservation Division

Incident ID	nAPP2222753156
District RP	
Facility ID	fAPP2135653071
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?	>106 (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.

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Page 4

State of New Mexico
Oil Conservation Division

Incident ID	nAPP2123047003
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: 5/31/2023

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

Form C-141
Page 6

State of New Mexico
Oil Conservation Division

Incident ID	nAPP2123047003
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: 5/31/2023

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

OCD Only

Received by: Jocelyn Harimon
Date: 06/05/2023

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	nAPP2123047003
District RP	
Facility ID	
Application ID	

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 # *(assigned by OCD)*
Contact mailing address: 104 S. Pecos St., Midland, TX 79701	

Location of Release Source

Latitude: 32.08975 Longitude: -103.56641
(NAD 83 in decimal degrees to 5 decimal places)

Site Name: Rojo 18/19 & 38/39 Tank Battery	Site Type: Tank Battery
Date Release Discovered: 8/17/2021	API# *(if applicable)* Nearest well: Rojo 7811 34-27 Federal #019H API #30-025-44298

Unit Letter	Section	Township	Range	County
E	34	25S	33E	Lea

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

Nature and Volume of Release

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

☒ Crude Oil	Volume Released (bbls) 8 BBL	Volume Recovered (bbls) 6 BBL
☒ Produced Water	Volume Released (bbls) 17 BBL	Volume Recovered (bbls) 14 BBL
	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
Piping Failure.
A piping tee connected under the separator for the Rojo 34-27 Federal #019H washed out and allowed a release of oil and water from the separator onto the caliche pad area surrounding the production equipment. A total of 25 BBL fluid (8 BO + 17 BW) was released. A vacuum truck was used to recover a total of 20 BBL fluid (6 BO + 14 BW).
(See attached spill calculation spreadsheet.)

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State of New Mexico
Oil Conservation Division

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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 spill volume was at least 25 BBL, 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)?
Yes, a Notification of Release was filed via the NMOCD E-Permitting System on 8/18/2021. The release was assigned Incident #

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: Bob Hall Title: Environmental Manager

Signature: Bob Hall Date: 8/18/2021

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

OCD Only

Received by: Ramona Marcus Date: 8/20/2021

NAPP2123047003

Location Rojo 34-27 Fed Com 18/19 & 38/39 Tank Battery
API # 30-025-44298
Spill Date 8/17/2021

Spill Dimensions

ENTER - Length of Spill	45	**feet**
ENTER - Width of Spill	45	**feet**
ENTER - Saturation Depth of Spill	6	**inches**
ENTER - Porosity Factor	0.03	**decimal**

Oil Cut - Well Test / Vessel Throughput or Contents

Oil	0.4
Water	0.6
Calculated Oil Cut	0.4

Volume Recovered in Truck / Containment

ENTER - Recovered Oil	6	**BBL**
ENTER - Recovered Water	14	**BBL**

Calculated Values	*calculated*	
Release of Oil in Soil - Unrecovered	2	***BBL***
Release of Water in Soil - Unrecovered	3	***BBL***
Unrecovered Total Release	5	***BBL***

Calculated Values	*calculated*	
Total Release of Oil	8	***BBL***
Total Release of Water	17	***BBL***
Total Release	25	***BBL***

Types of Soil	Porosity Factor
Gravel	0.25
Sand	0.20
Clay/silt/sand Mix	0.15
Clay	0.05
Caliche	0.03
Unknown	0.25

$$\frac{\text{(Length X Width X Depth X 1 ft/12 in) X Porosity}}{5.615\ ft^3 / BBL} \times \text{Oil Cut (or Water Cut)}$$

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

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

CONDITIONS

Action 43000

CONDITIONS

Operator: BTA OIL PRODUCERS, LLC 104 S Pecos Midland, TX 79701	OGRID: 260297
	Action Number: 43000
	Action Type: [C-141] Release Corrective Action (C-141)

CONDITIONS

Created By	Condition	Condition Date
rmarcus	None	8/20/2021

State of New Mexico
Oil Conservation Division

Incident ID	nAPP2123047003
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?	>106 (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.

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State of New Mexico
Oil Conservation Division

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Printed Name: Kelton Beaird Title: Environmental Manager

Signature: Date: 5/31/2023

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

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Page 6

State of New Mexico
Oil Conservation Division

Incident ID	nAPP2123047003
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Closure

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Printed Name: Kelton Beaird Title: Environmental Manager

Signature: Date: 5/31/2023

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: 08/28/2023

Printed Name: Nelson Velez Title: Environmental Specialist - Adv

District I
1625 N. French Dr., Hobbs, NM 88240
Phone:(575) 393-6161 Fax:(575) 393-0720
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811 S. First St., Artesia, NM 88210
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State of New Mexico
Energy, Minerals and Natural Resources
Oil Conservation Division
1220 S. St Francis Dr.
Santa Fe, NM 87505

CONDITIONS

Action 222867

CONDITIONS

Operator: BTA OIL PRODUCERS, LLC 104 S Pecos Midland, TX 79701	OGRID: 260297
	Action Number: 222867
	Action Type: [C-141] Release Corrective Action (C-141)

CONDITIONS

Created By	Condition	Condition Date
nvelez	None	8/28/2023