



December 14, 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  
Harroun East Tank Battery  
Incident Number nAPP2204151142  
Eddy 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 Harroun East Tank Battery (Site). The purpose of the excavation and soil sampling activities was to address impacts to soil resulting from a flare fire and crude oil release at the Site. Based on the excavation activities and laboratory analytical results from the soil sampling events, BTA is submitting this *Closure Request*, describing remediation that has occurred and requesting closure for Incident Number nAPP2204151142.

**SITE DESCRIPTION AND RELEASE SUMMARY**

The Site is located in Unit O, Section 34, Township 23 South, Range 29 East, in Eddy County, New Mexico (32.28584°, -104.00593°) and is associated with oil and gas exploration and production operations on Federal Land owned by the Bureau of Land Management (BLM).

On February 9, 2022, a supply gas line to a pneumatic controller malfunctioned which caused the oil dump to also malfunction. Approximately 1 barrel (bbl) of crude oil was pushed out of the separator to the flare line where the oil ignited and burned at the flare stack. The crude oil ignited and extinguished itself after reaching the ground, leaving soot around the flare stack. The fire affected the well pad beneath the flare. BTA immediately reported the release to the New Mexico Oil Conservation Division (NMOCD) and submitted a Release Notification Form C-141 (Form C-141) on February 21, 2022. The release was assigned Incident Number nAPP2204151142.

**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 C-03587 POD 2, located approximately 0.87 miles west of the Site. The groundwater well has a reported depth to groundwater of 16 feet bgs and a

BTA Oil Producers, LLC  
Closure Request  
Harroun East Tank Battery

total depth of 77 feet bgs. Ground surface elevation at the groundwater well location is 2,964 feet above mean sea level (amsl), which is approximately 4 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 Salt Lake, located approximately 663 feet northeast of the Site. The Site is greater than 200 feet from a lakebed, sinkhole, or playa lake and greater than 300 feet from an occupied residence, school, hospital, institution, church, or wetland. The Site is greater than 1,000 feet to a freshwater well or spring and is not within a 100-year floodplain or overlying a subsurface mine. The Site is not underlain by unstable geology (medium 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

## ASSESSMENT ACTIVITIES AND LABORATORY ANALYTICAL RESULTS

On May 8, 2023, and October 26, 2023, Ensolum personnel were at the Site to evaluate the release extent based on information provided on the Form C-141 and visual observations. Twelve assessment soil samples (SS01 through SS12) were collected within and around the release area, to assess for the presence or absence of impacted soil and confirm the extent of the release. 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. The release area 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 the Site visits 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-gasoline range organics (GRO) and TPH-diesel range organics (DRO), and TPH-oil range organics (ORO) following EPA Method 8015M/D; and chloride following Standard Method SM4500.0.

Laboratory analytical results for assessment samples SS01 through SS04, SS11, and SS12, collected around the release extent, indicated all COC concentrations were compliant with the Site Closure Criteria and successfully defined the lateral extent of the release. Laboratory analytical results for assessment samples SS08 through SS10, collected within the release area, indicated all COC concentrations were compliant with the Site Closure Criteria. Laboratory analytical results for assessment samples SS05 through SS07, collected within the release area, indicated TPH and/or chloride concentrations exceeded the Site Closure Criteria. Based on laboratory analytical results for assessment samples SS05 through SS07, excavation activities were warranted.

BTA Oil Producers, LLC  
Closure Request  
Harroun East Tank Battery

## EXCAVATION ACTIVITIES AND LABORATORY ANALYTICAL RESULTS

Between June 5, 2023 and December 1, 2023, Ensolum personnel were at the Site to oversee excavation activities based on laboratory analytical results for assessment samples SS05 through SS07. Excavation activities were performed utilizing hand shovels, back-hoe, and hydrovac. To direct excavation activities, soil was screened for VOCs and chloride. The excavation was completed to depths ranging from 1-foot to 3 feet bgs. Photographic documentation of the excavation activities is included in Appendix B.

Following removal of impacted soil, 5-point composite soil samples were collected every 200 square feet from the floor and sidewalls 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. Composite soil samples FS01 through FS04 were collected from the floor of excavation at depths ranging from 1-foot to 3 feet bgs. Composite soil samples SW01 and SW02 were collected from the sidewalls of the excavation at depths ranging from the ground surface to 3 feet bgs. The soil samples were collected, handled, and analyzed following the same procedures as described above.

Laboratory analytical results for excavation floor samples FS02 through FS04 and excavation sidewall samples SW01 and SW02 indicated all COC concentrations were compliant with the Site Closure Criteria. Laboratory analytical results for floor sample FS01 indicated TPH concentrations exceeded the Site Closure Criteria at a depth 1-foot bgs. Additional soil was removed in the vicinity of floor sample FS01 and subsequent sample FS01A, collected at a depth of 1.25 feet bgs, was compliant with the Site Closure Criteria. The excavation extent and excavation soil sample locations are presented on Figure 3. Laboratory analytical results are summarized in Table 1 and the complete laboratory analytical reports are included as Appendix C.

The excavation area measured approximately 770 square feet. A total of approximately 40 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

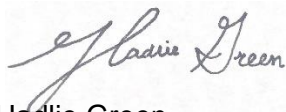
Site assessment and excavation activities were conducted at the Site to address impacted soil resulting from the flare fire and crude oil release at the Site. Laboratory analytical results for the excavation soil samples, collected from the final excavation extents, indicated all COCs were compliant with the Site Closure Criteria. Based on the soil sample laboratory analytical results, no further remediation was required.

Excavation of impacted soil has mitigated impacts at this Site. BTA believes the remedial actions completed are protective of human health, the environment, and groundwater. As such, BTA respectfully requests closure for Incident Number nAPP2204151142. Notifications submitted to the NMOCD are included in Appendix D and the final Form C-141 is included in Appendix E.

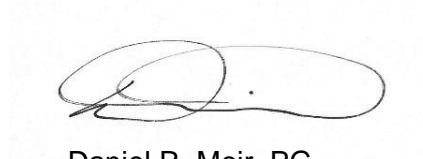
BTA Oil Producers, LLC  
Closure Request  
Harroun East Tank Battery

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

Sincerely,  
**Ensolum, LLC**



Hadlie Green  
Project Geologist



Daniel R. Moir, PG  
Senior Managing Geologist

cc: Kelton Beaird, BTA  
Bureau of Land Management

Appendices:

Figure 1	Site Receptor Map
Figure 2	Assessment 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



FIGURES

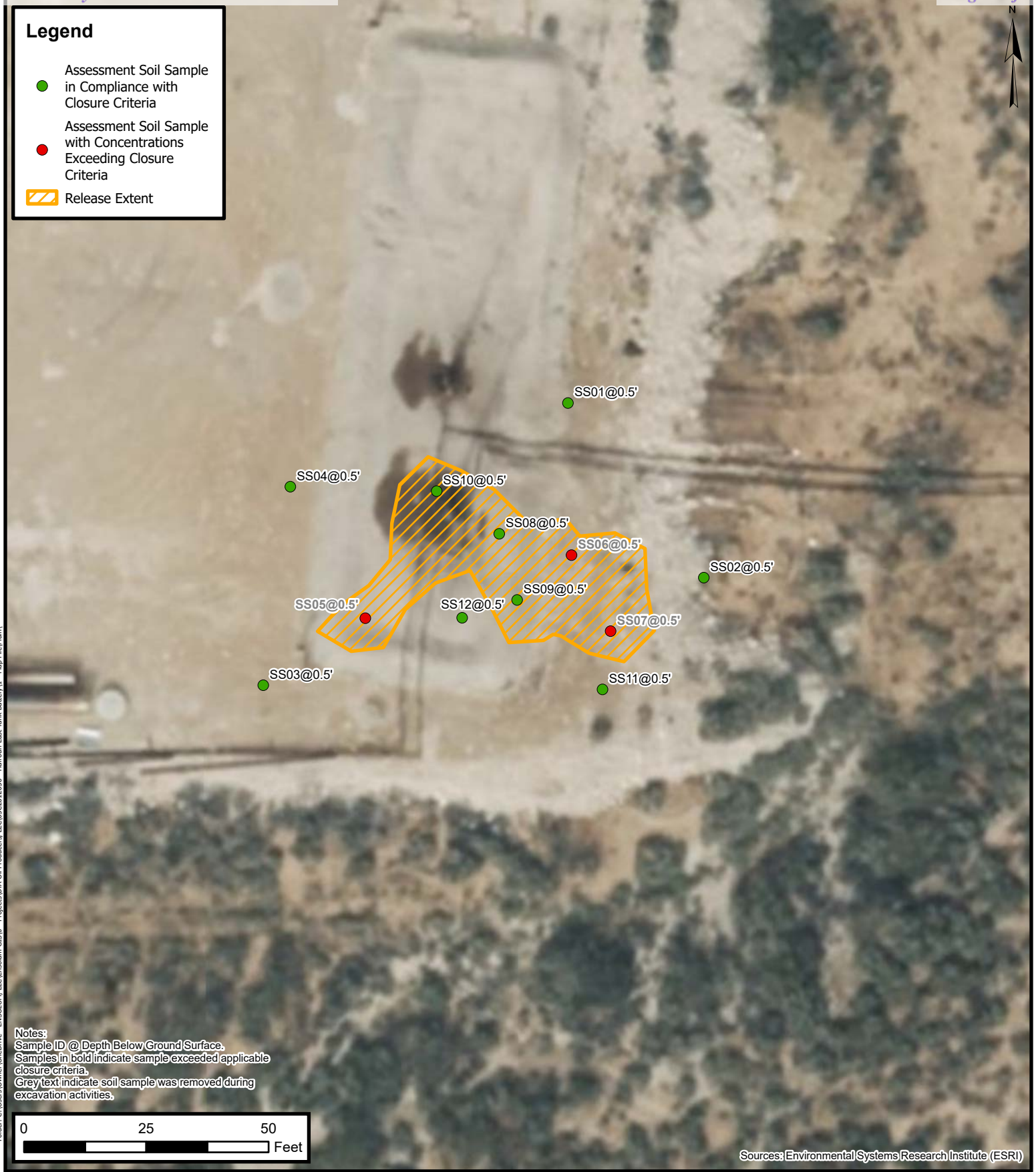






### Legend

- Assessment Soil Sample in Compliance with Closure Criteria
- Assessment Soil Sample with Concentrations Exceeding Closure Criteria
- ▨ Release Extent



## Assessment Soil Sample Locations

BTA Oil Producers, LLC  
Harroun East Tank Battery  
Incident Number: nAPP2204151142  
Unit O, Sec 34, T23S R29E  
Eddy County, New Mexico

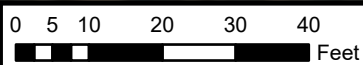
FIGURE  
2

**Legend**

- Excavation Floor Sample in Compliance with Closure Criteria
- ▲ Excavation Sidewall Sample in Compliance with Closure Criteria
- ▨ Excavation Extent



Notes:  
 Sample ID @ Depth Below Ground Surface.  
 Samples in bold indicate sample exceeded applicable closure criteria.  
 Grey text indicate soil sample was removed during excavation activities.



Sources: Environmental Systems Research Institute (ESRI)

**Excavation Soil Sample Locations**

BTA Oil Producers, LLC  
 Harroun East Tank Battery  
 Incident Number: nAPP2204151142  
 Unit O, Sec 34, T23S R29E  
 Eddy County, New Mexico

**FIGURE****3**





TABLES

**TABLE I**  
**SOIL SAMPLE ANALYTICAL RESULTS**  
 Harroun East Tank Battery  
 BTA Oil Producers, LLC  
 Eddy 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
Assessment Soil Samples										
SS01	05/08/2023	0.5	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	144
SS02	05/08/2023	0.5	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	64.0
SS03	05/08/2023	0.5	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	64.0
SS04	05/08/2023	0.5	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	64.0
SS05	05/08/2023	0.5	<0.050	<0.300	<10.0	613	160	613	773	5,600
SS06	05/08/2023	0.5	<0.050	<0.300	<10.0	4,180	812	4,180	4,992	144
SS07	05/08/2023	0.5	<0.050	<0.300	<10.0	22,900	4,870	22,900	27,770	96.0
SS08	10/26/2023	0.5	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	48.0
SS09	10/26/2023	0.5	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	96.0
SS10	10/26/2023	0.5	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	96.0
SS11	10/26/2023	0.5	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	96.0
SS12	10/26/2023	0.5	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	32.0
Excavation Soil Samples										
FS01	06/05/2023	1	<0.050	<0.300	<10.0	86.0	19.2	86.0	105	480
FS01A	12/01/2023	1.25	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	32.0
FS02	06/05/2023	1	<0.050	<0.300	<10.0	14.6	<10.0	14.6	14.6	272
FS03	06/05/2023	1	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	256
FS04	12/01/2023	3	<0.050	<0.300	<10.0	43.3	<10.0	43.3	43.3	320
SW01	12/01/2023	0-3	<0.050	<0.300	<10.0	90.2	<10.0	90.2	90.2	400
SW02	12/01/2023	0-1	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	96.0

Notes:

bgs: below ground surface

mg/kg: milligrams per kilogram

NMOCD: New Mexico Oil Conservation Division

NMAC: New Mexico Administrative Code

NE: Not Established

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 that has been excavated.



## APPENDIX A

### Referenced Well Records

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# 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)	
<b>Well Tag</b>	<b>POD Number</b>	<b>Q64</b>	<b>Q16</b>	<b>Q4</b>	<b>Sec</b>	<b>Tws</b>	<b>Rng</b>	<b>X</b>	<b>Y</b>
C	03587 POD2	1	2	4	19	23S	29E	592213	3572706

---

x

<b>Driller License:</b>	1348	<b>Driller Company:</b>	TAYLOR WATER WELL SERVICE	
<b>Driller Name:</b>	TAYLOR, CLINTON E. (LD)			
<b>Drill Start Date:</b>	04/11/2013	<b>Drill Finish Date:</b>	04/13/2013	<b>Plug Date:</b>
<b>Log File Date:</b>	05/07/2013	<b>PCW Rcv Date:</b>		<b>Source:</b> Shallow
<b>Pump Type:</b>		<b>Pipe Discharge Size:</b>		<b>Estimated Yield:</b> 20 GPM
<b>Casing Size:</b>	4.00	<b>Depth Well:</b>	77 feet	<b>Depth Water:</b> 16 feet

---

x

<b>Water Bearing Stratifications:</b>	<b>Top</b>	<b>Bottom</b>	<b>Description</b>
	61	65	Sandstone/Gravel/Conglomerate

---

x

<b>Casing Perforations:</b>	<b>Top</b>	<b>Bottom</b>
	61	71

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x

The data is furnished by the NMOSE/ISC and is accepted by the recipient with the expressed understanding that the OSE/ISC make no warranties, expressed or implied, concerning the accuracy, completeness, reliability, usability, or suitability for any particular purpose of the data.

12/6/23 9:12 AM

POINT OF DIVERSION SUMMARY



# WELL RECORD & LOG

OFFICE OF THE STATE ENGINEER

[www.ose.state.nm.us](http://www.ose.state.nm.us)

STATE ENGINEER OFFICE  
ROSWELL, NEW MEXICO

1. GENERAL AND WELL LOCATION	OSE POD NUMBER (WELL NUMBER) C-3587 POD 2 LG 32				OSE FILE NUMBER(S) <b>101 MAY 7 1 P 2 21</b>			
	WELL OWNER NAME(S) Mosaic Potash Carlsbad, Inc.				PHONE (OPTIONAL) 575-628-6450			
	WELL OWNER MAILING ADDRESS Box 71				CITY Carlsbad		STATE NM	ZIP 88221
	WELL LOCATION (FROM GPS)	DEGREES LATITUDE 32	MINUTES 17	SECONDS 14.4 N	* ACCURACY REQUIRED: ONE TENTH OF A SECOND			
	LONGITUDE 104	01	14.5 W	* DATUM REQUIRED: WGS 84				
DESCRIPTION RELATING WELL LOCATION TO STREET ADDRESS AND COMMON LANDMARKS - PLSS (SECTION, TOWNSHIP, RANGE) WHERE AVAILABLE Section 19 T23S R29E								
2. DRILLING & CASING INFORMATION	LICENSE NUMBER WD-1348		NAME OF LICENSED DRILLER Clinton E. Taylor			NAME OF WELL DRILLING COMPANY Taylor Water Well Service		
	DRILLING STARTED 4/11/13	DRILLING ENDED 4/13/13	DEPTH OF COMPLETED WELL (FT) 71	BORE HOLE DEPTH (FT) 77	DEPTH WATER FIRST ENCOUNTERED (FT) 61			
	COMPLETED WELL IS: <input type="radio"/> ARTESIAN <input type="radio"/> DRY HOLE <input checked="" type="radio"/> SHALLOW (UNCONFINED)				STATIC WATER LEVEL IN COMPLETED WELL (FT) 16			
	DRILLING FLUID: <input checked="" type="radio"/> AIR <input type="radio"/> MUD ADDITIVES - SPECIFY:							
	DRILLING METHOD: <input checked="" type="radio"/> ROTARY <input type="radio"/> HAMMER <input type="radio"/> CABLE TOOL <input type="radio"/> OTHER - SPECIFY:							
	DEPTH (feet bgl)		BORE HOLE DIAM (inches)	CASING MATERIAL AND/OR GRADE (include each casing string, and note sections of screen)	CASING CONNECTION TYPE	CASING INSIDE DIAM. (inches)	CASING WALL THICKNESS (inches)	SLOT SIZE (inches)
	FROM	TO						
	+3	61	7 7/8	PVC Flush Wall	Screw	4	SCH 40	
	61	71	7 7/8	PVC Flush Wall	Screw	4	SCH 40	.010
3. ANNULAR MATERIAL	DEPTH (feet bgl)		BORE HOLE DIAM. (inches)	LIST ANNULAR SEAL MATERIAL AND GRAVEL PACK SIZE-RANGE BY INTERVAL	AMOUNT (cubic feet)	METHOD OF PLACEMENT		
	FROM	TO						
	0	49	7 7/8	20% Bentonite Grout	4 Sacks	Tremie		
	49	55	7 7/8	Bentonite Chips	2 Sacks	Pour		
	55	71	7 7/8	Silica Sand Pack	7 Sacks	Pour		

FOR OSE INTERNAL USE

WR-20 WELL RECORD & LOG (Version 06/08/2012)

FILE NUMBER <b>C-3587</b>	POD NUMBER <b>2</b>	TRN NUMBER <b>517338</b>
LOCATION <b>Monitor</b>	<b>235.29E.19.421</b>	

PAGE 1 OF 2

#### 4. HYDROGEOLOGIC LOG OF WELL

## 5. TEST; RIG SUPERVISION

## 6. SIGNATURE

FOR USE INTERNAL USE		WR-20 WELL RECORD & LOG (Version 06/08/2012)	
FILE NUMBER	C-3587	POD NUMBER	2
LOCATION		TRN NUMBER	517338
			PAGE 2 OF 2





USGS Home  
Contact USGS  
Search USGS

National Water Information System: Web Interface

USGS Water Resources

Data Category:  
Groundwater

Geographic Area:  
New Mexico

GO

Click to hideNews Bulletins

- Explore the *NEW* [USGS National Water Dashboard](#) interactive map to access real-time water data from over 13,500 stations nationwide.
- [Full News](#)

Groundwater levels for New Mexico

Click to hide state-specific text

Important: [Next Generation Monitoring Location Page](#)

Search Results -- 1 sites found

Agency code = usgs  
site\_no list =

- 321615104014601

Minimum number of levels = 1  
[Save file of selected sites](#) to local disk for future upload

USGS 321615104014601 23S.29E.30.331322

Eddy County, New Mexico  
Latitude 32°16'15", Longitude 104°01'46" NAD27  
Land-surface elevation 2,962 feet above NAVD88  
The depth of the well is 89 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

<a href="#">Table of data</a>
<a href="#">Tab-separated data</a>
<a href="#">Graph of data</a>
<a href="#">Reselect period</a>

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
1954-11-08			D62610		2924.82	NGVD29	1		Z	
1954-11-08			D62611		2926.38	NAVD88	1		Z	
1954-11-08			D72019	35.62			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

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

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[Accessibility](#)   [FOIA](#)   [Privacy](#)   [Policies and Notices](#)  
[U.S. Department of the Interior](#) | [U.S. Geological Survey](#)  
**Title: Groundwater for New Mexico: Water Levels**  
**URL: <https://nwis.waterdata.usgs.gov/nm/nwis/gwlevels?>**



Page Contact Information: [New Mexico Water Data Maintainer](#)  
Page Last Modified: 2023-12-06 11:36:16 EST  
0.27 0.23 nadww01



## APPENDIX B

### Photographic Log

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### Photographic Log

BTA Oil Producers, LLC

Harroun East Tank Battery, Flare

Incident Number: nAPP2204151142



Photograph: 1                      Date: 5/5/2023  
Description: Soil staining during initial assessment  
View: South



Photograph: 2                      Date: 6/5/2023  
Description: Excavation activities  
View: Southwest



Photograph: 3                      Date: 6/5/2023  
Description: Excavation activities  
View: East



Photograph: 4                      Date: 12/1/2023  
Description: Excavation/Hydrovac activities  
View: Northeast



## APPENDIX C

### Laboratory Analytical Reports & Chain of Custody Documentation

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

May 11, 2023

HADLIE GREEN

ENSOLUM

3122 NATIONAL PARKS HWY

CARLSBAD, NM 88220

RE: HARROUN E TANK BATTERY FLARE

Enclosed are the results of analyses for samples received by the laboratory on 05/08/23 14:27.

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](http://www.tceq.texas.gov/field/qa/lab_accred_certif.html).

Cardinal Laboratories is accredited 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,

A handwritten signature in black ink that reads "Celey D. Keene". The signature is written in a cursive style with a large, stylized 'C' and 'K'.

Celey D. Keene

Lab Director/Quality Manager





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: 05/08/2023  
Reported: 05/11/2023  
Project Name: HARROUN E TANK BATTERY FLARE  
Project Number: 03C2012036  
Project Location: BTA - ( 32.286504-104.00593 )

Sampling Date: 05/05/2023  
Sampling Type: Soil  
Sampling Condition: Cool & Intact  
Sample Received By: Shalyn Rodriguez

**Sample ID: SS 01 @ 0.5' (H232263-01)**

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	05/10/2023	ND	1.99	99.7	2.00	15.7	
Toluene*	<0.050	0.050	05/10/2023	ND	1.94	97.0	2.00	14.3	
Ethylbenzene*	<0.050	0.050	05/10/2023	ND	2.03	102	2.00	13.9	
Total Xylenes*	<0.150	0.150	05/10/2023	ND	5.97	99.5	6.00	14.1	
Total BTEX	<0.300	0.300	05/10/2023	ND					

Surrogate: 4-Bromofluorobenzene (PID) 110 % 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	144	16.0	05/09/2023	ND	416	104	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	05/09/2023	ND	163	81.6	200	5.85	
DRO >C10-C28*	<10.0	10.0	05/09/2023	ND	186	92.9	200	7.87	
EXT DRO >C28-C36	<10.0	10.0	05/09/2023	ND					

Surrogate: 1-Chlorooctane 85.2 % 48.2-134

Surrogate: 1-Chlorooctadecane 104 % 49.1-148

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\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager



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: 05/08/2023  
Reported: 05/11/2023  
Project Name: HARROUN E TANK BATTERY FLARE  
Project Number: 03C2012036  
Project Location: BTA - ( 32.286504-104.00593 )

Sampling Date: 05/05/2023  
Sampling Type: Soil  
Sampling Condition: Cool & Intact  
Sample Received By: Shalyn Rodriguez

**Sample ID: SS 02 @ 0.5' (H232263-02)**

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	05/10/2023	ND	1.99	99.7	2.00	15.7		
Toluene*	<0.050	0.050	05/10/2023	ND	1.94	97.0	2.00	14.3		
Ethylbenzene*	<0.050	0.050	05/10/2023	ND	2.03	102	2.00	13.9		
Total Xylenes*	<0.150	0.150	05/10/2023	ND	5.97	99.5	6.00	14.1		
Total BTEX	<0.300	0.300	05/10/2023	ND						

Surrogate: 4-Bromofluorobenzene (PID) 117 % 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	05/09/2023	ND	416	104	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	05/09/2023	ND	163	81.6	200	5.85	
DRO >C10-C28*	<10.0	10.0	05/09/2023	ND	186	92.9	200	7.87	
EXT DRO >C28-C36	<10.0	10.0	05/09/2023	ND					

Surrogate: 1-Chlorooctane 85.2 % 48.2-134

Surrogate: 1-Chlorooctadecane 107 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

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

Received: 05/08/2023  
Reported: 05/11/2023  
Project Name: HARROUN E TANK BATTERY FLARE  
Project Number: 03C2012036  
Project Location: BTA - ( 32.286504-104.00593 )

Sampling Date: 05/05/2023  
Sampling Type: Soil  
Sampling Condition: Cool & Intact  
Sample Received By: Shalyn Rodriguez

**Sample ID: SS 03 @ 0.5' (H232263-03)**

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	05/10/2023	ND	1.99	99.7	2.00	15.7		
Toluene*	<0.050	0.050	05/10/2023	ND	1.94	97.0	2.00	14.3		
Ethylbenzene*	<0.050	0.050	05/10/2023	ND	2.03	102	2.00	13.9		
Total Xylenes*	<0.150	0.150	05/10/2023	ND	5.97	99.5	6.00	14.1		
Total BTEx	<0.300	0.300	05/10/2023	ND						

Surrogate: 4-Bromofluorobenzene (PID) 109 % 71.5-134

Chloride, SM4500CI-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	05/09/2023	ND	416	104	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	05/09/2023	ND	163	81.6	200	5.85	
DRO >C10-C28*	<10.0	10.0	05/09/2023	ND	186	92.9	200	7.87	
EXT DRO >C28-C36	<10.0	10.0	05/09/2023	ND					

Surrogate: 1-Chlorooctane 82.4 % 48.2-134

Surrogate: 1-Chlorooctadecane 102 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

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

Received: 05/08/2023  
Reported: 05/11/2023  
Project Name: HARROUN E TANK BATTERY FLARE  
Project Number: 03C2012036  
Project Location: BTA - ( 32.286504-104.00593 )

Sampling Date: 05/05/2023  
Sampling Type: Soil  
Sampling Condition: Cool & Intact  
Sample Received By: Shalyn Rodriguez

**Sample ID: SS 04 @ 0.5' (H232263-04)**

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	05/10/2023	ND	1.99	99.7	2.00	15.7		
Toluene*	<0.050	0.050	05/10/2023	ND	1.94	97.0	2.00	14.3		
Ethylbenzene*	<0.050	0.050	05/10/2023	ND	2.03	102	2.00	13.9		
Total Xylenes*	<0.150	0.150	05/10/2023	ND	5.97	99.5	6.00	14.1		
Total BTEx	<0.300	0.300	05/10/2023	ND						

Surrogate: 4-Bromofluorobenzene (PID) 112 % 71.5-134

Chloride, SM4500CI-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	05/09/2023	ND	416	104	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	05/09/2023	ND	163	81.6	200	5.85	
DRO >C10-C28*	<10.0	10.0	05/09/2023	ND	186	92.9	200	7.87	
EXT DRO >C28-C36	<10.0	10.0	05/09/2023	ND					

Surrogate: 1-Chlorooctane 85.8 % 48.2-134

Surrogate: 1-Chlorooctadecane 108 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager





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**Analytical Results For:**

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

Received: 05/08/2023  
Reported: 05/11/2023  
Project Name: HARROUN E TANK BATTERY FLARE  
Project Number: 03C2012036  
Project Location: BTA - ( 32.286504-104.00593 )

Sampling Date: 05/05/2023  
Sampling Type: Soil  
Sampling Condition: Cool & Intact  
Sample Received By: Shalyn Rodriguez

**Sample ID: SS 05 @ 0.5' (H232263-05)**

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	05/10/2023	ND	1.99	99.7	2.00	15.7		
Toluene*	<0.050	0.050	05/10/2023	ND	1.94	97.0	2.00	14.3		
Ethylbenzene*	<0.050	0.050	05/10/2023	ND	2.03	102	2.00	13.9		
Total Xylenes*	<0.150	0.150	05/10/2023	ND	5.97	99.5	6.00	14.1		
Total BTEx	<0.300	0.300	05/10/2023	ND						

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

Chloride, SM4500CI-B		mg/kg		Analyzed By: GM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	5600	16.0	05/09/2023	ND	416	104	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	05/09/2023	ND	163	81.6	200	5.85	
DRO >C10-C28*	613	10.0	05/09/2023	ND	186	92.9	200	7.87	
EXT DRO >C28-C36	160	10.0	05/09/2023	ND					

Surrogate: 1-Chlorooctane 87.1 % 48.2-134

Surrogate: 1-Chlorooctadecane 125 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

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

Received: 05/08/2023  
Reported: 05/11/2023  
Project Name: HARROUN E TANK BATTERY FLARE  
Project Number: 03C2012036  
Project Location: BTA - ( 32.286504-104.00593 )

Sampling Date: 05/05/2023  
Sampling Type: Soil  
Sampling Condition: Cool & Intact  
Sample Received By: Shalyn Rodriguez

**Sample ID: SS 06 @ 0.5' (H232263-06)**

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	05/09/2023	ND	2.00	99.9	2.00	0.718		
Toluene*	<0.050	0.050	05/09/2023	ND	2.03	102	2.00	0.266		
Ethylbenzene*	<0.050	0.050	05/09/2023	ND	1.97	98.4	2.00	1.51		
Total Xylenes*	<0.150	0.150	05/09/2023	ND	6.11	102	6.00	1.36		
Total BTEX	<0.300	0.300	05/09/2023	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	144	16.0	05/09/2023	ND	432	108	400	3.77	QM-07	

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	05/09/2023	ND	163	81.6	200	5.85	
DRO >C10-C28*	4180	10.0	05/09/2023	ND	186	92.9	200	7.87	
EXT DRO >C28-C36	812	10.0	05/09/2023	ND					

Surrogate: 1-Chlorooctane 83.6 % 48.2-134

Surrogate: 1-Chlorooctadecane 121 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

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

Received: 05/08/2023  
Reported: 05/11/2023  
Project Name: HARROUN E TANK BATTERY FLARE  
Project Number: 03C2012036  
Project Location: BTA - ( 32.286504-104.00593 )

Sampling Date: 05/05/2023  
Sampling Type: Soil  
Sampling Condition: Cool & Intact  
Sample Received By: Shalyn Rodriguez

**Sample ID: SS 07 @ 0.5' (H232263-07)**

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	05/09/2023	ND	2.00	99.9	2.00	0.718		
Toluene*	<0.050	0.050	05/09/2023	ND	2.03	102	2.00	0.266		
Ethylbenzene*	<0.050	0.050	05/09/2023	ND	1.97	98.4	2.00	1.51		
Total Xylenes*	<0.150	0.150	05/09/2023	ND	6.11	102	6.00	1.36		
Total BTEx	<0.300	0.300	05/09/2023	ND						

Surrogate: 4-Bromofluorobenzene (PID) 112 % 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	96.0	16.0	05/09/2023	ND	432	108	400	3.77		

TPH 8015M		mg/kg		Analyzed By: MS				S-06	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<100	100	05/10/2023	ND	163	81.6	200	5.85	
DRO >C10-C28*	22900	100	05/10/2023	ND	186	92.9	200	7.87	
EXT DRO >C28-C36	4870	100	05/10/2023	ND					

Surrogate: 1-Chlorooctane 140 % 48.2-134

Surrogate: 1-Chlorooctadecane 792 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager

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### 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.
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

---

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A handwritten signature in black ink, appearing to read "Celey D. Keene".

---

Celey D. Keene, Lab Director/Quality Manager



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

# CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

Company Name: <u>Cardinal, LLC</u>		P.O. #:		BILL TO		ANALYSIS REQUEST	
Project Manager: <u>Holly Greer</u>		Company: <u>BITA OIL</u>					
Address: <u>8122 N. 1st Street</u>		Attn: <u>Kevin Jones</u>					
City: <u>Las Vegas</u>		Address: <u>1245 West</u>					
State: <u>NM</u> Zip: <u>88220</u>		City: <u>Midland</u>					
Phone #: <u>432-557-5885</u> Fax #: <u></u>		State: <u>TX</u> Zip: <u>79701</u>					
Project #: <u>18C201286</u> Project Owner: <u>BITA</u>		Phone #: <u>432-812-1223</u>					
Project Name: <u>Houma &amp; Tank Battery Fire</u>		Fax #:					
Project Location: <u>9228504-104,0593</u>		PRESERV.					
Sampler Name: <u>William Falconer</u>		SAMPLING					
FOR LAB USE ONLY							
Lab I.D.		Sample I.D.					
<u>H333263</u> 1 6501 @.5' 2 6502 @.5' 3 6503 @.5' 4 6504 @.5' 5 6505 @.5' 6 6506 @.5' 7 6507 @.5'		(G)RAB OR (C)OMP. # CONTAINERS GROUNDWATER WASTEWATER SOIL OIL SLUDGE OTHER : ACID/BASE: ICE / COOL OTHER :		DATE		TIME	
		C 1		5/23		1405	
				5/11		1410	
				5/11		1415	
				5/11		1420	
				5/11		1425	
				5/11		1430	
				5/11		1435	
				5/11		1440	
				5/11		1445	
				5/11		1450	
				5/11		1455	
				5/11		1500	
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				5/11		1555	
				5/11		1600	
				5/11		1605	
				5/11		1610	
				5/11		1615	
				5/11		1620	
				5/11		1625	
				5/11		1630	
				5/11		1635	
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				5/11		1650	
				5/11		1655	
				5/11		1700	
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				5/11		1925	
				5/11		1930	
				5/11		1935	
				5/11		1940	
				5/11		1945	
				5/11		1950	
				5/11		1955	
				5/11		2000	
				5/11		2005	
				5/11		2010	
				5/11		2015	
				5/11		2020	
				5/11		2025	
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				5/11		2105	
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				5/11		2115	
				5/11		2120	
				5/11		2125	
				5/11		2130	
				5/11		2135	
				5/11		2140	
				5/11		2145	
				5/11		2150	
				5/11		2155	
				5/11		2200	
				5/11		2205	
				5/11		2210	
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				5/11		2240	
				5/11		2245	
				5/11		2250	
				5/11		2255	
				5/11		2300	
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				5/11		2310	
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				5/11		3010	
				5/11		3015	
				5/11		3020	
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				5/11		3100	
				5/11		3105	
				5/11		3110	
				5/11		3115	
				5/11		3120	
				5/11		3125	
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				5/11		3150	
				5/11		3155	
				5/11		3200	
				5/11		3205	
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				5/11		3240	
				5/11		3245	
				5/11		3250	
				5/11		3255	
				5/11			





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

June 14, 2023

HADLIE GREEN

ENSOLUM

3122 NATIONAL PARKS HWY

CARLSBAD, NM 88220

RE: HARROUN E TANK BATTERY FLARE

Enclosed are the results of analyses for samples received by the laboratory on 06/07/23 14:20.

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](http://www.tceq.texas.gov/field/qa/lab_accred_certif.html).

Cardinal Laboratories is accredited 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,

A handwritten signature in black ink that reads "Celey D. Keene". The signature is written in a cursive style with a large, stylized 'C' and 'K'.

Celey D. Keene

Lab Director/Quality Manager



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  
Reported: 06/14/2023  
Project Name: HARROUN E TANK BATTERY FLARE  
Project Number: 03C2012036  
Project Location: BTA ( 32.28584 - 104.00593 )

Sampling Date: 06/05/2023  
Sampling Type: Soil  
Sampling Condition: Cool & Intact  
Sample Received By: Shalyn Rodriguez

**Sample ID: FS 01 1' (H232897-01)**

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	06/09/2023	ND	2.22	111	2.00	1.28	
Toluene*	<0.050	0.050	06/09/2023	ND	2.21	111	2.00	0.322	
Ethylbenzene*	<0.050	0.050	06/09/2023	ND	2.26	113	2.00	1.27	
Total Xylenes*	<0.150	0.150	06/09/2023	ND	6.68	111	6.00	1.15	
Total BTEX	<0.300	0.300	06/09/2023	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	480	16.0	06/08/2023	ND	400	100	400	3.92	

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	06/08/2023	ND	205	103	200	19.8	
DRO >C10-C28*	86.0	10.0	06/08/2023	ND	205	103	200	17.3	
EXT DRO >C28-C36	19.2	10.0	06/08/2023	ND					

Surrogate: 1-Chlorooctane 112 % 48.2-134

Surrogate: 1-Chlorooctadecane 130 % 49.1-148

Cardinal Laboratories

\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

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

Received: 06/07/2023  
Reported: 06/14/2023  
Project Name: HARROUN E TANK BATTERY FLARE  
Project Number: 03C2012036  
Project Location: BTA ( 32.28584 - 104.00593 )

Sampling Date: 06/05/2023  
Sampling Type: Soil  
Sampling Condition: Cool & Intact  
Sample Received By: Shalyn Rodriguez

**Sample ID: FS 02 1' (H232897-02)**

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	06/09/2023	ND	2.19	110	2.00	6.15	
Toluene*	<0.050	0.050	06/09/2023	ND	2.26	113	2.00	5.87	
Ethylbenzene*	<0.050	0.050	06/09/2023	ND	2.14	107	2.00	4.65	
Total Xylenes*	<0.150	0.150	06/09/2023	ND	6.65	111	6.00	4.62	
Total BTEX	<0.300	0.300	06/09/2023	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	272	16.0	06/08/2023	ND	400	100	400	3.92		

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	06/08/2023	ND	209	105	200	2.55	
DRO >C10-C28*	14.6	10.0	06/08/2023	ND	194	96.9	200	3.56	
EXT DRO >C28-C36	<10.0	10.0	06/08/2023	ND					

Surrogate: 1-Chlorooctane 112 % 48.2-134

Surrogate: 1-Chlorooctadecane 109 % 49.1-148

Cardinal Laboratories

\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

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

Received: 06/07/2023  
Reported: 06/14/2023  
Project Name: HARROUN E TANK BATTERY FLARE  
Project Number: 03C2012036  
Project Location: BTA ( 32.28584 - 104.00593 )

Sampling Date: 06/05/2023  
Sampling Type: Soil  
Sampling Condition: Cool & Intact  
Sample Received By: Shalyn Rodriguez

**Sample ID: FS 03 1' (H232897-03)**

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	06/09/2023	ND	2.19	110	2.00	6.15	
Toluene*	<0.050	0.050	06/09/2023	ND	2.26	113	2.00	5.87	
Ethylbenzene*	<0.050	0.050	06/09/2023	ND	2.14	107	2.00	4.65	
Total Xylenes*	<0.150	0.150	06/09/2023	ND	6.65	111	6.00	4.62	
Total BTEx	<0.300	0.300	06/09/2023	ND					

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

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	256	16.0	06/08/2023	ND	400	100	400	3.92		

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	06/09/2023	ND	209	105	200	2.55	
DRO >C10-C28*	<10.0	10.0	06/09/2023	ND	194	96.9	200	3.56	
EXT DRO >C28-C36	<10.0	10.0	06/09/2023	ND					

Surrogate: 1-Chlorooctane 110 % 48.2-134

Surrogate: 1-Chlorooctadecane 110 % 49.1-148

Cardinal Laboratories

\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager



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### Notes and Definitions

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

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\*=Accredited Analyte

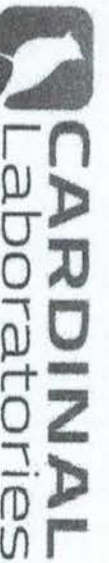
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A handwritten signature in black ink, appearing to read "Celey D. Keene".

---

Celey D. Keene, Lab Director/Quality Manager





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

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

Company Name: Ensolum, LLC		P.O. #:		ANALYSIS REQUEST	
Project Manager: Nadie Green		Company: BTA Oil			
Address: 3122 National Parks Hwy		Attn: Kelton Beard			
City: Corliss		Address: 1045 S. Pecos St			
Phone #: 432-557-8895		State: NM Zip: 88220			
Project #: 03C2012036		City: Midland			
Project Owner: Hargrove East Tank Battery		State: TX Zip: 79701			
Project Location: 32.28584-104.00593		Phone #:			
Sampler Name: Dmitry Nikolaev		Fax #:			
FOR LAB USE ONLY					
Lab I.D.	Sample I.D.	Depth (feet)	(G)RAB OR (C)OMP.	# CONTAINERS	MATRIX
1133897	FS01	1'		1	GROUNDWATER
	FS02				WASTEWATER
3	FS03	↓		↓	SOIL
					OIL
					SLUDGE
					OTHER:
					ACID/BASE:
					ICE / COOL
					OTHER:
					DATE
					TIME
					BTX
					TPH
					CHLORIDES
PLEASE NOTE: Liability and Damages. Cardinal's liability and clients exclusive remedy for any claim arising whether based in contract or tort, shall be limited to the amount paid by the client for the analysis. 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 interruption, loss of time, 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: [Signature]		Received By: [Signature]		Verbal Result: <input type="checkbox"/> Yes <input type="checkbox"/> No Add'l Phone #:	
Relinquished Date: 4/23/20		Received Date: 4/23/20		All Results are emailed. Please provide Email address: hgreen@ensolum.com	
Relinquished Time: 14:00		Received Time: 14:00		REMARKS:	
Delivered By: (Circle One)		Observed Temp. °C		Turnaround Time: Standard <input checked="" type="checkbox"/> Rush <input type="checkbox"/>	
Sample - UPS - Bus - Other:		Corrected Temp. °C		Thermometer ID #113	
		-0.2°C		Correction Factor -0.5°C	
		-0.8°C			
				Bacteria (only) Sample Condition	
				Cool Intact <input checked="" type="checkbox"/>	
				Yes <input type="checkbox"/> No <input type="checkbox"/>	
				Observed Temp. °C	
				Corrected Temp. °C	





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

October 18, 2023

HADLIE GREEN

ENSOLUM

3122 NATIONAL PARKS HWY

CARLSBAD, NM 88220

RE: HARROUN E TANK BATTERY FLARE

Enclosed are the results of analyses for samples received by the laboratory on 10/12/23 11:15.

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](http://www.tceq.texas.gov/field/qa/lab_accred_certif.html).

Cardinal Laboratories is accredited 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,

A handwritten signature in black ink that reads "Celey D. Keene". The signature is written in a cursive style with a large, stylized 'C' and 'K'.

Celey D. Keene

Lab Director/Quality Manager



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:	10/12/2023	Sampling Date:	10/12/2023
Reported:	10/18/2023	Sampling Type:	Soil
Project Name:	HARROUN E TANK BATTERY FLARE	Sampling Condition:	Cool & Intact
Project Number:	03C2012036	Sample Received By:	Tamara Oldaker
Project Location:	BTA ( 32.28584 - 104.00593 )		

**Sample ID: FS 04 @ 0.5' (H235575-01)**

BTX 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	10/14/2023	ND	2.02	101	2.00	4.73	
Toluene*	<0.050	0.050	10/14/2023	ND	2.08	104	2.00	5.10	
Ethylbenzene*	<0.050	0.050	10/14/2023	ND	2.12	106	2.00	5.41	
<b>Total Xylenes*</b>	<b>0.248</b>	0.150	10/14/2023	ND	6.36	106	6.00	5.76	
Total BTX	<0.300	0.300	10/14/2023	ND					

Surrogate: 4-Bromofluorobenzene (PID) 109 % 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
<b>Chloride</b>	<b>32.0</b>	16.0	10/13/2023	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
<b>GRO C6-C10*</b>	<b>17.7</b>	10.0	10/13/2023	ND	176	87.8	200	3.35	
<b>DRO &gt;C10-C28*</b>	<b>4770</b>	10.0	10/13/2023	ND	207	104	200	2.01	
<b>EXT DRO &gt;C28-C36</b>	<b>1200</b>	10.0	10/13/2023	ND					

Surrogate: 1-Chlorooctane 77.1 % 48.2-134

Surrogate: 1-Chlorooctadecane 118 % 49.1-148

Cardinal Laboratories

\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

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

Received: 10/12/2023  
Reported: 10/18/2023  
Project Name: HARROUN E TANK BATTERY FLARE  
Project Number: 03C2012036  
Project Location: BTA ( 32.28584 - 104.00593 )

Sampling Date: 10/12/2023  
Sampling Type: Soil  
Sampling Condition: Cool & Intact  
Sample Received By: Tamara Oldaker

**Sample ID: FS 05 @ 0.5' (H235575-02)**

BTEx 8021B		mg/kg		Analyzed By: MS				S-04	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	10/14/2023	ND	2.02	101	2.00	4.73	
Toluene*	<0.050	0.050	10/14/2023	ND	2.08	104	2.00	5.10	
Ethylbenzene*	<0.050	0.050	10/14/2023	ND	2.12	106	2.00	5.41	GC-NC
Total Xylenes*	<0.150	0.150	10/14/2023	ND	6.36	106	6.00	5.76	
Total BTEx	<0.300	0.300	10/14/2023	ND					

Surrogate: 4-Bromofluorobenzene (PID) 147 % 71.5-134

Chloride, SM4500CI-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	10/13/2023	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*	19.1	10.0	10/13/2023	ND	176	87.8	200	3.35	
DRO >C10-C28*	5640	10.0	10/13/2023	ND	207	104	200	2.01	
EXT DRO >C28-C36	1400	10.0	10/13/2023	ND					

Surrogate: 1-Chlorooctane 84.9 % 48.2-134

Surrogate: 1-Chlorooctadecane 126 % 49.1-148

Cardinal Laboratories

\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager



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### Notes and Definitions

S-04	The surrogate recovery for this sample is outside of established control limits due to a sample matrix effect.
QM-07	The spike recovery was outside acceptance limits for the MS and/or MSD. The batch was accepted based on acceptable LCS recovery.
GC-NC	8260 confirmation analysis was performed; initial GC results were not supported by GC/MS analysis and are reported as ND.
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

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A handwritten signature in black ink, appearing to read "Celey D. Keene".

Celey D. Keene, Lab Director/Quality Manager



## BILL TO

[illegible]

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

November 06, 2023

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

RE: HARROUN EAST TANK BATTERY - FLARE

Enclosed are the results of analyses for samples received by the laboratory on 10/31/23 13:15.

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](http://www.tceq.texas.gov/field/qa/lab_accred_certif.html).

Cardinal Laboratories is accredited 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,

A handwritten signature in black ink that reads "Celey D. Keene". The signature is written in a cursive style with a large, stylized 'C' and 'K'.

Celey D. Keene  
Lab Director/Quality Manager





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:	10/31/2023	Sampling Date:	10/26/2023
Reported:	11/06/2023	Sampling Type:	Soil
Project Name:	HARROUN EAST TANK BATTERY - FLARE	Sampling Condition:	Cool & Intact
Project Number:	03C2012036	Sample Received By:	Tamara Oldaker
Project Location:	BTA ( 32.28584-104.00593 )		

**Sample ID: SS 09 @ 0.5' (H235956-01)**

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	11/03/2023	ND	2.11	105	2.00	1.45		
Toluene*	<0.050	0.050	11/03/2023	ND	1.91	95.3	2.00	2.87		
Ethylbenzene*	<0.050	0.050	11/03/2023	ND	1.94	97.0	2.00	4.22		
Total Xylenes*	<0.150	0.150	11/03/2023	ND	5.76	95.9	6.00	3.78		
Total BTEX	<0.300	0.300	11/03/2023	ND						

Surrogate: 4-Bromofluorobenzene (PID) 102 % 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	11/06/2023	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	11/02/2023	ND	192	96.2	200	5.85	
DRO >C10-C28*	<10.0	10.0	11/02/2023	ND	199	99.3	200	16.9	
EXT DRO >C28-C36	<10.0	10.0	11/02/2023	ND					

Surrogate: 1-Chlorooctane 97.4 % 48.2-134

Surrogate: 1-Chlorooctadecane 104 % 49.1-148

Cardinal Laboratories

\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager

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**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

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A handwritten signature in black ink, appearing to read "C. D. Keene", is written over a horizontal line.

Celey D. Keene, Lab Director/Quality Manager



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 Marlenfeld Street, Suite 400

City: Midland State: TX Zip: 79701

Phone #: 432-557-8895 Fax #:

Project #: 03C2012036 Project Owner:

Project Name: Harroun East Tank Battery-Flare

Project Location: 32.28584,-104.00593

Sampler Name: Peter Van Patten

FOR LAB USE ONLY

Lab I.D. Sample I.D. Depth (feet)

H235936  
SS09

0.5

C 1

(G)RAB OR (C)OMP.

# CONTAINERS

GROUNDWATER

WASTEWATER

SOIL

OIL

SLUDGE

OTHER :

ACID/BASE:

ICE / COOL

OTHER :

DATE

TIME

10-26-23 1050

X TPH

X BTEX

X Chlorides

BILL TO

P.O. #:

Company: BTA Oil

Attn: Kelton Beaird

Address: 104 S Pecos St

City: Midland

State: TX Zip: 79701

Phone #: 432-312-2203

Fax #:

ANALYSIS REQUEST

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Relinquished By:

Relinquished By: [Signature]

Relinquished By:

Date: 10-31-23

Time: 3:15

Date:

Time:

Received By:

Received By: [Signature]

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

REMARKS:

Observed Temp. °C

Corrected Temp. °C

Sample Condition

Cool Intact

CHECKED BY:

(Initials)

Turnaround Time:

Thermometer ID #49

Standard

Rush

Bacteria (only) Sample Condition

Cool Intact

Observed Temp. °C

Corrected Temp. °C

FORM-000-15-3-2-1000121

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

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December 08, 2023

HADLIE GREEN

ENSOLUM

3122 NATIONAL PARKS HWY

CARLSBAD, NM 88220

RE: HARROUN E TANK BATTERY FLARE

Enclosed are the results of analyses for samples received by the laboratory on 12/05/23 14:23.

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](http://www.tceq.texas.gov/field/qa/lab_accred_certif.html).

Cardinal Laboratories is accredited 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,

A handwritten signature in black ink that reads "Celey D. Keene".

Celey D. Keene

Lab Director/Quality Manager



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:	12/05/2023	Sampling Date:	12/01/2023
Reported:	12/08/2023	Sampling Type:	Soil
Project Name:	HARROUN E TANK BATTERY FLARE	Sampling Condition:	Cool & Intact
Project Number:	03C2012036	Sample Received By:	Dionica Hinojos
Project Location:	BTA ( 32.28584 - 104.00593 )		

**Sample ID: FS 04 3.0' (H236525-01)**

BTX 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	12/05/2023	ND	2.13	107	2.00	3.11	
Toluene*	<0.050	0.050	12/05/2023	ND	2.11	105	2.00	2.94	
Ethylbenzene*	<0.050	0.050	12/05/2023	ND	2.09	104	2.00	3.11	
Total Xylenes*	<0.150	0.150	12/05/2023	ND	6.58	110	6.00	3.09	
Total BTX	<0.300	0.300	12/05/2023	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	320	16.0	12/06/2023	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	12/05/2023	ND	202	101	200	0.904	
DRO >C10-C28*	43.3	10.0	12/05/2023	ND	206	103	200	0.460	
EXT DRO >C28-C36	<10.0	10.0	12/05/2023	ND					

Surrogate: 1-Chlorooctane 125 % 48.2-134

Surrogate: 1-Chlorooctadecane 146 % 49.1-148

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\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

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

Received: 12/05/2023  
Reported: 12/08/2023  
Project Name: HARROUN E TANK BATTERY FLARE  
Project Number: 03C2012036  
Project Location: BTA ( 32.28584 - 104.00593 )

Sampling Date: 12/01/2023  
Sampling Type: Soil  
Sampling Condition: Cool & Intact  
Sample Received By: Dionica Hinojos

**Sample ID: FS 01A 1.25' (H236525-02)**

BTX 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	12/05/2023	ND	2.13	107	2.00	3.11		
Toluene*	<0.050	0.050	12/05/2023	ND	2.11	105	2.00	2.94		
Ethylbenzene*	<0.050	0.050	12/05/2023	ND	2.09	104	2.00	3.11		
Total Xylenes*	<0.150	0.150	12/05/2023	ND	6.58	110	6.00	3.09		
Total BTX	<0.300	0.300	12/05/2023	ND						

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

Chloride, SM4500CI-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	12/06/2023	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	12/05/2023	ND	202	101	200	0.904	
DRO >C10-C28*	<10.0	10.0	12/05/2023	ND	206	103	200	0.460	
EXT DRO >C28-C36	<10.0	10.0	12/05/2023	ND					

Surrogate: 1-Chlorooctane 114 % 48.2-134

Surrogate: 1-Chlorooctadecane 130 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager





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**Analytical Results For:**

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

Received: 12/05/2023  
Reported: 12/08/2023  
Project Name: HARROUN E TANK BATTERY FLARE  
Project Number: 03C2012036  
Project Location: BTA ( 32.28584 - 104.00593 )

Sampling Date: 12/01/2023  
Sampling Type: Soil  
Sampling Condition: Cool & Intact  
Sample Received By: Dionica Hinojos

**Sample ID: SW 01 0'-3' (H236525-03)**

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	12/05/2023	ND	2.13	107	2.00	3.11		
Toluene*	<0.050	0.050	12/05/2023	ND	2.11	105	2.00	2.94		
Ethylbenzene*	<0.050	0.050	12/05/2023	ND	2.09	104	2.00	3.11		
Total Xylenes*	<0.150	0.150	12/05/2023	ND	6.58	110	6.00	3.09		
Total BTEX	<0.300	0.300	12/05/2023	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	400	16.0	12/06/2023	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	12/05/2023	ND	202	101	200	0.904	
DRO >C10-C28*	90.2	10.0	12/05/2023	ND	206	103	200	0.460	
EXT DRO >C28-C36	<10.0	10.0	12/05/2023	ND					

Surrogate: 1-Chlorooctane 109 % 48.2-134

Surrogate: 1-Chlorooctadecane 130 % 49.1-148

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\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager



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: 12/05/2023  
Reported: 12/08/2023  
Project Name: HARROUN E TANK BATTERY FLARE  
Project Number: 03C2012036  
Project Location: BTA ( 32.28584 - 104.00593 )

Sampling Date: 12/01/2023  
Sampling Type: Soil  
Sampling Condition: Cool & Intact  
Sample Received By: Dionica Hinojos

**Sample ID: SW 02 0'-1' (H236525-04)**

BTX 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	12/05/2023	ND	2.13	107	2.00	3.11		
Toluene*	<0.050	0.050	12/05/2023	ND	2.11	105	2.00	2.94		
Ethylbenzene*	<0.050	0.050	12/05/2023	ND	2.09	104	2.00	3.11		
Total Xylenes*	<0.150	0.150	12/05/2023	ND	6.58	110	6.00	3.09		
Total BTX	<0.300	0.300	12/05/2023	ND						

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

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	96.0	16.0	12/06/2023	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	12/05/2023	ND	202	101	200	0.904	
DRO >C10-C28*	<10.0	10.0	12/05/2023	ND	206	103	200	0.460	
EXT DRO >C28-C36	<10.0	10.0	12/05/2023	ND					

Surrogate: 1-Chlorooctane 110 % 48.2-134

Surrogate: 1-Chlorooctadecane 123 % 49.1-148

Cardinal Laboratories

\*=Accredited Analyte

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 client for 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 thirty (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 the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



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-03	The RPD value for the sample duplicate or MS/MSD was outside of QC acceptance limits due to matrix interference. QC batch accepted based on LCS and/or LCSD recovery and/or RPD values.
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

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 client for 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 thirty (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 the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

A handwritten signature in black ink, appearing to read "Celey D. Keene".

Celey D. Keene, Lab Director/Quality Manager



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 Marlenfeld Street, Suite 400

City: Midland

Phone #: 432-557-8895

Project #: 03C2012036

Project Name: Harroun East Tank Battery

Project Location: 32.28584,-104.00593

Sampler Name: Peter Van Patten

FOR LAB USE ONLY

Lab I.D. Sample I.D.

403 65815

Depth (feet)

(G)RAB OR (C)OMP.

# CONTAINERS

GROUNDWATER

WASTEWATER

SOIL

OIL

SLUDGE

OTHER :

ACID/BASE:

ICE / COOL

OTHER :

DATE TIME

TPH

BTEX

Chlorides

ANALYSIS REQUEST

P.O. #:

Company: BTA Oil

Attn: Kelton Beaird

Address: 104 S Pecos St

City: Midland

State: TX Zip: 79701

Phone #: 432-312-2203

Fax #:

PRESERV.

SAMPLING

PLEASE NOTE: Liability and Damages: Cardinal's liability and client's exclusive remedy for any claim arising whether caused in contract or tort, shall be limited to the amount paid by the client for the analysis. 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: 12-5-23

Received By:

Verbal Result: ☐ Yes ☒ No

Add'l Phone #:

Remarks:

Relinquished By:

Date: 12-5-23

Received By:

Verbal Result: ☐ Yes ☒ No

Add'l Phone #:

Remarks:

Delivered By: (Circle One)

Observed Temp. °C: 3.1

Sample Condition

CHECKED BY: (Initials)

Turnaround Time: Standard

Rush

☒

Bacteria (only) Sample Condition

Observed Temp. °C

Sampler - UPS - Bus - Other:

Corrected Temp. °C

Cool Intact

Yes

Thermometer ID #113

Corrosion Factor: 0.50

☒

Cool Intact

Corrected Temp. °C

FORM 000 (REV. 10/07/11)

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



## APPENDIX D

### NMOCD Notifications

---

**From:** [Enviro, OCD, EMNRD](#)  
**To:** [Hadlie Green](#)  
**Cc:** [Bratcher, Michael, EMNRD](#); [Hamlet, Robert, EMNRD](#)  
**Subject:** RE: [EXTERNAL] BTA - Sampling Notification - Week of 05/15/2023  
**Date:** Friday, May 12, 2023 5:03:42 PM  
**Attachments:** [image005.jpg](#)  
[image006.png](#)  
[image007.png](#)  
[image008.png](#)  
[image009.png](#)

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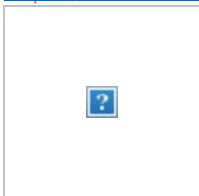
[ \*\*EXTERNAL EMAIL\*\* ]

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](mailto:Jocelyn.Harimon@emnrd.nm.gov)  
[http:// www.emnrd.nm.gov](http://www.emnrd.nm.gov)



---

**From:** Hadlie Green <[hgreen@ensolum.com](mailto:hgreen@ensolum.com)>  
**Sent:** Friday, May 12, 2023 8:25 AM  
**To:** Enviro, OCD, EMNRD <[OCD.Enviro@emnrd.nm.gov](mailto:OCD.Enviro@emnrd.nm.gov)>  
**Cc:** Tacoma Morrissey <[tmorrissey@ensolum.com](mailto:tmorrissey@ensolum.com)>; Nathan Sirgo <[nsirgo@btaoil.com](mailto:nsirgo@btaoil.com)>; Kevin Jones <[kjones@btaoil.com](mailto:kjones@btaoil.com)>  
**Subject:** [EXTERNAL] BTA - Sampling Notification - Week of 05/15/2023

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 location the week of May 15, 2023.

- Pardue 1H-4H Tank Battery / nAPP2130941255
  - Sampling Date: 5/16/2023 @ 9:00 AM MST
- Harroun East Tank Battery / nAPP2204151142



- Sampling Date: 5/18/2023 @ 9:00 AM MST
- Harroun East Tank Battery / nAPP2202845563
  - Sampling Date: 5/19/2023 @ 9:00 AM MST

Thank you,



**Hadlie Green**

Project Geologist

432-557-8895

[hgreen@ensolum.com](mailto:hgreen@ensolum.com)

**Ensolum, LLC**



**From:** [Enviro, OCD, EMNRD](#)  
**To:** [Hadlie Green](#)  
**Cc:** [Bratcher, Michael, EMNRD](#); [Hamlet, Robert, EMNRD](#)  
**Subject:** RE: [EXTERNAL] BTA - Sampling Notification - Week of 05/22/2023  
**Date:** Friday, May 19, 2023 2:25:29 PM  
**Attachments:** [image005.jpg](#)  
[image006.png](#)  
[image007.png](#)  
[image008.png](#)  
[image009.png](#)

---

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

Hadlie,

Please be aware that notification requirements are **two business days**, per rule. You may proceed on your schedule. This, and all correspondence, should be included in the closure report to insure inclusion 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](mailto:Jocelyn.Harimon@emnrd.nm.gov)  
<http://www.emnrd.nm.gov>



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**From:** Hadlie Green <[hgreen@ensolum.com](mailto:hgreen@ensolum.com)>  
**Sent:** Thursday, May 18, 2023 11:37 AM  
**To:** Enviro, OCD, EMNRD <[OCD.Enviro@emnrd.nm.gov](mailto:OCD.Enviro@emnrd.nm.gov)>  
**Cc:** Tacoma Morrissey <[tmorrissey@ensolum.com](mailto:tmorrissey@ensolum.com)>; Nathan Sirgo <[nsirgo@btaoil.com](mailto:nsirgo@btaoil.com)>; Kevin Jones <[kjones@btaoil.com](mailto:kjones@btaoil.com)>; Kelton Beaird <[KBeaird@btaoil.com](mailto:KBeaird@btaoil.com)>  
**Subject:** [EXTERNAL] BTA - Sampling Notification - Week of 05/22/2023

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 22, 2023.

- Harroun Ranch #005 / nAPP2200455573
  - Sampling Date: 5/23/2023 @ 9:00 AM MST

- Harroun East Tank Battery / nAPP2204151142
  - Sampling Date: 5/22/2023 @ 9:00 AM MST
- Harroun East Tank Battery / nAPP2202845563
  - Sampling Date: 5/22/2023 @ 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
- Rojo 20 21 Tank Battery / nAPP2123554329
  - Sampling Date: 5/26/2023 @ 9:00 AM MST
- Rojo 38 41 Tank Battery / nAPP2123555001
  - Sampling Date: 5/26/2023 @ 9:00 AM MST
- Mesa 8105 JV-P 004H / nOY1831160155 / nCH1903550822 / nRM2004549559
  - Sampling Date: 5/24-24/2023 @ 9:00 AM MST

Thank you,



**Hadlie Green**

Project Geologist

432-557-8895

[hgreen@ensolum.com](mailto:hgreen@ensolum.com)

**Ensolum, LLC**



**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](mailto:Jocelyn.Harimon@emnrd.nm.gov)  
[http:// www.emnrd.nm.gov](http://www.emnrd.nm.gov)



---

**From:** Hadlie Green <[hgreen@ensolum.com](mailto:hgreen@ensolum.com)>  
**Sent:** Wednesday, May 24, 2023 2:14 PM  
**To:** Enviro, OCD, EMNRD <[OCD.Enviro@emnrd.nm.gov](mailto:OCD.Enviro@emnrd.nm.gov)>  
**Cc:** Tacoma Morrissey <[tmorrissey@ensolum.com](mailto:tmorrissey@ensolum.com)>; Nathan Sirgo <[nsirgo@btaoil.com](mailto:nsirgo@btaoil.com)>; Kevin Jones ([kjones@btaoil.com](mailto:kjones@btaoil.com)) <[kjones@btaoil.com](mailto:kjones@btaoil.com)>; Kelton Beaird <[KBeaird@btaoil.com](mailto: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](mailto:hgreen@ensolum.com)

**Ensolum, LLC**



**From:** [Buchanan, Michael, EMNRD](#)  
**To:** [Hadlie Green](#); [Enviro, OCD, EMNRD](#)  
**Cc:** [Tacoma Morrissey](#); [Peter Van Patten](#); [Kelton Beaird](#); [Nathan Sirgo](#)  
**Subject:** RE: [EXTERNAL] BTA - Sampling Notification - Week of 06/05/2023  
**Date:** Friday, June 2, 2023 4:54:56 PM  
**Attachments:** [image005.jpg](#)  
[image006.png](#)  
[image007.png](#)  
[image008.png](#)  
[image009.png](#)

---

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

Received.

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.

**Mike Buchanan** • Environmental Specialist  
Environmental Bureau  
EMNRD - Oil Conservation Division  
8801 Horizon Blvd. NE | Albuquerque, NM 87113  
| [michael.buchanan@emnrd.nm.gov](mailto:michael.buchanan@emnrd.nm.gov)  
<http://www.emnrd.nm.gov/ocd>



---

**From:** Hadlie Green <[hgreen@ensolum.com](mailto:hgreen@ensolum.com)>  
**Sent:** Friday, June 2, 2023 9:25 AM  
**To:** Enviro, OCD, EMNRD <[OCD.Enviro@emnrd.nm.gov](mailto:OCD.Enviro@emnrd.nm.gov)>  
**Cc:** Tacoma Morrissey <[tmorrissey@ensolum.com](mailto:tmorrissey@ensolum.com)>; Peter Van Patten <[pvanpatten@ensolum.com](mailto:pvanpatten@ensolum.com)>; Kelton Beaird <[KBeaird@btaoil.com](mailto:KBeaird@btaoil.com)>; Nathan Sirgo <[nsirgo@btaoil.com](mailto:nsirgo@btaoil.com)>  
**Subject:** [EXTERNAL] BTA - Sampling Notification - Week of 06/05/2023

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 June 5, 2023.

- Harroun East Tank Battery / nAPP2202845563
  - Sampling Date: 6/5/2023 @ 9:00 AM MST
- Vaca Draw 9418 JV-P 001 / nCH1835540209



Sampling Date: 6/6/2023 @ 9:00 AM MST

- Carrasco 14-1H / nAPP2313656375
  - Sampling Date: 6/6/2023 @ 9:00 AM MST
- Chiso 14 State Jet Pump Excavation / nAPP2205837214
  - Sampling Date: 6/5/2023 @ 9:00 AM MST

Thank you,



**Hadlie Green**

Project Geologist

432-557-8895

[hgreen@ensolum.com](mailto:hgreen@ensolum.com)

**Ensolum, LLC**



**From:** [Hadlie Green](#)  
**To:** [OCD.Enviro@state.nm.us](mailto:OCD.Enviro@state.nm.us)  
**Subject:** BTA - Sampling Notification - Harroun East Tank Battery (Incident Number nAPP2204151142)  
**Date:** Tuesday, November 28, 2023 2:37:00 PM  
**Attachments:** [image001.png](#)  
[image002.png](#)  
[image003.png](#)  
[image004.png](#)

---

All,

BTA anticipates collecting confirmation samples at the following location on Friday, December 1, 2023.

- Harroun East Tank Battery / nAPP2204151142
  - Sampling Date: 12/01-04/2023 @ 9:00 AM MST
  - GPS: 32.28584, -104.00593

Thank you,



**Hadlie Green**

Project Geologist

432-557-8895

[hgreen@ensolum.com](mailto:hgreen@ensolum.com)

**Ensolum, LLC**

in f 



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	nAPP2204151142
District RP	
Facility ID	fAPP2129830694
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) nAPP2204151142
Contact mailing address: 104 S. Pecos St., Midland, TX 79701	

### Location of Release Source

Latitude: 32.28584 Longitude: -104.00593

(NAD 83 in decimal degrees to 5 decimal places)

Site Name: Harroun East Tank Battery	Site Type: Tank Battery
Date Release Discovered: 2/9/2022	API# (if applicable) Nearest well:

Unit Letter	Section	Township	Range	County
O	34	23S	29E	Eddy

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)

<input checked="" type="checkbox"/> Crude Oil	Volume Released (bbls) 1 BBL	Volume Recovered (bbls) 1 BBL (burned)
<input type="checkbox"/> Produced Water	Volume Released (bbls)	Volume Recovered (bbls)
	Is the concentration of dissolved chloride in the produced water >10,000 mg/l?	<input type="checkbox"/> Yes <input type="checkbox"/> No
<input type="checkbox"/> Condensate	Volume Released (bbls)	Volume Recovered (bbls)
<input type="checkbox"/> Natural Gas	Volume Released (Mcf)	Volume Recovered (Mcf)
<input type="checkbox"/> Other (describe)	Volume/Weight Released (provide units)	Volume/Weight Recovered (provide units)

Cause of Release

Dump Valve Failure.

Malfunction of supply gas line to pneumatic controller caused oil dump to malfunction, pushing oil out of the separator and to the flare line where the oil ignited and burned up at the flare stack. The soot from the burned oil fell in the vicinity of the flare stack.

(Spill calculation spreadsheet attached.)

Form C-141

Page 2

State of New Mexico  
Oil Conservation Division

Incident ID	nAPP2204151142
District RP	
Facility ID	fAPP2129830694
Application ID	

Was this a major release as defined by 19.15.29.7(A) NMAC?  <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	If YES, for what reason(s) does the responsible party consider this a major release?  The release resulted in a fire.
If YES, was immediate notice given to the OCD? By whom? To whom? When and by what means (phone, email, etc)? Via filing NOR document on NMOCD Permitting Portal that was assigned Incident ID # nAPP2204151142 on 2/10/2022.	

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

<input checked="" type="checkbox"/> The source of the release has been stopped. <input checked="" type="checkbox"/> The impacted area has been secured to protect human health and the environment. <input checked="" type="checkbox"/> Released materials have been contained via the use of berms or dikes, absorbent pads, or other containment devices. <input checked="" type="checkbox"/> All free liquids and recoverable materials have been removed and managed appropriately.	
If all the actions described above have <u>not</u> 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: <u>B. Hall</u>	Date: 2/21/2022
email: bhall@btaoil.com	Telephone: 432-682-3753
<b><u>OCD Only</u></b>	
Received by: <u>Ramona Marcus</u>	Date: <u>02/21/2022</u>

NAPP2204151142

Location Harroun East Flare Fire

API #

Spill Date 2/9/2022

**Spill Dimensions**

ENTER - Length of Spill

 feet

ENTER - Width of Spill

 feet

ENTER - Saturation Depth of Spill

 inches

ENTER - Porosity Factor

 decimal**Oil Cut - Well Test / Vessel Throughput or Contents**

Oil

Water

Calculated Oil Cut

**Volume Recovered in Truck / Containment**

ENTER - Recovered Oil

 BBL

ENTER - Recovered Water

 BBL**Calculated Values**

Release of Oil in Soil - Unrecovered

 BBL

Release of Water in Soil - Unrecovered

 BBL

Unrecovered Total Release

 BBL**Calculated Values**

Total Release of Oil

 BBL

Total Release of Water

 BBL

Total Release

 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

(Length X Width X Depth X 1 ft/12 in) X Porosity5.615 ft<sup>3</sup> / BBL

X

Oil Cut  
(or Water Cut)



**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 82918

CONDITIONS

Operator: BTA OIL PRODUCERS, LLC 104 S Pecos Midland, TX 79701	OGRID: 260297
	Action Number: 82918
	Action Type: [C-141] Release Corrective Action (C-141)

CONDITIONS

Created By	Condition	Condition Date
rmarcus	None	2/21/2022

Incident ID	nAPP2204151142
District RP	
Facility ID	fAPP2129830694
Application ID	

## Site Assessment/Characterization

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

What is the shallowest depth to groundwater beneath the area affected by the release?	<u>&lt;50 (ft bgs)</u>
Did this release impact groundwater or surface water?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 300 feet of a continuously flowing watercourse or any other significant watercourse?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> 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)?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 300 feet of an occupied permanent residence, school, hospital, institution, or church?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> 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?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 1000 feet of any other fresh water well or spring?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within incorporated municipal boundaries or within a defined municipal fresh water well field?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 300 feet of a wetland?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release overlying a subsurface mine?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release overlying an unstable area such as karst geology?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within a 100-year floodplain?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Did the release impact areas <b>not</b> on an exploration, development, production, or storage site?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No

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

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

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


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

State of New Mexico  
Oil Conservation Division

Page 4

Incident ID	nAPP2204151142
District RP	
Facility ID	fAPP2129830694
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: 12/14/2023  
email: KBeaird@btaoil Telephone: 432-312-2203

**OCD Only**

Received by: \_\_\_\_\_ Date: \_\_\_\_\_

Incident ID	nAPP2204151142
District RP	
Facility ID	fAPP2129830694
Application ID	

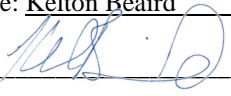
## Closure

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: 12/14/2023  
email: KBeaird@btaoil 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: Scott Rodgers Date: 02/21/2024  
Printed Name: Scott Rodgers Title: Environmental Specialist Adv.

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Energy, Minerals and Natural Resources  
Oil Conservation Division  
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Santa Fe, NM 87505

QUESTIONS  
  
Action 296555

QUESTIONS

Operator: BTA OIL PRODUCERS, LLC 104 S Pecos Midland, TX 79701	OGRID:	260297
	Action Number:	296555
	Action Type:	[C-141] Remediation Closure Request C-141 (C-141-v-Closure)

QUESTIONS

Prerequisites	
Incident ID (n#)	nAPP2204151142
Incident Name	NAPP2204151142 HARROUN RANCH EAST TANK BATTERY @ 0
Incident Type	Oil Release
Incident Status	Remediation Closure Report Received
Incident Facility	[fAPP2129830694] Harroun Ranch East

Location of Release Source	
Please answer all the questions in this group.	
Site Name	HARROUN RANCH EAST TANK BATTERY
Date Release Discovered	02/09/2022
Surface Owner	Federal

Incident Details	
Please answer all the questions in this group.	
Incident Type	Oil Release
Did this release result in a fire or is the result of a fire	Yes
Did this release result in any injuries	No
Has this release reached or does it have a reasonable probability of reaching a watercourse	No
Has this release endangered or does it have a reasonable probability of endangering public health	No
Has this release substantially damaged or will it substantially damage property or the environment	No
Is this release of a volume that is or may with reasonable probability be detrimental to fresh water	No

Nature and Volume of Release	
Material(s) released, please answer all that apply below. Any calculations or specific justifications for the volumes provided should be attached to the follow-up C-141 submission.	
Crude Oil Released (bbls) Details	Cause: Overflow - Tank, Pit, Etc.   Separator   Crude Oil   Released: 1 BBL   Recovered: 1 BBL   Lost: 0 BBL.
Produced Water Released (bbls) Details	Not answered.
Is the concentration of chloride in the produced water >10,000 mg/l	Not answered.
Condensate Released (bbls) Details	Not answered.
Natural Gas Vented (Mcf) Details	Not answered.
Natural Gas Flared (Mcf) Details	Not answered.
Other Released Details	Not answered.
Are there additional details for the questions above (i.e. any answer containing Other, Specify, Unknown, and/or Fire, or any negative lost amounts)	Malfunction of supply gas line to pneumatic controller caused oil dump to malfunction, pushing oil out of the separator and to the flare line where the oil ignited and burned up at the flare stack. The soot from the burned oil fell in the vicinity of the flare stack.

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QUESTIONS, Page 2

Action 296555

**QUESTIONS (continued)**

Operator: BTA OIL PRODUCERS, LLC 104 S Pecos Midland, TX 79701	OGRID:	260297
	Action Number:	296555
	Action Type:	[C-141] Remediation Closure Request C-141 (C-141-v-Closure)

**QUESTIONS**

<b>Nature and Volume of Release (continued)</b>	
Is this a gas only submission (i.e. only significant Mcf values reported)	More info needed to determine if this will be treated as a "gas only" report.
Was this a major release as defined by Subsection A of 19.15.29.7 NMAC	Yes
Reasons why this would be considered a submission for a notification of a major release	From paragraph A. "Major release" determine using: (2) an unauthorized release of a volume that: (a) results in a fire or is the result of a fire.
With the implementation of the 19.15.27 NMAC (05/25/2021), venting and/or flaring of natural gas (i.e. gas only) are to be submitted on the C-129 form.	

**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	True
The impacted area has been secured to protect human health and the environment	True
Released materials have been contained via the use of berms or dikes, absorbent pads, or other containment devices	True
All free liquids and recoverable materials have been removed and managed appropriately	True
If all the actions described above have not been undertaken, explain why	Not answered.

Per Paragraph (4) of Subsection B of 19.15.29.8 NMAC the responsible party may commence remediation immediately after discovery of a release. If remediation has begun, please prepare and attach a narrative of actions to date in the follow-up C-141 submission. If remedial efforts have been successfully completed or if the release occurred within a lined containment area (see Subparagraph (a) of Paragraph (5) of Subsection A of 19.15.29.11 NMAC), please prepare and attach all information needed for closure evaluation in the follow-up C-141 submission.

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.

I hereby agree and sign off to the above statement	Name: BTA ENSOLUM Title: Environmental Manager Email: kbeaird@btaoil.com Date: 12/20/2023
--	--



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QUESTIONS, Page 3

Action 296555

**QUESTIONS (continued)**

Operator: BTA OIL PRODUCERS, LLC 104 S Pecos Midland, TX 79701	OGRID:	260297
	Action Number:	296555
	Action Type:	[C-141] Remediation Closure Request C-141 (C-141-v-Closure)

**QUESTIONS****Site Characterization**

Please answer all the questions in this group (only required when seeking remediation plan approval and beyond). 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 in feet below ground surface (ft bgs)	Less than or equal 25 (ft.)
What method was used to determine the depth to ground water	NM OSE iWaters Database Search
Did this release impact groundwater or surface water	No
<b>What is the minimum distance, between the closest lateral extents of the release and the following surface areas:</b>	
A continuously flowing watercourse or any other significant watercourse	Between 500 and 1000 (ft.)
Any lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark)	Between 500 and 1000 (ft.)
An occupied permanent residence, school, hospital, institution, or church	Greater than 5 (mi.)
A spring or a private domestic fresh water well used by less than five households for domestic or stock watering purposes	Between ½ and 1 (mi.)
Any other fresh water well or spring	Between ½ and 1 (mi.)
Incorporated municipal boundaries or a defined municipal fresh water well field	Greater than 5 (mi.)
A wetland	Between ½ and 1 (mi.)
A subsurface mine	Between 1 and 5 (mi.)
An (non-karst) unstable area	Between 1 and 5 (mi.)
Categorize the risk of this well / site being in a karst geology	Medium
A 100-year floodplain	Between 1000 (ft.) and ½ (mi.)
Did the release impact areas not on an exploration, development, production, or storage site	No

**Remediation Plan**

Please answer all the questions that apply or are indicated. This information must be provided to the appropriate district office no later than 90 days after the release discovery date.

Requesting a remediation plan approval with this submission	Yes
---	-----

Attach a comprehensive report demonstrating the lateral and vertical extents of soil contamination associated with the release have been determined, pursuant to 19.15.29.11 NMAC and 19.15.29.13 NMAC.

Have the lateral and vertical extents of contamination been fully delineated	Yes
Was this release entirely contained within a lined containment area	No

**Soil Contamination Sampling:** (Provide the highest observable value for each, in milligrams per kilograms.)

Chloride	(EPA 300.0 or SM4500 Cl B)	5600
TPH (GRO+DRO+MRO)	(EPA SW-846 Method 8015M)	27770
GRO+DRO	(EPA SW-846 Method 8015M)	22900
BTEX	(EPA SW-846 Method 8021B or 8260B)	0
Benzene	(EPA SW-846 Method 8021B or 8260B)	0

Per Subsection B of 19.15.29.11 NMAC unless the site characterization report includes completed efforts at remediation, the report must include a proposed remediation plan in accordance with 19.15.29.12 NMAC, which includes the anticipated timelines for beginning and completing the remediation.

On what estimated date will the remediation commence	05/08/2023
On what date will (or did) the final sampling or liner inspection occur	12/01/2023
On what date will (or was) the remediation complete(d)	12/01/2023
What is the estimated surface area (in square feet) that will be reclaimed	770
What is the estimated volume (in cubic yards) that will be reclaimed	40
What is the estimated surface area (in square feet) that will be remediated	770
What is the estimated volume (in cubic yards) that will be remediated	40

These estimated dates and measurements are recognized to be the best guess or calculation at the time of submission and may (be) change(d) over time as more remediation efforts are completed.

The OCD recognizes that proposed remediation measures may have to be minimally adjusted in accordance with the physical realities encountered during remediation. If the responsible party has any need to significantly deviate from the remediation plan proposed, then it should consult with the division to determine if another remediation plan submission is required.

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QUESTIONS, Page 4

Action 296555

**QUESTIONS (continued)**

Operator: BTA OIL PRODUCERS, LLC 104 S Pecos Midland, TX 79701	OGRID:	260297
	Action Number:	296555
	Action Type:	[C-141] Remediation Closure Request C-141 (C-141-v-Closure)

**QUESTIONS****Remediation Plan (continued)**

Please answer all the questions that apply or are indicated. This information must be provided to the appropriate district office no later than 90 days after the release discovery date.

**This remediation will (or is expected to) utilize the following processes to remediate / reduce contaminants:**

(Select all answers below that apply.)	
(Ex Situ) Excavation and <b>off-site</b> disposal (i.e. dig and haul, hydrovac, etc.)	Yes
Which OCD approved facility will be used for <b>off-site</b> disposal	LEA LAND LANDFILL [fEEM0112342028]
<b>OR</b> which OCD approved well (API) will be used for <b>off-site</b> disposal	Not answered.
<b>OR</b> is the <b>off-site</b> disposal site, to be used, out-of-state	Not answered.
<b>OR</b> is the <b>off-site</b> disposal site, to be used, an NMED facility	Not answered.
(Ex Situ) Excavation and <b>on-site</b> remediation (i.e. On-Site Land Farms)	Not answered.
(In Situ) Soil Vapor Extraction	Not answered.
(In Situ) Chemical processing (i.e. Soil Shredding, Potassium Permanganate, etc.)	Not answered.
(In Situ) Biological processing (i.e. Microbes / Fertilizer, etc.)	Not answered.
(In Situ) Physical processing (i.e. Soil Washing, Gypsum, Disking, etc.)	Not answered.
Ground Water Abatement pursuant to 19.15.30 NMAC	Not answered.
OTHER (Non-listed remedial process)	Not answered.

Per Subsection B of 19.15.29.11 NMAC unless the site characterization report includes completed efforts at remediation, the report must include a proposed remediation plan in accordance with 19.15.29.12 NMAC, which includes the anticipated timelines for beginning and completing the remediation.

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.

I hereby agree and sign off to the above statement	Name: BTA ENSOLUM Title: Environmental Manager Email: kbeaird@btaoil.com Date: 12/20/2023
--	--

The OCD recognizes that proposed remediation measures may have to be minimally adjusted in accordance with the physical realities encountered during remediation. If the responsible party has any need to significantly deviate from the remediation plan proposed, then it should consult with the division to determine if another remediation plan submission is required.

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QUESTIONS, Page 5  
  
Action 296555

**QUESTIONS (continued)**

Operator: BTA OIL PRODUCERS, LLC 104 S Pecos Midland, TX 79701	OGRID:
	260297
	Action Number:
	296555
Action Type:	
[C-141] Remediation Closure Request C-141 (C-141-v-Closure)	

**QUESTIONS**

<b>Deferral Requests Only</b>	
Only answer the questions in this group if seeking a deferral upon approval this submission. Each of the following items must be confirmed as part of any request for deferral of remediation.	
Requesting a deferral of the remediation closure due date with the approval of this submission	No

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QUESTIONS, Page 6

Action 296555

**QUESTIONS (continued)**

Operator: BTA OIL PRODUCERS, LLC 104 S Pecos Midland, TX 79701	OGRID:	260297
	Action Number:	296555
	Action Type:	[C-141] Remediation Closure Request C-141 (C-141-v-Closure)

**QUESTIONS**

Sampling Event Information	
Last sampling notification (C-141N) recorded	296551
Sampling date pursuant to Subparagraph (a) of Paragraph (1) of Subsection D of 19.15.29.12 NMAC	12/01/2023
What was the (estimated) number of samples that were to be gathered	5
What was the sampling surface area in square feet	1442

**Remediation Closure Request**

*Only answer the questions in this group if seeking remediation closure for this release because all remediation steps have been completed.*

Requesting a remediation closure approval with this submission	Yes
Have the lateral and vertical extents of contamination been fully delineated	Yes
Was this release entirely contained within a lined containment area	No
All areas reasonably needed for production or subsequent drilling operations have been stabilized, returned to the sites existing grade, and have a soil cover that prevents ponding of water, minimizing dust and erosion	Yes
What was the total surface area (in square feet) remediated	770
What was the total volume (cubic yards) remediated	40
All areas not reasonably needed for production or subsequent drilling operations have been reclaimed to contain a minimum of four feet of non-waste contain earthen material with concentrations less than 600 mg/kg chlorides, 100 mg/kg TPH, 50 mg/kg BTEX, and 10 mg/kg Benzene	Yes
What was the total surface area (in square feet) reclaimed	770
What was the total volume (in cubic yards) reclaimed	40
Summarize any additional remediation activities not included by answers (above)	All impacted soil has been excavated to the most stringent criteria and backfilled with non-waste containing soil

*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 (in .pdf format) 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.*

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.

I hereby agree and sign off to the above statement	Name: BTA ENSOLUM Title: Environmental Manager Email: kbeaird@btaoil.com Date: 12/20/2023
--	--

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QUESTIONS, Page 7  
  
Action 296555

**QUESTIONS (continued)**

Operator: BTA OIL PRODUCERS, LLC 104 S Pecos Midland, TX 79701	OGRID: 260297
	Action Number: 296555
	Action Type: [C-141] Remediation Closure Request C-141 (C-141-v-Closure)

**QUESTIONS**

<b>Reclamation Report</b>	
Only answer the questions in this group if all reclamation steps have been completed.	
Requesting a reclamation approval with this submission	No

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CONDITIONS  
  
Action 296555

CONDITIONS

Operator: BTA OIL PRODUCERS, LLC 104 S Pecos Midland, TX 79701	OGRID: 260297
	Action Number: 296555
	Action Type: [C-141] Remediation Closure Request C-141 (C-141-v-Closure)

CONDITIONS

Created By	Condition	Condition Date
scott.rodgers	None	2/21/2024