



June 12, 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  
Mesa B East NGL Water Transfer Line  
Incident Number nAPP2235558643  
Lea County, New Mexico**

To Whom It May Concern:

Ensolum, LLC (Ensolum), on behalf of BTA Oil Producers, LLC (BTA), has prepared this *Closure Request* to document assessment, excavation, and soil sampling activities performed at the Mesa B East NGL Water Transfer Line (Site). The purpose of the excavation and soil sampling activities was to address impacts to soil resulting from a produced water release at the Site. Based on 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 nAPP2235558643.

**SITE DESCRIPTION AND RELEASE SUMMARY**

The Site is located in Unit A, Section 7, Township 26 South, Range 33 East, in Lea County, New Mexico (32.062595°, -103.614578°) and is associated with oil and gas exploration and production operations on federal land managed by the Bureau of Land Management (BLM).

On December 20, 2022, static electricity from a poly natural gas line caused a small fire that burned a hole in an adjacent poly water transfer line and resulted in the release of approximately 114 barrels (bbls) of produced water onto the well pad. A vacuum truck was dispatched to the Site to recover free-standing fluids; approximately 55 bbls of produced water were recovered. The saturated soil was scraped up from the release area and stockpiled on-site for disposal. BTA reported the release electronically to the New Mexico Oil Conservation Division (NMOCD) on December 21, 2022, and submitted a *Release Notification Form C-141* (Form C-141) on January 3, 2023. The release was assigned Incident Number nAPP2235558643.

**SITE CHARACTERIZATION AND CLOSURE CRITERIA**

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

Depth to groundwater at the Site is estimated to be between 51 feet and 100 feet below ground surface (bgs) based on the nearest groundwater well data. The closest permitted groundwater well with depth to groundwater data is New Mexico Office of the State Engineer (NMOSE) soil boring C-04547, drilled

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Closure Request  
Mesa B East NGL Water Transfer Line

approximately 0.8 miles southeast of the Site during July 2021. The soil boring has a reported depth to groundwater of 89.5 feet bgs and a total depth of 112 feet bgs. The soil boring was subsequently plugged following approved NMOSE protocols. Three additional NMOSE wells, C-04485-POD 1, C-04549, and C-04537, located within 1-mile to 1.4 miles north and west of the Site all indicated regional depth to groundwater is greater than 51 feet bgs. Multiple data points exist around the Site and there are no surface features indicative of the presence of shallow groundwater. 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 dry wash, located approximately 385 feet west of the Site. The Site is greater than 200 feet from a lakebed, sinkhole, or playa lake and greater than 300 feet from an occupied residence, school, hospital, institution, church, or wetland. The Site is greater than 1,000 feet to a freshwater well or spring and is not within a 100-year floodplain or overlying a subsurface mine. The Site is not underlain by unstable geology (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)-gasoline range organics (GRO) and TPH-diesel range organics (DRO): 1,000 mg/kg
- TPH: 2,500 mg/kg
- Chloride: 10,000 mg/kg

## SITE ASSESSMENT ACTIVITIES AND LABORATORY ANALYTICAL RESULTS

On December 21, 2022, Ensolum personnel were at the Site to evaluate the release extent based on information provided on the Form C-141 and visual observations. Four assessment soil samples (SS01 through SS04) were collected around the release extent from a depth of 0.5 feet bgs to confirm the lateral extent of the release. Three assessment soil samples (SS05 through SS07) were collected within the release extent, to assess for the presence or absence of impacted soil. The soil samples were field screened for volatile organic compounds (VOCs) utilizing a calibrated photoionization detector (PID) and chloride utilizing Hach® chloride QuanTab® test strips. The release extent 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 visit and a photographic log is included in Appendix B.

The soil samples were placed directly into pre-cleaned glass jars, labeled with the location, date, time, sampler name, method of analysis, and immediately placed on ice. The soil samples were transported under strict chain-of-custody procedures to Cardinal Laboratories (Cardinal) in Hobbs, New Mexico, for analysis of the following chemicals of concern (COCs): BTEX following United States Environmental Protection Agency (EPA) Method 8021B; TPH-GRO, TPH-DRO, and TPH-oil range organics (ORO) following EPA Method 8015M/D; and chloride following EPA Method SM4500.

Laboratory analytical results for soil samples SS01 through SS04, collected around the release extent, indicated all COC concentrations were compliant with the most stringent Table I Closure Criteria and successfully defined the lateral extent of the release. Laboratory analytical results for soil samples SS05 through SS07, collected within the release extent, indicated all COC concentrations were compliant with

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the Site Closure Criteria; however, based on visible staining within the release extent, excavation activities appeared to be warranted.

## EXCAVATION ACTIVITIES AND LABORATORY ANALYTICAL RESULTS

On April 26, 2023, Ensolum personnel were at the Site to oversee excavation activities based on visible staining within the release extent. Excavation activities were performed via back-hoe, hydrovac, and hand shovels. To direct excavation activities, soil was screened for VOCs and chloride. The excavation was completed to a depth of 2 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 extent. 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 FS13 were collected from the floor of the excavation at a depth of 2 feet bgs. Composite soil samples SW01 through SW04 were collected from the sidewalls of the excavation at depths ranging from the ground surface to 2 feet bgs. The soil samples were collected, handled, and analyzed following the same procedures as described above. The excavation extent and excavation soil sample locations are presented on Figure 3.

Laboratory analytical results for excavation soil samples FS01 through FS13 and SW01 through SW04 indicated all COC concentrations were compliant with the most stringent Table I Closure Criteria. Laboratory analytical results are summarized in Table 1 and laboratory analytical reports are included as Appendix C.

The excavation area measured approximately 2,545 square feet. A total of 189 cubic yards of impacted soil were removed during the excavation activities. The impacted soil was transported and properly disposed of at the Delaware Basin Landfill Facility (DBLF) in Jal, New Mexico.

## CLOSURE REQUEST

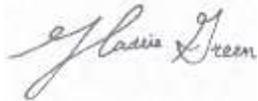
Site assessment and excavation activities were conducted at the Site to address the December 20, 2022, produced water release. Laboratory analytical results for the excavation soil samples, collected from the final excavation extent, indicated all COCs were compliant with the most stringent Table I Closure Criteria. Based on the laboratory analytical results, no further remediation was required.

Initial response efforts and excavation of impacted soil have mitigated impacts at this Site. BTA believes these remedial actions are protective of human health, the environment, and groundwater. As such, BTA respectfully requests closure for Incident Number nAPP2235558643. Notifications submitted to the NMOCD are included in Appendix D and the final Form C-141 is included in Appendix E.

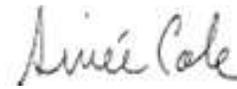
BTA Oil Producers, LLC  
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Mesa B East NGL Water Transfer Line

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

Sincerely,  
**Ensolum, LLC**



Hadlie Green  
Project Geologist



Aimee Cole  
Senior Managing Scientist

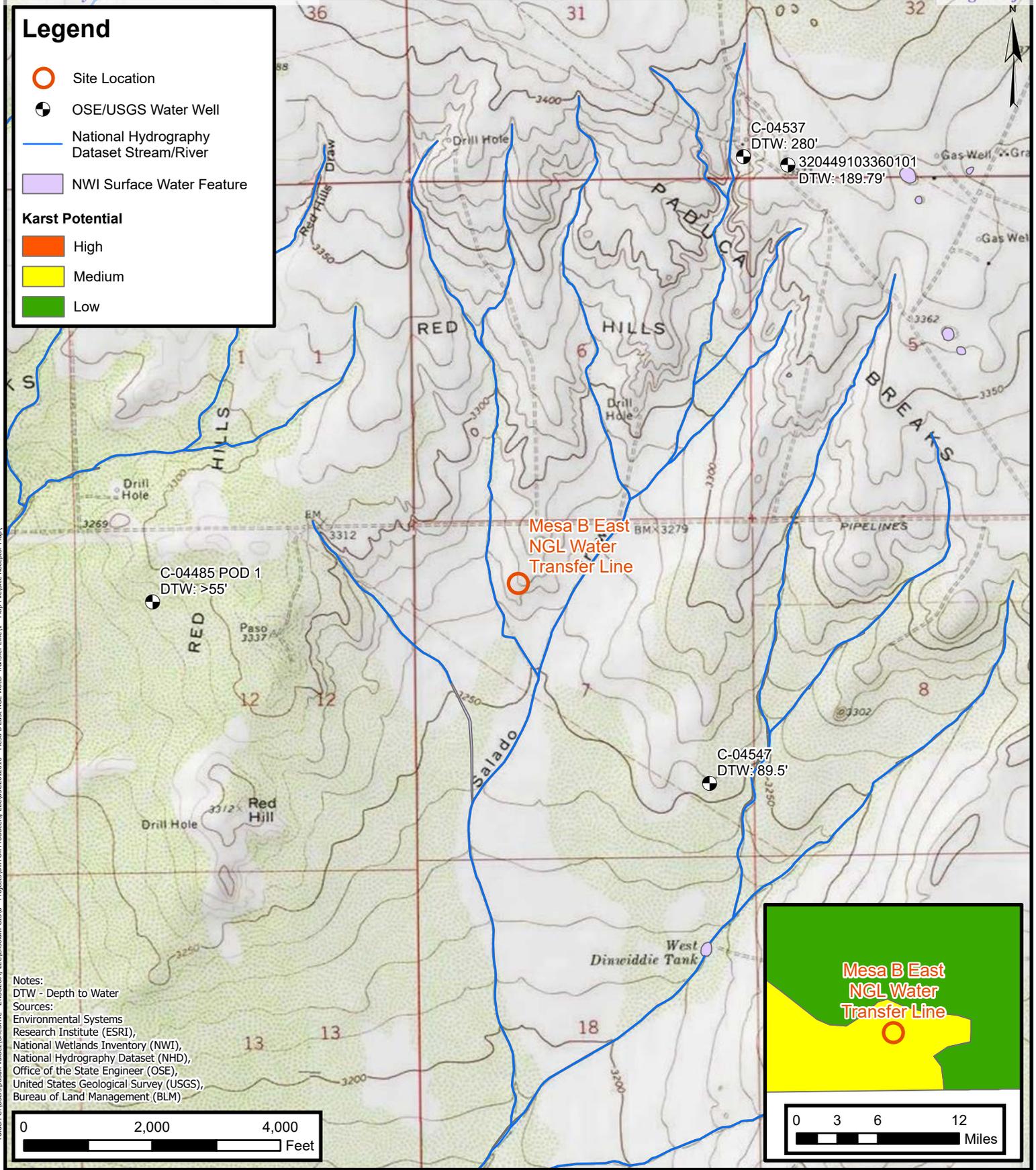
cc: Kelton Beard, BTA  
Nathan Sirgo, BTA  
Bureau of Land Management

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

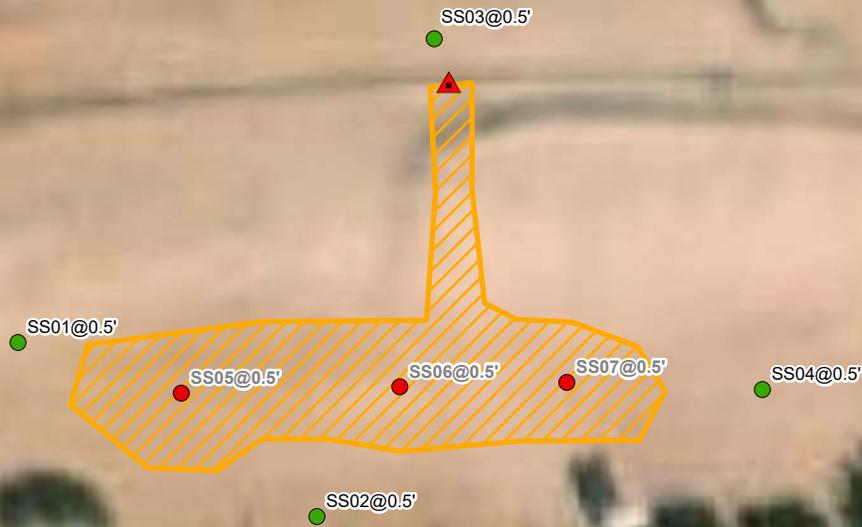


**Site Receptor Map**  
 BTA Oil Producers, LLC  
 Mesa B East NGL Water Transfer Line  
 Incident Number: nAPP2235558643  
 Unit A, Sec 7, T26S, R33E  
 Lea County, New Mexico

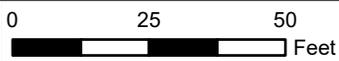
**FIGURE**  
**1**

### Legend

- Preliminary Soil Sample in Compliance with Closure Criteria
- Preliminary Soil Sample with Concentrations Exceeding Closure Criteria
- ▲ Point of Release (POR)
- Release Extent



Notes:  
 Sample ID @ Depth Below Ground Surface.  
 Samples in bold indicate sample exceeded applicable closure criteria  
 Samples in grey indicate samples were removed during excavation activities.



Sources: Environmental Systems Research Institute (ESRI)

## Assessment Soil Sample Locations

BTA Oil Producers, LLC  
 Mesa B East NGL Water Transfer Line  
 Incident Number: nAPP2235558643  
 Unit A, Sec 7, T26S, R33E  
 Lea County, New Mexico

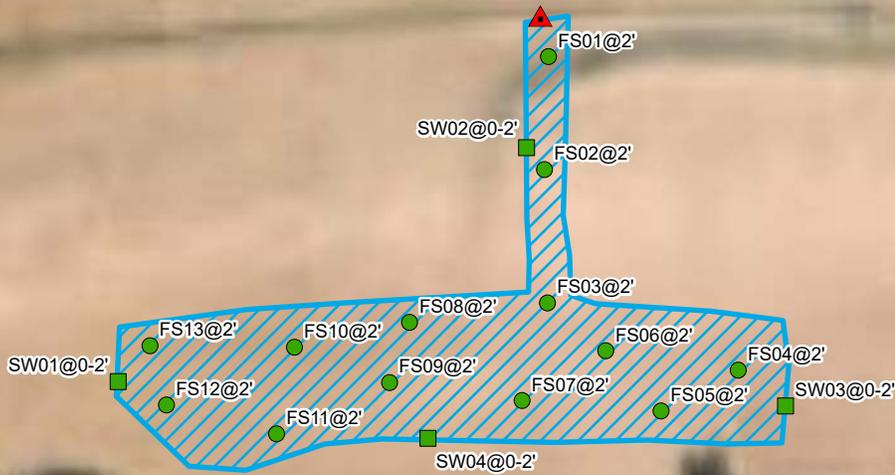
### FIGURE

# 2

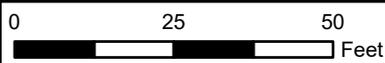


### Legend

- Excavation Floor Sample in Compliance with Closure Criteria
- Excavation Sidewall Sample in Compliance with Closure Criteria
- ▲ Point of Release (POR)
- Excavation Extent



Notes:  
Sample ID @ Depth Below Ground Surface.



Sources: Environmental Systems Research Institute (ESRI)



## Excavation Soil Sample Locations

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 Unit A, Sec 7, T26S, R33E  
 Lea County, New Mexico

FIGURE

3



TABLES



**TABLE 1**  
**SOIL SAMPLE ANALYTICAL RESULTS**  
 Mesa B East NGL Water Transfer Line  
 BTA Oil Producers, LLC  
 Lea County, New Mexico

Sample I.D.	Sample Date	Sample Depth (feet bgs)	Benzene (mg/kg)	Total BTEX (mg/kg)	TPH GRO (mg/kg)	TPH DRO (mg/kg)	TPH ORO (mg/kg)	GRO+DRO (mg/kg)	Total TPH (mg/kg)	Chloride (mg/kg)
NMOCD Table I Closure Criteria (NMAC 19.15.29)			10	50	NE	NE	NE	1,000	2,500	10,000
<b>Assessment Soil Samples</b>										
SS01	12/21/2022	0.5	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	48.0
SS02	12/21/2022	0.5	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	160
SS03	12/21/2022	0.5	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	48.0
SS04	12/21/2022	0.5	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	32.0
SS05	12/21/2022	0.5	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	4,000
SS06	12/21/2022	0.5	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	3,600
SS07	12/21/2022	0.5	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	4,560
<b>Excavation Floor Soil Samples</b>										
FS01	04/26/2023	2	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	32.0
FS02	04/26/2023	2	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	16.0
FS03	04/26/2023	2	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	<16.0
FS04	04/26/2023	2	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	<16.0
FS05	04/26/2023	2	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	<16.0
FS06	04/26/2023	2	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	32.0
FS07	04/26/2023	2	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	32.0
FS08	04/26/2023	2	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	<16.0
FS09	04/26/2023	2	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	<16.0
FS10	04/26/2023	2	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	<16.0
FS11	04/26/2023	2	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	<16.0
FS12	04/26/2023	2	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	<16.0
FS13	04/26/2023	2	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	16.0



**TABLE 1**  
**SOIL SAMPLE ANALYTICAL RESULTS**  
 Mesa B East NGL Water Transfer Line  
 BTA Oil Producers, LLC  
 Lea County, New Mexico

Sample I.D.	Sample Date	Sample Depth (feet bgs)	Benzene (mg/kg)	Total BTEX (mg/kg)	TPH GRO (mg/kg)	TPH DRO (mg/kg)	TPH ORO (mg/kg)	GRO+DRO (mg/kg)	Total TPH (mg/kg)	Chloride (mg/kg)
NMOCD Table I Closure Criteria (NMAC 19.15.29)			10	50	NE	NE	NE	1,000	2,500	10,000
<b>Excavation Sidewall Soil Samples</b>										
SW01	04/26/2023	0 - 2	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	<16.0
SW02	04/26/2023	0 - 2	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	<16.0
SW03	04/26/2023	0 - 2	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	<16.0
SW04	04/26/2023	0 - 2	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	<16.0

Notes:

bgs: below ground surface

mg/kg: milligrams per kilogram

NMOCD: New Mexico Oil Conservation Division

NMAC: New Mexico Administrative Code

BTEX: Benzene, Toluene, Ethylbenzene, and Xylenes

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

Gray text represents samples that have been excavated.

GRO: Gasoline Range Organics

DRO: Diesel Range Organics

ORO: Oil Range Organics

TPH: Total Petroleum Hydrocarbon



## APPENDIX A

### Referenced Well Records

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# WELL RECORD & LOG

OFFICE OF THE STATE ENGINEER

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OSE DTI AUG 2 2021 PM 4:44

<b>1. GENERAL AND WELL LOCATION</b>	OSE POD NO. (WELL NO.) <b>POD1 (MW-1)</b>		WELL TAG ID NO. n/a		OSE FILE NO(S). C-4547			
	WELL OWNER NAME(S) BTA Oil Producers				PHONE (OPTIONAL)			
	WELL OWNER MAILING ADDRESS 104 S. Pecos St.				CITY Midland	STATE TX	ZIP 79701	
	WELL LOCATION (FROM GPS)	DEGREES LATITUDE 32	MINUTES 3	SECONDS 14.34	N	* ACCURACY REQUIRED: ONE TENTH OF A SECOND		
		LONGITUDE 103	36	16.96	W	* DATUM REQUIRED: WGS 84		
DESCRIPTION RELATING WELL LOCATION TO STREET ADDRESS AND COMMON LANDMARKS - PLSS (SECTION, TOWNSHIP, RANGE) WHERE AVAILABLE NE SE SE Sec. 07 T26S R33E								
<b>2. DRILLING &amp; CASING INFORMATION</b>	LICENSE NO. 1249		NAME OF LICENSED DRILLER Jackie D. Atkins			NAME OF WELL DRILLING COMPANY Atkins Engineering Associates, Inc.		
	DRILLING STARTED 07/15/2021	DRILLING ENDED 07/15/2021	DEPTH OF COMPLETED WELL (FT) temporary well material	BORE HOLE DEPTH (FT) 112	DEPTH WATER FIRST ENCOUNTERED (FT) unknown			
	COMPLETED WELL IS: <input type="checkbox"/> ARTESIAN <input type="checkbox"/> DRY HOLE <input checked="" type="checkbox"/> SHALLOW (UNCONFINED)				STATIC WATER LEVEL IN COMPLETED WELL (FT) 89.5			
	DRILLING FLUID: <input checked="" type="checkbox"/> AIR <input type="checkbox"/> MUD ADDITIVES - SPECIFY:							
	DRILLING METHOD: <input type="checkbox"/> ROTARY <input type="checkbox"/> HAMMER <input type="checkbox"/> CABLE TOOL <input checked="" type="checkbox"/> OTHER - SPECIFY: Hollow Stem Auger							
	DEPTH (feet bgl)		BORE HOLE DIAM (inches)	CASING MATERIAL AND/OR GRADE (include each casing string, and note sections of screen)	CASING CONNECTION TYPE (add coupling diameter)	CASING INSIDE DIAM. (inches)	CASING WALL THICKNESS (inches)	SLOT SIZE (inches)
	FROM	TO						
	0	21	±8.5	Boring- HSA	--	--	--	--
	21	112	±3.5	Boring- Air Rotary	--	--	--	--
<b>3. ANNULAR MATERIAL</b>	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						

FOR OSE INTERNAL USE

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

FILE NO. <b>C-4547</b>	POD NO. <b>1</b>	TRN NO. <b>698291</b>
LOCATION <b>26S-33E-07</b>	<b>4-4-2</b>	WELL TAG ID NO. <b>NA</b>



# 2021-07-28\_C-4547\_POD1\_OSE\_Well Record and Log\_mesa1-for sign

Final Audit Report

2021-07-29

Created:	2021-07-29	OSE DJT AUG 2 2021 PM4:44
By:	Lucas Middleton (lucas@atkinseng.com)	
Status:	Signed	
Transaction ID:	CBJCHBCAABAA3aQOFUKeCXoHbozKpK1XeoMdl53lwclm	

## "2021-07-28\_C-4547\_POD1\_OSE\_Well Record and Log\_mesa1-for sign" History

-  Document created by Lucas Middleton (lucas@atkinseng.com)  
2021-07-29 - 8:40:54 PM GMT- IP address: 69.21.248.123
-  Document emailed to Jack Atkins (jack@atkinseng.com) for signature  
2021-07-29 - 8:41:43 PM GMT
-  Email viewed by Jack Atkins (jack@atkinseng.com)  
2021-07-29 - 8:43:29 PM GMT- IP address: 64.90.153.232
-  Document e-signed by Jack Atkins (jack@atkinseng.com)  
Signature Date: 2021-07-29 - 8:44:00 PM GMT - Time Source: server- IP address: 64.90.153.232
-  Agreement completed.  
2021-07-29 - 8:44:00 PM GMT





# WELL RECORD & LOG

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**1. GENERAL AND WELL LOCATION**

OSE POD NO. (WELL NO.) <b>C-04485</b>	OWL 362	WELL TAG ID NO. NA	OSE FILE NO(S) <b>C-04485</b>
WELL OWNER NAME(S) <b>KJ ENVIRONMENTAL</b>		PHONE (OPTIONAL) 214-287-5875	
WELL OWNER MAILING ADDRESS <b>500 MOSSELEY ROAD</b>		CITY <b>CROSS ROADS</b>	STATE <b>TX</b> ZIP <b>76227</b>
WELL LOCATION (FROM GPS)	DEGREES LATITUDE <b>3548560</b>	MINUTES <b>629271</b>	SECONDS <b>N</b>
	LONGITUDE <b>W</b>		* ACCURACY REQUIRED: ONE TENTH OF A SECOND * DATUM REQUIRED: WGS 84
DESCRIPTION RELATING WELL LOCATION TO STREET ADDRESS AND COMMON LANDMARKS - PLSS (SECTION, TOWNSHIP, RANGE) WHERE AVAILABLE			

**2. DRILLING & CASING INFORMATION**

LICENSE NO. <b>WD 1186</b>	NAME OF LICENSED DRILLER <b>RODNEY HAMMER</b>		NAME OF WELL DRILLING COMPANY <b>ENVIRO-DRILL, INC.</b>	
DRILLING STARTED <b>10/05/2020</b>	DRILLING ENDED <b>10/06/2020</b>	DEPTH OF COMPLETED WELL (FT) <b>55'</b>	BORE HOLE DEPTH (FT) <b>55'</b>	DEPTH WATER FIRST ENCOUNTERED (FT) <b>None (Dry)</b>
COMPLETED WELL IS: <input type="checkbox"/> ARTESIAN <input checked="" type="checkbox"/> DRY HOLE <input type="checkbox"/> SHALLOW (UNCONFINED)				STATIC WATER LEVEL IN COMPLETED WELL (FT)
DRILLING FLUID: <input type="checkbox"/> AIR <input type="checkbox"/> MUD ADDITIVES - SPECIFY:				
DRILLING METHOD: <input checked="" type="checkbox"/> ROTARY <input type="checkbox"/> HAMMER <input type="checkbox"/> CABLE TOOL <input checked="" type="checkbox"/> OTHER - SPECIFY: <b>HSA</b>				

DEPTH (feet bgl)		BORE HOLE DIAM (inches)	CASING MATERIAL AND/OR GRADE (include each casing string, and note sections of screen)	CASING CONNECTION TYPE (add coupling diameter)	CASING INSIDE DIAM. (inches)	CASING WALL THICKNESS (inches)	SLOT SIZE (inches)
FROM	TO						
<b>55</b>	<b>45</b>	<b>8"</b>	<b>Screen</b>	<b>FJT</b>	<b>2"</b>	<b>2"</b>	<b>.010</b>
<b>45</b>	<b>0</b>	<b>8"</b>	<b>Blank</b>	<b>11</b>	<b>11</b>	<b>11</b>	

**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				
<b>55</b>	<b>43</b>	<b>8"</b>	<b>Sand 10/20</b>	<b>10</b>	<b>tremie</b>
<b>43</b>	<b>41</b>	<b>8"</b>	<b>Hole Plug</b>	<b>1</b>	
<b>41</b>	<b>0</b>	<b>8"</b>	<b>Grout</b>	<b>100 gal.</b>	<b>↓</b>

FOR OSE INTERNAL USE

FILE NO. <b>C-2599</b>	WR-20 WELL RECORD & LOG (Version 06/30/17)
LOCATION <b>2-2-4</b>	TRN NO. <b>693367</b>
POD NO. <b>2N-33E-10</b>	WELL TAG ID NO. <b> </b>
PAGE 1 OF 2	





# WELL RECORD & LOG

OFFICE OF THE STATE ENGINEER

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

OSE DJT AUG 2 2021 PM 4:45

<b>1. GENERAL AND WELL LOCATION</b>	OSE POD NO. (WELL NO.) POD1 (MW-1)		WELL TAG ID NO. n/a		OSE FILE NO(S). C-4549			
	WELL OWNER NAME(S) BTA Oil Producers				PHONE (OPTIONAL)			
	WELL OWNER MAILING ADDRESS 104 S. Pecos St.				CITY Midland	STATE TX	ZIP 79701	
	WELL LOCATION (FROM GPS)	DEGREES LATITUDE 32	MINUTES 4	SECONDS 40.92	N	* ACCURACY REQUIRED: ONE TENTH OF A SECOND		
	LONGITUDE 103	37	53.68	W	* DATUM REQUIRED: WGS 84			
DESCRIPTION RELATING WELL LOCATION TO STREET ADDRESS AND COMMON LANDMARKS - PLSS (SECTION, TOWNSHIP, RANGE) WHERE AVAILABLE NW NW NW Sec. 11 T26S R32E								
<b>2. DRILLING &amp; CASING INFORMATION</b>	LICENSE NO. 1249		NAME OF LICENSED DRILLER Jackie D. Atkins			NAME OF WELL DRILLING COMPANY Atkins Engineering Associates, Inc.		
	DRILLING STARTED 07/14/2021	DRILLING ENDED 07/14/2021	DEPTH OF COMPLETED WELL (FT) temporary well material	BORE HOLE DEPTH (FT) 103	DEPTH WATER FIRST ENCOUNTERED (FT) n/a			
	COMPLETED WELL IS: <input type="checkbox"/> ARTESIAN <input checked="" type="checkbox"/> DRY HOLE <input type="checkbox"/> SHALLOW (UNCONFINED)				STATIC WATER LEVEL IN COMPLETED WELL (FT) n/a			
	DRILLING FLUID: <input checked="" type="checkbox"/> AIR <input type="checkbox"/> MUD ADDITIVES - SPECIFY:							
	DRILLING METHOD: <input type="checkbox"/> ROTARY <input type="checkbox"/> HAMMER <input type="checkbox"/> CABLE TOOL <input checked="" type="checkbox"/> OTHER - SPECIFY: Hollow Stem Auger							
	DEPTH (feet bgl)		BORE HOLE DIAM (inches)	CASING MATERIAL AND/OR GRADE (include each casing string, and note sections of screen)	CASING CONNECTION TYPE (add coupling diameter)	CASING INSIDE DIAM. (inches)	CASING WALL THICKNESS (inches)	SLOT SIZE (inches)
	FROM	TO						
	0	103	±8.5	Boring- HSA	-	-	-	-
<b>3. ANNULAR MATERIAL</b>	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						

FOR OSE INTERNAL USE		WR-20 WELL RECORD & LOG (Version 06/30/17)			
FILE NO. C-4549	POD NO. 1	TRN NO. 698318			
LOCATION 26S-32E-11	1.1.1	WELL TAG ID NO. NA-	PAGE 1 OF 2		





# WELL RECORD & LOG

OFFICE OF THE STATE ENGINEER

www.ose.state.nm.us

OSE 07 JUN 21 2021 #10113

1. GENERAL AND WELL LOCATION	OSE POD NO. (WELL NO.) C-4537 <b>POD1</b>		WELL TAG ID NO. 20E6C		OSE FILE NO(S) C-4537	
	WELL OWNER NAME(S) BASIN PROPERTIES RANCHES LLC				PHONE (OPTIONAL)	
	WELL OWNER MAILING ADDRESS 3300 N A STREET, BLDG 1, STE 220				CITY MIDLAND	STATE TX
					ZIP 79705	
	WELL LOCATION (FROM GPS)	DEGREES LATITUDE	MINUTES 04	SECONDS 50.8	N	* ACCURACY REQUIRED: ONE TENTH OF A SECOND
	LONGITUDE	103	36	10.7	W	* DATUM REQUIRED: WGS 84
DESCRIPTION RELATING WELL LOCATION TO STREET ADDRESS AND COMMON LANDMARKS - PLSS (SECTION, TOWNSHIP, RANGE) WHERE AVAILABLE						

2. DRILLING & CASING INFORMATION	LICENSE NO. WD1706	NAME OF LICENSED DRILLER Bryce Wallace			NAME OF WELL DRILLING COMPANY Elite Drillers Corporation			
	DRILLING STARTED 06/11/21	DRILLING ENDED 06/12/21	DEPTH OF COMPLETED WELL (FT) 500	BORE HOLE DEPTH (FT) 500	DEPTH WATER FIRST ENCOUNTERED (FT) 280			
	COMPLETED WELL IS: <input type="checkbox"/> ARTESIAN <input type="checkbox"/> DRY HOLE <input checked="" type="checkbox"/> SHALLOW (UNCONFINED)				STATIC WATER LEVEL IN COMPLETED WELL (FT) 280			
	DRILLING FLUID: <input checked="" type="checkbox"/> AIR <input type="checkbox"/> MUD ADDITIVES - SPECIFY:							
	DRILLING METHOD: <input checked="" type="checkbox"/> ROTARY <input type="checkbox"/> HAMMER <input type="checkbox"/> CABLE TOOL <input type="checkbox"/> 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 (add coupling diameter)	CASING INSIDE DIAM. (inches)	CASING WALL THICKNESS (inches)	SLOT SIZE (inches)
	FROM	TO						
	0	20	12 3/4	STEEL	N/A	8.28	.337	
	0	300	7 7/8	SDR17 PVC	SPLINE	4.3	SDR17	
	300	500	7 7/8	SDR17 PVC	SPLINE	4.3	SDR17	.032

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

FOR OSE INTERNAL USE		WR-20 WELL RECORD & LOG (Version 06/30/17)			
FILE NO.	C-4537	POD NO.	1	TRN NO.	CA5385
LOCATION	SHK	255.33E.31.444	WELL TAG ID NO.	20E6C	PAGE 1 OF 2



OSE DTI AUG 2 2021 PM 4:44



# WELL RECORD & LOG

OFFICE OF THE STATE ENGINEER

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

<b>1. GENERAL AND WELL LOCATION</b>	OSE POD NO. (WELL NO.) <b>POD1 (MW-1)</b>		WELL TAG ID NO. <b>n/a</b>		OSE FILE NO(S). <b>C-4548</b>			
	WELL OWNER NAME(S) <b>BTA Oil Producers</b>				PHONE (OPTIONAL)			
	WELL OWNER MAILING ADDRESS <b>104 S. Pecos St.</b>				CITY <b>Midland</b>	STATE <b>TX</b>	ZIP <b>79701</b>	
	WELL LOCATION (FROM GPS)	DEGREES <b>32</b>	MINUTES <b>3</b>	SECONDS <b>49.57</b>	* ACCURACY REQUIRED: ONE TENTH OF A SECOND			
	LONGITUDE <b>103</b>	<b>39</b>	<b>9.68</b>	* DATUM REQUIRED: WGS 84				
DESCRIPTION RELATING WELL LOCATION TO STREET ADDRESS AND COMMON LANDMARKS - PLSS (SECTION, TOWNSHIP, RANGE) WHERE AVAILABLE <b>NW NE NW Sec. 01 T26S R32E</b>								
<b>2. DRILLING &amp; CASING INFORMATION</b>	LICENSE NO. <b>1249</b>	NAME OF LICENSED DRILLER <b>Jackie D. Atkins</b>			NAME OF WELL DRILLING COMPANY <b>Atkins Engineering Associates, Inc.</b>			
	DRILLING STARTED <b>07/13/2021</b>	DRILLING ENDED <b>07/13/2021</b>	DEPTH OF COMPLETED WELL (FT) <b>temporary well material</b>	BORE HOLE DEPTH (FT) <b>110</b>	DEPTH WATER FIRST ENCOUNTERED (FT) <b>unknown</b>			
	COMPLETED WELL IS: <input type="checkbox"/> ARTESIAN <input type="checkbox"/> DRY HOLE <input checked="" type="checkbox"/> SHALLOW (UNCONFINED)				STATIC WATER LEVEL IN COMPLETED WELL (FT) <b>81.4</b>			
	DRILLING FLUID: <input checked="" type="checkbox"/> AIR <input type="checkbox"/> MUD ADDITIVES - SPECIFY:							
	DRILLING METHOD: <input type="checkbox"/> ROTARY <input type="checkbox"/> HAMMER <input type="checkbox"/> CABLE TOOL <input checked="" type="checkbox"/> OTHER - SPECIFY: <b>Hollow Stem Auger</b>							
	DEPTH (feet bgl)		BORE HOLE DIAM (inches)	CASING MATERIAL AND/OR GRADE (include each casing string, and note sections of screen)	CASING CONNECTION TYPE (add coupling diameter)	CASING INSIDE DIAM. (inches)	CASING WALL THICKNESS (inches)	SLOT SIZE (inches)
	FROM	TO						
	<b>0</b>	<b>110</b>	<b>±8.5</b>	<b>Boring- HSA</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>
<b>3. ANNULAR MATERIAL</b>	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						

FOR OSE INTERNAL USE		WR-20 WELL RECORD & LOG (Version 06/30/17)			
FILE NO. <b>C-4548</b>	POD NO. <b>1</b>	TRN NO. <b>698307</b>		PAGE 1 OF 2	
LOCATION <b>265-32E-01</b>	<b>1-2-1</b>	WELL TAG ID NO. <b>NA</b>			





## APPENDIX B

### Photographic Log

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**Photographic Log**  
BTA Oil Producers, LLC  
Mesa B East NGL Water Transfer Line  
Incident Number nAPP2235558643



Photograph: 1 Date: 12/20/2022  
Description: Initial release extent  
View: Southwest

Photograph: 2 Date: 12/21/2022  
Description: Initial assessment activities  
View: Southwest



Photograph: 3 Date: 4/26/2023  
Description: Excavation activities  
View: East

Photograph: 4 Date: 4/26/2023  
Description: Excavation activities  
View: West



## APPENDIX C

### Laboratory Analytical Reports & Chain of Custody Documentation

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

May 10, 2023

HADLIE GREEN

ENSOLUM

3122 NATIONAL PARKS HWY

CARLSBAD, NM 88220

RE: MESA B EAST/WEST NGL WATER TRANSFER LINE

Enclosed are the results of analyses for samples received by the laboratory on 12/22/22 10:55.

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/ga/lab\\_accred\\_certif.html](http://www.tceq.texas.gov/field/ga/lab_accred_certif.html).

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

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

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

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

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

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

Sincerely,

Celey D. Keene

Lab Director/Quality Manager



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

**Analytical Results For:**

ENSOLUM  
3122 NATIONAL PARKS HWY  
CARLSBAD NM, 88220

Project: MESA B EAST/WEST NGL WATER T  
Project Number: 03C2012018  
Project Manager: HADLIE GREEN  
Fax To:

Reported:  
10-May-23 09:50

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
SS 01 @ 0.5'	H226044-01	Soil	21-Dec-22 11:00	22-Dec-22 10:55
SS 02 @ 0.5'	H226044-02	Soil	21-Dec-22 11:05	22-Dec-22 10:55
SS 03 @ 0.5'	H226044-03	Soil	21-Dec-22 11:10	22-Dec-22 10:55
SS 04 @ 0.5'	H226044-04	Soil	21-Dec-22 11:15	22-Dec-22 10:55
SS 05 @ 0.5'	H226044-05	Soil	21-Dec-22 11:20	22-Dec-22 10:55
SS 06 @ 0.5'	H226044-06	Soil	21-Dec-22 11:25	22-Dec-22 10:55
SS 07 @ 0.5'	H226044-07	Soil	21-Dec-22 11:30	22-Dec-22 10:55

05/10/23 - Client changed the sample IDs (see COC). This is the revised report and will replace the one sent on 12/27/22.

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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 3122 NATIONAL PARKS HWY CARLSBAD NM, 88220	Project: MESA B EAST/WEST NGL WATER T Project Number: 03C2012018 Project Manager: HADLIE GREEN Fax To:	Reported: 10-May-23 09:50
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**SS 01 @ 0.5'  
H226044-01 (Soil)**

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
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**Cardinal Laboratories**

**Inorganic Compounds**

<b>Chloride</b>	<b>48.0</b>		16.0	mg/kg	4	2122216	AC	22-Dec-22	4500-Cl-B	
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**Volatile Organic Compounds by EPA Method 8021**

Benzene*	<0.050		0.050	mg/kg	50	2122209	JH	22-Dec-22	8021B	
Toluene*	<0.050		0.050	mg/kg	50	2122209	JH	22-Dec-22	8021B	
Ethylbenzene*	<0.050		0.050	mg/kg	50	2122209	JH	22-Dec-22	8021B	
Total Xylenes*	<0.150		0.150	mg/kg	50	2122209	JH	22-Dec-22	8021B	
Total BTEX	<0.300		0.300	mg/kg	50	2122209	JH	22-Dec-22	8021B	

Surrogate: 4-Bromofluorobenzene (PID)			107 %	69.9-140		2122209	JH	22-Dec-22	8021B	
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**Petroleum Hydrocarbons by GC FID**

GRO C6-C10*	<10.0		10.0	mg/kg	1	2122207	MS	22-Dec-22	8015B	
DRO >C10-C28*	<10.0		10.0	mg/kg	1	2122207	MS	22-Dec-22	8015B	
EXT DRO >C28-C36	<10.0		10.0	mg/kg	1	2122207	MS	22-Dec-22	8015B	

Surrogate: 1-Chlorooctane			60.1 %	45.3-161		2122207	MS	22-Dec-22	8015B	
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Surrogate: 1-Chlorooctadecane			65.5 %	46.3-178		2122207	MS	22-Dec-22	8015B	
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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

ENSOLUM 3122 NATIONAL PARKS HWY CARLSBAD NM, 88220	Project: MESA B EAST/WEST NGL WATER T Project Number: 03C2012018 Project Manager: HADLIE GREEN Fax To:	Reported: 10-May-23 09:50
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**SS 02 @ 0.5'  
H226044-02 (Soil)**

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
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**Cardinal Laboratories**

**Inorganic Compounds**

Chloride	160		16.0	mg/kg	4	2122216	AC	22-Dec-22	4500-Cl-B	
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**Volatile Organic Compounds by EPA Method 8021**

Benzene*	<0.050		0.050	mg/kg	50	2122209	JH	22-Dec-22	8021B	
Toluene*	<0.050		0.050	mg/kg	50	2122209	JH	22-Dec-22	8021B	
Ethylbenzene*	<0.050		0.050	mg/kg	50	2122209	JH	22-Dec-22	8021B	
Total Xylenes*	<0.150		0.150	mg/kg	50	2122209	JH	22-Dec-22	8021B	
Total BTEX	<0.300		0.300	mg/kg	50	2122209	JH	22-Dec-22	8021B	

Surrogate: 4-Bromofluorobenzene (PID)			107 %	69.9-140		2122209	JH	22-Dec-22	8021B	
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**Petroleum Hydrocarbons by GC FID**

GRO C6-C10*	<10.0		10.0	mg/kg	1	2122207	MS	22-Dec-22	8015B	
DRO >C10-C28*	<10.0		10.0	mg/kg	1	2122207	MS	22-Dec-22	8015B	
EXT DRO >C28-C36	<10.0		10.0	mg/kg	1	2122207	MS	22-Dec-22	8015B	

Surrogate: 1-Chlorooctane			85.2 %	45.3-161		2122207	MS	22-Dec-22	8015B	
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Surrogate: 1-Chlorooctadecane			93.4 %	46.3-178		2122207	MS	22-Dec-22	8015B	
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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

ENSOLUM 3122 NATIONAL PARKS HWY CARLSBAD NM, 88220	Project: MESA B EAST/WEST NGL WATER T Project Number: 03C2012018 Project Manager: HADLIE GREEN Fax To:	Reported: 10-May-23 09:50
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**SS 03 @ 0.5'**  
**H226044-03 (Soil)**

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
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**Cardinal Laboratories**

**Inorganic Compounds**

<b>Chloride</b>	<b>48.0</b>		16.0	mg/kg	4	2122216	AC	22-Dec-22	4500-Cl-B	
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**Volatile Organic Compounds by EPA Method 8021**

Benzene*	<0.050		0.050	mg/kg	50	2122209	JH	22-Dec-22	8021B	
Toluene*	<0.050		0.050	mg/kg	50	2122209	JH	22-Dec-22	8021B	
Ethylbenzene*	<0.050		0.050	mg/kg	50	2122209	JH	22-Dec-22	8021B	
Total Xylenes*	<0.150		0.150	mg/kg	50	2122209	JH	22-Dec-22	8021B	
Total BTEX	<0.300		0.300	mg/kg	50	2122209	JH	22-Dec-22	8021B	

<i>Surrogate: 4-Bromofluorobenzene (PID)</i>			106 %	69.9-140		2122209	JH	22-Dec-22	8021B	
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**Petroleum Hydrocarbons by GC FID**

GRO C6-C10*	<10.0		10.0	mg/kg	1	2122207	MS	22-Dec-22	8015B	
DRO >C10-C28*	<10.0		10.0	mg/kg	1	2122207	MS	22-Dec-22	8015B	
EXT DRO >C28-C36	<10.0		10.0	mg/kg	1	2122207	MS	22-Dec-22	8015B	

<i>Surrogate: 1-Chlorooctane</i>			65.4 %	45.3-161		2122207	MS	22-Dec-22	8015B	
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<i>Surrogate: 1-Chlorooctadecane</i>			71.2 %	46.3-178		2122207	MS	22-Dec-22	8015B	
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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

ENSOLUM 3122 NATIONAL PARKS HWY CARLSBAD NM, 88220	Project: MESA B EAST/WEST NGL WATER T Project Number: 03C2012018 Project Manager: HADLIE GREEN Fax To:	Reported: 10-May-23 09:50
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**SS 04 @ 0.5'  
H226044-04 (Soil)**

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
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**Cardinal Laboratories**

**Inorganic Compounds**

Chloride	32.0		16.0	mg/kg	4	2122216	AC	22-Dec-22	4500-Cl-B	
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**Volatile Organic Compounds by EPA Method 8021**

Benzene*	<0.050		0.050	mg/kg	50	2122209	JH	22-Dec-22	8021B	
Toluene*	<0.050		0.050	mg/kg	50	2122209	JH	22-Dec-22	8021B	
Ethylbenzene*	<0.050		0.050	mg/kg	50	2122209	JH	22-Dec-22	8021B	
Total Xylenes*	<0.150		0.150	mg/kg	50	2122209	JH	22-Dec-22	8021B	
Total BTEX	<0.300		0.300	mg/kg	50	2122209	JH	22-Dec-22	8021B	

Surrogate: 4-Bromofluorobenzene (PID)			106 %	69.9-140		2122209	JH	22-Dec-22	8021B	
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**Petroleum Hydrocarbons by GC FID**

GRO C6-C10*	<10.0		10.0	mg/kg	1	2122207	MS	22-Dec-22	8015B	
DRO >C10-C28*	<10.0		10.0	mg/kg	1	2122207	MS	22-Dec-22	8015B	
EXT DRO >C28-C36	<10.0		10.0	mg/kg	1	2122207	MS	22-Dec-22	8015B	

Surrogate: 1-Chlorooctane			69.6 %	45.3-161		2122207	MS	22-Dec-22	8015B	
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Surrogate: 1-Chlorooctadecane			76.0 %	46.3-178		2122207	MS	22-Dec-22	8015B	
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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 3122 NATIONAL PARKS HWY CARLSBAD NM, 88220	Project: MESA B EAST/WEST NGL WATER T Project Number: 03C2012018 Project Manager: HADLIE GREEN Fax To:	Reported: 10-May-23 09:50
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**SS 05 @ 0.5'**  
**H226044-05 (Soil)**

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
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**Cardinal Laboratories**

**Inorganic Compounds**

<b>Chloride</b>	<b>4000</b>		16.0	mg/kg	4	2122216	AC	22-Dec-22	4500-CI-B	
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**Volatile Organic Compounds by EPA Method 8021**

Benzene*	<0.050		0.050	mg/kg	50	2122209	JH	22-Dec-22	8021B	
Toluene*	<0.050		0.050	mg/kg	50	2122209	JH	22-Dec-22	8021B	
Ethylbenzene*	<0.050		0.050	mg/kg	50	2122209	JH	22-Dec-22	8021B	
Total Xylenes*	<0.150		0.150	mg/kg	50	2122209	JH	22-Dec-22	8021B	
Total BTEX	<0.300		0.300	mg/kg	50	2122209	JH	22-Dec-22	8021B	

<i>Surrogate: 4-Bromofluorobenzene (PID)</i>			106 %	69.9-140		2122209	JH	22-Dec-22	8021B	
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**Petroleum Hydrocarbons by GC FID**

GRO C6-C10*	<10.0		10.0	mg/kg	1	2122207	MS	22-Dec-22	8015B	
DRO >C10-C28*	<10.0		10.0	mg/kg	1	2122207	MS	22-Dec-22	8015B	
EXT DRO >C28-C36	<10.0		10.0	mg/kg	1	2122207	MS	22-Dec-22	8015B	

<i>Surrogate: 1-Chlorooctane</i>			72.1 %	45.3-161		2122207	MS	22-Dec-22	8015B	
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<i>Surrogate: 1-Chlorooctadecane</i>			79.8 %	46.3-178		2122207	MS	22-Dec-22	8015B	
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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 3122 NATIONAL PARKS HWY CARLSBAD NM, 88220	Project: MESA B EAST/WEST NGL WATER T Project Number: 03C2012018 Project Manager: HADLIE GREEN Fax To:	Reported: 10-May-23 09:50
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**SS 06 @ 0.5'**  
**H226044-06 (Soil)**

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
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**Cardinal Laboratories**

**Inorganic Compounds**

<b>Chloride</b>	<b>3600</b>		16.0	mg/kg	4	2122216	AC	22-Dec-22	4500-CI-B	
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**Volatile Organic Compounds by EPA Method 8021**

Benzene*	<0.050		0.050	mg/kg	50	2122209	JH	22-Dec-22	8021B	
Toluene*	<0.050		0.050	mg/kg	50	2122209	JH	22-Dec-22	8021B	
Ethylbenzene*	<0.050		0.050	mg/kg	50	2122209	JH	22-Dec-22	8021B	
Total Xylenes*	<0.150		0.150	mg/kg	50	2122209	JH	22-Dec-22	8021B	
Total BTEX	<0.300		0.300	mg/kg	50	2122209	JH	22-Dec-22	8021B	

<i>Surrogate: 4-Bromofluorobenzene (PID)</i>			107 %	69.9-140		2122209	JH	22-Dec-22	8021B	
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**Petroleum Hydrocarbons by GC FID**

GRO C6-C10*	<10.0		10.0	mg/kg	1	2122207	MS	22-Dec-22	8015B	
DRO >C10-C28*	<10.0		10.0	mg/kg	1	2122207	MS	22-Dec-22	8015B	
EXT DRO >C28-C36	<10.0		10.0	mg/kg	1	2122207	MS	22-Dec-22	8015B	

<i>Surrogate: 1-Chlorooctane</i>			70.8 %	45.3-161		2122207	MS	22-Dec-22	8015B	
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<i>Surrogate: 1-Chlorooctadecane</i>			78.2 %	46.3-178		2122207	MS	22-Dec-22	8015B	
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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

ENSOLUM 3122 NATIONAL PARKS HWY CARLSBAD NM, 88220	Project: MESA B EAST/WEST NGL WATER T Project Number: 03C2012018 Project Manager: HADLIE GREEN Fax To:	Reported: 10-May-23 09:50
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**SS 07 @ 0.5'**  
**H226044-07 (Soil)**

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
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**Cardinal Laboratories**

**Inorganic Compounds**

<b>Chloride</b>	<b>4560</b>		16.0	mg/kg	4	2122216	AC	22-Dec-22	4500-Cl-B	
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**Volatile Organic Compounds by EPA Method 8021**

Benzene*	<0.050		0.050	mg/kg	50	2122209	JH	22-Dec-22	8021B	
Toluene*	<0.050		0.050	mg/kg	50	2122209	JH	22-Dec-22	8021B	
Ethylbenzene*	<0.050		0.050	mg/kg	50	2122209	JH	22-Dec-22	8021B	
Total Xylenes*	<0.150		0.150	mg/kg	50	2122209	JH	22-Dec-22	8021B	
Total BTEX	<0.300		0.300	mg/kg	50	2122209	JH	22-Dec-22	8021B	

<i>Surrogate: 4-Bromofluorobenzene (PID)</i>			107 %	69.9-140		2122209	JH	22-Dec-22	8021B	
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**Petroleum Hydrocarbons by GC FID**

GRO C6-C10*	<10.0		10.0	mg/kg	1	2122207	MS	22-Dec-22	8015B	
DRO >C10-C28*	<10.0		10.0	mg/kg	1	2122207	MS	22-Dec-22	8015B	
EXT DRO >C28-C36	<10.0		10.0	mg/kg	1	2122207	MS	22-Dec-22	8015B	

<i>Surrogate: 1-Chlorooctane</i>			71.8 %	45.3-161		2122207	MS	22-Dec-22	8015B	
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<i>Surrogate: 1-Chlorooctadecane</i>			78.8 %	46.3-178		2122207	MS	22-Dec-22	8015B	
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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

ENSOLUM 3122 NATIONAL PARKS HWY CARLSBAD NM, 88220	Project: MESA B EAST/WEST NGL WATER T Project Number: 03C2012018 Project Manager: HADLIE GREEN Fax To:	Reported: 10-May-23 09:50
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**Inorganic Compounds - Quality Control**

**Cardinal Laboratories**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch 2122216 - 1:4 DI Water</b>										
<b>Blank (2122216-BLK1)</b>										
Prepared & Analyzed: 22-Dec-22										
Chloride	ND	16.0	mg/kg							
<b>LCS (2122216-BS1)</b>										
Prepared & Analyzed: 22-Dec-22										
Chloride	416	16.0	mg/kg	400		104	80-120			
<b>LCS Dup (2122216-BSD1)</b>										
Prepared & Analyzed: 22-Dec-22										
Chloride	416	16.0	mg/kg	400		104	80-120	0.00	20	

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**Analytical Results For:**

ENSOLUM 3122 NATIONAL PARKS HWY CARLSBAD NM, 88220	Project: MESA B EAST/WEST NGL WATER T Project Number: 03C2012018 Project Manager: HADLIE GREEN Fax To:	Reported: 10-May-23 09:50
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**Volatile Organic Compounds by EPA Method 8021 - Quality Control**

**Cardinal Laboratories**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch 2122209 - Volatiles**

**Blank (2122209-BLK1)**

Prepared & Analyzed: 22-Dec-22

Benzene	ND	0.050	mg/kg							
Toluene	ND	0.050	mg/kg							
Ethylbenzene	ND	0.050	mg/kg							
Total Xylenes	ND	0.150	mg/kg							
Total BTEX	ND	0.300	mg/kg							
Surrogate: 4-Bromofluorobenzene (PID)	0.0538		mg/kg	0.0500		108	69.9-140			

**LCS (2122209-BS1)**

Prepared & Analyzed: 22-Dec-22

Benzene	1.99	0.050	mg/kg	2.00		99.7	83.4-122			
Toluene	2.15	0.050	mg/kg	2.00		107	84.2-126			
Ethylbenzene	2.15	0.050	mg/kg	2.00		107	84.2-121			
m,p-Xylene	4.48	0.100	mg/kg	4.00		112	89.9-126			
o-Xylene	2.13	0.050	mg/kg	2.00		106	84.3-123			
Total Xylenes	6.61	0.150	mg/kg	6.00		110	89.1-124			
Surrogate: 4-Bromofluorobenzene (PID)	0.0522		mg/kg	0.0500		104	69.9-140			

**LCS Dup (2122209-BSD1)**

Prepared & Analyzed: 22-Dec-22

Benzene	2.08	0.050	mg/kg	2.00		104	83.4-122	4.31	12.6	
Toluene	2.23	0.050	mg/kg	2.00		112	84.2-126	3.94	13.3	
Ethylbenzene	2.23	0.050	mg/kg	2.00		111	84.2-121	3.59	13.9	
m,p-Xylene	4.63	0.100	mg/kg	4.00		116	89.9-126	3.12	13.6	
o-Xylene	2.18	0.050	mg/kg	2.00		109	84.3-123	2.58	14.1	
Total Xylenes	6.81	0.150	mg/kg	6.00		113	89.1-124	2.94	13.4	
Surrogate: 4-Bromofluorobenzene (PID)	0.0518		mg/kg	0.0500		104	69.9-140			

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**Analytical Results For:**

ENSOLUM 3122 NATIONAL PARKS HWY CARLSBAD NM, 88220	Project: MESA B EAST/WEST NGL WATER T Project Number: 03C2012018 Project Manager: HADLIE GREEN Fax To:	Reported: 10-May-23 09:50
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**Petroleum Hydrocarbons by GC FID - Quality Control**

**Cardinal Laboratories**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch 2122207 - General Prep - Organics**

<b>Blank (2122207-BLK1)</b>		Prepared & Analyzed: 22-Dec-22								
GRO C6-C10	ND	10.0	mg/kg							
DRO >C10-C28	ND	10.0	mg/kg							
EXT DRO >C28-C36	ND	10.0	mg/kg							
Surrogate: 1-Chlorooctane	36.6		mg/kg	50.0		73.2	45.3-161			
Surrogate: 1-Chlorooctadecane	39.1		mg/kg	50.0		78.3	46.3-178			

<b>LCS (2122207-BS1)</b>		Prepared & Analyzed: 22-Dec-22								
GRO C6-C10	199	10.0	mg/kg	200		99.7	76.8-124			
DRO >C10-C28	207	10.0	mg/kg	200		103	74.9-127			
Total TPH C6-C28	406	10.0	mg/kg	400		102	77.5-124			
Surrogate: 1-Chlorooctane	42.4		mg/kg	50.0		84.8	45.3-161			
Surrogate: 1-Chlorooctadecane	49.8		mg/kg	50.0		99.5	46.3-178			

<b>LCS Dup (2122207-BSD1)</b>		Prepared & Analyzed: 22-Dec-22								
GRO C6-C10	191	10.0	mg/kg	200		95.7	76.8-124	4.06	17.2	
DRO >C10-C28	199	10.0	mg/kg	200		99.7	74.9-127	3.61	18.6	
Total TPH C6-C28	391	10.0	mg/kg	400		97.7	77.5-124	3.83	17.6	
Surrogate: 1-Chlorooctane	41.3		mg/kg	50.0		82.7	45.3-161			
Surrogate: 1-Chlorooctadecane	47.5		mg/kg	50.0		95.0	46.3-178			

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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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*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
Project Manager: Hadlie Green
Address: 3122 National Parks Hwy
City: Carlsbad State: NM Zip: 88220
Phone #: 432-557-8895 Fax #:
Project #: 03C2012018 Project Owner:
Project Name: Mesa B East/West NGL Water Transfer Line
Project Location: Lea
Sampler Name: Peter Van Patten
BILL TO ANALYSIS REQUEST
P.O. #:
Company: BTA Oil
Attn: Bob Hall
Address: 104 S. Pecos St
City: Midland
State: TX Zip: 79701
Phone #: 432-312-2203
Fax #:
FOR LAB USE ONLY
Lab I.D. Sample I.D. (GRAB OR (COMP. # CONTAINERS
MATRIX PRESERV. SAMPLING
GROUNDWATER WASTEWATER SOIL OIL SLUDGE OTHER: ACID/BASE: ICE / COOL OTHER: DATE TIME
BTEX TPH Chlorides
1 #501 @ 0.5'
2 #502
3 #503
4 #504
5 #505
6 #506
7 #507

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Relinquished By: Peter Van Patten Date: 12-21-22 Time: 1055
Received By: Tamara Oldaker
Verbal Result: Yes No Add'l Phone #:
All Results are emailed. Please provide Email address: hgreen@ensolum.com, tmorrissey@ensolum.com
REMARKS: \* Customer requested Sample Id changes to 12/22/22 changes T. 5/9/23
Delivered By: (Circle One) Observed Temp. °C 30 Sample Condition Cool Intact CHECKED BY: Turnaround Time: Standard Rush 3 day Bacteria (only) Sample Condition Cool Intact Observed Temp. °C Thermometer ID #113 Correction Factor -0.5°C Corrected Temp. °C

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



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May 08, 2023

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

RE: MESA B EAST NGL WATER TRANSFER LINE

Enclosed are the results of analyses for samples received by the laboratory on 05/03/23 12:15.

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".

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:	05/03/2023	Sampling Date:	04/26/2023
Reported:	05/08/2023	Sampling Type:	Soil
Project Name:	MESA B EAST NGL WATER TRANSFER LI	Sampling Condition:	Cool & Intact
Project Number:	03C2012018	Sample Received By:	Tamara Oldaker
Project Location:	32.0625,-103.6145		

**Sample ID: FS 01 2' (H232185-01)**

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	05/05/2023	ND	1.88	93.8	2.00	1.13	
Toluene*	<0.050	0.050	05/05/2023	ND	1.92	96.0	2.00	1.52	
Ethylbenzene*	<0.050	0.050	05/05/2023	ND	2.06	103	2.00	1.39	
Total Xylenes*	<0.150	0.150	05/05/2023	ND	6.00	100	6.00	0.999	
Total BTEX	<0.300	0.300	05/05/2023	ND					

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

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	32.0	16.0	05/04/2023	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	05/04/2023	ND	192	96.1	200	19.5	
DRO >C10-C28*	<10.0	10.0	05/04/2023	ND	192	96.0	200	18.4	
EXT DRO >C28-C36	<10.0	10.0	05/04/2023	ND					

Surrogate: 1-Chlorooctane 89.7 % 48.2-134

Surrogate: 1-Chlorooctadecane 98.8 % 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, LLC  
 HADLIE GREEN  
 705 W WADLEY AVE.  
 MIDLAND TX, 79705  
 Fax To:

Received:	05/03/2023	Sampling Date:	04/26/2023
Reported:	05/08/2023	Sampling Type:	Soil
Project Name:	MESA B EAST NGL WATER TRANSFER LI	Sampling Condition:	Cool & Intact
Project Number:	03C2012018	Sample Received By:	Tamara Oldaker
Project Location:	32.0625,-103.6145		

**Sample ID: FS 02 2' (H232185-02)**

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	05/05/2023	ND	1.88	93.8	2.00	1.13		
Toluene*	<0.050	0.050	05/05/2023	ND	1.92	96.0	2.00	1.52		
Ethylbenzene*	<0.050	0.050	05/05/2023	ND	2.06	103	2.00	1.39		
Total Xylenes*	<0.150	0.150	05/05/2023	ND	6.00	100	6.00	0.999		
Total BTEX	<0.300	0.300	05/05/2023	ND						

Surrogate: 4-Bromofluorobenzene (PID) 104 % 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	05/04/2023	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	05/04/2023	ND	192	96.1	200	19.5		
DRO >C10-C28*	<10.0	10.0	05/04/2023	ND	192	96.0	200	18.4		
EXT DRO >C28-C36	<10.0	10.0	05/04/2023	ND						

Surrogate: 1-Chlorooctane 101 % 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, LLC  
 HADLIE GREEN  
 705 W WADLEY AVE.  
 MIDLAND TX, 79705  
 Fax To:

Received:	05/03/2023	Sampling Date:	04/26/2023
Reported:	05/08/2023	Sampling Type:	Soil
Project Name:	MESA B EAST NGL WATER TRANSFER LI	Sampling Condition:	Cool & Intact
Project Number:	03C2012018	Sample Received By:	Tamara Oldaker
Project Location:	32.0625,-103.6145		

**Sample ID: FS 03 2' (H232185-03)**

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	05/05/2023	ND	1.88	93.8	2.00	1.13		
Toluene*	<0.050	0.050	05/05/2023	ND	1.92	96.0	2.00	1.52		
Ethylbenzene*	<0.050	0.050	05/05/2023	ND	2.06	103	2.00	1.39		
Total Xylenes*	<0.150	0.150	05/05/2023	ND	6.00	100	6.00	0.999		
Total BTEX	<0.300	0.300	05/05/2023	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	<16.0	16.0	05/04/2023	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	05/04/2023	ND	192	96.1	200	19.5		
DRO >C10-C28*	<10.0	10.0	05/04/2023	ND	192	96.0	200	18.4		
EXT DRO >C28-C36	<10.0	10.0	05/04/2023	ND						

Surrogate: 1-Chlorooctane 93.1 % 48.2-134

Surrogate: 1-Chlorooctadecane 98.6 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

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

Received:	05/03/2023	Sampling Date:	04/26/2023
Reported:	05/08/2023	Sampling Type:	Soil
Project Name:	MESA B EAST NGL WATER TRANSFER LI	Sampling Condition:	Cool & Intact
Project Number:	03C2012018	Sample Received By:	Tamara Oldaker
Project Location:	32.0625,-103.6145		

**Sample ID: FS 04 2' (H232185-04)**

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	05/05/2023	ND	1.88	93.8	2.00	1.13		
Toluene*	<0.050	0.050	05/05/2023	ND	1.92	96.0	2.00	1.52		
Ethylbenzene*	<0.050	0.050	05/05/2023	ND	2.06	103	2.00	1.39		
Total Xylenes*	<0.150	0.150	05/05/2023	ND	6.00	100	6.00	0.999		
Total BTEX	<0.300	0.300	05/05/2023	ND						

Surrogate: 4-Bromofluorobenzene (PID) 107 % 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	05/04/2023	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	05/04/2023	ND	192	96.1	200	19.5		
DRO >C10-C28*	<10.0	10.0	05/04/2023	ND	192	96.0	200	18.4		
EXT DRO >C28-C36	<10.0	10.0	05/04/2023	ND						

Surrogate: 1-Chlorooctane 116 % 48.2-134

Surrogate: 1-Chlorooctadecane 123 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

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

Received:	05/03/2023	Sampling Date:	04/26/2023
Reported:	05/08/2023	Sampling Type:	Soil
Project Name:	MESA B EAST NGL WATER TRANSFER LI	Sampling Condition:	Cool & Intact
Project Number:	03C2012018	Sample Received By:	Tamara Oldaker
Project Location:	32.0625,-103.6145		

**Sample ID: FS 05 2' (H232185-05)**

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	05/05/2023	ND	1.88	93.8	2.00	1.13		
Toluene*	<0.050	0.050	05/05/2023	ND	1.92	96.0	2.00	1.52		
Ethylbenzene*	<0.050	0.050	05/05/2023	ND	2.06	103	2.00	1.39		
Total Xylenes*	<0.150	0.150	05/05/2023	ND	6.00	100	6.00	0.999		
Total BTEX	<0.300	0.300	05/05/2023	ND						

Surrogate: 4-Bromofluorobenzene (PID) 107 % 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	05/04/2023	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	05/04/2023	ND	192	96.1	200	19.5		
DRO >C10-C28*	<10.0	10.0	05/04/2023	ND	192	96.0	200	18.4		
EXT DRO >C28-C36	<10.0	10.0	05/04/2023	ND						

Surrogate: 1-Chlorooctane 79.9 % 48.2-134

Surrogate: 1-Chlorooctadecane 86.1 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

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

Received:	05/03/2023	Sampling Date:	04/26/2023
Reported:	05/08/2023	Sampling Type:	Soil
Project Name:	MESA B EAST NGL WATER TRANSFER LI	Sampling Condition:	Cool & Intact
Project Number:	03C2012018	Sample Received By:	Tamara Oldaker
Project Location:	32.0625,-103.6145		

**Sample ID: FS 06 2' (H232185-06)**

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	05/05/2023	ND	1.88	93.8	2.00	1.13		
Toluene*	<0.050	0.050	05/05/2023	ND	1.92	96.0	2.00	1.52		
Ethylbenzene*	<0.050	0.050	05/05/2023	ND	2.06	103	2.00	1.39		
Total Xylenes*	<0.150	0.150	05/05/2023	ND	6.00	100	6.00	0.999		
Total BTEX	<0.300	0.300	05/05/2023	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	05/04/2023	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	05/04/2023	ND	192	96.1	200	19.5		
DRO >C10-C28*	<10.0	10.0	05/04/2023	ND	192	96.0	200	18.4		
EXT DRO >C28-C36	<10.0	10.0	05/04/2023	ND						

Surrogate: 1-Chlorooctane 95.4 % 48.2-134

Surrogate: 1-Chlorooctadecane 101 % 49.1-148

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

Received:	05/03/2023	Sampling Date:	04/26/2023
Reported:	05/08/2023	Sampling Type:	Soil
Project Name:	MESA B EAST NGL WATER TRANSFER LI	Sampling Condition:	Cool & Intact
Project Number:	03C2012018	Sample Received By:	Tamara Oldaker
Project Location:	32.0625,-103.6145		

**Sample ID: FS 07 2' (H232185-07)**

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	05/05/2023	ND	1.88	93.8	2.00	1.13		
Toluene*	<0.050	0.050	05/05/2023	ND	1.92	96.0	2.00	1.52		
Ethylbenzene*	<0.050	0.050	05/05/2023	ND	2.06	103	2.00	1.39		
Total Xylenes*	<0.150	0.150	05/05/2023	ND	6.00	100	6.00	0.999		
Total BTEX	<0.300	0.300	05/05/2023	ND						

Surrogate: 4-Bromofluorobenzene (PID) 108 % 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	05/04/2023	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	05/04/2023	ND	192	96.1	200	19.5		
DRO >C10-C28*	<10.0	10.0	05/04/2023	ND	192	96.0	200	18.4		
EXT DRO >C28-C36	<10.0	10.0	05/04/2023	ND						

Surrogate: 1-Chlorooctane 75.8 % 48.2-134

Surrogate: 1-Chlorooctadecane 81.3 % 49.1-148

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

Received:	05/03/2023	Sampling Date:	04/26/2023
Reported:	05/08/2023	Sampling Type:	Soil
Project Name:	MESA B EAST NGL WATER TRANSFER LI	Sampling Condition:	Cool & Intact
Project Number:	03C2012018	Sample Received By:	Tamara Oldaker
Project Location:	32.0625,-103.6145		

**Sample ID: FS 08 2' (H232185-08)**

BTEX 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	05/05/2023	ND	1.88	93.8	2.00	1.13		
Toluene*	<0.050	0.050	05/05/2023	ND	1.92	96.0	2.00	1.52		
Ethylbenzene*	<0.050	0.050	05/05/2023	ND	2.06	103	2.00	1.39		
Total Xylenes*	<0.150	0.150	05/05/2023	ND	6.00	100	6.00	0.999		
Total BTEX	<0.300	0.300	05/05/2023	ND						

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

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	<16.0	16.0	05/04/2023	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	05/04/2023	ND	192	96.1	200	19.5		
DRO >C10-C28*	<10.0	10.0	05/04/2023	ND	192	96.0	200	18.4		
EXT DRO >C28-C36	<10.0	10.0	05/04/2023	ND						

Surrogate: 1-Chlorooctane 77.3 % 48.2-134

Surrogate: 1-Chlorooctadecane 83.0 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

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

Received:	05/03/2023	Sampling Date:	04/26/2023
Reported:	05/08/2023	Sampling Type:	Soil
Project Name:	MESA B EAST NGL WATER TRANSFER LI	Sampling Condition:	Cool & Intact
Project Number:	03C2012018	Sample Received By:	Tamara Oldaker
Project Location:	32.0625,-103.6145		

**Sample ID: FS 09 2' (H232185-09)**

BTEX 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	05/05/2023	ND	1.88	93.8	2.00	1.13		
Toluene*	<0.050	0.050	05/05/2023	ND	1.92	96.0	2.00	1.52		
Ethylbenzene*	<0.050	0.050	05/05/2023	ND	2.06	103	2.00	1.39		
Total Xylenes*	<0.150	0.150	05/05/2023	ND	6.00	100	6.00	0.999		
Total BTEX	<0.300	0.300	05/05/2023	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	<16.0	16.0	05/04/2023	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	05/04/2023	ND	178	89.1	200	1.17		
DRO >C10-C28*	<10.0	10.0	05/04/2023	ND	161	80.7	200	2.05		
EXT DRO >C28-C36	<10.0	10.0	05/04/2023	ND						

Surrogate: 1-Chlorooctane 100 % 48.2-134

Surrogate: 1-Chlorooctadecane 109 % 49.1-148

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

Received:	05/03/2023	Sampling Date:	04/26/2023
Reported:	05/08/2023	Sampling Type:	Soil
Project Name:	MESA B EAST NGL WATER TRANSFER LI	Sampling Condition:	Cool & Intact
Project Number:	03C2012018	Sample Received By:	Tamara Oldaker
Project Location:	32.0625,-103.6145		

**Sample ID: FS 10 2' (H232185-10)**

BTEX 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	05/05/2023	ND	1.88	93.8	2.00	1.13		
Toluene*	<0.050	0.050	05/05/2023	ND	1.92	96.0	2.00	1.52		
Ethylbenzene*	<0.050	0.050	05/05/2023	ND	2.06	103	2.00	1.39		
Total Xylenes*	<0.150	0.150	05/05/2023	ND	6.00	100	6.00	0.999		
Total BTEX	<0.300	0.300	05/05/2023	ND						

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

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	<16.0	16.0	05/04/2023	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	05/04/2023	ND	178	89.1	200	1.17		
DRO >C10-C28*	<10.0	10.0	05/04/2023	ND	161	80.7	200	2.05		
EXT DRO >C28-C36	<10.0	10.0	05/04/2023	ND						

Surrogate: 1-Chlorooctane 97.4 % 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, LLC  
 HADLIE GREEN  
 705 W WADLEY AVE.  
 MIDLAND TX, 79705  
 Fax To:

Received:	05/03/2023	Sampling Date:	04/26/2023
Reported:	05/08/2023	Sampling Type:	Soil
Project Name:	MESA B EAST NGL WATER TRANSFER LI	Sampling Condition:	Cool & Intact
Project Number:	03C2012018	Sample Received By:	Tamara Oldaker
Project Location:	32.0625,-103.6145		

**Sample ID: FS 11 2' (H232185-11)**

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	05/05/2023	ND	1.88	93.8	2.00	1.13		
Toluene*	<0.050	0.050	05/05/2023	ND	1.92	96.0	2.00	1.52		
Ethylbenzene*	<0.050	0.050	05/05/2023	ND	2.06	103	2.00	1.39		
Total Xylenes*	<0.150	0.150	05/05/2023	ND	6.00	100	6.00	0.999		
Total BTEX	<0.300	0.300	05/05/2023	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	<16.0	16.0	05/04/2023	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	05/04/2023	ND	178	89.1	200	1.17		
DRO >C10-C28*	<10.0	10.0	05/04/2023	ND	161	80.7	200	2.05		
EXT DRO >C28-C36	<10.0	10.0	05/04/2023	ND						

Surrogate: 1-Chlorooctane 94.1 % 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, LLC  
 HADLIE GREEN  
 705 W WADLEY AVE.  
 MIDLAND TX, 79705  
 Fax To:

Received:	05/03/2023	Sampling Date:	04/26/2023
Reported:	05/08/2023	Sampling Type:	Soil
Project Name:	MESA B EAST NGL WATER TRANSFER LI	Sampling Condition:	Cool & Intact
Project Number:	03C2012018	Sample Received By:	Tamara Oldaker
Project Location:	32.0625,-103.6145		

**Sample ID: FS 12 2' (H232185-12)**

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	05/05/2023	ND	1.88	93.8	2.00	1.13		
Toluene*	<0.050	0.050	05/05/2023	ND	1.92	96.0	2.00	1.52		
Ethylbenzene*	<0.050	0.050	05/05/2023	ND	2.06	103	2.00	1.39		
Total Xylenes*	<0.150	0.150	05/05/2023	ND	6.00	100	6.00	0.999		
Total BTEX	<0.300	0.300	05/05/2023	ND						

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

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	<16.0	16.0	05/04/2023	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	05/04/2023	ND	178	89.1	200	1.17		
DRO >C10-C28*	<10.0	10.0	05/04/2023	ND	161	80.7	200	2.05		
EXT DRO >C28-C36	<10.0	10.0	05/04/2023	ND						

Surrogate: 1-Chlorooctane 96.5 % 48.2-134

Surrogate: 1-Chlorooctadecane 104 % 49.1-148

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

Received:	05/03/2023	Sampling Date:	04/26/2023
Reported:	05/08/2023	Sampling Type:	Soil
Project Name:	MESA B EAST NGL WATER TRANSFER LI	Sampling Condition:	Cool & Intact
Project Number:	03C2012018	Sample Received By:	Tamara Oldaker
Project Location:	32.0625,-103.6145		

**Sample ID: FS 13 2' (H232185-13)**

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	05/05/2023	ND	1.88	93.8	2.00	1.13		
Toluene*	<0.050	0.050	05/05/2023	ND	1.92	96.0	2.00	1.52		
Ethylbenzene*	<0.050	0.050	05/05/2023	ND	2.06	103	2.00	1.39		
Total Xylenes*	<0.150	0.150	05/05/2023	ND	6.00	100	6.00	0.999		
Total BTEX	<0.300	0.300	05/05/2023	ND						

Surrogate: 4-Bromofluorobenzene (PID) 111 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	16.0	16.0	05/04/2023	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	05/04/2023	ND	178	89.1	200	1.17		
DRO >C10-C28*	<10.0	10.0	05/04/2023	ND	161	80.7	200	2.05		
EXT DRO >C28-C36	<10.0	10.0	05/04/2023	ND						

Surrogate: 1-Chlorooctane 96.3 % 48.2-134

Surrogate: 1-Chlorooctadecane 105 % 49.1-148

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

Received:	05/03/2023	Sampling Date:	04/26/2023
Reported:	05/08/2023	Sampling Type:	Soil
Project Name:	MESA B EAST NGL WATER TRANSFER LI	Sampling Condition:	Cool & Intact
Project Number:	03C2012018	Sample Received By:	Tamara Oldaker
Project Location:	32.0625,-103.6145		

**Sample ID: SW 01 0-2' (H232185-14)**

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	05/05/2023	ND	1.88	93.8	2.00	1.13		
Toluene*	<0.050	0.050	05/05/2023	ND	1.92	96.0	2.00	1.52		
Ethylbenzene*	<0.050	0.050	05/05/2023	ND	2.06	103	2.00	1.39		
Total Xylenes*	<0.150	0.150	05/05/2023	ND	6.00	100	6.00	0.999		
Total BTEX	<0.300	0.300	05/05/2023	ND						

Surrogate: 4-Bromofluorobenzene (PID) 99.8 % 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	05/04/2023	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	05/04/2023	ND	178	89.1	200	1.17		
DRO >C10-C28*	<10.0	10.0	05/04/2023	ND	161	80.7	200	2.05		
EXT DRO >C28-C36	<10.0	10.0	05/04/2023	ND						

Surrogate: 1-Chlorooctane 93.3 % 48.2-134

Surrogate: 1-Chlorooctadecane 101 % 49.1-148

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

Received:	05/03/2023	Sampling Date:	04/26/2023
Reported:	05/08/2023	Sampling Type:	Soil
Project Name:	MESA B EAST NGL WATER TRANSFER LI	Sampling Condition:	Cool & Intact
Project Number:	03C2012018	Sample Received By:	Tamara Oldaker
Project Location:	32.0625,-103.6145		

**Sample ID: SW 02 0-2' (H232185-15)**

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	05/05/2023	ND	1.88	93.8	2.00	1.13		
Toluene*	<0.050	0.050	05/05/2023	ND	1.92	96.0	2.00	1.52		
Ethylbenzene*	<0.050	0.050	05/05/2023	ND	2.06	103	2.00	1.39		
Total Xylenes*	<0.150	0.150	05/05/2023	ND	6.00	100	6.00	0.999		
Total BTEX	<0.300	0.300	05/05/2023	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	<16.0	16.0	05/04/2023	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	05/04/2023	ND	178	89.1	200	1.17		
DRO >C10-C28*	<10.0	10.0	05/04/2023	ND	161	80.7	200	2.05		
EXT DRO >C28-C36	<10.0	10.0	05/04/2023	ND						

Surrogate: 1-Chlorooctane 93.3 % 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, LLC  
 HADLIE GREEN  
 705 W WADLEY AVE.  
 MIDLAND TX, 79705  
 Fax To:

Received:	05/03/2023	Sampling Date:	04/26/2023
Reported:	05/08/2023	Sampling Type:	Soil
Project Name:	MESA B EAST NGL WATER TRANSFER LI	Sampling Condition:	Cool & Intact
Project Number:	03C2012018	Sample Received By:	Tamara Oldaker
Project Location:	32.0625,-103.6145		

**Sample ID: SW 03 0-2' (H232185-16)**

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	05/05/2023	ND	1.88	93.8	2.00	1.13		
Toluene*	<0.050	0.050	05/05/2023	ND	1.92	96.0	2.00	1.52		
Ethylbenzene*	<0.050	0.050	05/05/2023	ND	2.06	103	2.00	1.39		
Total Xylenes*	<0.150	0.150	05/05/2023	ND	6.00	100	6.00	0.999		
Total BTEX	<0.300	0.300	05/05/2023	ND						

Surrogate: 4-Bromofluorobenzene (PID) 101 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	<16.0	16.0	05/04/2023	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	05/04/2023	ND	178	89.1	200	1.17		
DRO >C10-C28*	<10.0	10.0	05/04/2023	ND	161	80.7	200	2.05		
EXT DRO >C28-C36	<10.0	10.0	05/04/2023	ND						

Surrogate: 1-Chlorooctane 95.8 % 48.2-134

Surrogate: 1-Chlorooctadecane 104 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

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

Received:	05/03/2023	Sampling Date:	04/26/2023
Reported:	05/08/2023	Sampling Type:	Soil
Project Name:	MESA B EAST NGL WATER TRANSFER LI	Sampling Condition:	Cool & Intact
Project Number:	03C2012018	Sample Received By:	Tamara Oldaker
Project Location:	32.0625,-103.6145		

**Sample ID: SW 04 0-2' (H232185-17)**

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	05/05/2023	ND	1.88	93.8	2.00	1.13		
Toluene*	<0.050	0.050	05/05/2023	ND	1.92	96.0	2.00	1.52		
Ethylbenzene*	<0.050	0.050	05/05/2023	ND	2.06	103	2.00	1.39		
Total Xylenes*	<0.150	0.150	05/05/2023	ND	6.00	100	6.00	0.999		
Total BTEX	<0.300	0.300	05/05/2023	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	<16.0	16.0	05/04/2023	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	05/04/2023	ND	178	89.1	200	1.17		
DRO >C10-C28*	<10.0	10.0	05/04/2023	ND	161	80.7	200	2.05		
EXT DRO >C28-C36	<10.0	10.0	05/04/2023	ND						

Surrogate: 1-Chlorooctane 101 % 48.2-134

Surrogate: 1-Chlorooctadecane 110 % 49.1-148

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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

Cardinal Laboratories

\*=Accredited Analyte

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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

<b>Company Name:</b> Ensolum, LLC		<b>BILL TO</b>		<b>ANALYSIS REQUEST</b>											
<b>Project Manager:</b> <i>Hydie Green</i>		<b>P.O. #:</b>													
<b>Address:</b> 601 N. Marienfeld St. STE 400		<b>Company:</b> <i>Ensolum</i>													
<b>City:</b> Midland <b>State:</b> TX <b>Zip:</b> 79701		<b>Attn:</b> <i>Kylei Jennings</i>													
<b>Phone #:</b> <i>432-557-8895</i> <b>Fax #:</b>		<b>Address:</b>													
<b>Project #:</b> <i>03C2012018</i> <b>Project Owner:</b>		<b>City:</b>													
<b>Project Name:</b> <i>Mesa B East HGL Water Transfer Line</i>		<b>State:</b> <b>Zip:</b>													
<b>Project Location:</b> <i>RR. 0625, -103 6145</i>		<b>Phone #:</b>													
<b>Sampler Name:</b> <i>Kase Parker</i>		<b>Fax #:</b>													

FOR LAB USE ONLY	Lab I.D.	Sample I.D.	Sample Depth (feet)	(G)RAB OR (C)OMP. # CONTAINERS	MATRIX						PRESERV.			SAMPLING		DATE	TIME	BTEX	TPH	Chlorides
					GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER	ACID/BASE	ICE / COOL	OTHER							
	<i>H23285</i>	<i>F501</i>	<i>2'</i>	<i>C 1</i>			<i>X</i>								<i>4/26/23</i>	<i>1245</i>	<i>X</i>	<i>X</i>	<i>X</i>	
	<i>2</i>	<i>F502</i>														<i>1250</i>				
	<i>3</i>	<i>F503</i>														<i>1255</i>				
	<i>4</i>	<i>F504</i>														<i>1300</i>				
	<i>5</i>	<i>F505</i>														<i>1305</i>				
	<i>6</i>	<i>F506</i>														<i>1310</i>				
	<i>7</i>	<i>F507</i>														<i>1315</i>				
	<i>8</i>	<i>F508</i>														<i>1320</i>				
	<i>9</i>	<i>F509</i>														<i>1325</i>				
	<i>ID</i>	<i>F510</i>														<i>1330</i>				

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<b>Relinquished By:</b> <i>[Signature]</i>	<b>Date:</b> <i>5/3/23</i> <b>Time:</b> <i>1215</i>	<b>Received By:</b> <i>[Signature]</i>	<b>Verbal Result:</b> <input type="checkbox"/> Yes <input type="checkbox"/> No <b>Add'l Phone #:</b>
<b>Relinquished By:</b>	<b>Date:</b>	<b>Received By:</b>	<b>All Results are emailed. Please provide Email address:</b> B.Jennings@ensolum.com
<b>Delivered By: (Circle One)</b> Sampler - UPS - Bus - Other:	<b>Observed Temp. °C:</b> <i>1.4i</i> <b>Corrected Temp. °C:</b> <i>0.8i</i>	<b>Sample Condition:</b> Cool Intact <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<b>REMARKS:</b> <i>hgreen@ensolum.com</i>
		<b>CHECKED BY:</b> (Initials) <i>[Signature]</i>	<b>Turnaround Time:</b> Standard <input type="checkbox"/> Rush <input type="checkbox"/>
			<b>Bacteria (only) Sample Condition:</b> Cool Intact Observed Temp. °C <input type="checkbox"/> Yes <input type="checkbox"/> No
			<b>Thermometer ID #113</b> Correction Factor -0.5°C

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



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

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

Company Name: <u>Ensolum, LLC</u>				<b>BILL TO</b>				<b>ANALYSIS REQUEST</b>													
Project Manager: <u>Hydro Green</u>				P.O. #:																	
Address: <u>601 N. Marienfeld St. STE 400</u>				Company: <u>Ensolum</u>																	
City: <u>Midland</u>		State: <u>TX</u>		Zip: <u>79701</u>		Attn: <u>Katei Jennings</u>															
Phone #: <u>432-557-8895</u> Fax #:				Address:																	
Project #: <u>0302012018</u>		Project Owner:		City:																	
Project Name: <u>Mesa B East NGL Waste Transfer Line</u>				State:      Zip:																	
Project Location: <u>32.0625, 103.6145</u>				Phone #:																	
Sampler Name: <u>Kase Parker</u>				Fax #:																	
FOR LAB USE ONLY																					
Lab I.D.	Sample I.D.	Sample Depth (feet)	(GRAB OR (C)OMP. # CONTAINERS	MATRIX					PRESERV.		SAMPLING										
				GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER :	ACID/BASE:	ICE / COOL	OTHER :	DATE	TIME	BTEX	TPH	Chlorides				
<u>H232185</u>																					
<u>11</u>	<u>FS11</u>	<u>2'</u>	<u>2</u>			<u>X</u>							<u>4/26/23</u>	<u>1535</u>	<u>X</u>	<u>X</u>	<u>✓</u>				
<u>12</u>	<u>FS12</u>	<u>↓</u>												<u>1340</u>							
<u>13</u>	<u>FS13</u>	<u>↓</u>												<u>1345</u>							
<u>14</u>	<u>SW01</u>	<u>0-2'</u>												<u>1350</u>							
<u>15</u>	<u>SW02</u>	<u>↓</u>												<u>1355</u>							
<u>16</u>	<u>SW03</u>	<u>↓</u>												<u>1400</u>							
<u>17</u>	<u>SW04</u>	<u>↓</u>												<u>1405</u>							
<u>KA</u>																					

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Relinquished By: <u>[Signature]</u>	Date: <u>5/3/23</u> Time: <u>12:15</u>	Received By: <u>[Signature]</u>	Verbal Result: <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Add'l Phone #:
Relinquished By:	Date:	Received By:	All Results are emailed. Please provide Email address: <u>B.Jennings@ensolum.com</u>
Delivered By: (Circle One) Sampler - UPS - Bus - Other:	Observed Temp. °C: <u>1.4c</u> Corrected Temp. °C: <u>0.8c</u>	Sample Condition Cool Intact <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/>	REMARKS: <u>hgreen@ensolum.com</u>
		CHECKED BY: <u>[Signature]</u> (Initials)	Turnaround Time: <input checked="" type="checkbox"/> Standard <input type="checkbox"/> Rush
			Bacteria (only) Sample Condition Cool Intact Observed Temp. °C <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> No Corrected Temp. °C
			Thermometer ID #113 Correction Factor -0.5°C

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



## APPENDIX D

### NMOCD Notifications

---

**From:** [Enviro, OCD, EMNRD](#)  
**To:** [Hadlie Green](#)  
**Cc:** [Bratcher, Michael, EMNRD](#); [Nobui, Jennifer, EMNRD](#)  
**Subject:** RE: [EXTERNAL] BTA - Sampling Notification - Week of 03/06/2023  
**Date:** Thursday, March 2, 2023 9:10:14 AM  
**Attachments:** [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:** Thursday, March 2, 2023 6:56 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)>; Bob Hall <[bhall@btaoil.com](mailto:bhall@btaoil.com)>  
**Subject:** [EXTERNAL] BTA - Sampling Notification - Week of 03/06/2023

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 March 6, 2023.

- Mesa Dolphin Produced Water Poly Line/ nAPP2303736433
- Mesa B East NGL Water Transfer Line/ nAPP2235558643

Thank you,



**Hadlie Green**

Staff Geologist

432-557-8895

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

**Ensolum, LLC**

in f 

**From:** [Enviro, OCD, EMNRD](#)  
**To:** [Hadlie Green](#)  
**Subject:** RE: [EXTERNAL] BTA - Sampling Notification - Week of 03/13/2023  
**Date:** Wednesday, March 8, 2023 5:17:29 PM  
**Attachments:** [image002.png](#)  
[image003.png](#)  
[image004.png](#)  
[image005.png](#)

---

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

No problem! Thank you for the clarification.

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@emnrn.dnm.gov](mailto:Jocelyn.Harimon@emnrn.dnm.gov)  
[http:// www.emnrn.dnm.gov](http://www.emnrn.dnm.gov)



---

**From:** Hadlie Green <[hgreen@ensolum.com](mailto:hgreen@ensolum.com)>  
**Sent:** Wednesday, March 8, 2023 4:17 PM  
**To:** Enviro, OCD, EMNRD <[OCD.Enviro@emnrn.dnm.gov](mailto:OCD.Enviro@emnrn.dnm.gov)>  
**Cc:** Bratcher, Michael, EMNRD <[mike.bratcher@emnrn.dnm.gov](mailto:mike.bratcher@emnrn.dnm.gov)>; Nobui, Jennifer, EMNRD <[Jennifer.Nobui@emnrn.dnm.gov](mailto:Jennifer.Nobui@emnrn.dnm.gov)>  
**Subject:** RE: [EXTERNAL] BTA - Sampling Notification - Week of 03/13/2023

Hi,

My apologies, I didn't change the week date in the text itself. These sampling activities are scheduled for next week, March 13, 2023.

Thank you,



**Hadlie Green**  
Project Manager  
432-557-8895  
[hgreen@ensolum.com](mailto:hgreen@ensolum.com)  
**Ensolum, LLC**  
in f

---

**From:** Enviro, OCD, EMNRD <[OCD.Enviro@emnrd.nm.gov](mailto:OCD.Enviro@emnrd.nm.gov)>  
**Sent:** Wednesday, March 8, 2023 5:15 PM  
**To:** Hadlie Green <[hgreen@ensolum.com](mailto:hgreen@ensolum.com)>  
**Cc:** Bratcher, Michael, EMNRD <[mike.bratcher@emnrd.nm.gov](mailto:mike.bratcher@emnrd.nm.gov)>; Nobui, Jennifer, EMNRD <[Jennifer.Nobui@emnrd.nm.gov](mailto:Jennifer.Nobui@emnrd.nm.gov)>  
**Subject:** RE: [EXTERNAL] BTA - Sampling Notification - Week of 03/13/2023

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

Hadlie,

Please be aware that notification requirements are **two business days**, per rule. Were you intending on giving notification for next week 3/13/2023? 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>



---

**From:** Hadlie Green <[hgreen@ensolum.com](mailto:hgreen@ensolum.com)>  
**Sent:** Wednesday, March 8, 2023 1:48 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)>; Bob Hall <[bhall@btaoil.com](mailto:bhall@btaoil.com)>  
**Subject:** [EXTERNAL] BTA - Sampling Notification - Week of 03/13/2023

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 March 6, 2023.

- Mesa Dolphin Produced Water Poly Line/ nAPP2303736433
- Mesa B East NGL Water Transfer Line/ nAPP2235558643
- Mesa B West Burned Poly Line / nAPP2303737335

Thank you,

**From:** [Enviro, OCD, EMNRD](#)  
**To:** [Hadlie Green](#)  
**Cc:** [Bratcher, Michael, EMNRD](#); [Nobui, Jennifer, EMNRD](#)  
**Subject:** RE: [EXTERNAL] BTA - Sampling Notification - Week of 04/17/2023  
**Date:** Friday, April 14, 2023 10:36:22 AM  
**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>



**From:** Hadlie Green <[hgreen@ensolum.com](mailto:hgreen@ensolum.com)>  
**Sent:** Thursday, April 13, 2023 8:48 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)>; Bob Hall <[bhall@btaoil.com](mailto:bhall@btaoil.com)>  
**Subject:** [EXTERNAL] BTA - Sampling Notification - Week of 04/17/2023

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 April 17, 2023.

- Mesa B West – Burned Water Transfer Poly Line / nAPP2303737335
  - Sampling Date: 4/17-18/2023 @ 9:00 AM MST
- Mesa B East NGL Water Transfer Line / nAPP2235558643
  - Sampling Date: 4/19-20/2023 @ 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](#); [Nobui, Jennifer, EMNRD](#)  
**Subject:** RE: [EXTERNAL] BTA - Sampling Notification - Week of 04/24/2023  
**Date:** Thursday, April 20, 2023 4:31:51 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>



---

**From:** Hadlie Green <[hgreen@ensolum.com](mailto:hgreen@ensolum.com)>  
**Sent:** Thursday, April 20, 2023 2:30 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)>; Bob Hall <[bhall@btaoil.com](mailto:bhall@btaoil.com)>  
**Subject:** [EXTERNAL] BTA - Sampling Notification - Week of 04/24/2023

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 April 17, 2023.

- Mesa B West – Burned Water Transfer Poly Line / nAPP2303737335
  - Sampling Date: 4/24-26/2023 @ 9:00 AM MST
- Mesa B East NGL Water Transfer Line / nAPP2235558643

- Sampling Date: 4/25-26/2023 @ 9:00 AM MST

Thank you,



**Hadlie Green**

Project Geologist

432-557-8895

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

**Ensolum, LLC**





APPENDIX E

Final C-141

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

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

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

Incident ID	nAPP2235558643
District RP	
Facility ID	fAPP2130022003
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) nAPP2235558643
Contact mailing address: 104 S. Pecos St., Midland, TX 79701	

### Location of Release Source

Latitude: 32.062595 Longitude: -103.614578

(NAD 83 in decimal degrees to 5 decimal places)

Site Name: Mesa B East NGL Water Transfer Line	Site Type: Tank Battery
Date Release Discovered: 12/20/2022	API# (if applicable) Nearest well:

Unit Letter	Section	Township	Range	County
A	7	26S	33E	Lea

Surface Owner:  State  Federal  Tribal  Private (Name:)

### Nature and Volume of Release

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

<input type="checkbox"/> Crude Oil	Volume Released (bbls)	Volume Recovered (bbls)
<input checked="" type="checkbox"/> Produced Water	Volume Released (bbls) 114 BBL	Volume Recovered (bbls) 55 BBL
	Is the concentration of dissolved chloride in the produced water >10,000 mg/l?	<input checked="" 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

Static electricity, from a poly line carrying natural gas, caused a small fire that burned a hole in an adjacent poly water transfer line. Personnel onsite at the time observed the temporary fire and the formation of the leak in the poly water line. The leak was stopped in about 15 minutes. The wet soil was scraped and stockpiled on plastic on 12/21/2022. Spill calculation is attached.

State of New Mexico  
Oil Conservation Division

Page 2

Incident ID	nAPP2235558643
District RP	
Facility ID	fAPP2130022003
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?  Yes – Release greater than 25 BBL.
If YES, was immediate notice given to the OCD? By whom? To whom? When and by what means (phone, email, etc)? Yes, via filing the NOR for the present Incident ID via the NMOCD Permitting Portal on 12/21/2022.	

### 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: <b>Bob Hall</b> Title: <b>Environmental Manager</b>  Signature: _____ Date: <b>1/3/2023</b>  email: <b>bhall@btaoil.com</b> Telephone: <b>432-682-3753</b>
<b><u>OCD Only</u></b>  Received by: <u>Jocelyn Harimon</u> Date: <u>01/03/2023</u>



**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 171938

**CONDITIONS**

Operator: BTA OIL PRODUCERS, LLC 104 S Pecos Midland, TX 79701	OGRID: 260297
	Action Number: 171938
	Action Type: [C-141] Release Corrective Action (C-141)

**CONDITIONS**

Created By	Condition	Condition Date
jharimon	None	1/3/2023

Incident ID	nAPP2235558643
District RP	
Facility ID	fAPP2130022003
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>51-100</u> (ft bgs)
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.

Form C-141

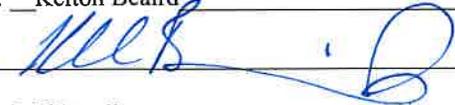
State of New Mexico  
Oil Conservation Division

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Incident ID	nAPP2235558643
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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 Beard   Title:   Environmental Manager  

Signature:  Date:   6/12/2023  

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

**OCD Only**

Received by:   Jocelyn Harimon   Date:   06/13/2023

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State of New Mexico  
Oil Conservation Division

Incident ID	nAPP2235558643
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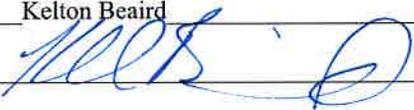
### Closure

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 Beard Title: Environmental Manager  
 Signature:  Date: 6/12/2023  
 email: KBeard@btaoil.com Telephone: 432-312-2203

**OCD Only**

Received by: Jocelyn Harimon Date: 06/13/2023

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

Closure Approved by: Nelson Velez Date: 09/13/2023  
 Printed Name: Nelson Velez Title: Environmental Specialist - Adv

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

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

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

**District IV**  
 1220 S. St Francis Dr., Santa Fe, NM 87505  
 Phone:(505) 476-3470 Fax:(505) 476-3462

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

CONDITIONS

Action 226779

**CONDITIONS**

Operator: BTA OIL PRODUCERS, LLC 104 S Pecos Midland, TX 79701	OGRID: 260297
	Action Number: 226779
	Action Type: [C-141] Release Corrective Action (C-141)

**CONDITIONS**

Created By	Condition	Condition Date
nvelez	None	9/13/2023