ENSOLUM

September 18, 2023

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

Re: Closure Request
Mesa 8105 JV-P 013H/18 Compressor
Incident Numbers NCH1835547953, NAB1906552791, and NAB1906551740
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 delineation and soil sampling activities performed at the Mesa 8105 JV-P 013H/18 Compressor (Site), in accordance with an approved *Revised Remediation Work Plan (Revised Work Plan)*, submitted June 8, 2023. The *Revised Work Plan* detailed Site assessment activities and delineation of the release. Based on delineation activities completed and laboratory analytical results from the soil sampling events in accordance with the Revised *Work Plan*, BTA is submitting this *Closure Request*, describing remediation that has occurred and requesting closure for Incident Numbers NCH1835547953, NAB1906552791, and NAB1906551740.

Details regarding the release, Site characterization, and proposed remediation activities can be referenced in the original *Work Plan* submitted on June 8, 2023. The *Revised Work Plan* is included as Appendix A. On June 23, 2023, the New Mexico Oil Conservation Division (NMOCD) approved the *Work Plan* with the following conditions:

> *This Workplan/Remediation proposal is approved with the following conditions: • All (floor/sidewall) closure samples on pad will need to meet closure criteria standards for depth to water of 51'-100' in Table 1 of the Spill Rule. • Please have soil samples analyzed for all components in Table 1 of the spill rule. The link to the current spill rule as well as the Procedures for Implementation are provided for your convenience. • Please note that, when the well or facility is plugged or abandoned, the final remediation and reclamation shall take place in accordance with 19.15.29.12 and 19.15.29.13 NMAC once the site is no longer being used for oil and gas operations. The OCD wants to clarify that the entire release area will not be deferred, only the sample points that are around production equipment such as production tanks, wellheads, and pipelines. The deferral may be granted so long as the contamination is fully delineated and does not cause an imminent risk to human health, the environment, or ground water.*

BACKGROUND

The Site is located in Unit P, Section 1, Township 26 South, Range 32 East, in Lea County, New Mexico (32.06584°, -103.62410°) and is associated with oil and gas exploration and production operations on Federal Land managed by the Bureau of Land Management (BLM).

On November 24, 2018, a malfunction on a compressor caused the slop tank to overflow. Approximately 20 barrels (bbls) of produced water and 10 bbls of condensate were released. A vacuum truck was dispatched to the Site to recover free-standing fluids; approximately 5 bbls of produced water and 5 bbls of condensate were recovered. BTA reported the release to the NMOCD on a Release Notification Form C-141 (Form C-141) on November 26, 2018. The release was assigned Remediation Permit (RP) Number 2RP-5289 and Incident Number NCH1835547953.

On February 8, 2019, an equipment failure on a compressor caused the slop tank to overflow. Approximately 18 bbls of crude oil were released. A vacuum truck was dispatched to the Site to recover free-standing fluids; approximately 18 bbls of crude oil were recovered. BTA reported the release to the NMOCD on a Form C-141 on February 22, 2019. The release was assigned RP Number 1RP-5383 and Incident Number NAB1906552791.

On February 9, 2019, the same equipment failure occurred on the compressor and caused the slop tank to overflow again. Approximately 18 bbls of crude oil were released. A vacuum truck was dispatched to the Site to recover free-standing fluids; approximately 18 bbls of crude oil were recovered. BTA reported the release to the NMOCD on a Form C-141 on February 22, 2019. The release was assigned RP Number 1RP-5383 and Incident Number NAB1906551740.

On June 6, 2023, Ensolum proposed further delineation activities via hand auger in the *Revised Work Plan*, with the intention of confirming removal of impacted soil in the top 2 feet and field screening at 1-foot intervals for volatile organic compounds (VOCs) utilizing a calibrated photoionization detector (PID) and chloride using Hach® chloride QuantTab® test strips. The response from the NMOCD, on June 23, 2023, approved the *Revised Work Plan* with conditions that the closure samples must meet Closure Criteria for depth to water of 51 feet to 100 feet below ground surface (bgs) in Table I of the Spill Rule and all samples must be analyzed for all components in Table I of the Spill Rule.

As documented in the approved *Revised Work Plan*, the following NMOCD Table I Closure Criteria (Closure Criteria) apply:

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

DELINEATION ACTIVITIES AND ANALYTICAL RESULTS

Between August 4, 2023 and September 13, 2023, Ensolum personnel were at the Site to oversee delineation activities. Ten boreholes (BH01 through BH10) were advanced to 1-foot bgs. Following auger refusal at a depth of 1-foot bgs, Ensolum personnel returned to the Site with a mini track-mounted backhoe to continue delineation in all 10 boreholes to a maximum depth of 4 feet bgs. Samples were field screened as described above. The delineation soil sample locations are depicted on Figure 1. A photographic log can be found in Appendix B. Field screening results and observations for the boreholes were logged on lithologic/soil sampling logs, which are included in Appendix C.

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

analysis of the following chemicals of concern (COCs): BTEX following United States Environmental Protection Agency (EPA) Method 8021B; TPH-GRO, TPH-DRO, and TPH-oil range organics (ORO) following EPA Method 8015M/D; and chloride following EPA Method SM4500.

Laboratory analytical results for delineation soil samples BH01 through BH10, collected within and around the release extent, indicated all COC concentrations were compliant with the Site Closure Criteria and confirmed the absence of impacted soil within and around the inferred release area. Laboratory analytical results are summarized in Table 1 and the complete analytical reports are included as Appendix D.

CLOSURE REQUEST

Site assessment and delineation activities were conducted at the Site as described in the approved *Revised Work Plan*. Laboratory analytical results for the delineation soil samples indicated all COC concentrations were compliant with the Site Closure Criteria. Based on laboratory analytical results, no impacted soil was identified and no further remediation appears required.

BTA believes the remedial actions completed are protective of human health, the environment, and groundwater. As such, BTA respectfully requests closure for Incident Numbers NCH1835547953, NAB1906552791, and NAB1906551740. Notifications submitted to the NMOCD are included in Appendix E and the Final Form C-141s are included in Appendix F.

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

Sincerely,
Ensolum, LLC

Meredith Roberts
Staff Geologist

Daniel R. Moir, PG
Senior Managing Geologist

cc: Kelton Beaird, BTA
Bureau of Land Management

Appendices:

Figure 1	Delineation Soil Sample Locations
Table 1	Soil Sample Analytical Results
Appendix A	Revised Remediation Work Plan
Appendix B	Photographic Log
Appendix C	Lithologic Soil Sampling Logs
Appendix D	Laboratory Analytical Reports & Chain-of-Custody Documentation
Appendix E	NMOCD Notifications
Appendix F	Final C-141s

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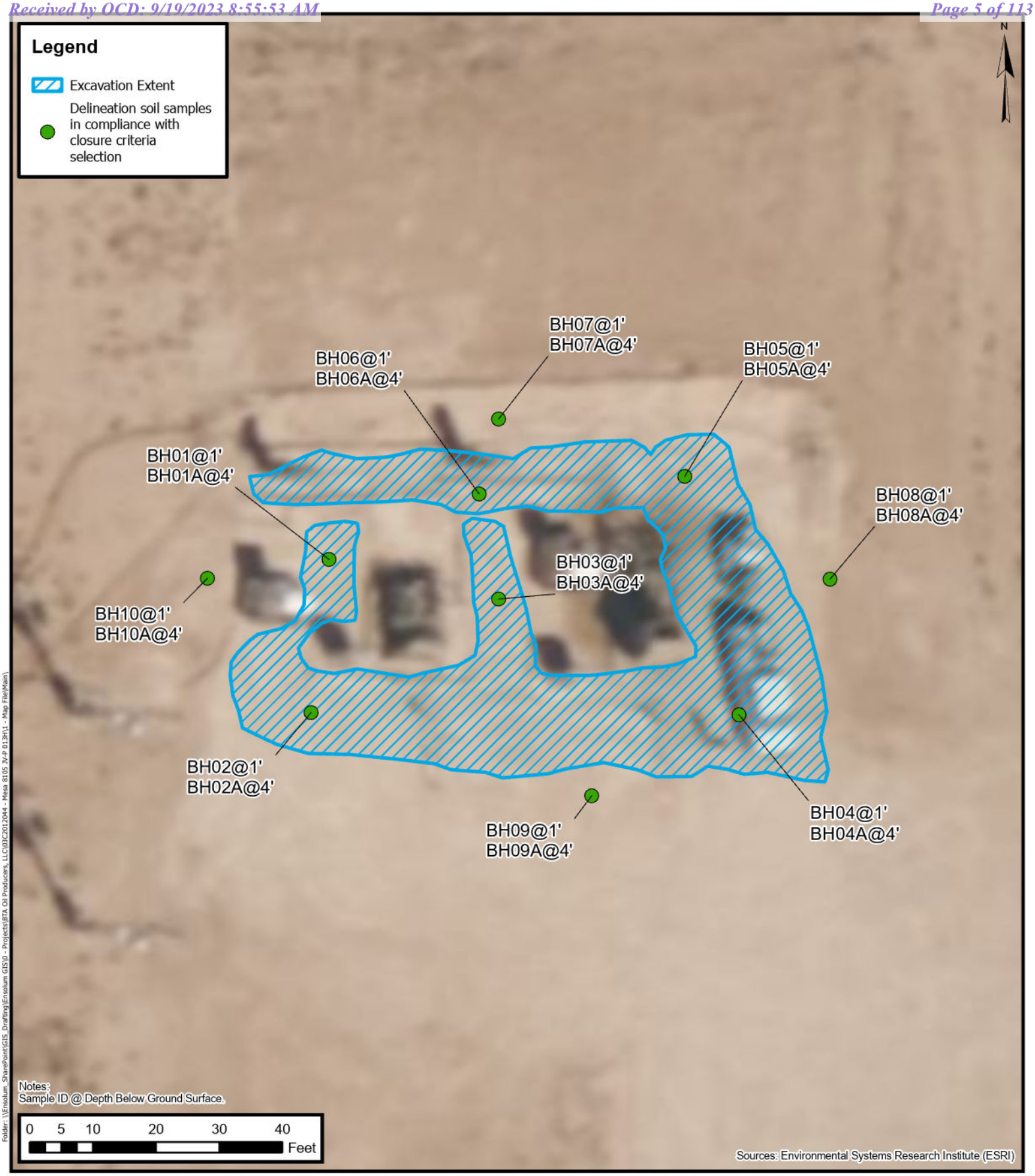
FIGURES



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Delineation Soil Sample Locations

BTA Oil Producers, LLC
Mesa 8105 JV-P 013H
Incident Number: NCH1835547953, NAB1906552791, NAB1906551740
Unit P, Sec 1, T26S, R32E
Lea County, New Mexico

FIGURE 1

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TABLES

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TABLE 1
SOIL SAMPLE ANALYTICAL RESULTS
Mesa 8105 JV-P 013H
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
Delineation Soil Samples										
BH01	08/04/2023	1	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	480
BH01A	09/13/2023	4	<0.050	<0.300	<10.0	<10.0	13.7	<10.0	13.7	240
BH02	08/04/2023	1	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	128
BH02A	09/13/2023	4	<0.050	<0.300	<10.0	512	148	512	660	80.0
BH03	08/04/2023	1	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	64.0
BH03A	09/13/2023	4	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	32.0
BH04	08/04/2023	1	<0.050	<0.300	<10.0	135	52.6	135	188	176
BH04A	09/13/2023	4	<0.050	<0.300	10.5	756	153	767	920	128
BH05	08/04/2023	1	<0.050	<0.300	<10.0	<10.0	35.9	<10.0	35.9	816
BH05A	09/13/2023	4	<0.050	<0.300	<10.0	18.6	18.2	18.6	36.8	48.0
BH06	08/04/2023	1	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	1,170
BH06A	09/13/2023	4	<0.050	<0.300	<10.0	389	81.5	389	471	320
BH07	08/04/2023	1	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	48.0
BH07A	09/13/2023	4	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	48.0
BH08	08/04/2023	1	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	496
BH08A	09/13/2023	4	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	16.0
BH09	08/04/2023	1	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	16.0
BH09A	09/13/2023	4	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	<16.0
BH10	08/04/2023	1	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	16.0
BH10A	09/13/2023	4	<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.

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

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APPENDIX A

Original Revised Remediation Work Plan

ENSOLUM

June 6, 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: Revised Remediation Work Plan
Mesa 8105 JV-P 013H
Incident Numbers NCH1835547953, NAB1906552791, and NAB1906551740
Lea County, New Mexico

To Whom It May Concern:

Ensolum, LLC (Ensolum), on behalf of BTA Oil Producers, LLC (BTA), has prepared the following *Revised Remediation Work Plan* (*Revised Work Plan*) as a follow up to the original *Remediation Work Plan* (*Work Plan*) dated September 25, 2019. This *Revised Work Plan* proposes to complete additional delineation activities at the Mesa 8105 JV-P 013H (Site) in response to the denial of the original *Work Plan* by the New Mexico Oil Conservation Division (NMOCD). In the denial, NMOCD indicated that the the impacted soil left in place had not been properly delineated. The following *Revised Work Plan* proposes full lateral and vertical delineation of the impacted soil left in place.

SITE DESCRIPTION AND RELEASE SUMMARY

The Site is located in Unit P, Section 1, Township 26 South, Range 32 East, in Lea County, New Mexico (32.06584°, -103.62410°) and is associated with oil and gas exploration and production operations on Federal Land managed by the Bureau of Land Management (BLM).

On November 24, 2018, a malfunction on a compressor caused the slop tank to overflow. Approximately 20 barrels (bbls) of produced water and 10 bbls of condensate were released. A vacuum truck was dispatched to the Site to recover free-standing fluids; approximately 5 bbls of produced water and 5 bbls of condensate were recovered. BTA reported the release to the NMOCD on a Release Notification Form C-141 (Form C-141) on November 26, 2018. The release was assigned Remediation Permit Number (RP) Number 2RP-5289 and Incident Number NCH1835547953.

On February 8, 2019, an equipment failure on a compressor caused the slop tank to overflow. Approximately 18 bbls of crude oil were released. A vacuum truck was dispatched to the Site to recover free-standing fluids; approximately 18 bbls of crude oil were recovered. BTA reported the release to the NMOCD on a Form C-141 on February 22, 2019. The release was assigned RP Number 2RP-5383 and Incident Number NAB1906552791.

On February 9, 2019, the same equipment failure occurred on the compressor and caused the slop tank to overflow again. Approximately 18 bbls of crude oil were released. A vacuum truck was dispatched to the Site to recover free-standing fluids; approximately 18 bbls of crude oil were recovered. BTA reported

the release to the NMOCD on a Form C-141 on February 22, 2019. The release was assigned RP Number 2RP-5383 and Incident Number NAB1906551740.

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, Section 12 (19.15.29.12) of the New Mexico Administrative Code (NMAC). Results from the characterization desktop review are presented on the Form C-141, Site Assessment/Characterization. Potential Site receptors are identified on Figure 1.

Depth to groundwater at the Site is estimated to be greater than 55 feet below ground surface (bgs) based on the nearest groundwater well data. The closest permitted groundwater well with depth to groundwater data is New Mexico Office of the State Engineer (NMOSE) well C-04485, located approximately 0.5 miles southwest of the Site. The well was drilled to a depth of 55 feet during October 2020, and no groundwater was encountered. All wells used for depth to groundwater determination are depicted on Figure 1 and the referenced well records are included in Appendix A.

The closest continuously flowing or significant watercourse to the Site is a dry wash, located approximately 380 feet southwest 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

BACKGROUND

Between November 2018 and August 2019, delineation and excavation activities were conducted at the Site to address the impacted soil resulting from the three slop tank overflow releases into an area of active production equipment. Impacted soil was excavated to a depth of 2 feet bgs around the active compressors and production equipment, and beneath the surface lines. A total of approximately 128 cubic yards of impacted soil were exavated. However, impacted soil was left in place immediately adjacent to and beneath the active compressors and production equipment where remediation would cause a major facility deconstruction. Impacted soil within the release extent was vertically delineated to below the most stringent Table I Closure Criteria. Delineation sample points SP1 and SP2 confirmed that impacted soil did not extend deeper than 4 feet bgs. The excavation extent and delineation soil sample locations are presented on the attached Figure 2. The laboratory analytical results are summarized in the attached Table 1. There was limited area to continue deeper excavation due to two compressors, two vertical separator vessels, hard-piped gas meter runs, high-pressure gas lines, and buried electrical lines within the release area. A *Work Plan* was submitted to NMOCD on September 25, 2019, proposing to defer the impacted soil left in place and install a 20 mil impermeable liner in the base

of the 2-foot excavation prior to backfilling. Additional details can be referenced in the original *Work Plan,* submitted to NMOCD on September 25, 2019.

On December 11, 2019, NMOCD denied the *Work Plan* for Incident Numbers NCH1835547953, NAB1906552791, and NAB1906551740 for the following reasons:

- *The OCD can't approve this remediation plan because there aren't enough soil sample points in the spill area. Looking at the analytical table, SP1 and SP2 have the first clean sample points for TPH at 4' bgs and have only been excavated to 1' bgs. The areas that prevent further excavation because of the compressors, installed production equipment, lines, and rock refusal will need to be delineated with lab tested soil samples to quantify the amount of contaminated soil left in place. These samples will need to be included in a formal deferral request, once the rest of the excavation is delineated and excavated. The entire spill will not be deferred, please use a hydrovac to remove contaminated soil in places that can be excavated.*

PROPOSED REMEDIATION WORKPLAN

Upon review of the September 25, 2019, *Work Plan,* it was noted that impacted soil was excavated to a depth of 2 feet bgs not 1-foot bgs as described in the denial language. Additionally, upon review of the 2018/2019 site photographs, it appears that impacted soil was excavated as close as possible to the active compressors and production equipment, including areas beneath surface lines. Additional excavation does not appear to be safely practical. A photographic log of the 2018/2019 excavation activities is provided in Appendix B along with photos from May 2023 showing the backfilled excavation area. BTA agrees that the delineation activities completed in 2019 were not adequate for deferral of the impacted soil left in place. As such, BTA requests approval to complete the following additional remediation activities:

- Full lateral and vertical delineation the impacted soil that was left in-place.
    - Boreholes will be advanced via hand auger outside of the historical release/excavation extent to determine the lateral extent of the impacted soil that was left in place and confirm the horizontal extent of the surface release.
    - Boreholes will be advanced via hand auger within the historical release/excavation extent to confirm removal of the top two feet of impacted soil, determine if a liner was installed prior to backfilling the excavation, and confirm the vertical extent of the impacted soil that was left in place.
    - Soil from the boreholes will be field screened at 1-foot intervals for volatile organic compounds (VOCs) utilizing a calibrated photoionization detector (PID) and chloride using Hach® chloride QuanTab® test strips. Field screening results and observations will be logged on lithologic/soil sampling logs. Two delineation samples from each borehole will be submitted for laboratory analysis; the sample with the highest field screening result and the sample from the final borehole depth.
        - Final depth of the boreholes will be determined by field screening results indicating compliance with the Site Closure Criteria. In the absence of elevated field screening results, the boreholes will be advanced to a depth of 4 feet bgs.
        - If a liner is encountered in the boreholes, the liner will be patched/repaired following vertical delineation activities.
    - The proposed borehole locations are shown on the attached Figure 3. Borehole locations may need to be adjusted slightly during field activities based on the location of underground utilities.

- The delineation samples will be analyzed for BTEX following United States Environmental Protection Agency (EPA) Method 8021B; TPH-GRO, TPH-DRO, and TPH-oil range organics (ORO) following EPA Method 8015M/D; and chloride following EPA Method 300.0.

- Upon completion of the lateral and vertical delineation activities and receipt of the laboratory analytical results, BTA will prepare a *Deferral Request* quantifying the volume of impacted soil left in place and requesting deferral until major well pad construction/alteration or final plugging and abandonment.

BTA will complete the delineation activities within 90 days of the date of approval of this *Revised Work Plan* by the NMOCD. BTA believes the scope of work described above meets the requirements set forth in 19.15.29.13 NMAC and is protective of human health, the environment, and groundwater. As such, BTA respectfully requests approval of this *Revised Work Plan* for Incident Numbers NCH1835547953, NAB1906552791, and NAB1906551740.

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

Sincerely,
Ensolum, LLC

Aimee Cole
Senior Managing Scientist

Ashley Ager, M.S., PG
Principal

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

Appendices:

Figure 1	Site Location Map (2023)
Figure 2	Excavation Extent and Delineation Soil Sample Locations (2018/2019)
Figure 3	Proposed Delineation Soil Sample Locations (2023)
Table 1	Soil Sample Analytical Results (2018/2019)
Appendix A	Referenced Well Records
Appendix B	Photographic Log (2019/2023)
Appendix C	Laboratory Analytical Reports & Chain-of-Custody Documentation (2019)
Appendix D	Final C-141s

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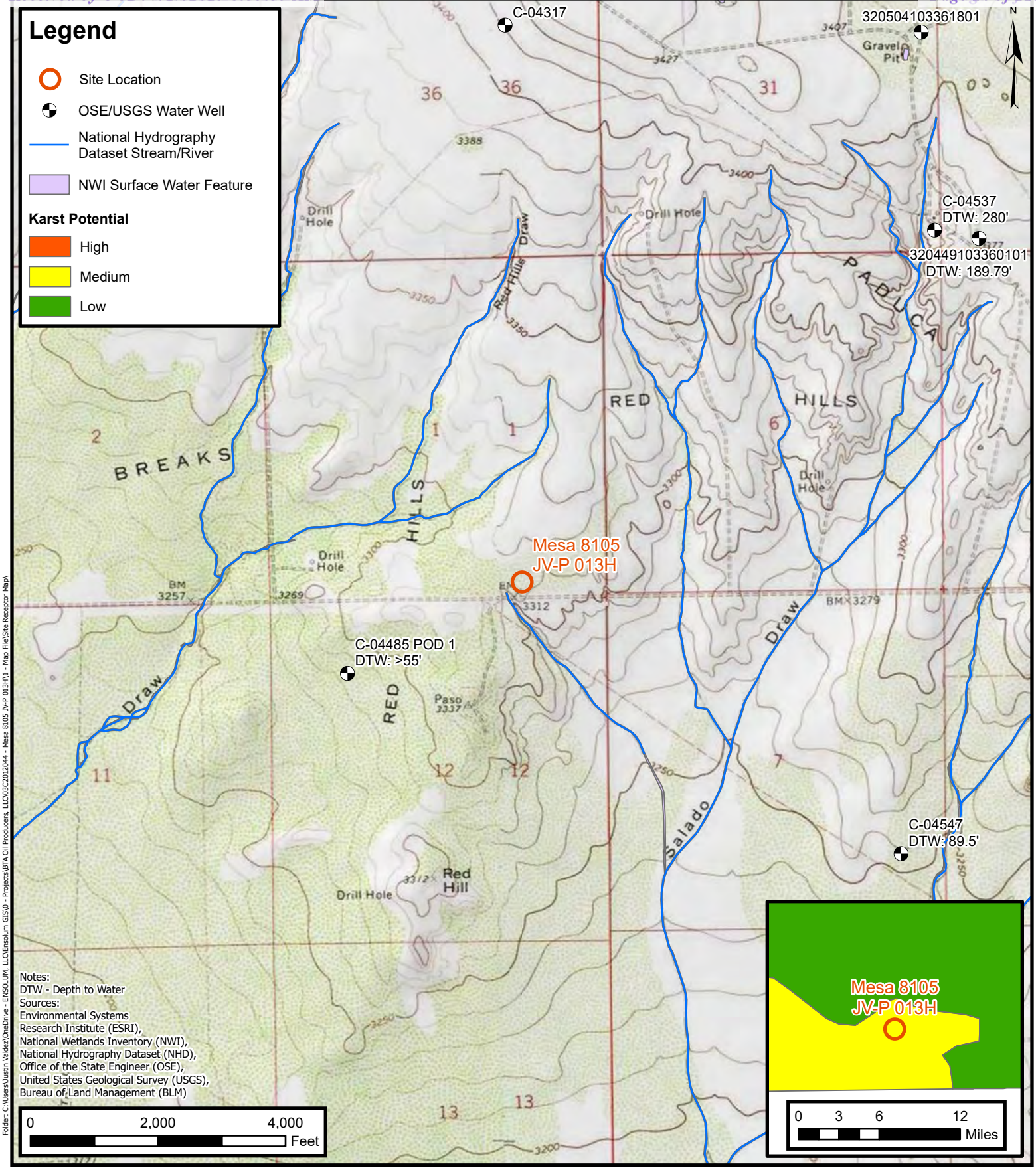
FIGURES



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Environmental, Engineering and Hydrogeologic Consultants

Site Receptor Map

BTA Oil Producers, LLC
Mesa 8105 JV-P 013H
Incident Number: NCH1835547953, NAB1906552791, and NAB1906551740
Unit P, Section 1, Township 26 South, Range 32 East
Lea County, New Mexico

FIGURE 1

Figure 2 - Excavation Extent and Delineation Soil Sample Locations (2018/2019)

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Proposed Delineation Soil Sample Locations

BTA Oil Producers, LLC
Mesa 8105 JV-P 013H
Incident Number: NCH1835547953, NAB1906552791, and NAB1906551740
Unit P, Section 1, Township 26 South, Range 32 East
Lea County, New Mexico

FIGURE 3

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TABLES

Table 1 - Soil Sample Analytical Results

Mesa 13/18 Compressor Slop Tank Release - November 24, 2018; February 8, 2019; and February 9, 2019
OCD Tracking #: 1RP-5289 and 1RP-5383

Location	Status	Sample Date	Sample Depth (feet BGS)	Field Screening		Laboratory Results										
				PID Result (PPM)	Titration Result (mg/kg)	Chloride (mg/kg)	Total TPH (mg/kg)	TPH GRO + DRO (mg/kg)	BTEX (mg/kg)	Benzene (mg/kg)	Toluene (mg/kg)	Ethyl-benzene (mg/kg)	Total Xylenes (mg/kg)	TPH GRO (mg/kg)	TPH DRO (mg/kg)	TPH Ext DRO (mg/kg)
SP1	Removed	11/25/18	Surface	15,000+	149											
SP1	Removed	11/25/18	1	9,800	105											
SP1	In Situ	11/25/18	2	12,300	98											
SP1	In Situ	8/23/19	2			48	22,422	16,532	16.9	0.424	5.36	1.71	9.36	232	16,300	5,890
SP1	In Situ	11/25/18	3	1,700	174											
SP1	In Situ	8/23/19	4	2.9	98	16	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
SP1	In Situ	8/23/19	7	0	98	32	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
SP2	Removed	11/25/18	Surface	15,000+	1,149											
SP2	Removed	11/25/18	1	8,547	549											
SP2	In Situ	11/25/18	2	8,500	174											
SP2	In Situ	8/23/19	2			16	10,623	7,743	3.47	ND	0.365	0.416	2.69	52.5	7,690	2,880
SP2	In Situ	11/25/18	3	100	98											
SP2	In Situ	8/23/19	4	1.8	105	ND	10.1	ND	ND	ND	ND	ND	ND	ND	ND	10.1
SP2	In Situ	8/23/19	5	0	98	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

NMOCD Table 1 - Closure Criteria for Soils Impacted by a Release (19.15.29.12)
Minimum Depth to GW less than 10,000 mg/l TDS

<= 50'	600	100	-	50	10
51' - 100'	10,000	2,500	1,000	50	10
>100'	20,000	2,500	1,000	50	10

Reporting Limits:
Chloride: 16.0 mg/kg
Benzene, Toluene, Ethylbenzene: 0.050 mg/kg for each analyte
Total Xylenes: 0.150 mg/kg
Total BTEX: 0.300 mg/kg
GRO (C6 - C10), DRO (>C10 - C28), Ext DRO (>C28 - C36): 10.0 mg/kg for each analyte

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APPENDIX A

Referenced Well Records

WELL RECORD & LOG

OFFICE OF THE STATE ENGINEER

www.ose.state.nm.us

1. GENERAL AND WELL LOCATION

OSE POD NO. (WELL NO.) C-04485 OWL 362	WELL TAG ID NO. NA	OSE FILE NO(S). C-04485
WELL OWNER NAME(S) KJ ENVIRONMENTAL		PHONE (OPTIONAL) 214-287-5875
WELL OWNER MAILING ADDRESS 500 MOSSELEY ROAD		CITY CROSS ROADS STATE TX ZIP 76227

WELL LOCATION (FROM GPS)		DEGREES	MINUTES	SECONDS	
	LATITUDE	3548560		N	* ACCURACY REQUIRED: ONE TENTH OF A SECOND
	LONGITUDE	629271		W	* DATUM REQUIRED: WGS 84

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

2. DRILLING & CASING INFORMATION

LICENSE NO. WD 1186	NAME OF LICENSED DRILLER RODNEY HAMMER			NAME OF WELL DRILLING COMPANY ENVIRO-DRILL, INC.
DRILLING STARTED 10/05/2020	DRILLING ENDED 10/06/2020	DEPTH OF COMPLETED WELL (FT) 55'	BORE HOLE DEPTH (FT) 55'	DEPTH WATER FIRST ENCOUNTERED (FT) None (Dry)

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

STATIC WATER LEVEL IN COMPLETED WELL (FT)

DRILLING FLUID: ☐ AIR ☐ MUD ADDITIVES – SPECIFY:

DRILLING METHOD: ☒ ROTARY ☐ HAMMER ☐ CABLE TOOL ☒ OTHER – SPECIFY: HSA

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

STATE ENGINEER OFFICE 2020 NOV 20

3. ANNULAR MATERIAL

DEPTH (feet bgl) FROM	TO	BORE HOLE DIAM. (inches)	LIST ANNULAR SEAL MATERIAL AND GRAVEL PACK SIZE-RANGE BY INTERVAL	AMOUNT (cubic feet)	METHOD OF PLACEMENT
55	43	8"	Sand 10/20	10	tremie
43	41	8"	Hole Plug	1	
41	0	8"	Grout	100 gal.	↓

FOR OSE INTERNAL USE

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

FILE NO. CC-2599	POD NO.	TRN NO. 693367
LOCATION 2-2-4 2N-33E-10		WELL TAG ID NO.

PAGE 1 OF 2

4. HYDROGEOLOGIC LOG OF WELL

DEPTH (feet bgl) FROM	DEPTH (feet bgl) TO	THICKNESS (feet)	COLOR AND TYPE OF MATERIAL ENCOUNTERED - INCLUDE WATER-BEARING CAVITIES OR FRACTURE ZONES (attach supplemental sheets to fully describe all units)	WATER BEARING? (YES / NO)	ESTIMATED YIELD FOR WATER-BEARING ZONES (gpm)
0	10		Sand + gravel	Y (N)	
10	25		gravel + Caliche	Y (N)	
25	45		Caliche	Y (N)	
45	55		Sandstone	Y (N)	
				Y N	
				Y N	
				Y N	
				Y N	
				Y N	
				Y N	
				Y N	
				Y N	
				Y N	
				Y N	
				Y N	
				Y N	
				Y N	
				Y N	
				Y N	
				Y N	
				Y N	

METHOD USED TO ESTIMATE YIELD OF WATER-BEARING STRATA:

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

TOTAL ESTIMATED WELL YIELD (gpm): 0.00

2020 NOV 19 2021 APR 6 PM 12:16

NEW MEXICO STATE ENGINEER OFFICE

5. TEST; RIG SUPERVISION

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

MISCELLANEOUS INFORMATION:

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

6. SIGNATURE

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

Rodney Hammer — 10-14-20

SIGNATURE OF DRILLER / PRINT SIGNEE NAME — DATE

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

FILE NO.	POD NO.	TRN NO.
LOCATION	WELL TAG ID NO.	PAGE 2 OF 2

ENSOLUM

APPENDIX B

Photographic Log

2019 - Photo Log

Facing North

Spill Excavated

Digging up release

Spill Excavated

Spill excavated

Aerial View -South View

2019 - Photo Log

Facing west

Facing North

Facing South

Facing Northwest

2019 - Photo Log

Northeast

Facing West

Facing East

North

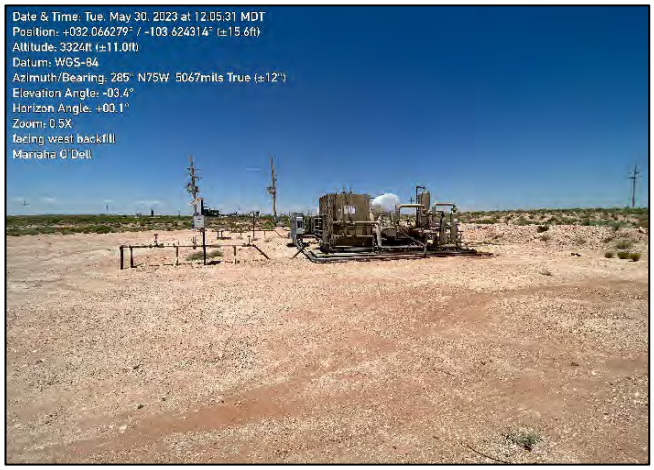
South

Spill Area Facing South

ENSOLUM

Photographic Log
BTA Oil Producers, LLC
Mesa 8105 JV-P 013H

Photograph: 1 Date: 5/30/2023
Description: Historical release area/backfilled excavation
View: North



Photograph: 2 Date: 5/30/2023
Description: Historical release area/backfilled excavation
View: West

Photograph: 3 Date: 5/30/2023
Description: Historical release area/backfilled excavation
View: East

Photograph: 4 Date: 5/30/2023
Description: Historical release area/backfilled excavation
View: South

ENSOLUM

APPENDIX C

Laboratory Analytical Reports & Chain of Custody Documentation

CARDINAL Laboratories

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

August 27, 2019

BOB HALL

BTA Oil Producers

103 South Pecos

Midland, TX 79701

RE: MESA 13 - 18

Enclosed are the results of analyses for samples received by the laboratory on 08/26/19 15:15.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-18-11. Accreditation applies to drinking water, non-potable water and solid and chemical materials. All accredited analytes are denoted by an asterisk (*). For a complete list of accredited analytes and matrices visit the TCEQ website at www.tceq.texas.gov/field/qa/lab_accred_certif.html.

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

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

Accreditation applies to public drinking water matrices.

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

Sincerely,

Celey D. Keene

Lab Director/Quality Manager

CARDINAL Laboratories

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

Analytical Results For:

BTA Oil Producers
BOB HALL
103 South Pecos
Midland TX, 79701
Fax To: (432) 683-0312

Received:	08/26/2019	Sampling Date:	08/23/2019
Reported:	08/27/2019	Sampling Type:	Soil
Project Name:	MESA 13 - 18	Sampling Condition:	Cool & Intact
Project Number:	COMPRESSOR 3 SPILLS	Sample Received By:	Tamara Oldaker
Project Location:	LEA CO		

Sample ID: SP 1 @ 2' (H902935-01)

BTEX 8021B mg/kg Analyzed By: ms

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	**0.424**	0.050	08/27/2019	ND	1.69	84.7	2.00	0.243	
Toluene*	**5.36**	0.050	08/27/2019	ND	1.90	94.9	2.00	0.313	
Ethylbenzene*	**1.71**	0.050	08/27/2019	ND	2.03	101	2.00	1.70	
Total Xylenes*	**9.36**	0.150	08/27/2019	ND	6.22	104	6.00	2.17	
Total BTEX	**16.9**	0.300	08/27/2019	ND					

Surrogate: 4-Bromofluorobenzene (PID *111 %* *73.3-129*

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

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**48.0**	16.0	08/27/2019	ND	432	108	400	0.00	

TPH 8015M mg/kg Analyzed By: MS S-06

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	**232**	50.0	08/27/2019	ND	207	103	200	2.02	
DRO >C10-C28*	**16300**	50.0	08/27/2019	ND	203	101	200	2.56	
EXT DRO >C28-C36	**5890**	50.0	08/27/2019	ND					

Surrogate: 1-Chlorooctane *127 %* *41-142*

Surrogate: 1-Chlorooctadecane *916 %* *37.6-147*

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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

Analytical Results For:

BTA Oil Producers
BOB HALL
103 South Pecos
Midland TX, 79701
Fax To: (432) 683-0312

Received:	08/26/2019	Sampling Date:	08/23/2019
Reported:	08/27/2019	Sampling Type:	Soil
Project Name:	MESA 13 - 18	Sampling Condition:	Cool & Intact
Project Number:	COMPRESSOR 3 SPILLS	Sample Received By:	Tamara Oldaker
Project Location:	LEA CO		

Sample ID: SP 1 @ 4' (H902935-02)

BTEX 8021B mg/kg Analyzed By: ms

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	08/27/2019	ND	1.69	84.7	2.00	0.243	
Toluene*	<0.050	0.050	08/27/2019	ND	1.90	94.9	2.00	0.313	
Ethylbenzene*	<0.050	0.050	08/27/2019	ND	2.03	101	2.00	1.70	
Total Xylenes*	<0.150	0.150	08/27/2019	ND	6.22	104	6.00	2.17	
Total BTEX	<0.300	0.300	08/27/2019	ND					

Surrogate: 4-Bromofluorobenzene (PID *91.0 %* *73.3-129*

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	08/27/2019	ND	432	108	400	0.00	

TPH 8015M mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	08/27/2019	ND	207	103	200	2.02	
DRO >C10-C28*	<10.0	10.0	08/27/2019	ND	203	101	200	2.56	
EXT DRO >C28-C36	<10.0	10.0	08/27/2019	ND					

Surrogate: 1-Chlorooctane *113 %* *41-142*

Surrogate: 1-Chlorooctadecane *123 %* *37.6-147*

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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

Analytical Results For:

BTA Oil Producers
BOB HALL
103 South Pecos
Midland TX, 79701
Fax To: (432) 683-0312

Received:	08/26/2019	Sampling Date:	08/23/2019
Reported:	08/27/2019	Sampling Type:	Soil
Project Name:	MESA 13 - 18	Sampling Condition:	Cool & Intact
Project Number:	COMPRESSOR 3 SPILLS	Sample Received By:	Tamara Oldaker
Project Location:	LEA CO		

Sample ID: SP 1 @ 7' (H902935-03)

BTEX 8021B mg/kg Analyzed By: ms

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	08/27/2019	ND	1.69	84.7	2.00	0.243	
Toluene*	<0.050	0.050	08/27/2019	ND	1.90	94.9	2.00	0.313	
Ethylbenzene*	<0.050	0.050	08/27/2019	ND	2.03	101	2.00	1.70	
Total Xylenes*	<0.150	0.150	08/27/2019	ND	6.22	104	6.00	2.17	
Total BTEX	<0.300	0.300	08/27/2019	ND					

Surrogate: 4-Bromofluorobenzene (PID *93.1 %* *73.3-129*

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	08/27/2019	ND	432	108	400	0.00	

TPH 8015M mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	08/27/2019	ND	207	103	200	2.02	
DRO >C10-C28*	<10.0	10.0	08/27/2019	ND	203	101	200	2.56	
EXT DRO >C28-C36	<10.0	10.0	08/27/2019	ND					

Surrogate: 1-Chlorooctane *125 %* *41-142*

Surrogate: 1-Chlorooctadecane *135 %* *37.6-147*

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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

Analytical Results For:

BTA Oil Producers
BOB HALL
103 South Pecos
Midland TX, 79701
Fax To: (432) 683-0312

Received:	08/26/2019	Sampling Date:	08/23/2019
Reported:	08/27/2019	Sampling Type:	Soil
Project Name:	MESA 13 - 18	Sampling Condition:	Cool & Intact
Project Number:	COMPRESSOR 3 SPILLS	Sample Received By:	Tamara Oldaker
Project Location:	LEA CO		

Sample ID: SP 2 @ 2' (H902935-04)

BTEX 8021B mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	08/26/2019	ND	1.69	84.3	2.00	0.552	
Toluene*	**0.365**	0.050	08/26/2019	ND	1.88	94.0	2.00	1.51	
Ethylbenzene*	**0.416**	0.050	08/26/2019	ND	1.96	97.9	2.00	1.18	
Total Xylenes*	**2.69**	0.150	08/26/2019	ND	6.08	101	6.00	1.15	
Total BTEX	**3.47**	0.300	08/26/2019	ND					

Surrogate: 4-Bromofluorobenzene (PID *126 %* *73.3-129*

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	08/27/2019	ND	432	108	400	0.00	

TPH 8015M mg/kg Analyzed By: MS S-04

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	**52.5**	10.0	08/27/2019	ND	207	103	200	2.02	
DRO >C10-C28*	**7690**	10.0	08/27/2019	ND	203	101	200	2.56	
EXT DRO >C28-C36	**2880**	10.0	08/27/2019	ND					

Surrogate: 1-Chlorooctane *115 %* *41-142*

Surrogate: 1-Chlorooctadecane *497 %* *37.6-147*

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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

Analytical Results For:

BTA Oil Producers
BOB HALL
103 South Pecos
Midland TX, 79701
Fax To: (432) 683-0312

Received:	08/26/2019	Sampling Date:	08/23/2019
Reported:	08/27/2019	Sampling Type:	Soil
Project Name:	MESA 13 - 18	Sampling Condition:	Cool & Intact
Project Number:	COMPRESSOR 3 SPILLS	Sample Received By:	Tamara Oldaker
Project Location:	LEA CO		

Sample ID: SP 2 @ 4' (H902935-05)

BTEX 8021B mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	08/26/2019	ND	1.69	84.3	2.00	0.552	
Toluene*	<0.050	0.050	08/26/2019	ND	1.88	94.0	2.00	1.51	
Ethylbenzene*	<0.050	0.050	08/26/2019	ND	1.96	97.9	2.00	1.18	
Total Xylenes*	<0.150	0.150	08/26/2019	ND	6.08	101	6.00	1.15	
Total BTEX	<0.300	0.300	08/26/2019	ND					

Surrogate: 4-Bromofluorobenzene (PID *105 %* *73.3-129*

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	08/27/2019	ND	432	108	400	0.00	

TPH 8015M mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	08/27/2019	ND	207	103	200	2.02	
DRO >C10-C28*	<10.0	10.0	08/27/2019	ND	203	101	200	2.56	
EXT DRO >C28-C36	**10.1**	10.0	08/27/2019	ND					

Surrogate: 1-Chlorooctane *115 %* *41-142*

Surrogate: 1-Chlorooctadecane *126 %* *37.6-147*

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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

Analytical Results For:

BTA Oil Producers
BOB HALL
103 South Pecos
Midland TX, 79701
Fax To: (432) 683-0312

Received:	08/26/2019	Sampling Date:	08/23/2019
Reported:	08/27/2019	Sampling Type:	Soil
Project Name:	MESA 13 - 18	Sampling Condition:	Cool & Intact
Project Number:	COMPRESSOR 3 SPILLS	Sample Received By:	Tamara Oldaker
Project Location:	LEA CO		

Sample ID: SP 2 @ 5' (H902935-06)

BTEX 8021B mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	08/26/2019	ND	1.69	84.3	2.00	0.552	
Toluene*	<0.050	0.050	08/26/2019	ND	1.88	94.0	2.00	1.51	
Ethylbenzene*	<0.050	0.050	08/26/2019	ND	1.96	97.9	2.00	1.18	
Total Xylenes*	<0.150	0.150	08/26/2019	ND	6.08	101	6.00	1.15	
Total BTEX	<0.300	0.300	08/26/2019	ND					

Surrogate: 4-Bromofluorobenzene (PID *108 %* *73.3-129*

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	08/27/2019	ND	432	108	400	0.00	

TPH 8015M mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	08/27/2019	ND	207	103	200	2.02	
DRO >C10-C28*	<10.0	10.0	08/27/2019	ND	203	101	200	2.56	
EXT DRO >C28-C36	<10.0	10.0	08/27/2019	ND					

Surrogate: 1-Chlorooctane *114 %* *41-142*

Surrogate: 1-Chlorooctadecane *124 %* *37.6-147*

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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

Notes and Definitions

S-06	The recovery of this surrogate is outside control limits due to sample dilution required from high analyte concentration and/or matrix interference's.
S-04	The surrogate recovery for this sample is outside of established control limits due to a sample matrix effect.
QM-07	The spike recovery was outside acceptance limits for the MS and/or MSD. The batch was accepted based on acceptable LCS recovery.
ND	Analyte NOT DETECTED at or above the reporting limit
RPD	Relative Percent Difference
**	Samples not received at proper temperature of 6°C or below.
***	Insufficient time to reach temperature.
-	Chloride by SM4500Cl-B does not require samples be received at or below 6°C
	Samples reported on an as received basis (wet) unless otherwise noted on report

Cardinal Laboratories

*=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

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

Company Name:	BTA oil Producers	**BILL TO**	
Project Manager:	Bob Hall	P.O. #:	
Address:		Company:	BTA
City:	State: Zip:	Attn:	Bob Hall
Phone #:	Fax #:	Address:	
Project #:	Project Owner:	City:	
Project Name:		State: Zip:	
Project Location:	Mesa. 13-18 - compressor x3 sites	Phone #:	
Sampler Name:	M. Alcott	Fax #:	

FOR LAB USE ONLY				MATRIX						PRESERV.		SAMPLING		ANALYSIS REQUEST		
Lab I.D.	Sample I.D.	(G)RAB OR (C)OMP.	# CONTAINERS	GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER :	ACID/BASE:	ICE / COOL	OTHER :	DATE	TIME	CL	TPH	BTEX
H902935-1	Sp. 1 @ 2'	G	1			X					X		8/23/19	9:30	X	X	X
2	Sp. 1 @ 4'	G	1			X					X		8/23/19	9:40	X	X	X
3	Sp. 1 @ 7'	G	1			X					X		8/23/19	9:52	X	X	X
4	Sp. 2 @ 2'	G	1			X					X		8/23/19	10:05	X	X	X
5	Sp. 2 @ 4'	G	1			X					X		8/23/19	10:30	X	X	X
6	Sp. 2 @ 5'	G	1			X					X		8/23/19	10:43	X	X	X

Relinquished By:	Date: 8-26-19 Time: 15:15	Received By:	Phone Result: ☐ Yes ☐ No Add'l Phone #:
Relinquished By:	Date: Time:	Received By:	Fax Result: ☐ Yes ☐ No Add'l Fax #:
Delivered By: (Circle One)	4.4° #97	Sample Condition: Cool ☐ Yes ☐ No, Intact ☐ Yes ☐ No	CHECKED BY: (Initials)
Sampler - UPS - Bus - Other:	Corrected 4.7°		TO.

REMARKS: Rush

Michael@expertenvironservices.com.

† Cardinal cannot accept verbal changes. Please fax written changes to (575) 393-2326

ENSOLUM

APPENDIX D

Final C-141s

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	NCH1835547953
District RP	1RP-5289
Facility ID	
Application ID	

Release Notification

Responsible Party

Responsible Party BTA Oil Producers	OGRID 260297
Contact Name Ben Grimes	Contact Telephone (432) 682-3753
Contact email bgrimes@btaoil.com	Incident # *(assigned by OCD)*
Contact mailing address 104 S Pecos St, Midland, TX 79701	

Location of Release Source

Latitude 32.0660734285 Longitude 103.624070083
(NAD 83 in decimal degrees to 5 decimal places)

Site Name Mesa 8105 JV-P 013H (compressor)	Site Type well pad
Date Release Discovered 11/24/2018	API# *(if applicable)* 30-025-42849

Unit Letter	Section	Township	Range	County
P	1	26S	32E	Lea

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

Nature and Volume of Release

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

☐ Crude Oil	Volume Released (bbls)	Volume Recovered (bbls)
☒ Produced Water	Volume Released (bbls) 20	Volume Recovered (bbls) 5
	Is the concentration of dissolved chloride in the produced water >10,000 mg/l?	☐ Yes ☐ No
☒ Condensate	Volume Released (bbls) 10	Volume Recovered (bbls) 5
☐ Natural Gas	Volume Released (Mcf)	Volume Recovered (Mcf)
☐ Other (describe)	Volume/Weight Released (provide units)	Volume/Weight Recovered (provide units)

Cause of Release

Malfunction on compressor caused slop tank to overflow.

Form C-141
Page 2

State of New Mexico
Oil Conservation Division

Incident ID	NCH1835547953
District RP	1RP-5289
Facility ID	
Application ID	

Was this a major release as defined by 19.15.29.7(A) NMAC? ☒ Yes ☐ No	If YES, for what reason(s) does the responsible party consider this a major release? Yes 19.15.29.7 (A) defines 25 BBL or more a major release
If YES, was immediate notice given to the OCD? By whom? To whom? When and by what means (phone, email, etc)? No	

Initial Response

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

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

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

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

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

Printed Name: Ben Grimes Title: Production Manager

Signature: Ben Grimes Date: 11/26/2018

email: BGrimes@BTAOil.com Telephone: 432-682-3753

OCD Only

Received by: _____ Date: _____

State of New Mexico
Oil Conservation Division

Incident ID	NCH835547953
District RP	1RP-5289
Facility ID	
Application ID	

Site Assessment/Characterization

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

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

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

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

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

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

Form C-141
Page 4

State of New Mexico
Oil Conservation Division

Incident ID	NCH835547953
District RP	1RP-5289
Facility ID	
Application ID	

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

Printed Name: Kelton Beaird
Title: Environmental Manager
Signature:
Date: 6-6-23
email: kbeaird@btaoil.com
Telephone: 432-312-2203

OCD Only

Received by: Jocelyn Harimon
Date: 06/08/2023

Form C-141
Page 5

State of New Mexico
Oil Conservation Division

Incident ID	NCH835547953
District RP	1RP-5289
Facility ID	
Application ID	

Remediation Plan

Remediation Plan Checklist: ***Each of the following items must be included in the plan.***

☒ Detailed description of proposed remediation technique
☒ Scaled sitemap with GPS coordinates showing delineation points
☒ Estimated volume of material to be remediated
☒ Closure criteria is to Table 1 specifications subject to 19.15.29.12(C)(4) NMAC
☒ Proposed schedule for remediation (note if remediation plan timeline is more than 90 days OCD approval is required)

Deferral Requests Only: ***Each of the following items must be confirmed as part of any request for deferral of remediation.***

☐ Contamination must be in areas immediately under or around production equipment where remediation could cause a major facility deconstruction.

☐ Extents of contamination must be fully delineated.

☐ Contamination does not cause an imminent risk to human health, the environment, or groundwater.

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

Printed Name: Kelton Beaird
Title: Environmental Manager
Signature:
Date: 6-6-23
email: kbeaird@btaoil.com
Telephone: 432-312-2203

OCD Only

Received by: Jocelyn Harimon
Date: 06/08/2023

☐ Approved ☐ Approved with Attached Conditions of Approval ☐ Denied ☐ Deferral Approved

Signature:
Date:

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	NAB1906552791
District RP	1RP-5383
Facility ID	
Application ID	

Release Notification

Responsible Party

Responsible Party: BTA Oil Producers, LLC	OGRID: 260297
Contact Name: Bob Hall	Contact Telephone: 432-682-3753
Contact email: bhall@btaoil.com	Incident # *(assigned by OCD)* NAB1906552791
Contact mailing address: 104 S. Pecos St., Midland, TX 79701	

Location of Release Source

Latitude: 32.06584° Longitude: -103.62410°
(NAD 83 in decimal degrees to 5 decimal places)

Site Name: Mesa 8105 JV-P 13/18 Compressor	Site Type: Well Pad
Date Release Discovered: 2/8/2019	API# *(if applicable)* Nearest well: Mesa 8195 JV-P #013H API #30-025-42849

Unit Letter	Section	Township	Range	County
P	1	26S	32E	Lea

Surface Owner: ☐ State ☒ Federal ☐ Tribal ☐ Private (_____)

Nature and Volume of Release

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

☒ Crude Oil	Volume Released (bbls) 18 BBL	Volume Recovered (bbls) 18 BBL
☐ Produced Water	Volume Released (bbls)	Volume Recovered (bbls)
	Is the concentration of dissolved chloride in the produced water >10,000 mg/l?	☐ Yes ☐ No
☐ Condensate	Volume Released (bbls)	Volume Recovered (bbls)
☐ Natural Gas	Volume Released (Mcf)	Volume Recovered (Mcf)
☐ Other (describe)	Volume/Weight Released (provide units)	Volume/Weight Recovered (provide units)

Cause of Release
Due to an equipment failure on the compressor, oil was pushed over to the slop tank, which overflowed. The oil was recovered with a vacuum truck.

Page 2

State of New Mexico
Oil Conservation Division

Incident ID	NAB1906552791
District RP	1RP-5383
Facility ID	
Application ID	

Was this a major release as defined by 19.15.29.7(A) NMAC? ☐ Yes ☒ No	If YES, for what reason(s) does the responsible party consider this a major release?
If YES, was immediate notice given to the OCD? By whom? To whom? When and by what means (phone, email, etc)?	

Initial Response

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

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

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

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

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

Printed Name: Bob Hall Title: Environmental Manager

Signature: Bob Hall Date: 2/22/2018

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

OCD Only

Received by: Amalia Barrameda Date: 3/06/2019

State of New Mexico
Oil Conservation Division

Incident ID	NAB1906552791
District RP	1RP-5383
Facility ID	
Application ID	

Site Assessment/Characterization

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

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

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

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

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

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

Form C-141
Page 4

State of New Mexico
Oil Conservation Division

Incident ID	NAB1906552791
District RP	1RP-5383
Facility ID	
Application ID	

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

Printed Name: Kelton Beaird

Title: Environmental Manager

Signature:

Date: 6-6-23

email: kbeaird@btaoil.com

Telephone: 432-312-2203

OCD Only

Received by:

Date:

Form C-141
Page 5

State of New Mexico
Oil Conservation Division

Incident ID	NAB1906552791
District RP	1RP-5383
Facility ID	
Application ID	

Remediation Plan

Remediation Plan Checklist: ***Each of the following items must be included in the plan.***

☒ Detailed description of proposed remediation technique
☒ Scaled sitemap with GPS coordinates showing delineation points
☒ Estimated volume of material to be remediated
☒ Closure criteria is to Table 1 specifications subject to 19.15.29.12(C)(4) NMAC
☒ Proposed schedule for remediation (note if remediation plan timeline is more than 90 days OCD approval is required)

Deferral Requests Only: ***Each of the following items must be confirmed as part of any request for deferral of remediation.***

☐ Contamination must be in areas immediately under or around production equipment where remediation could cause a major facility deconstruction.

☐ Extents of contamination must be fully delineated.

☐ Contamination does not cause an imminent risk to human health, the environment, or groundwater.

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

Printed Name: Kelton Beaird
Title: Environmental Manager
Signature:
Date: 6-6-23
email: kbeaird@btaoil.com
Telephone: 432-312-2203

OCD Only

Received by: _____ Date: _____

☐ Approved ☐ Approved with Attached Conditions of Approval ☐ Denied ☐ Deferral Approved

Signature: _____ Date: _____

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	NAB1906551740
District RP	1RP-5383
Facility ID	
Application ID	

Release Notification

Responsible Party

Responsible Party: BTA Oil Producers, LLC	OGRID: 260297
Contact Name: Bob Hall	Contact Telephone: 432-682-3753
Contact email: bhall@btaoil.com	Incident # *(assigned by OCD)* NAB1906551740
Contact mailing address: 104 S. Pecos St., Midland, TX 79701	

Location of Release Source

Latitude: 32.06584° Longitude: -103.62410°
(NAD 83 in decimal degrees to 5 decimal places)

Site Name: Mesa 8105 JV-P 13/18 Compressor	Site Type: Well Pad
Date Release Discovered: 2/9/2019	API# *(if applicable)* Nearest well: Mesa 8195 JV-P #013H API #30-025-42849

Unit Letter	Section	Township	Range	County
P	1	26S	32E	Lea

Surface Owner: ☐ State ☒ Federal ☐ Tribal ☐ Private (_____)

Nature and Volume of Release

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

☒ Crude Oil	Volume Released (bbls) 18 BBL	Volume Recovered (bbls) 18 BBL
☐ Produced Water	Volume Released (bbls)	Volume Recovered (bbls)
	Is the concentration of dissolved chloride in the produced water >10,000 mg/l?	☐ Yes ☐ No
☐ Condensate	Volume Released (bbls)	Volume Recovered (bbls)
☐ Natural Gas	Volume Released (Mcf)	Volume Recovered (Mcf)
☐ Other (describe)	Volume/Weight Released (provide units)	Volume/Weight Recovered (provide units)

Cause of Release
The same equipment failure on the compressor, as occurred as a separate event and reported for 2/8/2019, pushed oil over to the slop tank and caused the tank to overflow. The oil was recovered with a vacuum truck.

Form C-141
Page 2

State of New Mexico
Oil Conservation Division

Incident ID	NAB1906551740
District RP	1RP-5383
Facility ID	
Application ID	pAB1906551401

Was this a major release as defined by 19.15.29.7(A) NMAC? ☐ Yes ☒ No	If YES, for what reason(s) does the responsible party consider this a major release?
If YES, was immediate notice given to the OCD? By whom? To whom? When and by what means (phone, email, etc)?	

Initial Response

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

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

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

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

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

Printed Name: Bob Hall Title: Environmental Manager

Signature: Bob Hall Date: 2/22/2018

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

OCD Only

Received by: Amalia Barrameda Date: 3/6/2019

State of New Mexico
Oil Conservation Division

Incident ID	NAB1906551740
District RP	1RP-5383
Facility ID	
Application ID	

Site Assessment/Characterization

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

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

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

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

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

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

Form C-141
Page 4

State of New Mexico
Oil Conservation Division

Incident ID	NAB1906551740
District RP	1RP-5383
Facility ID	
Application ID	

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

Printed Name: Kelton Beaird Title: Environmental Manager

Signature: Date: 6-6-23

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

OCD Only

Received by: Date:

Form C-141
Page 5

State of New Mexico
Oil Conservation Division

Incident ID	NAB1906551740
District RP	1RP-5383
Facility ID	
Application ID	

Remediation Plan

Remediation Plan Checklist: ***Each of the following items must be included in the plan.***

☒ Detailed description of proposed remediation technique
☒ Scaled sitemap with GPS coordinates showing delineation points
☒ Estimated volume of material to be remediated
☒ Closure criteria is to Table 1 specifications subject to 19.15.29.12(C)(4) NMAC
☒ Proposed schedule for remediation (note if remediation plan timeline is more than 90 days OCD approval is required)

Deferral Requests Only: ***Each of the following items must be confirmed as part of any request for deferral of remediation.***

☐ Contamination must be in areas immediately under or around production equipment where remediation could cause a major facility deconstruction.

☐ Extents of contamination must be fully delineated.

☐ Contamination does not cause an imminent risk to human health, the environment, or groundwater.

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

Printed Name: Kelton Beaird
Title: Environmental Manager
Signature:
Date: 6-6-23
email: kbeaird@btaoil.com
Telephone: 432-312-2203

OCD Only

Received by: _____ Date: _____

☐ Approved ☐ Approved with Attached Conditions of Approval ☐ Denied ☐ Deferral Approved

Signature: _____ Date: _____

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

Operator: BTA OIL PRODUCERS, LLC 104 S Pecos Midland, TX 79701	OGRID: 260297
	Action Number: 225624
	Action Type: [C-141] Release Corrective Action (C-141)

CONDITIONS

Created By	Condition	Condition Date
jharimon	This Workplan/Remediation proposal is approved with the following conditions: • All (floor/sidewall) closure samples on pad will need to meet closure criteria standards for depth to water of 51'-100' in Table 1 of the Spill Rule. • Please have soil samples analyzed for all components in Table 1 of the spill rule. The link to the current spill rule as well as the Procedures for Implementation are provided for your convenience. • Please note that, when the well or facility is plugged or abandoned, the final remediation and reclamation shall take place in accordance with 19.15.29.12 and 19.15.29.13 NMAC once the site is no longer being used for oil and gas operations.	6/23/2023
jharimon	The OCD wants to clarify that the entire release area will not be deferred, only the sample points that are around production equipment such as production tanks, wellheads, and pipelines. The deferral may be granted so long as the contamination is fully delineated and does not cause an imminent risk to human health, the environment, or ground water.	6/23/2023

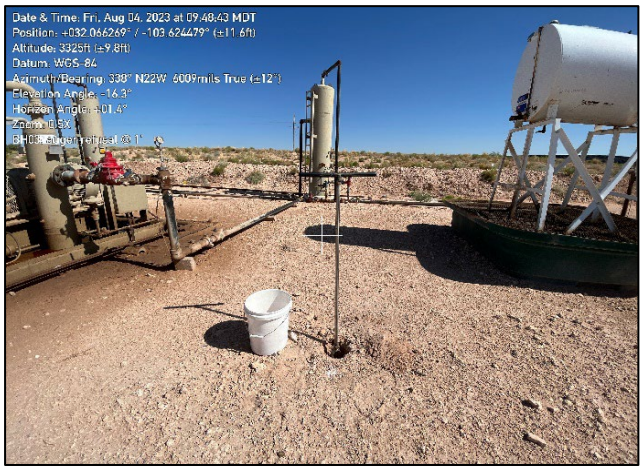
ENSOLUM

APPENDIX B

Photographic Log

ENSOLUM

Photographic Log
BTA Oil Producers, LLC
Mesa 8105 JV-P 013H/18 Compressor



Photograph: 1 Date: 8/4/2023
Description: Hand auger delineation at BH03.
View: Northwest

Photograph: 2 Date: 9/13/2023
Description: Delineation activities with mini-excavator.
View: Southwest

Photograph: 3 Date: 9/13/2023
Description: Delineation activities with mini-excavator.
View: East

Photograph: 4 Date: 9/13/2023
Description: Backfill activities with mini excavator.
View: Southwest

ENSOLUM

APPENDIX C

Lithologic Soil Sampling Logs

ENSOLUM

Sample Name: BH01	Date: 9/13/2023	
Site Name: Mesa 8105 JV-P 013H		
Incident Number: nCH1835547953		
Job Number: 03C2012044		
LITHOLOGIC / SOIL SAMPLING LOG	Logged By: MR	Method: Mini Excavator
Coordinates: 32.066309, -103.624585	Hole Diameter: NA	Total Depth: 4'

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

Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample ID	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithologic Descriptions
						0	CCHE	0-4' CALICHE, med brown, medium to coarse grained, poorly sorted, sub-rounded grains, no stain, no odor, moist.
M	398	5.3	N	BH01	1	1		
M	280	0.2	N			2		
M	<173.6	0.1	N			3		
M	240.8	0	N	BH01A	4	4		
						TD		Total Depth @ 4' bgs.

ENSOLUM

	Sample Name: BH02	Date: 9/13/2023
	Site Name: Mesa 8105 JV-P 013H	
	Incident Number: nCH1835547953	
	Job Number: 03C2012044	
LITHOLOGIC / SOIL SAMPLING LOG	Logged By: MR	Method: Mini Excavator
Coordinates: 32.066243, -103.624595	Hole Diameter: NA	Total Depth: 4'

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

Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample ID	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithologic Descriptions
						0	CCHE	0-4' CALICHE, med brown, medium to coarse grained, poorly sorted, sub-rounded grains, no stain, no odor, moist.
M	174	2.7	N	BH02	1	1		
M	<173.6	0.0	N			2		
M	<173.6	0.0	N			3		
M	<173.6	0.0	N	BH02A	4	4		
						TD		Total Depth @ 4' bgs.

ENSOLUM

	Sample Name: BH03	Date: 9/13/2023
	Site Name: Mesa 8105 JV-P 013H	
	Incident Number: nCH1835547953	
	Job Number: 03C2012044	
LITHOLOGIC / SOIL SAMPLING LOG	Logged By: MR	Method: Mini Excavator
Coordinates: 32.066291, -103.624498	Hole Diameter: NA	Total Depth: 4'

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

Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample ID	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithologic Descriptions
						0	CCHE	0-2' CALICHE, med brown, medium to coarse grained, poorly sorted, sub-rounded grains, no stain, no odor, moist.
M	<173.6	1.3	N	BH03	1	1		
M	<173.6	0.3	N			2		2-4' CALICHE, red/ medium brown, medium to coarse grained, poorly sorted, sub-rounded grains, no stain, no odor, moist.
M	<173.6	0.0	N			3		
M	<173.6	0.0	N	BH03A	4	4		
						TD		Total Depth @ 4' bgs.

ENSOLUM

	Sample Name: BH04	Date: 9/13/2023
	Site Name: Mesa 8105 JV-P 013H	
	Incident Number: nCH1835547953	
	Job Number: 03C2012044	
LITHOLOGIC / SOIL SAMPLING LOG	Logged By: MR	Method: Mini Excavator
Coordinates: 32.066239, -103.624376	Hole Diameter: NA	Total Depth: 4'

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

Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample ID	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithologic Descriptions
						0	CCHE	0-1' CALICHE, med brown, medium to coarse grained, poorly sorted, sub-rounded grains, no stain, no odor, moist.
M	302	4.2	N	BH04	1	1		1-4' CALICHE, red/ light brown, medium to coarse grained, poorly sorted, sub-rounded grains, no stain, no odor, moist.
M	<173.6	0.0	N			2		
M	<173.6	0.1	N			3		
M	<173.6	0.0	N	BH04A	4	4		
						TD		Total Depth @ 4' bgs.

ENSOLUM

	Sample Name: BH05	Date: 9/13/2023
	Site Name: Mesa 8105 JV-P 013H	
	Incident Number: nCH1835547953	
	Job Number: 03C2012044	
LITHOLOGIC / SOIL SAMPLING LOG	Logged By: MR	Method: Mini Excavator
Coordinates: 32.066343, -103.624402	Hole Diameter: NA	Total Depth: 4'

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

Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample ID	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithologic Descriptions
						0	CCHE	0-4' CALICHE, med brown, medium to coarse grained, poorly sorted, sub-rounded grains, no stain, no odor, moist.
M	1,002	6.1	N	BH05	1	1		
M	<173.6	0.0	N			2		
M	<173.6	0.0	N			3		
M	<173.6	0.0	N	BH05A	4	4		
						TD		Total Depth @ 4' bgs.

ENSOLUM

	Sample Name: BH06	Date: 9/13/2023
	Site Name: Mesa 8105 JV-P 013H	
	Incident Number: nCH1835547953	
	Job Number: 03C2012044	
LITHOLOGIC / SOIL SAMPLING LOG	Logged By: MR	Method: Mini Excavator
Coordinates: 32.066337, -103.624507	Hole Diameter: NA	Total Depth: 4'

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

Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample ID	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithologic Descriptions
						0	CCHE	0-1' CALICHE, med brown, medium to coarse grained, poorly sorted, sub-rounded grains, no stain, no odor, moist.
M	1,271	7.3	N	BH06	1	1		1-4' CALICHE, red/ light brown, medium to coarse grained, porrly sorted, sub-rounded grains, no stain, no odor, moist.
M	<173.6	0.0	N			2		
M	241	0.1	N			3		
M	280	0.0	N	BH06A	4	4		
						TD		Total Depth @ 4' bgs.

ENSOLUM

	Sample Name: BH07	Date: 9/13/2023
	Site Name: Mesa 8105 JV-P 013H	
	Incident Number: nCH1835547953	
	Job Number: 03C2012044	
LITHOLOGIC / SOIL SAMPLING LOG	Logged By: MR	Method: Mini Excavator
Coordinates: 32.066369, -103.624497	Hole Diameter: NA	Total Depth: 4'

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

Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample ID	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithologic Descriptions
						0	CCHE	0-2' CALICHE, med brown, medium to coarse grained, poorly sorted, sub-rounded grains, no stain, no odor, moist.
M	<173.6	5.0	N	BH07	1	1		
M	<173.6	0.0	N			2		2-4' CALICHE, red/ light brown, medium to coarse grained, porrly sorted, sub-rounded grains, no stain, no odor, moist.
M	<173.6	0.2	N			3		
M	<173.6	0.0	N	BH07A	4	4		
						TD		Total Depth @ 4' bgs.

ENSOLUM

	Sample Name: BH08	Date: 9/13/2023
	Site Name: Mesa 8105 JV-P 013H	
	Incident Number: nCH1835547953	
	Job Number: 03C2012044	
LITHOLOGIC / SOIL SAMPLING LOG	Logged By: MR	Method: Mini Excavator
Coordinates: 32.066298, -103.624329	Hole Diameter: NA	Total Depth: 4'

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

Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample ID	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithologic Descriptions
						0	CCHE	0-2' CALICHE, med brown, medium to coarse grained, poorly sorted, sub-rounded grains, no stain, no odor, moist.
M	459	1.5	N	BH08	1	1		
M	<173.6	0.0	N			2		2-4' CALICHE, red/ light brown, medium to coarse grained, poorly sorted, sub-rounded grains, no stain, no odor, moist.
M	<173.6	0.3	N			3		
M	<173.6	0.4	N	BH08A	4	4		
						TD		Total Depth @ 4' bgs.

ENSOLUM

	Sample Name: BH09	Date: 9/13/2023
	Site Name: Mesa 8105 JV-P 013H	
	Incident Number: nCH1835547953	
	Job Number: 03C2012044	
LITHOLOGIC / SOIL SAMPLING LOG	Logged By: MR	Method: Mini Excavator
Coordinates: 32.066205, -103.624452	Hole Diameter: NA	Total Depth: 4'

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

Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample ID	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithologic Descriptions
						0	CCHE	0-1' CALICHE, med brown, medium to coarse grained, poorly sorted, sub-rounded grains, no stain, no odor, moist.
M	<173.6	1.5	N	BH09	1	1		1-4' CALICHE, red/ light brown, medium to coarse grained, poorly sorted, sub-rounded grains, no stain, no odor, moist.
M	<173.6	0.0	N			2		
M	<173.6	0.0	N			3		
M	<173.6	0.0	N	BH09A	4	4		
						TD		Total Depth @ 4' bgs.

ENSOLUM

	Sample Name: BH10	Date: 9/13/2023
	Site Name: Mesa 8105 JV-P 013H	
	Incident Number: nCH1835547953	
	Job Number: 03C2012044	
LITHOLOGIC / SOIL SAMPLING LOG	Logged By: MR	Method: Mini Excavator
Coordinates: 32.066302, -103.624647	Hole Diameter: NA	Total Depth: 4'

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

Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample ID	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithologic Descriptions
						0	CCHE	0-4' CALICHE, med brown, medium to coarse grained, poorly sorted, sub-rounded grains, no stain, no odor, moist.
M	<173.6	1.0	N	BH10	1	1		
M	<173.6	0.0	N			2		
M	<173.6	0.0	N			3		
M	<173.6	0.0	N	BH10A	4	4		
						TD		Total Depth @ 4' bgs.

ENSOLUM

APPENDIX D

Laboratory Analytical Reports & Chain of Custody Documentation

CARDINAL Laboratories

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

August 10, 2023

HADLIE GREEN

ENSOLUM

3122 NATIONAL PARKS HWY

CARLSBAD, NM 88220

RE: MESA 8105 JV-P 013H

Enclosed are the results of analyses for samples received by the laboratory on 08/04/23 13:15.

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

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

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

Accreditation applies to public drinking water matrices.

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

Sincerely,

Celey D. Keene

Celey D. Keene

Lab Director/Quality Manager

CARDINAL Laboratories

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

Analytical Results For:

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

Received:	08/04/2023	Sampling Date:	08/04/2023
Reported:	08/10/2023	Sampling Type:	Soil
Project Name:	MESA 8105 JV-P 013H	Sampling Condition:	Cool & Intact
Project Number:	03C2012044	Sample Received By:	Tamara Oldaker
Project Location:	BTA 32.066073425,-103.624070083		

Sample ID: BH 01 1' (H234166-01)

BTEX 8021B mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	08/10/2023	ND	2.01	101	2.00	6.03	
Toluene*	<0.050	0.050	08/10/2023	ND	1.92	95.9	2.00	6.61	
Ethylbenzene*	<0.050	0.050	08/10/2023	ND	1.96	97.8	2.00	5.77	
Total Xylenes*	<0.150	0.150	08/10/2023	ND	5.80	96.7	6.00	6.20	
Total BTEX	<0.300	0.300	08/10/2023	ND					

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

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

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**480**	16.0	08/08/2023	ND	416	104	400	3.77	

TPH 8015M mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	08/09/2023	ND	153	76.3	200	4.51	
DRO >C10-C28*	<10.0	10.0	08/09/2023	ND	145	72.3	200	3.19	
EXT DRO >C28-C36	<10.0	10.0	08/09/2023	ND					

Surrogate: 1-Chlorooctane *78.6 %* *48.2-134*

Surrogate: 1-Chlorooctadecane *80.1 %* *49.1-148*

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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

Analytical Results For:

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

Received:	08/04/2023	Sampling Date:	08/04/2023
Reported:	08/10/2023	Sampling Type:	Soil
Project Name:	MESA 8105 JV-P 013H	Sampling Condition:	Cool & Intact
Project Number:	03C2012044	Sample Received By:	Tamara Oldaker
Project Location:	BTA 32.066073425,-103.624070083		

Sample ID: BH 02 1' (H234166-02)

BTEX 8021B mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	08/10/2023	ND	2.01	101	2.00	6.03	
Toluene*	<0.050	0.050	08/10/2023	ND	1.92	95.9	2.00	6.61	
Ethylbenzene*	<0.050	0.050	08/10/2023	ND	1.96	97.8	2.00	5.77	
Total Xylenes*	<0.150	0.150	08/10/2023	ND	5.80	96.7	6.00	6.20	
Total BTEX	<0.300	0.300	08/10/2023	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	**128**	16.0	08/08/2023	ND	416	104	400	3.77	

TPH 8015M mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	08/09/2023	ND	153	76.3	200	4.51	
DRO >C10-C28*	<10.0	10.0	08/09/2023	ND	145	72.3	200	3.19	
EXT DRO >C28-C36	<10.0	10.0	08/09/2023	ND					

Surrogate: 1-Chlorooctane *61.0 %* *48.2-134*

Surrogate: 1-Chlorooctadecane *62.4 %* *49.1-148*

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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

Analytical Results For:

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

Received:	08/04/2023	Sampling Date:	08/04/2023
Reported:	08/10/2023	Sampling Type:	Soil
Project Name:	MESA 8105 JV-P 013H	Sampling Condition:	Cool & Intact
Project Number:	03C2012044	Sample Received By:	Tamara Oldaker
Project Location:	BTA 32.066073425,-103.624070083		

Sample ID: BH 03 1' (H234166-03)

BTEX 8021B mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	08/10/2023	ND	2.01	101	2.00	6.03	
Toluene*	<0.050	0.050	08/10/2023	ND	1.92	95.9	2.00	6.61	
Ethylbenzene*	<0.050	0.050	08/10/2023	ND	1.96	97.8	2.00	5.77	
Total Xylenes*	<0.150	0.150	08/10/2023	ND	5.80	96.7	6.00	6.20	
Total BTEX	<0.300	0.300	08/10/2023	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	**64.0**	16.0	08/08/2023	ND	416	104	400	3.77	

TPH 8015M mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	08/09/2023	ND	153	76.3	200	4.51	
DRO >C10-C28*	<10.0	10.0	08/09/2023	ND	145	72.3	200	3.19	
EXT DRO >C28-C36	<10.0	10.0	08/09/2023	ND					

Surrogate: 1-Chlorooctane *67.2 %* *48.2-134*

Surrogate: 1-Chlorooctadecane *68.5 %* *49.1-148*

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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

Analytical Results For:

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

Received:	08/04/2023	Sampling Date:	08/04/2023
Reported:	08/10/2023	Sampling Type:	Soil
Project Name:	MESA 8105 JV-P 013H	Sampling Condition:	Cool & Intact
Project Number:	03C2012044	Sample Received By:	Tamara Oldaker
Project Location:	BTA 32.066073425,-103.624070083		

Sample ID: BH 04 1' (H234166-04)

BTEX 8021B mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	08/10/2023	ND	2.01	101	2.00	6.03	
Toluene*	<0.050	0.050	08/10/2023	ND	1.92	95.9	2.00	6.61	
Ethylbenzene*	<0.050	0.050	08/10/2023	ND	1.96	97.8	2.00	5.77	
Total Xylenes*	<0.150	0.150	08/10/2023	ND	5.80	96.7	6.00	6.20	
Total BTEX	<0.300	0.300	08/10/2023	ND					

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

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

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**176**	16.0	08/08/2023	ND	416	104	400	3.77	

TPH 8015M mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	08/09/2023	ND	153	76.3	200	4.51	
DRO >C10-C28*	**135**	10.0	08/09/2023	ND	145	72.3	200	3.19	
EXT DRO >C28-C36	**52.6**	10.0	08/09/2023	ND					

Surrogate: 1-Chlorooctane *73.7 %* *48.2-134*

Surrogate: 1-Chlorooctadecane *76.6 %* *49.1-148*

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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

Analytical Results For:

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

Received:	08/04/2023	Sampling Date:	08/04/2023
Reported:	08/10/2023	Sampling Type:	Soil
Project Name:	MESA 8105 JV-P 013H	Sampling Condition:	Cool & Intact
Project Number:	03C2012044	Sample Received By:	Tamara Oldaker
Project Location:	BTA 32.066073425,-103.624070083		

Sample ID: BH 05 1' (H234166-05)

BTEX 8021B mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	08/10/2023	ND	2.01	101	2.00	6.03	
Toluene*	<0.050	0.050	08/10/2023	ND	1.92	95.9	2.00	6.61	
Ethylbenzene*	<0.050	0.050	08/10/2023	ND	1.96	97.8	2.00	5.77	
Total Xylenes*	<0.150	0.150	08/10/2023	ND	5.80	96.7	6.00	6.20	
Total BTEX	<0.300	0.300	08/10/2023	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	**816**	16.0	08/08/2023	ND	416	104	400	3.77	

TPH 8015M mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	08/09/2023	ND	153	76.3	200	4.51	
DRO >C10-C28*	<10.0	10.0	08/09/2023	ND	145	72.3	200	3.19	
EXT DRO >C28-C36	**35.9**	10.0	08/09/2023	ND					

Surrogate: 1-Chlorooctane *76.1 %* *48.2-134*

Surrogate: 1-Chlorooctadecane *76.0 %* *49.1-148*

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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

Analytical Results For:

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

Received:	08/04/2023	Sampling Date:	08/04/2023
Reported:	08/10/2023	Sampling Type:	Soil
Project Name:	MESA 8105 JV-P 013H	Sampling Condition:	Cool & Intact
Project Number:	03C2012044	Sample Received By:	Tamara Oldaker
Project Location:	BTA 32.066073425,-103.624070083		

Sample ID: BH 06 1' (H234166-06)

BTEX 8021B mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	08/10/2023	ND	2.01	101	2.00	6.03	
Toluene*	<0.050	0.050	08/10/2023	ND	1.92	95.9	2.00	6.61	
Ethylbenzene*	<0.050	0.050	08/10/2023	ND	1.96	97.8	2.00	5.77	
Total Xylenes*	<0.150	0.150	08/10/2023	ND	5.80	96.7	6.00	6.20	
Total BTEX	<0.300	0.300	08/10/2023	ND					

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

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

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**1170**	16.0	08/08/2023	ND	416	104	400	3.77	

TPH 8015M mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	08/09/2023	ND	153	76.3	200	4.51	
DRO >C10-C28*	<10.0	10.0	08/09/2023	ND	145	72.3	200	3.19	
EXT DRO >C28-C36	<10.0	10.0	08/09/2023	ND					

Surrogate: 1-Chlorooctane *84.9 %* *48.2-134*

Surrogate: 1-Chlorooctadecane *85.3 %* *49.1-148*

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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

Analytical Results For:

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

Received:	08/04/2023	Sampling Date:	08/04/2023
Reported:	08/10/2023	Sampling Type:	Soil
Project Name:	MESA 8105 JV-P 013H	Sampling Condition:	Cool & Intact
Project Number:	03C2012044	Sample Received By:	Tamara Oldaker
Project Location:	BTA 32.066073425,-103.624070083		

Sample ID: BH 07 1' (H234166-07)

BTEX 8021B mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	08/10/2023	ND	2.01	101	2.00	6.03	
Toluene*	<0.050	0.050	08/10/2023	ND	1.92	95.9	2.00	6.61	
Ethylbenzene*	<0.050	0.050	08/10/2023	ND	1.96	97.8	2.00	5.77	
Total Xylenes*	<0.150	0.150	08/10/2023	ND	5.80	96.7	6.00	6.20	
Total BTEX	<0.300	0.300	08/10/2023	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	**48.0**	16.0	08/08/2023	ND	416	104	400	3.77	

TPH 8015M mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	08/09/2023	ND	153	76.3	200	4.51	
DRO >C10-C28*	<10.0	10.0	08/09/2023	ND	145	72.3	200	3.19	
EXT DRO >C28-C36	<10.0	10.0	08/09/2023	ND					

Surrogate: 1-Chlorooctane *84.1 %* *48.2-134*

Surrogate: 1-Chlorooctadecane *87.0 %* *49.1-148*

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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

Analytical Results For:

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

Received:	08/04/2023	Sampling Date:	08/04/2023
Reported:	08/10/2023	Sampling Type:	Soil
Project Name:	MESA 8105 JV-P 013H	Sampling Condition:	Cool & Intact
Project Number:	03C2012044	Sample Received By:	Tamara Oldaker
Project Location:	BTA 32.066073425,-103.624070083		

Sample ID: BH 08 1' (H234166-08)

BTEX 8021B mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	08/10/2023	ND	2.01	101	2.00	6.03	
Toluene*	<0.050	0.050	08/10/2023	ND	1.92	95.9	2.00	6.61	
Ethylbenzene*	<0.050	0.050	08/10/2023	ND	1.96	97.8	2.00	5.77	
Total Xylenes*	<0.150	0.150	08/10/2023	ND	5.80	96.7	6.00	6.20	
Total BTEX	<0.300	0.300	08/10/2023	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	**496**	16.0	08/08/2023	ND	432	108	400	0.00	

TPH 8015M mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	08/08/2023	ND	157	78.6	200	5.45	
DRO >C10-C28*	<10.0	10.0	08/08/2023	ND	165	82.4	200	5.27	
EXT DRO >C28-C36	<10.0	10.0	08/08/2023	ND					

Surrogate: 1-Chlorooctane *88.8 %* *48.2-134*

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

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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

Analytical Results For:

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

Received:	08/04/2023	Sampling Date:	08/04/2023
Reported:	08/10/2023	Sampling Type:	Soil
Project Name:	MESA 8105 JV-P 013H	Sampling Condition:	Cool & Intact
Project Number:	03C2012044	Sample Received By:	Tamara Oldaker
Project Location:	BTA 32.066073425,-103.624070083		

Sample ID: BH 09 1' (H234166-09)

BTEX 8021B mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	08/10/2023	ND	2.01	101	2.00	6.03	
Toluene*	<0.050	0.050	08/10/2023	ND	1.92	95.9	2.00	6.61	
Ethylbenzene*	<0.050	0.050	08/10/2023	ND	1.96	97.8	2.00	5.77	
Total Xylenes*	<0.150	0.150	08/10/2023	ND	5.80	96.7	6.00	6.20	
Total BTEX	<0.300	0.300	08/10/2023	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	08/08/2023	ND	432	108	400	0.00	

TPH 8015M mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	08/08/2023	ND	157	78.6	200	5.45	
DRO >C10-C28*	<10.0	10.0	08/08/2023	ND	165	82.4	200	5.27	
EXT DRO >C28-C36	<10.0	10.0	08/08/2023	ND					

Surrogate: 1-Chlorooctane *93.3 %* *48.2-134*

Surrogate: 1-Chlorooctadecane *109 %* *49.1-148*

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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

Analytical Results For:

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

Received:	08/04/2023	Sampling Date:	08/04/2023
Reported:	08/10/2023	Sampling Type:	Soil
Project Name:	MESA 8105 JV-P 013H	Sampling Condition:	Cool & Intact
Project Number:	03C2012044	Sample Received By:	Tamara Oldaker
Project Location:	BTA 32.066073425,-103.624070083		

Sample ID: BH 10 1' (H234166-10)

BTEX 8021B mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	08/10/2023	ND	2.01	101	2.00	6.03	
Toluene*	<0.050	0.050	08/10/2023	ND	1.92	95.9	2.00	6.61	
Ethylbenzene*	<0.050	0.050	08/10/2023	ND	1.96	97.8	2.00	5.77	
Total Xylenes*	<0.150	0.150	08/10/2023	ND	5.80	96.7	6.00	6.20	
Total BTEX	<0.300	0.300	08/10/2023	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	08/08/2023	ND	432	108	400	0.00	

TPH 8015M mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	08/08/2023	ND	157	78.6	200	5.45	
DRO >C10-C28*	<10.0	10.0	08/08/2023	ND	165	82.4	200	5.27	
EXT DRO >C28-C36	<10.0	10.0	08/08/2023	ND					

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

Surrogate: 1-Chlorooctadecane *117 %* *49.1-148*

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Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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

Notes and Definitions

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

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

Company Name: Ensolum, LLC		BILL TO	
Project Manager: Hadlie Green		P.O. #:	
Address: 3122 National Parks Hwy		Company: BTA Oil	
City: Carlsbad	State: NM Zip: 88220	Attn: Kelton Beard	
Phone #: 432-557-8895	Fax #:	Address: 104 S Pecos St	
Project #: 03C2012044	Project Owner:	City: Midland	
Project Name: Mesa 8105 SV-P 013H		State: TX Zip: 79701	
Project Location: 32.06607 34295 -103.624070063		Phone #:	
Sampler Name: Meredith Roberts/Sarah Welborn		Fax #:	

FOR LAB USE ONLY					MATRIX							PRESERV.			SAMPLING		ANALYSIS REQUEST		
Lab I.D.	Sample I.D.	Depth (feet)	(G)RAB OR (C)OMP.	# CONTAINERS	GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER :	ACID/BASE:	ICE / COOL	OTHER :	DATE	TIME	Chlorides	BTEX	TPH
1234166																		
1	BH01	1'	G	1			✓					✓		8/4/23	9:45	1	1	1
2	BH02	1'													9:50			
3	BH03	1'													9:55			
4	BH04	1'													10:20			
5	BH05														10:25			
6	BH06														10:30			
7	BH07														10:00			
8	BH08														10:05			
9	BH09														10:10			
10	BH10														10:15			

Relinquished By:	Date: 8-4-23	Received By:	Verbal Result: ☐ Yes ☐ No Add'l Phone #:
	Time: 1315		All Results are emailed. Please provide Email address: HGreen@ensolum.com
Relinquished By:	Date:	Received By:	REMARKS: Incident #: nCH1836547153 MRoberts@ensolum.com
	Time:		

Delivered By: (Circle One) Sampler - UPS - Bus - Other:	Observed Temp. °C 24.1	Sample Condition Cool: Yes ☑ / No ☐ Intact: Yes ☑ / No ☐	CHECKED BY: (Initials)	Turnaround Time: Standard ☑ Rush ☐	Bacteria (only) Sample Condition Cool: Yes ☐ / No ☐ Intact: Yes ☐ / No ☐
	Corrected Temp. °C			Thermometer ID #113 Correction Factor -0.5°C	Observed Temp. °C Corrected Temp. °C

FORM-006 R 3.2 10/07/21

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

CARDINAL Laboratories

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

September 15, 2023

HADLIE GREEN

ENSOLUM

3122 NATIONAL PARKS HWY

CARLSBAD, NM 88220

RE: MESA 8105 JV-P 013H

Enclosed are the results of analyses for samples received by the laboratory on 09/14/23 8:13.

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

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

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

Accreditation applies to public drinking water matrices.

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

Sincerely,

Mike Snyder For Celey D. Keene

Lab Director/Quality Manager

CARDINAL Laboratories

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

Analytical Results For:

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

Received:	09/14/2023	Sampling Date:	09/13/2023
Reported:	09/15/2023	Sampling Type:	Soil
Project Name:	MESA 8105 JV-P 013H	Sampling Condition:	Cool & Intact
Project Number:	03C2012044 (32.06584,-103.62410)	Sample Received By:	Dionica Hinojos
Project Location:	BTA		

Sample ID: BH 01 A 4' (H234960-01)

BTEX 8021B mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	09/14/2023	ND	1.95	97.4	2.00	3.05	
Toluene*	<0.050	0.050	09/14/2023	ND	1.98	98.8	2.00	2.82	
Ethylbenzene*	<0.050	0.050	09/14/2023	ND	1.91	95.5	2.00	4.08	
Total Xylenes*	<0.150	0.150	09/14/2023	ND	5.71	95.2	6.00	4.84	
Total BTEX	<0.300	0.300	09/14/2023	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	**240**	16.0	09/14/2023	ND	416	104	400	0.00	

TPH 8015M mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	09/14/2023	ND	189	94.6	200	3.09	
DRO >C10-C28*	<10.0	10.0	09/14/2023	ND	187	93.3	200	2.58	
EXT DRO >C28-C36	**13.7**	10.0	09/14/2023	ND					

Surrogate: 1-Chlorooctane *96.2 %* *48.2-134*

Surrogate: 1-Chlorooctadecane *102 %* *49.1-148*

Cardinal Laboratories *=Accredited Analyte

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

CARDINAL Laboratories

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

Analytical Results For:

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

Received:	09/14/2023	Sampling Date:	09/13/2023
Reported:	09/15/2023	Sampling Type:	Soil
Project Name:	MESA 8105 JV-P 013H	Sampling Condition:	Cool & Intact
Project Number:	03C2012044 (32.06584,-103.62410)	Sample Received By:	Dionica Hinojos
Project Location:	BTA		

Sample ID: BH 02 A 4' (H234960-02)

BTEX 8021B mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	09/14/2023	ND	1.95	97.4	2.00	3.05	
Toluene*	<0.050	0.050	09/14/2023	ND	1.98	98.8	2.00	2.82	
Ethylbenzene*	<0.050	0.050	09/14/2023	ND	1.91	95.5	2.00	4.08	
Total Xylenes*	<0.150	0.150	09/14/2023	ND	5.71	95.2	6.00	4.84	
Total BTEX	<0.300	0.300	09/14/2023	ND					

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

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

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**80.0**	16.0	09/14/2023	ND	416	104	400	0.00	

TPH 8015M mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	09/14/2023	ND	189	94.6	200	3.09	
DRO >C10-C28*	**512**	10.0	09/14/2023	ND	187	93.3	200	2.58	
EXT DRO >C28-C36	**148**	10.0	09/14/2023	ND					

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

Surrogate: 1-Chlorooctadecane *107 %* *49.1-148*

Cardinal Laboratories *=Accredited Analyte

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

CARDINAL Laboratories

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

Analytical Results For:

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

Received:	09/14/2023	Sampling Date:	09/13/2023
Reported:	09/15/2023	Sampling Type:	Soil
Project Name:	MESA 8105 JV-P 013H	Sampling Condition:	Cool & Intact
Project Number:	03C2012044 (32.06584,-103.62410)	Sample Received By:	Dionica Hinojos
Project Location:	BTA		

Sample ID: BH 03 A 4' (H234960-03)

BTEX 8021B mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	09/14/2023	ND	1.95	97.4	2.00	3.05	
Toluene*	<0.050	0.050	09/14/2023	ND	1.98	98.8	2.00	2.82	
Ethylbenzene*	<0.050	0.050	09/14/2023	ND	1.91	95.5	2.00	4.08	
Total Xylenes*	<0.150	0.150	09/14/2023	ND	5.71	95.2	6.00	4.84	
Total BTEX	<0.300	0.300	09/14/2023	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	**32.0**	16.0	09/14/2023	ND	416	104	400	0.00	

TPH 8015M mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	09/14/2023	ND	189	94.6	200	3.09	
DRO >C10-C28*	<10.0	10.0	09/14/2023	ND	187	93.3	200	2.58	
EXT DRO >C28-C36	<10.0	10.0	09/14/2023	ND					

Surrogate: 1-Chlorooctane *107 %* *48.2-134*

Surrogate: 1-Chlorooctadecane *111 %* *49.1-148*

Cardinal Laboratories *=Accredited Analyte

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

CARDINAL Laboratories

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

Analytical Results For:

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

Received:	09/14/2023	Sampling Date:	09/13/2023
Reported:	09/15/2023	Sampling Type:	Soil
Project Name:	MESA 8105 JV-P 013H	Sampling Condition:	Cool & Intact
Project Number:	03C2012044 (32.06584,-103.62410)	Sample Received By:	Dionica Hinojos
Project Location:	BTA		

Sample ID: BH 04 A 4' (H234960-04)

BTEX 8021B mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	09/14/2023	ND	1.95	97.4	2.00	3.05	
Toluene*	<0.050	0.050	09/14/2023	ND	1.98	98.8	2.00	2.82	
Ethylbenzene*	<0.050	0.050	09/14/2023	ND	1.91	95.5	2.00	4.08	
Total Xylenes*	<0.150	0.150	09/14/2023	ND	5.71	95.2	6.00	4.84	
Total BTEX	<0.300	0.300	09/14/2023	ND					

Surrogate: 4-Bromofluorobenzene (PID *122 %* *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	**128**	16.0	09/14/2023	ND	416	104	400	0.00	

TPH 8015M mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	**10.5**	10.0	09/14/2023	ND	189	94.6	200	3.09	
DRO >C10-C28*	**756**	10.0	09/14/2023	ND	187	93.3	200	2.58	
EXT DRO >C28-C36	**153**	10.0	09/14/2023	ND					

Surrogate: 1-Chlorooctane *90.4 %* *48.2-134*

Surrogate: 1-Chlorooctadecane *101 %* *49.1-148*

Cardinal Laboratories *=Accredited Analyte

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

CARDINAL Laboratories

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

Analytical Results For:

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

Received:	09/14/2023	Sampling Date:	09/13/2023
Reported:	09/15/2023	Sampling Type:	Soil
Project Name:	MESA 8105 JV-P 013H	Sampling Condition:	Cool & Intact
Project Number:	03C2012044 (32.06584,-103.62410)	Sample Received By:	Dionica Hinojos
Project Location:	BTA		

Sample ID: BH 05 A 4' (H234960-05)

BTEX 8021B mg/kg **Analyzed By: MS**

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	09/14/2023	ND	1.95	97.4	2.00	3.05	
Toluene*	<0.050	0.050	09/14/2023	ND	1.98	98.8	2.00	2.82	
Ethylbenzene*	<0.050	0.050	09/14/2023	ND	1.91	95.5	2.00	4.08	
Total Xylenes*	<0.150	0.150	09/14/2023	ND	5.71	95.2	6.00	4.84	
Total BTEX	<0.300	0.300	09/14/2023	ND					

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

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

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**48.0**	16.0	09/14/2023	ND	416	104	400	0.00	

TPH 8015M mg/kg **Analyzed By: MS**

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	09/14/2023	ND	189	94.6	200	3.09	
DRO >C10-C28*	**18.6**	10.0	09/14/2023	ND	187	93.3	200	2.58	
EXT DRO >C28-C36	**18.2**	10.0	09/14/2023	ND					

Surrogate: 1-Chlorooctane *99.8 %* *48.2-134*

Surrogate: 1-Chlorooctadecane *108 %* *49.1-148*

Cardinal Laboratories *=Accredited Analyte

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

CARDINAL Laboratories

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

Analytical Results For:

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

Received:	09/14/2023	Sampling Date:	09/13/2023
Reported:	09/15/2023	Sampling Type:	Soil
Project Name:	MESA 8105 JV-P 013H	Sampling Condition:	Cool & Intact
Project Number:	03C2012044 (32.06584,-103.62410)	Sample Received By:	Dionica Hinojos
Project Location:	BTA		

Sample ID: BH 06 A 4' (H234960-06)

BTEX 8021B mg/kg **Analyzed By: MS**

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	09/14/2023	ND	1.95	97.4	2.00	3.05	
Toluene*	<0.050	0.050	09/14/2023	ND	1.98	98.8	2.00	2.82	
Ethylbenzene*	<0.050	0.050	09/14/2023	ND	1.91	95.5	2.00	4.08	GC-NC
Total Xylenes*	<0.150	0.150	09/14/2023	ND	5.71	95.2	6.00	4.84	
Total BTEX	<0.300	0.300	09/14/2023	ND					

Surrogate: 4-Bromofluorobenzene (PID *118 %* *71.5-134*

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

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**320**	16.0	09/14/2023	ND	416	104	400	0.00	

TPH 8015M mg/kg **Analyzed By: MS**

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	09/14/2023	ND	189	94.6	200	3.09	
DRO >C10-C28*	**389**	10.0	09/14/2023	ND	187	93.3	200	2.58	
EXT DRO >C28-C36	**81.5**	10.0	09/14/2023	ND					

Surrogate: 1-Chlorooctane *105 %* *48.2-134*

Surrogate: 1-Chlorooctadecane *108 %* *49.1-148*

Cardinal Laboratories *=Accredited Analyte

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

CARDINAL Laboratories

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

Analytical Results For:

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

Received:	09/14/2023	Sampling Date:	09/13/2023
Reported:	09/15/2023	Sampling Type:	Soil
Project Name:	MESA 8105 JV-P 013H	Sampling Condition:	Cool & Intact
Project Number:	03C2012044 (32.06584,-103.62410)	Sample Received By:	Dionica Hinojos
Project Location:	BTA		

Sample ID: BH 07 A 4' (H234960-07)

BTEX 8021B mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	09/14/2023	ND	1.95	97.4	2.00	3.05	
Toluene*	<0.050	0.050	09/14/2023	ND	1.98	98.8	2.00	2.82	
Ethylbenzene*	<0.050	0.050	09/14/2023	ND	1.91	95.5	2.00	4.08	
Total Xylenes*	<0.150	0.150	09/14/2023	ND	5.71	95.2	6.00	4.84	
Total BTEX	<0.300	0.300	09/14/2023	ND					

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

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

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**48.0**	16.0	09/14/2023	ND	416	104	400	0.00	

TPH 8015M mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	09/14/2023	ND	189	94.6	200	3.09	
DRO >C10-C28*	<10.0	10.0	09/14/2023	ND	187	93.3	200	2.58	
EXT DRO >C28-C36	<10.0	10.0	09/14/2023	ND					

Surrogate: 1-Chlorooctane *111 %* *48.2-134*

Surrogate: 1-Chlorooctadecane *116 %* *49.1-148*

Cardinal Laboratories *=Accredited Analyte

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

CARDINAL Laboratories

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

Analytical Results For:

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

Received:	09/14/2023	Sampling Date:	09/13/2023
Reported:	09/15/2023	Sampling Type:	Soil
Project Name:	MESA 8105 JV-P 013H	Sampling Condition:	Cool & Intact
Project Number:	03C2012044 (32.06584,-103.62410)	Sample Received By:	Dionica Hinojos
Project Location:	BTA		

Sample ID: BH 08 A 4' (H234960-08)

BTEX 8021B mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	09/14/2023	ND	1.95	97.4	2.00	3.05	
Toluene*	<0.050	0.050	09/14/2023	ND	1.98	98.8	2.00	2.82	
Ethylbenzene*	<0.050	0.050	09/14/2023	ND	1.91	95.5	2.00	4.08	
Total Xylenes*	<0.150	0.150	09/14/2023	ND	5.71	95.2	6.00	4.84	
Total BTEX	<0.300	0.300	09/14/2023	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	09/14/2023	ND	416	104	400	0.00	

TPH 8015M mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	09/14/2023	ND	189	94.6	200	3.09	
DRO >C10-C28*	<10.0	10.0	09/14/2023	ND	187	93.3	200	2.58	
EXT DRO >C28-C36	<10.0	10.0	09/14/2023	ND					

Surrogate: 1-Chlorooctane *101 %* *48.2-134*

Surrogate: 1-Chlorooctadecane *107 %* *49.1-148*

Cardinal Laboratories *=Accredited Analyte

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

CARDINAL Laboratories

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

Analytical Results For:

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

Received:	09/14/2023	Sampling Date:	09/13/2023
Reported:	09/15/2023	Sampling Type:	Soil
Project Name:	MESA 8105 JV-P 013H	Sampling Condition:	Cool & Intact
Project Number:	03C2012044 (32.06584,-103.62410)	Sample Received By:	Dionica Hinojos
Project Location:	BTA		

Sample ID: BH 09 A 4' (H234960-09)

BTEX 8021B mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	09/14/2023	ND	1.95	97.4	2.00	3.05	
Toluene*	<0.050	0.050	09/14/2023	ND	1.98	98.8	2.00	2.82	
Ethylbenzene*	<0.050	0.050	09/14/2023	ND	1.91	95.5	2.00	4.08	
Total Xylenes*	<0.150	0.150	09/14/2023	ND	5.71	95.2	6.00	4.84	
Total BTEX	<0.300	0.300	09/14/2023	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	09/14/2023	ND	416	104	400	0.00	

TPH 8015M mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	09/14/2023	ND	189	94.6	200	3.09	
DRO >C10-C28*	<10.0	10.0	09/14/2023	ND	187	93.3	200	2.58	
EXT DRO >C28-C36	<10.0	10.0	09/14/2023	ND					

Surrogate: 1-Chlorooctane *79.9 %* *48.2-134*

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

Cardinal Laboratories *=Accredited Analyte

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

CARDINAL Laboratories

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

Analytical Results For:

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

Received:	09/14/2023	Sampling Date:	09/13/2023
Reported:	09/15/2023	Sampling Type:	Soil
Project Name:	MESA 8105 JV-P 013H	Sampling Condition:	Cool & Intact
Project Number:	03C2012044 (32.06584,-103.62410)	Sample Received By:	Dionica Hinojos
Project Location:	BTA		

Sample ID: BH 10 A 4' (H234960-10)

BTEX 8021B mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	09/14/2023	ND	1.95	97.4	2.00	3.05	
Toluene*	<0.050	0.050	09/14/2023	ND	1.98	98.8	2.00	2.82	
Ethylbenzene*	<0.050	0.050	09/14/2023	ND	1.91	95.5	2.00	4.08	
Total Xylenes*	<0.150	0.150	09/14/2023	ND	5.71	95.2	6.00	4.84	
Total BTEX	<0.300	0.300	09/14/2023	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	09/14/2023	ND	416	104	400	0.00	

TPH 8015M mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	09/14/2023	ND	189	94.6	200	3.09	
DRO >C10-C28*	<10.0	10.0	09/14/2023	ND	187	93.3	200	2.58	
EXT DRO >C28-C36	<10.0	10.0	09/14/2023	ND					

Surrogate: 1-Chlorooctane *87.7 %* *48.2-134*

Surrogate: 1-Chlorooctadecane *91.6 %* *49.1-148*

Cardinal Laboratories *=Accredited Analyte

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

CARDINAL Laboratories

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

Notes and Definitions

GC-NC	8260 confirmation analysis was performed; initial GC results were not supported by GC/MS analysis and are reported as ND.
ND	Analyte NOT DETECTED at or above the reporting limit
RPD	Relative Percent Difference
**	Samples not received at proper temperature of 6°C or below.
***	Insufficient time to reach temperature.
-	Chloride by SM4500Cl-B does not require samples be received at or below 6°C
	Samples reported on an as received basis (wet) unless otherwise noted on report

Cardinal Laboratories *=Accredited Analyte

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

CARDINAL Laboratories

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

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

Company Name: Ensolum, LLC
Project Manager: Hadlie Green
Address: 3122 Nat'l Parks Hwy
City: Carlsbad State: NM Zip: 88220
Phone #: 432-557-8895 Fax #:
Project #: 03C2012044 Project Owner:
Project Name: Mesa 8105 JV-P 013H
Project Location: 32.06584, -103.62410
Sampler Name: Meredith Roberts

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

ANALYSIS REQUEST

FOR LAB USE ONLY

Lab I.D.	Sample I.D.	Depth (feet)	(G)RAB OR (C)OMP.	# CONTAINERS	MATRIX: GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER :	PRESERV.: ACID/BASE:	ICE / COOL	OTHER :	SAMPLING: DATE	TIME	BTEX	Chlorides	TPH
H234960																		
1	BH01A	4'	G	1			X					X		9/13/23	1015	X	X	X
2	BH02A														1030			
3	BH03A														1045			
4	BH04A														1100			
5	BH05A														1115			
6	BH06A														1130			
7	BH07A														1145			
8	BH08A														1200			
9	BH09A														1215			
10	BH10A														1230			

Relinquished By: Meredith Roberts Date: 9/14/23 Time: 8:13
Received By: [signature]
Relinquished By: Date: Time:
Received By: [signature]

Delivered By: (Circle One) Sampler - UPS - Bus - Other:
Observed Temp. °C 24°C
Corrected Temp. °C
Sample Condition: Cool Yes / No; Intact Yes / No
CHECKED BY: (Initials)

Verbal Result: ☐ Yes ☐ No Add'l Phone #:
All Results are emailed. Please provide Email address:
hgreen@ensolum.com
mroberts@ensolum.com
REMARKS: Incident #: nCH1835547953

Turnaround Time: Standard ☐ Rush ☑ 24 Hr
Thermometer ID #113 140
Correction Factor -0.5°C
Bacteria (only) Sample Condition: Cool ☐ Yes ☐ No; Intact ☐ Yes ☐ No
Observed Temp. °C
Corrected Temp. °C

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

FORM-006 R 3.2 10/07/21

ENSOLUM

APPENDIX E

NMOCD Notifications

From: Wells, Shelly, EMNRD
To: Hadlie Green
Cc: Bratcher, Michael, EMNRD; Harimon, Jocelyn, EMNRD
Subject: RE: [EXTERNAL] BTA - Sampling Notification - Week of 07/31/2023
Date: Thursday, July 27, 2023 2:30:30 PM
Attachments: image001.png
image002.png
image003.png
image004.png

[**EXTERNAL EMAIL**]

Hi Hadlie,

The OCD has received your notification. 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.

Thank you,

Shelly

Shelly Wells * Environmental Specialist-Advanced
Administrative Permitting Program
EMNRD-Oil Conservation Division
1220 S. St. Francis Drive|Santa Fe, NM 87505
(505)469-7520|Shelly.Wells@emnrd.nm.gov
http://www.emnrd.state.nm.us/OCD/

From: Hadlie Green <hgreen@ensolum.com>
Sent: Thursday, July 27, 2023 1:22 PM
To: Enviro, OCD, EMNRD <OCD.Enviro@emnrd.nm.gov>
Cc: Kelton Beaird <KBeaird@btaoil.com>
Subject: [EXTERNAL] BTA - Sampling Notification - Week of 07/31/2023

All,

BTA anticipates collecting confirmation samples at the following location the week of July 31, 2023.

- Mesa 8105 JV-P 013H / NCH1835547953
  - Sampling Date: 8/3-4/2023 @ 9:00 AM MST

Thank you,

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

ENSOLUM

APPENDIX F

Final C-141s

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	NCH1835547953
District RP	1RP-5289
Facility ID	
Application ID	

Release Notification

Responsible Party

Responsible Party BTA Oil Producers	OGRID 260297
Contact Name Ben Grimes	Contact Telephone (432) 682-3753
Contact email bgrimes@btaoil.com	Incident # *(assigned by OCD)*
Contact mailing address 104 S Pecos St, Midland, TX 79701	

Location of Release Source

Latitude 32.0660734285 Longitude 103.624070083
(NAD 83 in decimal degrees to 5 decimal places)

Site Name Mesa 8105 JV-P 013H (compressor)	Site Type well pad
Date Release Discovered 11/24/2018	API# *(if applicable)* 30-025-42849

Unit Letter	Section	Township	Range	County
P	1	26S	32E	Lea

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

Nature and Volume of Release

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

☐ Crude Oil	Volume Released (bbls)	Volume Recovered (bbls)
☒ Produced Water	Volume Released (bbls) 20	Volume Recovered (bbls) 5
	Is the concentration of dissolved chloride in the produced water >10,000 mg/l?	☐ Yes ☐ No
☒ Condensate	Volume Released (bbls) 10	Volume Recovered (bbls) 5
☐ Natural Gas	Volume Released (Mcf)	Volume Recovered (Mcf)
☐ Other (describe)	Volume/Weight Released (provide units)	Volume/Weight Recovered (provide units)

Cause of Release

Malfunction on compressor caused slop tank to overflow.

Form C-141
Page 2

State of New Mexico
Oil Conservation Division

Incident ID	NCH1835547953
District RP	1RP-5289
Facility ID	
Application ID	

Was this a major release as defined by 19.15.29.7(A) NMAC? ☒ Yes ☐ No	If YES, for what reason(s) does the responsible party consider this a major release? Yes 19.15.29.7 (A) defines 25 BBL or more a major release
If YES, was immediate notice given to the OCD? By whom? To whom? When and by what means (phone, email, etc)? No	

Initial Response

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

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

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

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

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

Printed Name: Ben Grimes Title: Production Manager

Signature: Ben Grimes Date: 11/26/2018

email: BGrimes@BTAOil.com Telephone: 432-682-3753

OCD Only

Received by: _____ Date: _____

State of New Mexico
Oil Conservation Division

Incident ID	NCH835547953
District RP	1RP-5289
Facility ID	
Application ID	

Site Assessment/Characterization

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

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

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

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

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

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

State of New Mexico
Oil Conservation Division

Incident ID	NCH835547953
District RP	1RP-5289
Facility ID	
Application ID	

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

Printed Name: __Kelton Beaird_____ Title: __Environmental Manager_____

Signature:_____ Date: _____9/20/2023_____

email: __kbeaird@btaoil.com_____ Telephone: ___432-312-2203_____

OCD Only

Received by: _____ Date**:** _____

State of New Mexico
Oil Conservation Division

Incident ID	NCH835547953
District RP	1RP-5289
Facility ID	
Application ID	

Closure

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

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

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

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

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

☒ Description of remediation activities

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

Printed Name: __Kelton Beaird_____ Title: _Environmental Manager_____

Signature: _____ Date: _____9/20/2023_____

email: __kbeaird@btaoil.com_____ Telephone: ___432-312-2203_____

OCD Only

Received by: _____ Date**:** _____

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

Closure Approved by: _____ Date**:** _____

Printed Name: _____ Title: _____

__

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

State of New Mexico
Energy Minerals and Natural Resources Department

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

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

Incident ID	NAB1906552791
District RP	1RP-5383
Facility ID	
Application ID	

Release Notification

Responsible Party

Responsible Party: BTA Oil Producers, LLC	OGRID: 260297
Contact Name: Bob Hall	Contact Telephone: 432-682-3753
Contact email: bhall@btaoil.com	Incident # *(assigned by OCD)* NAB1906552791
Contact mailing address: 104 S. Pecos St., Midland, TX 79701	

Location of Release Source

Latitude: 32.06584° Longitude: -103.62410°

(NAD 83 in decimal degrees to 5 decimal places)

Site Name: Mesa 8105 JV-P 13/18 Compressor	Site Type: Well Pad
Date Release Discovered: 2/8/2019	API# *(if applicable)* Nearest well: Mesa 8195 JV-P #013H API #30-025-42849

Unit Letter	Section	Township	Range	County
P	1	26S	32E	Lea

Surface Owner: ☐ State ☒ Federal ☐ Tribal ☐ Private (_____)

Nature and Volume of Release

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

☒ Crude Oil	Volume Released (bbls) 18 BBL	Volume Recovered (bbls) 18 BBL
☐ Produced Water	Volume Released (bbls)	Volume Recovered (bbls)
	Is the concentration of dissolved chloride in the produced water >10,000 mg/l?	☐ Yes ☐ No
☐ Condensate	Volume Released (bbls)	Volume Recovered (bbls)
☐ Natural Gas	Volume Released (Mcf)	Volume Recovered (Mcf)
☐ Other (describe)	Volume/Weight Released (provide units)	Volume/Weight Recovered (provide units)

Cause of Release

Due to an equipment failure on the compressor, oil was pushed over to the slop tank, which overflowed. The oil was recovered with a vacuum truck.

Form C-141
Page 2

State of New Mexico
Oil Conservation Division

Incident ID	NAB1906552791
District RP	1RP-5383
Facility ID	
Application ID	

Was this a major release as defined by 19.15.29.7(A) NMAC? ☐ Yes ☒ No	If YES, for what reason(s) does the responsible party consider this a major release?
If YES, was immediate notice given to the OCD? By whom? To whom? When and by what means (phone, email, etc)?	

Initial Response

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

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

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

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

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

Printed Name: Bob Hall Title: Environmental Manager

Signature: Bob Hall Date: 2/22/2018

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

OCD Only

Received by: Amalia Bustamante Date: 3/06/2019

State of New Mexico
Oil Conservation Division

Incident ID	NAB1906552791
District RP	1RP-5383
Facility ID	
Application ID	

Site Assessment/Characterization

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

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

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

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

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

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

Form C-141
Page 4

State of New Mexico
Oil Conservation Division

Incident ID	NAB1906552791
District RP	1RP-5383
Facility ID	
Application ID	

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

Printed Name: __Kelton Beaird_____ Title: __Environmental Manager_____

Signature:_____ Date: _____9/20/2023_____

email: __kbeaird@btaoil.com_____ Telephone: ___432-312-2203_____

OCD Only

Received by: _____ Date: _____

State of New Mexico
Oil Conservation Division

Incident ID	NAB1906552791
District RP	1RP-5383
Facility ID	
Application ID	

Closure

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

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

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

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

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

☒ Description of remediation activities

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

Printed Name: __Kelton Beaird_____ Title: _Environmental Manager_____

Signature: _____ Date: _____9/20/2023_____

email: __kbeaird@btaoil.com_____ Telephone: ___432-312-2203_____

OCD Only

Received by: _____ Date**:** _____

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

Closure Approved by: _____ Date**:** _____

Printed Name: _____ Title: _____

__

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

State of New Mexico
Energy Minerals and Natural Resources Department

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

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

Incident ID	NAB1906551740
District RP	1RP-5383
Facility ID	
Application ID	

Release Notification

Responsible Party

Responsible Party: BTA Oil Producers, LLC	OGRID: 260297
Contact Name: Bob Hall	Contact Telephone: 432-682-3753
Contact email: bhall@btaoil.com	Incident # *(assigned by OCD)* NAB1906551740
Contact mailing address: 104 S. Pecos St., Midland, TX 79701	

Location of Release Source

Latitude: 32.06584° Longitude: -103.62410°
(NAD 83 in decimal degrees to 5 decimal places)

Site Name: Mesa 8105 JV-P 13/18 Compressor	Site Type: Well Pad
Date Release Discovered: 2/9/2019	API# *(if applicable)* Nearest well: Mesa 8195 JV-P #013H API #30-025-42849

Unit Letter	Section	Township	Range	County
P	1	26S	32E	Lea

Surface Owner: ☐ State ☒ Federal ☐ Tribal ☐ Private (_____)

Nature and Volume of Release

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

☒ Crude Oil	Volume Released (bbls) 18 BBL	Volume Recovered (bbls) 18 BBL
☐ Produced Water	Volume Released (bbls)	Volume Recovered (bbls)
	Is the concentration of dissolved chloride in the produced water >10,000 mg/l?	☐ Yes ☐ No
☐ Condensate	Volume Released (bbls)	Volume Recovered (bbls)
☐ Natural Gas	Volume Released (Mcf)	Volume Recovered (Mcf)
☐ Other (describe)	Volume/Weight Released (provide units)	Volume/Weight Recovered (provide units)

Cause of Release
The same equipment failure on the compressor, as occurred as a separate event and reported for 2/8/2019, pushed oil over to the slop tank and caused the tank to overflow. The oil was recovered with a vacuum truck.

Form C-141
Page 2

State of New Mexico
Oil Conservation Division

Incident ID	NAB1906551740
District RP	1RP-5383
Facility ID	
Application ID	pAB1906551401

Was this a major release as defined by 19.15.29.7(A) NMAC? ☐ Yes ☒ No	If YES, for what reason(s) does the responsible party consider this a major release?
If YES, was immediate notice given to the OCD? By whom? To whom? When and by what means (phone, email, etc)?	

Initial Response

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

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

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

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

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

Printed Name: Bob Hall Title: Environmental Manager

Signature: Bob Hall Date: 2/22/2018

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

OCD Only

Received by: Amalia Bustamante Date: 3/6/2019

State of New Mexico
Oil Conservation Division

Incident ID	NAB1906551740
District RP	1RP-5383
Facility ID	
Application ID	

Site Assessment/Characterization

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

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

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

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

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

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

Form C-141
Page 4

State of New Mexico
Oil Conservation Division

Incident ID	NAB1906551740
District RP	1RP-5383
Facility ID	
Application ID	

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

Printed Name: __Kelton Beaird_____ Title: __Environmental Manager_____

Signature:_____ Date: _____9/20/2023_____

email: __kbeaird@btaoil.com_____ Telephone: ___432-312-2203_____

OCD Only

Received by: _____ Date: _____

State of New Mexico
Oil Conservation Division

Incident ID	NAB1906551740
District RP	1RP-5383
Facility ID	
Application ID	

Closure

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

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

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

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

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

☒ Description of remediation activities

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

Printed Name: Kelton Beaird Title: Environmental Manager

Signature: Date: 9/20/2023

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

OCD Only

Received by: Date:

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

Closure Approved by: Nelson Velez Date: 01/18/2024

Printed Name: Nelson Velez Title: Environmental Specialist – Adv

Remediation has met 19.15.29 NMAC requirements. Soil impacts exceeding the reclamation standards have been left in place and are required to meet 19.15.29.13D (1) NMAC once the site is no longer reasonably needed for production or subsequent drilling ops.

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 266752

CONDITIONS

Operator: BTA OIL PRODUCERS, LLC 104 S Pecos Midland, TX 79701	OGRID: 260297
	Action Number: 266752
	Action Type: [C-141] Release Corrective Action (C-141)

CONDITIONS

Created By	Condition	Condition Date
nvelez	Remediation has met 19.15.29 NMAC requirements. Soil impacts exceeding the reclamation standards have been left in place and are required to meet 19.15.29.13D (1) NMAC once the site is no longer reasonably needed for production or subsequent drilling ops.	1/18/2024