

April 20, 2023

New Mexico Oil Conservation Division 1220 South St. Francis Drive Santa Fe, New Mexico 87505

RE: Remediation Workplan BTA Oil Producers Chiso 14 8711 #3 Jet Pump Release Lea County, New Mexico nAPP2205837214

Oil Conservation Division:

Tetra Tech, Inc. (Tetra Tech) was contracted by BTA Oil Producers (BTA) to compile and prepare a closure report for remediation activities conducted by RXsoil and Alves Oilfield Solutions, Inc. following a produced water release that occurred at the Chiso 14 8711 #3, Section 14, Township 22 South, Range 34 East, Lea County, New Mexico (Site). The release site coordinates are 32.38511°, -103.43594°. The site location is shown on **Figures 1 and 2**.

#### Background

According to the State of New Mexico C-141 Initial Report, a release at the Chiso 14 8711 #3 occurred after a plug on a jet pump manifold failed, resulting in approximately 165 barrels (bbls) of produced water to be released into an open excavation at the site. Approximately 70 bbls of produced water was recovered from the excavated area. The open excavation at the site was being conducted to investigate evidence of a suspected release that was discovered by the landowner. The jet pump release flowed onto the pad and the adjacent pasture west of the Site, impacting an area with a length of 60 feet and a maximum width of 80 feet. On February 26, 2022, the release was discovered and reported to the New Mexico Oil Conservation Division (NMOCD). The C-141 is included in **Appendix A**.

#### Suspected Release

BTA's subcontractor, RXsoil conducted site assessment activities from in September through November of 2021 based on evidence of a suspected release at the site. A total of seven (7) soil borings (SP1-A, SP3-A, SP4-A, and SP1 through SP4) were installed to depths ranging from ground surface to 2 ft bgs. The investigatory delineation sample locations are shown on **Figure 3.** The samples were submitted to Cardinal Laboratories in Hobbs, New Mexico to be analyzed for TPH by method 8015 modified, BTEX by method 8021B, and Chloride by EPA Method 4500. The analytical results are summarized in **Table 1** and the analytical laboratory reports are included in **Appendix D**.



#### Site Characterization

#### Significant Water Features

According to the NFHL (National Flood Hazard Layer) Flood Data Application and the USGS (United States Geological Survey) National Water Information System Mapper, there are two intermittent water features located approximately 785 feet to the west and 650 feet to the east of the horizontal extent of the release. No significant watercourses were identified within 300 feet of the Site. There were no playas, lakebeds, sinkholes, springs, wetlands, subsurface mines, private domestic water wells, or floodplains located within the specified distances. Additionally, the site is located in a low karst area. The NFHL Map, USGS Mapper, and NMOSE data are shown in **Appendix B**.

#### Significant Boundaries

According to Google Earth US Government City Boundaries and US School Districts, the lateral extents of the release were not within incorporated municipal boundaries, defined municipal fresh water well field, or a school district. Additionally, there were no occupied permanent residences, schools, hospitals, institutions, or churches located within the specified distances of the lateral extents of the release.

#### Groundwater Review

Groundwater research was completed for the site through the USGS (United States Geological Survey) National Water Information System and New Mexico Office of the State Engineer (NMOSE) Water Rights Reporting System. Two Points of Diversion (POD) were identified within a 0.5-mile radius of the Site. CP-1682-POD1 South 2, an active well located approximately 0.13 miles south of the horizontal extent of the release. NMOSE records indicate the well was drilled to a total depth of 294 ft bgs on September 13, 2019, and groundwater was first encountered at 42 ft bgs. USGS well # 322231103262601 is located approximately 0.44 miles southwest of the Site. USGS records indicate the well was drilled to a total depth of 17.39 ft bgs. POD records are presented in **Appendix B**.

POD ID	Distance from Site (Miles)	Date of Data	Resource of Information	Depth of Well	Depth to Water
CP-1682-POD1 South 2	0.13	09/13/2019	NMOSE	294'	42'
322231103262601	0.44	12/18/2015	USGS	60'	17.39'

#### Regulatory

A risk-based evaluation was performed for the site following the New Mexico Oil Conservation Division (NMOCD) Guidelines for Remediation of Leaks, Spills, and Releases, updated August 14, 2018. The guidelines require a risk-based evaluation of the site to



determine the Recommended Remedial Action Levels (RRALs) for Benzene, Toluene, Ethylbenzene, and Xylene (BTEX) and total petroleum hydrocarbons (TPH) in soil. The proposed RRAL for benzene was determined to be 10 milligrams per kilogram (mg/kg), 50 mg/kg for total BTEX, 100 mg/kg for total TPH and 600 mg/kg for Chlorides.

#### **Remediation Activities**

Based on the results of the suspected release investigation activities, BTA's subcontractors, RXsoil and Alves Oilfield Solutions, LLC (Alves) mobilized to the site to begin remediation activities on February 23,2022. On February 26, 2022, a release caused by a plug failure on a jet pump at the site, adjacent to the excavation, spilled produced water onto the pad and into the open excavation of the suspected release area. Approximately 165 bbls of produced water was released and 70 bbls were recovered from the excavation area. The release impacted area is shown on **Figure 4**.

Between the time of the initial excavation activities and the release from the jet pump into the excavation, the excavation was dug to depths ranging from 3 to 9 ft bgs. Five bottom samples were collected along the excavation bottom (B1 through B5) to delineate to vertical extent of impact. Sample points B2 and B5 reported concentrations below NMOCD limits by laboratory analysis. Sample point B4 was confirmed below NMOCD limits at 5 ft bgs. Sample points B1 and B3 were field screened and indicated chloride concentrations of 356 ppm and non-detect, respectively. Sample points B1 and B3 were not submitted for laboratory analysis before the jet pump release into the excavated area on top of the previously sampled excavation. RXsoil's field screening data is presented in **Appendix E**.

From February 28, 2022, through June 7, 2022, following the jet pump release into the excavated area, Alves and RXsoil continued remediation activities at the site. The areas of impact were excavated to a depth ranging from 3 ft bgs to 19 ft bgs. Field screening was conducted throughout the excavation process to determine the appropriate depth for confirmation sampling. It should be noted that no delineation or confirmation samples were submitted for laboratory analysis in the release footprint around the jet pump area due to safety concerns and the inability to maneuver equipment into the area. The confirmation sample locations area shown on **Figure 5**.

A total of seven (7) confirmation bottom hole samples (BS 1 through BS 6 and SP 2) were collected and a total of eleven (11) confirmation sidewall samples (SW 1 through SW 11) were collected by Alves on February 28, 2022, and June 7, 2022. Additionally, seven (7) confirmation samples (N Wall 2, Bottom, N Wall 1, N Bottom, S Wall, bottom #2 and W Wall) were collected at the Stie from March 8, 2022, through March 10, 2022. Unfortunately, mapping data and sample locations are not available for these sample points. The confirmation soil samples were submitted to the Cardinal Laboratory in Hobbs, New Mexico to be analyzed for TPH method 8015 modified, BTEX method 8021B, and Chloride by EPA Method 4500. The analytical results are summarized in **Table 2** and the analytical laboratory reports are included in **Appendix D**.

Referring to Table 2, all final confirmation samples indicated benzene, BTEX, TPH, and chloride concentrations were below the RRALs of 100 mg/kg of Total TPH, 10 mg/kg for Benzene, 50 mg/kg for Total BTEX and 600 mg/kg for chlorides in all confirmation samples.



A 20 ml liner was installed at 19 ft bgs into the east side of the excavation as an extra precautionary measure after confirmation sample SP 2 reported below NMOCD RRALs at 18 and 19 ft bgs. The liner area was subsequently backfilled to approximately 13 ft bgs. In the release area adjacent to the jet pump on the site, field screening was conducted which indicated elevated chloride concentrations in the top two feet bgs. Due to the equipment and power poles in this area, Alves was unable to excavate this area.

#### Work Plan

Based on the C-141 (nAPP2205837214) and information provided by BTA, Tetra Tech performed site characterization and groundwater research to determine groundwater depth, proximity from significant water features, and proximity from specified populated entities to determine RRALs and assess the impacted area. Based on the OCD *Guidelines for Remediation of Leaks, Spills, and Releases*, updated August 14, 2018, according to the groundwater data found during research activities, the RRALs of 600 mg/kg for chlorides and 100 mg/kg for TPH will be followed for the site. The C-141 is included in **Appendix A**.

BTA proposes to vertically and horizontally delineate the area surrounding the jet pump at the Site and between the jet pump and open excavation area by installing twelve (12) auger holes within and on the perimeter of the release impacted area. Vertical auger holes (AH-1 through AH-6) will be installed to a depth of 4 ft bgs, or feasible utilizing a hand auger, and samples will be collected at each 1-foot interval for submission to the analytical laboratory. Horizontal auger holes (H-1 through H-6) will be installed to a depth of 1 ft bgs along the perimeter of the release footprint in an attempt to achieve horizontal delineation. A deferral may be requested in these areas due to the equipment present at the Site and the safety concerns associated with excavating in these areas, pending analytical results.

Due to insufficient data regarding the confirmation samples collected at the Site, BTA proposes to re-sample the open excavation at the Site by collecting nine (9) sidewall samples and nine (9) bottom samples. The confirmation samples will be collected as a 5-point composite representative of approximately every 500 sq ft to demonstrate that the excavated area has been properly remediated. The Excavated area ranges in depth from 3 ft bgs to 19 ft bgs and covers an area of approximately 3,350 sq ft. A 20-mil liner was installed to 19 ft bgs and will be removed for the re-sampling event. A workplan sample location map is presented on **Figure 6**.

BTA requests approval of this workplan as soon as possible due to the safety concerns associated with the open excavation and landowner concerns regarding closure of the Site.

Pending analytical results, additional excavation and sampling activities may be required at the Site. If you require any additional information or have any questions or comments, please contact us at (432) 682-4559.



Respectfully submitted, TETRA TECH

John Faught, G.I.T. Project Manager

Clair Gonzales, P.G. Senior Project Manager

#### Figures

- Figure 1 Site Overview Map
- Figure 2 Topographic Map
- Figure 3 Investigation Delineation Map
- Figure 4 Release Footprint Map
- Figure 5 Excavation Area and Confirmation Sample Location Map
- Figure 6 Workplan Sample Location Map

#### Tables

Table 1 – Delineation Analytical Results

Table 2 – Confirmation Analytical Results

#### Appendices

- Appendix A C-141
- Appendix B Site Characterization
- Appendix C Photographic Documentation
- Appendix D Analytical Laboratory Reports
- Appendix E RxSoil Screening Data





# Figures

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## Tables

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#### Table 1 **Delineation Analytical Results BTA Oil Producers** Chiso 14 8711 #3 Jet Pump Release Lea County, New Mexico

Sample ID	Sample Date	Excavtion	Soil	Status		TPH (m	ng/kg)		Benzene (mg/kg)	Toluene (mg/kg)	Ethlybenzene	Xylene	Total BTEX	Chloride
		Depth (ft)	In-Situ	Removed	GRO	DRO	MRO	Total			(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)
RRALs								100 mg/kg	10 mg/kg				50 mg/kg	600 mg/kg
Surface	9/14/2022	Surface	-	Х	<10.0	13	<10.0	13	<0.050	<0.050	<0.050	<0.150	<0.300	50000
1'	9/14/2022	1'	-	Х	<10.0	<10.0	<10.0	<10.0	<0.050	<0.050	<0.050	<0.150	<0.300	2920
2'	9/14/2022	2'	-	Х	55	3080	688	3823	<0.050	<0.050	<0.050	<0.150	<0.300	960
SP1	11/15/2021	Surface	-	X	<0.10	<0.10	<0.10	<0.10	<0.050	<0.050	<0.050	<0.150	<0.300	32
	11/15/2021	2.0'	-	Х	<0.10	<0.10	<0.10	<0.10	<0.050	<0.050	<0.050	<0.150	<0.300	48
SP2	11/15/2021	Surface	-	Х	<0.10	11.1	<0.10	11.1	<0.050	<0.050	<0.050	<0.150	< 0.300	368
	11/15/2021	2.0'	-	Х	<0.10	<0.10	<0.10	<0.10	<0.050	<0.050	<0.050	<0.150	<0.300	<16.0
602	11/15/2021	Surface	-	X	<0.10	<0.10	<0.10	<0.10	<0.050	<0.050	<0.050	<0.150	<0.300	<16.0
SP3	11/15/2021	2.0'	-	Х	<0.10	<0.10	<0.10	<0.10	<0.050	<0.050	<0.050	<0.150	<0.300	2200
604	11/15/2021	Surface	-	X	<0.10	<0.10	<0.10	<0.10	<0.050	<0.050	<0.050	<0.150	<0.300	32.0
SP4	11/15/2021	2.0'	-	Х	<0.10	<0.10	<0.10	<0.10	<0.050	<0.050	<0.050	<0.150	<0.300	48.0

ft = feet below ground surface (-) = not analyzed for respective constituent

TPH = total petroleum hydrocarbons

BTEX = benzene, toluene, ethylbenzene, xylene Exceedance

# Table 2Confirmation Analytical ResultsBTA Oil ProducersChiso 14 8711 #3 Jet Pump ReleaseLea County, New Mexico

Sample ID	Sample Date	Excavtion	Soil	Status		TPH (m	ıg/kg)		Benzene (mg/kg)	Toluene (mg/kg)	Ethlybenzene	Xylene (mg/kg)	Total BTEX (mg/kg)	Chloride
	Sample Bate	Depth (ft)	In-Situ	Removed	GRO	DRO	MRO	Total		· • • • • • • • • • • • • • • • • • • •	(mg/kg)			(mg/kg)
RRALs								100 mg/kg	10 mg/kg				50 mg/kg	600 mg/kg
						Confirma	ation Soil S		Pre-Jet Pump Rele	ase			ilig/kg	
B2	2/24/2022	-	Х	-	<10.0	56.8	14.1	70.9	<0.050	<0.050	<0.050	<0.150	<0.300	80
B4	2/24/2022	5'	-	Х	<10.0	<10.0	<10.0	<10.0	<0.050	<0.050	<0.050	<0.150	<0.300	112
B5	2/24/2022	-	-	Х	<10.0	<10.0	<10.0	<10.0	<0.050	<0.050	<0.050	<0.150	<0.300	96
								1	ost-Jet Pump Rele					
B1	2/28/2022	-	X	-	<10.0	<10.0	<10.0	<10.0	< 0.050	<0.050	<0.050	<0.150	<0.300	352
B2	2/28/2022	-	Х	-	<10.0	<10.0	<10.0	<10.0	<0.050	<0.050	<0.050	<0.150	<0.300	288
B4	3/3/2022	-	-	Х	<10.0	<10.0	<10.0	<10.0	<0.050	<0.050	<0.050	<0.150	<0.300	992
B5	2/28/2022	-	Х	-	<10.0	<10.0	<10.0	<10.0	<0.050	<0.050	<0.050	<0.150	<0.300	224
SP. 2	2/28/2022	18'	-	X	<10.0	<10.0	<10.0	<10.0	<0.050	<0.050	<0.050	<0.150	<0.300	176
5F. 2	2/28/2022	19'	Х	-	<10.0	<10.0	<10.0	<10.0	<0.050	<0.050	<0.050	<0.150	<0.300	176
N Wall 2	3/8/2022	-	Х	-	<10.0	<10.0	<10.0	<10.0	<0.050	<0.050	<0.050	<0.150	<0.300	160
Bottom	3/8/2022	7"	Х	-	<10.0	<10.0	<10.0	<10.0	<0.050	<0.050	<0.050	<0.150	<0.300	112
N Wall 1	3/9/2022	9"	Х	-	<10.0	<10.0	<10.0	<10.0	<0.050	<0.050	<0.050	<0.150	<0.300	64.0
N Bottom	3/9/2022	14"	Х	-	<10.0	<10.0	<10.0	<10.0	<0.050	<0.050	<0.050	<0.150	<0.300	560
S Wall	3/9/2022	4"	Х	-	<10.0	<10.0	<10.0	<10.0	<0.050	<0.050	<0.050	<0.150	<0.300	80.0
Bottom # 2	3/10/2022	6"	Х	-	<10.0	<10.0	<10.0	<10.0	<0.050	<0.050	<0.050	<0.150	<0.300	448
	3/10/2022	10"	-	Х	<10.0	<10.0	<10.0	<10.0	< 0.050	< 0.050	<0.050	<0.150	<0.300	2400
W Wall	3/10/2022	10"	-	X	<10.0	<10.0	<10.0	<10.0	< 0.050	<0.050	< 0.050	<0.150	<0.300	48.0
	3/10/2022	15"	-	X	<10.0	<10.0	<10.0	<10.0	< 0.050	<0.050	<0.050	<0.150	< 0.300	48.0
SW 1 (CS 1)	6/7/2022	-	Х	-	<0.10	<0.10	<0.10	<0.10	<0.050	<0.050	<0.050	<0.150	<0.300	<16.0
SW 2 (CS 2)	6/7/2022	-	Х	-	<0.10	<0.10	<0.10	<0.10	<0.050	<0.050	<0.050	<0.150	<0.300	64.0
SW 3 (CS 3)	6/7/2022	-	Х	-	<0.10	<0.10	<0.10	<0.10	<0.050	<0.050	<0.050	<0.150	<0.300	16.0
SW 4 (CS 4)	6/7/2022	-	Х	-	<0.10	<0.10	<0.10	<0.10	<0.050	<0.050	<0.050	<0.150	<0.300	<16.0
SW 5 (CS 5)	6/7/2022	-	Х	-	<0.10	<0.10	<0.10	<0.10	<0.050	<0.050	<0.050	<0.150	<0.300	<16.0
SW 6 (CS 6)	6/7/2022	-	Х	-	<0.10	<0.10	<0.10	<0.10	<0.050	<0.050	<0.050	<0.150	<0.300	32.0
SW 7 (CS 7)	6/7/2022	-	Х	-	<0.10	<0.10	<0.10	<0.10	<0.050	<0.050	<0.050	<0.150	<0.300	32.0
SW 8 (CS 8)	6/7/2022	-	Х	-	<0.10	<0.10	<0.10	<0.10	<0.050	<0.050	<0.050	<0.150	<0.300	16.0
SW 9 (CS 9)	6/7/2022	-	Х	-	<0.10	<0.10	<0.10	<0.10	<0.050	<0.050	<0.050	<0.150	<0.300	32.0
SW 10 (CS 10)	6/7/2022	-	Х	-	<0.10	<0.10	<0.10	<0.10	<0.050	<0.050	<0.050	<0.150	<0.300	32.0
SW 11 (CS 11)	6/7/2022	-	Х	-	<0.10	<0.10	<0.10	<0.10	<0.050	<0.050	<0.050	<0.150	<0.300	16.0
BTM1 (CBS 1)	6/7/2022	-	Х	-	<0.10	<0.10	<0.10	<0.10	<0.050	<0.050	<0.050	<0.150	<0.300	<16.0
BTM2 (CBS 2)	6/7/2022	-	Х	-	<0.10	<0.10	<0.10	<0.10	<0.050	<0.050	<0.050	<0.150	<0.300	32.0

#### Table 2 **Confirmation Analytical Results BTA Oil Producers** Chiso 14 8711 #3 Jet Pump Release Lea County, New Mexico

Sample ID	Sample Date	Excavtion Depth (ft)	Soil	Status		TPH (m	ıg/kg)		Benzene (mg/kg)	Toluene (mg/kg)	Ethlybenzene (mg/kg)	Xylene (mg/kg)	Total BTEX (mg/kg)	Chloride (mg/kg)
		Doptii (it)	In-Situ	Removed	GRO	DRO	MRO	Total			(			(9/9/
<b>DDAL</b> o								100	10				50	
RRALs								mg/kg	mg/kg				mg/kg	600 mg/kg
BTM3 (CBS 3)	6/7/2022	-	Х	-	<0.10	<0.10	<0.10	<0.10	<0.050	<0.050	<0.050	<0.150	<0.300	<16.0
BTM4 (CBS 4)	6/7/2022	-	Х	-	<0.10	<0.10	<0.10	<0.10	<0.050	<0.050	<0.050	<0.150	<0.300	<16.0
BTM5 (CBS 5)	6/7/2022	-	Х	-	<0.10	<0.10	<0.10	<0.10	<0.050	<0.050	<0.050	<0.150	<0.300	112.0
BTM6 (CBS 6)	6/7/2022	-	Х	-	<0.10	<0.10	<0.10	<0.10	<0.050	<0.050	<0.050	<0.150	<0.300	32.0

RRALs (Recommended Remediation Action Levels) are based on NMOCD (New Mexico Oil Conservation Devision) Guidelines for Remediation of Leaks, Spills, and Releases. All screening values and results are presented in milligrams per kilogram (mg/kg)

Bolded cells represent a detected concentration above the respective screening value.

< = analyte was not detected above the respective sample detection limit

ft = feet below ground surface

(-) = not analyzed for respective constituent

TPH = total petroleum hydrocarbons

BTEX = benzene, toluene, ethylbenzene, xylene

Exceedance





# Appendix A

C-141

District I 1625 N. French Dr., Hobbs, NM 88240 District II 811 S. First St., Artesia, NM 88210 District III 1000 Rio Brazos Road, Aztec, NM 87410 District IV 1220 S. St. Francis Dr., Santa Fe, NM 87505 State of New Mexico Energy Minerals and Natural Resources Department

Oil Conservation Division 1220 South St. Francis Dr. Santa Fe, NM 87505 Form C-141 Revised August 24, 2018 Submit to appropriate OCD District office

Incident ID	nAPP2205837214
District RP	
Facility ID	fAPP2129434580
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) nAPP2205837214
Contact mailing address: 104 S. Pecos St., Midland, TX 79701	

#### **Location of Release Source**

Latitude: 32.38511 Longitude: -103.43594

(NAD 83 in decimal degrees to 5 decimal places)

Site Name: Chiso 14 State Jet Pump and Excavation	Site Type: Tank Battery
Date Release Discovered: 2/26/2022	API# (if applicable) Nearest well:

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

Surface Owner: State Federal Tribal Private (Name:)

#### Nature and Volume of Release

Crude Oil	Volume Released (bbls)	Volume Recovered (bbls)
Produced Water	Volume Released (bbls) 165 BBL	Volume Recovered (bbls) 70 BBL
	Is the concentration of dissolved chloride in the produced water >10,000 mg/l?	Yes No
Condensate	Volume Released (bbls)	Volume Recovered (bbls)
Natural Gas	Volume Released (Mcf)	Volume Recovered (Mcf)
Other (describe)	Volume/Weight Released (provide units)	Volume/Weight Recovered (provide units)

Jet Pump Failure.

A plug on the manifold of a Jet Pump failed and allowed water from the supply tank to drain from the pump and proceed westward directly into an active excavation being conducted to remove previously contaminated soil. The volume of recovered water was taken from the excavation. The estimate of the volume of water released was calculated from tank gauge data (attached).

rm C-141	State of New Mexico	Incident ID	nAPP2205837214
je 2	Oil Conservation Division	District RP	IIAFF2203037214
		Facility ID	fAPP2129434580
		Application ID	
Was this a major	If YES, for what reason(s) does the responsible par	h	e?
release as defined by			
19.15.29.7(A) NMAC?	The volume of the release exceeds 25 BBL	•	
🛛 Yes 🗌 No			
	notice given to the OCD? By whom? To whom? Where of Release (NOR) on the NMOCD Permitting		
above was assigned	after the NOR was acknowledged by the NM	10CD.	
	Initial Respons	e	
The responsible	e party must undertake the following actions immediately unless the	y could create a safety hazard that we	ould result in injury
The source of the rel	lease has been stopped.		
	as been secured to protect human health and the envir	onment.	
	······································		
Released materials h	have been contained via the use of berms or dikes, abs	orbent nads or other containm	ent devices
	have been contained via the use of berms or dikes, abs		ient devices.
All free liquids and r	have been contained via the use of berms or dikes, absorecoverable materials have been removed and manage red above have <u>not</u> been undertaken, explain why:		nent devices.
All free liquids and n If all the actions describe Per 19.15.29.8 B. (4) NM has begun, please attach within a lined containme I hereby certify that the info regulations all operators are public health or the environ failed to adequately investig addition, OCD acceptance of and/or regulations.	recoverable materials have been removed and manage ed above have <u>not</u> been undertaken, explain why: MAC the responsible party may commence remediation a narrative of actions to date. If remedial efforts ha ent area (see 19.15.29.11(A)(5)(a) NMAC), please attra formation given above is true and complete to the best of my e required to report and/or file certain release notifications a ment. The acceptance of a C-141 report by the OCD does a gate and remediate contamination that pose a threat to group of a C-141 report does not relieve the operator of responsible	on immediately after discovery two been successfully complet ach all information needed for 'knowledge and understand that p nd perform corrective actions for not relieve the operator of liability adwater, surface water, human he	y of a release. If remediation red or if the release occurrence closure evaluation. pursuant to OCD rules and releases which may endanger y should their operations have alth or the environment. In
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Received by OCD: 5/11/2023/3:45:551PM

NAPP2205837214

#### Chiso 14 State Water Tank Gauge – 2/26/2022



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:	OGRID:
BTA OIL PRODUCERS, LLC	260297
104 S Pecos	Action Number:
Midland, TX 79701	87973
	Action Type:
	[C-141] Release Corrective Action (C-141)

#### CONDITIONS

Created By		Condition Date
rmarcus	None	3/10/2022

CONDITIONS

Page 2deof 123

Action 87973





# Appendix B

Site Characterization

#### **Site Characterization Summary**

#### Site Information:

BTA Oil Chiso 14 8711 #3 Jet Pump Release (February 2022) Lea County, New Mexico T22S, R34E, Section 14 (32.38511°, -103.43594°)

#### Site Characterization:

-Low Karst -No significant water features within specified distances -Groundwater 17.39' BGS 0.44 Miles southwest of the site. (USGS, Section 23, 2015 Sample) -Groundwater 42' BGS 0.13 Miles south of the site. (NMOSE, Section 23, 2019 sample)

> RRALs: -600 mg/kg Chlorides -100 mg/kg Total TPH -10 mg/kg Benzene -50 mg/kg Total BTEX

#### **Explanation:**

Due to groundwater depth measured at less than 50 ft bgs within 0.5 miles of the site, Most stringent RRALs will be followed.

•

#### New Mexico NFHL Data







FEMA, Sources: Esri, HERE, Garmin, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey,

nmflood.org is made possible through a collaboration with NMDHSEM,

This is a non-regulatory product for informational use only. Please consult your local floodplain administrator for further information.

Received by OCD: 5/11/2023 3:45:55 PM

#### Chiso 14 8711 #3 Jet Pump Release



Chiso 14 8711 #3





400 ft



National Water Information System: Mapper

USGS Home Contact USGS Search USGS

Help Info





National Water Information System: Web Interface USGS Water Resources USGS Home Contact USGS Search USGS

 Data Category:
 Geographic Area:

 Groundwater
 V

 United States
 GO

#### Click to hideNews Bulletins

- Explore the NEW USGS National Water Dashboard interactive map to access real-time water data from over 13,500 stations nationwide.
- Full News 题

Groundwater levels for the Nation

Important: <u>Next Generation Monitoring Location Page</u>

#### Search Results -- 1 sites found

Agency code = usgs site\_no list =

• 322231103262601

**Minimum number of levels =** 1 <u>Save file of selected sites</u> to local disk for future upload

#### USGS 322231103262601 22S.34E.23.23131

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

**Output formats** 

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

Date	Time	? Water- level date- time accuracy	? Parameter code	Water level, feet below land surface	Water level, feet above specific vertical datum	Referenced vertical datum	? Status	? Method of measurement	? Measuring agency	? Source of measurement	? Water- level approval status	
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#### Released to Imaging: 6/13/2023 10:38:14 AM

#### *Received by OCD: 5/11/2023 3:45:55 PM*

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Date	Time	Water- level date- time accuracy	? Parameter code	level, feet below land surface	level, feet above specific vertical datum	Referenced vertical datum	? Status	? Method of measurement	? Measuring agency	? Source of measurement	Water- level approval status
1968-06-10	)	D	62610		3425.15	NGVD29	1	Z			A
1968-06-10	)	D	62611		3426.75	NAVD88	1	Z			A
1968-06-10	)	D	72019	25.25			1	Z			A
1971-09-08	3	D	62610		3423.42	NGVD29	Р	Z			A
1971-09-08	3	D	62611		3425.02	NAVD88	Р	Z			A
1971-09-08	3	D	72019	26.98			Р	Z			A
1976-12-16	5	D	62610		3426.10	NGVD29	1	Z			A
1976-12-16	5	D	62611		3427.70	NAVD88	1	Z			A
1976-12-16	5	D	72019	24.30			1	Z			A
1981-03-18	3	D	62610		3427.03	NGVD29	1	Z			A
1981-03-18	3	D	62611		3428.63	NAVD88	1	Z			A
1981-03-18	3	D	72019	23.37			1	Z			A
1986-04-10	)	D	62610		3427.57	NGVD29	1	Z			A
1986-04-10	)	D	62611		3429.17	NAVD88	1	Z			Æ
1986-04-10	)	D	72019	22.83			1	Z			A
1991-05-03	3	D	62610		3427.87	NGVD29	1	Z			Æ
1991-05-03	3	D	62611		3429.47	NAVD88	1	Z			A
1991-05-03	3	D	72019	22.53			1	Z			P
1996-02-21	L	D	62610		3428.27	NGVD29	1	S			A
1996-02-21	L	D	62611		3429.87	NAVD88	1	S			P
1996-02-21	L	D	72019	22.13			1	S			A
2015-12-18	3 21:30 UTC	C m	62610		3433.01	NGVD29	1	S	USG	5 5	5 A
2015-12-18	3 21:30 UTC	C m	62611		3434.61	NAVD88	1	S	USG	5 5	5 A
2015-12-18	3 21:30 UTC	C m	72019	17.39			1	S	USG	5 5	5 A

Expl	anation
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Section	Code	Description
Water-level date-time accuracy	D	Date is accurate to the Day
Water-level date-time accuracy	m	Date is accurate to the Minute
Parameter code	62610	Groundwater level above NGVD 1929, feet

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Section	Code	Description			
Parameter code	62611	Groundwater level above NAVD 1988, feet			
Parameter code	72019	Depth to water level, feet below land surface			
Referenced vertical datum	NAVD88	North American Vertical Datum of 1988			
Referenced vertical datum	NGVD29	National Geodetic Vertical Datum of 1929			
Status	1	Static			
Status	Р	Pumping			
Method of measurement	S	Steel-tape measurement.			
Method of measurement	Z	Other.			
Measuring agency		Not determined			
Measuring agency	USGS	U.S. Geological Survey			
Source of measurement		Not determined			
Source of measurement	S	Measured by personnel of reporting agency.			
Water-level approval status	А	Approved for publication Processing and review completed.			

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

Accessibility Policies and Notices FOIA Privacy

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

Page Contact Information: <u>USGS Water Data Support Team</u> Page Last Modified: 2023-01-31 15:30:35 EST 0.29 0.25 nadww01





### WELL RECORD & LOG

OFFICE OF THE STATE ENGINEER

www.ose.state.nm.us

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z	OSE POD NO	,	r		ELL TAG ID NO.			OSE FILE NO CP-1682	(S).		
LIO	WELL OWN							PHONE (OPT			
GENERAL AND WELL LOCATION			, Company/Glenn's	Water Well Ser	rvice, Inc.			575-398-24		·:	
	WELL OWN		G ADDRESS					CITY		STATE STATE	ŹIP
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2	WELL		DE	GREES		SECOND					
ILA	LOCATIO		TITUDE	32	22	59.66	N	* ACCURAC	Y REQUIRED: ONE TEN	TH OF A SECOND	
ER	(FROM GF	PS) LO	NGITUDE	-103	26	7.87	w	DATUM RE	EQUIRED: WGS 84		
GEN	DESCRIPTIO	ON RELATI	NG WELL LOCATION TO	STREET ADDRES	S AND COMMON L	ANDMAR	KS – PLS	S (SECTION, T	OWNSHЛP, RANGE) WI	IERE AVAILABLE	
	NW1/4 NE	E1/4 NE1/	4 Section 23, Town	ship 22 South,	Range 34 East o	on Merc	hant Liv	vestock Con	npany Land		
	LICENSE NO	).	NAME OF LICENSED						NAME OF WELL DR		
	WD	421		0	Corky Glenn				Gienn's V	Water Well Service, In	nc.
	DRILLING S		DRILLING ENDED	DEPTH OF COMP	LETED WELL (FT)	E		LE DEPTH (FT)	DEPTH WATER FIR	ST ENCOUNTERED (FT	)
	09/10	0/19	09/13/19		294			294		42	
z	COMPLETE	D WELL IS:	ARTESIAN	DRY HOLE	SHALLOW	(UNCONI	TINED)		STATIC WATER LEY	VEL IN COMPLETED W 31	ELL (FT)
IIO	DRILLING F	LUID:	🗌 AÍR	MUD	ADDITIVES	S – SPECIE	Y:		-		
CASING INFORMATION	DRILLING M	HAMMER	CABLE TOO	DL [	OTHE	R - SPECIFY:					
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C L	FROM	ТО	BORE HOLE DIAM		GRADE			ASING VECTION	INSIDE DIAM.	CASING WALL THICKNESS	SLOT SIZE
NSIN			(inches)		h casing string, ar tions of screen)		(add coupling diameter)		(inches)	(inches)	(inches)
& C	0	22.5'	20"		12 3/4" OD			un End	12.25	.25	
ÿ	0	294'	20"	Steel Casing	8 5/8" / 8.625" O	D	Plain End		8.125	.25	1/8"
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		(feet bgl)	BORE HOLE DIAM. (inches)		ANNULAR SEA				AMOUNT (cubic feet)	METHO	
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PAGE 1 OF 2

3

	DEPTH (	feet bgl)		COLOR AND TYPE OF MATERIAL ENCOUNTERED -		TED	ESTIMATED
	FROM	то	THICKNESS (feet)	INCLUDE WATER-BEARING CAVITIES OR FRACTURE ZONES (attach supplemental sheets to fully describe all units)	BEA	ATER RING? 5 / NO)	YIELD FOR WATER- BEARING ZONES (gpm)
	0	6	6	Soil	Y	√ N	
	6	9	3	Soil & Sand	Y	√ N	
	9	16	7	Caliche	Y	√ N	
	16	20	4	Clay & Sand	Y	√ N	
	20	42	22	Red Clay	Y	√ N	
T	42	56	✓ Y	N	5.00		
4. HYDROGEOLOGIC LOG OF WELL	56	63	7	Red Clay	Y	√ N	
OF	63	68	5	White & Green Clay	Y	√ N	
LOG	68	92	24	Brown Sandrock	✓ Y	N	9.00
NC 1	92	122	30	Red Clay	Y	√ N	
TOC	122	128	6	Brown Shale	Y	<b>√</b> N	
GEO	128	165	37	Red Clay with Stringers of Brown Sandrock	Y	√ N	
RO	165	187	22	Brown Shale	Y	√ N	
Ш	187	225	38	Red Clay & Red Shale	Y	<b>√</b> N	
4	225	242	17	Brown Shale	Y	<b>√</b> N	
	242	274	32	Blue Sandrock & Shale	✓ Y	N	1.00
	274	294	20	Red Shale	Y	√ N	
					Y	N	
					Y	N	
					Y	N	
					Y	N	
	METHOD U	SED TO ES	TIMATE YIELD	OF WATER-BEARING STRATA:	TOTAL ESTI		
	🖌 PUMI		WELL YIEL	D (gpm):	15.00		
NO	WELL TES	T TEST	RESULTS - ATT. T TIME, END TII	ACH A COPY OF DATA COLLECTED DURING WELL TESTING, INCI ME, AND A TABLE SHOWING DISCHARGE AND DRAWDOWN OVER	UDING DISC R THE TESTI	HARGE	METHOD, DD.
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# Appendix C

Photographic Documentation



#### Photo: 2

#### **Description:**

View of Remediation Activities – North side of the Site facing southeast.



Date Taken:	Job No.	Photographs Taken By:	Page No.	Client:	Site Name:	TŁ	
11/18/22- 11/29/22	212C-MD-02963	Alves Oilfield Services/ Tetra Tech, Inc.	Page <b>1</b> of <b>5</b>	BTA Oil Company	Chiso 3-4 Jet Pump Release	TETRA TECH	

#### Photo: 3

#### **Description:**

View of Remediation Activities – South side of the Site facing northeast.



#### Photo: 4

#### **Description:**

View of Remediation Activities – North side of the Site facing southeast.



Date Taken:	Job No.	Photographs Taken By:	Page No.	Client:	Site Name:	TŁ
11/18/22- 11/29/22	212C-MD-02963	Alves Oilfield Services/ Tetra Tech, Inc.	Page 2 of 5	BTA Oil Company	Chiso 3-4 Jet Pump Release	TETRA TECH

#### Photo: 5

#### **Description:**

View of Remediation Activities – South side of the Site facing north.



#### Photo: 6

#### **Description:**

View of the excavation – North side of the site facing South.



Date Taken:	Job No.	Photographs Taken By:	Page No.	Client:	Site Name:	TŁ	
11/18/22- 11/29/22	212C-MD-02963	Alves Oilfield Services/ Tetra Tech, Inc.	Page <b>3</b> of <b>5</b>	BTA Oil Company	Chiso 3-4 Jet Pump Release	TETRA TECH	

# Photo: 7 Description: View of the excavation adjacent to the release area. Securities and the release area.

#### Photo: 8

#### **Description:**

View of the excavation – South side of the site facing north.



Date Taken:	Job No.	Photographs Taken By:	Page No.	Client:	Site Name:	TETRA TECH
11/18/22- 11/29/22	212C-MD-02963	Alves Oilfield Services/ Tetra Tech, Inc.	Page <b>4</b> of <b>5</b>	BTA Oil Company	Chiso 3-4 Jet Pump Release	
#### Photographic Log Chiso State #14 8711 3H & 4H Jet Pump Release BTA Oil Producers, LLC



#### Photo: 10

#### **Description:**

View of the excavation – southeast side of the site facing northwest.



Date Taken:	Job No.	Photographs Taken By:	Page No.	Client:	Site Name:	TE
11/18/22- 11/29/22	212C-MD-02963	Alves Oilfield Services/ Tetra Tech, Inc.	Page <b>5</b> of <b>5</b>	BTA Oil Company	Chiso 3-4 Jet Pump Release	TETRA TECH



### Appendix D

Analytical Laboratory Reports



September 20, 2021

MATTHEW LONGCRIER RX-SOIL INC. 201 MAIN STREET, SUITE 1360 FORT WORTH, TX 76102

RE: CHISO 14 STATE

Enclosed are the results of analyses for samples received by the laboratory on 09/15/21 8:10.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-21-14. 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 <a href="https://www.tceq.texas.gov/field/ga/lab\_accred\_certif.html">www.tceq.texas.gov/field/ga/lab\_accred\_certif.html</a>.

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. Keine

Celey D. Keene Lab Director/Quality Manager



		201 MAIN	NC. / LONGCRIER STREET, SUITE RTH TX, 76102	1360	
		Fax To:	NA		
Received:	09/15/2021			Sampling Date:	09/14/2021
Reported:	09/20/2021			Sampling Type:	Soil
Project Name:	CHISO 14 STATE			Sampling Condition:	Cool & Intact
Project Number:	NOT GIVEN			Sample Received By:	Tamara Oldaker
Project Location:	BTA - JAL NM				

#### Sample ID: SURFACE (H212552-01)

BTEX 8021B	mg	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	09/16/2021	ND	1.82	91.0	2.00	3.11	
Toluene*	<0.050	0.050	09/16/2021	ND	1.99	99.6	2.00	2.55	
Ethylbenzene*	<0.050	0.050	09/16/2021	ND	1.96	98.0	2.00	2.35	
Total Xylenes*	<0.150	0.150	09/16/2021	ND	5.95	99.1	6.00	2.15	
Total BTEX	<0.300	0.300	09/16/2021	ND					
Surrogate: 4-Bromofluorobenzene (PID	102	% 69.9-14	0						
Chloride, SM4500Cl-B	mg	/kg	Analyzed By: GM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	50000	16.0	09/16/2021	ND	416	104	400	0.00	
TPH 8015M	mg	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	09/17/2021	ND	225	112	200	0.847	
DRO >C10-C28*	12.9	10.0	09/17/2021	ND	226	113	200	1.40	
EXT DRO >C28-C36	<10.0	10.0	09/17/2021	ND					
Surrogate: 1-Chlorooctane	95.1	% 44.3-13	3						
Surrogate: 1-Chlorooctadecane	91.2	% 38.9-14	2						

#### Cardinal Laboratories

\*=Accredited Analyte

Celeg D. Keine

Celey D. Keene, Lab Director/Quality Manager



		201 MAIN	NC. / LONGCRIER STREET, SUITE RTH TX, 76102	1360	
		Fax To:	NA		
Received:	09/15/2021			Sampling Date:	09/14/2021
Reported:	09/20/2021			Sampling Type:	Soil
Project Name:	CHISO 14 STATE			Sampling Condition:	Cool & Intact
Project Number:	NOT GIVEN			Sample Received By:	Tamara Oldaker
Project Location:	BTA - JAL NM				

#### Sample ID: 1' (H212552-02)

BTEX 8021B	mg/	kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	09/16/2021	ND	1.82	91.0	2.00	3.11	
Toluene*	<0.050	0.050	09/16/2021	ND	1.99	99.6	2.00	2.55	
Ethylbenzene*	<0.050	0.050	09/16/2021	ND	1.96	98.0	2.00	2.35	
Total Xylenes*	<0.150	0.150	09/16/2021	ND	5.95	99.1	6.00	2.15	
Total BTEX	<0.300	0.300	09/16/2021	ND					
Surrogate: 4-Bromofluorobenzene (PID	101 9	% 69.9-14	0						
Chloride, SM4500Cl-B	mg/	'kg	Analyze	d By: GM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	2920	16.0	09/16/2021	ND	416	104	400	0.00	
TPH 8015M	mg/	'kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	09/17/2021	ND	225	112	200	0.847	
DRO >C10-C28*	<10.0	10.0	09/17/2021	ND	226	113	200	1.40	
EXT DRO >C28-C36	<10.0	10.0	09/17/2021	ND					
Surrogate: 1-Chlorooctane	88.6	% 44.3-13	3						
Surrogate: 1-Chlorooctadecane	85.6	% 38.9-14	2						

#### Cardinal Laboratories

\*=Accredited Analyte

Celeg D. Keine

Celey D. Keene, Lab Director/Quality Manager



М <i>А</i> 20	ATTHEW L 01 MAIN ST	ONGCRIER TREET, SUITE 1	360	
Fa	ах То:	NA		
09/15/2021			Sampling Date:	09/14/2021
09/20/2021			Sampling Type:	Soil
CHISO 14 STATE			Sampling Condition:	Cool & Intact
NOT GIVEN BTA - 1AL NM			Sample Received By:	Tamara Oldaker
	M. 20 FC F2 09/15/2021 09/20/2021 CHISO 14 STATE	MATTHEW L 201 MAIN ST FORT WORT Fax To: 09/15/2021 09/20/2021 CHISO 14 STATE NOT GIVEN	FORT WORTH TX, 76102 Fax To: NA 09/15/2021 09/20/2021 CHISO 14 STATE NOT GIVEN	MATTHEW LONGCRIER 201 MAIN STREET, SUITE 1360 FORT WORTH TX, 76102 Fax To: NA 09/15/2021 Sampling Date: 09/20/2021 Sampling Type: CHISO 14 STATE Sampling Condition: NOT GIVEN Sample Received By:

#### Sample ID: 2' (H212552-03)

BTEX 8021B	mg/	kg	Analyze	d By: MS					S-04
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	09/16/2021	ND	1.82	91.0	2.00	3.11	
Toluene*	<0.050	0.050	09/16/2021	ND	1.99	99.6	2.00	2.55	
Ethylbenzene*	<0.050	0.050	09/16/2021	ND	1.96	98.0	2.00	2.35	GC-NC
Total Xylenes*	<0.150	0.150	09/16/2021	ND	5.95	99.1	6.00	2.15	
Total BTEX	<0.300	0.300	09/16/2021	ND					
Surrogate: 4-Bromofluorobenzene (PID	272 9	69.9-14	0						
Chloride, SM4500Cl-B	mg/	'kg	Analyze	d By: GM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	960	16.0	09/16/2021	ND	432	108	400	3.77	QM-07
TPH 8015M	mg/	'kg	Analyze	d By: MS					S-04
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	55.4	10.0	09/18/2021	ND	190	95.2	200	0.563	
DRO >C10-C28*	3080	10.0	09/18/2021	ND	198	98.8	200	0.777	QM-07
EXT DRO >C28-C36	688	10.0	09/18/2021	ND					
Surrogate: 1-Chlorooctane	96.8	% 44.3-13	3						
Surrogate: 1-Chlorooctadecane	223 9	38.9-14	2						

#### Cardinal Laboratories

\*=Accredited Analyte

Celeg D. Keine

Celey D. Keene, Lab Director/Quality Manager



#### **Notes and Definitions**

S-04	The surrogate recovery for this sample is outside of established control limits due to a sample matrix effect.
QM-07	The spike recovery was outside acceptance limits for the MS and/or MSD. The batch was accepted based on acceptable LCS recovery.
GC-NC	8260 confirmation analysis was performed; initial GC results were not supported by GC/MS analysis and are reported as ND.
ND	Analyte NOT DETECTED at or above the reporting limit
RPD	Relative Percent Difference
**	Samples not received at proper temperature of 6°C or below.
***	Insufficient time to reach temperature.
-	Chloride by SM4500Cl-B does not require samples be received at or below 6°C
	Samples reported on an as received basis (wet) unless otherwise noted on report

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Celez D. Keine

Celey D. Keene, Lab Director/Quality Manager

## Page 44 of 123 CARDINAL Laboratories

# CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

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

Company Name:	KASO'II		BILL TO	ANA	ANALYSIS REQUEST
Project Manager:	Matt Longhter		P.O. #:		
Address:	1		company: BTA		
City:	State:	Zip:	Attn: Bob Hell		
Phone #:	Fax #:		Address:		
Project #:	Project Owner:	ner:	City:		
Project Name:	Chiso 14 State		State: Zip:		
Project Location:	dal new mexico	Cico	#		
Sampler Name:	t Lon	5	Fax #		
FOR LAB USE ONLY			PRESERV. SAMPLING	ides	
Lab I.D.	Sample I.D.	(G)RAB OR (C)OMF # CONTAINERS GROUNDWATER WASTEWATER SOIL OIL SLUDGE	OTHER : ACID/BASE: ICE / COOL OTHER : DATE	Chlorin TPH Btec	
-	Suphice	X	0	3:00 XX X	
-	191	x	-	XXX	
04	2 tr	X	atin atin		
PLEASE NOTE: Liability and Da analyses. All claims including the service. In no event shall Cardin affiliates or successors arising ou	PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising whether based in contract or tort, shall be linited to the amount paid by the client for the analyses. All claims including these for nodgenore and any other cause whatsoever shall be diverted waived unless made in writing and nealwed by Cardinal which 30 days after completion of the applic service. In no event shall Cardinal be table for incidental or consequential damages, including without limitation, business interruptions, loss of use, or loss of profile incurned by client. Its subsidiantee, antilates or successors antising out of or related to the performance of services interruption by client incurned by client. Its subsidiantee, antilates or successors antising out of or related to the performance of services theraunder by Cardinal, regardless of whother such client is based upon any of the above stude resords or otherwise.	rrf's exclusive remedy for any daim arising whether based in contract or ranse whatcoever shall be deemed waived unless made in writing and re- quartail damages, including without limitation, business interruptions, loss of services hereander by Cardinal, regardless of whether such claim is b	t or tort, shall be limited to the amount paid of received by Cardinal within 30 days after loss of tuse, or loss of profits incurred by of is based upon any of the above stated rea	by the cleant for the completion of the applicable limit, its subsidiaries, sons or otherwise.	-
Relinquished By: Rélinquished By:		Received By:	Meller	B: S:	Add'I Fhone #: Add'I Fax #: b Hul BTA
Delivered By: (Circle One) Sampler - UPS - Bus - Other:	Sircle One)	Sample Condition Cool Intact I Yes I Yes		No Rush	
Complete of o - 6	L' Culai		4		

#### Received by OCD: 5/11/2023 3:45:55 PM

No

No



November 19, 2021

HAYES ADAMS RX-SOIL INC. 201 MAIN STREET, SUITE 1360 FORT WORTH, TX 76102

RE: CHISO STATE

Enclosed are the results of analyses for samples received by the laboratory on 11/16/21 15:55.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-21-14. 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 <a href="https://www.tceq.texas.gov/field/ga/lab\_accred\_certif.html">www.tceq.texas.gov/field/ga/lab\_accred\_certif.html</a>.

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. Keine

Celey D. Keene Lab Director/Quality Manager



			-	.360	
		Fax To:	NA		
Received:	11/16/2021			Sampling Date:	11/15/2021
Reported:	11/19/2021			Sampling Type:	Soil
Project Name:	CHISO STATE			Sampling Condition:	Cool & Intact
Project Number:	EUNICE NM			Sample Received By:	Tamara Oldaker
Project Location:	BTA - EUNICE NM				

#### Sample ID: SP 1 SURFACE (H213274-01)

BTEX 8021B	mg/	′kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	11/17/2021	ND	2.22	111	2.00	8.33	
Toluene*	<0.050	0.050	11/17/2021	ND	2.11	106	2.00	7.85	
Ethylbenzene*	<0.050	0.050	11/17/2021	ND	2.09	104	2.00	7.73	
Total Xylenes*	<0.150	0.150	11/17/2021	ND	6.32	105	6.00	6.76	
Total BTEX	<0.300	0.300	11/17/2021	ND					
Surrogate: 4-Bromofluorobenzene (PID	94.9	% 69.9-14	0						
Chloride, SM4500Cl-B	mg/	′kg	Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	32.0	16.0	11/18/2021	ND	416	104	400	0.00	
TPH 8015M	mg,	′kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	11/18/2021	ND	209	104	200	1.45	
DRO >C10-C28*	<10.0	10.0	11/18/2021	ND	198	98.8	200	1.50	
EXT DRO >C28-C36	<10.0	10.0	11/18/2021	ND					
Surrogate: 1-Chlorooctane	103	% 44.3-13	3						
Surrogate: 1-Chlorooctadecane	101	% 38.9-14	2						

#### **Cardinal Laboratories**

#### \*=Accredited Analyte

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Celez D. Keine

Celey D. Keene, Lab Director/Quality Manager



**RX-SOIL INC.** 

		HAYES ADA	MS STREET, SUITE 1	360		
			TH TX, 76102	.500		
		Fax To:	NA			
Received:	11/16/2021			Sampling Date:	11/15/2021	
Reported:	11/19/2021			Sampling Type:	Soil	
Project Name:	CHISO STATE			Sampling Condition:	Cool & Intact	
Project Number:	EUNICE NM			Sample Received By:	Tamara Oldaker	
Project Location:	BTA - EUNICE NM					

#### Sample ID: SP 1 2' (H213274-02)

BTEX 8021B	mg/	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	11/17/2021	ND	2.22	111	2.00	8.33	
Toluene*	<0.050	0.050	11/17/2021	ND	2.11	106	2.00	7.85	
Ethylbenzene*	<0.050	0.050	11/17/2021	ND	2.09	104	2.00	7.73	
Total Xylenes*	<0.150	0.150	11/17/2021	ND	6.32	105	6.00	6.76	
Total BTEX	<0.300	0.300	11/17/2021	ND					
Surrogate: 4-Bromofluorobenzene (PID	94.1	% 69.9-14	0						
Chloride, SM4500Cl-B	mg/	/kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	48.0	16.0	11/18/2021	ND	416	104	400	0.00	
TPH 8015M	mg/	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	11/18/2021	ND	209	104	200	1.45	
DRO >C10-C28*	<10.0	10.0	11/18/2021	ND	198	98.8	200	1.50	
EXT DRO >C28-C36	<10.0	10.0	11/18/2021	ND					
Surrogate: 1-Chlorooctane	80.1	% 44.3-13	3						
Surrogate: 1-Chlorooctadecane	78.4	% 38.9-14	2						

#### Cardinal Laboratories

\*=Accredited Analyte

Celeg D. Keine

Celey D. Keene, Lab Director/Quality Manager



			-	.360	
		Fax To:	NA		
Received:	11/16/2021			Sampling Date:	11/15/2021
Reported:	11/19/2021			Sampling Type:	Soil
Project Name:	CHISO STATE			Sampling Condition:	Cool & Intact
Project Number:	EUNICE NM			Sample Received By:	Tamara Oldaker
Project Location:	BTA - EUNICE NM				

#### Sample ID: SP 2 SURFACE (H213274-03)

BTEX 8021B	mg/	′kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	11/17/2021	ND	2.22	111	2.00	8.33	
Toluene*	<0.050	0.050	11/17/2021	ND	2.11	106	2.00	7.85	
Ethylbenzene*	<0.050	0.050	11/17/2021	ND	2.09	104	2.00	7.73	
Total Xylenes*	<0.150	0.150	11/17/2021	ND	6.32	105	6.00	6.76	
Total BTEX	<0.300	0.300	11/17/2021	ND					
Surrogate: 4-Bromofluorobenzene (PID	95.7	% 69.9-14	0						
Chloride, SM4500Cl-B	mg/	′kg	Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	368	16.0	11/18/2021	ND	416	104	400	3.77	
TPH 8015M	mg/	′kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	11/18/2021	ND	209	104	200	1.45	
DRO >C10-C28*	11.1	10.0	11/18/2021	ND	198	98.8	200	1.50	
EXT DRO >C28-C36	<10.0	10.0	11/18/2021	ND					
Surrogate: 1-Chlorooctane	86.0	% 44.3-13	3						
Surrogate: 1-Chlorooctadecane	84.0	% 38.9-14	2						

#### Cardinal Laboratories

#### \*=Accredited Analyte

Celez D. Keine

Celey D. Keene, Lab Director/Quality Manager



**RX-SOIL INC.** 

		HAYES ADA	MS STREET, SUITE 1	360		
			TH TX, 76102	.500		
		Fax To:	NA			
Received:	11/16/2021			Sampling Date:	11/15/2021	
Reported:	11/19/2021			Sampling Type:	Soil	
Project Name:	CHISO STATE			Sampling Condition:	Cool & Intact	
Project Number:	EUNICE NM			Sample Received By:	Tamara Oldaker	
Project Location:	BTA - EUNICE NM					

#### Sample ID: SP 2 2' (H213274-04)

BTEX 8021B	mg/	′kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	11/17/2021	ND	2.22	111	2.00	8.33	
Toluene*	<0.050	0.050	11/17/2021	ND	2.11	106	2.00	7.85	
Ethylbenzene*	<0.050	0.050	11/17/2021	ND	2.09	104	2.00	7.73	
Total Xylenes*	<0.150	0.150	11/17/2021	ND	6.32	105	6.00	6.76	
Total BTEX	<0.300	0.300	11/17/2021	ND					
Surrogate: 4-Bromofluorobenzene (PID	94.8	% 69.9-14	0						
Chloride, SM4500Cl-B	mg,	′kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	<16.0	16.0	11/18/2021	ND	416	104	400	3.77	
TPH 8015M	mg/	′kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	11/18/2021	ND	209	104	200	1.45	
DRO >C10-C28*	<10.0	10.0	11/18/2021	ND	198	98.8	200	1.50	
EXT DRO >C28-C36	<10.0	10.0	11/18/2021	ND					
Surrogate: 1-Chlorooctane	86.3	% 44.3-13	3						
Surrogate: 1-Chlorooctadecane	86.5	% 38.9-14	2						

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#### \*=Accredited Analyte

Celeg D. Keine

Celey D. Keene, Lab Director/Quality Manager



		RX-SOIL INC. HAYES ADAMS 201 MAIN STREET, SUITE FORT WORTH TX, 76102	1360	
		Fax To: NA		
Received:	11/16/2021		Sampling Date:	11/15/2021
Reported:	11/19/2021		Sampling Type:	Soil
Project Name:	CHISO STATE		Sampling Condition:	Cool & Intact
Project Number:	EUNICE NM		Sample Received By:	Tamara Oldaker
Project Location:	BTA - EUNICE NM			

#### Sample ID: SP 3 SURFACE (H213274-05)

BTEX 8021B	mg/	′kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	11/17/2021	ND	2.22	111	2.00	8.33	
Toluene*	<0.050	0.050	11/17/2021	ND	2.11	106	2.00	7.85	
Ethylbenzene*	<0.050	0.050	11/17/2021	ND	2.09	104	2.00	7.73	
Total Xylenes*	<0.150	0.150	11/17/2021	ND	6.32	105	6.00	6.76	
Total BTEX	<0.300	0.300	11/17/2021	ND					
Surrogate: 4-Bromofluorobenzene (PID	94.2	% 69.9-14	0						
Chloride, SM4500Cl-B	mg/	′kg	Analyze	ed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	<16.0	16.0	11/18/2021	ND	416	104	400	3.77	
TPH 8015M	mg/	′kg	Analyze	ed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	11/18/2021	ND	209	104	200	1.45	
DRO >C10-C28*	<10.0	10.0	11/18/2021	ND	198	98.8	200	1.50	
EXT DRO >C28-C36	<10.0	10.0	11/18/2021	ND					
Surrogate: 1-Chlorooctane	76.3	% 44.3-13	3						
Surrogate: 1-Chlorooctadecane	76.4	% 38.9-14	2						

#### Cardinal Laboratories

#### \*=Accredited Analyte

Celez D. Keine

Celey D. Keene, Lab Director/Quality Manager



**RX-SOIL INC.** 

	-				
	FORT WOR	TH TX, 76102			
	Fax To:	NA			
11/16/2021			Sampling Date:		11/15/2021
11/19/2021			Sampling Type:		Soil
CHISO STATE			Sampling Condition:		Cool & Intact
EUNICE NM			Sample Received By:		Tamara Oldaker
BTA - EUNICE NM					
	11/19/2021 CHISO STATE EUNICE NM	201 MAIN S FORT WOR Fax To: 11/16/2021 11/19/2021 CHISO STATE EUNICE NM	FORT WORTH TX, 76102 Fax To: NA 11/16/2021 11/19/2021 CHISO STATE EUNICE NM	201 MAIN STREET, SUITE 1360 FORT WORTH TX, 76102 Fax To: NA11/16/2021Sampling Date: Sampling Type: CHISO STATE EUNICE NM201 MAIN STREET, SUITE 1360 FORT WORTH TX, 76102 Sampling Date: Sampling Condition: Sample Received By:	201 MAIN STREET, SUITE 1360         FORT WORTH TX, 76102         Fax To:       NA         11/16/2021       Sampling Date:         11/19/2021       Sampling Type:         CHISO STATE       Sampling Condition:         EUNICE NM       Sample Received By:

#### Sample ID: SP 3 2' (H213274-06)

BTEX 8021B	mg/	′kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	11/17/2021	ND	2.22	111	2.00	8.33	
Toluene*	<0.050	0.050	11/17/2021	ND	2.11	106	2.00	7.85	
Ethylbenzene*	<0.050	0.050	11/17/2021	ND	2.09	104	2.00	7.73	
Total Xylenes*	<0.150	0.150	11/17/2021	ND	6.32	105	6.00	6.76	
Total BTEX	<0.300	0.300	11/17/2021	ND					
Surrogate: 4-Bromofluorobenzene (PID	94.4	% 69.9-14	0						
Chloride, SM4500Cl-B	mg/	′kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	2200	16.0	11/18/2021	ND	416	104	400	3.77	
TPH 8015M	mg/	′kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	11/18/2021	ND	209	104	200	1.45	
DRO >C10-C28*	<10.0	10.0	11/18/2021	ND	198	98.8	200	1.50	
EXT DRO >C28-C36	<10.0	10.0	11/18/2021	ND					
Surrogate: 1-Chlorooctane	89.1	% 44.3-13	3						
Surrogate: 1-Chlorooctadecane	89.6	% 38.9-14	2						

#### Cardinal Laboratories

\*=Accredited Analyte

Celeg D. Keine

Celey D. Keene, Lab Director/Quality Manager



		RX-SOIL INC. HAYES ADAMS 201 MAIN STREET, 7 FORT WORTH TX, 7		
		Fax To: NA		
Received:	11/16/2021		Sampling Date:	11/15/2021
Reported:	11/19/2021		Sampling Type:	Soil
Project Name:	CHISO STATE		Sampling Condition:	Cool & Intact
Project Number:	EUNICE NM		Sample Received By:	Tamara Oldaker
Project Location:	BTA - EUNICE NM			

#### Sample ID: SP 4 SURFACE (H213274-07)

BTEX 8021B	mg/	'kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	11/17/2021	ND	2.22	111	2.00	8.33	
Toluene*	<0.050	0.050	11/17/2021	ND	2.11	106	2.00	7.85	
Ethylbenzene*	<0.050	0.050	11/17/2021	ND	2.09	104	2.00	7.73	
Total Xylenes*	<0.150	0.150	11/17/2021	ND	6.32	105	6.00	6.76	
Total BTEX	<0.300	0.300	11/17/2021	ND					
Surrogate: 4-Bromofluorobenzene (PID	95.8	% 69.9-14	0						
Chloride, SM4500Cl-B	mg/	'kg	Analyze	Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	32.0	16.0	11/18/2021	ND	416	104	400	3.77	
TPH 8015M	mg/	kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	11/18/2021	ND	201	101	200	2.96	
DRO >C10-C28*	<10.0	10.0	11/18/2021	ND	223	111	200	0.335	
EXT DRO >C28-C36	<10.0	10.0	11/18/2021	ND					
Surrogate: 1-Chlorooctane	65.7	% 44.3-13	3						
Surrogate: 1-Chlorooctadecane	62.8	% 38.9-14	2						

#### Cardinal Laboratories

#### \*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatscever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including whose shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including whose share there applied by the services arise of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celez D. Keine

Celey D. Keene, Lab Director/Quality Manager



**RX-SOIL INC.** 

		HAYES ADA	MS STREET, SUITE 1	360		
			TH TX, 76102	.500		
		Fax To:	NA			
Received:	11/16/2021			Sampling Date:	11/15/2021	
Reported:	11/19/2021			Sampling Type:	Soil	
Project Name:	CHISO STATE			Sampling Condition:	Cool & Intact	
Project Number:	EUNICE NM			Sample Received By:	Tamara Oldaker	
Project Location:	BTA - EUNICE NM					

#### Sample ID: SP 4 2' (H213274-08)

BTEX 8021B	mg/	′kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	11/17/2021	ND	2.22	111	2.00	8.33	
Toluene*	<0.050	0.050	11/17/2021	ND	2.11	106	2.00	7.85	
Ethylbenzene*	<0.050	0.050	11/17/2021	ND	2.09	104	2.00	7.73	
Total Xylenes*	<0.150	0.150	11/17/2021	ND	6.32	105	6.00	6.76	
Total BTEX	<0.300	0.300	11/17/2021	ND					
Surrogate: 4-Bromofluorobenzene (PID	94.6	% 69.9-14	0						
Chloride, SM4500Cl-B	mg/	′kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	48.0	16.0	11/18/2021	ND	416	104	400	3.77	
TPH 8015M	mg/	′kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	11/18/2021	ND	201	101	200	2.96	
DRO >C10-C28*	<10.0	10.0	11/18/2021	ND	223	111	200	0.335	
EXT DRO >C28-C36	<10.0	10.0	11/18/2021	ND					
Surrogate: 1-Chlorooctane	53.8	% 44.3-13	3						
Surrogate: 1-Chlorooctadecane	51.3	% 38.9-14	2						

#### Cardinal Laboratories

\*=Accredited Analyte

Celeg D. Keine

Celey D. Keene, Lab Director/Quality Manager



#### **Notes and Definitions**

ND	Analyte NOT DETECTED at or above the reporting limit
RPD	Relative Percent Difference
**	Samples not received at proper temperature of 6°C or below.
***	Insufficient time to reach temperature.
-	Chloride by SM4500Cl-B does not require samples be received at or below 6°C

Samples reported on an as received basis (wet) unless otherwise noted on report

#### Cardinal Laboratories

#### \*=Accredited Analyte

Celeg D. Keine

Celey D. Keene, Lab Director/Quality Manager

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CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

Delivered By: (Circle One)	Relinquished By:	PLEASE NOTE: Liability and Damages. Cardinal's liability and analyses. All claims including threads for negligence and any oth service. In no event shall Cardinal to liable for incidental to co- affiliates or successors arising out of or returning to the puttorn-en- affiliates of successors arising out of or returning.		216	, cote	<u>u n</u>	1	Lab I.D.	FOR LAB USE ONLY	Sampler Name:	Project Location:	Project Name:	Project #:	Phone #:	City:	Address:	Project Manager:	Company Name:	(5
Delivered By: (Circle One) Observed Temp. °C _ & .9	Time:		4 40	14. Suba	Sp 3 Surface	Sp 2 Surface	SPI Surface	Sample I.D.		Umar	The Ennis Nim	hiso State	Project Owner	Fax #:	State:	C.	Haces	Resort .	(575) 393-2326 FAX (575) 393-2476
Cool Intact	Received By:	ent's exclusive remedy for any claim anising whether based in contract or tort, shall be illimited to the anout paid by the cleient for the cause whatsoever shall be cleenned waved unless made in writing and necesived by cellulari witten 30 days after completion of the i- quential damages, including whose intrasten, business interruptions, loss of uses of poets incurred by clear its substance of the i- ro favories hereunder by Candinal, regardees of whether such clear is based upon any of the abor subscr inscore or cleavese.						(G)RAB OR (C)OM # CONTAINERS GROUNDWATER WASTEWATER SOIL OIL SLUDGE	MATRIX				er:		Zip:		-		2476
ion CHECKED BY: (Initials)	Clark	t or tort, shall be limited to the amount pa of received by Cardinal within 30 days after loss of use, or loss of profits incurred by is based upon any of the abcr::::statct rr					Not. 15	OTHER : ACID/BASE: ICE / COOL OTHER : DATE	PRESERV. SAM	Fax #:	Phone #:	State: Zip:	City:	Address:	Attn:	Company:	P.O. #:	BILL TO	
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Standard A Bacteria (only) Rush Cool Intact	REMARKS: Bill to BOB(BTA)							Chi	oria	le	5							ANALYSIS REQUEST	
Bacteria (only) Sample Condition Cool Intact Observed Temp. °C	j,																	QUEST	

Received by OCD: 5/11/2023 3:45:55 PM

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



March 02, 2022

MATTHEW LONGCRIER RX-SOIL INC. 201 MAIN STREET, SUITE 1360 FORT WORTH, TX 76102

RE: CHISO 14 STATE

Enclosed are the results of analyses for samples received by the laboratory on 03/01/22 8:35.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-21-14. 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 <a href="https://www.tceq.texas.gov/field/ga/lab\_accred\_certif.html">www.tceq.texas.gov/field/ga/lab\_accred\_certif.html</a>.

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. Keine

Celey D. Keene Lab Director/Quality Manager



BTA - EUNICE, NM

#### Analytical Results For:

		RX-SOIL INC. MATTHEW LONG 201 MAIN STREE FORT WORTH T Fax To: NA	ET, SUITE 1360	
Received:	03/01/2022		Sampling Date:	02/28/2022
Reported:	03/02/2022		Sampling Type:	Soil
Project Name:	CHISO 14 STATE		Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN		Sample Received By:	Tamara Oldaker

#### Sample ID: B 1 (H220775-01)

Project Location:

BTEX 8021B	mg,	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	03/01/2022	ND	2.04	102	2.00	2.43	
Toluene*	<0.050	0.050	03/01/2022	ND	2.04	102	2.00	2.02	
Ethylbenzene*	<0.050	0.050	03/01/2022	ND	1.95	97.5	2.00	2.94	
Total Xylenes*	<0.150	0.150	03/01/2022	ND	6.03	100	6.00	3.18	
Total BTEX	<0.300	0.300	03/01/2022	ND					
Surrogate: 4-Bromofluorobenzene (PID	103	% 69.9-14	0						
Chloride, SM4500Cl-B	mg,	/kg	Analyze	d By: GM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	352	16.0	03/02/2022	ND	432	108	400	0.00	
TPH 8015M	mg/	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	03/01/2022	ND	225	112	200	7.70	
DRO >C10-C28*	<10.0	10.0	03/01/2022	ND	206	103	200	8.58	
EXT DRO >C28-C36	<10.0	10.0	03/01/2022	ND					
Surrogate: 1-Chlorooctane	91.2	% 66.9-13	6						
Surrogate: 1-Chlorooctadecane	93.2	% 59.5-14	2						

#### Cardinal Laboratories

\*=Accredited Analyte

Celez D. Keine

Celey D. Keene, Lab Director/Quality Manager



		201 MAIN	NC. LONGCRIER STREET, SUITE RTH TX, 76102	1360	
		Fax To:	NA		
Received:	03/01/2022			Sampling Date:	02/28/2022
Reported:	03/02/2022			Sampling Type:	Soil
Project Name:	CHISO 14 STATE			Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN			Sample Received By:	Tamara Oldaker
Project Location:	BTA - EUNICE, NM				

#### Sample ID: B 2 (H220775-02)

BTEX 8021B	mg,	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	03/01/2022	ND	2.04	102	2.00	2.43	
Toluene*	<0.050	0.050	03/01/2022	ND	2.04	102	2.00	2.02	
Ethylbenzene*	<0.050	0.050	03/01/2022	ND	1.95	97.5	2.00	2.94	
Total Xylenes*	<0.150	0.150	03/01/2022	ND	6.03	100	6.00	3.18	
Total BTEX	<0.300	0.300	03/01/2022	ND					
Surrogate: 4-Bromofluorobenzene (PID	105	% 69.9-14	0						
Chloride, SM4500Cl-B	mg,	/kg	Analyze	d By: GM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	288	16.0	03/02/2022	ND	432	108	400	0.00	
TPH 8015M	mg/	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	03/01/2022	ND	225	112	200	7.70	
DRO >C10-C28*	<10.0	10.0	03/01/2022	ND	206	103	200	8.58	
EXT DRO >C28-C36	<10.0	10.0	03/01/2022	ND					
Surrogate: 1-Chlorooctane	97.0	% 66.9-13	6						
Surrogate: 1-Chlorooctadecane	101	% 59.5-14	2						

#### Cardinal Laboratories

\*=Accredited Analyte

Celeg D. Keine

Celey D. Keene, Lab Director/Quality Manager



		201 MAIN	NC. LONGCRIER STREET, SUITE RTH TX, 76102	1360	
		Fax To:	NA		
Received:	03/01/2022			Sampling Date:	02/28/2022
Reported:	03/02/2022			Sampling Type:	Soil
Project Name:	CHISO 14 STATE			Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN			Sample Received By:	Tamara Oldaker
Project Location:	BTA - EUNICE, NM				

#### Sample ID: B 5 (H220775-03)

BTEX 8021B	mg/	kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	03/01/2022	ND	2.04	102	2.00	2.43	
Toluene*	<0.050	0.050	03/01/2022	ND	2.04	102	2.00	2.02	
Ethylbenzene*	<0.050	0.050	03/01/2022	ND	1.95	97.5	2.00	2.94	
Total Xylenes*	<0.150	0.150	03/01/2022	ND	6.03	100	6.00	3.18	
Total BTEX	<0.300	0.300	03/01/2022	ND					
Surrogate: 4-Bromofluorobenzene (PID	103 9	% 69.9-14	0						
Chloride, SM4500Cl-B	mg/kg		Analyze	d By: GM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	224	16.0	03/02/2022	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	03/01/2022	ND	225	112	200	7.70	
DRO >C10-C28*	<10.0	10.0	03/01/2022	ND	206	103	200	8.58	
EXT DRO >C28-C36	<10.0	10.0	03/01/2022	ND					
Surrogate: 1-Chlorooctane	92.1	% 66.9-13	6						
Surrogate: 1-Chlorooctadecane	95.7	% 59.5-14	2						

#### Cardinal Laboratories

\*=Accredited Analyte

Celeg D. Keine

Celey D. Keene, Lab Director/Quality Manager



		201 MAIN 9	IC. LONGCRIER STREET, SUITE RTH TX, 76102	1360	
	I	Fax To:	NA		
Received:	03/01/2022			Sampling Date:	02/28/2022
Reported:	03/02/2022			Sampling Type:	Soil
Project Name:	CHISO 14 STATE			Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN			Sample Received By:	Tamara Oldaker
Project Location:	BTA - EUNICE, NM				

#### Sample ID: S 1 (H220775-04)

BTEX 8021B	mg,	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	03/01/2022	ND	2.04	102	2.00	2.43	
Toluene*	<0.050	0.050	03/01/2022	ND	2.04	102	2.00	2.02	
Ethylbenzene*	<0.050	0.050	03/01/2022	ND	1.95	97.5	2.00	2.94	
Total Xylenes*	<0.150	0.150	03/01/2022	ND	6.03	100	6.00	3.18	
Total BTEX	<0.300	0.300	03/01/2022	ND					
Surrogate: 4-Bromofluorobenzene (PID	104	% 69.9-14	0						
Chloride, SM4500Cl-B	mg,	/kg	Analyze	d By: GM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	96.0	16.0	03/02/2022	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	03/02/2022	ND	225	112	200	7.70	
DRO >C10-C28*	<10.0	10.0	03/02/2022	ND	206	103	200	8.58	
EXT DRO >C28-C36	<10.0	10.0	03/02/2022	ND					
Surrogate: 1-Chlorooctane	102	% 66.9-13	6						
Surrogate: 1-Chlorooctadecane	106	% 59.5-14	2						

#### Cardinal Laboratories

\*=Accredited Analyte

Celeg D. Keine

Celey D. Keene, Lab Director/Quality Manager



#### **Notes and Definitions**

ND	Analyte NOT DETECTED at or above the reporting limit
RPD	Relative Percent Difference
**	Samples not received at proper temperature of 6°C or below.
***	Insufficient time to reach temperature.
-	Chloride by SM4500Cl-B does not require samples be received at or below 6°C

Samples reported on an as received basis (wet) unless otherwise noted on report

#### Cardinal Laboratories

#### \*=Accredited Analyte

Celeg D. Keine

Celey D. Keene, Lab Director/Quality Manager

#### Received by OCD: 5/11/2023 3:45:55 PM

101 East Marland, Hobbs, NM 88240       (675) 393-2326 FAX (575) 393-2476       RXSol       RXSol       Fax #:       Project Owner:       Fax #:       Project Owner:       Cunnice       Mult       Mult       Fax #:       Project Owner:       Campice       Sample I.D.       Recover and average and char's and average aver	st Marland, Hobbs, NM 88240 393-2326 FAX (575) 393-2476 State: Zip: Fax #: Project Owner: So IV State: Zip: Fax #: Project Owner: So IV State: Zip: Company: State: Zip: Phone #: Phone #: Fax #: Fax #: State: Zip: Phone #: Fax #: Fax #: So IV State: Zip: Phone #: Fax #: State: Zip: Phone #: Fax #: So IV State: Zip: Phone #: Phone	st Mariand, Hobbs, NM 88240 393-2326 FAX (575) 393-2476 RKS on Mariand, Hobbs, NM 88240 393-2326 FAX (575) 393-2476 Real State: Zip: Fax #: Address: Fax #: Address: Fax #: Address: Fax #: Fax #: Fax #: Address: Phone #: Fax	PLEASE NOTE: Lishing and Danages. Cardina's lishing and din makes. All fahres: Including these for angligence and any other cardisare, rancecessie and and the performance reliable, rancecessie and any enter and the performance Relinquished By: Pelly and the performance Bellvered By: (Circle One) Sampler - UPS - Bus - Other: Con	Address: City: Project Wame: Project Name: Project Location: Sampler Name: For LAB I.D. Lab I.D. Lab I.D.	for Company Name: Project Manager:
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Page 62 of 123



March 01, 2022

MATTHEW LONGCRIER RX-SOIL INC. 201 MAIN STREET, SUITE 1360 FORT WORTH, TX 76102

RE: CHISO 14 STATE

Enclosed are the results of analyses for samples received by the laboratory on 02/25/22 8:55.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-21-14. 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 <a href="https://www.tceq.texas.gov/field/ga/lab\_accred\_certif.html">www.tceq.texas.gov/field/ga/lab\_accred\_certif.html</a>.

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. Keine

Celey D. Keene Lab Director/Quality Manager



		201 MAIN	NC. / LONGCRIER STREET, SUITE RTH TX, 76102	1360	
		Fax To:	NA		
Received:	02/25/2022			Sampling Date:	02/24/2022
Reported:	03/01/2022			Sampling Type:	Soil
Project Name:	CHISO 14 STATE			Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN			Sample Received By:	Tamara Oldaker
Project Location:	BTA - JAL NM				

#### Sample ID: B 2 (H220738-01)

BTEX 8021B	mg/	kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	02/27/2022	ND	1.98	98.8	2.00	4.18	
Toluene*	<0.050	0.050	02/27/2022	ND	1.98	99.0	2.00	3.19	
Ethylbenzene*	<0.050	0.050	02/27/2022	ND	1.99	99.3	2.00	2.77	
Total Xylenes*	<0.150	0.150	02/27/2022	ND	6.13	102	6.00	2.84	
Total BTEX	<0.300	0.300	02/27/2022	ND					
Surrogate: 4-Bromofluorobenzene (PID	106 9	% 69.9-14	0						
Chloride, SM4500Cl-B	mg/kg		Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	80.0	16.0	02/26/2022	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	02/28/2022	ND	188	94.1	200	13.9	
DRO >C10-C28*	56.8	10.0	02/28/2022	ND	164	82.1	200	3.76	
EXT DRO >C28-C36	14.1	10.0	02/28/2022	ND					
Surrogate: 1-Chlorooctane	100 9	66.9-13	6						
Surrogate: 1-Chlorooctadecane	110 9	6 59.5-14	2						

#### Cardinal Laboratories

\*=Accredited Analyte

Celez D. Keine

Celey D. Keene, Lab Director/Quality Manager



		201 MAIN	NC. LONGCRIER STREET, SUITE RTH TX, 76102	1360	
		Fax To:	NA		
Received:	02/25/2022			Sampling Date:	02/24/2022
Reported:	03/01/2022			Sampling Type:	Soil
Project Name:	CHISO 14 STATE			Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN			Sample Received By:	Tamara Oldaker
Project Location:	BTA - JAL NM				

#### Sample ID: B 4 5' (H220738-02)

BTEX 8021B	mg/	′kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	02/27/2022	ND	1.98	98.8	2.00	4.18	
Toluene*	<0.050	0.050	02/27/2022	ND	1.98	99.0	2.00	3.19	
Ethylbenzene*	<0.050	0.050	02/27/2022	ND	1.99	99.3	2.00	2.77	
Total Xylenes*	<0.150	0.150	02/27/2022	ND	6.13	102	6.00	2.84	
Total BTEX	<0.300	0.300	02/27/2022	ND					
Surrogate: 4-Bromofluorobenzene (PID	105 9	% 69.9-14	0						
Chloride, SM4500Cl-B	mg/kg		Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	112	16.0	02/26/2022	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	02/28/2022	ND	188	94.1	200	13.9	
DRO >C10-C28*	<10.0	10.0	02/28/2022	ND	164	82.1	200	3.76	
EXT DRO >C28-C36	<10.0	10.0	02/28/2022	ND					
Surrogate: 1-Chlorooctane	105 9	% 66.9-13	6						
Surrogate: 1-Chlorooctadecane	106 9	% 59.5-14	2						

#### Cardinal Laboratories

#### \*=Accredited Analyte

Celeg D. Keine

Celey D. Keene, Lab Director/Quality Manager



		201 MAIN	NC. LONGCRIER STREET, SUITE RTH TX, 76102	1360	
		Fax To:	NA		
Received:	02/25/2022			Sampling Date:	02/24/2022
Reported:	03/01/2022			Sampling Type:	Soil
Project Name:	CHISO 14 STATE			Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN			Sample Received By:	Tamara Oldaker
Project Location:	BTA - JAL NM				

#### Sample ID: B 5 (H220738-03)

BTEX 8021B	mg	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	02/27/2022	ND	1.98	98.8	2.00	4.18	
Toluene*	<0.050	0.050	02/27/2022	ND	1.98	99.0	2.00	3.19	
Ethylbenzene*	<0.050	0.050	02/27/2022	ND	1.99	99.3	2.00	2.77	
Total Xylenes*	<0.150	0.150	02/27/2022	ND	6.13	102	6.00	2.84	
Total BTEX	<0.300	0.300	02/27/2022	ND					
Surrogate: 4-Bromofluorobenzene (PID	105	% 69.9-14	0						
Chloride, SM4500Cl-B	mg	/kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	96.0	16.0	02/26/2022	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	02/28/2022	ND	188	94.1	200	13.9	
DRO >C10-C28*	<10.0	10.0	02/28/2022	ND	164	82.1	200	3.76	
EXT DRO >C28-C36	<10.0	10.0	02/28/2022	ND					
Surrogate: 1-Chlorooctane	101	% 66.9-13	6						
Surrogate: 1-Chlorooctadecane	106	% 59.5-14	2						

#### Cardinal Laboratories

\*=Accredited Analyte

Celeg D. Keine

Celey D. Keene, Lab Director/Quality Manager



#### **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

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatscever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including whose shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including whose share there applied by the services arise of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celez D. Keine

Celey D. Keene, Lab Director/Quality Manager

#### Received by OCD: 5/11/2023 3:45:55 PM

B2 Sample I.D. B4 Containers Chi56 Id State: Zip: Fax #: Project Owner: Chi56 Id State: Zip: Chi56 Id St	State Pt	3       3       5         Integer of Dames, Cadder Bladdy and davie cadady named for any data milling within mildig within cadad contract and the base manual contend to the	Bellvered By: (Circle One) Sampler - UPS - Bus - Other:	PLEASE NOTE: PLEASE NOTE: Internet in more addition: . In more add
	3 m x Chloridos x TpH x Btex	State:     Zip:     Company:     Company:       Fax #:     Zip:     Attn:     Company:     Company:       State:     Zip:     Address:     Address:       VVM     GROUNDWATER     Phone #:     City:       WASTEWATER     MATRIX     Presserv       WASTEWATER     SOIL     Phone #:       VOTHER:     SOIL     Fax #:       VOTHER:     OIL     SLUDGE       OTHER:     OTHER:     DATE       VOTHER:     Z/24     S	B2	Pro Pro

#### Page 68 of 123



March 01, 2022

MICHAEL ALVES ALVES OILFIELD SOLUTIONS 2215 W BENDER HOBBS, NM 88240

RE: BTA - CHISO 3-4

Enclosed are the results of analyses for samples received by the laboratory on 02/28/22 15:05.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-21-14. 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 <a href="https://www.tceq.texas.gov/field/ga/lab\_accred\_certif.html">www.tceq.texas.gov/field/ga/lab\_accred\_certif.html</a>.

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. Keine

Celey D. Keene Lab Director/Quality Manager



		ALVES OILFIELD SOLUTION MICHAEL ALVES 2215 W BENDER HOBBS NM, 88240 Fax To:	5	
Received:	02/28/2022		Sampling Date:	02/28/2022
Reported:	03/01/2022		Sampling Type:	Soil
Project Name:	BTA - CHISO 3-4		Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN		Sample Received By:	Celey D. Keene
Project Location:	BTA			

#### Sample ID: SP. 2 @ 18' (H220769-01)

BTEX 8021B	mg,	kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifie
Benzene*	<0.050	0.050	02/28/2022	ND	2.00	100	2.00	1.48	
Toluene*	<0.050	0.050	02/28/2022	ND	1.98	99.2	2.00	1.65	
Ethylbenzene*	<0.050	0.050	02/28/2022	ND	1.93	96.5	2.00	0.998	
Total Xylenes*	<0.150	0.150	02/28/2022	ND	6.00	100	6.00	0.601	
Total BTEX	<0.300	0.300	02/28/2022	ND					
Surrogate: 4-Bromofluorobenzene (PID	105	69.9-14	0						
Chloride, SM4500Cl-B	mg/kg		Analyzed By: GM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	176	16.0	03/01/2022	ND	432	108	400	0.00	
ТРН 8015М	mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifie
GRO C6-C10*	<10.0	10.0	03/01/2022	ND	216	108	200	4.94	
DRO >C10-C28*	<10.0	10.0	03/01/2022	ND	212	106	200	4.07	
EXT DRO >C28-C36	<10.0	10.0	03/01/2022	ND					
Surrogate: 1-Chlorooctane	113 9	66.9-13	6						
Surrogate: 1-Chlorooctadecane	129	% 59.5-14	•						

#### Cardinal Laboratories

#### \*=Accredited Analyte

Celeg D. Keine

Celey D. Keene, Lab Director/Quality Manager



		ALVES OILFIELD SOLUTION MICHAEL ALVES 2215 W BENDER HOBBS NM, 88240 Fax To:	S	
Received:	02/28/2022		Sampling Date:	02/28/2022
Reported:	03/01/2022		Sampling Type:	Soil
Project Name:	BTA - CHISO 3-4		Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN		Sample Received By:	Celey D. Keene
Project Location:	BTA			

#### Sample ID: SP. 2 @ 19' (H220769-02)

BTEX 8021B	mg/	′kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifie
Benzene*	<0.050	0.050	02/28/2022	ND	2.00	100	2.00	1.48	
Toluene*	<0.050	0.050	02/28/2022	ND	1.98	99.2	2.00	1.65	
Ethylbenzene*	<0.050	0.050	02/28/2022	ND	1.93	96.5	2.00	0.998	
Total Xylenes*	<0.150	0.150	02/28/2022	ND	6.00	100	6.00	0.601	
Total BTEX	<0.300	0.300	02/28/2022	ND					
Surrogate: 4-Bromofluorobenzene (PID	104	% 69.9-14	0						
Chloride, SM4500Cl-B	mg/kg		Analyzed By: GM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	176	16.0	03/01/2022	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	03/01/2022	ND	216	108	200	4.94	
DRO >C10-C28*	<10.0	10.0	03/01/2022	ND	212	106	200	4.07	
EXT DRO >C28-C36	<10.0	10.0	03/01/2022	ND					
Surrogate: 1-Chlorooctane	113 9	% 66.9-13	6						
Surrogate: 1-Chlorooctadecane	128	% 59.5-14	2						

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#### \*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatscever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including whose shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including whose share there applied by the services arise of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celez D. Keine

Celey D. Keene, Lab Director/Quality Manager



#### **Notes and Definitions**

ND	Analyte NOT DETECTED at or above the reporting limit
RPD	Relative Percent Difference
**	Samples not received at proper temperature of 6°C or below.
***	Insufficient time to reach temperature.
-	Chloride by SM4500Cl-B does not require samples be received at or below 6°C

Samples reported on an as received basis (wet) unless otherwise noted on report

#### Cardinal Laboratories

#### \*=Accredited Analyte

Celeg D. Keine

Celey D. Keene, Lab Director/Quality Manager
### Page 73 of 123 \_aboratories

# CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

PLEASE NOTE: Liability and D analyses. All claims including it sonvice. In no event shall Cardi attilates or successors artising attilates or successors artising attilates or successors artising attilates or successors artising attilates or successors attilated BY: Relinquished BY: Delivered BY: Sampler - UPS	H220-769 2 9	(575) 393-2326 Company Name: (3774 Project Manager: Mike A Address: City: Phone #: Project #: Project Mame: Project Location: Chi Zo Sampler Name: Talow	101 E
ASE NOTE: Liability and Damages. Circlinat's lability and die ywes. Al claims including these for megligence and any other c ywes accessors arrising out of or related to the pedemance almost or successors arrising out of or related to the pedemance elinquished BY: [J] J.	Sample I.D. <u>୨୧. ૧૯ ୮</u> ୫' ୨୧. ૧૯ ୮୫'	1575) 393-2326 FAX (575) 393-2410 BTA Mike Alues State: Fax #: Fax #: Project Owner Project Owner :: Talon Long	101 East Marland, Hobbs, NW 00270
PLASE NOTE: LinkNy not Duranges. Clearing's halaky and dant's excitative remedy for any claim under an under white based in contract, Mill, and a linkney of dant's excitative remedy for any claim under and under the new of under an under under the new of under an under under the new of under an under under the new of under and under	Image: Solution of the second seco		
a clear for the second for applicable is subsidiaries. a contense or otherwise. or otherwis	×× CL ×× TPH ×× B-tex		ANALYSIS REQUEST

1. . I . . .



March 07, 2022

MATTHEW LONGCRIER RX-SOIL INC. 201 MAIN STREET, SUITE 1360 FORT WORTH, TX 76102

RE: CHISO 14 STATE

Enclosed are the results of analyses for samples received by the laboratory on 03/04/22 8:25.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-21-14. 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 <a href="https://www.tceq.texas.gov/field/ga/lab\_accred\_certif.html">www.tceq.texas.gov/field/ga/lab\_accred\_certif.html</a>.

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. Keine

Celey D. Keene Lab Director/Quality Manager



BTA - EUNICE, NM

### Analytical Results For:

		RX-SOIL INC. MATTHEW LONGCRIER 201 MAIN STREET, SUITE FORT WORTH TX, 76102 Fax To: NA	1360	
Received:	03/04/2022		Sampling Date:	03/03/2022
Reported:	03/07/2022		Sampling Type:	Soil
Project Name:	CHISO 14 STATE		Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN		Sample Received By:	Tamara Oldaker

### Sample ID: B 4 (H220851-01)

Project Location:

BTEX 8021B	mg/	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	03/04/2022	ND	1.96	97.8	2.00	6.52	
Toluene*	<0.050	0.050	03/04/2022	ND	1.93	96.6	2.00	6.68	
Ethylbenzene*	<0.050	0.050	03/04/2022	ND	1.86	92.8	2.00	6.21	
Total Xylenes*	<0.150	0.150	03/04/2022	ND	5.81	96.9	6.00	5.66	
Total BTEX	<0.300	0.300	03/04/2022	ND					
Surrogate: 4-Bromofluorobenzene (PID	103	% 69.9-14	0						
Chloride, SM4500Cl-B	mg,	/kg	Analyze	d By: GM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	992	16.0	03/04/2022	ND	416	104	400	0.00	
TPH 8015M	mg/	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	03/07/2022	ND	208	104	200	1.13	
DRO >C10-C28*	<10.0	10.0	03/07/2022	ND	200	99.8	200	3.01	
EXT DRO >C28-C36	<10.0	10.0	03/07/2022	ND					
Surrogate: 1-Chlorooctane	80.3	% 66.9-13	6						
Surrogate: 1-Chlorooctadecane	86.7	% 59.5-14	2						

### Cardinal Laboratories

\*=Accredited Analyte

Celeg D. Keine

Celey D. Keene, Lab Director/Quality Manager



### **Notes and Definitions**

ND	Analyte NOT DETECTED at or above the reporting limit
RPD	Relative Percent Difference
**	Samples not received at proper temperature of 6°C or below.
***	Insufficient time to reach temperature.
-	Chloride by SM4500Cl-B does not require samples be received at or below 6°C

Samples reported on an as received basis (wet) unless otherwise noted on report

### Cardinal Laboratories

### \*=Accredited Analyte

Celeg D. Keine

Celey D. Keene, Lab Director/Quality Manager

### Received by OCD: 5/11/2023 3:45:55 PM

101 East Marland (575) 393-2326 Company Name: RXSoil	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	6 No.
Project Manager: Mc Address:	company:	
City: Phone #:	State: Zip: Attn: & Attn: & Address:	
Project #:		
S	14 State	
Sampler Name: Month	4	
	MATRIX PRESERV	SAMPLING
	RS TER R	
Lab I.D. Sar	(G)RAB OR (C) # CONTAINER GROUNDWAT WASTEWATE SOIL OIL SLUDGE OTHER : ACID/BASE: ICE / COOL OTHER ;	111
()) (v) (v) (v) (v) (v) (v) (v) (v) (v)		
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<ul> <li>1 (1) (1) (1) (1) (1) (1) (1) (1) (1) (1</li></ul>		
PLEASE NOTE: Libbing and Danages, Cardinal's list analyzes. All claims incluising those for nop/gence an sorrice. In no event chail Cardinal be liable for incident	or lo	It is finited to the annount part by the client for the by a state of the state of
Relinquished By:	Date: Received By:	No Add' Phone #:
Delivered By: (Circle One)		
Sampler - UPS - Bus - Other:	Corrected Temp. °C 1.6 Sample Condition CHECKED BY: Cool Intact (Initials) Corrected Temp. °C 2.1 Pres Pres	DBY: Turnaround Time: Standard Bacteria (only) Sample Condition Is) ThermometerID #113 Cool Intact Observed Temp. °C ThermometerID #113 I Pres Yes
	2/	nail changes to celey.keene@cardinallabsnm.com

### Page 77 of 123



March 14, 2022

MICHAEL ALVES ALVES OILFIELD SOLUTIONS 2215 W BENDER HOBBS, NM 88240

RE: BTA - CHISO 3-4

Enclosed are the results of analyses for samples received by the laboratory on 03/11/22 12:05.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-21-14. 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 <a href="https://www.tceq.texas.gov/field/ga/lab\_accred\_certif.html">www.tceq.texas.gov/field/ga/lab\_accred\_certif.html</a>.

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. Keine

Celey D. Keene Lab Director/Quality Manager



		ALVES OILFIELD SOLUTION MICHAEL ALVES 2215 W BENDER HOBBS NM, 88240 Fax To:	S	
Received:	03/11/2022		Sampling Date:	03/08/2022
Reported:	03/14/2022		Sampling Type:	Soil
Project Name:	BTA - CHISO 3-4		Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN		Sample Received By:	Tamara Oldaker
Project Location:	BTA			

### Sample ID: N WALL 2 (H220990-01)

BTEX 8021B	mg/	'kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifie
Benzene*	<0.050	0.050	03/11/2022	ND	1.96	97.8	2.00	4.44	
Toluene*	<0.050	0.050	03/11/2022	ND	1.97	98.4	2.00	5.00	
Ethylbenzene*	<0.050	0.050	03/11/2022	ND	1.90	94.9	2.00	5.08	
Total Xylenes*	<0.150	0.150	03/11/2022	ND	5.92	98.6	6.00	4.66	
Total BTEX	<0.300	0.300	03/11/2022	ND					
Surrogate: 4-Bromofluorobenzene (PID	103	% 69.9-14	0						
Chloride, SM4500Cl-B	mg/	'kg	Analyze	d By: GM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	160	16.0	03/12/2022	ND	416	104	400	3.92	
ТРН 8015М	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	03/12/2022	ND	250	125	200	12.8	
DRO >C10-C28*	<10.0	10.0	03/12/2022	ND	221	111	200	1.33	
EXT DRO >C28-C36	<10.0	10.0	03/12/2022	ND					
Surrogate: 1-Chlorooctane	98.2	% 66.9-13	6						
Surrogate: 1-Chlorooctadecane	94.1	% 59.5-14	2						

### Cardinal Laboratories

### \*=Accredited Analyte

Celez D. Keine

Celey D. Keene, Lab Director/Quality Manager



		ALVES OILFIELD SOLUTIONS MICHAEL ALVES 2215 W BENDER HOBBS NM, 88240 Fax To:		
Received:	03/11/2022		Sampling Date:	03/08/2022
Reported:	03/14/2022		Sampling Type:	Soil
Project Name:	BTA - CHISO 3-4		Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN		Sample Received By:	Tamara Oldaker
Project Location:	BTA			

### Sample ID: BOTTOM @ 7 (H220990-02)

BTEX 8021B	mg/	′kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	03/11/2022	ND	1.96	97.8	2.00	4.44	
Toluene*	<0.050	0.050	03/11/2022	ND	1.97	98.4	2.00	5.00	
Ethylbenzene*	<0.050	0.050	03/11/2022	ND	1.90	94.9	2.00	5.08	
Total Xylenes*	<0.150	0.150	03/11/2022	ND	5.92	98.6	6.00	4.66	
Total BTEX	<0.300	0.300	03/11/2022	ND					
Surrogate: 4-Bromofluorobenzene (PID	103	% 69.9-14	0						
Chloride, SM4500Cl-B	mg/	′kg	Analyze	d By: GM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	112	16.0	03/12/2022	ND	416	104	400	3.92	
TPH 8015M	mg/	′kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	03/12/2022	ND	250	125	200	12.8	
DRO >C10-C28*	<10.0	10.0	03/12/2022	ND	221	111	200	1.33	
EXT DRO >C28-C36	<10.0	10.0	03/12/2022	ND					
Surrogate: 1-Chlorooctane	102	% 66.9-13	6						
Surrogate: 1-Chlorooctadecane	99.3	% 59.5-14	2						

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### \*=Accredited Analyte

Celez D. Keine

Celey D. Keene, Lab Director/Quality Manager



		ALVES OILFIELD SOLUTIONS MICHAEL ALVES 2215 W BENDER HOBBS NM, 88240 Fax To:	5	
Received:	03/11/2022		Sampling Date:	03/09/2022
Reported:	03/14/2022		Sampling Type:	Soil
Project Name:	BTA - CHISO 3-4		Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN		Sample Received By:	Tamara Oldaker
Project Location:	BTA			

### Sample ID: N WALL 1 @ 9 (H220990-03)

BTEX 8021B	mg/	′kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	03/11/2022	ND	1.96	97.8	2.00	4.44	
Toluene*	<0.050	0.050	03/11/2022	ND	1.97	98.4	2.00	5.00	
Ethylbenzene*	<0.050	0.050	03/11/2022	ND	1.90	94.9	2.00	5.08	
Total Xylenes*	<0.150	0.150	03/11/2022	ND	5.92	98.6	6.00	4.66	
Total BTEX	<0.300	0.300	03/11/2022	ND					
Surrogate: 4-Bromofluorobenzene (PID	104	% 69.9-14	0						
Chloride, SM4500Cl-B	mg,	′kg	Analyzed By: GM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	64.0	16.0	03/12/2022	ND	416	104	400	3.92	
TPH 8015M	mg,	′kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	03/12/2022	ND	250	125	200	12.8	
DRO >C10-C28*	<10.0	10.0	03/12/2022	ND	221	111	200	1.33	
EXT DRO >C28-C36	<10.0	10.0	03/12/2022	ND					
Surrogate: 1-Chlorooctane	105	% 66.9-13	6						
Surrogate: 1-Chlorooctadecane	102	% 59.5-14	2						

### Cardinal Laboratories

### \*=Accredited Analyte

Celeg D. Keine

Celey D. Keene, Lab Director/Quality Manager



		ALVES OILFIELD SOLUTIONS MICHAEL ALVES 2215 W BENDER HOBBS NM, 88240 Fax To:	;	
Received:	03/11/2022		Sampling Date:	03/09/2022
Reported:	03/14/2022		Sampling Type:	Soil
Project Name:	BTA - CHISO 3-4		Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN		Sample Received By:	Tamara Oldaker
Project Location:	BTA			

### Sample ID: N BOTTOM @ 14 (H220990-04)

BTEX 8021B	mg/	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	03/11/2022	ND	1.96	97.8	2.00	4.44	
Toluene*	<0.050	0.050	03/11/2022	ND	1.97	98.4	2.00	5.00	
Ethylbenzene*	<0.050	0.050	03/11/2022	ND	1.90	94.9	2.00	5.08	
Total Xylenes*	<0.150	0.150	03/11/2022	ND	5.92	98.6	6.00	4.66	
Total BTEX	<0.300	0.300	03/11/2022	ND					
Surrogate: 4-Bromofluorobenzene (PID	105	% 69.9-14	0						
Chloride, SM4500Cl-B	mg/kg		Analyzed By: GM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	560	16.0	03/12/2022	ND	416	104	400	3.92	
TPH 8015M	mg/	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	03/12/2022	ND	250	125	200	12.8	
DRO >C10-C28*	<10.0	10.0	03/12/2022	ND	221	111	200	1.33	
EXT DRO >C28-C36	<10.0	10.0	03/12/2022	ND					
Surrogate: 1-Chlorooctane	119 9	% 66.9-13	6						
Surrogate: 1-Chlorooctadecane	121	% 59.5-14	2						

### Cardinal Laboratories

### \*=Accredited Analyte

Celez D. Keine

Celey D. Keene, Lab Director/Quality Manager



		ALVES OILFIELD SOLUTIONS MICHAEL ALVES 2215 W BENDER HOBBS NM, 88240 Fax To:	5	
Received:	03/11/2022		Sampling Date:	03/09/2022
Reported:	03/14/2022		Sampling Type:	Soil
Project Name:	BTA - CHISO 3-4		Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN		Sample Received By:	Tamara Oldaker
Project Location:	BTA			

### Sample ID: S WALL @ 4 (H220990-05)

BTEX 8021B	mg/	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	03/11/2022	ND	1.96	97.8	2.00	4.44	
Toluene*	<0.050	0.050	03/11/2022	ND	1.97	98.4	2.00	5.00	
Ethylbenzene*	<0.050	0.050	03/11/2022	ND	1.90	94.9	2.00	5.08	
Total Xylenes*	<0.150	0.150	03/11/2022	ND	5.92	98.6	6.00	4.66	
Total BTEX	<0.300	0.300	03/11/2022	ND					
Surrogate: 4-Bromofluorobenzene (PID	104	% 69.9-14	0						
Chloride, SM4500Cl-B	mg/	mg/kg Analyzed By: GM		d By: GM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	80.0	16.0	03/12/2022	ND	416	104	400	3.92	
TPH 8015M	mg,	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	03/12/2022	ND	250	125	200	12.8	
DRO >C10-C28*	<10.0	10.0	03/12/2022	ND	221	111	200	1.33	
EXT DRO >C28-C36	<10.0	10.0	03/12/2022	ND					
Surrogate: 1-Chlorooctane	99.8	% 66.9-13	6						
Surrogate: 1-Chlorooctadecane	99.0	% 59.5-14	2						

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### \*=Accredited Analyte

Celeg D. Keine

Celey D. Keene, Lab Director/Quality Manager



		ALVES OILFIELD SOLUTIONS MICHAEL ALVES 2215 W BENDER HOBBS NM, 88240 Fax To:	;	
Received:	03/11/2022		Sampling Date:	03/10/2022
Reported:	03/14/2022		Sampling Type:	Soil
Project Name:	BTA - CHISO 3-4		Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN		Sample Received By:	Tamara Oldaker
Project Location:	BTA			

### Sample ID: W WALL @ 15-3 (H220990-06)

BTEX 8021B	mg/	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	03/11/2022	ND	1.96	97.8	2.00	4.44	
Toluene*	<0.050	0.050	03/11/2022	ND	1.97	98.4	2.00	5.00	
Ethylbenzene*	<0.050	0.050	03/11/2022	ND	1.90	94.9	2.00	5.08	
Total Xylenes*	<0.150	0.150	03/11/2022	ND	5.92	98.6	6.00	4.66	
Total BTEX	<0.300	0.300	03/11/2022	ND					
Surrogate: 4-Bromofluorobenzene (PID	105 9	% 69.9-14	0						
Chloride, SM4500Cl-B	mg/	mg/kg Analyzed By: GM		d By: GM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	48.0	16.0	03/12/2022	ND	416	104	400	3.92	
TPH 8015M	mg/	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	03/12/2022	ND	250	125	200	12.8	
DRO >C10-C28*	<10.0	10.0	03/12/2022	ND	221	111	200	1.33	
EXT DRO >C28-C36	<10.0	10.0	03/12/2022	ND					
Surrogate: 1-Chlorooctane	106 9	% 66.9-13	6						
Surrogate: 1-Chlorooctadecane	106 9	% 59.5-14	2						

### Cardinal Laboratories

### \*=Accredited Analyte

Celez D. Keine

Celey D. Keene, Lab Director/Quality Manager



		ALVES OILFIELD SOLUTIONS MICHAEL ALVES 2215 W BENDER HOBBS NM, 88240 Fax To:	;	
Received:	03/11/2022		Sampling Date:	03/10/2022
Reported:	03/14/2022		Sampling Type:	Soil
Project Name:	BTA - CHISO 3-4		Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN		Sample Received By:	Tamara Oldaker
Project Location:	BTA			

### Sample ID: BOTTOM #2 @ 6 (H220990-07)

BTEX 8021B	mg/	kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	03/12/2022	ND	1.96	98.2	2.00	6.36	
Toluene*	<0.050	0.050	03/12/2022	ND	1.97	98.3	2.00	7.24	
Ethylbenzene*	<0.050	0.050	03/12/2022	ND	1.89	94.5	2.00	7.24	
Total Xylenes*	<0.150	0.150	03/12/2022	ND	5.88	98.0	6.00	7.39	
Total BTEX	<0.300	0.300	03/12/2022	ND					
Surrogate: 4-Bromofluorobenzene (PID	104 %	69.9-14	0						
Chloride, SM4500Cl-B	mg/kg		Analyzed By: GM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	448	16.0	03/12/2022	ND	416	104	400	0.00	
TPH 8015M	mg/	kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	03/12/2022	ND	250	125	200	12.8	
DRO >C10-C28*	<10.0	10.0	03/12/2022	ND	221	111	200	1.33	
EXT DRO >C28-C36	<10.0	10.0	03/12/2022	ND					
Surrogate: 1-Chlorooctane	97.3 9	66.9-13	6						
Surrogate: 1-Chlorooctadecane	97.0 9	59.5-14	2						

### Cardinal Laboratories

### \*=Accredited Analyte

Celez D. Keine

Celey D. Keene, Lab Director/Quality Manager



		ALVES OILFIELD SOLUTIONS MICHAEL ALVES 2215 W BENDER HOBBS NM, 88240 Fax To:			
Received:	03/11/2022		Sampling Date:	0	3/10/2022
Reported:	03/14/2022		Sampling Type:	S	oil
Project Name:	BTA - CHISO 3-4		Sampling Condition:	C	Cool & Intact
Project Number:	NONE GIVEN		Sample Received By:	Т	amara Oldaker
Project Location:	BTA				

### Sample ID: W WALL @ 10-4 (H220990-08)

BTEX 8021B	mg,	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	03/12/2022	ND	1.96	98.2	2.00	6.36	
Toluene*	<0.050	0.050	03/12/2022	ND	1.97	98.3	2.00	7.24	
Ethylbenzene*	<0.050	0.050	03/12/2022	ND	1.89	94.5	2.00	7.24	
Total Xylenes*	<0.150	0.150	03/12/2022	ND	5.88	98.0	6.00	7.39	
Total BTEX	<0.300	0.300	03/12/2022	ND					
Surrogate: 4-Bromofluorobenzene (PID	103	% 69.9-14	0						
Chloride, SM4500Cl-B	mg/kg		Analyze	Analyzed By: GM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	2400	16.0	03/12/2022	ND	416	104	400	0.00	
TPH 8015M	mg,	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	03/12/2022	ND	250	125	200	12.8	
DRO >C10-C28*	<10.0	10.0	03/12/2022	ND	221	111	200	1.33	
EXT DRO >C28-C36	<10.0	10.0	03/12/2022	ND					
Surrogate: 1-Chlorooctane	112 9	% 66.9-13	6						
Surrogate: 1-Chlorooctadecane	112 9	% 59.5-14	2						

### Cardinal Laboratories

### \*=Accredited Analyte

Celez D. Keine

Celey D. Keene, Lab Director/Quality Manager



		ALVES OILFIELD SOLUTIONS MICHAEL ALVES 2215 W BENDER HOBBS NM, 88240 Fax To:			
Received:	03/11/2022		Sampling Date:	0	3/10/2022
Reported:	03/14/2022		Sampling Type:	S	oil
Project Name:	BTA - CHISO 3-4		Sampling Condition:	C	Cool & Intact
Project Number:	NONE GIVEN		Sample Received By:	Т	amara Oldaker
Project Location:	BTA				

### Sample ID: W WALL @ 10-5 (H220990-09)

BTEX 8021B	mg,	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	03/11/2022	ND	2.04	102	2.00	3.42	
Toluene*	<0.050	0.050	03/11/2022	ND	2.05	102	2.00	3.58	
Ethylbenzene*	<0.050	0.050	03/11/2022	ND	1.98	99.1	2.00	2.86	
Total Xylenes*	<0.150	0.150	03/11/2022	ND	6.16	103	6.00	2.49	
Total BTEX	<0.300	0.300	03/11/2022	ND					
Surrogate: 4-Bromofluorobenzene (PID	104	% 69.9-14	0						
Chloride, SM4500Cl-B	mg/	/kg	Analyze	d By: GM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	976	16.0	03/12/2022	ND	416	104	400	0.00	
TPH 8015M	mg/	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	03/12/2022	ND	250	125	200	12.8	
DRO >C10-C28*	<10.0	10.0	03/12/2022	ND	221	111	200	1.33	
EXT DRO >C28-C36	<10.0	10.0	03/12/2022	ND					
Surrogate: 1-Chlorooctane	108	% 66.9-13	6						
Surrogate: 1-Chlorooctadecane	107	% 59.5-14	2						

### Cardinal Laboratories

### \*=Accredited Analyte

Celez D. Keine

Celey D. Keene, Lab Director/Quality Manager



### **Notes and Definitions**

ND	Analyte NOT DETECTED at or above the reporting limit
RPD	Relative Percent Difference
**	Samples not received at proper temperature of 6°C or below.
***	Insufficient time to reach temperature.
-	Chloride by SM4500Cl-B does not require samples be received at or below 6°C

Samples reported on an as received basis (wet) unless otherwise noted on report

### Cardinal Laboratories

### \*=Accredited Analyte

Celeg D. Keine

Celey D. Keene, Lab Director/Quality Manager

## Laboratories

# CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

101 East Marland, Hobbs, NM 88240 (575) 393-2326 FAX (575) 393-2476 Company Name: 7774

Project Manager			BILL TO		
Address:			P.O. #:	ANALYSIS REQUEST	
City:	2		Company: BTA		
Phone #:	State:	Zip:	Attn: 805 4411		
Project #:	Patrice		Address:		
Project Name:	rioject Owner:		City:		
Project Location: Chike	chile 3-4		State: Zip:		
Sampler Name: /	- (		Phone #:		
	ignel insuel	-	Fax #:		
		MP. MATRIX	PRESERV. SAMPLING	G	
Lab I.D.	Sample I.D.		ASE: DOL		
HZDOPPO		# CON GROUN WASTE SOIL OIL SLUDGI	ACID/BA CE / CC DTHER	CL TPI BTE	
282	Report of	X	X 3-8-22	X ×	
		K N	X 3-8-22 3	×	
2	Batton @ 14	X	× 3-9-22 0	x	
Ss	Lano 4	x x	-	X	
-C W			3- 10-22	×	
1	North HZ C	4 ×		12:00 X X X	
90	Dri		-	×,	
PLEASE NOTE: Linkery and Dama	01 2 11+>	×	1 20-01-5 1	X	
analyses. All claims including troce service. In no event shall Cardinal to affiliates or successors arising out of Relinquished By:	analyses. All caims including those for negligicities and any other calculate manage that and the shaded in contract or tot, shades immed to the amount paid by the client for the service. In no event shall Cardinal be labels for incidental or consequential damages shall be deterned worked unless made in writing and received by Cardinal whith 30 days after completion of the applicable affinities or successors analising out of or related to the performance of services incidency who affinities on the set of the set of the applicable <b>Relinquished By:</b>	any claim artising whether based in contract or tort, an deemed waived unless made in writing and received g without limitation, business interruptions, icss of use artifinat, regardless of whether such claim is based un	art, shall be limited to the amount paid by the eived by Catelinal within 30 days after com of use, or loss of profits incurred by client, 1 and upon any of the above stated measures and above stated and above stated and above stated above	by the client for the completion of the applicable control is sub-table.	
Relingthished By:	Time: Date:	Chamaka a	HARA Fax	Phone Result:	
		month and any.	M	Michael Almes @ Alves of Field solutions.org	
Sampler - UPS - Bus - Other:	-2.300	U.S.C. Sample Condition	CHECKED BY: (Initials)	Aush! Axsail	0
T Cardinal canno	Cardinal cannot accept verbal changes. Please fax written changes to (575) 393-2326	fax written changes to (575)	393-2326		
			1 200 2020		



May 10, 2022

MICHAEL ALVES ALVES OILFIELD SOLUTIONS 2215 W BENDER HOBBS, NM 88240

RE: BTA - CHISO 3-4

Enclosed are the results of analyses for samples received by the laboratory on 05/09/22 12:58.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-21-14. 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 <a href="https://www.tceq.texas.gov/field/ga/lab\_accred\_certif.html">www.tceq.texas.gov/field/ga/lab\_accred\_certif.html</a>.

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. Keine

Celey D. Keene Lab Director/Quality Manager



		ALVES OILFIELD SOLUTION MICHAEL ALVES 2215 W BENDER HOBBS NM, 88240 Fax To:	IS	
Received:	05/09/2022		Sampling Date:	05/09/2022
Reported:	05/10/2022		Sampling Type:	Soil
Project Name:	BTA - CHISO 3-4		Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN		Sample Received By:	Tamara Oldaker
Project Location:	BTA			

### Sample ID: SP 1 @ 4' (H221944-01)

BTEX 8021B	mg/	′kg	Analyze	d By: MS\					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	05/10/2022	ND	2.14	107	2.00	6.63	
Toluene*	<0.050	0.050	05/10/2022	ND	2.10	105	2.00	6.83	
Ethylbenzene*	<0.050	0.050	05/10/2022	ND	2.06	103	2.00	7.61	
Total Xylenes*	<0.150	0.150	05/10/2022	ND	6.36	106	6.00	7.80	
Total BTEX	<0.300	0.300	05/10/2022	ND					
Surrogate: 4-Bromofluorobenzene (PID	102 9	% 69.9-14	0						
Chloride, SM4500Cl-B	mg/	′kg	Analyze	d By: GM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	32.0	16.0	05/10/2022	ND	416	104	400	0.00	
TPH 8015M	mg/	′kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	05/09/2022	ND	213	107	200	10.3	
DRO >C10-C28*	<10.0	10.0	05/09/2022	ND	196	98.1	200	14.5	
EXT DRO >C28-C36	<10.0	10.0	05/09/2022	ND					
Surrogate: 1-Chlorooctane	82.3	% 66.9-13	6						
Surrogate: 1-Chlorooctadecane	84.6	% 59.5-14	2						

### Cardinal Laboratories

### \*=Accredited Analyte

Celez D. Keine

Celey D. Keene, Lab Director/Quality Manager



		ALVES OILFIELD SOLUTION MICHAEL ALVES 2215 W BENDER HOBBS NM, 88240 Fax To:	S	
Received: Reported: Project Name: Project Number: Project Location:	05/09/2022 05/10/2022 BTA - CHISO 3-4 NONE GIVEN BTA		Sampling Date: Sampling Type: Sampling Condition: Sample Received By:	05/09/2022 Soil Cool & Intact Tamara Oldaker

### Sample ID: SP 2 @ 4' (H221944-02)

BTEX 8021B	mg,	′kg	Analyze	d By: MS\					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	05/10/2022	ND	2.14	107	2.00	6.63	
Toluene*	<0.050	0.050	05/10/2022	ND	2.10	105	2.00	6.83	
Ethylbenzene*	<0.050	0.050	05/10/2022	ND	2.06	103	2.00	7.61	
Total Xylenes*	<0.150	0.150	05/10/2022	ND	6.36	106	6.00	7.80	
Total BTEX	<0.300	0.300	05/10/2022	ND					
Surrogate: 4-Bromofluorobenzene (PID	102	% 69.9-14	0						
Chloride, SM4500Cl-B	mg/	′kg	Analyze	d By: GM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	688	16.0	05/10/2022	ND	416	104	400	0.00	
TPH 8015M	mg/	′kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	05/09/2022	ND	213	107	200	10.3	
DRO >C10-C28*	<10.0	10.0	05/09/2022	ND	196	98.1	200	14.5	
EXT DRO >C28-C36	<10.0	10.0	05/09/2022	ND					
Surrogate: 1-Chlorooctane	98.4	% 66.9-13	6						
Surrogate: 1-Chlorooctadecane	102	% 59.5-14	2						

### Cardinal Laboratories

### \*=Accredited Analyte

Celeg D. Keine

Celey D. Keene, Lab Director/Quality Manager



		ALVES OILFIELD SOLUTIONS MICHAEL ALVES 2215 W BENDER HOBBS NM, 88240 Fax To:	5	
Received:	05/09/2022		Sampling Date:	05/09/2022
Reported:	05/10/2022		Sampling Type:	Soil
Project Name:	BTA - CHISO 3-4		Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN		Sample Received By:	Tamara Oldaker
Project Location:	BTA			

### Sample ID: COMP NORTH WEST (H221944-03)

BTEX 8021B	mg/	/kg	Analyze	d By: MS\					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	05/10/2022	ND	2.14	107	2.00	6.63	
Toluene*	<0.050	0.050	05/10/2022	ND	2.10	105	2.00	6.83	
Ethylbenzene*	<0.050	0.050	05/10/2022	ND	2.06	103	2.00	7.61	
Total Xylenes*	<0.150	0.150	05/10/2022	ND	6.36	106	6.00	7.80	
Total BTEX	<0.300	0.300	05/10/2022	ND					
Surrogate: 4-Bromofluorobenzene (PID	101 9	% 69.9-14	0						
Chloride, SM4500Cl-B	mg/	/kg	Analyze	d By: GM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	384	16.0	05/10/2022	ND	416	104	400	0.00	
TPH 8015M	mg/	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	05/09/2022	ND	213	107	200	10.3	
DRO >C10-C28*	<10.0	10.0	05/09/2022	ND	196	98.1	200	14.5	
EXT DRO >C28-C36	<10.0	10.0	05/09/2022	ND					
Surrogate: 1-Chlorooctane	85.7	% 66.9-13	6						
Surrogate: 1-Chlorooctadecane	89.7	% 59.5-14	2						

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\*=Accredited Analyte

Celez D. Keine

Celey D. Keene, Lab Director/Quality Manager



### **Notes and Definitions**

ND	Analyte NOT DETECTED at or above the reporting limit
RPD	Relative Percent Difference
**	Samples not received at proper temperature of 6°C or below.
***	Insufficient time to reach temperature.
-	Chloride by SM4500Cl-B does not require samples be received at or below 6°C

Samples reported on an as received basis (wet) unless otherwise noted on report

### Cardinal Laboratories

### \*=Accredited Analyte

Celeg D. Keine

Celey D. Keene, Lab Director/Quality Manager

### Received by OCD: 5/11/2023 3:45:55 PM

(in a)

Address:     State:     Zip:     Atm:       City:     Fax #:     Project Owner:     Address:       Project Name:     Project Owner:     Ch: OC     3-4       Sampler Name:     Multicle R-Ch: Y     State:     Zip:       Project Location:     Ch: OC     3-4     Phone #:       Sampler Name:     Multicle R-Ch: Y     Fax #:     Phone #:       Sampler Name:     Multicle R-Ch: Y     Fax #:     Phone #:       Sampler Name:     Multicle R-Ch: Y     Fax #:     Phone #:       Lab I.D.     Sample I.D.     MATRIX     PRESERV     SAMPLING       For use over     GROUNDWATER     Fax #:     Fax #:     Fax #:       Lab I.D.     Sample I.D.     GROUNDWATER     Fax #:     Fax #:       Lab I.D.     Sample I.D.     GROUNDWATER     Fax #:     Fax #:       Solid     GI     # CONTAINERS     Fax #:     Fax #:       J. J	ess: State: Zip: Attn: e #: Fax #: Project Owner: Chi OD 3-4 et Location: Chi OD 3-4 ide Name: Houjee R-Che Y Free State: Zip: bin ND. Sample I.D. Sample I.D. Giran Bin Rise Soil b n.D. Sample I.D. Giran Bin Rise Soil Comp 4 Giran Bin Rise Soil Co	Company Name: Hues Of Selections Project Manager: BobHall	P.O. #:	ANALYSIS REQUEST
State:       Zip:       Ath: $e#$ :       Fax #:       Project Owner:       Address: $ct$ Name:       Chi 30       3-4       State:       Zip: $ct$ Location:       Chi 30       3-4       Phone #:       Phone #: $ct$ Location:       Chi 30       3-4       Fax #:       Phone #: $diress:$ Fax #:       Preserv       State:       Zip: $diress:$ Fax #:       Preserv       Sample I.D.       Solution: $diress:$ Groundwater       Preserv       Samplus       Preserv $diress:$ Groundwater       Preserv       Samplus       Actio/Base:       Fax #: $diress:$ Groundwater       Groundwater       Actio/Base:       Fax #:       Fax #: $diress:$ Gigrad in # containers       Gigrad in # containers       Fax #:       Fax #: $diress:$ Gigrad in # containers       Fax #:       Fax #:       Fax #:       Fax #: $diress:$ Gigrad in # containers       Gigrad in # containers       Fax #:       Fax #:       Fax #:       Fax #: $diress:$ Gigrad in # containers       Gigrad in # container       Fax #:       Fax	State:     Zip:     Atm:       e#:     Fax #:     Project Owner:     City:       ct Name:     Chi OD     3 -4     City:       ct Location:     Chi OD     3 -4     Phone #:       ier Name:     Houljee     R-Che Y     Phone #:       ier Name:     Chi OD     3 -4     Fax #:       ier Name:     Chi OD     3 -4     Fax #:       ier Location:     Chi OD     A city:     Fax #:       ier Location:     Chi OD     Gi II     Fax #:       21 GUH     Gi II     GROUNDWATER     A city:       3 Control Divide under the		company: DTA	
e#     Fax#:     Fax#:     Address:       ct Location:     Ch: OO     3-4     City:     City:       ct Location:     Ch: OO     3-4     Phone #:     Phone #:       oler Name:     Maujeer Project Owner:     I.C.     State:     Zip:       oler Name:     Maujeer Project Owner:     I.C.     Phone #:     Fax #:       oler Name:     Maujeer Project Owner:     Fax #:     Fax #:     Fax #:       oler Name:     Maujeer Project Owner:     Fax #:     Fax #:     Fax #:       oler Name:     Maujeer Project Owner:     Fax #:     Fax #:     Fax #:       oler Name:     Maujeer Project Owner:     Marie     Phone #:     Fax #:       oler Name:     Maujeer Project Owner:     Marie     Phone #:     Fax #:       oler Name:     Marie     Marie     Project Owner:     Sample I.D.       aluge Owne:     Sample I.D.     GROUNDWATER     Preserver Sampling       aluge Owne:     Sample U'     GROUNDWATER     Preserver Sampling       aluge Owne:     Sample U'     Growne:     Sample U'       aluge Owne:     Sample U'     Sample U'     Acity Sample U'       aluge Owne:     Sample U'     Sample U'     Sample U'       aluge Owne:     Sample U'     Sample	eff.     Fax #:     Project Owner:     Address:       ct Name:     Ch: OC     3-4     City:     City:       ct Location:     Ch: OC     3-4     Phone #:     Zip:       ier Name:     Houlper Name:     Ch: OC     3-4     Phone #:     Zip:       ier Name:     Houlper Name:     Ch: OC     3-4     Phone #:     Zip:       ier Name:     Houlper Name:     Sample I.D.     MATRIX     PRESERV     Samplus       ause: Our     Sample I.D.     B RAB OR (C)OMP.     MATRIX     PRESERV     Samplus       2     Sp J Origon Huest     Gill GROUNDWATER     Fax #:     DATE     TIME       3     Compt J, Origon Huest     Gill GROUNDWATER     Solil Liuber     Solil Slubber     DATE     TIME       3     Compt J, Origon Huest     Gill Gill GROUNDWATER     A CicD/BASE:     Solil J, Uuq     A CicD/BASE:     J, Uuq     A CicD/BASE:       3     Compt J, Worth     West     Gill Gill Gill Gill Gill Gill Gill Gill		Attn:	
Project Owner:     Ch: 30     3-4     Ch: 30     3-4       Houjtee Rocke Y     Fax #:     Phone #:     Phone #:       Sample I.D.     Ica (G)RAB OR (C)OMP.     Fax #:     Fax #:       Sp 3 @ 4'     Groundwater     MATRIX     Preserv       Soil     Groundwater     MATRIX     Preserv       Soil     Groundwater     MATRIX     Preserv       Soil     Groundwater     MATRIX     Preserv       Soil     Soil     Soil     Soil       Groundwater     A soil     Soil     Date       Time     A soil     Soil     Soil       SLUDGE     Other:     A soil     Soil       SLUDGE     A soil     Stude     Soil       A soil     Soil     Stude     Soil       A soil     Stude     Soil     Soil       A soil     Stude     Soil     Soil       A soil     Stude     Soil     Soil       A soil     State:     Soil       A soil     Stateeee	Project Owner:     City:       Houjke:     R:::       Sample I.D.     Sample I.D.       Sp J D H, ''     G (G)RAB OR (C)OMP.       Fax #:     Fax #:       Fax #:     Fax #:       Fax #:     Fax #:       Sp J D H, ''     G (G)RAB OR (C)OMP.       Fax #:     Fax #:       Fax #:     Fax #:       Fax #:     Fax #:       Fax #:     Fax #:       G H H # CONTAINERS     Fax #:       OUND WATER     OIL       State:     Soil       OIL BLUDGE     Fax #:       G H H # CONTAINERS     Fax #:       G H H #	e#:	Address:	
Spin     Sample I.D.     Sample I.D.     Sample I.D.       Spin     GROUNDWATER     MATRIX     PRESERV       Soll     GROUNDWATER     WASTEWATER       WASTEWATER     Soll     OIL       SLUDGE     OTHER:     Soll       OTHER:     Soll     Soll       SLUDGE     OTHER:     Soll       SLUDGE     OTHER:     Soll       SLUDGE     OTHER:     Soll       SLUDGE     Soll     Soll       State:     Soll     Soll       Sold     Sold     Sold       Sold     Sold     S	Moute     Marrix     Preserve     Sample I.D.       Sample I.D.     Sample I.D.     Rax #:     Fax #:       Sp J @ U'     G(G)RAB OR (C)OMP.     Fax #:       Sp J @ U'     G(G)RAB OR (C)OMP.     Fax #:       Sp J @ U'     G(G)RAB OR (C)OMP.     Fax #:       So IL     OIL     So IL     Fax #:       ON D' U'     G(G)RAB OR (C)OMP.     So IL     Fax #:       Sp J @ U'     G(G)RAB OR (C)OMP.     So IL     So IL       OIL SLUDGE     OIL SLUDGE     So IL     So IL       I GROUNDWATER     A     So IL     So IL       I J U U U     A     So IL     So IL       I J U U     A     So IL     So IL       I J U U     A     J     J       I J U U     A     J     J       I J U U     A     J     J       I J U     J     J     J			
Koujie     Rode X       Sample I.D.     Sample I.D.       Sp J D H     Prode X       Fax #:	Mayle     Price       Young		ta State:	
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Sample I.D.     Sample I.D.       SP J Q U,     G (G)RAB OR (C)OMP.       U U,     G (G)RAB OR (C)OMP.       U U,     H (G)RAB OR (C)OMP.       U U,     G (G)RAB OR (C)OMP.       U U,     H (G)RAB OR (C)OMP.       U U,     G (G)RAB OR (C)OMP.       U U,     H (G)RAB OR (C)OMP.  <	MATRIX     PRESERV     SAMPLING       Sample I.D.     Rample I.D.     Reserve     Sample I.D.       Sp 3     H     G     Rample I.D.     Reconstruction       Sp 3     H     G     Reconstruction     Reconstruction       SoliL     SoliL     SoliL     SoliL     Science       Studie     SoliL     Science     Science     Science       Studie     Science     Science     Science     Science       Studie     Science     Science     Science     Science       Science     Science     Science     Science     Science       Science     Science     Science     Science     Science       Science     Science     Science     Sc	Kaylee Rich	Fax #:	
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Sp 1 @ 4' Sp 2 @ 4' Comp worth west 6 1 d d 5-9-22 12:49 d d Comp worth west 6 1 d d 5-9-22 12:49 d d d d d 5-9-22 12:49 d d d d d d d d d d d d d d d d d d d	490	#	# CONTAINERS GROUNDWATER WASTEWATER SOIL OIL SLUDGE OTHER : ACID/BASE: ICE / COOL OTHER :	K
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Int's exclusive remedy for any claim arising whether based in contract or tort, shall be limited to the annount pa cause whatsoever shall be deemed wahred unless made in writing and received by Cardonal within 90 drays after guantiat damages, including without limitation, basiness interruptions, base of use, or toos of profiles incurred by or services toerunche by Cardonal recordness of whether such claim is based upon any of the above stated or or services toerunche by Cardonal recordness of whether such claim is based upon any of the above stated or or services toerunche by Cardonal recordness of whether such claim is based upon any of the above stated or or services toerunches by Cardonal services and the services are services and the services and the services are services are services and the services are services and the services are services and the services are services are services and the services are services		Licher	Received By:	Yes No Add'I Phone # No Add'I Fax #:
PLEASE NOTE: Liability and Damages. Continant's liability and client's exclusive remedy for any claim arising whether based in contract or tort, shall be limited to the amount paid by the client for the analyses. At claims including theore for nongingence and any other cause whatshower shall be deemed whether smatch in writing and received by Cardinal within 30 days after completion of the applicable service. In no event shall Cardinal be limited to the performance of services hereunded by Cardinal, inguitation, basivess interruptions, tess of use, or toos of profile incurred by client, its substationie.         Relinquished By:       Date:       Received By:       Phone Result:       Yes       No       A         Relinoontshed By:       Date:       Received By:       Date:       Received By:       Fax Result:       Yes       No       A         Relinoontshed By:       Date:       Received By:       No       A       Remarks:       No       A	Lichey Time: S Received By:	0		ACOMONA
PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising whether based in contract or lot, shall be limited to the ancount paid by the client for the paperable numbers. At claims including those for negligence and any other cause whethere is and the deemed waived unless mathe in writing and neceived by Cardinal with 30 days after completion of the applicable service. In no event shall Cardinal be limited to the performance of services herewarder by Cardinal, meanings including whether based in contract or lot, shall be limited to the annount paid by the client for the performance of services herewarder by Cardinal, meanines interruptions, to so of profile incurred by client. It is unbeated in the performance of services herewarder by Cardinal, meanines interruptions, to so of profile incurred by client. It is unbeated in the performance of services herewarder by Cardinal, meanines interruptions, to so of profile incurred by client. It is unbeated in the performance of services herewarder by Cardinal, meanines interruptions, to so of use, or to so of profile incurred by client. It is unbeated in the performance of services herewarder by Cardinal, meanines interruptions, to so of use of profile incurred by client. It is unbeated in the performance of services herewarder by Cardinal, meanines interruptions, to so of use, or to so of profile incurred by client. It is unbeated by the distribution between any of the above stated meanes.         Relinquished By:       Time:       Time:       Received By:       Phone Result:       Yes       No         Relinquished By:       Time:       Time:       Time:       Received By:       Milliout All All All All All All All All All Al	Lichey Time: Received By: Time: Received By:	Delivered By: (Circle One)       3.320         Sampler - UPS - Bus - Other:       9.82	10. S 2 Sample Condition     CHECKED BY:       11. S 2 Cool Intact     (Initials)       11. S 2 No     No	ush"
LEASE NOTE: Lability and Damages. Cardinal's liability and clerif's exclusive remotely for any clean arise values. At cleans takading those for negligence and any other cause whatsoever shall be deemed with arvice. In no event shall Cardinal to its performance of services beausdie they Cardinal to its performance of services beausdie by Cardinal regarding whether deemed with the performance of services beausdie by Cardinal regarding without for the performance of services beausdie by Cardinal regarding without for the performance of services beausdie by Cardinal regarding without for the performance of services beausdie by Cardinal regarding without for the performance of services beausdie by Cardinal regarding without for the performance of services beausdie by Cardinal regarding without for the performance of services beausdie by Cardinal regarding without for the performance of services beausdie by Cardinal regarding without for the performance of services beausdie by Cardinal regarding without for the performance of services beausdie by Cardinal regarding without for the performance of services beausdie by Cardinal regarding without for the performance of services beausdie by Cardinal regarding without for the performance of services beausdie by Cardinal regarding without for the performance of services beausdie by Cardinal regarding without for the performance of services beausdie by Cardinal regarding without for the performance of services beausdie by Cardinal regarding without for the performance of services beausdie by Cardinal regarding without for the performance of services beausdie by Cardinal regarding without for the performance of services beausdie by Cardinal regarding without for the performance of services beausdie by Cardinal regarding without for the performance of services beausdie by Cardinal regarding without for the performance of services beausdie by Cardinal regarding without for the performance of services bearvices by Cardinal regarding without for the	Lichey Time: Date: 9-22 Time: (Circle One) 3.3 2 C. Bus - Other: 2.8 2			ŀ

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

Page 95 of 123

-aboratories



June 09, 2022

MICHAEL ALVES ALVES OILFIELD SOLUTIONS 2215 W BENDER HOBBS, NM 88240

RE: BTA - CHISO 3-4

Enclosed are the results of analyses for samples received by the laboratory on 06/08/22 8:30.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-21-14. 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 <a href="https://www.tceq.texas.gov/field/ga/lab\_accred\_certif.html">www.tceq.texas.gov/field/ga/lab\_accred\_certif.html</a>.

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. Keine

Celey D. Keene Lab Director/Quality Manager



		ALVES OILFIELD SOLUTION MICHAEL ALVES 2215 W BENDER HOBBS NM, 88240 Fax To:	S	
Received:	06/08/2022		Sampling Date:	06/07/2022
Reported:	06/09/2022		Sampling Type:	Soil
Project Name:	BTA - CHISO 3-4		Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN		Sample Received By:	Shalyn Rodriguez
Project Location:	BTA			

### Sample ID: CS 1 (H222417-01)

BTEX 8021B	mg,	′kg	Analyze	d By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	06/08/2022	ND	2.04	102	2.00	1.90	
Toluene*	<0.050	0.050	06/08/2022	ND	2.03	101	2.00	2.20	
Ethylbenzene*	<0.050	0.050	06/08/2022	ND	1.90	94.9	2.00	1.80	
Total Xylenes*	<0.150	0.150	06/08/2022	ND	5.90	98.4	6.00	1.87	
Total BTEX	<0.300	0.300	06/08/2022	ND					
Surrogate: 4-Bromofluorobenzene (PID	101	% 69.9-14	0						
Chloride, SM4500Cl-B	mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	<16.0	16.0	06/08/2022	ND	448	112	400	0.00	
TPH 8015M	mg,	′kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	06/08/2022	ND	201	100	200	3.70	
DRO >C10-C28*	<10.0	10.0	06/08/2022	ND	204	102	200	2.12	
EXT DRO >C28-C36	<10.0	10.0	06/08/2022	ND					
Surrogate: 1-Chlorooctane	123	% 66.9-13	6						
Surrogate: 1-Chlorooctadecane	126	% 59.5-14	2						

### Cardinal Laboratories

### \*=Accredited Analyte

Celez D. Keine

Celey D. Keene, Lab Director/Quality Manager



		ALVES OILFIELD SOLUTION MICHAEL ALVES 2215 W BENDER HOBBS NM, 88240 Fax To:	S	
Received:	06/08/2022		Sampling Date:	06/07/2022
Reported:	06/09/2022		Sampling Type:	Soil
Project Name:	BTA - CHISO 3-4		Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN		Sample Received By:	Shalyn Rodriguez
Project Location:	BTA			

### Sample ID: CS 2 (H222417-02)

BTEX 8021B	mg,	′kg	Analyze	d By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	06/08/2022	ND	2.04	102	2.00	1.90	
Toluene*	<0.050	0.050	06/08/2022	ND	2.03	101	2.00	2.20	
Ethylbenzene*	<0.050	0.050	06/08/2022	ND	1.90	94.9	2.00	1.80	
Total Xylenes*	<0.150	0.150	06/08/2022	ND	5.90	98.4	6.00	1.87	
Total BTEX	<0.300	0.300	06/08/2022	ND					
Surrogate: 4-Bromofluorobenzene (PID	101	% 69.9-14	0						
Chloride, SM4500Cl-B	mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	64.0	16.0	06/08/2022	ND	448	112	400	0.00	
TPH 8015M	mg/	′kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	06/09/2022	ND	201	100	200	3.70	
DRO >C10-C28*	<10.0	10.0	06/09/2022	ND	204	102	200	2.12	
EXT DRO >C28-C36	<10.0	10.0	06/09/2022	ND					
Surrogate: 1-Chlorooctane	89.7	% 66.9-13	6						
Surrogate: 1-Chlorooctadecane	96.8	% 59.5-14	2						

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### \*=Accredited Analyte

Celeg D. Keine

Celey D. Keene, Lab Director/Quality Manager



		ALVES OILFIELD SOLUTION MICHAEL ALVES 2215 W BENDER HOBBS NM, 88240 Fax To:	S	
Received:	06/08/2022		Sampling Date:	06/07/2022
Reported:	06/09/2022		Sampling Type:	Soil
Project Name:	BTA - CHISO 3-4		Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN		Sample Received By:	Shalyn Rodriguez
Project Location:	BTA			

### Sample ID: CS 3 (H222417-03)

BTEX 8021B	mg,	′kg	Analyze	d By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	06/08/2022	ND	2.04	102	2.00	1.90	
Toluene*	<0.050	0.050	06/08/2022	ND	2.03	101	2.00	2.20	
Ethylbenzene*	<0.050	0.050	06/08/2022	ND	1.90	94.9	2.00	1.80	
Total Xylenes*	<0.150	0.150	06/08/2022	ND	5.90	98.4	6.00	1.87	
Total BTEX	<0.300	0.300	06/08/2022	ND					
Surrogate: 4-Bromofluorobenzene (PID	101	% 69.9-14	0						
Chloride, SM4500Cl-B	mg,	′kg	Analyze	Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	16.0	16.0	06/08/2022	ND	448	112	400	0.00	
TPH 8015M	mg,	′kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	06/08/2022	ND	201	100	200	3.70	
DRO >C10-C28*	<10.0	10.0	06/08/2022	ND	204	102	200	2.12	
EXT DRO >C28-C36	<10.0	10.0	06/08/2022	ND					
Surrogate: 1-Chlorooctane	115 9	66.9-13	6						
Surrogate: 1-Chlorooctadecane	117 9	59.5-14	2						

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Celey D. Keene, Lab Director/Quality Manager



		ALVES OILFIELD SOLUTIONS MICHAEL ALVES 2215 W BENDER HOBBS NM, 88240 Fax To:	;	
Received:	06/08/2022		Sampling Date:	06/07/2022
Reported:	06/09/2022		Sampling Type:	Soil
Project Name:	BTA - CHISO 3-4		Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN		Sample Received By:	Shalyn Rodriguez
Project Location:	BTA			

### Sample ID: CS 4 (H222417-04)

BTEX 8021B	mg,	/kg	Analyze	d By: JH/					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	06/08/2022	ND	2.22	111	2.00	3.99	QM-07
Toluene*	<0.050	0.050	06/08/2022	ND	2.19	109	2.00	4.80	
Ethylbenzene*	<0.050	0.050	06/08/2022	ND	2.12	106	2.00	3.39	
Total Xylenes*	<0.150	0.150	06/08/2022	ND	6.56	109	6.00	2.85	
Total BTEX	<0.300	0.300	06/08/2022	ND					
Surrogate: 4-Bromofluorobenzene (PID	99.1	% 69.9-14	0						
Chloride, SM4500Cl-B	mg,	/kg	Analyze	Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	<16.0	16.0	06/08/2022	ND	448	112	400	0.00	
TPH 8015M	mg,	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	06/08/2022	ND	201	100	200	3.70	
DRO >C10-C28*	<10.0	10.0	06/08/2022	ND	204	102	200	2.12	
EXT DRO >C28-C36	<10.0	10.0	06/08/2022	ND					
Surrogate: 1-Chlorooctane	113 9	% 66.9-13	6						
Surrogate: 1-Chlorooctadecane	116 9	59.5-14	2						

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Celey D. Keene, Lab Director/Quality Manager



		ALVES OILFIELD SOLUTIONS MICHAEL ALVES 2215 W BENDER HOBBS NM, 88240 Fax To:			
Received:	06/08/2022		Sampling Date:	00	5/07/2022
Reported:	06/09/2022		Sampling Type:	S	oil
Project Name:	BTA - CHISO 3-4		Sampling Condition:	C	ool & Intact
Project Number:	NONE GIVEN		Sample Received By:	SI	nalyn Rodriguez
Project Location:	BTA				

### Sample ID: CS 5 (H222417-05)

BTEX 8021B	mg,	′kg	Analyze	d By: JH/					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	06/08/2022	ND	2.22	111	2.00	3.99	
Toluene*	<0.050	0.050	06/08/2022	ND	2.19	109	2.00	4.80	
Ethylbenzene*	<0.050	0.050	06/08/2022	ND	2.12	106	2.00	3.39	
Total Xylenes*	<0.150	0.150	06/08/2022	ND	6.56	109	6.00	2.85	
Total BTEX	<0.300	0.300	06/08/2022	ND					
Surrogate: 4-Bromofluorobenzene (PID	99.6	% 69.9-14	0						
Chloride, SM4500Cl-B	mg,	′kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	<16.0	16.0	06/08/2022	ND	448	112	400	0.00	
TPH 8015M	mg/	′kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	06/08/2022	ND	201	100	200	3.70	
DRO >C10-C28*	<10.0	10.0	06/08/2022	ND	204	102	200	2.12	
EXT DRO >C28-C36	<10.0	10.0	06/08/2022	ND					
Surrogate: 1-Chlorooctane	114 9	66.9-13	6						
Surrogate: 1-Chlorooctadecane	114 9	% 59.5-14	2						

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		ALVES OILFIELD SOLUTIONS MICHAEL ALVES 2215 W BENDER HOBBS NM, 88240 Fax To:	;	
Received:	06/08/2022		Sampling Date:	06/07/2022
Reported:	06/09/2022		Sampling Type:	Soil
Project Name:	BTA - CHISO 3-4		Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN		Sample Received By:	Shalyn Rodriguez
Project Location:	BTA			

### Sample ID: CS 6 (H222417-06)

BTEX 8021B	mg,	′kg	Analyze	d By: JH/					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	06/08/2022	ND	2.22	111	2.00	3.99	
Toluene*	<0.050	0.050	06/08/2022	ND	2.19	109	2.00	4.80	
Ethylbenzene*	<0.050	0.050	06/08/2022	ND	2.12	106	2.00	3.39	
Total Xylenes*	<0.150	0.150	06/08/2022	ND	6.56	109	6.00	2.85	
Total BTEX	<0.300	0.300	06/08/2022	ND					
Surrogate: 4-Bromofluorobenzene (PID	98.0	% 69.9-14	0						
Chloride, SM4500Cl-B	mg,	mg/kg Analyzed By: AC		d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	32.0	16.0	06/08/2022	ND	448	112	400	0.00	
TPH 8015M	mg/	′kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	06/08/2022	ND	201	100	200	3.70	
DRO >C10-C28*	<10.0	10.0	06/08/2022	ND	204	102	200	2.12	
EXT DRO >C28-C36	<10.0	10.0	06/08/2022	ND					
Surrogate: 1-Chlorooctane	118 9	66.9-13	6						
Surrogate: 1-Chlorooctadecane	119 9	59.5-14	2						

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Celey D. Keene, Lab Director/Quality Manager



		ALVES OILFIELD SOLUTION MICHAEL ALVES 2215 W BENDER HOBBS NM, 88240 Fax To:	S	
Received:	06/08/2022		Sampling Date:	06/07/2022
Reported:	06/09/2022		Sampling Type:	Soil
Project Name:	BTA - CHISO 3-4		Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN		Sample Received By:	Shalyn Rodriguez
Project Location:	BTA			

### Sample ID: CS 7 (H222417-07)

BTEX 8021B	mg/	kg	Analyze	d By: JH/					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	06/08/2022	ND	2.22	111	2.00	3.99	
Toluene*	<0.050	0.050	06/08/2022	ND	2.19	109	2.00	4.80	
Ethylbenzene*	<0.050	0.050	06/08/2022	ND	2.12	106	2.00	3.39	
Total Xylenes*	<0.150	0.150	06/08/2022	ND	6.56	109	6.00	2.85	
Total BTEX	<0.300	0.300	06/08/2022	ND					
Surrogate: 4-Bromofluorobenzene (PID	98.9	% 69.9-14	0						
Chloride, SM4500Cl-B	mg/	'kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	32.0	16.0	06/08/2022	ND	448	112	400	0.00	
TPH 8015M	mg/	kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	06/08/2022	ND	201	100	200	3.70	
DRO >C10-C28*	<10.0	10.0	06/08/2022	ND	204	102	200	2.12	
EXT DRO >C28-C36	<10.0	10.0	06/08/2022	ND					
Surrogate: 1-Chlorooctane	124 9	66.9-13	6						
Surrogate: 1-Chlorooctadecane	124 9	59.5-14	2						

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		ALVES OILFIELD SOLUTIONS MICHAEL ALVES 2215 W BENDER HOBBS NM, 88240 Fax To:	;	
Received:	06/08/2022		Sampling Date:	06/07/2022
Reported:	06/09/2022		Sampling Type:	Soil
Project Name:	BTA - CHISO 3-4		Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN		Sample Received By:	Shalyn Rodriguez
Project Location:	BTA			

### Sample ID: CS 8 (H222417-08)

BTEX 8021B	mg/	′kg	Analyze	d By: JH/					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	06/08/2022	ND	2.22	111	2.00	3.99	
Toluene*	<0.050	0.050	06/08/2022	ND	2.19	109	2.00	4.80	
Ethylbenzene*	<0.050	0.050	06/08/2022	ND	2.12	106	2.00	3.39	
Total Xylenes*	<0.150	0.150	06/08/2022	ND	6.56	109	6.00	2.85	
Total BTEX	<0.300	0.300	06/08/2022	ND					
Surrogate: 4-Bromofluorobenzene (PID	99.3	% 69.9-14	0						
Chloride, SM4500Cl-B	mg/	mg/kg Analyzed By: AC		d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	16.0	16.0	06/08/2022	ND	448	112	400	0.00	
TPH 8015M	mg/	′kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	06/08/2022	ND	201	100	200	3.70	
DRO >C10-C28*	<10.0	10.0	06/08/2022	ND	204	102	200	2.12	
EXT DRO >C28-C36	<10.0	10.0	06/08/2022	ND					
Surrogate: 1-Chlorooctane	124 9	% 66.9-13	6						
Surrogate: 1-Chlorooctadecane	125 9	% 59.5-14	2						

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Celey D. Keene, Lab Director/Quality Manager



		ALVES OILFIELD SOLUTIONS MICHAEL ALVES 2215 W BENDER HOBBS NM, 88240 Fax To:			
Received:	06/08/2022		Sampling Date:	00	5/07/2022
Reported:	06/09/2022		Sampling Type:	S	oil
Project Name:	BTA - CHISO 3-4		Sampling Condition:	C	ool & Intact
Project Number:	NONE GIVEN		Sample Received By:	SI	nalyn Rodriguez
Project Location:	BTA				

### Sample ID: CS 9 (H222417-09)

BTEX 8021B	mg/	kg	Analyze	d By: JH/					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	06/08/2022	ND	2.22	111	2.00	3.99	
Toluene*	<0.050	0.050	06/08/2022	ND	2.19	109	2.00	4.80	
Ethylbenzene*	<0.050	0.050	06/08/2022	ND	2.12	106	2.00	3.39	
Total Xylenes*	<0.150	0.150	06/08/2022	ND	6.56	109	6.00	2.85	
Total BTEX	<0.300	0.300	06/08/2022	ND					
Surrogate: 4-Bromofluorobenzene (PID	97.9	% 69.9-14	0						
Chloride, SM4500Cl-B	mg/	mg/kg Analyzed By: AC		d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	32.0	16.0	06/08/2022	ND	448	112	400	0.00	
TPH 8015M	mg/	'kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	06/08/2022	ND	201	100	200	3.70	
DRO >C10-C28*	<10.0	10.0	06/08/2022	ND	204	102	200	2.12	
EXT DRO >C28-C36	<10.0	10.0	06/08/2022	ND					
Surrogate: 1-Chlorooctane	123 9	66.9-13	6						
Surrogate: 1-Chlorooctadecane	125 9	59.5-14	2						

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Celey D. Keene, Lab Director/Quality Manager



		ALVES OILFIELD SOLUTION MICHAEL ALVES 2215 W BENDER HOBBS NM, 88240 Fax To:	IS	
Received:	06/08/2022		Sampling Date:	06/07/2022
Reported:	06/09/2022		Sampling Type:	Soil
Project Name:	BTA - CHISO 3-4		Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN		Sample Received By:	Shalyn Rodriguez
Project Location:	BTA			

### Sample ID: CS 10 (H222417-10)

BTEX 8021B	mg/	kg	Analyze	d By: JH/					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	06/08/2022	ND	2.22	111	2.00	3.99	
Toluene*	<0.050	0.050	06/08/2022	ND	2.19	109	2.00	4.80	
Ethylbenzene*	<0.050	0.050	06/08/2022	ND	2.12	106	2.00	3.39	
Total Xylenes*	<0.150	0.150	06/08/2022	ND	6.56	109	6.00	2.85	
Total BTEX	<0.300	0.300	06/08/2022	ND					
Surrogate: 4-Bromofluorobenzene (PID	98.9	% 69.9-14	0						
Chloride, SM4500Cl-B	mg/	mg/kg Analyzed By: AC		d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	32.0	16.0	06/08/2022	ND	448	112	400	0.00	
TPH 8015M	mg/	kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	06/08/2022	ND	201	100	200	3.70	
DRO >C10-C28*	<10.0	10.0	06/08/2022	ND	204	102	200	2.12	
EXT DRO >C28-C36	<10.0	10.0	06/08/2022	ND					
Surrogate: 1-Chlorooctane	109 9	66.9-13	6						
Surrogate: 1-Chlorooctadecane	112 9	6 59.5-14	2						

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Celey D. Keene, Lab Director/Quality Manager



		ALVES OILFIELD SOLUTIONS MICHAEL ALVES 2215 W BENDER HOBBS NM, 88240 Fax To:	5	
Received:	06/08/2022		Sampling Date:	06/07/2022
Reported:	06/09/2022		Sampling Type:	Soil
Project Name:	BTA - CHISO 3-4		Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN		Sample Received By:	Shalyn Rodriguez
Project Location:	BTA			

### Sample ID: CS 11 (H222417-11)

BTEX 8021B	mg/	kg	Analyze	d By: JH/					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	06/08/2022	ND	2.22	111	2.00	3.99	
Toluene*	<0.050	0.050	06/08/2022	ND	2.19	109	2.00	4.80	
Ethylbenzene*	<0.050	0.050	06/08/2022	ND	2.12	106	2.00	3.39	
Total Xylenes*	<0.150	0.150	06/08/2022	ND	6.56	109	6.00	2.85	
Total BTEX	<0.300	0.300	06/08/2022	ND					
Surrogate: 4-Bromofluorobenzene (PID	99.8	% 69.9-14	0						
Chloride, SM4500Cl-B	mg/	mg/kg Analyzed By: AC		d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	16.0	16.0	06/08/2022	ND	448	112	400	0.00	
TPH 8015M	mg/	'kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	06/08/2022	ND	201	100	200	3.70	
DRO >C10-C28*	<10.0	10.0	06/08/2022	ND	204	102	200	2.12	
EXT DRO >C28-C36	<10.0	10.0	06/08/2022	ND					
Surrogate: 1-Chlorooctane	120 \$	66.9-13	6						
Surrogate: 1-Chlorooctadecane	122 9	59.5-14	2						

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Celey D. Keene, Lab Director/Quality Manager



		ALVES OILFIELD SOLUTIONS MICHAEL ALVES 2215 W BENDER HOBBS NM, 88240 Fax To:	5	
Received:	06/08/2022		Sampling Date:	06/07/2022
Reported:	06/09/2022		Sampling Type:	Soil
Project Name:	BTA - CHISO 3-4		Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN		Sample Received By:	Shalyn Rodriguez
Project Location:	BTA			

### Sample ID: CBS 1 (H222417-12)

BTEX 8021B	mg/kg		Analyzed By: JH/						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	06/08/2022	ND	2.22	111	2.00	3.99	
Toluene*	<0.050	0.050	06/08/2022	ND	2.19	109	2.00	4.80	
Ethylbenzene*	<0.050	0.050	06/08/2022	ND	2.12	106	2.00	3.39	
Total Xylenes*	<0.150	0.150	06/08/2022	ND	6.56	109	6.00	2.85	
Total BTEX	<0.300	0.300	06/08/2022	ND					
Surrogate: 4-Bromofluorobenzene (PID	99.0	% 69.9-14	0						
Chloride, SM4500Cl-B	mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	<16.0	16.0	06/08/2022	ND	448	112	400	0.00	
TPH 8015M	mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	06/08/2022	ND	201	100	200	3.70	
DRO >C10-C28*	<10.0	10.0	06/08/2022	ND	204	102	200	2.12	
EXT DRO >C28-C36	<10.0	10.0	06/08/2022	ND					
Surrogate: 1-Chlorooctane	122	% 66.9-13	6						
Surrogate: 1-Chlorooctadecane	122	% 59.5-14	2						

### Cardinal Laboratories

### \*=Accredited Analyte

Celez D. Keine

Celey D. Keene, Lab Director/Quality Manager


		ALVES OILFIELD SOLUTION MICHAEL ALVES 2215 W BENDER HOBBS NM, 88240 Fax To:	S	
Received:	06/08/2022		Sampling Date:	06/07/2022
Reported:	06/09/2022		Sampling Type:	Soil
Project Name:	BTA - CHISO 3-4		Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN		Sample Received By:	Shalyn Rodriguez
Project Location:	BTA			

### Sample ID: CBS 2 (H222417-13)

BTEX 8021B	mg	/kg	Analyze	d By: JH/					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	06/08/2022	ND	2.22	111	2.00	3.99	
Toluene*	<0.050	0.050	06/08/2022	ND	2.19	109	2.00	4.80	
Ethylbenzene*	<0.050	0.050	06/08/2022	ND	2.12	106	2.00	3.39	
Total Xylenes*	<0.150	0.150	06/08/2022	ND	6.56	109	6.00	2.85	
Total BTEX	<0.300	0.300	06/08/2022	ND					
Surrogate: 4-Bromofluorobenzene (PID	98.8	% 69.9-14	0						
Chloride, SM4500Cl-B	mg/	/kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	32.0	16.0	06/08/2022	ND	448	112	400	0.00	
TPH 8015M	mg/	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	06/08/2022	ND	201	100	200	3.70	
DRO >C10-C28*	<10.0	10.0	06/08/2022	ND	204	102	200	2.12	
EXT DRO >C28-C36	<10.0	10.0	06/08/2022	ND					
Surrogate: 1-Chlorooctane	115 9	% 66.9-13	6						
Surrogate: 1-Chlorooctadecane	115 9	% 59.5-14	2						

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### \*=Accredited Analyte

Celeg D. Keine

Celey D. Keene, Lab Director/Quality Manager



		ALVES OILFIELD SOLUTION MICHAEL ALVES 2215 W BENDER HOBBS NM, 88240 Fax To:	S	
Received:	06/08/2022		Sampling Date:	06/07/2022
Reported:	06/09/2022		Sampling Type:	Soil
Project Name:	BTA - CHISO 3-4		Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN		Sample Received By:	Shalyn Rodriguez
Project Location:	BTA			

### Sample ID: CBS 3 (H222417-14)

BTEX 8021B	mg,	′kg	Analyze	d By: JH/					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	06/08/2022	ND	2.22	111	2.00	3.99	
Toluene*	<0.050	0.050	06/08/2022	ND	2.19	109	2.00	4.80	
Ethylbenzene*	<0.050	0.050	06/08/2022	ND	2.12	106	2.00	3.39	
Total Xylenes*	<0.150	0.150	06/08/2022	ND	6.56	109	6.00	2.85	
Total BTEX	<0.300	0.300	06/08/2022	ND					
Surrogate: 4-Bromofluorobenzene (PID	99.2	% 69.9-14	0						
Chloride, SM4500Cl-B	mg/	′kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	<16.0	16.0	06/08/2022	ND	448	112	400	0.00	
TPH 8015M	mg/	′kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	06/08/2022	ND	201	100	200	3.70	
DRO >C10-C28*	<10.0	10.0	06/08/2022	ND	204	102	200	2.12	
EXT DRO >C28-C36	<10.0	10.0	06/08/2022	ND					
Surrogate: 1-Chlorooctane	122	% 66.9-13	6						
Surrogate: 1-Chlorooctadecane	122	% 59.5-14	2						

### Cardinal Laboratories

### \*=Accredited Analyte

Celeg D. Keine

Celey D. Keene, Lab Director/Quality Manager



		ALVES OILFIELD SOLUTION MICHAEL ALVES 2215 W BENDER HOBBS NM, 88240 Fax To:	S	
Received:	06/08/2022		Sampling Date:	06/07/2022
Reported:	06/09/2022		Sampling Type:	Soil
Project Name:	BTA - CHISO 3-4		Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN		Sample Received By:	Shalyn Rodriguez
Project Location:	BTA			

### Sample ID: CBS 4 (H222417-15)

BTEX 8021B	mg,	′kg	Analyze	d By: JH/					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	06/08/2022	ND	2.22	111	2.00	3.99	
Toluene*	<0.050	0.050	06/08/2022	ND	2.19	109	2.00	4.80	
Ethylbenzene*	<0.050	0.050	06/08/2022	ND	2.12	106	2.00	3.39	
Total Xylenes*	<0.150	0.150	06/08/2022	ND	6.56	109	6.00	2.85	
Total BTEX	<0.300	0.300	06/08/2022	ND					
Surrogate: 4-Bromofluorobenzene (PID	99.7	% 69.9-14	0						
Chloride, SM4500Cl-B	mg,	′kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	<16.0	16.0	06/08/2022	ND	448	112	400	0.00	
TPH 8015M	mg/	′kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	06/08/2022	ND	201	100	200	3.70	
DRO >C10-C28*	<10.0	10.0	06/08/2022	ND	204	102	200	2.12	
EXT DRO >C28-C36	<10.0	10.0	06/08/2022	ND					
Surrogate: 1-Chlorooctane	113 9	66.9-13	6						
Surrogate: 1-Chlorooctadecane	114 9	59.5-14	2						

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### \*=Accredited Analyte

Celeg D. Keine

Celey D. Keene, Lab Director/Quality Manager



		ALVES OILFIELD SOLUTION MICHAEL ALVES 2215 W BENDER HOBBS NM, 88240 Fax To:	IS	
Received:	06/08/2022		Sampling Date:	06/07/2022
Reported:	06/09/2022		Sampling Type:	Soil
Project Name:	BTA - CHISO 3-4		Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN		Sample Received By:	Shalyn Rodriguez
Project Location:	BTA			

### Sample ID: CBS 5 (H222417-16)

BTEX 8021B	mg	/kg	Analyze	d By: JH/					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	06/08/2022	ND	2.22	111	2.00	3.99	
Toluene*	<0.050	0.050	06/08/2022	ND	2.19	109	2.00	4.80	
Ethylbenzene*	<0.050	0.050	06/08/2022	ND	2.12	106	2.00	3.39	
Total Xylenes*	<0.150	0.150	06/08/2022	ND	6.56	109	6.00	2.85	
Total BTEX	<0.300	0.300	06/08/2022	ND					
Surrogate: 4-Bromofluorobenzene (PID	99.0	% 69.9-14	0						
Chloride, SM4500Cl-B	mg,	/kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	112	16.0	06/08/2022	ND	432	108	400	3.77	
TPH 8015M	mg/	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	06/08/2022	ND	201	100	200	3.70	
DRO >C10-C28*	<10.0	10.0	06/08/2022	ND	204	102	200	2.12	
EXT DRO >C28-C36	<10.0	10.0	06/08/2022	ND					
Surrogate: 1-Chlorooctane	122	% 66.9-13	6						
Surrogate: 1-Chlorooctadecane	124	% 59.5-14	2						

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Celeg D. Keine

Celey D. Keene, Lab Director/Quality Manager



		ALVES OILFIELD SOLUTION MICHAEL ALVES 2215 W BENDER HOBBS NM, 88240 Fax To:	S	
Received:	06/08/2022		Sampling Date:	06/07/2022
Reported:	06/09/2022		Sampling Type:	Soil
Project Name:	BTA - CHISO 3-4		Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN		Sample Received By:	Shalyn Rodriguez
Project Location:	BTA			. –

### Sample ID: CBS 6 (H222417-17)

BTEX 8021B	mg	/kg	Analyze	d By: JH/					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	06/08/2022	ND	2.22	111	2.00	3.99	
Toluene*	<0.050	0.050	06/08/2022	ND	2.19	109	2.00	4.80	
Ethylbenzene*	<0.050	0.050	06/08/2022	ND	2.12	106	2.00	3.39	
Total Xylenes*	<0.150	0.150	06/08/2022	ND	6.56	109	6.00	2.85	
Total BTEX	<0.300	0.300	06/08/2022	ND					
Surrogate: 4-Bromofluorobenzene (PID	98.5	% 69.9-14	0						
Chloride, SM4500Cl-B	mg/	/kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	32.0	16.0	06/08/2022	ND	432	108	400	3.77	
TPH 8015M	mg/	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	06/08/2022	ND	201	100	200	3.70	
DRO >C10-C28*	<10.0	10.0	06/08/2022	ND	204	102	200	2.12	
EXT DRO >C28-C36	<10.0	10.0	06/08/2022	ND					
Surrogate: 1-Chlorooctane	128	% 66.9-13	6						
Surrogate: 1-Chlorooctadecane	129	% 59.5-14	2						

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Celey D. Keene, Lab Director/Quality Manager



### **Notes and Definitions**

S-04	The surrogate recovery for this sample is outside of established control limits due to a sample matrix effect.
QM-07	The spike recovery was outside acceptance limits for the MS and/or MSD. The batch was accepted based on acceptable LCS recovery.
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**

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PLEASE NOTE: Liability and Damages. Cardinal's liability and clent's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatscever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including whose of use, or loss of profits incurred by client, its subsidiaries, affiliates or successor arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celez D. Keine

Celey D. Keene, Lab Director/Quality Manager

## Laboratories

# CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

Received by OCD: 5/11/2023 3:45:55 PM

A	IAek Solut	9	BILL TO		ANALYSIS REQUEST
Project Manager: 500 Hall		9,	P.O. 井:		
Address:	1		Company: BTA		
Dhone #-	State:	zip:	Attn:		
Project #:	Project Owner:		Audress. City:		
Project Name:			State: Zip:		
on: Chiso 3	h-{	ea p	#		
Sampler Name: Kullec Ciche	ey	Fa	Fax #:		
FOR LAB USE ONLY	0	MATRIX	ESERV.	SAMPLING	
Lab I.D. Sample I.D.	e I.D.	G)RAB OR (C)OMP. CONTAINERS ROUNDWATER (ASTEWATER OIL IL LUDGE THER :	CID/BASE: SE / COOL THER :		
1 2 2 2 2		2.5	22	R	
ω: 20 20			0 6/7	2	
n - f			L/9 0	12:29 7 0 0	
0			a 6/7	12:31 N. 8 Q	
LSJ L			N 6/7	A & NHCIZI	
8 59 B		80	1/9 N	12:35 X X X	
P FASE NOTE: Liability and Demonse Carolinate liability and	nd offensive modules as some adulter as	0	a 6-1-2	Y X LE	
analyses. All claims including those for negligence and any other service. In no event shall Cardinal be liable for incidental or const affiliates or successors arising out of or related to the performance		erned waived unless n vithout limitation, busin refinal repardless of wh	sived by Cardinal within 30 days aft of use, or loss of profils incurred by	after completion of the applicable by client, its subsidiaries,	
Relinquished By: hay la knowey	Time:0830	Received By	1 pignung	Verbal Result:  Verbal Results are emailed. Please provi	Add'l Phone #: de Email address:
Relinquished By:	Date: Time:	Received By:	0	Michaelalus Dalu	halves @alvesoilfied solutions .org
Delivered By: (Circle One) Sampler - UPS - Bus - Other:	Observed Temp. °C Corrected Temp. °C	3.3° Sample Condition	CHECKED BY:	e: Standard Rush #113	□ Bacteria (only) Sample Condition □ Cool Intact Observed Temp. °C
00 R 3.2 10/07/21		S. V C NO NO NO	OF	Correction Factor -0.5°C	Nc No Corrected Temp. °C

Company Name: + Project Manager:

Punds

5

P.O. #:

BILL TO

ANALYSIS REQUEST

pilheldsolutions

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

Delivered By: (Circle One) Sampler - UPS - Bus - Other:	Relinguished By:	PLEASE NOTE: Liability and Damages. Cardinal's liability and analyses. All claims including those for negligence and any oth service. In no event shall Cardinal be liable for incidental or co affiliates or successors arising out of or related to the performan DIT or the service of Direct Service of the service of th	2 11		14	13 C	12 0	Co 208 11	Lab I.D.	FOR LAB USE ONLY	Sampler Name:	Project Location:	Project Name:	Project #:	Phone #:	City:	Address:
Observed Temp. Corrected Temp	Time:	clien rer ca risequ	6	85 S-4		BSd	20	5 11	Sample I.D.	1 0	July Ridrig	hiso 3-4		Project Owner	Fax #:	State:	
Cool Intact	Received By: Received By:	's exclusive remedy for any claim arising whether based in contract or lort, shall be limited to the amount paid by the client for the use whatsoever shall be deemed waived unless made in writing and received by Cardinau within 30 days after completion of the a rental damages, including without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, services hereunder by Cardinai, regardless of whether such claim is based upon any of the above stated reasons or otherwise.	e V	27	5 2	8 8	0	- 2	GROUNDWATER WASTEWATER OIL SLUDGE OTHER :	MATRIX	Fa	les P	S		A	Zip: Ai	0
CHECKED BY:	er	rt, shall be limited to the amount , sweet by Cardinal within 30 days a rf use, or loss of profils incurred b sed upon any of the above stated	× 6/7	1/3 N	1/1 ×	Z19 x	x 617	L19 x	ACID/BASE: ICE / COOL OTHER :	PRESERV. SA	Fax #:	Phone #:	State: Zip:	City:	Address:	Attn:	Company: RTA
Turnaround Time: Thermometer ID #113 Correction Factor -0.5°C	All Results are emailed. REMARKS: Michael CAW	nount paid by the client for the days after completion of the applicable urred by client, its subsidiaries, stated reasons or otherwise.	12:58 X X	N N JS CI	12:52 0 X	12:20 x 0	12:47 x d	12:37 0 0	TIME Q TB	SAMPLING							
Standard Bac Rush Bocool	Nerbal Result: Dyes DNo Add'I Phone #: All Results are emailed. Please provide Email address: REMARKS: Michael Clues @alvesci/fie		8.	₩ <sup>2</sup>	22	8	P	٩	ADEX						_		
Bacteria (only) Sample Condition Cool Intact Observed Temp. °C	teal Result: [] Yes [] No [Add'! Phone #: Results are emailed. Please provide Email address: MARKS: Ni Chole Louive S @ a/Ve30:1/F1 e.H. Solutions . and																





## Appendix E

**RxSoil Field Screening Data** 

(	Chiso 14 State	Floor Sample	S
Date	Sample ID	Depth	CL
24-Feb	B1	3FT	884
25-Feb	B1	4FT	144
28-Feb	B1	5FT	>2500
28-Feb	B1	7FT	1256
28-Feb	B1	9FT	356
24-Feb	B2	3FT	ND
28-Feb	B2	4FT	1107
28-Feb	B2	4.5 FT	252
24-Feb	B3	3FT	1090
25-Feb	B3	4FT	>2500
25-Feb	B3	5FT	1440
25-Feb	B3	6FT	ND
28-Feb	B3	18FT	clean
24-Feb	B4	3FT	1176
24-Feb	B4	4FT	1176
24-Feb	B4	5FT	ND
28-Feb	B4	7ft	>2500
24-Feb	B5	3FT	ND
28-Feb	B5	4FT	1256
28-Feb	B5	5FT	204
Ch	iso 14 State Si	de Wall Samp	les
Date	Sample ID	Depth	CL
25-Feb	S1	SW	ND
24-Feb	S2	SW	>2500
25-Feb	S2.2	SW	>2500

.

Received	by OCD: 5/1 Chiso 14 State	1/2023 3: a Floor Sam	45:55 PM	Page 110 of 12
Date	Sample ID	Depth	CL	
24-Fe	b B1	3FT	884	
25-Fe	b B1	4FT	144	BEER ALASTER COLOR TO A TANK AND A COMPANY
28-Fe	b B1	5FT	>2500	Martin Art Mart F. C. Strand Strand Strand Strand
28-Fe	b B1	7FT	1256	A REAL PROPERTY AND A REAL PROPERTY A REAL PROPERTY AND A REAL PROPERTY AND A REAL PRO
28-Fe	b B1	9FT	356	AND A REAL PROPERTY AND A REAL
24-Fe	b B2	3FT	ND	
28-Fe	b B2	4FT	1107	
28-Fe	b B2	4.5 FT	252	
24-Fe	b B3	3FT	1090	
25-Fe	b B3	4FT	>2500	B5 S1
25-Fe	b B3	5FT	1440	
25-Fe	b B3	6FT	ND	AND ADDRESS AND A CONTRACT OF A DESCRIPTION OF A
28-Fe	b B3	18FT	clean	\$5
24-Fe	b B4	3FT	1176	B4 B
24-Fe	b B4	4FT	1176	
24-Fe	b B4	5FT	ND	52
28-Fe	b B4	7ft	>2500	B8
3-Ma	r B4	18ft	364	B3
24-Fe	b B5	3FT	ND	And the second s
28-Fe	b B5	4FT	1256	S4
28-Fe	b B5	5FT	204	B7 B2 S2.2
2-Ma	r B6	3FT	812	
2-Ma	r 87	3FT	1432	
2-Ma	r B8	3FT	>2500	State and The State of the stat
Ch	iso 14 State S	ide Wall Sa	mples	
Date	Sample ID	Depth	CL	S3
25-Fe	b S1	SW	ND	AND A REAL PROPERTY OF A
24-Fe	b S2	SW	>2500	Statistics of the second se
25-Fe	b S2.2	SW	>2500	Google Earth
2-Ma	r 53	SW	>2500	
2-Ma	r S4	SW	>2500	Imagery Date: 11/2/2017 32°23'06.23" N 103°26'09.48" W elev 0 ft eye alt 156 ft 🥥

Received by OCD: 5/11/2023 3:45:55 PM Form C-141 State of New Mexico

Oil Conservation Division

	Page 120 of 12	23
Incident ID	nAPP2205837214	
District RP		
Facility ID	fAPP2129434580	
Application ID		

### Site Assessment/Characterization

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

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

Page 3

eceived by OCD: 5/11/2	2023 3:45:55 PM State of New Mexico		_		Page 121 o
				Incident ID	nAPP2205837214
age 4	Oil Conservation Division	n		District RP	
				Facility ID	fAPP2129434580
				Application ID	
public health or the enviro failed to adequately inves addition, OCD acceptance and/or regulations.	•	the OCD does not threat to groundw of responsibility Title:	relieve the c vater, surface for complia	operator of liability sl e water, human healtl ince with any other for a Manager	hould their operations have h or the environment. In
OCD Only Received by:Joca	elyn Harimon	Dat	te:		

Received by OCD: 5/11/2023 3:45:55 PM Form C-141 State of New Mexico

Oil Conservation Division

Incident ID	nAPP2205837214
District RP	
Facility ID	fAPP2129434580
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

 $\overline{\nabla}$  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.  $\checkmark$  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. Nathan J. Sirgo **Operations Manager** Printed Name: Title: Date: 5/12/2023 Signature: Martm 1. Lin email: nsirgo@btaoil.com 432-682-3753 Telephone: **OCD Only** Jocelyn Harimon 05/12/2023 Received by: Date: Approved Approved with Attached Conditions of Approval Denied Deferral Approved Nelson Velez 06/13/2023 Signature: Date:

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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:	OGRID:
BTA OIL PRODUCERS, LLC	260297
104 S Pecos	Action Number:
Midland, TX 79701	216188
	Action Type:
	[C-141] Release Corrective Action (C-141)

### CONDITIONS

Created By	Condition	Condition Date
nvelez	Site Assessment/Characterization has been reviewed & remediation plan approved as written. Remediation Due Date is set for September 11, 2023.	6/13/2023

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