



303 Veterans Airpark Lane Midland, TX 79705

## **Remediation Plan**

June 14, 2021

Re: CLFCA Trunk Line  
Case nAPP2107730944

### **Background:**

On 3/09/2021 a release occurred due to a 4 inch metal grooved transition developed a pin hole due to external corrosion. The release (GPS: 32.823125, -103.976782) is located north of Loco Hills, New Mexico in unit letter G section 21 township 17S range 30E. On 6/8/2021 a soil bore was conducted 90 feet east of the release. The soil bore was advanced to a depth of 110 feet below ground surface. The bore hole was left open for 72 hours and gauged for the presence of water. The bore hole was dry to a depth of 110 feet.

On 4/29/2021 vertical delineation at SP 1 was conducted utilizing a backhoe to a depth of 10 feet. All samples collected were submitted to a commercial laboratory for analysis of chloride, TPH, and BTEX. On 4/30/2021 horizontal 5 point surface composite samples were collected not to exceed 200 square feet. All samples collected were submitted to a commercial laboratory for analysis of chloride, TPH, and BTEX. On 5/10/2021, 6/1/2021, and 6/8/2021 further delineation was conducted at SP1 utilizing a backhoe, excavator, and soil bore rig. SP 1 was advanced to a depth of 70 feet. All samples collected were submitted to commercial laboratory for analysis of chloride. The release area has been delineated below table one standards for release greater than 100 feet to groundwater.

### **Remediation Plan:**

Apache Corporation proposes that the release area be excavated to a depth of 4 feet below ground surface and install a 20 mil reinforced liner. 5 point wall composite samples will be collected not to exceed 200 square feet. All excavated soil (340 yards) will be hauled to an OCD approval facility. The release area will backfilled with clean imported top soil and seeded in accordance with the surface owner.

Enclosed: C-141, Groundwater Data, Maps, Sample Data, Laboratory Results, Field Notes, Revegetation and Noxious Weed Plan.

Submitted by;

*Bruce Baker*

**Environmental Technician**  
larry.baker@apachecorp.com  
**Cell# 432-631-6982**

Incident ID	
District RP	
Facility ID	
Application ID	

## Site Assessment/Characterization

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

What is the shallowest depth to groundwater beneath the area affected by the release?	<u>&gt;110</u> (ft bgs)
Did this release impact groundwater or surface water?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 300 feet of a continuously flowing watercourse or any other significant watercourse?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 200 feet of any lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark)?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 300 feet of an occupied permanent residence, school, hospital, institution, or church?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 500 horizontal feet of a spring or a private domestic fresh water well used by less than five households for domestic or stock watering purposes?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 1000 feet of any other fresh water well or spring?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within incorporated municipal boundaries or within a defined municipal fresh water well field?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 300 feet of a wetland?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release overlying a subsurface mine?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release overlying an unstable area such as karst geology?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within a 100-year floodplain?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Did the release impact areas <b>not</b> on an exploration, development, production, or storage site?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No

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

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

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

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

State of New Mexico  
Oil Conservation Division

Page 4

Incident ID	
District RP	
Facility ID	
Application ID	

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

Printed Name: Larry Baker Title: Environmental Tech SR.  
Signature: Larry Baker Date: 6/15/2021  
email: larry.baker@apachecorp.com Telephone: 432-631-6982

**OCD Only**

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

Incident ID	
District RP	
Facility ID	
Application ID	

## Remediation Plan

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

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

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

- ☐ Contamination must be in areas immediately under or around production equipment where remediation could cause a major facility deconstruction.
- ☐ Extents of contamination must be fully delineated.
- ☐ Contamination does not cause an imminent risk to human health, the environment, or groundwater.

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

Printed Name: Larry Baker Title: Environmental Tech SR.  
Signature: Larry Baker Date: 6/15/2021  
email: larry.baker@apachecorp.com Telephone: 432-631-6982

**OCD Only**

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

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

Signature: \_\_\_\_\_ Date: \_\_\_\_\_

CLFCA Trunk Line Volume Calculation

542.03 cubic feet of soil contamination x 7.48 gallons per cubic foot = 4,054.40 gallons/42 gallons to a barrel= 96 barrels X .40 soil porosity= 38 released + 45 recovered = 83 barrels.



Please Select a Coordinate System and enter the coordinates:

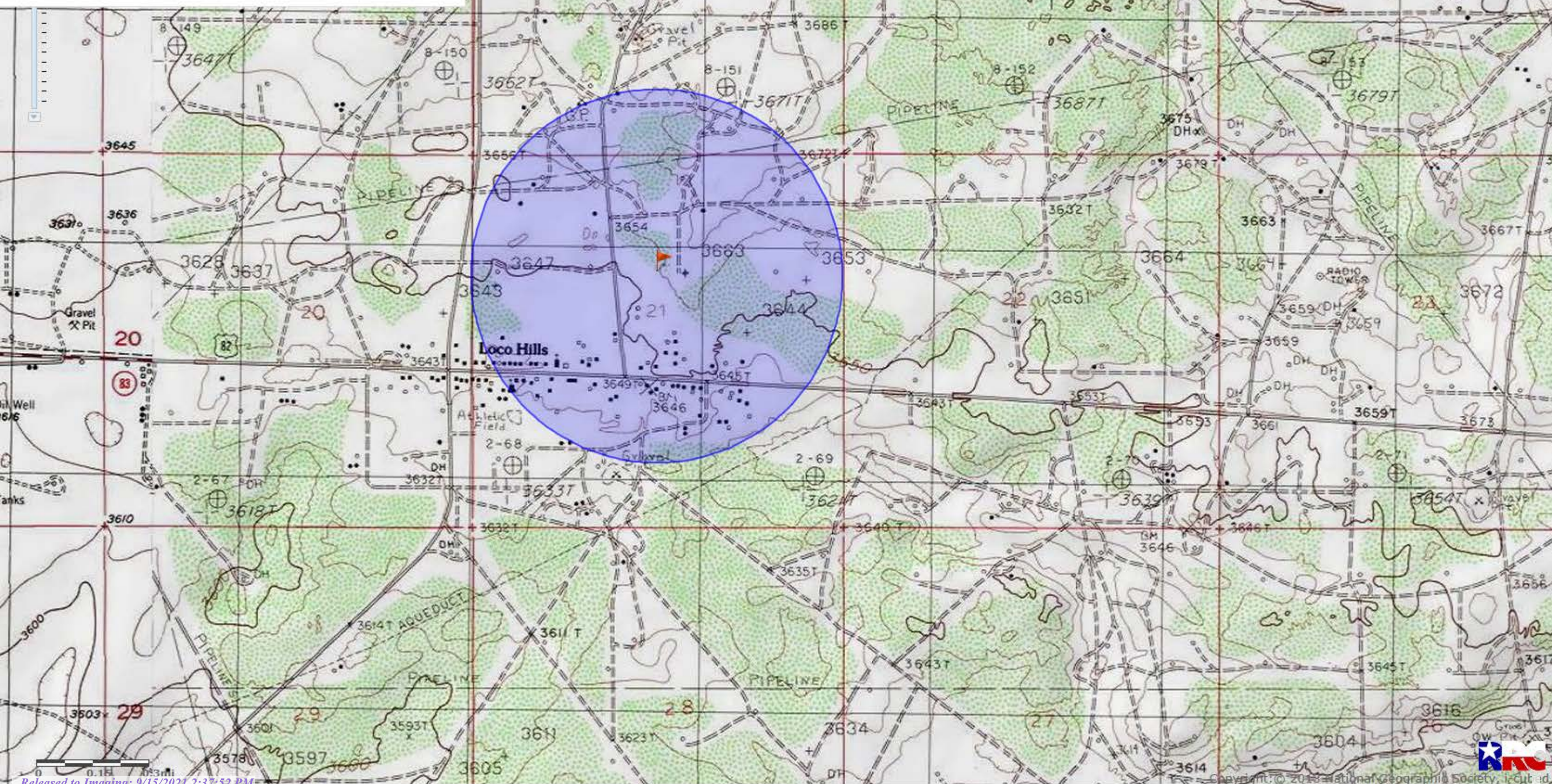
GCS\_WGS\_1984

32.823125 -103.976782 Show

## Radius

Buffer Size (miles) : 0.5

Click Map to Draw Radius





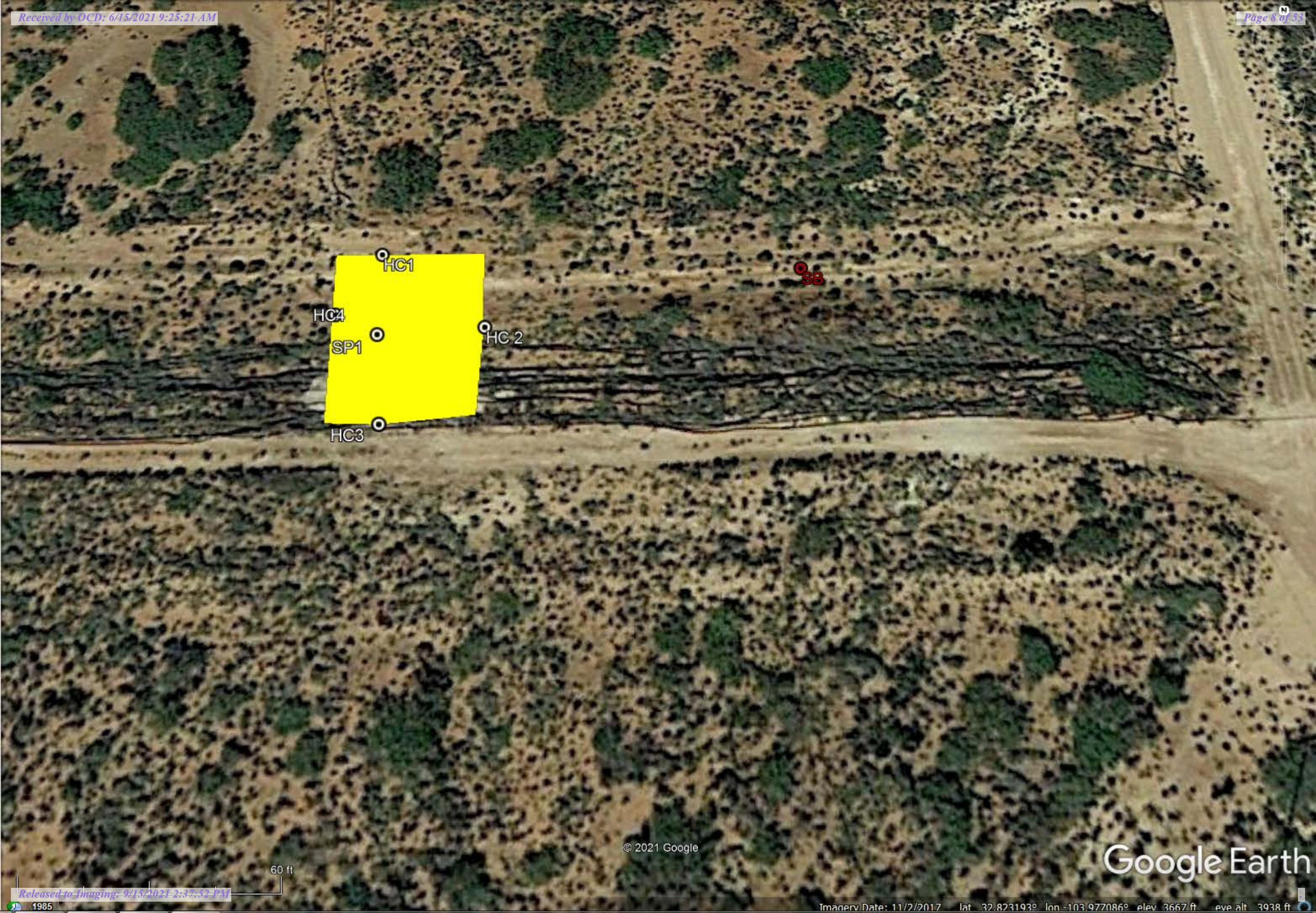
Desert Sand Water Well Services, LLC.

Soil Bore Report

General / Well Info	Customer: Dimondback Disposal/ Apache Corp.		Phone: 575-631-9586	Date: 6/8/21
	Well Name: CLFCA Trunk Line		Location: 32.8231731 -103.9765221	

LOG OF WELL	DEPTH		THICKNESS (feet)	COLOR AND TYPE OF MATERIAL ENCOUNTERED - INCLUDE WATER BEARING CAVITIES OR FRACTURES
	FROM	TO		
	0	2	2	TOP SOIL
	2	20	18	CALECHE / RED SAND
	20	40	20	RED SAND
	40	60	20	RED SAND / RED CALY STRIGERS
	60	80	20	RED CLAY
	80	90	10	RED CLAY / GRAVEL
	90	110	20	RED SAND
				BORE HOLE WAS LEFT OPEN FOR 72 HOUR THEN CHECKED FOR
				WATER. THE BORE HOLE WAS DRY AFTER 72 HOURS. BORE HOLE WAS
				PLUGGED FROM THE BOTTOM OF THE HOLE TO THE TOP WITH
				3/8 HOLE PLUG ON 6/11/21.





HC1

HC4

SP1

HC3

HC 2

SB

© 2021 Google

Google Earth

60 ft



Sample Date	Sample ID	Depth	Field Chloride	Chloride	Benzene	Toulene	Ethybenzene	Total Xylenes	Total BTEX	GRO	DRO	EXT DRO	GPS Coordinates
<b>Delineation Samples</b>													
4/29/2021	SP 1	S		15,600	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	32.8231162, -103.9769067
4/29/2021		2'		27,300	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	
4/29/2021		4'		17,800	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	
4/29/2021		6'		11,600	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	
4/29/2021		8'		11,300	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	
4/29/2021		10'		16,600	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	
5/10/2021		12'		17,600									
5/10/2021		14'		16,200									
5/10/2021		15'		14,000									
6/1/2021		17'		9,360									
6/1/2021		19'		11,800									
6/1/2021		20'		12,000									
6/8/2021		25'		10,600									
6/8/2021		30'		7,330									
6/8/2021		35'		8,200									
6/8/2021		40'		3,280									
6/8/2021		45'		352									
6/8/2021		50'		1,220									
6/8/2021		55'		6,530									
6/8/2021		60'		4,560									
6/8/2021		65'		1,580									
6/8/2021		70'		352									
<b>Horizontal Samples</b>													
4/30/2021	H1	S		<16.0	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	32.8231951, -103.9769100
4/30/2021	H2	S		<16.0	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	32.8231221, -103.9768078
4/30/2021	H3	S		112	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	32.8230323, -103.9768960
4/30/2021	H4	S		16.0	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	32.8231376, -103.9769439





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

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May 04, 2021

JEFFREY BROOM

APACHE CORP - HOBBS

2350 W. MARLAND BLVD.

HOBBS, NM 88240

RE: CLFCA TRUNK LINE

Enclosed are the results of analyses for samples received by the laboratory on 04/29/21 16:43.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-20-13. Accreditation applies to drinking water, non-potable water and solid and chemical materials. All accredited analytes are denoted by an asterisk (\*). For a complete list of accredited analytes and matrices visit the TCEQ website at [www.tceq.texas.gov/field/qa/lab\\_accred\\_certif.html](http://www.tceq.texas.gov/field/qa/lab_accred_certif.html).

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

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

Accreditation applies to public drinking water matrices.

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

Sincerely,

A handwritten signature in black ink that reads "Celey D. Keene". The signature is written in a cursive, flowing style.

Celey D. Keene

Lab Director/Quality Manager





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

**Analytical Results For:**

APACHE CORP - HOBBS  
 JEFFREY BROOM  
 2350 W. MARLAND BLVD.  
 HOBBS NM, 88240  
 Fax To: (575) 393-2432

Received:	04/29/2021	Sampling Date:	04/29/2021
Reported:	05/04/2021	Sampling Type:	Soil
Project Name:	CLFCA TRUNK LINE	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	NOT GIVEN		

**Sample ID: SP 1 @ SURFACE (H211108-01)**

BTEX 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	04/30/2021	ND	2.12	106	2.00	5.85	
Toluene*	<0.050	0.050	04/30/2021	ND	2.06	103	2.00	6.14	
Ethylbenzene*	<0.050	0.050	04/30/2021	ND	2.02	101	2.00	5.47	
Total Xylenes*	<0.150	0.150	04/30/2021	ND	5.97	99.6	6.00	5.09	
Total BTEX	<0.300	0.300	04/30/2021	ND					

Surrogate: 4-Bromofluorobenzene (PID) 96.3 % 69.9-140

Chloride, SM4500Cl-B		mg/kg		Analyzed By: GM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	15600	16.0	05/03/2021	ND	416	104	400	3.77		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	04/30/2021	ND	206	103	200	1.49	
DRO >C10-C28*	<10.0	10.0	04/30/2021	ND	215	107	200	2.78	
EXT DRO >C28-C36	<10.0	10.0	04/30/2021	ND					

Surrogate: 1-Chlorooctane 74.5 % 44.3-133

Surrogate: 1-Chlorooctadecane 72.9 % 38.9-142

Cardinal Laboratories

\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager





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**Analytical Results For:**

APACHE CORP - HOBBS  
 JEFFREY BROOM  
 2350 W. MARLAND BLVD.  
 HOBBS NM, 88240  
 Fax To: (575) 393-2432

Received: 04/29/2021  
 Reported: 05/04/2021  
 Project Name: CLFCA TRUNK LINE  
 Project Number: NONE GIVEN  
 Project Location: NOT GIVEN

Sampling Date: 04/29/2021  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Tamara Oldaker

**Sample ID: SP 1 @ 2' (H211108-02)**

BTEx 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	04/30/2021	ND	2.12	106	2.00	5.85	
Toluene*	<0.050	0.050	04/30/2021	ND	2.06	103	2.00	6.14	
Ethylbenzene*	<0.050	0.050	04/30/2021	ND	2.02	101	2.00	5.47	
Total Xylenes*	<0.150	0.150	04/30/2021	ND	5.97	99.6	6.00	5.09	
Total BTEx	<0.300	0.300	04/30/2021	ND					

Surrogate: 4-Bromofluorobenzene (PID) 96.2 % 69.9-140

Chloride, SM4500CI-B		mg/kg		Analyzed By: GM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	27200	16.0	05/03/2021	ND	416	104	400	3.77		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	04/30/2021	ND	206	103	200	1.49	
DRO >C10-C28*	<10.0	10.0	04/30/2021	ND	215	107	200	2.78	
EXT DRO >C28-C36	<10.0	10.0	04/30/2021	ND					

Surrogate: 1-Chlorooctane 70.2 % 44.3-133

Surrogate: 1-Chlorooctadecane 65.0 % 38.9-142

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\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager





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**Analytical Results For:**

APACHE CORP - HOBBS  
 JEFFREY BROOM  
 2350 W. MARLAND BLVD.  
 HOBBS NM, 88240  
 Fax To: (575) 393-2432

Received: 04/29/2021  
 Reported: 05/04/2021  
 Project Name: CLFCA TRUNK LINE  
 Project Number: NONE GIVEN  
 Project Location: NOT GIVEN

Sampling Date: 04/29/2021  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Tamara Oldaker

**Sample ID: SP 1 @ 4' (H211108-03)**

BTX 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	04/30/2021	ND	2.12	106	2.00	5.85	
Toluene*	<0.050	0.050	04/30/2021	ND	2.06	103	2.00	6.14	
Ethylbenzene*	<0.050	0.050	04/30/2021	ND	2.02	101	2.00	5.47	
Total Xylenes*	<0.150	0.150	04/30/2021	ND	5.97	99.6	6.00	5.09	
Total BTX	<0.300	0.300	04/30/2021	ND					

Surrogate: 4-Bromofluorobenzene (PID) 96.9 % 69.9-140

Chloride, SM4500CI-B		mg/kg		Analyzed By: GM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	17800	16.0	05/03/2021	ND	416	104	400	3.77	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	04/30/2021	ND	206	103	200	1.49	
DRO >C10-C28*	<10.0	10.0	04/30/2021	ND	215	107	200	2.78	
EXT DRO >C28-C36	<10.0	10.0	04/30/2021	ND					

Surrogate: 1-Chlorooctane 75.0 % 44.3-133

Surrogate: 1-Chlorooctadecane 72.2 % 38.9-142

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\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager





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**Analytical Results For:**

APACHE CORP - HOBBS  
 JEFFREY BROOM  
 2350 W. MARLAND BLVD.  
 HOBBS NM, 88240  
 Fax To: (575) 393-2432

Received: 04/29/2021  
 Reported: 05/04/2021  
 Project Name: CLFCA TRUNK LINE  
 Project Number: NONE GIVEN  
 Project Location: NOT GIVEN

Sampling Date: 04/29/2021  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Tamara Oldaker

**Sample ID: SP 1 @ 6' (H211108-04)**

BTX 8021B		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	04/30/2021	ND	2.12	106	2.00	5.85		
Toluene*	<0.050	0.050	04/30/2021	ND	2.06	103	2.00	6.14		
Ethylbenzene*	<0.050	0.050	04/30/2021	ND	2.02	101	2.00	5.47		
Total Xylenes*	<0.150	0.150	04/30/2021	ND	5.97	99.6	6.00	5.09		
Total BTX	<0.300	0.300	04/30/2021	ND						

Surrogate: 4-Bromofluorobenzene (PID) 95.8 % 69.9-140

Chloride, SM4500CI-B		mg/kg		Analyzed By: GM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	11600	16.0	05/03/2021	ND	416	104	400	3.77	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	04/30/2021	ND	206	103	200	1.49	
DRO >C10-C28*	<10.0	10.0	04/30/2021	ND	215	107	200	2.78	
EXT DRO >C28-C36	<10.0	10.0	04/30/2021	ND					

Surrogate: 1-Chlorooctane 75.4 % 44.3-133

Surrogate: 1-Chlorooctadecane 75.7 % 38.9-142

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\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager





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

**Analytical Results For:**

APACHE CORP - HOBBS  
 JEFFREY BROOM  
 2350 W. MARLAND BLVD.  
 HOBBS NM, 88240  
 Fax To: (575) 393-2432

Received: 04/29/2021  
 Reported: 05/04/2021  
 Project Name: CLFCA TRUNK LINE  
 Project Number: NONE GIVEN  
 Project Location: NOT GIVEN

Sampling Date: 04/29/2021  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Tamara Oldaker

**Sample ID: SP 1 @ 8' (H211108-05)**

BTX 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	04/30/2021	ND	2.12	106	2.00	5.85	
Toluene*	<0.050	0.050	04/30/2021	ND	2.06	103	2.00	6.14	
Ethylbenzene*	<0.050	0.050	04/30/2021	ND	2.02	101	2.00	5.47	
Total Xylenes*	<0.150	0.150	04/30/2021	ND	5.97	99.6	6.00	5.09	
Total BTX	<0.300	0.300	04/30/2021	ND					

Surrogate: 4-Bromofluorobenzene (PID) 95.2 % 69.9-140

Chloride, SM4500CI-B		mg/kg		Analyzed By: GM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	11300	16.0	05/03/2021	ND	416	104	400	3.77	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	04/30/2021	ND	206	103	200	1.49	
DRO >C10-C28*	<10.0	10.0	04/30/2021	ND	215	107	200	2.78	
EXT DRO >C28-C36	<10.0	10.0	04/30/2021	ND					

Surrogate: 1-Chlorooctane 71.2 % 44.3-133

Surrogate: 1-Chlorooctadecane 71.7 % 38.9-142

Cardinal Laboratories

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Celey D. Keene, Lab Director/Quality Manager





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

**Analytical Results For:**

APACHE CORP - HOBBS  
 JEFFREY BROOM  
 2350 W. MARLAND BLVD.  
 HOBBS NM, 88240  
 Fax To: (575) 393-2432

Received: 04/29/2021  
 Reported: 05/04/2021  
 Project Name: CLFCA TRUNK LINE  
 Project Number: NONE GIVEN  
 Project Location: NOT GIVEN

Sampling Date: 04/29/2021  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Tamara Oldaker

**Sample ID: SP 1 @ 10' (H211108-06)**

BTX 8021B			mg/kg							
			Analyzed By: MS							
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	04/30/2021	ND	2.12	106	2.00	5.85		
Toluene*	<0.050	0.050	04/30/2021	ND	2.06	103	2.00	6.14		
Ethylbenzene*	<0.050	0.050	04/30/2021	ND	2.02	101	2.00	5.47		
Total Xylenes*	<0.150	0.150	04/30/2021	ND	5.97	99.6	6.00	5.09		
Total BTX	<0.300	0.300	04/30/2021	ND						

Surrogate: 4-Bromofluorobenzene (PID) 94.5 % 69.9-140

Chloride, SM4500CI-B			mg/kg							
			Analyzed By: GM							
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	16600	16.0	05/03/2021	ND	416	104	400	3.77		

TPH 8015M			mg/kg							
			Analyzed By: MS							
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10*	<10.0	10.0	04/30/2021	ND	206	103	200	1.49		
DRO >C10-C28*	<10.0	10.0	04/30/2021	ND	215	107	200	2.78		
EXT DRO >C28-C36	<10.0	10.0	04/30/2021	ND						

Surrogate: 1-Chlorooctane 74.6 % 44.3-133

Surrogate: 1-Chlorooctadecane 74.2 % 38.9-142

Cardinal Laboratories

\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager



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

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### Notes and Definitions

QR-03	The RPD value for the sample duplicate or MS/MSD was outside of QC acceptance limits due to matrix interference. QC batch accepted based on LCS and/or LCSD recovery and/or RPD values.
QM-07	The spike recovery was outside acceptance limits for the MS and/or MSD. The batch was accepted based on acceptable LCS recovery.
ND	Analyte NOT DETECTED at or above the reporting limit
RPD	Relative Percent Difference
**	Samples not received at proper temperature of 6°C or below.
***	Insufficient time to reach temperature.
-	Chloride by SM4500Cl-B does not require samples be received at or below 6°C Samples reported on an as received basis (wet) unless otherwise noted on report

---

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\*=Accredited Analyte

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

---

Celey D. Keene, Lab Director/Quality Manager





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

## CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

[illegible]





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

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May 04, 2021

JEFFREY BROOM

APACHE CORP - HOBBS

2350 W. MARLAND BLVD.

HOBBS, NM 88240

RE: CLFCA TRUNK LINE

Enclosed are the results of analyses for samples received by the laboratory on 04/30/21 10:32.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-20-13. Accreditation applies to drinking water, non-potable water and solid and chemical materials. All accredited analytes are denoted by an asterisk (\*). For a complete list of accredited analytes and matrices visit the TCEQ website at [www.tceq.texas.gov/field/qa/lab\\_accred\\_certif.html](http://www.tceq.texas.gov/field/qa/lab_accred_certif.html).

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

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

Accreditation applies to public drinking water matrices.

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

Sincerely,

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

Celey D. Keene

Lab Director/Quality Manager



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

**Analytical Results For:**

APACHE CORP - HOBBS  
 JEFFREY BROOM  
 2350 W. MARLAND BLVD.  
 HOBBS NM, 88240  
 Fax To: (575) 393-2432

Received:	04/30/2021	Sampling Date:	04/30/2021
Reported:	05/04/2021	Sampling Type:	Soil
Project Name:	CLFCA TRUNK LINE	Sampling Condition:	Cool & Intact
Project Number:	CLFCA TRUNKLINE ( T.L.)	Sample Received By:	Tamara Oldaker
Project Location:	NOT GIVEN		

**Sample ID: H 1 (H211110-01)**

BTX 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	04/30/2021	ND	2.01	101	2.00	3.12	
Toluene*	<0.050	0.050	04/30/2021	ND	2.07	103	2.00	0.209	
Ethylbenzene*	<0.050	0.050	04/30/2021	ND	2.07	103	2.00	1.80	
Total Xylenes*	<0.150	0.150	04/30/2021	ND	5.84	97.4	6.00	0.548	
Total BTX	<0.300	0.300	04/30/2021	ND					

Surrogate: 4-Bromofluorobenzene (PID) 91.5 % 69.9-140

Chloride, SM4500Cl-B		mg/kg		Analyzed By: GM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	<16.0	16.0	05/03/2021	ND	416	104	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	04/30/2021	ND	206	103	200	0.353	
DRO >C10-C28*	<10.0	10.0	04/30/2021	ND	200	100	200	0.983	
EXT DRO >C28-C36	<10.0	10.0	04/30/2021	ND					

Surrogate: 1-Chlorooctane 86.7 % 44.3-133

Surrogate: 1-Chlorooctadecane 80.4 % 38.9-142

Cardinal Laboratories

\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager





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

**Analytical Results For:**

APACHE CORP - HOBBS  
 JEFFREY BROOM  
 2350 W. MARLAND BLVD.  
 HOBBS NM, 88240  
 Fax To: (575) 393-2432

Received:	04/30/2021	Sampling Date:	04/30/2021
Reported:	05/04/2021	Sampling Type:	Soil
Project Name:	CLFCA TRUNK LINE	Sampling Condition:	Cool & Intact
Project Number:	CLFCA TRUNKLINE ( T.L.)	Sample Received By:	Tamara Oldaker
Project Location:	NOT GIVEN		

**Sample ID: H 2 (H211110-02)**

BTEx 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	04/30/2021	ND	2.01	101	2.00	3.12	
Toluene*	<0.050	0.050	04/30/2021	ND	2.07	103	2.00	0.209	
Ethylbenzene*	<0.050	0.050	04/30/2021	ND	2.07	103	2.00	1.80	
Total Xylenes*	<0.150	0.150	04/30/2021	ND	5.84	97.4	6.00	0.548	
Total BTEx	<0.300	0.300	04/30/2021	ND					

Surrogate: 4-Bromofluorobenzene (PID) 93.6 % 69.9-140

Chloride, SM4500Cl-B		mg/kg		Analyzed By: GM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	<16.0	16.0	05/03/2021	ND	416	104	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	04/30/2021	ND	206	103	200	0.353	
DRO >C10-C28*	<10.0	10.0	04/30/2021	ND	200	100	200	0.983	
EXT DRO >C28-C36	<10.0	10.0	04/30/2021	ND					

Surrogate: 1-Chlorooctane 93.2 % 44.3-133

Surrogate: 1-Chlorooctadecane 89.0 % 38.9-142

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\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

APACHE CORP - HOBBS  
 JEFFREY BROOM  
 2350 W. MARLAND BLVD.  
 HOBBS NM, 88240  
 Fax To: (575) 393-2432

Received:	04/30/2021	Sampling Date:	04/30/2021
Reported:	05/04/2021	Sampling Type:	Soil
Project Name:	CLFCA TRUNK LINE	Sampling Condition:	Cool & Intact
Project Number:	CLFCA TRUNKLINE ( T.L.)	Sample Received By:	Tamara Oldaker
Project Location:	NOT GIVEN		

**Sample ID: H 3 (H211110-03)**

BTEx 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	04/30/2021	ND	2.01	101	2.00	3.12	
Toluene*	<0.050	0.050	04/30/2021	ND	2.07	103	2.00	0.209	
Ethylbenzene*	<0.050	0.050	04/30/2021	ND	2.07	103	2.00	1.80	
Total Xylenes*	<0.150	0.150	04/30/2021	ND	5.84	97.4	6.00	0.548	
Total BTEx	<0.300	0.300	04/30/2021	ND					

Surrogate: 4-Bromofluorobenzene (PID) 91.3 % 69.9-140

Chloride, SM4500CI-B		mg/kg		Analyzed By: GM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	112	16.0	05/03/2021	ND	416	104	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	05/03/2021	ND	390	97.5	400	0.442	
DRO >C10-C28*	<10.0	10.0	05/03/2021	ND	344	86.0	400	0.466	
EXT DRO >C28-C36	<10.0	10.0	05/03/2021	ND					

Surrogate: 1-Chlorooctane 63.0 % 44.3-133

Surrogate: 1-Chlorooctadecane 60.9 % 38.9-142

Cardinal Laboratories

\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager





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

**Analytical Results For:**

APACHE CORP - HOBBS  
 JEFFREY BROOM  
 2350 W. MARLAND BLVD.  
 HOBBS NM, 88240  
 Fax To: (575) 393-2432

Received:	04/30/2021	Sampling Date:	04/30/2021
Reported:	05/04/2021	Sampling Type:	Soil
Project Name:	CLFCA TRUNK LINE	Sampling Condition:	Cool & Intact
Project Number:	CLFCA TRUNKLINE ( T.L.)	Sample Received By:	Tamara Oldaker
Project Location:	NOT GIVEN		

**Sample ID: H 4 (H211110-04)**

BTX 8021B		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	04/30/2021	ND	2.01	101	2.00	3.12		
Toluene*	<0.050	0.050	04/30/2021	ND	2.07	103	2.00	0.209		
Ethylbenzene*	<0.050	0.050	04/30/2021	ND	2.07	103	2.00	1.80		
Total Xylenes*	<0.150	0.150	04/30/2021	ND	5.84	97.4	6.00	0.548		
Total BTX	<0.300	0.300	04/30/2021	ND						

Surrogate: 4-Bromofluorobenzene (PID) 89.9 % 69.9-140

Chloride, SM4500CI-B		mg/kg		Analyzed By: GM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	16.0	16.0	05/03/2021	ND	416	104	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	05/03/2021	ND	390	97.5	400	0.442	
DRO >C10-C28*	<10.0	10.0	05/03/2021	ND	344	86.0	400	0.466	
EXT DRO >C28-C36	<10.0	10.0	05/03/2021	ND					

Surrogate: 1-Chlorooctane 69.9 % 44.3-133

Surrogate: 1-Chlorooctadecane 68.6 % 38.9-142

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\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager

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

---

### Notes and Definitions

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

---

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\*=Accredited Analyte

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

---

Celey D. Keene, Lab Director/Quality Manager





## BILL TO

## ANALYSIS REQUEST

+ Cardinal cannot accept verbal changes. Please email changes to [celey.keene@cardinallabsnm.com](mailto:celey.keene@cardinallabsnm.com)



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

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May 12, 2021

JEFFREY BROOM

APACHE CORP - HOBBS

2350 W. MARLAND BLVD.

HOBBS, NM 88240

RE: CLFCA TRUNK LINE

Enclosed are the results of analyses for samples received by the laboratory on 05/10/21 13:30.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-20-13. Accreditation applies to drinking water, non-potable water and solid and chemical materials. All accredited analytes are denoted by an asterisk (\*). For a complete list of accredited analytes and matrices visit the TCEQ website at [www.tceq.texas.gov/field/qa/lab\\_accred\\_certif.html](http://www.tceq.texas.gov/field/qa/lab_accred_certif.html).

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

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

Accreditation applies to public drinking water matrices.

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

Sincerely,

A handwritten signature in black ink that reads "Celey D. Keene". The signature is written in a cursive, flowing style.

Celey D. Keene

Lab Director/Quality Manager





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

**Analytical Results For:**

APACHE CORP - HOBBS  
 JEFFREY BROOM  
 2350 W. MARLAND BLVD.  
 HOBBS NM, 88240  
 Fax To: (575) 393-2432

Received: 05/10/2021  
 Reported: 05/12/2021  
 Project Name: CLFCA TRUNK LINE  
 Project Number: NONE GIVEN  
 Project Location: NOT GIVEN

Sampling Date: 05/10/2021  
 Sampling Type: Soil  
 Sampling Condition: \*\* (See Notes)  
 Sample Received By: Tamara Oldaker

**Sample ID: SP 1 @ 12' (H211194-01)**

Chloride, SM4500Cl-B		mg/kg		Analyzed By: GM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	17600	16.0	05/12/2021	ND	400	100	400	7.69	

**Sample ID: SP 1 @ 14' (H211194-02)**

Chloride, SM4500Cl-B		mg/kg		Analyzed By: GM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	16200	16.0	05/12/2021	ND	400	100	400	7.69	

**Sample ID: SP 1 @ 15' (H211194-03)**

Chloride, SM4500Cl-B		mg/kg		Analyzed By: GM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	14000	16.0	05/12/2021	ND	400	100	400	7.69	

Cardinal Laboratories

\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager



---

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---

### Notes and Definitions

ND	Analyte NOT DETECTED at or above the reporting limit
RPD	Relative Percent Difference
**	Samples not received at proper temperature of 6°C or below.
***	Insufficient time to reach temperature.
-	Chloride by SM4500Cl-B does not require samples be received at or below 6°C Samples reported on an as received basis (wet) unless otherwise noted on report

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

---

Celey D. Keene, Lab Director/Quality Manager





**BILL TO**

[illegible]

Relinquished By:

Relinquished By: Deborah Q

Date:	5/10/2022
Time:	1:30
Date:	
Time:	

Received By: Jamara de la Cruz  
Received By:

Verbal Result: ☐ Yes ☐ No Add'l Phone #:

All Results are emailed. Please provide Email address:

REMARKS:

[illegible]

Delivered By: (Circle One)

Observed Temp. °C 9.4

### Sample Condition

**CHECKED BY:**

**Turnaround Time:**

### Standard

Bacteria (only

Sample Condition

**Sampler - UPS - Bus - Other:**

Corrected Temp. °C

☐ Yes ☒ Yes

4.

Thermometer ID #113

1

☐ Yes ☐ Yes



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

---

June 02, 2021

JEFFREY BROOM

APACHE CORP - HOBBS

2350 W. MARLAND BLVD.

HOBBS, NM 88240

RE: CLFCA FLOW LINE

Enclosed are the results of analyses for samples received by the laboratory on 06/01/21 15:35.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-20-13. Accreditation applies to drinking water, non-potable water and solid and chemical materials. All accredited analytes are denoted by an asterisk (\*). For a complete list of accredited analytes and matrices visit the TCEQ website at [www.tceq.texas.gov/field/qa/lab\\_accred\\_certif.html](http://www.tceq.texas.gov/field/qa/lab_accred_certif.html).

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

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

Accreditation applies to public drinking water matrices.

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

Sincerely,

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

Celey D. Keene

Lab Director/Quality Manager





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

**Analytical Results For:**

APACHE CORP - HOBBS  
 JEFFREY BROOM  
 2350 W. MARLAND BLVD.  
 HOBBS NM, 88240  
 Fax To: (575) 393-2432

Received:	06/01/2021	Sampling Date:	06/01/2021
Reported:	06/02/2021	Sampling Type:	Soil
Project Name:	CLFCA FLOW LINE	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	NOT GIVEN		

**Sample ID: SP 1 @ 17' (H211387-01)**

Chloride, SM4500Cl-B		mg/kg		Analyzed By: GM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	9360	16.0	06/02/2021	ND	416	104	400	3.92	

**Sample ID: SP 1 @ 19' (H211387-02)**

Chloride, SM4500Cl-B		mg/kg		Analyzed By: GM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	11800	16.0	06/02/2021	ND	416	104	400	3.92	

**Sample ID: SP 1 @ 20' (H211387-03)**

Chloride, SM4500Cl-B		mg/kg		Analyzed By: GM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	12000	16.0	06/02/2021	ND	416	104	400	3.77	QM-07

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Celey D. Keene, Lab Director/Quality Manager

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---

### Notes and Definitions

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

---

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

---

Celey D. Keene, Lab Director/Quality Manager





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

### CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

[illegible]



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

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June 10, 2021

JEFFREY BROOM

APACHE CORP - HOBBS

2350 W. MARLAND BLVD.

HOBBS, NM 88240

RE: CLFCA

Enclosed are the results of analyses for samples received by the laboratory on 06/08/21 16:30.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-20-13. Accreditation applies to drinking water, non-potable water and solid and chemical materials. All accredited analytes are denoted by an asterisk (\*). For a complete list of accredited analytes and matrices visit the TCEQ website at

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

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

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

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

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

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

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

Sincerely,

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

Celey D. Keene

Lab Director/Quality Manager





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

**Analytical Results For:**

APACHE CORP - HOBBS  
2350 W. MARLAND BLVD.  
HOBBS NM, 88240

Project: CLFCA  
Project Number: NONE GIVEN  
Project Manager: JEFFREY BROOM  
Fax To: (575) 393-2432

Reported:  
10-Jun-21 09:56

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
SP 1 @ 25'	H211482-01	Soil	08-Jun-21 12:04	08-Jun-21 16:30
SP 1 @ 30'	H211482-02	Soil	08-Jun-21 12:06	08-Jun-21 16:30
SP 1 @ 35'	H211482-03	Soil	08-Jun-21 12:08	08-Jun-21 16:30
SP 1 @ 40'	H211482-04	Soil	08-Jun-21 12:10	08-Jun-21 16:30
SP 1 @ 45'	H211482-05	Soil	08-Jun-21 12:12	08-Jun-21 16:30
SP 1 @ 50'	H211482-06	Soil	08-Jun-21 12:14	08-Jun-21 16:30
SP 1 @ 55'	H211482-07	Soil	08-Jun-21 12:16	08-Jun-21 16:30
SP 1 @ 60'	H211482-08	Soil	08-Jun-21 12:18	08-Jun-21 16:30
SP 1 @ 65'	H211482-09	Soil	08-Jun-21 12:20	08-Jun-21 16:30
SP 1 @ 70'	H211482-10	Soil	08-Jun-21 12:22	08-Jun-21 16:30

06/10/21 - Client changed the project name. This is the revised report and will replace the one sent on 06/09/21.

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**Analytical Results For:**

APACHE CORP - HOBBS  
2350 W. MARLAND BLVD.  
HOBBS NM, 88240

Project: CLFCA  
Project Number: NONE GIVEN  
Project Manager: JEFFREY BROOM  
Fax To: (575) 393-2432

Reported:  
10-Jun-21 09:56

**SP 1 @ 25'**  
**H211482-01 (Soil)**

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

<b>Chloride</b>	<b>10600</b>		16.0	mg/kg	4	1060906	GM	09-Jun-21	4500-Cl-B	
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**Analytical Results For:**APACHE CORP - HOBBS  
2350 W. MARLAND BLVD.  
HOBBS NM, 88240Project: CLFCA  
Project Number: NONE GIVEN  
Project Manager: JEFFREY BROOM  
Fax To: (575) 393-2432Reported:  
10-Jun-21 09:56**SP 1 @ 30'**  
**H211482-02 (Soil)**

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

Chloride	7330		16.0	mg/kg	4	1060906	GM	09-Jun-21	4500-Cl-B	
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PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

**Analytical Results For:**

APACHE CORP - HOBBS  
2350 W. MARLAND BLVD.  
HOBBS NM, 88240

Project: CLFCA  
Project Number: NONE GIVEN  
Project Manager: JEFFREY BROOM  
Fax To: (575) 393-2432

Reported:  
10-Jun-21 09:56

**SP 1 @ 35'**  
**H211482-03 (Soil)**

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

<b>Chloride</b>	<b>8200</b>		16.0	mg/kg	4	1060906	GM	09-Jun-21	4500-Cl-B	
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**Analytical Results For:**

APACHE CORP - HOBBS  
2350 W. MARLAND BLVD.  
HOBBS NM, 88240

Project: CLFCA  
Project Number: NONE GIVEN  
Project Manager: JEFFREY BROOM  
Fax To: (575) 393-2432

Reported:  
10-Jun-21 09:56

**SP 1 @ 40'**  
**H211482-04 (Soil)**

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

<b>Chloride</b>	<b>3280</b>		16.0	mg/kg	4	1060906	GM	09-Jun-21	4500-Cl-B	
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**Analytical Results For:**

APACHE CORP - HOBBS  
2350 W. MARLAND BLVD.  
HOBBS NM, 88240

Project: CLFCA  
Project Number: NONE GIVEN  
Project Manager: JEFFREY BROOM  
Fax To: (575) 393-2432

Reported:  
10-Jun-21 09:56

**SP 1 @ 45'**  
**H211482-05 (Soil)**

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

<b>Chloride</b>	<b>352</b>		16.0	mg/kg	4	1060906	GM	09-Jun-21	4500-Cl-B	
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**Analytical Results For:**

APACHE CORP - HOBBS  
2350 W. MARLAND BLVD.  
HOBBS NM, 88240

Project: CLFCA  
Project Number: NONE GIVEN  
Project Manager: JEFFREY BROOM  
Fax To: (575) 393-2432

Reported:  
10-Jun-21 09:56

**SP 1 @ 50'**  
**H211482-06 (Soil)**

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

<b>Chloride</b>	<b>1220</b>		16.0	mg/kg	4	1060906	GM	09-Jun-21	4500-Cl-B	
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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

APACHE CORP - HOBBS  
2350 W. MARLAND BLVD.  
HOBBS NM, 88240

Project: CLFCA  
Project Number: NONE GIVEN  
Project Manager: JEFFREY BROOM  
Fax To: (575) 393-2432

Reported:  
10-Jun-21 09:56

**SP 1 @ 55'**  
**H211482-07 (Soil)**

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

<b>Chloride</b>	<b>6530</b>		16.0	mg/kg	4	1060907	GM	09-Jun-21	4500-Cl-B	QM-07
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Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

APACHE CORP - HOBBS  
2350 W. MARLAND BLVD.  
HOBBS NM, 88240

Project: CLFCA  
Project Number: NONE GIVEN  
Project Manager: JEFFREY BROOM  
Fax To: (575) 393-2432

Reported:  
10-Jun-21 09:56

**SP 1 @ 60'**  
**H211482-08 (Soil)**

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

<b>Chloride</b>	<b>4560</b>		16.0	mg/kg	4	1060907	GM	09-Jun-21	4500-Cl-B	
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Celey D. Keene, Lab Director/Quality Manager





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

**Analytical Results For:**

APACHE CORP - HOBBS  
2350 W. MARLAND BLVD.  
HOBBS NM, 88240

Project: CLFCA  
Project Number: NONE GIVEN  
Project Manager: JEFFREY BROOM  
Fax To: (575) 393-2432

Reported:  
10-Jun-21 09:56

**SP 1 @ 65'**  
**H211482-09 (Soil)**

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

<b>Chloride</b>	<b>1580</b>		16.0	mg/kg	4	1060907	GM	09-Jun-21	4500-Cl-B	
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Cardinal Laboratories

\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

APACHE CORP - HOBBS  
2350 W. MARLAND BLVD.  
HOBBS NM, 88240

Project: CLFCA  
Project Number: NONE GIVEN  
Project Manager: JEFFREY BROOM  
Fax To: (575) 393-2432

Reported:  
10-Jun-21 09:56

**SP 1 @ 70'**  
**H211482-10 (Soil)**

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

<b>Chloride</b>	<b>352</b>		16.0	mg/kg	4	1060907	GM	09-Jun-21	4500-Cl-B	
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**Analytical Results For:**

APACHE CORP - HOBBS  
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Project: CLFCA  
Project Number: NONE GIVEN  
Project Manager: JEFFREY BROOM  
Fax To: (575) 393-2432

Reported:  
10-Jun-21 09:56

**Inorganic Compounds - Quality Control****Cardinal Laboratories**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch 1060906 - 1:4 DI Water</b>										
<b>Blank (1060906-BLK1)</b>				Prepared & Analyzed: 09-Jun-21						
Chloride	ND	16.0	mg/kg							
<b>LCS (1060906-BS1)</b>				Prepared & Analyzed: 09-Jun-21						
Chloride	400	16.0	mg/kg	400		100	80-120			
<b>LCS Dup (1060906-BSD1)</b>				Prepared & Analyzed: 09-Jun-21						
Chloride	416	16.0	mg/kg	400		104	80-120	3.92	20	
<b>Batch 1060907 - 1:4 DI Water</b>										
<b>Blank (1060907-BLK1)</b>				Prepared & Analyzed: 09-Jun-21						
Chloride	ND	16.0	mg/kg							
<b>LCS (1060907-BS1)</b>				Prepared & Analyzed: 09-Jun-21						
Chloride	416	16.0	mg/kg	400		104	80-120			
<b>LCS Dup (1060907-BSD1)</b>				Prepared & Analyzed: 09-Jun-21						
Chloride	416	16.0	mg/kg	400		104	80-120	0.00	20	

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Celey D. Keene, Lab Director/Quality Manager





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### Notes and Definitions

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

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Cardinal Laboratories

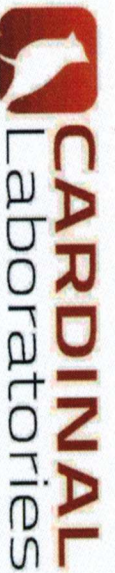
\*=Accredited Analyte

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

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Celey D. Keene, Lab Director/Quality Manager



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

# CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

Company Name: <u>Aspen</u>		P.O. #:		BILL TO				ANALYSIS REQUEST												
Project Manager: <u>Jeff Brown</u>		Company:																		
Address:		Attn:																		
City: <u>Hobbs</u>		Address:																		
State: <u>NM</u> Zip: <u>88240</u>		City:																		
Phone #:		State:																		
Project #:		Zip:																		
Project Name:		Phone #:																		
Project Location: <u>CEFC</u>		Fax #:																		
Sampler Name: <u>Jeff Brown</u>		PRESERV:																		
FOR LAB USE ONLY		SAMPLING																		
Lab I.D.	Sample I.D.	(G)RAB OR (C)OMP	# CONTAINERS	GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER:	ACID/BASE:	CE/COOL	OTHER:	DATE	TIME						
<u>H21 H82</u>	<u>SP1 @ 25'</u>	<u>6</u>	<u>1</u>							<u>CE/COOL</u>			<u>4/8</u>	<u>12:04</u>	<u>X</u>					
	<u>SP1 @ 30'</u>													<u>12:06</u>	<u>X</u>					
	<u>SP1 @ 35'</u>													<u>12:08</u>	<u>X</u>					
	<u>SP1 @ 40'</u>													<u>12:10</u>	<u>X</u>					
	<u>SP1 @ 45'</u>													<u>12:12</u>	<u>X</u>					
	<u>SP1 @ 50'</u>													<u>12:14</u>	<u>X</u>					
	<u>SP1 @ 55'</u>													<u>12:16</u>	<u>X</u>					
	<u>SP1 @ 60'</u>													<u>12:18</u>	<u>X</u>					
	<u>SP1 @ 65'</u>													<u>12:20</u>	<u>X</u>					
	<u>SP1 @ 70'</u>													<u>12:22</u>	<u>X</u>					

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Relinquished By: Jeff Brown Date: 6/8/21 Received By: Jeff Brown Date: 6/8/21

Relinquished By: Jeff Brown Date: 6/8/21 Received By: Jeff Brown Date: 6/8/21

Delivered By: (Circle One) Observed Temp. °C 1.4 Sample Condition Cool Intact ☒ Yes ☐ No CHECKED BY: (Initials) JE

Sampler - UPS - Bus - Other: Corrected Temp. °C 7.0

Turnaround Time: Standard ☒ Rush ☐ Bacteria (only) Sample Condition Cool Intact ☒ Yes ☐ No Corrected Temp. °C

Thermometer ID #113 Correction Factor None

REMARKS: Trace B diff  
\*flashed up per JLB on 6/8/21

Verbal Result: ☐ Yes ☐ No Add'l Phone #:

All Results are emailed. Please provide Email address:

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



Apache ELFCA June 8 2021 Soil Bore

SP1 @25'	2.63	2.67 = 7,019	Samel
11.2/30.0			
SP1 @30'	2.50	2.69 = 6,722	Samel
11.2/30.2			
SP1 @35'	2.11	2.74 = 5,779	wet sand
11.0/30.2			
SP1 @40'	1.18	2.72 = 3,208	wet sand
11.1/30.2			
SP1 @45'	0.81	2.72 = 2,202	wet sand
11.1/30.2			
SP1 @50'	0.70	2.72 = 1,903	wet sand
11.1/30.3			
SP1 @55'	1.05	2.72 = 2,855	wet sand
11.0/30.0			
SP1 @60'	0.42	2.70 = 13,33	wet sand
11.1/30.0			
SP1 @65'	0.25	2.74 = 684	wet sand
11.0/30.2			
SP1 @70'	.11	2.68 = 294	Dry sand
11.3/30.3			

SP2 @surface	82.8231731	-103.9765221
11.0/30.0	.03	2.72 = 81
SP2 @5'		
11.1/30.2	.03	2.72 = 81
SP2 @10'		
11.0/30.0	.03	2.72 = 81





**CLFCA Trunk-Line  
nAPP2107730944  
Revegetation  
And  
Noxious Weed Plan**



**Revegetation Plan:**

All the disturbed area in the pasture will be properly prepared and reseeded with BLM # 2. The disturbed area will be monitored to ensure successful revegetation is achieved. If revegetation is not successful after a couple of growing seasons the site will be reseeded.

**Noxious Weed Plan:**

Apache Corporation will treat noxious weeds if they become established within the area of remediation. Weed control will be maintained on the disturbed land where noxious weeds exist both prior to remediation and restoration. Apache Corporation will consult with the Authorized Officer for acceptable weed control methods.

Incident ID	NAPP2107730944
District RP	
Facility ID	
Application ID	

## Remediation Plan

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

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

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

- ☐ Contamination must be in areas immediately under or around production equipment where remediation could cause a major facility deconstruction.
- ☐ Extents of contamination must be fully delineated.
- ☐ Contamination does not cause an imminent risk to human health, the environment, or groundwater.

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

Printed Name: Larry Baker Title: Environmental Tech SR.  
Signature: Larry Baker Date: 6/15/2021  
email: larry.baker@apachecorp.com Telephone: 432-631-6982

**OCD Only**

Received by: Robert Hamlet Date: 9/15/2021

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

Signature: Robert Hamlet Date: 9/15/2021

**District I**

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

**District II**

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

**District III**

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

**District IV**

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

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

CONDITIONS

Action 32010

**CONDITIONS**

Operator: APACHE CORPORATION 303 Veterans Airpark Ln Midland, TX 79705	OGRID: 873
	Action Number: 32010
	Action Type: [C-141] Release Corrective Action (C-141)

**CONDITIONS**

Created By	Condition	Condition Date
rhamlet	The Remediation Plan is Conditionally Approved. Closure confirmation samples should be conducted every 200 ft2. All contaminated soil must be reclaimed and removed down to 4 feet below surface or until it meets strictest closure criteria. In the pasture area, 4 feet below the ground surface, soil contamination limits revert back to Table 1 standards for proven depth to water determination. Please make sure all sidewall samples are delineated to 600 mg/kg for chlorides to define the edge of the release. All floor samples at 4 feet need to be equal to or less than 20,000 mg/kg for chlorides. After soil sample contaminant levels are confirmed, install liner and backfill with clean material. OCD appreciates the borehole being drilled to 110' to evaluate groundwater depth. Please, include borehole data in closure report.	9/15/2021