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DAVID FEATHER
ENVIRONMENTAL SUPERVISOR
DIRECT: (432) R18-1615
L-MAIL: DAVID.FEATHER ← APACHECORP.COM

September 30, 2019

Mr. Bradford Billings State of New Mexico Oil Conservation Division 1220 South St Francis Drive Santa Fe, NM 87505

RE: 1 RP-3381 WBDU 211

Mr. Billings,

In compliance with 19.15.29.15(B) NMAC and the agreement submitted by Apache Corporation on November 8, 2018, Apache Corporation is submitting information related to closure for the release occurring September 2, 2014. Apache is respectfully submitting the closure report based on studies occurring in 2019 that demonstrate the site meeting the requirements of the agency. Unless further information is requested by NMOCD, Apache Corporation considers this release closed.

If there are any questions, please feel free to contact me by telephone at 432-818-1615 or by e-mail at David.Feather@ApacheCorp.com.

Sincerely,

David Feather

Environmental Supervisor

Apache Corporation - Permian Basin Region

Attachment: Closure Report Dated August 30, 2019

1RP-3381 CLOSURE REPORT WBDU 211

Brine Water Release Lea County, New Mexico

Latitude: N 32.49923° Longitude: W 103.16370°

LAI Project No. 19-0112-50

August 30, 2019

Prepared for: Apache Corporation 2350 W. Marland Blvd Hobbs, New Mexico 88240

Prepared by: Larson & Associates, Inc. 507 North Marienfeld Street, Suite 205 Midland, Texas 79701

Mark J. Larson, P.G. Certified Professional Geologist #10490 Rachel E. Owen Sr. Geoscientist Released to Imaging: 7/1/2021 2:32:33 PM

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Appendix B	Laboratory Reports
Appendix C	Photographs

1RP-3381 Closure Report WBDU 211 August 30, 2019

1.0 INTRODUCTION

Larson & Associates, Inc. (LAI) has prepared this closure report on behalf of Apache Corporation (Apache) for submittal to the New Mexico Oil Conservation (OCD) District I for a produced water release at the West Blinebry Drinkard Unit (WBDU) No. 211 located in Unit A (NE/4, NE/4), Section 9, Township 21 South, Range 37 East in Lea County, New Mexico. The geodetic position is North 32.49923° and West -103.16370°. Figure 1 presents a topographic map. Figure 2 presents an aerial map.

1.1 Background

The release occurred on September 2, 2014, when a hydraulic fracturing tank overflowed with brine water. Approximately 25 barrels (bbls) of brine water were released and an unknown volume of fluid was recovered. The fluid was contained to the well pad. The saturated soil was hand dug and disposed of at a NMOCD approved facility. The initial C-141 was submitted on October 14, 2014 and assigned a remediation permit number of 1RP-3381.

1.2 Physical Setting

The physical setting is as follows:

- The surface elevation is approximately 3,478 feet above mean sea level (msl);
- The topography slopes gently towards the southeast;
- There are no surface water features within 1,000 feet of the Site;
- The soils are designated as "Berino-Cacique loamy find sands association, 0 to 3 percent slopes", consisting of 0 to 6 inches of loamy find sand underlain by 6 to 60 inches of sandy clay loam;
- The surface geology consists of Eolian and piedmont deposits (Holocene to middle Pleistocene) interlayed eolian sands and piedmont-slope deposits;
- Groundwater occurs in the Ogallala formation at 75 feet below ground surface (bgs) based on the New Mexico Office of the State Engineer (NMOSE) website;
- According to the New Mexico Office of the State Engineer (OSE) website the nearest groundwater well is located in Unit L, Section 3, Township 21 South, Range 37 East, approximately 0.75 miles or about 3,966 feet south of the Site.

1.3 Remediation Levels

The following remediation standards are based on closure criteria for soils impacted by a release as presented in Table 1 of 19.15.29 NMAC:

•	Benzene	10 mg/Kg
•	BTEX	50 mg/Kg
•	TPH	2,500 mg/Kg
•	Chloride	10,000 mg/Kg

Further, 19.15.29.13 NMAC (Restoration, Reclamation and Re-Vegetation) requires the operator to restore the impacted surface area that existed prior to the release or their final land use.

2.0 DELINEATION

On August 5, 2019, Apache personnel used a shovel to collect soil samples at surface and 1 foot below ground surface (bgs). Ten sample locations were evenly spaced within the spill area and labelled SP1

1RP-3381 Closure Report WBDU 211 August 30, 2019

through SP10. Samples were delivered to Cardinal Laboratories in Hobbs, New Mexico, and analyzed for benzene, toluene, ethylbenzene and xylenes (BTEX) by EPA SW-846 Method 8021B, total petroleum hydrocarbons (TPH), including gasoline range organics (C6-C12), diesel range organics (>C12-C28) and oil range organics (>C28-C35) by EPA SW-846 Method 8015M, and chloride by titration method SM4500CL-B. The laboratory reported BTEX, TPH, and chloride below the remediation action levels of 50 mg/Kg, 2,500 mg/Kg, and 10,000 mg/Kg, respectively. Figure 2 presents the soil sampling locations. Appendix B presents the laboratory report. Appendix C presents the site photographs.

3.0 CLOSURE

Confirmation soil sample concentrations are all below remediation action levels for BTEX, TPH, and chloride therefore, Apache respectfully requests closure for 1RP-3381.

Tables

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Table 1
Delineation Soil Sample Analytical Data Summary
Apache Corporation, WBDU 211
Lea County, New Mexico
32.49923 North -103.16370 West

Page 1 of 2

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				32.733	25 NOTUL -10:	,, u eee				,
Sample	Depth (Feet)	Collection Date	Status	Benzene (mg/Kg	BTEX (mg/Kg)	C6 - C12 (mg/Kg)	C12 - C28 (mg/Kg)	C28 - C35 (mg/Kg)	TPH (mg/Kg)	Chloride (mg/Kg)
emediation	Level:	0 -		10	50				2,500	10,000
SP-1	0	8/5/2019	In-Situ	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	16
	1	8/5/2019	In-Situ	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<16.0
SP-2	0	8/5/2019	In-Situ	<0.050	<0.30	<10.0	<10.0	<10.0	<10.0	<16.0
	1	8/5/2019	In-Situ	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	176
SP-3	0	8/5/2019	In-Situ	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	32
	1	8/5/2019	In-Situ	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	32
SP-4	0	8/5/2019	In-Situ	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	64
	1	8/5/2019	In-Situ	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	80
SP-5	0	8/5/2019	In-Situ	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	16
	1	8/5/2019	In-Situ	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	16
SP-6	0	8/5/2019	In-Situ	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	48
	1	8/5/2019	In-Situ	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	32
SP-7	0	8/5/2019	In-Situ	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	1,010
	1	8/5/2019	In-Situ	<0.050	<0.300	<10.0	68.3	11.5	79.8	304
SP-8	0	8/5/2019	In-Situ	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	16
	1	8/5/2019	In-Situ	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	32
SP-9	0	8/5/2019	In-Situ	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	80

Table 1 **Delineation Soil Sample Analytical Data Summary** Apache Corporation, WBDU 211 Lea County, New Mexico 32.49923 North -103.16370 West

Page 2 of 2

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Sample	Depth (Feet)	Collection Date	Status	Benzene (mg/Kg	BTEX (mg/Kg)	C6 - C12 (mg/Kg)	C12 - C28 (mg/Kg)	C28 - C35 (mg/Kg)	TPH (mg/Kg)	Chloride (mg/Kg)
Remediation	Level:			10	50				2,500	10,000
	1	8/5/2019	In-Situ	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	32
SP-10	0	8/5/2019 8/5/2019	In-Situ In-Situ	<0.050 <0.050	<0.300 <0.300	<10.0 <10.0	<10.0 <10.0	<10.0 <10.0	<10.0 <10.0	32 32

Notes analysis performed by Cardinal Laboratories, Hobbs, New Mexico by EPA SW-846 Methods 8021B (BTEX), 8015M (TPH), and SM4500CL-B (chloride)

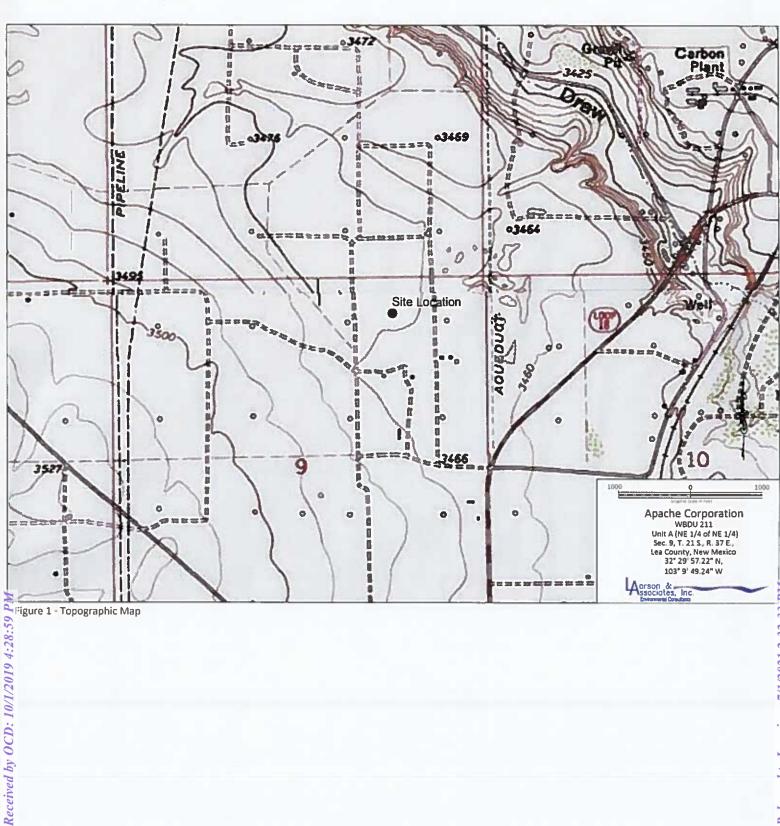
Depth in feet below ground surface (bgs)

mg/Kg: milligrams per kilogram equivalent to parts per million (ppm)

< denotes concentration less than analytical method reporting limit

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Figures





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Appendix A

Initial C-141

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District I 1625 N. French Dr., Hobbs, NM 88240 District II 811 S. First St., Artesla, NM 88210 District III 1000 Rlo Brazos Road, Azice, NM 87410 District IV

State of New Mexico **Energy Minerals and Natural Resources**

> Oil Conservation Division 1220 South St. Francis Dr.

Form C-141 Revised August 8, 2011

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Submit I Copy to appropriate District Office in accordance with 19,15.29 NMAC.

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Surface Ov	ner Milla	rd Deck Esta	ites	Mineral C	wner				APINO	o. 30-025-4	1875	
				LOCA	ATIO	N OF RE	LEASE					
Jnit Letter A	Section 9	Township 21S	Range 37E	Feet from the 510'	North FNL	South Line	Feet from the 1310'	East/\ FEL	Vest Line	County Lea	-	
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Appendix B Laboratory Reports



August 08, 2019

BRUCE BAKER

APACHE CORP - HOBBS

2350 W. MARLAND BLVD.

HOBBS, NM 88240

RE: WBDU #211

Enclosed are the results of analyses for samples received by the laboratory on 08/05/19 14:27.

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

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

Method EPA 552.2

Haloacetic Acids (HAA-5)

Method EPA 524.2

Total Trihalomethanes (TTHM)

Method EPA 524.4

Regulated VOCs (V1, V2, V3)

Accreditation applies to public drinking water matrices.

Whe Sough

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,

Received by OCD: 10/1/2019 4:28:59 PM

Mike Snyder For Celey D. Keene

Lab Director/Quality Manager

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

Analytical Results For:

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

Received: Reported: 08/05/2019

Project Name:

08/08/2019 WBDU #211 NONE GIVEN

Project Number: Project Location:

LEA COUNTY, NM

Sampling Date:

Sampling Type:

Sampling Condition: Sample Received By: 08/05/2019

Soil

Cool & Intact Tamara Oldaker

Sample ID: SP 1 SURFACE (H902674-01)

BTEX 80218	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	08/07/2019	ND	1.95	97.3	2.00	4.45	
Toluene*	<0.050	0.050	08/07/2019	ND	1.95	97.5	2.00	2.91	
Ethylbenzene*	<0.050	0.050	08/07/2019	ND	2.07	104	2.00	7.85	
Total Xylenes*	<0.150	0.150	08/07/2019	ND	6.43	107	6.00	8.88	
Total BTEX	<0.300	0.300	08/07/2019	ND					
Surrogate: 4-Bromofluorobenzene (PIL	105	% 73 3-12	9						
Chloride, SM4500CI-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	08/08/2019	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	08/06/2019	ND	210	105	200	0.746	
DRO >C10-C28*	<10.0	10.0	08/06/2019	ND	202	101	200	1.51	
EXT DRO >C28-C36	<10.0	10.0	08/06/2019	ND					
Surrogate: 1-Chlorooctane	93.5	% 41-142		***					
Surrogate: 1-Chlorooctadecane	95.6	% 37.6-14	7						

Cardinal Laboratories

*=Accredited Analyte

PLEASE NOTE: Liability and Damages.

mule Sughe



Analytical Results For:

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

Received: Reported:

Project Name:

08/05/2019 08/08/2019 WBDU #211

Project Number: Project Location: NONE GIVEN LEA COUNTY, NM Sampling Date:

Sampling Type:

Sampling Condition: Sample Received By: 08/05/2019

Soil

Cool & Intact Tamara Oldaker

Sample ID: SP 2 SURFACE (H902674-02)

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	08/07/2019	ND	1.95	97.3	2.00	4.45	
Toluene*	<0.050	0.050	08/07/2019	ND	1.95	97.5	2.00	2.91	
Ethylbenzene*	<0.050	0.050	08/07/2019	ND	2.07	104	2.00	7.85	
Total Xylenes*	< 0.150	0.150	08/07/2019	ND	6.43	107	6.00	8.88	
Total BTEX	<0.300	0.300	08/07/2019	ND					
Surrogate: 4-Bromofluorobenzene (PIL	111 9	6 73.3-12	9						
Chloride, SM4500CI-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	08/08/2019	ND	416	104	400	0.00	
TPH 8015M	mg/	kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	B5	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	08/06/2019	ND	210	105	200	0.746	
DRO >C10-C28*	<10.0	10.0	08/06/2019	ND	202	101	200	1.51	
EXT DRO >C28-C36	<10.0	10.0	08/06/2019	ND					
Surrogate: 1-Chlorooctane	93.7 9	% 41-142		21/85	97771				
Surrogate: 1-Chlorooctadecane	95.8 9	6 37.6-14	7						

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Analytical Results For:

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

Received: Reported: 08/05/2019 08/08/2019

Project Name: Project Number: Project Location: WBDU #211 NONE GIVEN LEA COUNTY, NM Sampling Date:

Sampling Type:

Sampling Condition: Sample Received By: 08/05/2019 Soil

Cool & Intact Tamara Oldaker

Sample ID: SP 3 SURFACE (H902674-03)

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	08/07/2019	ND	1.95	97.3	2.00	4.45	
Toluene*	<0.050	0.050	08/07/2019	ND	1.95	97.5	2.00	2.91	
Ethylbenzene*	<0.050	0.050	08/07/2019	ND	2.07	104	2.00	7.85	
Total Xylenes*	< 0.150	0.150	08/07/2019	ND	6.43	107	6.00	8.88	
Total BTEX	<0.300	0.300	08/07/2019	ND					
Surrogate: 4-Bromofluorobenzene (PIE	1049	6 73.3-12	9						
Chloride, SM4500CI-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	08/08/2019	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	08/06/2019	ND	210	105	200	0.746	
DRO >C10-C28*	<10.0	10.0	08/06/2019	ND	202	101	200	1.51	
EXT DRO >C28-C36	<10.0	10.0	08/06/2019	ND					
Surrogate: 1-Chlorooctane	81.2 9	% 41-142							
Surrogate: 1-Chlorooctadecane	82.7 9	% 37.6-14	7						

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Analytical Results For:

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

Received: Reported: 08/05/2019

Project Name: Project Number: Project Location: 08/08/2019 WBDU #211 NONE GIVEN LEA COUNTY, NM Sampling Date:

Sampling Type:

Sampling Condition: Sample Received By: 08/05/2019

Soil

Cool & Intact Tamara Oldaker

Sample ID: SP 4 SURFACE (H902674-04)

BTEX 80218	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	08/07/2019	ND	1.95	97.3	2.00	4.45	
Toluene*	<0.050	0.050	08/07/2019	ND	1.95	97.5	2.00	2.91	
Ethylbenzene*	<0.050	0.050	08/07/2019	ND	2.07	104	2.00	7.85	
Total Xylenes*	<0.150	0.150	08/07/2019	ND	6.43	107	6.00	8.88	
Total BTEX	<0.300	0.300	08/07/2019	ND					
Surrogate: 4-Bromofluorobenzene (PIL	106	% 73,3-12	9						
Chloride, SM4500CI-B	mg,	/kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	64.0	16.0	08/08/2019	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	08/06/2019	ND	210	105	200	0.746	
DRO >C10-C28*	<10.0	10.0	08/06/2019	ND	202	101	200	1.51	
EXT DRO >C28-C36	<10.0	10.0	08/06/2019	ND					
Surrogate: 1-Chlorooctane	89.2	% 41-142	?	William .					
Surrogate: 1-Chlorooctadecane	89.5	% 37.6-14	7						

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Analytical Results For:

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

Fax To:

(575) 393-2432

Received:

08/05/2019

Reported: Project Name: 08/08/2019 WBDU #211

Project Number: Project Location: NONE GIVEN

LEA COUNTY, NM

Sampling Date:

Sampling Type:

Sampling Condition:

Sample Received By:

08/05/2019

Soil

Cool & Intact Tamara Oldaker

Sample ID: SP 5 SURFACE (H902674-05)

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	08/07/2019	ND	1.95	97.3	2.00	4.45	
Toluene*	<0.050	0.050	08/07/2019	ND	1.95	97.5	2.00	2.91	
Ethylbenzene*	<0.050	0.050	08/07/2019	ND	2.07	104	2.00	7.85	
Total Xylenes*	<0.150	0.150	08/07/2019	ND	6.43	107	6.00	8.88	
Total BTEX	<0.300	0.300	08/07/2019	ND					
Surrogate: 4-Bromofluorobenzene (PIE	106 9	6 73,3-12	9						
Chloride, SM4500CI-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	08/08/2019	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	08/06/2019	ND	210	105	200	0.746	
DRO >C10-C28*	<10.0	10.0	08/06/2019	ND	202	101	200	1.51	
EXT DRO >C28-C36	<10.0	10.0	08/06/2019	ND					
Surrogate: 1-Chlorooctane	81.79	% 41-142				No. at a	11-1		

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Surrogate: 1-Chlorooctadecane

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81.9%

37.6-147



Analytical Results For:

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

Received: Reported: 08/05/2019 08/08/2019

Project Name: Project Number: Project Location: WBDU #211 NONE GIVEN LEA COUNTY, NM Sampling Date:

Sampling Type:

Sampling Condition: Sample Received By: 08/05/2019 Soil

Cool & Intact Tamara Oldaker

Sample ID: SP 6 SURFACE (H902674-06)

BTEX 80218	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	08/07/2019	ND	1.95	97.3	2.00	4.45	
Toluene*	<0.050	0.050	08/07/2019	ND	1.95	97.5	2.00	2.91	
Ethylbenzene*	<0.050	0.050	08/07/2019	ND	2.07	104	2.00	7.85	
Total Xylenes*	<0.150	0.150	08/07/2019	ND	6.43	107	6.00	8.88	
Total BTEX	<0.300	0.300	08/07/2019	ND					
Surrogate: 4-Bromosluorobenzene (PIE	106	% 73.3-12	9						
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	08/08/2019	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	08/06/2019	ND	213	107	200	0.553	
DRO >C10-C28*	<10.0	10.0	08/06/2019	ND	208	104	200	0.767	
EXT DRO >C28-C36	<10.0	10.0	08/06/2019	ND					
Surrogate: 1-Chlorooctane	68.7	% 41-142		112.5					
Surrogate: 1-Chlorooctadecane	66.3	% 37.6-14	7						

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

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

Analytical Results For:

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

Fax To:

(575) 393-2432

Received:

08/05/2019 08/08/2019

Reported: Project Name:

WBDU #211 NONE GIVEN

Project Number: Project Location:

NONE GIVEN LEA COUNTY, NM Sampling Date:

08/05/2019

Sampling Type:

Soil

Sampling Condition:

Cool & Intact

Sample Received By:

Tamara Oldaker

Sample ID: SP 7 SURFACE (H902674-07)

BTEX 8021B	mg/	kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	B5	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	08/07/2019	ND	1.95	97.3	2.00	4.45	
Toluene*	<0.050	0.050	08/07/2019	ND	1.95	97.5	2.00	2.91	
Ethylbenzene*	<0.050	0.050	08/07/2019	ND	2.07	104	2.00	7.85	
Total Xylenes*	< 0.150	0.150	08/07/2019	ND	6.43	107	6.00	8.88	
Total BTEX	<0.300	0.300	08/07/2019	ND					
Surrogate: 4-Bromofluorobenzene (PIC	107	% 73.3-12	9		-				
Chloride, SM4500CI-B	mg/	'kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	1010	16.0	08/08/2019	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	08/06/2019	ND	213	107	200	0.553	
DRO >C10-C28*	<10.0	10.0	08/06/2019	ND	208	104	200	0.767	
EXT DRO >C28-C36	<10.0	10.0	08/06/2019	ND					
Surrogate: 1-Chlorooctane	57.2	% 41-142							
Surrogate: 1-Chlorooctadecane	53.0	% 37.6-14	7						

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Analytical Results For:

APACHE CORP - HOBBS **BRUCE BAKER** 2350 W. MARLAND BLVD. HOBBS NM, 88240 (575) 393-2432

Fax To:

Received: Reported: 08/05/2019

Project Name:

08/08/2019

Project Number: Project Location: WBDU #211 NONE GIVEN

LEA COUNTY, NM

Sampling Date:

Sampling Type: Soil

Sampling Condition: Sample Received By: Cool & Intact

08/05/2019

Tamara Oldaker

Sample ID: SP 8 SURFACE (H902674-08)

BTEX 8021B	mg/	kg	Analyze	d By: MS					
Anatyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	08/07/2019	ND	1.95	97.3	2.00	4.45	
Toluene*	<0.050	0.050	08/07/2019	ND	1.95	97.5	2.00	2.91	
Ethylbenzene*	<0.050	0.050	08/07/2019	ND	2.07	104	2.00	7.85	
Total Xylenes*	<0.150	0.150	08/07/2019	ND	6.43	107	6.00	8.88	
Total BTEX	<0.300	0.300	08/07/2019	ND					
Surrogate: 4-Bromofluorobenzene (PIL	104 %	6 73.3-12	9						
Chloride, SM4500CI-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	08/08/2019	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	08/06/2019	ND	213	107	200	0.553	
DRO >C10-C28*	<10.0	10.0	08/06/2019	ND	208	104	200	0.767	
EXT DRO >C28-C36	<10.0	10.0	08/06/2019	ND					
Surrogate: 1-Chlorooctane	68.2 9	% 41-142							-
Surrogate: 1-Chlorooctadecane	65.6 9	6 37.6-14	7						

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By Other cluste whatsonive shall be deemed waved unless made in writing and received by Cardinal watern thirty (30) days after completion of the applicable service. In no event shall Cardinal be including, without imitation, business interruptions, loss of use, or loss of profits encurred by client, its subsidiance, affiliates or successors arising out of or related to the performance of the services here client 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 All with written approval of Cardinal Laboritories.

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Analytical Results For:

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

Fax To:

(575) 393-2432

Received:

08/05/2019

Reported: Project Name: 08/08/2019 **WBDU #211**

Project Number: Project Location: **NONE GIVEN**

LEA COUNTY, NM

Sampling Date:

Sampling Type:

Sampling Condition:

Sample Received By:

08/05/2019 Soil

Cool & Intact

Tamara Oldaker

Sample ID: SP 9 SURFACE (H902674-09)

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	08/07/2019	ND	1.95	97.3	2.00	4.45	
Toluene*	<0.050	0.050	08/07/2019	ND	1.95	97.5	2.00	2.91	
Ethylbenzene*	<0.050	0.050	08/07/2019	ND	2.07	104	2.00	7.85	
Total Xylenes*	<0.150	0.150	08/07/2019	ND	6.43	107	6.00	8.88	
Total BTEX	<0.300	0.300	08/07/2019	ND					
Surrogate: 4-Bromofluorobenzene (PIL	117 9	% 73.3-12	9						
Chloride, SM4500CI-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	08/08/2019	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	08/06/2019	ND	213	107	200	0.553	
DRO >C10-C28*	<10.0	10.0	08/06/2019	ND	208	104	200	0.767	
EXT DRO >C28-C36	<10.0	10.0	08/06/2019	ND					
Surrogate: 1-Chlorooctane	72.3	% 41-142							
Surrogate: 1-Chlorooctadecane	70.1	% 37.6-14	7						

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Analytical Results For:

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

Fax To:

(575) 393-2432

Received:

08/05/2019

Reported:

08/08/2019

Project Name: Project Number: WBDU #211 NONE GIVEN

Project Location:

LEA COUNTY, NM

Sampling Date:

Sampling Type:

Sampling Condition: Sample Received By: 08/05/2019

Soil

Cool & Intact Tamara Oldaker

Sample ID: SP 10 SURFACE (H902674-10)

BTEX 8021B

mg/kg

59.4%

37.6-147

Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	08/07/2019	ND	1.95	97.3	2.00	4.45	
Toluene*	<0.050	0.050	08/07/2019	ND	1.95	97.5	2.00	2.91	
Ethylbenzene*	<0.050	0.050	08/07/2019	ND	2.07	104	2.00	7.85	
Total Xylenes*	<0.150	0.150	08/07/2019	ND	6.43	107	6.00	8.88	
Total BTEX	<0.300	0.300	08/07/2019	ND					
Surrogate: 4-Bromofluorobenzene (PIL	106 %	6 73.3-12	9						
Chloride, SM4500CI-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	08/08/2019	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	08/06/2019	ND	213	107	200	0.553	
DRO >C10-C28*	<10.0	10.0	08/06/2019	ND	208	104	200	0.767	
EXT DRO >C28-C36	<10.0	10.0	08/06/2019	ND					
Surrogate: 1-Chlorooctane	61.9 9	% 41-142		727					

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Surrogate: 1-Chlorooctadecane

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Analytical Results For:

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

Fax To:

(575) 393-2432

Received:

08/05/2019

Reported:

08/08/2019

Project Name: Project Number: WBDU #211 NONE GIVEN

Project Location:

LEA COUNTY, NM

Sampling Date:

Sampling Type:

Sampling Condition: Sample Received By: Soil Cool & Intact

Tamara Oldaker

08/05/2019

Sample ID: SP 7 @ 1' (H902674-11)

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	08/07/2019	ND	1.95	97.3	2.00	4.45	
Toluene*	<0.050	0.050	08/07/2019	ND	1.95	97.5	2.00	2.91	
Ethylbenzene*	<0.050	0.050	08/07/2019	ND	2.07	104	2.00	7.85	
Total Xylenes*	<0.150	0.150	08/07/2019	ND	6.43	107	6.00	8.88	
Total BTEX	<0.300	0.300	08/07/2019	ND					
Surrogate: 4-Bromofluorobenzene (PIE	117 %	á 73.3-12	9						
Chloride, SM4500CI-B	mg/i	kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	304	16.0	08/08/2019	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	08/07/2019	ND	213	107	200	0.553	
DRO >C10-C28*	68.3	10.0	08/07/2019	ND	208	104	200	0.767	
EXT DRO >C28-C36	11.5	10.0	08/07/2019	ND					
Surrogate: 1-Chlorooctane	73.4 9	6 41-142	?						
Surrogate: 1-Chlorooctadecane	65.69	6 37.6-14	7						

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

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Analytical Results For:

APACHE CORP - HOBBS BRUCE BAKER 2350 W. MARLAND BLVD. **HOBBS NM, 88240** (575) 393-2432

Fax To:

08/05/2019 Reported: 08/08/2019 WBDU #211 Project Name:

Project Number: NONE GIVEN

Project Location: LEA COUNTY, NM Sampling Date:

Sample Received By:

08/05/2019 Soil

Sampling Type: Sampling Condition:

Cool & Intact Tamara Oldaker

Sample ID: SP 1 @ 1' (H902674-12)

Received:

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	08/07/2019	ND	1.95	97.3	2.00	4.45	
Toluene*	<0.050	0.050	08/07/2019	ND	1.95	97.5	2.00	2.91	
Ethylbenzene*	<0.050	0.050	08/07/2019	ND	2.07	104	2.00	7.85	
Total Xylenes*	<0.150	0.150	08/07/2019	ND	6.43	107	6.00	8.88	
Total BTEX	<0.300	0.300	08/07/2019	ND					
Surrogate: 4-Bromofluorobenzene (PIL	/13 9	% 73 3-12	9						
Chloride, SM4500CI-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	08/08/2019	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	08/06/2019	ND	213	107	200	0.553	
DRO >C10-C28*	<10.0	10.0	08/06/2019	ND	208	104	200	0.767	
EXT DRO >C28-C36	<10.0	10.0	08/06/2019	ND					
Surrogate: 1-Chlorooctane	69.1	% 41-142							
Surrogate: 1-Chlorooctadecane	66.4	% 37.6-14	7						

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with Sugar



Analytical Results For:

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

Fax To:

(575) 393-2432

Received:

08/05/2019

Reported:

08/08/2019 W/PDIL #311

Project Name: Project Number: WBDU #211 NONE GIVEN

Project Location:

LEA COUNTY, NM

Sampling Date:

ate:

08/05/2019 Soil

Sampling Type:

Co

Sampling Condition: Sample Received By: Cool & Intact

Tamara Oldaker

Sample ID: SP 2 @ 1' (H902674-13)

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	08/07/2019	ND	1.95	97.3	2.00	4.45	
Toluene*	<0.050	0.050	08/07/2019	ND	1.95	97.5	2.00	2.91	
Ethylbenzene*	<0.050	0.050	08/07/2019	ND	2.07	104	2.00	7.85	
Total Xylenes*	<0.150	0.150	08/07/2019	ND	6.43	107	6.00	8.88	
Total BTEX	<0.300	0.300	08/07/2019	ND					
Surrogate: 4-Bromofluorobenzene (PIL	118	% 73.3-12	9						
Chloride, SM4500CI-B	mg/	kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	176	16.0	08/08/2019	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	08/06/2019	ND	213	107	200	0.553	
DRO >C10-C28*	<10.0	10.0	08/06/2019	ND	208	104	200	0.767	
EXT DRO >C28-C36	<10.0	10.0	08/06/2019	ND					
Surrogate: 1-Chlorooctane	69.9	% 41-142	?		124/0/07				
Surrogate: I-Chlorooctadecane	67.9	% 37.6-14	7						

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Analytical Results For:

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

Fax To:

(575) 393-2432

Received: Reported: 08/05/2019 08/08/2019

Project Name: Project Number: Project Location: WBDU #211 NONE GIVEN LEA COUNTY, NM C---

Sampling Date: Sampling Type: 08/05/2019 Soil

Sampling Condition:

Cool & Intact

Sample Received By:

Tamara Oldaker

Sample ID: SP 3 @ 1' (H902674-14)

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	08/07/2019	ND	1.97	98.7	2.00	2.19	
Toluene*	<0.050	0.050	08/07/2019	ND	2.01	100	2.00	1.19	
Ethylbenzene*	<0.050	0.050	08/07/2019	ND	1.87	93.7	2.00	0.598	
Total Xylenes*	<0.150	0.150	08/07/2019	ND	5.66	94.4	6.00	0.195	
Total BTEX	<0.300	0.300	08/07/2019	ND					
Surrogate: 4-Bromofluorobenzene (PIE	98.0	% 73.3-12	9						
Chloride, SM4500CI-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	08/08/2019	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	08/06/2019	ND	213	107	200	0.553	
DRO >C10-C28*	<10.0	10.0	08/06/2019	ND	208	104	200	0.767	
EXT DRO >C28-C36	<10.0	10.0	08/06/2019	ND					
Surrogate: I-Chlorooctane	67.4	% 41-142	,	1200 VIII		verten/t			

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Surrogate: 1-Chlorooctadecane

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

65.1%

37.6-147



Analytical Results For:

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

Received: Reported:

08/05/2019 08/08/2019

Project Name: Project Number: Project Location: WBDU #211 NONE GIVEN LEA COUNTY, NM Sampling Date:

Sampling Type:

Sampling Condition: Sample Received By: 08/05/2019 Soil

Cool & Intact

Tamara Oldaker

Sample ID: SP 4 @ 1' (H902674-15)

BTEX 80218	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	08/07/2019	ND	1.97	98.7	2.00	2.19	
Toluene*	<0.050	0.050	08/07/2019	ND	2.01	100	2.00	1.19	
Ethylbenzene*	<0.050	0.050	08/07/2019	ND	1.87	93.7	2.00	0.598	
Total Xylenes*	<0.150	0.150	08/07/2019	ND	5.66	94.4	6.00	0.195	
Total BTEX	<0.300	0.300	08/07/2019	ND					
Surrogate: 4-Bromofluorobenzene (PIC	99.4	% 73.3-12	9						
Chloride, SM4500CI-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	08/08/2019	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	08/06/2019	ND	213	107	200	0.553	
DRO >C10-C28*	<10.0	10.0	08/06/2019	ND	208	104	200	0.767	
EXT DRO >C28-C36	<10.0	10.0	08/06/2019	ND					
Surrogate: 1-Chlorooctane	67.7	% 41-142	?					A	To a Control of the C
Surrogate 1-Chlorooctadecane	63.5	% 37.6-14	7						

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Analytical Results For:

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

Fax To:

(575) 393-2432

Received: Reported: 08/05/2019 08/08/2019

Project Name: Project Number: Project Location: WBDU #211 NONE GIVEN LEA COUNTY, NM Sampling Date:

Sampling Type:

Sampling Condition: Sample Received By: 08/05/2019

Soil Soil S

Cool & Intact Tamara Oldaker

Sample ID: SP 5 @ 1' (H902674-16)

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	08/07/2019	ND	1.97	98.7	2.00	2.19	
Toluene*	<0.050	0.050	08/07/2019	ND	2.01	100	2.00	1.19	
Ethylbenzene*	<0.050	0.050	08/07/2019	ND	1.87	93.7	2.00	0.598	
Total Xylenes*	<0.150	0.150	08/07/2019	ND	5.66	94.4	6.00	0.195	
Total STEX	<0.300	0.300	08/07/2019	ND					
Surrogate: 4-Bromofluorobenzene (PIE	101 9	% 73.3-12	9						
Chloride, SM4500CI-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	08/08/2019	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	08/06/2019	ND	213	107	200	0.553	
DRO >C10-C28*	<10.0	10.0	08/06/2019	ND	208	104	200	0.767	
EXT DRO >C28-C36	<10.0	10.0	08/06/2019	ND					
Surrogate: 1-Chlorooctane	67.3	% 41-142	- (1)	- Hillery			m		
Surrogate: 1-Chlorooctadecane	68.7	% 37.6-14	7						

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Analytical Results For:

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

Received: Reported: 08/05/2019

Project Name: Project Number:

Project Location:

NONE GIVEN

08/08/2019 WBDU #211

LEA COUNTY, NM

Sampling Date:

08/05/2019 Soil

Sampling Type: Sampling Condition:

Cool & Intact

Sample Received By:

Tamara Oldaker

Sample ID: SP 6 @ 1' (H902674-17)

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	08/07/2019	ND	1.97	98.7	2.00	2.19	
Toluene*	<0.050	0.050	08/07/2019	ND	2.01	100	2.00	1.19	
Ethylbenzene*	<0.050	0.050	08/07/2019	ND	1.87	93.7	2.00	0.598	
Total Xylenes*	<0.150	0.150	08/07/2019	ND	5.66	94.4	6.00	0.195	
Total BTEX	<0.300	0.300	08/07/2019	ND					
Surrogate: 4-Bromofluorobenzene (PIL	99.3	% 73.3-12	9						
Chloride, SM4500CI-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	08/08/2019	ND	432	108	400	0.00	
TPH 8015M	mg,	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Umit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	08/06/2019	ND	213	107	200	0.553	
DRO >C10-C28*	<10.0	10.0	08/06/2019	ND	208	104	200	0.767	
EXT DRO >C28-C36	<10.0	10.0	08/06/2019	ND					
Surrogate: 1-Chlorooctane	70.3	% 41-142		39910		-0			
Surrogate: 1-Chlorooctadecane	69.9	% 37.6-14	7						

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Analytical Results For:

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

Fax To:

(575) 393-2432

Received:

08/05/2019 08/08/2019

Reported: Project Name:

WBDU #211 NONE GIVEN

Project Number: Project Location:

LEA COUNTY, NM

Sampling Date:

08/05/2019

Sampling Type:

Soil

Sampling Condition:

Cool & Intact

Sample Received By:

Tamara Oldaker

Sample ID: SP 8 @ 1' (H902674-18)

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	08/07/2019	ND	1.97	98.7	2.00	2.19	
Toluene*	<0.050	0.050	08/07/2019	ND	2.01	100	2.00	1.19	
Ethylbenzene*	<0.050	0.050	08/07/2019	ND	1.87	93.7	2.00	0.598	
Total Xylenes*	<0.150	0.150	08/07/2019	ND	5.66	94.4	6.00	0.195	
Total BTEX	<0.300	0.300	08/07/2019	ND					
Surrogate: 4-Bromofluorobenzene (PIE	99.9	% 73.3-12	9						
Chloride, SM4500CI-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	08/08/2019	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	08/06/2019	ND	213	107	200	0.553	
DRO >C10-C28*	<10.0	10.0	08/06/2019	ND	208	104	200	0.767	
EXT DRO >C28-C36	<10.0	10.0	08/06/2019	ND					
Surrogate: 1-Chlorooctane	74.4	% 41-142	20			- 12.00			
Surrogate: 1-Chlorooctadecane	73.0	% 37.6-14	7						

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Analytical Results For:

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

Fax To:

(575) 393-2432

Received: Reported:

RTEV 90310

08/05/2019 08/08/2019

Project Name: Project Number:

Project Location:

WBDU #211 NONE GIVEN

LEA COUNTY, NM

Sampling Date:

08/05/2019

Sampling Type:

Soil

Sampling Condition:

Cool & Intact

Sample Received By:

Tamara Oldaker

Sample ID: SP 9 @ 1' (H902674-19)

BTEX 8021B	mg/kg		Analyzed By: ms						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	08/07/2019	ND	1.97	98.7	2.00	2.19	
Toluene*	<0.050	0.050	08/07/2019	ND	2.01	100	2.00	1.19	
Ethylbenzene*	<0.050	0.050	08/07/2019	ND	1.87	93.7	2.00	0.598	
Total Xylenes*	<0.150	0.150	08/07/2019	ND	5.6 6	94.4	6.00	0.195	
Total BTEX	<0.300	0.300	08/07/2019	ND					
Surrogate: 4-Bromofluorobenzene (PIL	99.7	% 73.3-12	9						
Chloride, SM4500CI-B	mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	32.0	16.0	08/08/2019	ND	432	108	400	0.00	
TPH 8015M	mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	08/06/2019	ND	213	107	200	0.553	
DRO >C10-C28*	<10.0	10.0	08/06/2019	ND	208	104	200	0.767	
EXT DRO >C28-C36	<10.0	10.0	08/06/2019	ND					
Surrogate: 1-Chlorooctane	73.0 5	% 41-142	- 10						
Surrogate: 1-Chlorooctadecane	71.6	% 37.6-14	7						

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

Analytical Results For:

APACHE CORP - HOBBS BRUCE BAKER 2350 W. MARLAND BLVD. HOBBS NM, 88240 (575) 393-2432

Fax To:

Received: Reported: 08/05/2019 08/08/2019

Project Name:

WBDU #211 NONE GIVEN

Project Number: Project Location:

LEA COUNTY, NM

Sampling Date:

Sampling Type:

Sampling Condition: Sample Received By: 08/05/2019

Soil

Cool & Intact Tamara Oldaker

Sample ID: SP 10 @ 1' (H902674-20)

BTEX 80218	mg/kg		Analyzed By: ms						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	08/07/2019	ND	1.97	98.7	2.00	2.19	
Toluene*	<0.050	0.050	08/07/2019	ND	2.01	100	2.00	1.19	
Ethylbenzene*	<0.050	0.050	08/07/2019	ND	1.87	93.7	2.00	0.598	
Total Xylenes*	<0.150	0.150	08/07/2019	ND	5.66	94.4	6.00	0.195	
Total BTEX	<0.300	0.300	08/07/2019	ND					
Surrogate: 4-Bromofluorobenzene (PIL	99.6	% 73.3-12	9						
Chloride, SM4500CI-B	mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	32.0	16.0	08/08/2019	ND	432	108	400	0.00	
TPH 8015M	mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	08/06/2019	ND	213	107	200	0.553	
DRO >C10-C28*	<10.0	10.0	08/06/2019	ND	208	104	200	0.767	
EXT DRO >C28-C36	<10.0	10.0	08/06/2019	ND					
Surrogate: 1-Chlorooctane	75.4	% 41-142			- 2028	100			
Surrogate: 1-Chlorooctadecane	75.0	% 37.6-14	7						

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*=Accredited Analyte

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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.

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 SM4500CI-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 MOTE: Liability and Damages. Cardinal's liability and cheric's eviclusive remody for any claim areang, whether based in contract or tort, shall be limited to the amount paid by cheric for analyses. All claims, including those for negligence and any other claims whistoners shall be idented whether limited analysis in the including the same in writing and received whether with (30) days after completions of the applicable service. In no event shall Cardinal be liable for incidental or consequenced damages, including, wetrous limited in the performance of the services hermander by Cardinal, regardless of whether such claims is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. The report shall not be reproduced except in full with written approval of Cardinal laboratomes.

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

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Sampler - UPS - Bus - Other:



CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

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

Company Name:		ANALYSIS REQUEST
Project Manager: Dans, Oxylis	P.O. #:	
Address:	Company:	
city: Hobbs State: U)	State: U) Zip: 88240 Attn:	
Phone #: Fax #:	Address:	
Project #: Project Owner:	City:	
Project Name:	State: Zip:	
Project Location:	Phone #:	
Sampler Name:), (), 100 > Co 0, Ar-	Fax #:	
	MATRIX PRESERV SAMPLING	<i>J</i>
Lab I.D. Sample I.D.	SE:	I TPI
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ent's exclusive	y chian proting whether bosed in contract or bot, shall be limited to the arrownt paid by i	the cleat for the

Religquished By: Relinguished By analyses. All claims including those for service, in no event shall Cardinal be is Delivered By: (Circle One) Time: H: 27 Received By: Time: Received By: Sample Condition
Cool Intact
Pres 1755
No No CHECKED BY: (Initials) Phone Result:
Fax Result:
REMARKS:

Email Russelt ☐ Yes ☐ No Add'! Phone #:



CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

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

Company Name:		BILL TO	ANAL	ANALYSIS REQUEST
Project Manager: Seft Groom		P.O. #:		
Address:		Company:		
City: Hobbs State: N/M Zip:	M Zip: 88240	Attn:		
Phone #: Fax #:		Address:		
Project #: Project Owner:	mer:	City:		
Project Name:		State: Zip:		
Project Location: WSDU #21/		#		
Sampler Name: Se duste		Fax #:	, _	
FOR LAB LISE DALY	MATRIX	PRESERV SAMPLING		
	RS TER		×	
Lab I.D. Sample I.D.		HER: D/BASE: I/COOL HER:	BTE	
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THE STATE OF			SX	
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17 50 40 9		2	1 70.4	
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chaling those for registence and any other cause whatso will Cardinal be fisshe for incidental or consequential dame out of a principled to the administration of exaction to	er en	or left, shall be arrived to the arrowing paid by received by Cardinal width 30 days lafer on his of use, or less of profits incurred by clien	arround paid by the cleant for the applicable to the completion of the applicable nature by cleant, its subaddanter,	
-	Received By:	1.00	Phone Result:	hone#:
Restrictions By: County Date: Date:	howara	Eldat of R	0	B) 7
		(
Delivered By: (Circle One) 0, 3°	#47 Sample Condition	유	CiMery Rossielts	Sight,
Sampler - UPS - Bus - Other:	IDS C	4	-	0
Connection N. 10	L No	1		

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Appendix C

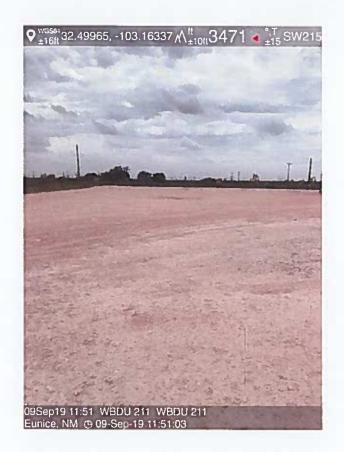
Photographs











District 1
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

Responsible Party Apache Corporation

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

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Incident ID	
District RP	
Facility ID	
Application ID	

Release Notification

Responsible Party

OGRID 873

			Location	of Release S	ource	
atitude 32.49	923° N		2145.00		-103.16370° W	
			(NAD 83 in dec	imal degrees to 5 decir		
Site Name WBDU 211			Site Type	Oil Well		
Date Release Discovered 9/2/2014			API# (if app	olicable) 30-025-41875		
Unit Letter Section Township Range			Cour	nty		
A	9	21S	37E	Lea		
urface Owner:			Nature and	Volume of 1	Release)
			Nature and	Volume of 1	Release	olow)
urface Owner:	Material	(s) Released (Select all	Nature and	Volume of 1	Release	elow)
urface Owner:	Material	(s) Released (Select all Volume Released	Nature and that apply and attach of (bbls) (bbls) (bbls) on of total dissolv	Volume of l	Release justification for the volumes provided be Volume Recovered (bbls)	elow)
urface Owner:	Material Vater	(s) Released (Select all Volume Released Volume Released Is the concentrati	Nature and that apply and attach of (bbls) (bbls) on of total dissolventer >10,000 mg/	Volume of l	Release justification for the volumes provided be Volume Recovered (bbls) Volume Recovered (bbls)	clow)
urface Owner: Crude Oil Produced V	Material Vater	(s) Released (Select all Volume Released Volume Released Is the concentration the produced with the pr	Nature and that apply and attach of (bbls) (bbls) on of total dissolventer > 10,000 mg/s (bbls)	Volume of l	Release Justification for the volumes provided be Volume Recovered (bbls) Volume Recovered (bbls) Yes No	elow)
urface Owner: Crude Oil Produced V	Material Vater	(s) Released (Select all Volume Released Volume Released Is the concentration the produced work Volume Released	hature and that apply and attach of (bbls) (bbls) on of total dissolve vater > 10,000 mg/s (bbls) (Mcf) Released (provide	Volume of l	Release justification for the volumes provided be Volume Recovered (bbls) Volume Recovered (bbls) Yes No Volume Recovered (bbls)	ovide units)
urface Owner: Crude Oil Produced V Condensate Natural Gas	Material Vater	(s) Released (Select all Volume Released Volume Released Is the concentrati in the produced w Volume Released Volume Released	hature and that apply and attach of (bbls) (bbls) on of total dissolve vater > 10,000 mg/s (bbls) (Mcf) Released (provide	Volume of l	Release justification for the volumes provided be Volume Recovered (bbls) Volume Recovered (bbls) Yes No Volume Recovered (bbls) Volume Recovered (bbls) Volume Recovered (Mcf) Volume/Weight Recovered (pr	ovide units)

State of New Mexico Oil Conservation Division

Incident ID	
District RP	
Facility ID	
Application ID	

		Application 1D
Was this a major	If YES, for what reason(s) do	oes the responsible party consider this a major release?
release as defined by 19.15.29.7(A) NMAC?	The release volume was	25 bbls of fluid.
X Yes No		
f YES, was immediate r	otice given to the OCD? By w	hom? To whom? When and by what means (phone, email, etc)?
Notice was given to	Tomas Oberding by Bruce	e Baker via emial on 9/3/2014.
		Initial Response
The responsible	party must undertake the following act	tions immediately unless they could create a safety hazard that would result in injury
The source of the rel	ease has been stopped.	
X The impacted area h	as been secured to protect huma	an health and the environment.
X Released materials h	ave been contained via the use	of berms or dikes, absorbent pads, or other containment devices.
All free liquids and a	ecoverable materials have been	n removed and managed appropriately.
has begun, please attach within a lined containme I hereby certify that the inforegulations all operators are public health or the environ failed to adequately investing	a narrative of actions to date. Int area (see 19.15.29.11(A)(5)(a primation given above is true and control experience of a C-141 agate and remediate contamination to	commence remediation immediately after discovery of a release. If remediation if remediate efforts have been successfully completed or if the release occurred a) NMAC), please attach all information needed for closure evaluation. Tomplete to the best of my knowledge and understand that pursuant to OCD rules and ain release notifications and perform corrective actions for releases which may endanger report by the OCD does not relieve the operator of liability should their operations have that pose a threat to groundwater, surface water, human health or the environment. In
and/or regulations.		the operator of responsibility for compliance with any other federal, state, or local laws
Printed Name: Bruce Ba		Title: Sr. Environmental Tech
Signature: <u>Bruc</u>	e Baher	Date: 8/30/2019
email: <u>Larry.Baker@apa</u>	checorp.com	Telephone: 432-631-6982
OCD Only		
Received by:		Date:

State of New Mexico Oil Conservation Division

Incident ID	
District RP	
Facility ID	
Application ID	

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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?	75_ (ft bgs)
Did this release impact groundwater or surface water?	Yes X No
Are the lateral extents of the release within 300 feet of a continuously flowing watercourse or any other significant watercourse?	Yes X 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 X 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 X No
Are the lateral extents of the release within 1000 feet of any other fresh water well or spring?	Yes X 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 X 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 X No
Did the release impact areas not on an exploration, development, production, or storage site?	☐ Yes ☒ No

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

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

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

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

Form	C-141
Page 4	

Received by:

State of New Mexico Oil Conservation Division

Incident ID	
District RP	
Facility ID	
Application ID	

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

Printed Name: Bruce Baker

Title: Sr. Environmental Tech

Date: 8/30/2019

email: Larry.Baker@apachecorp.com

Telephone: 432-631-6982

State of New Mexico Oil Conservation Division

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

Incident ID	nTO1428828724
District RP	
Facility ID	
Application ID	

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Closure

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

	le party of liability should their operations have failed to adequately investigate and surface water, human health, or the environment nor does not relieve the responsible ws and/or regulations.	
Closure approval by the OCD does not relieve the responsible remediate contamination that poses a threat to groundwater, superty of compliance with any other federal, state, or local law	le party of liability should their operations have failed to adequately investigate and surface water, human health, or the environment nor does not relieve the responsible ws and/or regulations.	
Closure approval by the OCD does not relieve the responsible remediate contamination that poses a threat to groundwater, superty of compliance with any other federal, state, or local law	le party of liability should their operations have failed to adequately investigate and surface water, human health, or the environment nor does not relieve the responsible ws and/or regulations.	
Received by: Closure approval by the OCD does not relieve the responsible remediate contamination that poses a threat to groundwater, s	le party of liability should their operations have failed to adequately investigate and surface water, human health, or the environment nor does not relieve the responsible	
Received by:		
	Date:	
email: Larry.Baker@apachecorp.com	Telephone: 432-631-6982	
Signature: Parice Packer	Date: 8/30/2019	
Printed Name: Bruce Baker	Title: Sr. Environmental Tech	
	to the OCD when reclamation and re-vegetation are complete.	
compliance with any other federal, state, or local laws and/o	r regulations. The responsible party acknowledges they must substantially the conditions that existed prior to the release or their final land use in	
should their operations have failed to adequately investigate	and remediate contamination that pose a threat to groundwater, surface water, ance of a C-141 report does not relieve the operator of responsibility for	
and regulations all operators are required to report and/or file	e certain release notifications and perform corrective actions for releases which ance of a C-141 report by the OCD does not relieve the operator of liability	
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	
X Description of remediation activities		
Laboratory analyses of final sampling (Note: appropria	ate ODC District office must be notified 2 days prior to final sampling)	
V I showstow, analysis of final severline (Notes, severe)		
must be notified 2 days prior to liner inspection)	photos of the liner integrity if applicable (Note: appropriate OCD District office	

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

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 1604

CONDITIONS

Operator:	OGRID:	
APACHE CORPORATION	873	
303 Veterans Airpark Ln	Action Number:	
Midland, TX 79705	1604	
	Action Type:	
	[C-141] Release Corrective Action (C-141)	

CONDITIONS

Created By	Condition	Condition Date
bbillings	None	7/1/2021