



303 Veterans Airpark Lane Midland, TX 79705

## **Remediation Plan**

December 2, 2021

Re: Black and Tan 301H

Case: nAPP2125731884

### **Background:**

On 9/5/2021 a release occurred due to a hole in a 2 -inch Kimray valve. The release (GPS: 32.537448, -103.554493) is located west of Monument, New Mexico in unit letter M section 27 township 20S range 34E. A groundwater survey was conducted utilizing NMOSE wells of record. The nearest well of record drillers log suggest that groundwater in the area is greater than 100 feet.

On 10/6/2021 vertical delineation was conducted in regular intervals utilizing a backhoe to depths of 1 to 3 feet. All vertical samples collected were submitted to a commercial laboratory for analysis of chloride, TPH, and BTEX. Laboratory results on SP7 were above reclamation standards for TPH. On 10/20/2021 SP7 was further delineated to a depth of 3 feet. All samples collected were submitted to a commercial laboratory for analysis of TPH and BTEX. On 12/1/2021 5-point surface horizontal composite samples were collected not to exceed 200 square feet and submitted to a commercial laboratory for analysis of chloride, TPH, and BTEX.

### **Remediation Plan:**

Apache Corporation purposes that the pad area be scraped to a depth of 6 inches to one foot. The pasture area be excavated to 3 feet. Final 5-point bottom and wall composite samples will be collected not to exceed 500 square feet and submitted to commercial laboratory for analysis of chloride, TPH, and BTEX. All excavated material (508 yards) will be hauled to an OCD approved disposal facility. Once table one standards for releases greater than 100 feet to groundwater and reclamation standards for the pasture. The pad area of the excavation will be backfilled with clean imported caliche to restore the pad. The pasture area will be backfilled with clean imported topsoil to ground surface and contoured to the surrounding area. The pasture disturbed area will be reseeded in accordance with the surface landowner's guidelines. The remediation will be completed within 90 days of OCD approval of the plan.

Enclosed: C-141, Groundwater Data, Maps, Sample Data, and Laboratory Results

Submitted by;

*Bruce Baker*

**Environmental Technician**

[larry.baker@apachecorp.com](mailto:larry.baker@apachecorp.com)

**Cell# 432-215-2284**

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?	> 100 (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: 12/2/2021  
email: larry.baker@apachecorp.com Telephone: 432-215-2284

**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: 12/2/2021  
email: larry.baker@apachecorp.com Telephone: 432-215-2284

**OCD Only**

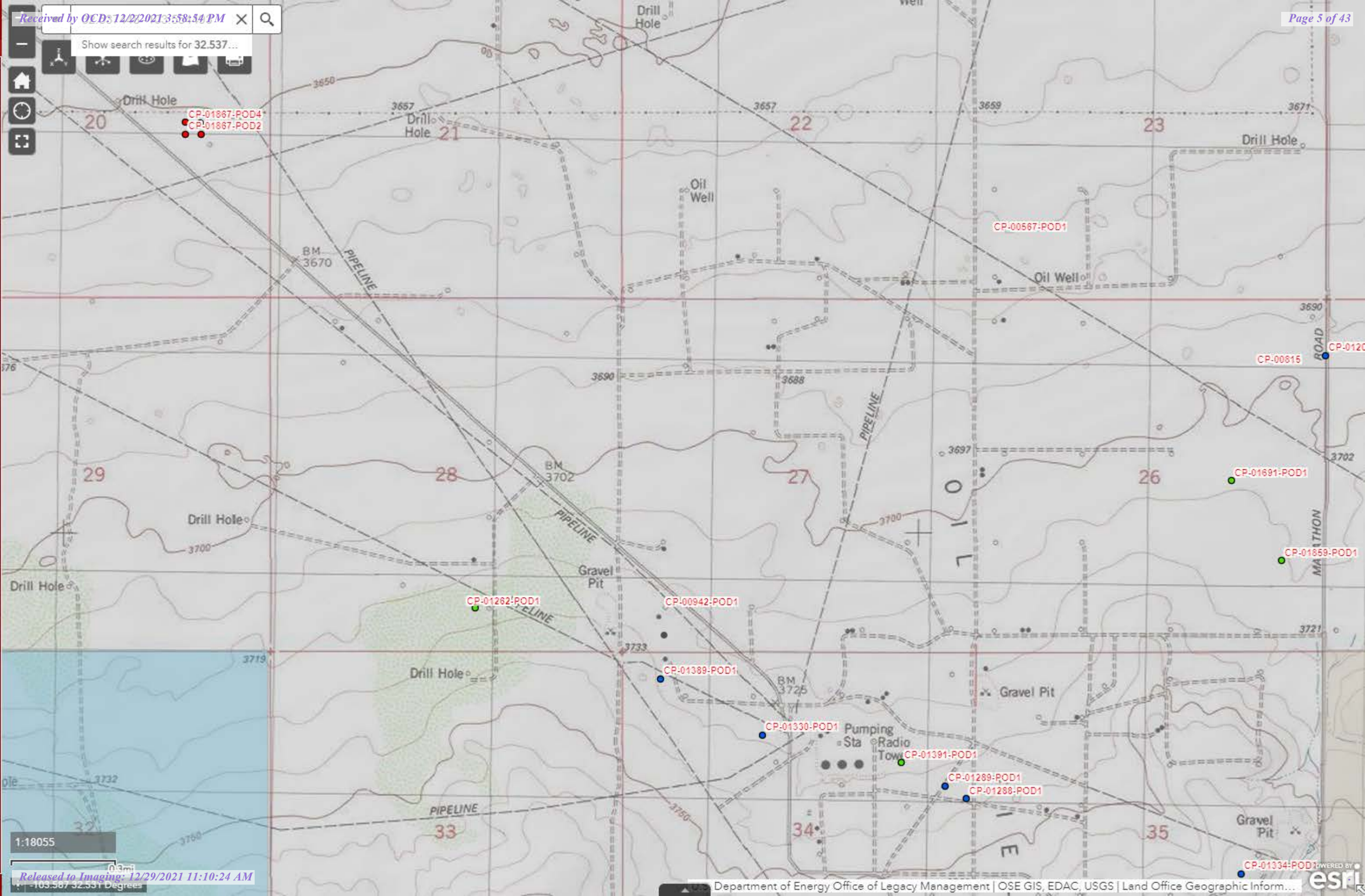
Received by: Chad Hensley Date: 12/29/2021

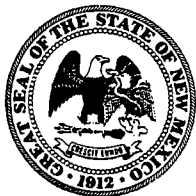
☒ Approved ☐ Approved with Attached Conditions of Approval ☐ Denied ☐ Deferral Approved

Signature: Chad Hensley Date: 12/29/2021



Show search results for 32.537...





# WELL RECORD & LOG

## OFFICE OF THE STATE ENGINEER

**www.ose.state.nm.us**

<b>1. GENERAL AND WELL LOCATION</b>	OSE POD NO. (WELL NO.) <b>POD-1</b>		WELL TAG ID NO.		OSE FILE NO(S). <b>CP 1867 POD 1</b>									
	WELL OWNER NAME(S) <b>XCEL Energy</b>				PHONE (OPTIONAL) <b>806-457-6291</b>									
	WELL OWNER MAILING ADDRESS <b>7801 I-40 East</b>				CITY STATE ZIP <b>Amarillo TX 79118</b>									
	WELL LOCATION (FROM GPS)		DEGREES MINUTES SECONDS LATITUDE <b>32 33 29.08 N</b> LONGITUDE <b>-103 34 37.62 W</b>		* ACCURACY REQUIRED: ONE TENTH OF A SECOND * DATUM REQUIRED: WGS 84									
DESCRIPTION RELATING WELL LOCATION TO STREET ADDRESS AND COMMON LANDMARKS - PLSS (SECTION, TOWNSHIP, RANGE) WHERE AVAILABLE <b>Lynch Substation 359 Skeen Road Hobbs, NM 88240</b>														
<b>2. DRILLING &amp; CASING INFORMATION</b>	LICENSE NO. <b>1755</b>		NAME OF LICENSED DRILLER <b>John D. Norris</b>			NAME OF WELL DRILLING COMPANY <b>Hungry Horse, LLC</b>								
	DRILLING STARTED <b>7 Apr 21</b>		DRILLING ENDED <b>9 Apr 21</b>		DEPTH OF COMPLETED WELL (FT) <b>200'</b>		BORE HOLE DEPTH (FT) <b>200'</b>							
	COMPLETED WELL IS:		<input type="checkbox"/> ARTESIAN <input checked="" type="checkbox"/> DRY HOLE <input type="checkbox"/> SHALLOW (UNCONFINED)				DEPTH WATER FIRST ENCOUNTERED (FT) <b>N/A</b>							
	DRILLING FLUID:		<input checked="" type="checkbox"/> AIR <input type="checkbox"/> MUD ADDITIVES - SPECIFY:				STATIC WATER LEVEL IN COMPLETED WELL (FT) <b>N/A</b>							
	DRILLING METHOD:		<input checked="" type="checkbox"/> ROTARY <input type="checkbox"/> HAMMER <input type="checkbox"/> CABLE TOOL <input type="checkbox"/> OTHER - SPECIFY:											
	DEPTH (feet bgl)		BORE HOLE DIAM (inches)		CASING MATERIAL AND/OR GRADE (include each casing string, and note sections of screen)		CASING CONNECTION TYPE (add coupling diameter)		CASING INSIDE DIAM. (inches)		CASING WALL THICKNESS (inches)		SLOT SIZE (inches)	
	FROM TO													
<b>3. ANNULAR MATERIAL</b>	DEPTH (feet bgl)		BORE HOLE DIAM. (inches)		LIST ANNULAR SEAL MATERIAL AND GRAVEL PACK SIZE-RANGE BY INTERVAL		AMOUNT (cubic feet)		METHOD OF PLACEMENT					
	FROM TO													
	<b>1' 20'</b>		<b>6"</b>		<b>Bentonite Chips</b>		<b>6.75 cf</b>		<b>TOP</b>					
	<b>20' 200'</b>		<b>6"</b>		<b>Metallurgical Coke Breeze</b>		<b>18 cf</b>		<b>TOP</b>					

FOR OSE INTERNAL USE

WR-20 WELL RECORD &amp; LOG (Version 04/30/19)

FILE NO.	CP-1867	POD NO.	1	TRN NO.	689366
LOCATION	241	T209 R34E S20	WELL TAG ID NO.	NA	PAGE 1 OF 2

#### 4. HYDROGEOLOGIC LOG OF WELL

WR-20 WELL RECORD & LOG (Version 04/30/2019)



John R. D Antonio, Jr., P.E.  
State Engineer



Roswell Office  
1900 WEST SECOND STREET  
ROSWELL, NM 88201

**STATE OF NEW MEXICO  
OFFICE OF THE STATE ENGINEER**

Trn Nbr: 689366  
File Nbr: CP 01867  
Well File Nbr: CP 01867 POD1

May. 12, 2021

VERNON K BLACK  
HUNGRY HORSE LLC  
PO BOX 1058  
HOBBS, NM 88241

Greetings:

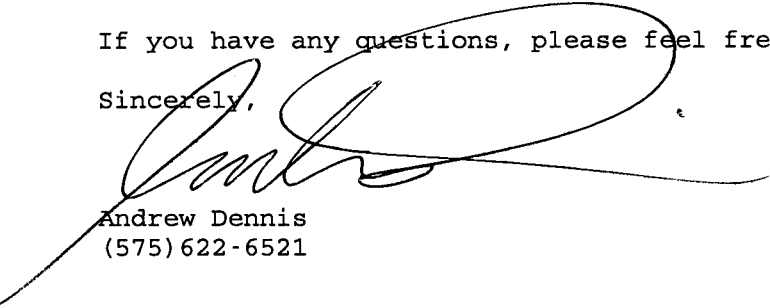
The above numbered permit was issued in your name on 03/08/2021.

The Well Record was received in this office on 05/12/2021, stating that it had been completed on , and was a dry well. The well is to be plugged according to 19.27.4.30 NMAC.

Please note that another well can be drilled under this permit if the well is completed and the well log filed on or before 03/08/2022.

If you have any questions, please feel free to contact us.

Sincerely,

  
Andrew Dennis  
(575) 622-6521

drywell







## Delineation Samples

Sample Date	Sample ID	Depth	Chloride Lab	Benzene	Toulene	Ethybenzene	Total Xylenes	Total BTEX	GRO	DRO	EXT DRO	GPS Coordinates
10/6/2021	SP1	Surface	21,200	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	5,620	1,590	32.5379783, -103.5545543
		1'	32	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	
	SP2	Surface	23400	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	8,770	2,720	32.5380014, -103.5545176
		1'	144	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	
	SP3	Surface	432	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	1,300	402	32.5379435, -103.5540648
		1'	32	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	
	SP4	Surface	1880	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	5,660	1,640	32.5379814, -103.553848
		1'	544	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	
	SP5	Surface	2160	<0.100	0.47	3.97	9.84	14.3	588	15,000	3,180	32.5379701, -103.5536008
		1'	1960	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	10.1	<10.0	
		2'	3920	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	
		3'	48	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	
	SP6	Surface	1140	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	4,950.0	1,250	32.5378508, -103.5533570
		1'	80	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	10.9	<10.0	
	SP7	Surface	1040	<0.050	<0.050	0.328	1.70	2.03	228	9,700	2,140	32.5376170, -103.5531965
		1'	32	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	346	92.6	
10/20/2021		2'		<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	65.3	20.8	
		3'		<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	26.3	<10.0	
12/1/2021	H1	Surface	80	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	11.8	<10.0	32.5379528, -103.5539605
	H2	Surface	160	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	32.5379393, -103.5547984
	H3	Surface	32	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	32.5378658, -103.5539347
	H4	Surface	<16	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	32.5374862, -103.5530815



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

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October 08, 2021

BRUCE BAKER

APACHE CORP - HOBBS

2350 W. MARLAND BLVD.

HOBBS, NM 88240

RE: BLACK & TAN

Enclosed are the results of analyses for samples received by the laboratory on 10/06/21 16:45.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-21-14. Accreditation applies to drinking water, non-potable water and solid and chemical materials. All accredited analytes are denoted by an asterisk (\*). For a complete list of accredited analytes and matrices visit the TCEQ website at [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  
 BRUCE BAKER  
 2350 W. MARLAND BLVD.  
 HOBBS NM, 88240  
 Fax To: (575) 393-2432

Received:	10/06/2021	Sampling Date:	10/06/2021
Reported:	10/08/2021	Sampling Type:	Soil
Project Name:	BLACK & TAN	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	NOT GIVEN		

**Sample ID: SP 1 (H212792-01)**

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	10/08/2021	ND	1.89	94.4	2.00	8.74		
Toluene*	<0.050	0.050	10/08/2021	ND	1.89	94.7	2.00	9.10		
Ethylbenzene*	<0.050	0.050	10/08/2021	ND	1.91	95.6	2.00	7.93		
Total Xylenes*	<0.150	0.150	10/08/2021	ND	5.77	96.2	6.00	8.22		
Total BTX	<0.300	0.300	10/08/2021	ND						

Surrogate: 4-Bromofluorobenzene (PID) 106 % 69.9-140

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	21200	16.0	10/07/2021	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	10/07/2021	ND	203	102	200	2.44	
DRO >C10-C28*	5620	10.0	10/07/2021	ND	214	107	200	1.51	
EXT DRO >C28-C36	1590	10.0	10/07/2021	ND					

Surrogate: 1-Chlorooctane 71.5 % 44.3-133

Surrogate: 1-Chlorooctadecane 141 % 38.9-142

Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

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  
 Fax To: (575) 393-2432

Received: 10/06/2021  
 Reported: 10/08/2021  
 Project Name: BLACK & TAN  
 Project Number: NONE GIVEN  
 Project Location: NOT GIVEN

Sampling Date: 10/06/2021  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Tamara Oldaker

**Sample ID: SP 1 @ 1' (H212792-02)**

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	10/07/2021	ND	1.89	94.4	2.00	8.74		
Toluene*	<0.050	0.050	10/07/2021	ND	1.89	94.7	2.00	9.10		
Ethylbenzene*	<0.050	0.050	10/07/2021	ND	1.91	95.6	2.00	7.93		
Total Xylenes*	<0.150	0.150	10/07/2021	ND	5.77	96.2	6.00	8.22		
Total BTX	<0.300	0.300	10/07/2021	ND						

Surrogate: 4-Bromofluorobenzene (PID) 104 % 69.9-140

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	10/07/2021	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	10/07/2021	ND	203	102	200	2.44	
DRO >C10-C28*	<10.0	10.0	10/07/2021	ND	214	107	200	1.51	
EXT DRO >C28-C36	<10.0	10.0	10/07/2021	ND					

Surrogate: 1-Chlorooctane 82.4 % 44.3-133

Surrogate: 1-Chlorooctadecane 78.5 % 38.9-142

Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager





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: 10/06/2021  
 Reported: 10/08/2021  
 Project Name: BLACK & TAN  
 Project Number: NONE GIVEN  
 Project Location: NOT GIVEN

Sampling Date: 10/06/2021  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Tamara Oldaker

**Sample ID: SP 2 (H212792-03)**

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	10/07/2021	ND	1.89	94.4	2.00	8.74		
Toluene*	<0.050	0.050	10/07/2021	ND	1.89	94.7	2.00	9.10		
Ethylbenzene*	<0.050	0.050	10/07/2021	ND	1.91	95.6	2.00	7.93		
Total Xylenes*	<0.150	0.150	10/07/2021	ND	5.77	96.2	6.00	8.22		
Total BTEx	<0.300	0.300	10/07/2021	ND						

Surrogate: 4-Bromofluorobenzene (PID) 104 % 69.9-140

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	26400	16.0	10/07/2021	ND	416	104	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS				S-04	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	10/07/2021	ND	203	102	200	2.44	
DRO >C10-C28*	8770	10.0	10/07/2021	ND	214	107	200	1.51	
EXT DRO >C28-C36	2720	10.0	10/07/2021	ND					

Surrogate: 1-Chlorooctane 80.2 % 44.3-133

Surrogate: 1-Chlorooctadecane 215 % 38.9-142

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

Received: 10/06/2021  
 Reported: 10/08/2021  
 Project Name: BLACK & TAN  
 Project Number: NONE GIVEN  
 Project Location: NOT GIVEN

Sampling Date: 10/06/2021  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Tamara Oldaker

**Sample ID: SP 2 @ 1' (H212792-04)**

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	10/07/2021	ND	1.89	94.4	2.00	8.74	
Toluene*	<0.050	0.050	10/07/2021	ND	1.89	94.7	2.00	9.10	
Ethylbenzene*	<0.050	0.050	10/07/2021	ND	1.91	95.6	2.00	7.93	
Total Xylenes*	<0.150	0.150	10/07/2021	ND	5.77	96.2	6.00	8.22	
Total BTX	<0.300	0.300	10/07/2021	ND					

Surrogate: 4-Bromofluorobenzene (PID) 102 % 69.9-140

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	144	16.0	10/07/2021	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	10/07/2021	ND	203	102	200	2.44	
DRO >C10-C28*	<10.0	10.0	10/07/2021	ND	214	107	200	1.51	
EXT DRO >C28-C36	<10.0	10.0	10/07/2021	ND					

Surrogate: 1-Chlorooctane 83.2 % 44.3-133

Surrogate: 1-Chlorooctadecane 81.6 % 38.9-142

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

Received: 10/06/2021  
 Reported: 10/08/2021  
 Project Name: BLACK & TAN  
 Project Number: NONE GIVEN  
 Project Location: NOT GIVEN

Sampling Date: 10/06/2021  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Tamara Oldaker

**Sample ID: SP 3 (H212792-05)**

BTEx 8021B			mg/kg		Analyzed By: ms					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	10/07/2021	ND	1.89	94.4	2.00	8.74		
Toluene*	<0.050	0.050	10/07/2021	ND	1.89	94.7	2.00	9.10		
Ethylbenzene*	<0.050	0.050	10/07/2021	ND	1.91	95.6	2.00	7.93		
Total Xylenes*	<0.150	0.150	10/07/2021	ND	5.77	96.2	6.00	8.22		
Total BTEx	<0.300	0.300	10/07/2021	ND						

Surrogate: 4-Bromofluorobenzene (PID) 103 % 69.9-140

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	432	16.0	10/07/2021	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	10/07/2021	ND	203	102	200	2.44	
DRO >C10-C28*	1300	10.0	10/07/2021	ND	214	107	200	1.51	
EXT DRO >C28-C36	402	10.0	10/07/2021	ND					

Surrogate: 1-Chlorooctane 76.5 % 44.3-133

Surrogate: 1-Chlorooctadecane 126 % 38.9-142

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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  
 Fax To: (575) 393-2432

Received: 10/06/2021  
 Reported: 10/08/2021  
 Project Name: BLACK & TAN  
 Project Number: NONE GIVEN  
 Project Location: NOT GIVEN

Sampling Date: 10/06/2021  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Tamara Oldaker

**Sample ID: SP 3 @ 1' (H212792-06)**

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	10/07/2021	ND	1.89	94.4	2.00	8.74		
Toluene*	<0.050	0.050	10/07/2021	ND	1.89	94.7	2.00	9.10		
Ethylbenzene*	<0.050	0.050	10/07/2021	ND	1.91	95.6	2.00	7.93		
Total Xylenes*	<0.150	0.150	10/07/2021	ND	5.77	96.2	6.00	8.22		
Total BTX	<0.300	0.300	10/07/2021	ND						

Surrogate: 4-Bromofluorobenzene (PID) 103 % 69.9-140

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	10/07/2021	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	10/08/2021	ND	203	102	200	2.44	
DRO >C10-C28*	<10.0	10.0	10/08/2021	ND	214	107	200	1.51	
EXT DRO >C28-C36	<10.0	10.0	10/08/2021	ND					

Surrogate: 1-Chlorooctane 84.9 % 44.3-133

Surrogate: 1-Chlorooctadecane 82.0 % 38.9-142

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

Received: 10/06/2021  
 Reported: 10/08/2021  
 Project Name: BLACK & TAN  
 Project Number: NONE GIVEN  
 Project Location: NOT GIVEN

Sampling Date: 10/06/2021  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Tamara Oldaker

**Sample ID: SP 4 (H212792-07)**

BTEx 8021B			mg/kg		Analyzed By: ms					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	10/07/2021	ND	1.89	94.4	2.00	8.74		
Toluene*	<0.050	0.050	10/07/2021	ND	1.89	94.7	2.00	9.10		
Ethylbenzene*	<0.050	0.050	10/07/2021	ND	1.91	95.6	2.00	7.93		
Total Xylenes*	<0.150	0.150	10/07/2021	ND	5.77	96.2	6.00	8.22		
Total BTEx	<0.300	0.300	10/07/2021	ND						

Surrogate: 4-Bromofluorobenzene (PID) 102 % 69.9-140

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	1880	16.0	10/07/2021	ND	416	104	400	0.00	

TPH 8015M		mg/kg		Analyzed By: MS				S-04	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	10/07/2021	ND	203	102	200	2.44	
DRO >C10-C28*	5660	10.0	10/07/2021	ND	214	107	200	1.51	
EXT DRO >C28-C36	1640	10.0	10/07/2021	ND					

Surrogate: 1-Chlorooctane 82.7 % 44.3-133

Surrogate: 1-Chlorooctadecane 152 % 38.9-142

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

Received: 10/06/2021  
 Reported: 10/08/2021  
 Project Name: BLACK & TAN  
 Project Number: NONE GIVEN  
 Project Location: NOT GIVEN

Sampling Date: 10/06/2021  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Tamara Oldaker

**Sample ID: SP 4 @ 1' (H212792-08)**

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	10/07/2021	ND	1.89	94.4	2.00	8.74		
Toluene*	<0.050	0.050	10/07/2021	ND	1.89	94.7	2.00	9.10		
Ethylbenzene*	<0.050	0.050	10/07/2021	ND	1.91	95.6	2.00	7.93		
Total Xylenes*	<0.150	0.150	10/07/2021	ND	5.77	96.2	6.00	8.22		
Total BTX	<0.300	0.300	10/07/2021	ND						

Surrogate: 4-Bromofluorobenzene (PID) 104 % 69.9-140

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	544	16.0	10/07/2021	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	10/07/2021	ND	203	102	200	2.44	
DRO >C10-C28*	<10.0	10.0	10/07/2021	ND	214	107	200	1.51	
EXT DRO >C28-C36	<10.0	10.0	10/07/2021	ND					

Surrogate: 1-Chlorooctane 77.6 % 44.3-133

Surrogate: 1-Chlorooctadecane 74.8 % 38.9-142

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

Received: 10/06/2021  
 Reported: 10/08/2021  
 Project Name: BLACK & TAN  
 Project Number: NONE GIVEN  
 Project Location: NOT GIVEN

Sampling Date: 10/06/2021  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Tamara Oldaker

**Sample ID: SP 5 (H212792-09)**

BTX 8021B			mg/kg		Analyzed By: ms				S-04	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.100	0.100	10/07/2021	ND	1.89	94.4	2.00	8.74		
Toluene*	0.470	0.100	10/07/2021	ND	1.89	94.7	2.00	9.10		
Ethylbenzene*	3.97	0.100	10/07/2021	ND	1.91	95.6	2.00	7.93		
Total Xylenes*	9.84	0.300	10/07/2021	ND	5.77	96.2	6.00	8.22		
Total BTX	14.3	0.600	10/07/2021	ND						

Surrogate: 4-Bromofluorobenzene (PID) 231 % 69.9-140

Chloride, SM4500CI-B			mg/kg					Analyzed By: AC	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	2160	16.0	10/07/2021	ND	416	104	400	0.00	

TPH 8015M		mg/kg		Analyzed By: MS				S-06	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	588	100	10/08/2021	ND	203	102	200	2.44	
DRO >C10-C28*	15000	100	10/08/2021	ND	214	107	200	1.51	
EXT DRO >C28-C36	3180	100	10/08/2021	ND					

Surrogate: 1-Chlorooctane 145 % 44.3-133

Surrogate: 1-Chlorooctadecane 276 % 38.9-142

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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  
 Fax To: (575) 393-2432

Received: 10/06/2021  
 Reported: 10/08/2021  
 Project Name: BLACK & TAN  
 Project Number: NONE GIVEN  
 Project Location: NOT GIVEN

Sampling Date: 10/06/2021  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Tamara Oldaker

**Sample ID: SP 5 @ 1' (H212792-10)**

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	10/07/2021	ND	1.89	94.4	2.00	8.74		
Toluene*	<0.050	0.050	10/07/2021	ND	1.89	94.7	2.00	9.10		
Ethylbenzene*	<0.050	0.050	10/07/2021	ND	1.91	95.6	2.00	7.93		
Total Xylenes*	<0.150	0.150	10/07/2021	ND	5.77	96.2	6.00	8.22		
Total BTX	<0.300	0.300	10/07/2021	ND						

Surrogate: 4-Bromofluorobenzene (PID) 103 % 69.9-140

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	1960	16.0	10/07/2021	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	10/07/2021	ND	203	102	200	2.44	
DRO >C10-C28*	10.1	10.0	10/07/2021	ND	214	107	200	1.51	
EXT DRO >C28-C36	<10.0	10.0	10/07/2021	ND					

Surrogate: 1-Chlorooctane 76.5 % 44.3-133

Surrogate: 1-Chlorooctadecane 73.7 % 38.9-142

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

Received: 10/06/2021  
 Reported: 10/08/2021  
 Project Name: BLACK & TAN  
 Project Number: NONE GIVEN  
 Project Location: NOT GIVEN

Sampling Date: 10/06/2021  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Tamara Oldaker

**Sample ID: SP 6 (H212792-11)**

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	10/07/2021	ND	1.89	94.4	2.00	8.74		
Toluene*	<0.050	0.050	10/07/2021	ND	1.89	94.7	2.00	9.10		
Ethylbenzene*	<0.050	0.050	10/07/2021	ND	1.91	95.6	2.00	7.93		
Total Xylenes*	<0.150	0.150	10/07/2021	ND	5.77	96.2	6.00	8.22		
Total BTEx	<0.300	0.300	10/07/2021	ND						

Surrogate: 4-Bromofluorobenzene (PID) 106 % 69.9-140

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	1140	16.0	10/07/2021	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	10/07/2021	ND	203	102	200	2.44	
DRO >C10-C28*	4950	10.0	10/07/2021	ND	214	107	200	1.51	
EXT DRO >C28-C36	1250	10.0	10/07/2021	ND					

Surrogate: 1-Chlorooctane 81.2 % 44.3-133

Surrogate: 1-Chlorooctadecane 131 % 38.9-142

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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  
 Fax To: (575) 393-2432

Received: 10/06/2021  
 Reported: 10/08/2021  
 Project Name: BLACK & TAN  
 Project Number: NONE GIVEN  
 Project Location: NOT GIVEN

Sampling Date: 10/06/2021  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Tamara Oldaker

**Sample ID: SP 6 @ 1' (H212792-12)**

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	10/07/2021	ND	1.89	94.4	2.00	8.74		
Toluene*	<0.050	0.050	10/07/2021	ND	1.89	94.7	2.00	9.10		
Ethylbenzene*	<0.050	0.050	10/07/2021	ND	1.91	95.6	2.00	7.93		
Total Xylenes*	<0.150	0.150	10/07/2021	ND	5.77	96.2	6.00	8.22		
Total BTX	<0.300	0.300	10/07/2021	ND						

Surrogate: 4-Bromofluorobenzene (PID) 102 % 69.9-140

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	80.0	16.0	10/07/2021	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	10/07/2021	ND	203	102	200	2.44	
DRO >C10-C28*	10.9	10.0	10/07/2021	ND	214	107	200	1.51	
EXT DRO >C28-C36	<10.0	10.0	10/07/2021	ND					

Surrogate: 1-Chlorooctane 82.2 % 44.3-133

Surrogate: 1-Chlorooctadecane 79.8 % 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  
 BRUCE BAKER  
 2350 W. MARLAND BLVD.  
 HOBBS NM, 88240  
 Fax To: (575) 393-2432

Received: 10/06/2021  
 Reported: 10/08/2021  
 Project Name: BLACK & TAN  
 Project Number: NONE GIVEN  
 Project Location: NOT GIVEN

Sampling Date: 10/06/2021  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Tamara Oldaker

**Sample ID: SP 7 (H212792-13)**

BTX 8021B		mg/kg	Analyzed By: ms					S-04	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	10/07/2021	ND	1.89	94.4	2.00	8.74	
Toluene*	<0.050	0.050	10/07/2021	ND	1.89	94.7	2.00	9.10	
Ethylbenzene*	<b>0.328</b>	0.050	10/07/2021	ND	1.91	95.6	2.00	7.93	
<b>Total Xylenes*</b>	<b>1.70</b>	0.150	10/07/2021	ND	5.77	96.2	6.00	8.22	
<b>Total BTX</b>	<b>2.03</b>	0.300	10/07/2021	ND					

Surrogate: 4-Bromofluorobenzene (PID) 192 % 69.9-140

Chloride, SM4500CI-B		mg/kg	Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
<b>Chloride</b>	<b>1040</b>	16.0	10/07/2021	ND	416	104	400	0.00	

TPH 8015M		mg/kg	Analyzed By: MS					S-04	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
<b>GRO C6-C10*</b>	<b>228</b>	10.0	10/07/2021	ND	223	112	200	2.36	
<b>DRO &gt;C10-C28*</b>	<b>9700</b>	10.0	10/07/2021	ND	222	111	200	0.599	
<b>EXT DRO &gt;C28-C36</b>	<b>2140</b>	10.0	10/07/2021	ND					

Surrogate: 1-Chlorooctane 208 % 44.3-133

Surrogate: 1-Chlorooctadecane 361 % 38.9-142

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

Received: 10/06/2021  
 Reported: 10/08/2021  
 Project Name: BLACK & TAN  
 Project Number: NONE GIVEN  
 Project Location: NOT GIVEN

Sampling Date: 10/06/2021  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Tamara Oldaker

**Sample ID: SP 7 @ 1' (H212792-14)**

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	10/07/2021	ND	1.89	94.4	2.00	8.74		
Toluene*	<0.050	0.050	10/07/2021	ND	1.89	94.7	2.00	9.10		
Ethylbenzene*	<0.050	0.050	10/07/2021	ND	1.91	95.6	2.00	7.93		
Total Xylenes*	<0.150	0.150	10/07/2021	ND	5.77	96.2	6.00	8.22		
Total BTX	<0.300	0.300	10/07/2021	ND						

Surrogate: 4-Bromofluorobenzene (PID) 106 % 69.9-140

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	10/07/2021	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	10/07/2021	ND	206	103	200	3.15	
DRO >C10-C28*	346	10.0	10/07/2021	ND	199	99.7	200	0.374	
EXT DRO >C28-C36	92.6	10.0	10/07/2021	ND					

Surrogate: 1-Chlorooctane 75.5 % 44.3-133

Surrogate: 1-Chlorooctadecane 80.3 % 38.9-142

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

Received: 10/06/2021  
 Reported: 10/08/2021  
 Project Name: BLACK & TAN  
 Project Number: NONE GIVEN  
 Project Location: NOT GIVEN

Sampling Date: 10/06/2021  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Tamara Oldaker

**Sample ID: SP 5 @ 2' (H212792-15)**

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	10/07/2021	ND	2.07	103	2.00	6.78	
Toluene*	<0.050	0.050	10/07/2021	ND	2.07	104	2.00	4.28	
Ethylbenzene*	<0.050	0.050	10/07/2021	ND	2.08	104	2.00	5.67	
Total Xylenes*	<0.150	0.150	10/07/2021	ND	6.31	105	6.00	5.65	
Total BTX	<0.300	0.300	10/07/2021	ND					

Surrogate: 4-Bromofluorobenzene (PID) 110 % 69.9-140

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	3920	16.0	10/07/2021	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	10/08/2021	ND	215	107	200	7.96	
DRO >C10-C28*	<10.0	10.0	10/08/2021	ND	213	107	200	0.584	
EXT DRO >C28-C36	<10.0	10.0	10/08/2021	ND					

Surrogate: 1-Chlorooctane 99.2 % 44.3-133

Surrogate: 1-Chlorooctadecane 96.9 % 38.9-142

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

Received: 10/06/2021  
 Reported: 10/08/2021  
 Project Name: BLACK & TAN  
 Project Number: NONE GIVEN  
 Project Location: NOT GIVEN

Sampling Date: 10/06/2021  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Tamara Oldaker

**Sample ID: SP 5 @ 3' (H212792-16)**

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	10/08/2021	ND	2.17	109	2.00	5.65	
Toluene*	<0.050	0.050	10/08/2021	ND	2.12	106	2.00	5.85	
Ethylbenzene*	<0.050	0.050	10/08/2021	ND	2.07	104	2.00	5.06	
Total Xylenes*	<0.150	0.150	10/08/2021	ND	6.26	104	6.00	4.73	
Total BTX	<0.300	0.300	10/08/2021	ND					

Surrogate: 4-Bromofluorobenzene (PID) 102 % 69.9-140

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	48.0	16.0	10/07/2021	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	10/08/2021	ND	215	107	200	7.96	
DRO >C10-C28*	<10.0	10.0	10/08/2021	ND	213	107	200	0.584	
EXT DRO >C28-C36	<10.0	10.0	10/08/2021	ND					

Surrogate: 1-Chlorooctane 93.0 % 44.3-133

Surrogate: 1-Chlorooctadecane 88.8 % 38.9-142

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Celey D. Keene, Lab Director/Quality Manager



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### Notes and Definitions

S-06	The recovery of this surrogate is outside control limits due to sample dilution required from high analyte concentration and/or matrix interference's.
S-04	The surrogate recovery for this sample is outside of established control limits due to a sample matrix effect.
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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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

<b>Company Name:</b> <u>Produce</u> <b>Project Manager:</b> <u>Bruce Baker</u>		<b>P.O. #:</b> <b>Company:</b>	
<b>Address:</b> <b>City:</b> <u>Hobbs</u> <b>State:</b> <u>NM</u> <b>Zip:</b> <u>88240</u>		<b>Attn:</b> <b>Address:</b>	
<b>Phone #:</b> <b>Fax #:</b>		<b>City:</b> <b>State:</b> <b>Zip:</b>	
<b>Project #:</b>		<b>Phone #:</b>	
<b>Project Name:</b>		<b>Fax #:</b>	
<b>Project Location:</b> <u>Black &amp; Tan</u>			
<b>Sampler Name:</b> <u>Joe Keene</u>			

Lab I.D.	Sample I.D.	(G)RAB OR (C)OMP.	# CONTAINERS	MATRIX						DATE	TIME	PRESERV.	SAMPLING	ANALYSIS REQUEST	
				GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER :						
<u>H22792</u>	<u>SP1</u>		<u>1</u>			<u>X</u>				<u>10-6</u>	<u>10:40</u>	<u>X</u>	<u>X</u>	<u>X</u>	
	<u>SP1 @1'</u>														
	<u>SP2</u>														
	<u>SP2 @1'</u>														
	<u>SP3</u>														
	<u>SP3 @1'</u>														
	<u>SP4</u>														
	<u>SP4 @1'</u>														
	<u>SP5</u>														
	<u>SP5 @1'</u>														
	<u>SP5 @1'</u>														

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<b>Relinquished By:</b> <u>Joe Keene</u> <b>Date:</b> <u>10-6-21</u> <b>Time:</b> <u>10:45</u>	<b>Received By:</b> <u>Joe Keene</u> <b>Date:</b> <u>10-6-21</u> <b>Time:</b> <u>10:45</u>
--	--

<b>Delivered By:</b> (Circle One) Sampler - UPS - Bus - Other: <u>C</u>	<b>Observed Temp. °C</b> <u>4.3</u> <b>Corrected Temp. °C</b> <u>3.8</u>	<b>Sample Condition</b> Cool <input checked="" type="checkbox"/> Intact <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	<b>CHECKED BY:</b> (Initials) <u>AK</u>	<b>Turnaround Time:</b> <u>Standard</u> <b>Thermometer ID #113</b> <u>Rush</u> <b>Correction Factor None</b> <u>-0.5°C</u>
--	---	---	--	--

REMARKS: Joe Keene

Verbal Result: ☐ Yes ☐ No Add'l Phone #:  
All Results are emailed. Please provide Email address:

Bacteria (only) Sample Condition  
Cool Intact ☒  
Yes ☐ No ☐  
Corrected Temp. °C





## Page 20 of 20

† 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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October 22, 2021

BRUCE BAKER

APACHE CORP - HOBBS

2350 W. MARLAND BLVD.

HOBBS, NM 88240

RE: BLACK & TAN

Enclosed are the results of analyses for samples received by the laboratory on 10/20/21 9:28.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-21-14. Accreditation applies to drinking water, non-potable water and solid and chemical materials. All accredited analytes are denoted by an asterisk (\*). For a complete list of accredited analytes and matrices visit the TCEQ website at [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  
 BRUCE BAKER  
 2350 W. MARLAND BLVD.  
 HOBBS NM, 88240  
 Fax To: (575) 393-2432

Received:	10/20/2021	Sampling Date:	10/20/2021
Reported:	10/22/2021	Sampling Type:	Soil
Project Name:	BLACK & TAN	Sampling Condition:	Cool & Intact
Project Number:	BLACK & TAN 27	Sample Received By:	Tamara Oldaker
Project Location:	NOT GIVEN		

**Sample ID: SP 7 @ 2' (H212944-01)**

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	10/21/2021	ND	2.12	106	2.00	0.572	
Toluene*	<0.050	0.050	10/21/2021	ND	2.08	104	2.00	0.534	
Ethylbenzene*	<0.050	0.050	10/21/2021	ND	2.03	102	2.00	0.177	
Total Xylenes*	<0.150	0.150	10/21/2021	ND	6.10	102	6.00	0.295	
Total BTEX	<0.300	0.300	10/21/2021	ND					

Surrogate: 4-Bromofluorobenzene (PID) 102 % 69.9-140

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	10/20/2021	ND	207	104	200	3.45	
<b>DRO &gt;C10-C28*</b>	<b>65.3</b>	10.0	10/20/2021	ND	194	97.0	200	3.04	
<b>EXT DRO &gt;C28-C36</b>	<b>20.8</b>	10.0	10/20/2021	ND					

Surrogate: 1-Chlorooctane 71.5 % 44.3-133

Surrogate: 1-Chlorooctadecane 70.8 % 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  
 BRUCE BAKER  
 2350 W. MARLAND BLVD.  
 HOBBS NM, 88240  
 Fax To: (575) 393-2432

Received: 10/20/2021  
 Reported: 10/22/2021  
 Project Name: BLACK & TAN  
 Project Number: BLACK & TAN 27  
 Project Location: NOT GIVEN

Sampling Date: 10/20/2021  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Tamara Oldaker

**Sample ID: SP 7 @ 3' (H212944-02)**

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	10/21/2021	ND	2.12	106	2.00	0.572		
Toluene*	<0.050	0.050	10/21/2021	ND	2.08	104	2.00	0.534		
Ethylbenzene*	<0.050	0.050	10/21/2021	ND	2.03	102	2.00	0.177		
Total Xylenes*	<0.150	0.150	10/21/2021	ND	6.10	102	6.00	0.295		
Total BTX	<0.300	0.300	10/21/2021	ND						

Surrogate: 4-Bromofluorobenzene (PID) 101 % 69.9-140

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	10/20/2021	ND	207	104	200	3.45		
<b>DRO &gt;C10-C28*</b>	<b>26.3</b>	10.0	10/20/2021	ND	194	97.0	200	3.04		
EXT DRO >C28-C36	<10.0	10.0	10/20/2021	ND						

Surrogate: 1-Chlorooctane 90.7 % 44.3-133

Surrogate: 1-Chlorooctadecane 88.4 % 38.9-142

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\*=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





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

# CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

<b>Company Name:</b> Apache <b>Project Manager:</b> Bruce Baker <b>Address:</b> <b>City:</b> Hobbs <b>State:</b> NM <b>Zip:</b> 88240 <b>Phone #:</b> <b>Fax #:</b> <b>Project #:</b> <b>Project Owner:</b> <b>Project Name:</b> <b>Project Location:</b> Black 3 Trn 27 <b>Sampler Name:</b> Cere Disposal, Jr. <b>FOR LAB USE ONLY</b>		<b>BILL TO</b> <b>P.O. #:</b> <b>Company:</b> <b>Attn:</b> <b>Address:</b> <b>City:</b> <b>State:</b> <b>Zip:</b> <b>Phone #:</b> <b>Fax #:</b>		<b>ANALYSIS REQUEST</b>	
<b>Lab I.D.:</b> H210844 <b>Sample I.D.:</b> 1 SP702 2 SP703 3 SP704		<b>MATRIX</b> (G)RAB OR (C)OMP. # CONTAINERS: 1 GROUNDWATER WASTEWATER SOIL OIL SLUDGE OTHER:		<b>PRESERV</b> ACID/BASE: (ICE) COOL OTHER:	
<b>DATE</b> 10-20-2021 <b>TIME</b> 8:20		<b>SAMPLING</b> DATE 10-20-2021 TIME 8:20		<b>EXT TPH</b> <b>BTEX</b>	
<b>Relinquished By:</b> [Signature] <b>Date:</b> 10-20-2021 <b>Received By:</b> [Signature] <b>Date:</b> 10-20-2021		<b>Turnaround Time:</b> Standard <b>Thermometer ID #113</b> <b>Correction Factor Name</b> -0.5°C		<b>Remarks:</b> Email Larry Baker Joe Q. Jr	
<b>Delivered By: (Circle One)</b> Sampler - UPS - Bus - Other:		<b>Observed Temp. °C</b> 4.6 <b>Corrected Temp. °C</b> 4.1		<b>Sample Condition</b> Cool Intact <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
<b>Relinquished By:</b> [Signature] <b>Date:</b> 10-20-2021 <b>Received By:</b> [Signature]		<b>Turnaround Time:</b> Standard <b>Thermometer ID #113</b> <b>Correction Factor Name</b> -0.5°C		<b>Remarks:</b> Email Larry Baker Joe Q. Jr	

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





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

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December 02, 2021

BRUCE BAKER

APACHE CORP - HOBBS

2350 W. MARLAND BLVD.

HOBBS, NM 88240

RE: BLACK & TAN 301H

Enclosed are the results of analyses for samples received by the laboratory on 12/01/21 15:55.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-21-14. Accreditation applies to drinking water, non-potable water and solid and chemical materials. All accredited analytes are denoted by an asterisk (\*). For a complete list of accredited analytes and matrices visit the TCEQ website at [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  
 BRUCE BAKER  
 2350 W. MARLAND BLVD.  
 HOBBS NM, 88240  
 Fax To: (575) 393-2432

Received:	12/01/2021	Sampling Date:	12/01/2021
Reported:	12/02/2021	Sampling Type:	Soil
Project Name:	BLACK & TAN 301H	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	NOT GIVEN		

**Sample ID: H 1 (H213439-01)**

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	12/02/2021	ND	2.01	101	2.00	7.44	
Toluene*	<0.050	0.050	12/02/2021	ND	2.06	103	2.00	9.64	
Ethylbenzene*	<0.050	0.050	12/02/2021	ND	2.06	103	2.00	11.3	
Total Xylenes*	<0.150	0.150	12/02/2021	ND	6.30	105	6.00	10.6	
Total BTX	<0.300	0.300	12/02/2021	ND					

Surrogate: 4-Bromofluorobenzene (PID) 95.0 % 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	80.0	16.0	12/02/2021	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	12/02/2021	ND	212	106	200	3.90	
DRO >C10-C28*	11.8	10.0	12/02/2021	ND	222	111	200	2.29	
EXT DRO >C28-C36	<10.0	10.0	12/02/2021	ND					

Surrogate: 1-Chlorooctane 119 % 44.3-133

Surrogate: 1-Chlorooctadecane 121 % 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  
 BRUCE BAKER  
 2350 W. MARLAND BLVD.  
 HOBBS NM, 88240  
 Fax To: (575) 393-2432

Received: 12/01/2021  
 Reported: 12/02/2021  
 Project Name: BLACK & TAN 301H  
 Project Number: NONE GIVEN  
 Project Location: NOT GIVEN

Sampling Date: 12/01/2021  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Tamara Oldaker

**Sample ID: H 2 (H213439-02)**

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	12/02/2021	ND	2.01	101	2.00	7.44	
Toluene*	<0.050	0.050	12/02/2021	ND	2.06	103	2.00	9.64	
Ethylbenzene*	<0.050	0.050	12/02/2021	ND	2.06	103	2.00	11.3	
Total Xylenes*	<0.150	0.150	12/02/2021	ND	6.30	105	6.00	10.6	
Total BTEX	<0.300	0.300	12/02/2021	ND					

Surrogate: 4-Bromofluorobenzene (PID) 95.1 % 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	160	16.0	12/02/2021	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	12/02/2021	ND	212	106	200	3.90	
DRO >C10-C28*	<10.0	10.0	12/02/2021	ND	222	111	200	2.29	
EXT DRO >C28-C36	<10.0	10.0	12/02/2021	ND					

Surrogate: 1-Chlorooctane 105 % 44.3-133

Surrogate: 1-Chlorooctadecane 106 % 38.9-142

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

Received: 12/01/2021  
 Reported: 12/02/2021  
 Project Name: BLACK & TAN 301H  
 Project Number: NONE GIVEN  
 Project Location: NOT GIVEN

Sampling Date: 12/01/2021  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Tamara Oldaker

**Sample ID: H 3 (H213439-03)**

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	12/02/2021	ND	2.01	101	2.00	7.44	
Toluene*	<0.050	0.050	12/02/2021	ND	2.06	103	2.00	9.64	
Ethylbenzene*	<0.050	0.050	12/02/2021	ND	2.06	103	2.00	11.3	
Total Xylenes*	<0.150	0.150	12/02/2021	ND	6.30	105	6.00	10.6	
Total BTEX	<0.300	0.300	12/02/2021	ND					

Surrogate: 4-Bromofluorobenzene (PID) 93.7 % 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	32.0	16.0	12/02/2021	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	12/02/2021	ND	212	106	200	3.90	
DRO >C10-C28*	<10.0	10.0	12/02/2021	ND	222	111	200	2.29	
EXT DRO >C28-C36	<10.0	10.0	12/02/2021	ND					

Surrogate: 1-Chlorooctane 124 % 44.3-133

Surrogate: 1-Chlorooctadecane 124 % 38.9-142

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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  
 Fax To: (575) 393-2432

Received: 12/01/2021  
 Reported: 12/02/2021  
 Project Name: BLACK & TAN 301H  
 Project Number: NONE GIVEN  
 Project Location: NOT GIVEN

Sampling Date: 12/01/2021  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Tamara Oldaker

**Sample ID: H 4 (H213439-04)**

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	12/02/2021	ND	2.01	101	2.00	7.44		
Toluene*	<0.050	0.050	12/02/2021	ND	2.06	103	2.00	9.64		
Ethylbenzene*	<0.050	0.050	12/02/2021	ND	2.06	103	2.00	11.3		
Total Xylenes*	<0.150	0.150	12/02/2021	ND	6.30	105	6.00	10.6		
Total BTX	<0.300	0.300	12/02/2021	ND						

Surrogate: 4-Bromofluorobenzene (PID) 94.3 % 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	<16.0	16.0	12/02/2021	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	12/02/2021	ND	212	106	200	3.90		
DRO >C10-C28*	<10.0	10.0	12/02/2021	ND	222	111	200	2.29		
EXT DRO >C28-C36	<10.0	10.0	12/02/2021	ND						

Surrogate: 1-Chlorooctane 97.0 % 44.3-133

Surrogate: 1-Chlorooctadecane 97.0 % 38.9-142

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Celey D. Keene, Lab Director/Quality Manager

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### Notes and Definitions

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

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

---

Celey D. Keene, Lab Director/Quality Manager



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(575) 393-2326 FAX (575) 393-2476**

## CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

[illegible]



**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 64833

**CONDITIONS**

Operator: APACHE CORPORATION 303 Veterans Airpark Ln Midland, TX 79705	OGRID: 873
	Action Number: 64833
	Action Type: [C-141] Release Corrective Action (C-141)

**CONDITIONS**

Created By	Condition	Condition Date
chensley	None	12/29/2021