



EXPLORING WHAT'S POSSIBLE

**RECEIVED**

*By OCD; Dr. Oberding at 3:29 pm, Mar 16, 2015*

# **APACHE CORPORATION**

P.O.Box 1849  
Eunice, NM 88231  
Phone 575.394.3159

**WBDU #42**  
**(1RP-3435)**

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## **Termination Request**

API No. 30-025-20178

Release Date: November 11<sup>th</sup>, 2014

Unit Letter I, Section 9, Township 21S, Range 37E

**March 11<sup>th</sup>, 2015**

**Dr. Tomáš Oberding, PhD**

Hydrologist – New Mexico Oil Conservation Division  
Energy, Minerals and Natural Resources Department  
1625 N. French Dr.  
Hobbs, NM 88240

**RE: Termination Request  
Apache WBDU #42 (1RP-3435)  
UL/I sec. 9 T21S R37E  
API No. 30-025-20178**

Dr. Oberding:

Apache Corporation (Apache) has retained Rice Environmental Consulting and Safety (RECS) to address potential environmental concerns at the above-referenced site.

### **Background and Previous Work**

The site is located approximately 3.4 miles north of Eunice, New Mexico at UL/I sec. 9 T21S R37E. Based on records from NM OSE, USGS and RECS installed monitor wells near the site, the depth to groundwater at the site is approximately +/- 60 ft bgs.

On November 11<sup>th</sup>, 2014, Apache discovered a release of produced water from a hole in a 2 inch 90 degree fitting on the well head. A total of 15 barrels of produced water was released over 21,131 square feet of lease pad and pasture land. The line was shut in, and a vacuum truck was dispatched to the site to pick up the standing fluid. The vacuum truck recovered 5 barrels of produced water. BLM was notified of the release on November 12<sup>th</sup>, 2014, and an initial C-141 was submitted to NMOCD and BLM for their approval. NMOCD approved the initial C-141 on December 8<sup>th</sup>, 2014.

RECS personnel were on site beginning November 12<sup>th</sup>, 2014 to assess the release. Based on the assessment, the release was scraped, and samples were taken from the bottom and walls of the scrape. The samples were field tested for chlorides and organic vapors. If field testing indicated that the samples would return chloride, Gasoline Range Organics (GRO) and Diesel Range Organics (DRO) readings below regulatory standards, the samples were taken to a commercial laboratory for analyses. If field testing did not show that all constituents would be below regulatory standards, the scrape was expanded until field testing shows that all constituents would be below regulatory standards.

Using these standards, the site was excavated in four portions (Figure 1). The lease pad was scraped down to 6 inches bgs. Various portions of the pasture area were scraped down to 1 ft bgs, 1.5 ft bgs and 2 ft bgs. Once the 6 inch scrape on the lease pad was completed, final bottom

samples were taken and field tested for chlorides and organic vapors. The two composite samples and the two grab samples were then sent to a commercial laboratory for analyses (Appendix B). The composite samples and the two grab samples returned chloride, GRO and DRO readings at or near non-detectable levels.

Once the scrapes in the pasture areas were completed, final wall and bottom samples were taken and field tested for chlorides and organic vapors. Representative samples were then sent to a commercial laboratory for analyses. All samples returned chloride levels below the regulatory standard of 250 mg/kg. GRO and DRO readings returned values of non-detect.

A request to backfill the site was sent to NMOCD on January 9<sup>th</sup>, 2015. NMOCD approved the backfill request on January 12<sup>th</sup>, 2015.

All excavated soil was taken to a NMOCD approved facility for disposal. Clean caliche was imported to the site to backfill the lease pad, and clean top soil was imported to the site to backfill the pasture area. The lease pad and pasture areas were backfilled and contoured to the surrounding location.

Photo documentation of field activities can be found in Appendix C.

Given that Apache removed the contaminated soil and replaced it with clean, imported soil, Apache respectfully requests 'remediation termination' and site closure. A final C-141 can be found in Appendix D.

RECS appreciates the opportunity to work with you on this project. Please call Hack Conder at (575) 393-2967 or me if you have any questions or wish to discuss the site.

Sincerely,



Lara Weinheimer  
Project Scientist  
RECS  
(575) 441-0431

Attachments:

- Figure 1 – Excavation Data
- Appendix A – Initial C-141
- Appendix B – Laboratory Analyses
- Appendix C – Photo Documentation
- Appendix D – Final C-141

# Figures

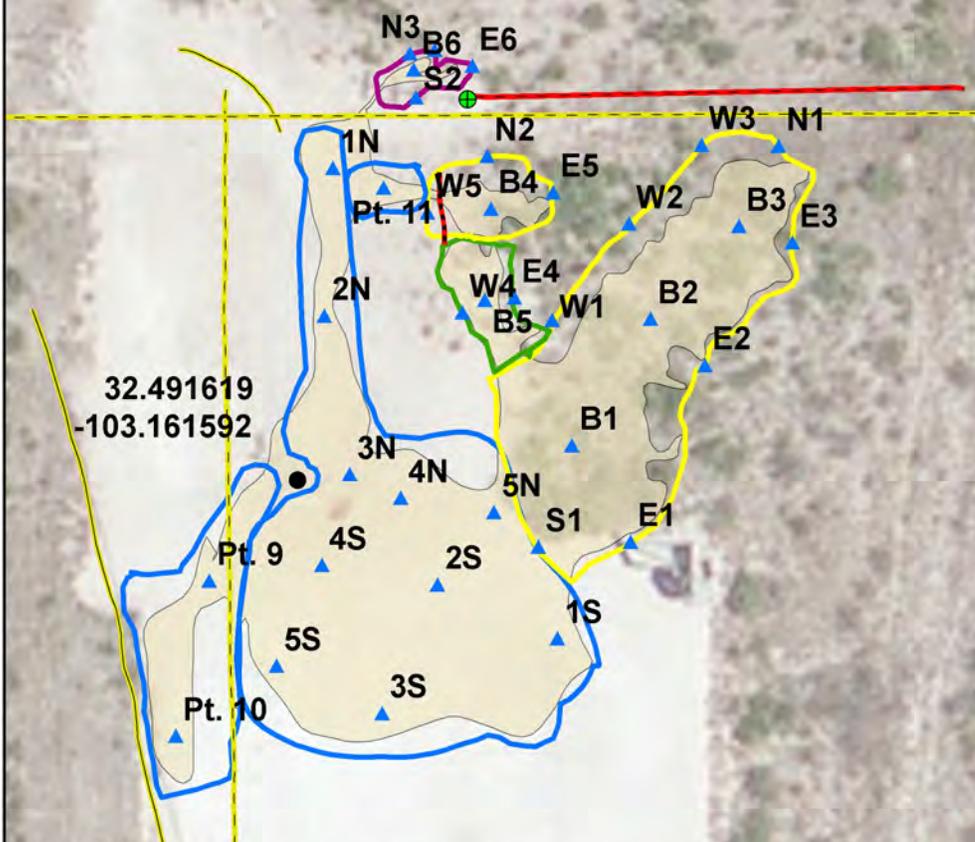
# Excavation Data

## 1.5 ft Scrape Samples

	CI-	PID	GRO	DRO
North Wall 3	<16	1.9	<10	<10
South Wall 2	<16	1.3	<10	<10
East Wall 6	118	5.5		
Bottom 6	<16	0	<10	<10

## 1 ft Scrape Samples

	CI-	PID	GRO	DRO
East Wall 4	84	1.1		
West Wall 4	154	3.2		
Bottom 5	<16	0	<10	<10



## 6 in Scrape Bottom Samples

	CI-	PID	GRO	DRO
Pt 10	<16	4.5	<10	<10
Pt 11	<16	12	<10	<10
North 5 Pt. Comp	112	2.1	<10	<10
South 5 Pt. Comp	80	0	<10	<10

## 2 ft Scrape Samples

	CI-	PID	GRO	DRO
East Wall 1	173	1.3		
East Wall 2	112	2.3	<10	<10
East Wall 3	118	0		
East Wall 5	80	0	<10	<10
West Wall 1	116	0		
West Wall 2	64	0	<10	<10
West Wall 3	208	0		
West Wall 5	64	1.1	<10	<10
North Wall 1	<16	1.8	<10	<10
North Wall 2	32	1.6	<10	<10
South Wall 1	<16	2.1	<10	<10
Bottom 1	176	2	<10	<10
Bottom 2	144	0	<10	<10
Bottom 3	128	1.4	<10	<10
Bottom 4	<16	1.2	<10	<10

## Legend

- ▲ SAMPLE POINT
- ELECTRIC POLE
- WELLHEAD
- BURIED ELECTRIC
- BURIED PIPELINE
- OVERHEAD ELECTRIC LINE
- SURFACE PIPELINE
- 6 IN SCRAPE
- 1 FT SCRAPE
- 1.5 FT SCRAPE
- 2 FT EXCAVATION
- STAIN (21,131 sq ft)

CI- FIELD DATA

CI- LAB DATA

DGW: 60 ft

Landowner: Millard Deck Est.

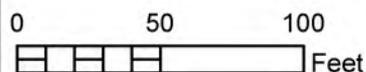
Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo, and the GIS User Community



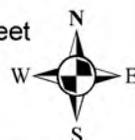
## APACHE WBDU #42

Legals: UL/I sec. 9  
T-21-S R-37-E  
LEA COUNTY, NM

## Figure 1



GPS date: 12/4/14 KH  
Drawing date: 12/16/14  
Drafted by: L. Weinheimer



# Appendix A

Initial C-141

**RICE Environmental Consulting and Safety (RECS)**  
P.O. Box 2948 Hobbs, NM 88241  
Phone 575.393.2967

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

**HOBBS OCD**

DEC 08 2014

RECEIVED

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

Form C-141  
Revised August 8, 2011

Submit 1 Copy to appropriate District Office in accordance with 19.15.29 NMAC.

**Release Notification and Corrective Action**

**OPERATOR**

Initial Report  Final Report

Name of Company Apache Corporation	Contact Bruce Baker
Address 2350 Marland Blvd Hobbs NM 88240	Telephone No. 432-631-6982
Facility Name WBDU # 42	Facility Type injection well
Surface Owner Millard Deck Estates	Mineral Owner BLM
API No. 30-025-20178	

**LOCATION OF RELEASE**

Unit Letter I	Section 9	Township 21S	Range 37E	Feet from the 198'	North/South Line FSL	Feet from the 660'	East/West Line FEL	County Lea
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Latitude \_\_\_\_\_ Longitude \_\_\_\_\_

**NATURE OF RELEASE**

Type of Release Produced Water	Volume of Release 15 Barrels of water	Volume Recovered 5 Barrels of water
Source of Release injection line	Date and Hour of Occurrence 11/11/14	Date and Hour of Discovery 11/11/2014
Was Immediate Notice Given? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Required	If YES, To Whom? Jeffery Robertson (BLM)	
By Whom? Bruce Baker	Date and Hour 11/12/2014	
Was a Watercourse Reached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If YES, Volume Impacting the Watercourse.	

If a Watercourse was Impacted, Describe Fully.\*

Describe Cause of Problem and Remedial Action Taken.\*

The release occurred due to a hole in 2 inch 90 degree fitting on the well head. The line was shut in and a vacuum truck was dispatched to pick up standing fluid.

Describe Area Affected and Cleanup Action Taken.\* The majority of the release was contained to the pad with about 2,500 square feet of pasture affected on east side of well pad. The area was mapped and the wet area has been scraped and contaminated soil was hauled to a NMOCD approved facility.

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to NMOCD 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 NMOCD marked as "Final Report" does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to ground water, surface water, human health or the environment. In addition, NMOCD 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.

Signature: <i>Bruce Baker</i>	<b>OIL CONSERVATION DIVISION</b>	
Printed Name: Bruce Baker	<del>_____ Approved by Environmental Specialist:</del>	
Title: Environmental Technician	Approval Date: 12-8-14	Expiration Date: 2-8-14
E-mail Address: larry.baker@apachecorp.com	Conditions of Approval: <i>Site Super signed Del Norte &amp; conduct area as per NMOCD guide - Submit final C-141 by 2-8-14.</i>	Attached <input type="checkbox"/> <i>IRP- 3435 orig 277 no 1434 234516 PTO 1434 234688</i>
Date: 11/26/14 Phone: (432) 631-6982		

\* Attach Additional Sheets If Necessary

DEC 11 2014

# Appendix B

## Laboratory Analyses

**RICE Environmental Consulting and Safety (RECS)**  
P.O. Box 2948 Hobbs, NM 88241  
Phone 575.393.2967



November 17, 2014

BRUCE BAKER

APACHE CORP - HOBBS

2350 W. MARLAND BLVD.

HOBBS, NM 88240

RE: WBDU #42

Enclosed are the results of analyses for samples received by the laboratory on 11/14/14 12:16.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-13-5. 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

**Analytical Results For:**

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

Received:	11/14/2014	Sampling Date:	11/14/2014
Reported:	11/17/2014	Sampling Type:	Soil
Project Name:	WBDU #42	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Kathy Perez
Project Location:	NOT GIVEN		

**Sample ID: NORTH 5 PT. COMP (H403522-01)**

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
<b>Chloride</b>	<b>112</b>	16.0	11/17/2014	ND	400	100	400	3.92	
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	11/15/2014	ND	223	111	200	0.588	
DRO >C10-C28	<10.0	10.0	11/15/2014	ND	220	110	200	0.939	
<i>Surrogate: 1-Chlorooctane</i>		<i>113 %</i>	<i>47.2-157</i>						
<i>Surrogate: 1-Chlorooctadecane</i>		<i>117 %</i>	<i>52.1-176</i>						

**Sample ID: SOUTH 5 PT. COMP (H403522-02)**

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
<b>Chloride</b>	<b>80.0</b>	16.0	11/17/2014	ND	400	100	400	3.92	
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	11/15/2014	ND	223	111	200	0.588	
DRO >C10-C28	<10.0	10.0	11/15/2014	ND	220	110	200	0.939	
<i>Surrogate: 1-Chlorooctane</i>		<i>117 %</i>	<i>47.2-157</i>						
<i>Surrogate: 1-Chlorooctadecane</i>		<i>122 %</i>	<i>52.1-176</i>						

Cardinal Laboratories

\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager

**Notes and Definitions**

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



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Celey D. Keene, Lab Director/Quality Manager





December 05, 2014

BRUCE BAKER

APACHE CORP - HOBBS

2350 W. MARLAND BLVD.

HOBBS, NM 88240

RE: WBDU #42

Enclosed are the results of analyses for samples received by the laboratory on 12/04/14 13:20.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-13-5. 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).

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Method EPA 524.2	Total Trihalomethanes (TTHM)
Method EPA 524.4	Regulated VOCs (V1, V2, V3)

Accreditation applies to public drinking water matrices.

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Sincerely,

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

Celey D. Keene

Lab Director/Quality Manager

**Analytical Results For:**

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

Received:	12/04/2014	Sampling Date:	12/04/2014
Reported:	12/05/2014	Sampling Type:	Soil
Project Name:	WBDU #42	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	NOT GIVEN		

**Sample ID: BOTTOM 4 (H403695-01)**

Chloride, SM4500CI-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	<16.0	16.0	12/05/2014	ND	400	100	400	3.92	
TPH 8015M		mg/kg		Analyzed By: CK					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	12/04/2014	ND	201	101	200	0.950	
DRO >C10-C28	<10.0	10.0	12/04/2014	ND	209	105	200	2.49	
<i>Surrogate: 1-Chlorooctane</i>		<i>125 %</i>	<i>47.2-157</i>						
<i>Surrogate: 1-Chlorooctadecane</i>		<i>143 %</i>	<i>52.1-176</i>						

**Sample ID: BOTTOM 5 (H403695-02)**

Chloride, SM4500CI-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	<16.0	16.0	12/05/2014	ND	400	100	400	3.92	
TPH 8015M		mg/kg		Analyzed By: CK					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	12/04/2014	ND	201	101	200	0.950	
DRO >C10-C28	<10.0	10.0	12/04/2014	ND	209	105	200	2.49	
<i>Surrogate: 1-Chlorooctane</i>		<i>129 %</i>	<i>47.2-157</i>						
<i>Surrogate: 1-Chlorooctadecane</i>		<i>147 %</i>	<i>52.1-176</i>						

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\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager

**Analytical Results For:**

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

 Received: 12/04/2014  
 Reported: 12/05/2014  
 Project Name: WBDU #42  
 Project Number: NONE GIVEN  
 Project Location: NOT GIVEN

 Sampling Date: 12/04/2014  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Jodi Henson

**Sample ID: BOTTOM 6 (H403695-03)**

Chloride, SM4500CI-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	<16.0	16.0	12/05/2014	ND	400	100	400	3.92	
TPH 8015M		mg/kg		Analyzed By: CK					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	12/04/2014	ND	201	101	200	0.950	
DRO >C10-C28	<10.0	10.0	12/04/2014	ND	209	105	200	2.49	
<i>Surrogate: 1-Chlorooctane</i>		<i>131 %</i>	<i>47.2-157</i>						
<i>Surrogate: 1-Chlorooctadecane</i>		<i>152 %</i>	<i>52.1-176</i>						

**Sample ID: NORTH WALL 2 (H403695-04)**

Chloride, SM4500CI-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	<b>32.0</b>	16.0	12/05/2014	ND	400	100	400	3.92	
TPH 8015M		mg/kg		Analyzed By: CK					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	12/04/2014	ND	201	101	200	0.950	
DRO >C10-C28	<10.0	10.0	12/04/2014	ND	209	105	200	2.49	
<i>Surrogate: 1-Chlorooctane</i>		<i>125 %</i>	<i>47.2-157</i>						
<i>Surrogate: 1-Chlorooctadecane</i>		<i>143 %</i>	<i>52.1-176</i>						

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\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager

**Analytical Results For:**

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

 Received: 12/04/2014  
 Reported: 12/05/2014  
 Project Name: WBDU #42  
 Project Number: NONE GIVEN  
 Project Location: NOT GIVEN

 Sampling Date: 12/04/2014  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Jodi Henson

**Sample ID: NORTH WALL 3 (H403695-05)**

Chloride, SM4500CI-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	<16.0	16.0	12/05/2014	ND	400	100	400	3.92	
TPH 8015M		mg/kg		Analyzed By: CK					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	12/04/2014	ND	201	101	200	0.950	
DRO >C10-C28	<10.0	10.0	12/04/2014	ND	209	105	200	2.49	
<i>Surrogate: 1-Chlorooctane</i>		<i>123 %</i>	<i>47.2-157</i>						
<i>Surrogate: 1-Chlorooctadecane</i>		<i>141 %</i>	<i>52.1-176</i>						

**Sample ID: EAST WALL S (H403695-06)**

Chloride, SM4500CI-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
<b>Chloride</b>	<b>80.0</b>	16.0	12/05/2014	ND	400	100	400	3.92	
TPH 8015M		mg/kg		Analyzed By: CK					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	12/04/2014	ND	201	101	200	0.950	
DRO >C10-C28	<10.0	10.0	12/04/2014	ND	209	105	200	2.49	
<i>Surrogate: 1-Chlorooctane</i>		<i>125 %</i>	<i>47.2-157</i>						
<i>Surrogate: 1-Chlorooctadecane</i>		<i>142 %</i>	<i>52.1-176</i>						

Cardinal Laboratories

\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager

**Analytical Results For:**

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

 Received: 12/04/2014  
 Reported: 12/05/2014  
 Project Name: WBDU #42  
 Project Number: NONE GIVEN  
 Project Location: NOT GIVEN

 Sampling Date: 12/04/2014  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Jodi Henson

**Sample ID: WEST WALL S (H403695-07)**

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
<b>Chloride</b>	<b>64.0</b>	16.0	12/05/2014	ND	400	100	400	3.92	
TPH 8015M		mg/kg		Analyzed By: CK					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	12/05/2014	ND	201	101	200	0.950	
DRO >C10-C28	<10.0	10.0	12/05/2014	ND	209	105	200	2.49	
<i>Surrogate: 1-Chlorooctane</i>		<i>119 %</i>	<i>47.2-157</i>						
<i>Surrogate: 1-Chlorooctadecane</i>		<i>132 %</i>	<i>52.1-176</i>						

**Sample ID: SOUTH WALL 2 (H403695-08)**

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
<b>Chloride</b>	<b>&lt;16.0</b>	16.0	12/05/2014	ND	400	100	400	3.92	
TPH 8015M		mg/kg		Analyzed By: CK					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	12/05/2014	ND	201	101	200	0.950	
DRO >C10-C28	<10.0	10.0	12/05/2014	ND	209	105	200	2.49	
<i>Surrogate: 1-Chlorooctane</i>		<i>131 %</i>	<i>47.2-157</i>						
<i>Surrogate: 1-Chlorooctadecane</i>		<i>146 %</i>	<i>52.1-176</i>						

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\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager

**Analytical Results For:**

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

 Received: 12/04/2014  
 Reported: 12/05/2014  
 Project Name: WBDU #42  
 Project Number: NONE GIVEN  
 Project Location: NOT GIVEN

 Sampling Date: 12/04/2014  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Jodi Henson

**Sample ID: POINT 10 @ 6" (H403695-09)**

Chloride, SM4500CI-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	<16.0	16.0	12/05/2014	ND	400	100	400	3.92	
TPH 8015M		mg/kg		Analyzed By: CK					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	12/05/2014	ND	201	101	200	0.950	
DRO >C10-C28	<10.0	10.0	12/05/2014	ND	209	105	200	2.49	
<i>Surrogate: 1-Chlorooctane</i>		<i>124 %</i>	<i>47.2-157</i>						
<i>Surrogate: 1-Chlorooctadecane</i>		<i>138 %</i>	<i>52.1-176</i>						

**Sample ID: POINT 11 @ 6" (H403695-10)**

Chloride, SM4500CI-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	<16.0	16.0	12/05/2014	ND	400	100	400	3.92	
TPH 8015M		mg/kg		Analyzed By: CK					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	12/05/2014	ND	201	101	200	0.950	
DRO >C10-C28	<10.0	10.0	12/05/2014	ND	209	105	200	2.49	
<i>Surrogate: 1-Chlorooctane</i>		<i>122 %</i>	<i>47.2-157</i>						
<i>Surrogate: 1-Chlorooctadecane</i>		<i>137 %</i>	<i>52.1-176</i>						

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\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager

**Notes and Definitions**

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



---

Celey D. Keene, Lab Director/Quality Manager





December 05, 2014

BRUCE BAKER

APACHE CORP - HOBBS

2350 W. MARLAND BLVD.

HOBBS, NM 88240

RE: WBDU #42

Enclosed are the results of analyses for samples received by the laboratory on 12/04/14 13:20.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-13-5. Accreditation applies to drinking water, non-potable water and solid and chemical materials. All accredited analytes are denoted by an asterisk (\*). For a complete list of accredited analytes and matrices visit the TCEQ website at [www.tceq.texas.gov/field/qa/lab\\_accred\\_certif.html](http://www.tceq.texas.gov/field/qa/lab_accred_certif.html).

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

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

Accreditation applies to public drinking water matrices.

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

Sincerely,

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

Celey D. Keene

Lab Director/Quality Manager

**Analytical Results For:**

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

 Received: 12/04/2014  
 Reported: 12/05/2014  
 Project Name: WBDU #42  
 Project Number: NONE GIVEN  
 Project Location: NOT GIVEN

 Sampling Date: 12/03/2014  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Jodi Henson

**Sample ID: BOTTOM 1 (H403696-01)**

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
<b>Chloride</b>	<b>176</b>	16.0	12/05/2014	ND	400	100	400	3.92	
TPH 8015M		mg/kg		Analyzed By: CK					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	12/05/2014	ND	201	101	200	0.950	
DRO >C10-C28	<10.0	10.0	12/05/2014	ND	209	105	200	2.49	
<i>Surrogate: 1-Chlorooctane</i>	<i>133 %</i>	<i>47.2-157</i>							
<i>Surrogate: 1-Chlorooctadecane</i>	<i>152 %</i>	<i>52.1-176</i>							

**Sample ID: BOTTOM 2 (H403696-02)**

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
<b>Chloride</b>	<b>144</b>	16.0	12/05/2014	ND	400	100	400	3.92	
TPH 8015M		mg/kg		Analyzed By: CK					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	12/05/2014	ND	201	101	200	0.950	
DRO >C10-C28	<10.0	10.0	12/05/2014	ND	209	105	200	2.49	
<i>Surrogate: 1-Chlorooctane</i>	<i>129 %</i>	<i>47.2-157</i>							
<i>Surrogate: 1-Chlorooctadecane</i>	<i>145 %</i>	<i>52.1-176</i>							

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\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager

**Analytical Results For:**

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

 Received: 12/04/2014  
 Reported: 12/05/2014  
 Project Name: WBDU #42  
 Project Number: NONE GIVEN  
 Project Location: NOT GIVEN

 Sampling Date: 12/03/2014  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Jodi Henson

**Sample ID: BOTTOM 3 (H403696-03)**

Chloride, SM4500CI-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
<b>Chloride</b>	<b>128</b>	16.0	12/05/2014	ND	400	100	400	3.92	
TPH 8015M		mg/kg		Analyzed By: CK					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	12/05/2014	ND	201	101	200	0.950	
DRO >C10-C28	<10.0	10.0	12/05/2014	ND	209	105	200	2.49	
<i>Surrogate: 1-Chlorooctane</i>	<i>126 %</i>	<i>47.2-157</i>							
<i>Surrogate: 1-Chlorooctadecane</i>	<i>140 %</i>	<i>52.1-176</i>							

**Sample ID: NORTH WALL 1 (H403696-04)**

Chloride, SM4500CI-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
<b>Chloride</b>	<b>&lt;16.0</b>	16.0	12/05/2014	ND	400	100	400	3.92	
TPH 8015M		mg/kg		Analyzed By: CK					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	12/05/2014	ND	201	101	200	0.950	
DRO >C10-C28	<10.0	10.0	12/05/2014	ND	209	105	200	2.49	
<i>Surrogate: 1-Chlorooctane</i>	<i>126 %</i>	<i>47.2-157</i>							
<i>Surrogate: 1-Chlorooctadecane</i>	<i>144 %</i>	<i>52.1-176</i>							

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\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager

**Analytical Results For:**

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

 Received: 12/04/2014  
 Reported: 12/05/2014  
 Project Name: WBDU #42  
 Project Number: NONE GIVEN  
 Project Location: NOT GIVEN

 Sampling Date: 12/03/2014  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Jodi Henson

**Sample ID: SOUTH WALL 1 (H403696-05)**

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	<16.0	16.0	12/05/2014	ND	400	100	400	3.92	
TPH 8015M		mg/kg		Analyzed By: CK					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	12/05/2014	ND	201	101	200	0.950	
DRO >C10-C28	<10.0	10.0	12/05/2014	ND	209	105	200	2.49	
<i>Surrogate: 1-Chlorooctane</i>		<i>126 %</i>	<i>47.2-157</i>						
<i>Surrogate: 1-Chlorooctadecane</i>		<i>142 %</i>	<i>52.1-176</i>						

**Sample ID: EAST WALL 2 (H403696-06)**

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	<b>112</b>	16.0	12/05/2014	ND	400	100	400	3.92	
TPH 8015M		mg/kg		Analyzed By: CK					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	12/05/2014	ND	201	101	200	0.950	
DRO >C10-C28	<10.0	10.0	12/05/2014	ND	209	105	200	2.49	
<i>Surrogate: 1-Chlorooctane</i>		<i>123 %</i>	<i>47.2-157</i>						
<i>Surrogate: 1-Chlorooctadecane</i>		<i>136 %</i>	<i>52.1-176</i>						

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\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager

**Analytical Results For:**

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

 Received: 12/04/2014  
 Reported: 12/05/2014  
 Project Name: WBDU #42  
 Project Number: NONE GIVEN  
 Project Location: NOT GIVEN

 Sampling Date: 12/03/2014  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Jodi Henson

**Sample ID: WEST WALL 2 (H403696-07)**

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
<b>Chloride</b>	<b>64.0</b>	16.0	12/05/2014	ND	400	100	400	3.92	
TPH 8015M		mg/kg		Analyzed By: CK					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	12/05/2014	ND	201	101	200	0.950	
DRO >C10-C28	<10.0	10.0	12/05/2014	ND	209	105	200	2.49	
<i>Surrogate: 1-Chlorooctane</i>	<i>134 %</i>	<i>47.2-157</i>							
<i>Surrogate: 1-Chlorooctadecane</i>	<i>152 %</i>	<i>52.1-176</i>							

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\* = Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager

### Notes and Definitions

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



---

Celey D. Keene, Lab Director/Quality Manager



# Appendix C

Photo Documentation

**RICE Environmental Consulting and Safety (RECS)**  
P.O. Box 2948 Hobbs, NM 88241  
Phone 575.393.2967

# Apache WBDU #42

Unit Letter I, Section 9, T21S, R37E



2014/11/12

Initial site photo, facing north

11/12/14



2014/11/12

Initial site photo, facing northwest

11/12/14



2014/11/12

Initial site photo, facing east

11/12/14



2014/11/12

Initial site photo, facing east

11/12/14



Installing trench, facing west

11/12/14



Scraping release, facing northeast

11/12/14



Exporting soil, facing north

11/13/14



Continue to scrape site, facing west

11/14/14



Excavating pasture, facing southwest 12/2/14



Excavating, facing southwest 12/4/14



Excavation completed, facing east 12/4/14



Excavating pasture, facing south 12/4/14



Site completed, facing north

3/4/15



Site completed, facing northeast

3/4/15



Site completed, facing southwest

3/4/15



Site completed, facing north

3/4/15

# Appendix D

Final C-141

**RICE Environmental Consulting and Safety (RECS)**  
P.O. Box 2948 Hobbs, NM 88241  
Phone 575.393.2967

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

State of New Mexico  
Energy Minerals and Natural Resources

Form C-141  
Revised August 8, 2011

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

Submit 1 Copy to appropriate District Office in  
accordance with 19.15.29 NMAC.

**Release Notification and Corrective Action**

**OPERATOR**

Initial Report  Final Report

Name of Company Apache Corporation	Contact Bruce Baker
Address 2350 Marland Blvd., Hobbs, NM 88240	Telephone No. (432) 631-6982
Facility Name WBDU #42	Facility Type Injection Well
Surface Owner Millard Deck Estates	Mineral Owner BLM
API No. 30-025-20178	

**LOCATION OF RELEASE**

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
I	9	21S	37E	198	FSL	660	FEL	Lea

Latitude \_\_\_\_\_ Longitude \_\_\_\_\_

**NATURE OF RELEASE**

Type of Release Produced Water	Volume of Release 15 Barrels of water	Volume Recovered 5 Barrels of water
Source of Release injection line	Date and Hour of Occurrence 11/11/14	Date and Hour of Discovery 11/11/14
Was Immediate Notice Given? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Required	If YES, To Whom? Jeffery Robertson (BLM)	
By Whom? Bruce Baker	Date and Hour 11/12/2014	
Was a Watercourse Reached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If YES, Volume Impacting the Watercourse.	

If a Watercourse was Impacted, Describe Fully.\*

Describe Cause of Problem and Remedial Action Taken.\*

The release occurred due to a hole in 2 inch 90 degree fitting on the well head. The line was shut in and a vacuum truck was dispatched to pick up standing fluid.

Describe Area Affected and Cleanup Action Taken.\*

RECS personnel were on site beginning November 12<sup>th</sup>, 2014 to assess the release. Based on the assessment, the release was scraped, and samples were taken from the bottom and walls of the scrape. The samples were field tested for chlorides and organic vapors. If field testing indicated that the samples would return chloride, GRO and DRO readings below regulatory standards, the samples were taken to a commercial laboratory for analyses. If field testing did not show that all constituents would be below regulatory standards, the scrape was expanded until field testing shows that all constituents would be below regulatory standards. Using these standards, the site was excavated in four portions. The lease pad was scraped down to 6 inches bgs. Various portions of the pasture area were scraped down to 1 ft bgs, 1.5 ft bgs and 2 ft bgs. A request to backfill the site was sent to NMOCD on January 9<sup>th</sup>, 2015. NMOCD approved the backfill request on January 12<sup>th</sup>, 2015. All excavated soil was taken to a NMOCD approved facility for disposal. Clean caliche was imported to the site to backfill the lease pad, and clean top soil was imported to the site to backfill the pasture area. The lease pad and pasture areas were backfilled and contoured to the surrounding location.

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to NMOCD 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 NMOCD marked as "Final Report" does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to ground water, surface water, human health or the environment. In addition, NMOCD 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.

Signature: <i>Bruce Baker</i>	<b>OIL CONSERVATION DIVISION</b>	
Printed Name: Bruce Baker	Approved by Environmental Specialist:	
Title: Environmental Technician	Approval Date:	Expiration Date:
E-mail Address: larry.baker@apachecorp.com	Conditions of Approval:	
Date: 3-11-15	Phone: (432) 631-6982	Attached <input type="checkbox"/>