

District I  
1625 N. French Dr., Hobbs, NM 88240  
District II  
1301 W. Grand Avenue, 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  
Oil Conservation Division  
1220 South St. Francis Dr.  
Santa Fe, NM 87505

HOBBS OCD

Form C-141  
Revised October 10, 2003

NOV 09 2012

Submit 2 Copies to appropriate  
District Office in accordance  
with Rule 116 on back  
side of form

RECEIVED

Release Notification and Corrective Action

OPERATOR

☐ Initial Report ☒ Final Report

Name of Company	Apache Corp.	Contact	Natalie Gladden
Address	P.O. Box 1849, Eunice, NM, 88231	Telephone No.	(575) 390-4186
Facility Name	NEDU #348	Facility Type	Production Well

Surface Owner	McCasland	Mineral Owner	State of NM	Lease No.	30-025-39583
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LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
A	10	21S	37E	10	FNL	330	FEL	Lea

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

NATURE OF RELEASE

Type of Release	Oil	Volume of Release	8 bbl	Volume Recovered	5 bbl
Source of Release	Stuffing box	Date and Hour of Occurrence	10/18/11	Date and Hour of Discovery	10/18/11
Was Immediate Notice Given?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Not Required				
By Whom?	Date and Hour				
Was a Watercourse Reached?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No				

If a Watercourse was Impacted, Describe Fully.\*

DTW = 24'

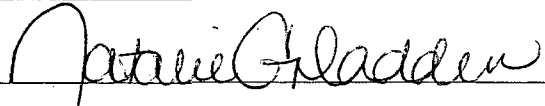
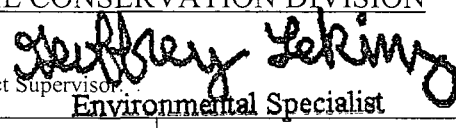
Describe Cause of Problem and Remedial Action Taken.\*

Stuffing box blow out releasing fluid, standing fluid was recovered and one-call was made.

Describe Area Affected and Cleanup Action Taken.\*

The leak affected the caliche pad surrounding the wellhead and a length of caliche road to the south. Impacted soils were removed to a NMOCD approved disposal facility. Representative soil samples were collected from the excavation and sent to a commercial laboratory for chloride and TPH confirmation. The excavation was backfilled with clean caliche and contoured to the surrounding area.

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: 	OIL CONSERVATION DIVISION	
Printed Name: Natalie Gladden	Approved by District Supervisor  Environmental Specialist	
Title: EH&S Environmental Tech	Approval Date: 11/09/12	Expiration Date: -
E-mail Address: Natalie.gladden@apachecorp.com	Conditions of Approval: -	Attached <input type="checkbox"/>
Date: 11/9/12 Phone: (575) 390-4186	IRP-06-14-3090	

\* Attach Additional Sheets If Necessary

NSAD 1416 831705

L



EXPLORING WHAT'S POSSIBLE

HOBBS OCD

NOV 09 2012

RECEIVED

# APACHE CORPORATION

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

## NEDU #348

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# Closure Report

API 30-025-39583

Release Date: October 18, 2011

Unit Letter A, Section 10, Township 21S, Range 37E

# Rice Environmental Consulting & Safety

P.O. Box 5630 Hobbs, NM 88241

Phone 575.393.4411 Fax 575.393.0293

**May 2, 2012**

Geoffrey Leking  
New Mexico Energy, Minerals, & Natural Resources  
Oil Conservation Division, Environmental Bureau – District 1  
1625 N. French Dr.  
Hobbs, NM 88240-9273

**RE: TERMINATION REQUEST  
Apache – NEDU #348 AD  
UL/A sec. 10 T21S R37E  
API No. 30-025-39583**

Mr. Leking:

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

## **Background and Previous Work**

The site is an accidental discharge of crude oil associated with the NEDU #348. A stuffing box ruptured, releasing fluid onto the well pad and road. Fluids were recovered and an initial form C-141 was submitted by Apache Corporation on October 18, 2011 (Appendix A). The site is located north of Eunice, in unit letter 'A' of section 10, T21S, R37E and south of NM Highway 248 in Lea County, New Mexico.

On October 18, 2011, RECS personnel initiated work on the NEDU #348. Surface soil samples were collected and field tested for chloride. Headspace measurements were also taken in the field using a Photo Ionization Detector (PID) (Figure 1). RECS personnel collected and similarly field tested additional samples as excavation of the leak proceeded.

On October 19, 2011, RECS personnel collected soil samples from the final shallow excavation (Figure 2). Representative grab samples were collected from the excavation edges and the excavation floor, and submitted to a commercial laboratory for chloride and TPH (GRO/DRO) analyses. In all samples, chloride did not exceed 128 ppm, and TPH did not exceed 311 ppm (Appendix C).

Impacted soils were removed from the excavation and transported to a NMOCD approved disposal facility. The excavation was backfilled with clean caliche and contoured to the surrounding area. See Appendix B for photographs of field activities.

## Conclusion

According to the New Mexico Office of the State Engineer and the United States Geological Survey (USGS), depth to groundwater in the area approximated 50 ft bgs (Appendix D). Due to the removal of impacted soils relative to necessary groundwater depth, Apache submits the final C-141 (Appendix E) and respectfully requests the closure of the regulatory file for this site.

Apache Corporation appreciates the opportunity to work with you on this project. Please call Natalie Gladden (575) 390-4186 if you have any questions or comments.

Sincerely,



Bruce Baker  
Head Foreman  
RECS  
(575) 631-5157

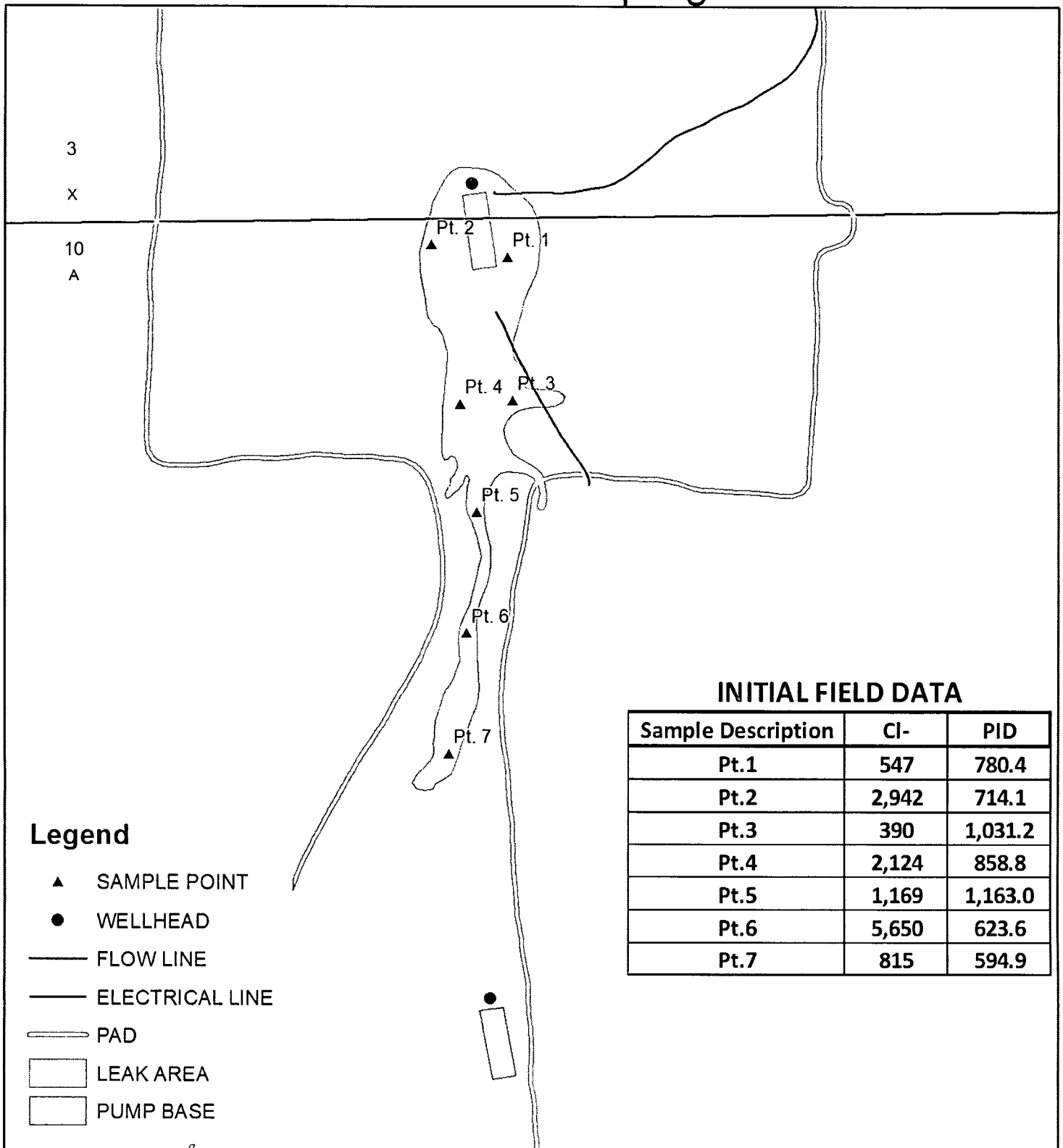
## Attachments:

- Figure 1: Site Plat with Initial Field Sampling Data
- Figure 2: Site Plat with Final Excavation Sampling Data
- Appendix A: Initial Form C-141
- Appendix B: Site Photographs
- Appendix C: Laboratory Results
- Appendix D: Groundwater Study
- Appendix E: Final Form C-141

# Figures

**RICE Environmental Consulting and Safety (RECS)**  
P.O. Box 5630 Hobbs, NM 88241  
Phone 575.393.4411 Fax 575.393.0293

# Initial Field Sampling Data

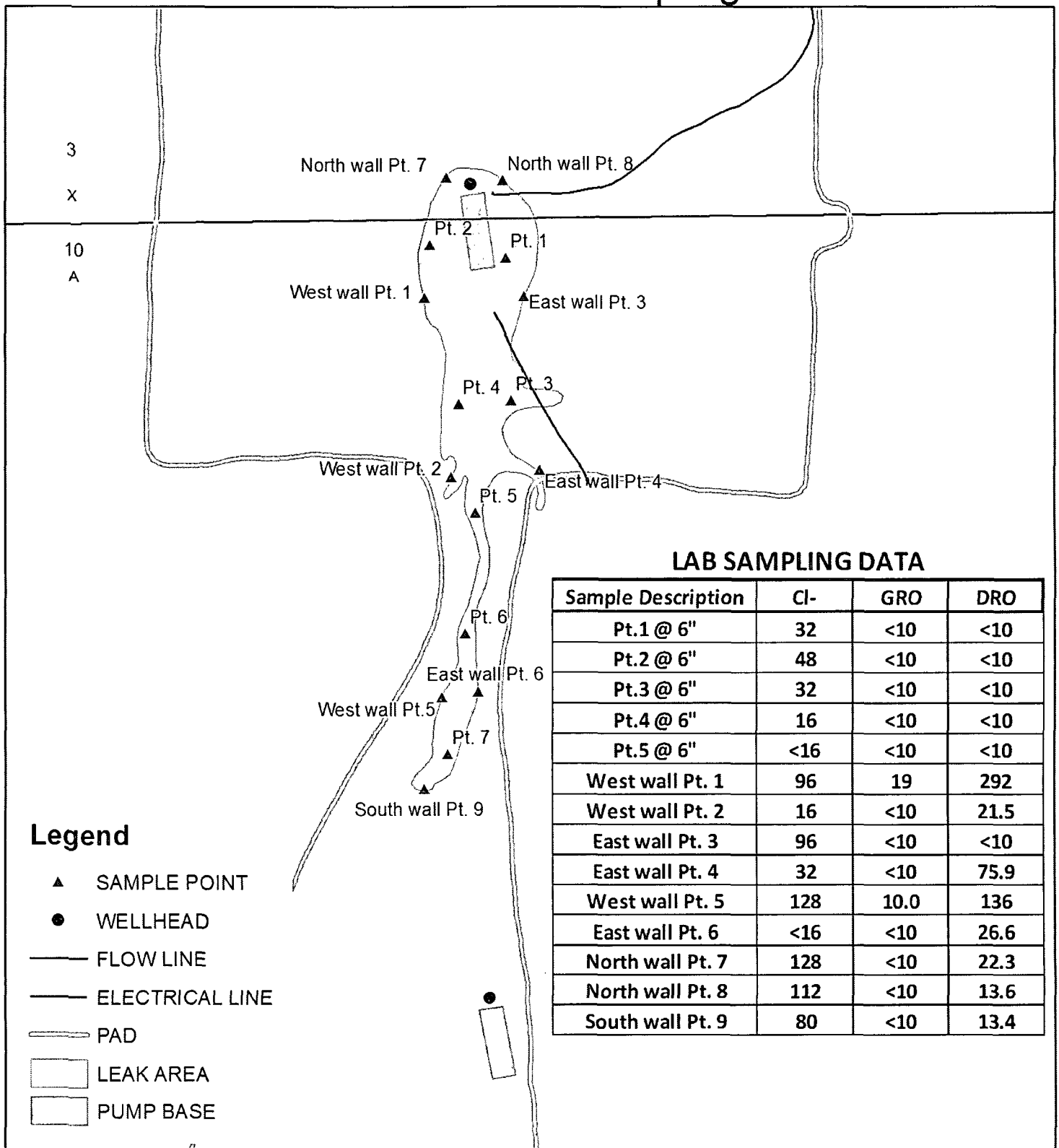


**APACHE**  
**NEDU #348 AD**  
 UL X SEC. 3 & UL A SEC. 10  
 T-21-S R-37-E  
 LEA COUNTY, NM

**Figure 1**

GPS date: 10/18/11 by BB & 10/19/11 by RP  
 Drawing date: 10/19/11 & 10/21/11  
 Drafted by: T. Grieco, L. Weinheimer

# Final Excavation Sampling Data



## APACHE NEDU #348 AD

UL X SEC. 3 & UL A SEC. 10  
T-21-S R-37-E  
LEA COUNTY, NM

Figure 2



0 50 100  
Feet

GPS date: 10/18/11 by BB & 10/19/11 by RP  
Drawing date: 10/19/11 & 10/21/11  
Drafted by: T. Grieco, L. Weinheimer

# Appendix A

Initial Form C-141

**RICE Environmental Consulting and Safety (RECS)**  
P.O. Box 5630 Hobbs, NM 88241  
Phone 575.393.4411 Fax 575.393.0293



District I  
1625 N. French Dr., Hobbs, NM 88240  
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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 Natalie Gladden	
Address PO Box 1849 Eunice, NM 88231	Telephone No. 575-390-4186	
Facility Name NEDU #348	Facility Type Production Well	
Surface Owner McCasland	Mineral Owner State of NM	API No. 30-025-39583

**LOCATION OF RELEASE**

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
A	10	21S	37E	10	FNL	330	FEL	Lea

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

**NATURE OF RELEASE**

Type of Release Oil	Volume of Release 8	Volume Recovered 5
Source of Release Stuffing box	Date and Hour of Occurrence 10/18/11	Date and Hour of Discovery 10/18/11
Was Immediate Notice Given? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Not Required	If YES, To Whom?	
By Whom?	Date and Hour	
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.\*

Stuffing box blew out releasing fluid, standing fluid was recovered and one-call was made.

Describe Area Affected and Cleanup Action Taken.\*

NMOCD Guidelines will be followed to closure.

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: 	<b>OIL CONSERVATION DIVISION</b>	
Printed Name: Natalie Gladden	Approved by Environmental Specialist:	
Title: EHS Environmental Tech	Approval Date:	Expiration Date:
E-mail Address: natalie.gladden@apachecorp.com	Conditions of Approval:	Attached <input type="checkbox"/>
Date: 10/18/11 Phone: 575-390-4186		

\* Attach Additional Sheets If Necessary

# Appendix B

## Site Photographs

**RICE Environmental Consulting and Safety (RECS)**

P.O. Box 5630 Hobbs, NM 88241  
Phone 575.393.4411 Fax 575.393.0293

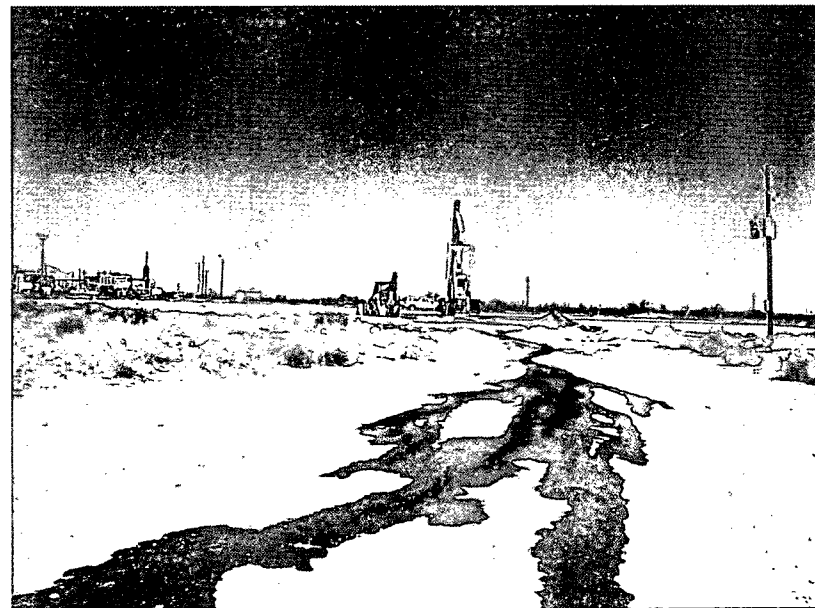
# NEDU #348

Unit Letter A, Section 10, T21S R37E



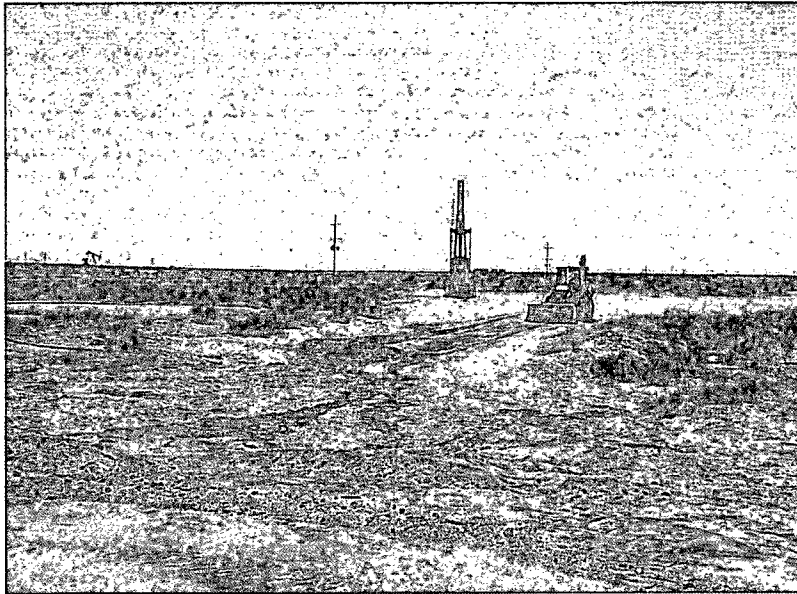
Initial release, facing north

10/18/2011



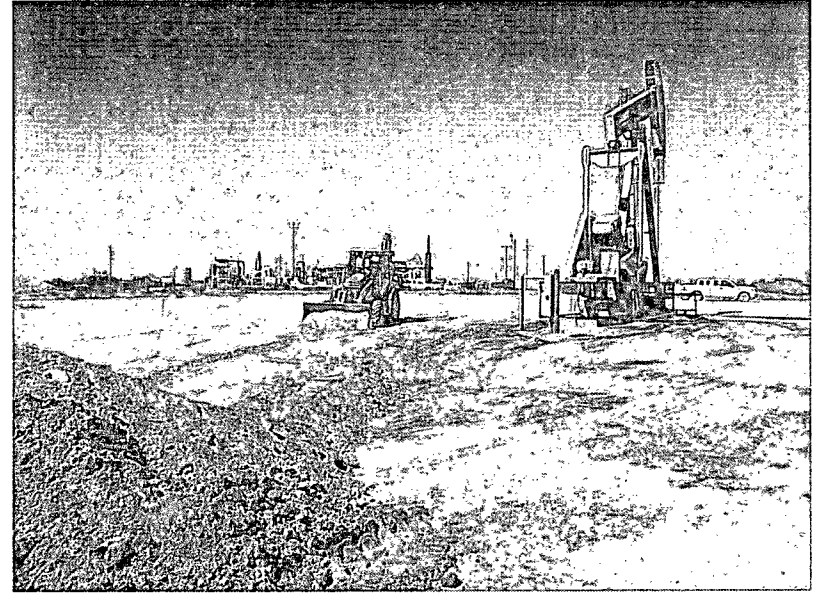
Initial release, facing north

10/18/2011



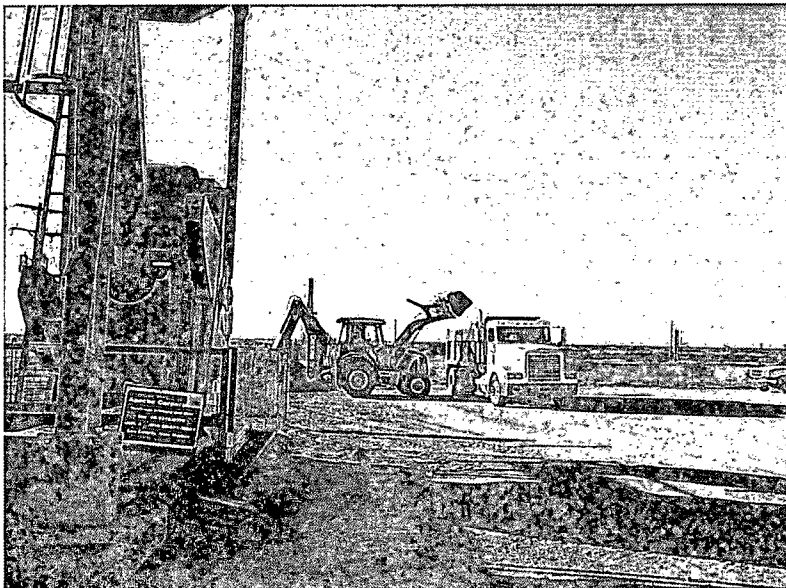
Scraping, facing south

10/18/2011



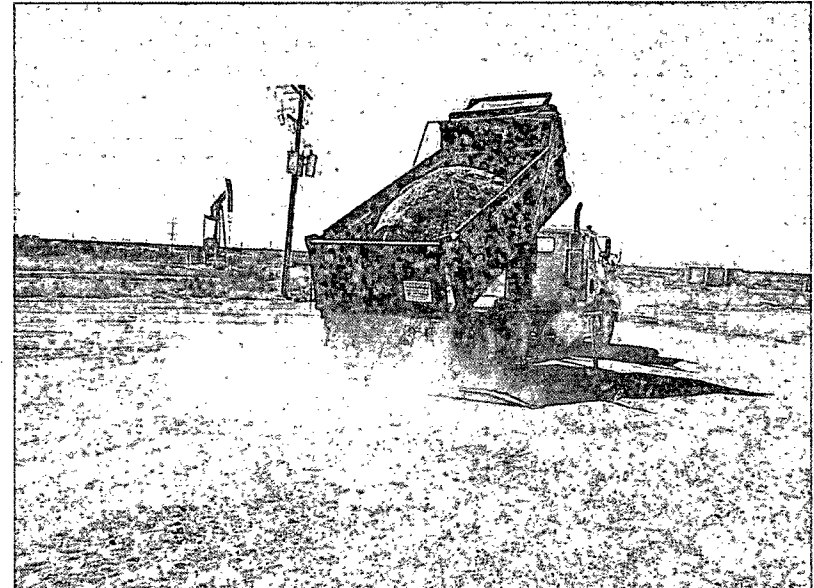
Scraping, facing northwest

10/18/2011



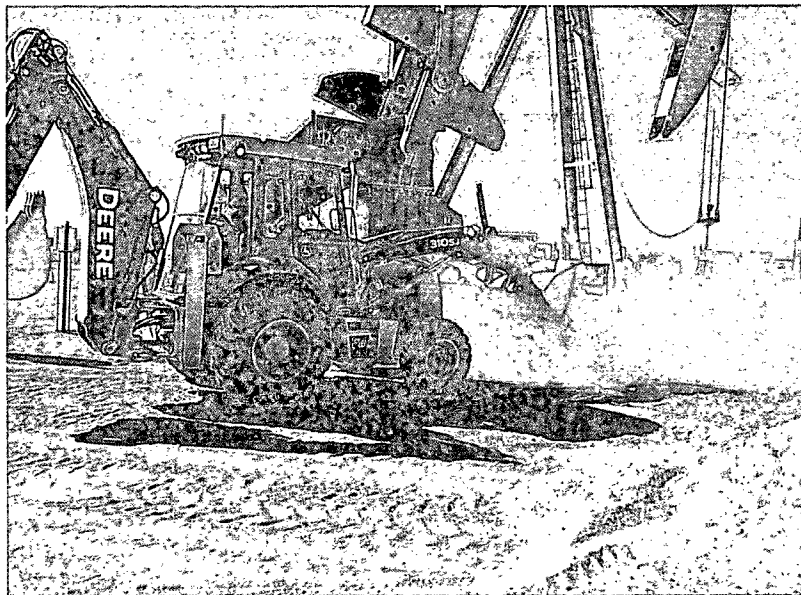
Exporting soil, facing south

10/19/2011



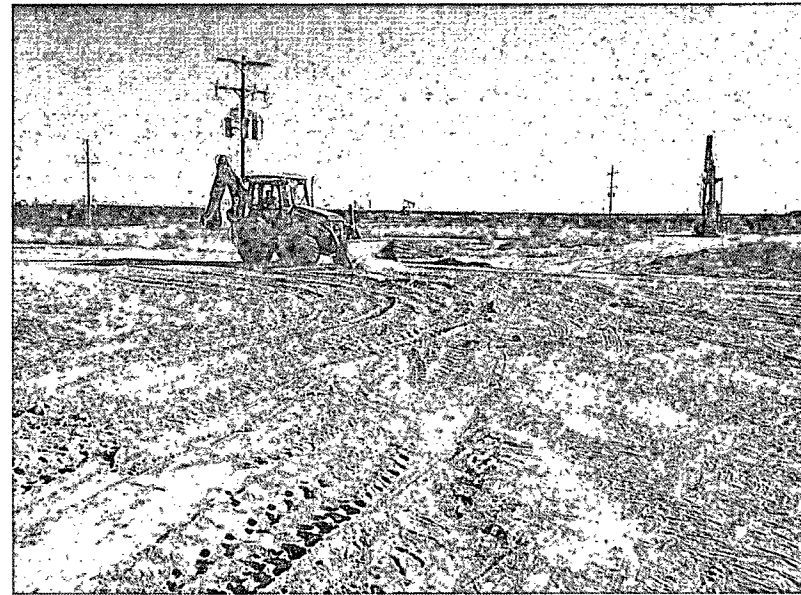
Importing soil, facing southwest

10/19/2011



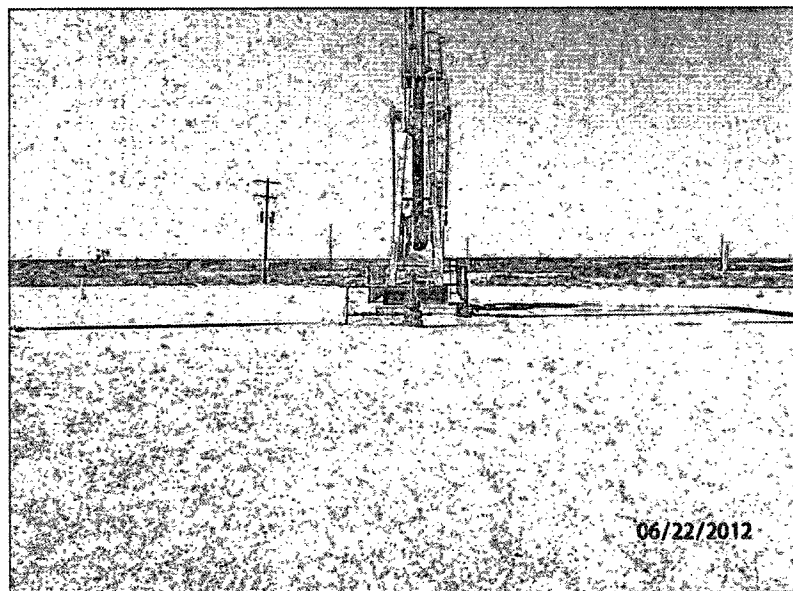
Backfilling, facing east

10/19/2011



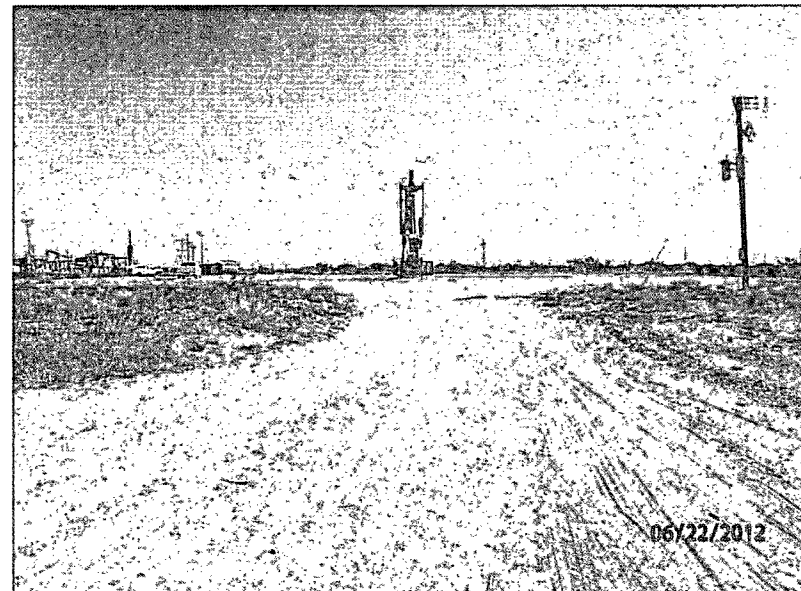
Backfilling, facing southeast

10/19/2011



Site complete, facing south

6/22/2012



Site complete, facing north

6/22/2012

# Appendix C

## Laboratory Results

**RICE Environmental Consulting and Safety (RECS)**  
P.O. Box 5630 Hobbs, NM 88241  
Phone 575.393.4411 Fax 575.393.0293

**Analytical Results For:**

 APACHE - EUNICE  
 NATALIE GLADDEN  
 P. O. BOX 1849  
 EUNICE NM, 88231  
 Fax To: 394-2425

 Received: 10/21/2011  
 Reported: 10/27/2011  
 Project Name: APACHE NEDU #348  
 Project Number: NONE GIVEN  
 Project Location: EUNICE, NM

 Sampling Date: 10/19/2011  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Jodi Henson

**Sample ID: PT. 1 (H102283-01)**

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>32.0</b>	16.0	10/26/2011	ND	448	112	400	0.00		
TPH 8015M			mg/kg							
			Analyzed By: AB							
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10	<10.0	10.0	10/24/2011	ND	181	90.5	200	1.14		
DRO >C10-C28	<10.0	10.0	10/24/2011	ND	164	82.0	200	2.73		
<hr/>										
Surrogate: 1-Chlorooctane	91.4 %	55.5-154								
Surrogate: 1-Chlorooctadecane	102 %	57.6-158								

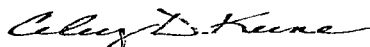
**Sample ID: PT. 2 (H102283-02)**

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>48.0</b>	16.0	10/26/2011	ND	448	112	400	0.00		
TPH 8015M			mg/kg							
			Analyzed By: AB							
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10	<10.0	10.0	10/24/2011	ND	181	90.5	200	1.14		
DRO >C10-C28	<10.0	10.0	10/24/2011	ND	164	82.0	200	2.73		
<hr/>										
Surrogate: 1-Chlorooctane	86.7 %	55.5-154								
Surrogate: 1-Chlorooctadecane	94.2 %	57.6-158								

Cardinal Laboratories

\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager

**Analytical Results For:**

 APACHE - EUNICE  
 NATALIE GLADDEN  
 P. O. BOX 1849  
 EUNICE NM, 88231  
 Fax To: 394-2425

 Received: 10/21/2011  
 Reported: 10/27/2011  
 Project Name: APACHE NEDU #348  
 Project Number: NONE GIVEN  
 Project Location: EUNICE, NM

 Sampling Date: 10/19/2011  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Jodi Henson

**Sample ID: PT. 3 (H102283-03)**

Chloride, SM4500Cl-B			mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	32.0	16.0	10/26/2011	ND	448	112	400	0.00		
TPH 8015M			mg/kg		Analyzed By: AB					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10	<10.0	10.0	10/24/2011	ND	181	90.5	200	1.14		
DRO >C10-C28	<10.0	10.0	10/24/2011	ND	164	82.0	200	2.73		

Surrogate: 1-Chlorooctane 93.5 % 55.5-154

Surrogate: 1-Chlorooctadecane 107 % 57.6-158

**Sample ID: PT. 4 (H102283-04)**

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	10/26/2011	ND	448	112	400	0.00		
TPH 8015M			mg/kg		Analyzed By: AB					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10	<10.0	10.0	10/24/2011	ND	181	90.5	200	1.14		
DRO >C10-C28	<10.0	10.0	10/24/2011	ND	164	82.0	200	2.73		

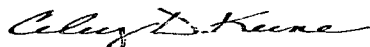
Surrogate: 1-Chlorooctane 86.1 % 55.5-154

Surrogate: 1-Chlorooctadecane 99.0 % 57.6-158

Cardinal Laboratories

\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager



**Analytical Results For:**

APACHE - EUNICE  
NATALIE GLADDEN  
P. O. BOX 1849  
EUNICE NM, 88231  
Fax To: 394-2425

Received: 10/21/2011  
Reported: 10/27/2011  
Project Name: APACHE NEDU #348  
Project Number: NONE GIVEN  
Project Location: EUNICE, NM

Sampling Date: 10/18/2011  
Sampling Type: Soil  
Sampling Condition: Cool & Intact  
Sample Received By: Jodi Henson

**Sample ID: PT. 5 (H102283-05)**

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	10/26/2011	ND	448	112	400	0.00	
TPH 8015M		mg/kg		Analyzed By: AB					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	10/24/2011	ND	181	90.5	200	1.14	
DRO >C10-C28	<10.0	10.0	10/24/2011	ND	164	82.0	200	2.73	
Surrogate: 1-Chlorooctane	83.2 %	55.5-154							
Surrogate: 1-Chlorooctadecane	87.0 %	57.6-158							

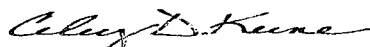
**Sample ID: WEST WALL PT. 1 (H102283-06)**

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	96.0	16.0	10/26/2011	ND	448	112	400	0.00	
TPH 8015M		mg/kg		Analyzed By: AB					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	19.0	10.0	10/24/2011	ND	181	90.5	200	1.14	
DRO >C10-C28	292	10.0	10/24/2011	ND	164	82.0	200	2.73	
Surrogate: 1-Chlorooctane	89.7 %	55.5-154							
Surrogate: 1-Chlorooctadecane	78.3 %	57.6-158							

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

**Analytical Results For:**

 APACHE - EUNICE  
 NATALIE GLADDEN  
 P. O. BOX 1849  
 EUNICE NM, 88231  
 Fax To: 394-2425

 Received: 10/21/2011  
 Reported: 10/27/2011  
 Project Name: APACHE NEDU #348  
 Project Number: NONE GIVEN  
 Project Location: EUNICE, NM

 Sampling Date: 10/18/2011  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Jodi Henson

**Sample ID: WEST WALL PT. 2 (H102283-07)**

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	10/26/2011	ND	448	112	400	0.00		
TPH 8015M		mg/kg		Analyzed By: AB						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10	<10.0	10.0	10/24/2011	ND	181	90.5	200	1.14		
DRO >C10-C28	21.5	10.0	10/24/2011	ND	164	82.0	200	2.73		

Surrogate: 1-Chlorooctane 95.0 % 55.5-154

Surrogate: 1-Chlorooctadecane 105 % 57.6-158

**Sample ID: EAST WALL PT. 3 (H102283-08)**

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	96.0	16.0	10/26/2011	ND	448	112	400	0.00	
TPH 8015M		mg/kg		Analyzed By: AB					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	10/24/2011	ND	181	90.5	200	1.14	
DRO >C10-C28	<10.0	10.0	10/24/2011	ND	164	82.0	200	2.73	


Surrogate: 1-Chlorooctane 80.7 % 55.5-154

Surrogate: 1-Chlorooctadecane 84.5 % 57.6-158

Cardinal Laboratories

\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager

**Analytical Results For:**

 APACHE - EUNICE  
 NATALIE GLADDEN  
 P. O. BOX 1849  
 EUNICE NM, 88231  
 Fax To: 394-2425

 Received: 10/21/2011  
 Reported: 10/27/2011  
 Project Name: APACHE NEDU #348  
 Project Number: NONE GIVEN  
 Project Location: EUNICE, NM

 Sampling Date: 10/19/2011  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Jodi Henson

**Sample ID: EAST WALL PT. 4 (H102283-09)**

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	32.0	16.0	10/26/2011	ND	448	112	400	0.00	
TPH 8015M		mg/kg		Analyzed By: AB					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	10/24/2011	ND	181	90.5	200	1.14	
DRO >C10-C28	75.9	10.0	10/24/2011	ND	164	82.0	200	2.73	

Surrogate: 1-Chlorooctane 93.4 % 55.5-154

Surrogate: 1-Chlorooctadecane 93.4 % 57.6-158

**Sample ID: WEST WALL PT. 5 (H102283-10)**

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	128	16.0	10/26/2011	ND	448	112	400	0.00	
TPH 8015M		mg/kg		Analyzed By: AB					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	10.0	10.0	10/24/2011	ND	181	90.5	200	1.14	
DRO >C10-C28	136	10.0	10/24/2011	ND	164	82.0	200	2.73	

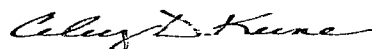
Surrogate: 1-Chlorooctane 88.6 % 55.5-154

Surrogate: 1-Chlorooctadecane 83.9 % 57.6-158

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\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager

**Analytical Results For:**

 APACHE - EUNICE  
 NATALIE GLADDEN  
 P. O. BOX 1849  
 EUNICE NM, 88231  
 Fax To: 394-2425

 Received: 10/21/2011  
 Reported: 10/27/2011  
 Project Name: APACHE NEDU #348  
 Project Number: NONE GIVEN  
 Project Location: EUNICE, NM

 Sampling Date: 10/18/2011  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Jodi Henson

**Sample ID: EAST WALL PT. 6 (H102283-11)**

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	10/26/2011	ND	448	112	400	0.00	
TPH 8015M			mg/kg		Analyzed By: AB				
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	10/24/2011	ND	181	90.5	200	1.14	
<b>DRO &gt;C10-C28</b>	<b>26.6</b>	10.0	10/24/2011	ND	164	82.0	200	2.73	

Surrogate: 1-Chlorooctane 85.6 % 55.5-154

Surrogate: 1-Chlorooctadecane 94.8 % 57.6-158

**Sample ID: NORTH WALL PT. 7 (H102283-12)**

Chloride, SM4500Cl-B			mg/kg		Analyzed By: AP				
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	<b>128</b>	16.0	10/26/2011	ND	448	112	400	0.00	
TPH 8015M			mg/kg		Analyzed By: AB				
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	10/24/2011	ND	181	90.5	200	1.14	
<b>DRO &gt;C10-C28</b>	<b>22.3</b>	10.0	10/24/2011	ND	164	82.0	200	2.73	

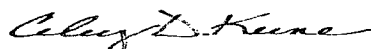
Surrogate: 1-Chlorooctane 79.7 % 55.5-154

Surrogate: 1-Chlorooctadecane 73.2 % 57.6-158

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\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager

**Analytical Results For:**

 APACHE - EUNICE  
 NATALIE GLADDEN  
 P. O. BOX 1849  
 EUNICE NM, 88231  
 Fax To: 394-2425

 Received: 10/21/2011  
 Reported: 10/27/2011  
 Project Name: APACHE NEDU #348  
 Project Number: NONE GIVEN  
 Project Location: EUNICE, NM

 Sampling Date: 10/19/2011  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Jodi Henson

**Sample ID: NORTH WALL PT. 8 (H102283-13)**

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	10/26/2011	ND	448	112	400	0.00	
TPH 8015M		mg/kg	Analyzed By: AB						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	10/24/2011	ND	181	90.5	200	1.14	
<b>DRO &gt;C10-C28</b>	<b>13.6</b>	10.0	10/24/2011	ND	164	82.0	200	2.73	

Surrogate: 1-Chlorooctane 85.6 % 55.5-154

Surrogate: 1-Chlorooctadecane 90.2 % 57.6-158

**Sample ID: SOUTH WALL PT. 9 (H102283-14)**

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	10/26/2011	ND	448	112	400	0.00	
TPH 8015M		mg/kg	Analyzed By: AB						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	10/24/2011	ND	181	90.5	200	1.14	
<b>DRO &gt;C10-C28</b>	<b>13.4</b>	10.0	10/24/2011	ND	164	82.0	200	2.73	

Surrogate: 1-Chlorooctane 85.8 % 55.5-154

Surrogate: 1-Chlorooctadecane 101 % 57.6-158

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\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager



1 of 2

## CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

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

Company Name: <u>Apache</u>		BILL TO		ANALYSIS REQUEST																								
Project Manager: <u>Natalie G. Gadden</u>		P.O. #:		<div>Chlorides TPH 8015 M</div>																								
Address:		Company:																										
City:		Attn:																										
State: <u>NM</u> Zip:		Address:																										
Phone #:		City:																										
Fax #:		State: Zip:																										
Project #: Project Owner:		Phone #:																										
Project Name: <u>Apache NEON # 348</u>		Fax #:																										
Project Location: <u>Gracie</u>																												
Sampler Name: <u>Roberto Parra</u>																												
FOR LAB USE ONLY																												
Lab I.D.	Sample I.D.	GIRAB OR (C)OMP.	# CONTAINERS	GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER	ACID/BASE	ICE / COOL	OTHER	DATE	TIME														
H102283																												
1	pt 1	G	✓			✓					✓		10-19-11	8:30am	✓	✓												
2	pt 2	G	✓			✓					✓		10-19-11	8:35am	✓	✓												
3	pt 3	G	✓			✓					✓		10-19-11	8:40am	✓	✓												
4	pt 4	G	✓			✓					✓		10-18-11	12:00pm	✓	✓												
5	pt 5	G	✓			✓					✓		10-18-11	12:05pm	✓	✓												
6	West wall pt 1	G	✓			✓					✓		10-18-11	12:10pm	✓	✓												
7	West wall pt 2	G	✓			✓					✓		10-18-11	12:15pm	✓	✓												
8	East wall pt 3	G	✓			✓					✓		10-18-11	12:20pm	✓	✓												
9	East wall pt 4	G	✓			✓					✓		10-18-11	8:45am	✓	✓												
10	West wall pt 5	G	✓			✓					✓		10-18-11	12:25	✓	✓												

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Relinquished By: <u>Roberto Parra</u>	Date: <u>10-21-11</u> Time: <u>9:40</u>	Received By: <u>Jodi Benson</u>	Phone Result: <input type="checkbox"/> Yes <input type="checkbox"/> No	Add'l Phone #:
			Fax Result: <input type="checkbox"/> Yes <input type="checkbox"/> No	Add'l Fax #:
Relinquished By:	Date:	Received By:	REMARKS: <u>Email Results</u> <u>natalie.gadden@apachecorp.com</u> <u>zander@rice-ecs.com ; bhaber@rice-ecs.com</u> <u>blonder@rice-ecs.com ; Luethke@rice-ecs.com</u>	
Delivered By: (Circle One)	Sample Condition	CHECKED BY: (Initials)		
Sampler - UPS - Bus - Other:	Cool Intact <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<u>JH</u>		

† Cardinal cannot accept verbal changes. Please fax written changes to 505-393-2476



## CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

[illegible]

† Cardinal cannot accept verbal changes. Please fax written changes to 505-393-2476

# Appendix D

## Groundwater Study

**RICE Environmental Consulting and Safety (RECS)**  
P.O. Box 5630 Hobbs, NM 88241  
Phone 575.393.4411 Fax 575.393.0293



Apache  
Company

NEDU #348

site name

A	10	21S	37E
Unit Letter	Section	Township	Range

Groundwater Depth: 50 ft

Compiled by: Amy C. Ruth Date: 5/2/2012

Comments:

○ = Wells of unknown use (USGS)

○ = Non-production wells  
(commercial, sanitation, stock)

☆ = Subject Site

	4 ○ 75' Dom & Stock	○ <sub>22'</sub> 3	2	
	9 ○ <sub>58'</sub>	☆ 10	11	
	70' Dom & Stock 16	15	○ <sub>28'</sub> 14	



# New Mexico Office of the State Engineer

## Water Column/Average Depth to Water

(A CLW##### in the  
POD suffix indicates the  
POD has been replaced  
& no longer serves a  
water right file.)

(R=POD has  
been replaced,  
O=orphaned,  
C=the file is  
closed)

(quarters are 1=NW 2=NE 3=SW 4=SE)

(quarters are smallest to largest) (NAD83 UTM in meters)

(In feet)

POD		Q Q Q			Depth		Depth	Water					
POD Number	Code	Subbasin	County	64 16 4	Sec	Tws	Rng	X	Y	Well	Water Column		
CP 00212			LE	2	2	1	14	21S	37E	675254	3595753*	46	
CP 00552			LE	2	4	04	21S	37E	672700	3598022*	90	75	15
CP 00553			LE	2	4	04	21S	37E	672700	3598022*	90	75	15
CP 00554			LE	2	2	16	21S	37E	672744	3595610*	80	70	10

Average Depth to Water: **73 feet**

Minimum Depth: **70 feet**

Maximum Depth: **75 feet**

**Record Count: 4**

**PLSS Search:**

**Section(s):** 2, 3, 4, 9, 10,  
11, 14, 15, 16

**Township:** 21S

**Range:** 37E

\*UTM location was derived from PLSS - see Help

The data is furnished by the NMOSE/ISC and is accepted by the recipient with the expressed understanding that the OSE/ISC make no warranties, expressed or implied, concerning the accuracy, completeness, reliability, usability, or suitability for any particular purpose of the data.



*New Mexico Office of the State Engineer*  
**Currently Active Points of Diversion**  
(with Ownership Information)

---

No PODs found.

**POD Search:**

**POD Number:** CP 00552

**Usage Filter:**

**Use:** PDL (NON 72-12-1 DOMESTIC & LIVESTOCK)



# *New Mexico Office of the State Engineer*

## **Currently Active Points of Diversion**

(with Ownership Information)

---

No PODs found.

**POD Search:**

**POD Number:** CP 00553

**Usage Filter:**

**Use:** PDL (NON 72-12-1 DOMESTIC & LIVESTOCK)



# *New Mexico Office of the State Engineer*

## **Currently Active Points of Diversion**

(with Ownership Information)

---

No PODs found.

**POD Search:**

**POD Number:** CP 00554

**Usage Filter:**

**Use:** PDL (NON 72-12-1 DOMESTIC & LIVESTOCK)

**USGS 322849103080601 21S.37E.14.12410**

Available data for this site

Groundwater: Field measurements

[ GO ]

Lea County, New Mexico

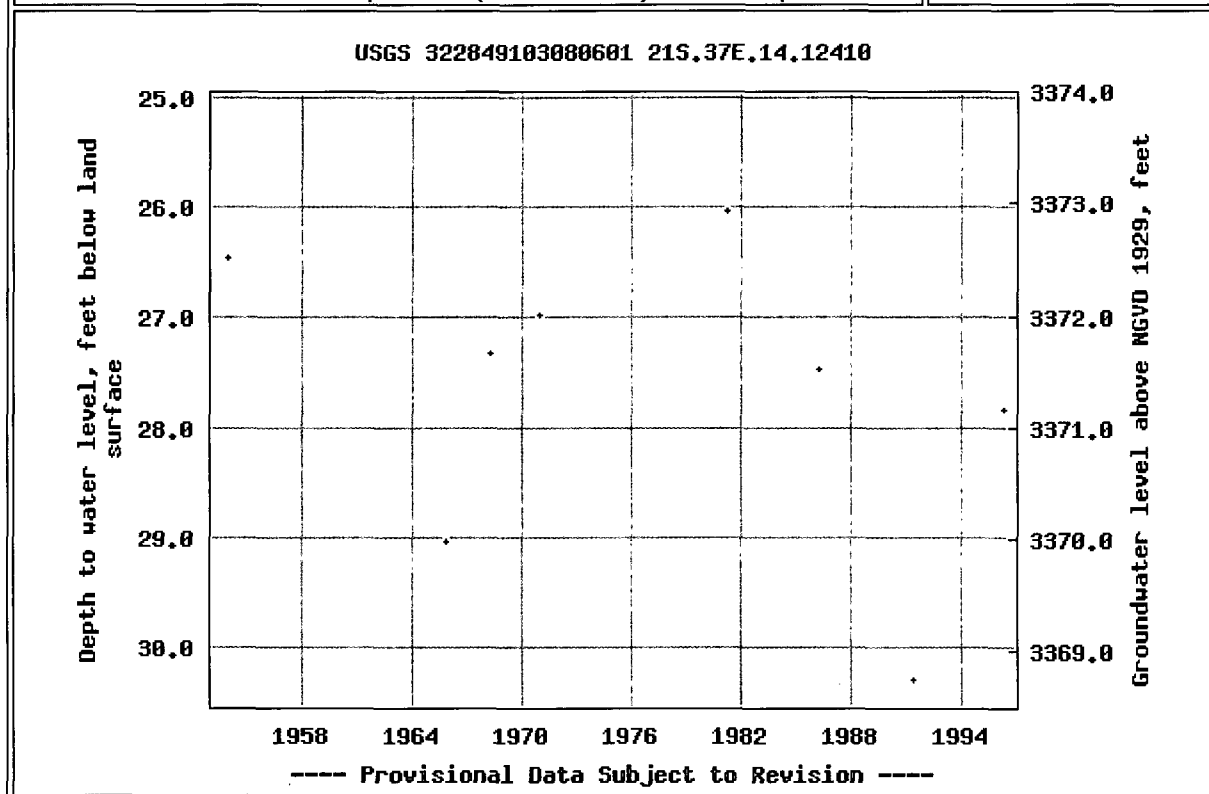
Hydrologic Unit Code 13070007

Latitude 32°29'01", Longitude 103°08'06" NAD27

Land-surface elevation 3,399.00 feet above NGVD29

The depth of the well is 48 feet below land surface.

This well is completed in the Alluvium, Bolson Deposits and Other Surface Deposits (110AVMB) local aquifer.

**Output formats**[Table of data](#)[Tab-separated data](#)[Graph of data](#)[Reselect period](#)

**USGS 322937103094501 21S.37E.09.241211**

Available data for this site

Groundwater: Field measurements

Lea County, New Mexico

Hydrologic Unit Code 13070007

Latitude 32°29'49", Longitude 103°09'45" NAD27

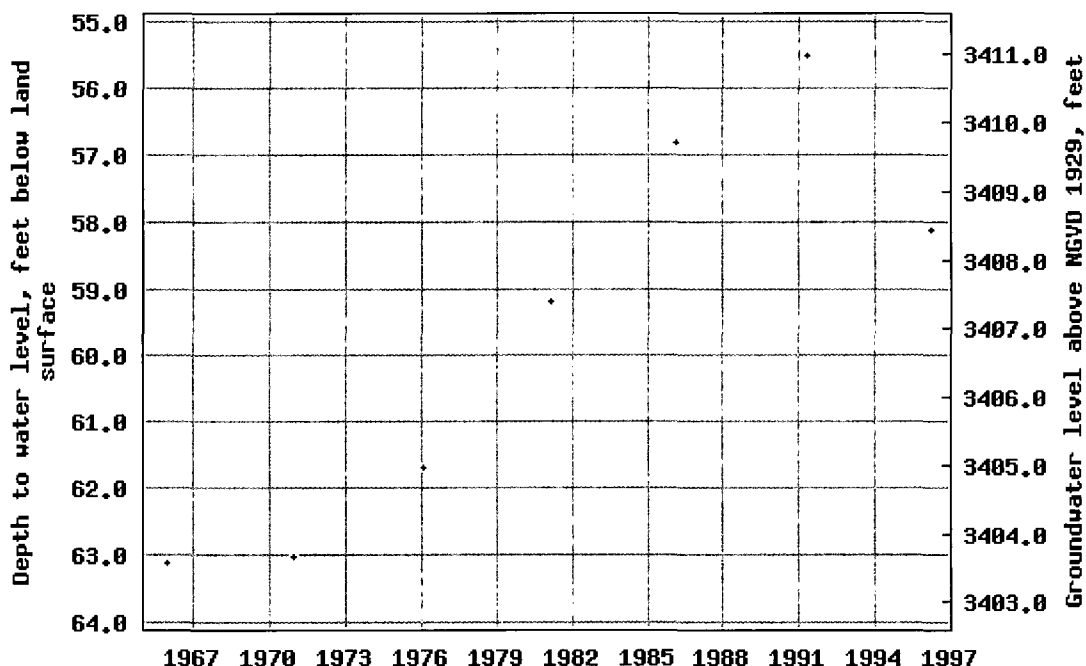
Land-surface elevation 3,466.60 feet above NGVD29

The depth of the well is 90 feet below land surface.

This well is completed in the Alluvium, Bolson Deposits and Other Surface Deposits (110AVMB) local aquifer.

**Output formats**[Table of data](#)[Tab-separated data](#)[Graph of data](#)[Reselect period](#)

USGS 322937103094501 21S.37E.09.241211



----- Provisional Data Subject to Revision -----

**USGS 323016103092001 21S.37E.03.31221**

Available data for this site

Groundwater: Field measurements

Lea County, New Mexico

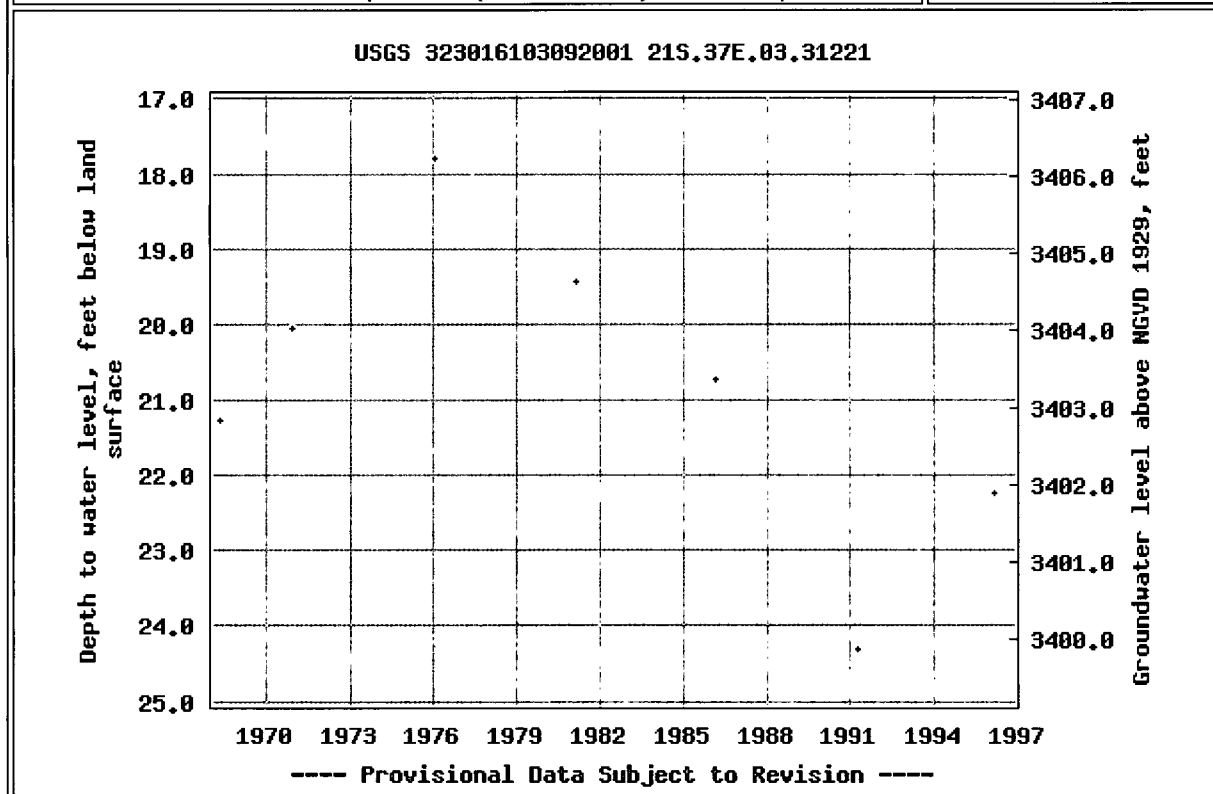
Hydrologic Unit Code 13070007

Latitude 32°30'40", Longitude 103°19'21" NAD27

Land-surface elevation 3,424.10 feet above NGVD29

The depth of the well is 36 feet below land surface.

This well is completed in the Alluvium, Bolson Deposits and Other Surface Deposits (110AVMB) local aquifer.

**Output formats**[Table of data](#)[Tab-separated data](#)[Graph of data](#)[Reselect period](#)



# Appendix E

Final Form C-141

**RICE Environmental Consulting and Safety (RECS)**  
P.O. Box 5630 Hobbs, NM 88241  
Phone 575.393.4411 Fax 575.393.0293

District I  
1625 N. French Dr., Hobbs, NM 88240  
District II  
1301 W. Grand Avenue, 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  
Oil Conservation Division  
1220 South St. Francis Dr.  
Santa Fe, NM 87505

HOBBS OCD

NOV 09 2012

RECEIVED

Form C-141  
Revised October 10, 2003

Submit 2 Copies to appropriate  
District Office in accordance  
with Rule 116 on back  
side of form

## Release Notification and Corrective Action

### OPERATOR

☐ Initial Report ☒ Final Report

Name of Company	Apache Corp.	Contact	Natalie Gladden
Address	P.O. Box 1849, Eunice, NM, 88231	Telephone No.	(575) 390-4186
Facility Name	NEDU #348	Facility Type	Production Well
Surface Owner	McCasland	Mineral Owner	State of NM
		Lease No.	30-025-39583

### LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
A	10	21S	37E	10	FNL	330	FEL	Lea

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

### NATURE OF RELEASE

Type of Release	Oil	Volume of Release	8 bbl	Volume Recovered	5 bbl
Source of Release	Stuffing box	Date and Hour of Occurrence	10/18/11	Date and Hour of Discovery	10/18/11
Was Immediate Notice Given?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Not Required				
By Whom?	If YES, To Whom?				
Was a Watercourse Reached?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No				
Date and Hour					
If YES, Volume Impacting the Watercourse.					

If a Watercourse was Impacted, Describe Fully.\*

DNW = 24'

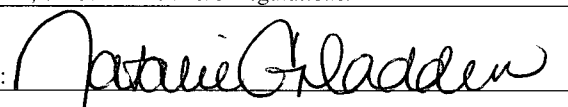
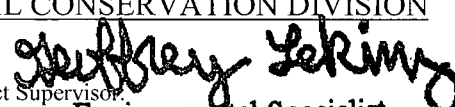
Describe Cause of Problem and Remedial Action Taken.\*

Stuffing box blow out releasing fluid, standing fluid was recovered and one-call was made.

Describe Area Affected and Cleanup Action Taken.\*

The leak affected the caliche pad surrounding the wellhead and a length of caliche road to the south. Impacted soils were removed to a NMOCD approved disposal facility. Representative soil samples were collected from the excavation and sent to a commercial laboratory for chloride and TPH confirmation. The excavation was backfilled with clean caliche and contoured to the surrounding area.

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: 	OIL CONSERVATION DIVISION	
Printed Name: Natalie Gladden	Approved by District Supervisor:  Environmental Specialist	
Title: EH&S Environmental Tech	Approval Date: 11/09/12	Expiration Date: -
E-mail Address: Natalie.gladden@apachecorp.com	Conditions of Approval: -	Attached <input type="checkbox"/>
Date: 11/9/12 Phone: (575) 390-4186	IRP-06-14-3090	

\* Attach Additional Sheets If Necessary