

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  
7 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico **HOBBS OCD**  
Energy Minerals and Natural Resources  
Oil Conservation Division **AUG 09 2012**  
1220 South St. Francis Dr.  
Santa Fe, NM 87505 **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 Corporation	Contact Natalie Gladden
Address P.O. Box 1849	Telephone No. 575-390-4186
Facility Name NEDU #247	Facility Type Injection line

Surface Owner State of NM	Mineral Owner State of NM	Lease No. 30-025-38508
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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
F	2	21S	37E	3465	FSL	1775	FWL	Lea

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

**NATURE OF RELEASE**

Type of Release Produced Water	Volume of Release 150	Volume Recovered 55
Source of Release Injection line leak	Date 2/25/09	Date 2/25/09 3pm
Was Immediate Notice Given? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Required	If YES, To Whom? Larry Johnson	
By Whom? Natalie Gladden	Date and Hour 2/25/09 352pm	
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.\*  
  

Dtw = 30'

Describe Cause of Problem and Remedial Action Taken.\* Due to corrosion of 4" injection line which was buried 15' bgs blew out. This injection line ran under hwy 207 north of Eunice. The fluid was both inside and outside state fence line. No fluid was released into conduit. Line was shut in and repaired. Vac trucks recovered approx 55bbbls of pw. NM State Hwy Department was notified.

Describe Area Affected and Cleanup Action Taken.\*  
Due to safety hazards, the area of excavation will be dug out and backfilled at the end of each day. Proper barricades, fencing, lights and other safety measures will be taken once work begins. Contamination was hauled to Sundance Disposal and NMOCD rules and guidelines was 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: <i>Natalie Gladden</i>	<b>OIL CONSERVATION DIVISION</b>	
Printed Name: Natalie Gladden	<i>Jeffrey Sekim</i> Approved by District Supervisor <b>Environmental Specialist</b>	
Title: EH&S Environmental Tech	Approval Date: 08/09/12	Expiration Date: -
E-mail Address: natalie.gladden@apachecorp.com	Conditions of Approval: -	Attached <input type="checkbox"/>
Date: 07/27/12 Phone: 575-390-4186		IRP-09-03-2130

\* Attach Additional Sheets If Necessary

NSAD141754792



HOBBS OCD

AUG 09 2012

RECEIVED

NEDU #247

Lea County

Unit F, 2, 21S, 37E

3465' FSL and 1775' FWL

API # 30-025-38508

Prepared by: Natalie Gladden

Apache Corporation

HOBBS OCD

AUG 09 2012

RECEIVED

Dear Geoffrey,

Attached you will find a copy of the original C141, final C141, project summary report, a diagram of the contamination area along with sample points with sample results and final analyticals taken from this site.

With this information that is provided, Apache Corporation respectfully requests your review and approval of the Risked Based Closure Document for the produced water release that occurred at the Apache NEDU #247 site.

If you have any questions or concerns, please feel free to contact me at any time.

Sincerely,

A handwritten signature in black ink that reads "Natalie Gladden". The signature is written in a cursive style with a large initial "N".

Natalie Gladden

EH&S Environmental Tech

Permian New Mexico District

The purpose of this report is to document the remediation activities and present supporting analytical data to the NMOCD, requesting closure of the referenced produced water release incident in accordance with the Guidelines for Remediation of Leaks, Spills and Releases.

Based on the analytical results of the confirmation soil samples collected from the excavation; which confirmed that the soil samples were slightly higher than the 250-ppm chloride standard. This is due to public safety concerns, this release was on Highway 8, where the injection line was buried and goes underneath the highway. Consequently, no further action is recommended or planned for this site at this time and on behalf of Apache Corporation we respectfully request that the NMOCD grant this risk based closure for the Apache NEDU #247 release.

## **NEDU #247 Project Summary**

### **Release History:**

On the morning of February 25, 2009, the injection line for NEDU #247 ruptured. Due to corrosion the 4" injection line blew out, line is buried 15' below ground surface. This line runs under Hwy 207 north of Eunice. When the line blew out it released approximately 150bbls of produced water and recovered 55bbls of fluid. The release occurred inside the fence line, but fluid was both inside the fence line and down the bar ditch of Hwy 207.

### **Emergency Response:**

Vacuum trucks were called to recover standing fluid. Gangs were also dispatched and injection line was repaired. A local backhoe company picked up the saturated soil immediately and hauled to Sundance Services.

### **Bidding Process:**

Due to the seriousness of the release CW Backhoe Service was dispatched out to start remediation. Once the site was assessed, it was found that due to driving hazards being so close to the highway, B&H Construction was used as well due to having their trackhoe on location to dig out and repair the line.

### **Remediation Process:**

On February 27<sup>th</sup>, excavation began. Due to the amount of saturated soil close to the highway, it was determined to excavate one side of the line at a time, then backfill before the end of the day. We placed concrete barricades in front of the deep excavation to block traffic from entering, especially during the night. We also placed lighted barrels, fencing and signs along highway to protect the public. Also the state fence was taken down each morning and put back in place at the end of the day. At the point of release, the contamination was from the surface to the injection line (at 15'), then 15' below the injection line. Due to this excavation being a safety issue the NMOCD allowed Apache to dig up the saturated soil and haul off to Sundance Services, with leaving some contaminated soil in place. A total of 3,788 yards of contamination was hauled to Sundance Services. We backhauled the backfill after each truck hauled contamination so that we were prepared to backfill at the end of each day. A total of 2973 yards of caliche and 744 yards of topsoil was hauled for backfill. Chloride concentrations in the saturated soil was above 3000-ppm. On the north side of the injection line chloride concentrations of 867-ppm to 1254-ppm was left on the sidewalls and bottom of excavation. On the south side of the injection line chloride concentrations of 528-ppm to 1080-ppm were left on the sidewalls and bottom of excavation. On the bar ditch chloride concentrations were left at under 500-ppm due to the natural slope of the bar ditch and to protect contractors and drivers from the excavated area, the excavated area in the bar ditch was at a depth of

4'. The location was contoured back to natural land and fencing was put back up after final steps of clean up.

Note: NMOCD allowed Apache Corporation to take out only the saturated soil; no blending was needed due to safety issues. The State of NM's Highway Department allowed us to stay 5' from the edge of the paved road, there for the NMOCD agreed to allow Apache to take out the saturated soil, with leaving some contamination in place.

**Savings due to risk based closure:**

The following is the breakdown of the actual cost to Apache through the completion portion of the NEDU #247 remediation:

Disposal Fees	\$ 57,197.30
Labs	\$ 700.00
Transportation Cost	\$ 25,075.00
Env. Contractor	\$ 45,961.11
Line Repair	\$ 9,075.58
Trucking-Solids	\$ 1,243.76
Backfill	\$ <u>17,333.00</u>
<b>Total</b>	<b>\$156,585.75</b>

**Conclusion:**

This project consisted of excavating 3,788 yards of contaminated soil above regulatory levels. Blending was not an option due to safety hazards along public highways.

ANALYTICAL RESULTS FOR  
APACHE CORPORATION  
ATTN: NATALIE GLADDEN  
P.O. BOX 1849  
EUNICE, NM 88231

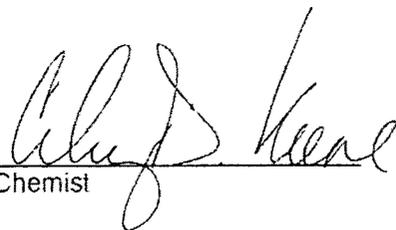
Receiving Date: 05/15/09  
Reporting Date: 05/18/09  
Project Number: NOT GIVEN  
Project Name: NOT GIVEN  
Project Location: NEDU #247

Analysis Date: 05/18/09  
Sampling Date: 04/20/09  
Sample Type: SOIL  
Sample Condition: INTACT  
Sample Received By: CK  
Analyzed By: HM

LAB NUMBER	SAMPLE ID	Cl <sup>-</sup> (mg/kg)
H17440-1	BD-SP1-BTM	448
H17440-2	BD-SP2-BTM	224
H17440-3	BD-SP3-BTM	400
H17440-4	BD-SP4-BTM	272
H17440-5	SP1 S-EXC	832
H17440-6	SP2 S-EXC	560
H17440-7	SP3 S-EXC	320
H17440-8	SP4 S-EXC	768
H17440-9	SP5 S-EXC BTM	448
H17440-10	SP1 N-EXC	496
Quality Control		500
True Value QC		500
% Recovery		100
Relative Percent Difference		< 0.1

METHOD: Standard Methods	4500-ClB
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Analyses performed on 1:4 w:v aqueous extracts.

  
\_\_\_\_\_  
Chemist

05/18/09  
Date

ANALYTICAL RESULTS FOR  
APACHE CORPORATION  
ATTN: NATALIE GLADDEN  
P.O. BOX 1849  
EUNICE, NM 88231

Receiving Date: 05/15/09  
Reporting Date: 05/18/09  
Project Number: NOT GIVEN  
Project Name: NOT GIVEN  
Project Location: NEDU #247

Analysis Date: 05/18/09  
Sampling Date: 04/20/09  
Sample Type: SOIL  
Sample Condition: INTACT  
Sample Received By: CK  
Analyzed By: HM

LAB NUMBER	SAMPLE ID	Cl <sup>-</sup> (mg/kg)
H17440-11	SP2 N-EXC	512
H17440-12	SP3 N-EXC	384
H17440-13	SP4 N-EXC	352
H17440-14	SP5 N-EXC	192
H17440-15	SP1 BD SW	128
H17440-16	SP2 BD SW	352
H17440-17	SP3 BD SW	112
H17440-18	SP4 BD SW	752
Quality Control		500
True Value QC		500
% Recovery		100
Relative Percent Difference		< 0.1

METHOD: Standard Methods	4500-Cl <sup>-</sup> B
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Analyses performed on 1:4 w:v aqueous extracts.

  
Cheryl D. Keene  
Chemist

  
05/18/09  
Date



# CARDINAL LABORATORIES

101 East Marland, Hobbs, NM 88240

(575) 393-2326 Fax (575) 393-2476

Company Name: <u>Apache</u>		<b>BILL TO</b>		<b>ANALYSIS REQUEST</b>											
Project Manager: <u>Natalie Gladden</u>		P.O. #:													
Address: <u>P.O. Box 1849</u>		Company:													
City: <u>Durice</u> State: <u>NM</u> Zip: <u>88231</u>		Attn:													
Phone #: <u>390-4180</u> Fax #:		Address:													
Project #: Project Owner:		City:													
Project Name:		State: Zip:													
Project Location: <u>Medu #247</u>		Phone #:													
Sampler Name: <u>Natalie Gladden</u>		Fax #:													

FOR LAB USE ONLY		(G/RAB OR (C)OMP.	# CONTAINERS	MATRIX						PRESERV.			SAMPLING		DATE	TIME	chlorides
Lab I.D.	Sample I.D.			GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER:	ACID/BASE:	ICE / COOL	OTHER:					
<u>H-1440</u>																	
1	<u>BO-SPI-BTM</u>																
2	<u>2-</u>																
3	<u>3-</u>																
4	<u>4-</u>																
5	<u>SPI 5-Exc</u>																
6	<u>2 " "</u>																
7	<u>3 " "</u>																
8	<u>4 " "</u>																
9	<u>5 " " Btm</u>																
10	<u>SP 21 N Exc</u>																

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 the client for the 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 90 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 services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise.

Sampler Relinquished: <u>Natalie Gladden</u>		Date: <u>2-15-09</u>	Received By:	Phone Result: <input type="checkbox"/> No <input type="checkbox"/> Add'l Phone #:
Relinquished By:		Time:	Received By: <u>Alu Kene</u>	Fax Result: <input type="checkbox"/> No <input type="checkbox"/> Add'l Fax #:
Delivered By: (Circle One)		Temp: <u>38°C</u>	Sample Condition	REMARKS: <u>Email</u>
Sampler - UPS - Bus - Other:		38°C	<input type="checkbox"/> Cool <input type="checkbox"/> Intact <input type="checkbox"/> Yes <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> No	
			CHECKED BY: <u>CPH</u>	

† Cardinal cannot accept verbal changes. Please fax written changes to 575-393-2476.

\* Only Cl- analysis, doesn't require refrigeration. ck



# ARDINAL LABORATORIES

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

Company Name: <u>Apache</u>			<b>BILL TO</b>				<b>ANALYSIS REQUEST</b>																		
Project Manager: <u>Natalie Gladden</u>			P.O. #:																						
Address: <u>PO BOX 1849</u>			Company:																						
City: <u>Esmer</u> State: <u>NM</u> Zip: <u>88231</u>			Attn:																						
Phone #: _____ Fax #: _____			Address:																						
Project #: _____ Project Owner: _____			City:																						
Project Name: _____			State: _____ Zip: _____																						
Project Location: _____			Phone #: _____																						
Sampler Name: _____			Fax #: _____																						
FOR LAB USE ONLY																									
Lab I.D.		Sample I.D.		GIRAB OR (C)OMP	# CONTAINERS	MATRIX					PRESERV			SAMPLING		chlorides									
						GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER:	ACID/BASE:	ICE / COOL	OTHER:	DATE										
<u>HL 7490-</u>																									
<u>11</u>		<u>SP2 H-Exc</u>											<u>4/20</u>												
<u>12</u>		<u>3 " "</u>																							
<u>13</u>		<u>4 " "</u>																							
<u>14</u>		<u>5 " "</u>																							
<u>15</u>		<u>SP1 BD SW</u>																							
<u>16</u>		<u>2 " "</u>																							
<u>17</u>		<u>3 " "</u>																							
<u>18</u>		<u>4 " "</u>																							

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Sampler Relinquished: <u>Natalie Gladden</u>		Date: <u>5-15-09</u>	Received By: _____	Phone Result: <input type="checkbox"/> No	Add'l Phone #: _____
Relinquished By: _____		Time: _____	Date: <u>5/15/09</u>	Fax Result: <input type="checkbox"/> No	Add'l Fax #: _____
Delivered By: (Circle One)		Temp. <u>38°C</u>	Received By: <u>C. Keene</u>	REMARKS: <u>email</u>	
Sampler - UPS - Bus - Other: _____		Sample Condition	Temp. <u>38°C</u>	CHECKED BY: (Initials) <u>CKK</u>	
		Cool <input type="checkbox"/> Yes <input type="checkbox"/> No	Intact <input type="checkbox"/> Yes <input type="checkbox"/> No		

† Cardinal cannot accept verbal changes. Please fax written changes to 575-393-2476.

NEDU #247  
Release Date: 02/25/09

