/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 CEIVED

JUN 3 0 2009 1220 South St. Francis Dr. HOBBSOCD Submit 2 Copies to appropriate District Office in accordance with Rule 116 on back side of form

Form C-141

Revised October 10, 2003

Santa Fe, NM 87505 **Release Notification and Corrective Action**

Oil Conservation Division

					OPERATOR ☐ Initial Report / ☐ Final F					Final Report		
Name of Co	ompany A	pache Corp	oration			Contact Natalie Gladden						
Address P.	O. Box 18	49 Eunice, l	VM 8823	1		Telephone No. 575-390-4186						
Facility Na	me NEDU	J #423]	Facility Type Production						
Surface Ow	mer Paige	McNeil		Mineral O	lumer S	State of NM			Lease	Vo. 30-025-	37876	
Durrace OW	nor raige	101011011	.,						Leas	10. 30 023		
[Y 1 1 Y	I a .:	- 1:	I			OF REI						
Unit Letter	Section	Township	Range	Feet from the	North/	South Line	Feet from the	East/V	Vest Line	County		
G	10	21S	37E	2360	FNL		1650	FEL		Lea		
			La	titude		Longitud	e					
			2	-		_						
TCD-1-					UKE	OF REL			17-1 T	2 1 4		
		carbons and profing Box Leal		ater		Date 1/29/	Release 5		Date 1/29	Recovered 4		
Was Immedi	ate Notice (Tiven?	<u> </u>			If YES, To			Date 1/29	709		
Was minical	are monee (Yes 🗵	No □ Not Re	equired	11 125, 10	Whom:					
By Whom?						Date and H	lour					
Was a Water	course Read	ched?					olume Impacting t	he Wate	ercourse.			
			Yes [] No		li.						
If a Watercon	urse was Im	pacted, Descr	ibe Fully.	k								
Describe Cau	se of Probl	em and Reme	dial Actio	n Taken.*								
Stuffing box	leak due to	back pressure	valve bei	ng plugged, releas	sing appi	rox. 1bbl of c	il and 4bbls of wa	ater, wit	h a recover	y of 4bbls tot	al.	
Describe Are	ea Affected	and Cleanup A	Action Tak	ren *								
				picked up saturate	d soil.	Site will be d	elineated and con-	taminati	on hauled	offsite for dis	posal.	All
NMOCD ren				d to obtain clean s								
Standards.												
I hereby certi	fy that the i	nformation gi	ven above	is true and compl	ete to th	e best of my	knowledge and u	nderstar	nd that purs	suant to NMO	CD ru	les and
regulations a	ll operators	are required to	o report ar	nd/or file certain re	elease no	otifications ar	nd perform correc	tive acti	ions for rele	eases which n	nay en	danger
public health	or the envir	ronment. The	acceptance	ce of a C-141 repo	rt by the	NMOCD m	arked as "Final Ro	eport" d	oes not reli	ieve the opera	tor of	liability
should their o	perations h	ave failed to a	dequately	investigate and restance of a C-141 i	emediate	contaminati	on that pose a thre	eat to gr	ound water	r, surface wate	er, hun	nan health
		vs and/or regu		tance of a C-141 i	report ac	es not renev	e the operator of i	responsi	bility for c	ompliance wi	th any	other
	<u> </u>	70 4114 01 108					OIL CONS	SERX	ATION	DIVISIO	N	
/	la la	$\alpha: \Lambda$	add			OIL CONSERVATION DIVISION						
Signature:	Jastou	en		(Dhuson								
Printed Name	· Natalie (<i>A</i>	Approved by District ENVIRONMENTAL ENGINEER								
Title: EH&S	Environme	ntal Tech	<u>-</u>		<i>-</i>	Approval Dat	e: 06/30/00	<u> </u>	Expiration 1	Date:		
E-mail Addre	ess: <u>n</u> atalie.	gladden@apa	checorp.c	om	(Conditions of	Approval:				_	
							. Is keen a see.			Attached	Ц.	
Date: 2/5/0				5-390-4186					$\overline{}$	IRP#0	9.27	2,2074
Attach Addi	nonai Shee	ets II Necess	ary						(

TABLE OF CONTENTS

<u>Item</u>	<u>P</u>	<u>ages(s)</u>
<u>Sectio</u>	on <u>I</u>	
	Project Overview	1
	Findings and Conclusions	1
	Chronology of Operations	2-3
	Certification	4
<u>Sectio</u>	on II	
	Soil Analysis Summary	5
	On-Site Soil Analysis	6
	Lab Analysis	
	Analytical QC Summary Report	
	Chain of Custody	
Section	on III	
	Site Maps/Drawings	
	Site Map	
	Regional TOPO Map	
	Local TOPO Map	11
Section	on IV	
	Pictorial Review1	2-13

IMPORTANT NOTICE:

Phoenix Environmental, LLC. With offices at 2113 French Drive, Hobbs, New Mexico 88241 (the Company), has prepared this project report for remediation of NEDU #423, to the best of its ability. No warranty, expressed or implied, is made or intended. The report was prepared for Apache Corp., with offices at 612 S Yale Suite 1500. Tulsa OK. 74136 and (the Client). All information disclosed in this plan is for internal purposes only and is considered confidential. By accepting this document, the recipient agrees to keep confidential the information contained herein. The recipient further agrees not to copy, reproduce or distribute to any third party this project plan in whole or in part, without express written permission from the Company or Client.





SECTION I

Project Overview

Phoenix Environmental, LLC. (Phoenix) was contracted by Natalie Gladden with Apache Corp. to consult and oversee the clean up on the NEDU #423 owned by Apache Corp. and is located at UL G, Sec 10, T21S, R37E of Lea County New Mexico with a GPS Reading: 32°-29'-39.6"N & 103°-08'-51.6"W with an elevation of 3447 above sea level. The land, in and around the site, is primarily used as pasture for cattle and the production of oil and gas.

The potential contaminates of concern were mid- to high-level concentrations of produce water containing elevated chlorides that were lost due to a leak at the well head.

The ground water depth data available from the State of New Mexico Engineers' office showed the vertical depth to the top of water to be about 30 feet below surface.

Pursuant to the NMOCD guidelines for clean up of unlined surface impoundments, the clean up level for this site will be at <100 ppm for TPH (Total Petroleum Hydrocarbons) and <50 ppm for BTEX (Benzene, Toluene, Ethylbenzene, and Xylene). The NMOCD has also asked for CL (Chlorides) be returned back as close to background levels as possible or <250 ppm.

Findings and Conclusion

The spill was due to a leak at the well head. A total of 4 to 6 bbls of produce water was leaked onto the ground and absorbed by the near surface soils... A 75'x 27' area was affected by the leak...

The bottom of the excavation (approximately 3 feet) was tested for TPH, BTEX, & Chlorides to make certain that the target limits had been met prior to backfilling and compaction for closure. The site cleaned up very well, and did not impact groundwater.

The spill site should pose very little if any future environmental threat due to the fact that the site was backfilled and compacted with stabilized backfill and contoured back to grade to prevent ponding on the area.



Chronology of Operations

- 1. February 9, 2009 Phoenix mobilized on-site. The first order on the agenda was a tailgate safety meeting to review any potential safety concerns of the site and to cover the clean- up operations. (Please note that a daily safety meeting is the first order of the day before any work begins on site). New Mexico One Call was notified of the intent to finish the spill remediation. Allen Hodge with Phoenix Environmental LLC pulled on-site field soil samples. (Please refer to page 5 of this report).
- 2. February 10, 2009 Crew began excavating spill area east of well head. Excavated impacted soil was mix and stockpiled to stabilize levels of chlorides. Allen took bottom samples. (Please refer to pages 5 and 6 of this report.)
- 3. February 11, 2009 Crew finished excavating around flow line. Samples were taken from stock pile. (Please refer to pages 5 and 6 of this report.). Crew excavated bottom down to 4' for blend material to mix with stockpile.
- 4. February 12, 2009– Crew over excavated clean soils for stabilization of impacted soils. Ran spot checks on spoils piles did not met levels spread stockpile and added more clean materials and remixed. Allen took samples from stockpile to check levels.
- 5. February 13, 2009 Crew ran sample from bottom of excavation area. Crew broke down stockpiles into three separate piles to mix. Piles were mixed for several hours and retested.
- 6. February 16, 2009 Crew continued to mix stockpiles with excavated clean materials. Random samples were taken to check mix levels.
- 7. February 17, 2009 Crew excavated clean caliche from pad to blend back into impacted soils excavation area.
- 8. February 18, 2009 Track hoe was utilized to excavate clean materials from outside edge of pad to blend back into impacted soils excavation area. Final bottom and sidewall samples were taken and sent to a third party laboratory for analysis Chlorides for final verification of the limits met. (Please refer to attached reports, pages 5 through 8 of this report).
- 9. February 19, 2009 Crew continued to blend and test piles before backfilling. Compaction was done over the excavation and edge of pad. Excavation area was leveled.



10. February 20, 2009 - Crew finished mix and blending. Final contouring and compactions was implemented to return the site back to grade to prevent rainwater ponding.



Limitations

Phoenix Environmental LLC has prepared this report to the best of its ability. No other warranty expressed, implied or intended is made.

This report has been prepared for Apache Corp. our client. The information contained in this report including all exhibits and attachments, may not be used by any other party without the express consent from Phoenix Environmental LLC and/or the client.

Certification

The following Phoenix Environmental LLC personnel have reviewed this report and verify that to the best of their knowledge the contents are true and correct.

Name:

Allen Hodge, REM # 7096

Signature:

Title: VP Operations

Phoenix Environmental LLC





SECTIONII

SUMMARY SOIL ANALYSIS REPORT

Client: Apache Corp. Sample Matrix: Soil Facility: NEDU # 423

Initial Project Screening

Sample	Date	Depth	Chlorides	TPH	BTEX	Location	Test Method
#1	2/9/09	1.5'	350			See Site Map	EPA 325.3
#2	2/9/09	1'	375			See Site Map	EPA 325.3
#3	2/9/09	1'	2750			See Site Map	EPA 325.3
#4	2/9/09	2'	650			See Site Map	EPA 325.3
#5	2/9/09	2.5'	7000			See Site Map	EPA 325.3
#6	2/9/09	2'	<i>575</i>			See Site Map	EPA 325.3
#7	2/9/09	2.5'	375			See Site Map	EPA 325.3
#8							
#9							
#10							

Samples reported in parts per million (ppm) and depth is in feet (') and inches (")

Interim Project Screening

TIILEIIII	i Project	Jul Cell	iiig				
Sample	Date	Depth	Chlorides	TPH	BTEX	Location	Test Method
#1	2/10/09	2.5-3'	90	,,,,	BIEX.	East	EPA 325.3
#2	2/10/09	2.5-3'	<50			South Leg	EPA 325.3
#3	2/11/09	2.5'	800			West End	EPA 325.3
#4	2/11/09	2.5'	350			Center	EPA 325.3
#5	2/11/09	2.5'	1300			East End	EPA 325.3
#6	2/11/09	2.5'	90			East Wall	EPA 325.3
#7	2/11/09	2.5'	<50			West Wall	EPA 325.3
#8	2/12/09	2.5'	700-800			Stockpiles	EPA 325.3
#9	2/13/09	2.5'	1325			Stockpiles 7:30 am	EPA 325.3
#10	2/13/09	2.5'	<i>875</i>			Stockpiles 1:00 pm	EPA 325.3
#11	2/16/09	2.5'	200-275			Stockpiles	EPA 325.3
#12	2/17/09	2.5'	200-260				EPA 325.3
#13							
#14							
#15							
#16	L						

Samples reported in parts per million (ppm) and depth is in feet (') and inches (")

Final (Third Party Laboratory) Project Screening Verification

Samples	Samples reported in parts per million (ppm) and depth is in feet (') and inches (")									
							Test			
Sample	Date	Depth	Chlorides	TPH	BTEX	Location	Method			
#1	2/25/09	2.5'	128			West Wall	See Report			
#2	2/25/09	2.5'	112			North Wall	See Report			
#3	2/25/09	2.5'	32			South Wall	See Report			
#4	2/25/09	3'	16			West Bottom	See Report			
#5	2/25/09	3'	48			East Bottom	See Report			
#6	2/25/09	4'	96			South Leg Bottom	See Report			
#7	2/25/09	3'	112			South Leg East Wall	See Report			
#8	2/25/09	3′	16			South Leg West Wall	See Report			
#9	2/25/09	0'-6"	<16			Background	See Report			



Phoenix Environmental, LLC. P.O. Box 1856 – 2113 French Drive Hobbs, New Mexico 88241

505.391.9685 - FAX: 505.391.9687

SOIL ANALYSIS REPORT

Date: 2/17/09 Client: Apache Corp. Supervisor: Allen Hodge Sample Matrix: Soil Facility: NEDU #423
Test Method: EPA 325.3
Order No.: Tony Chenault
Sample Received: Intact on site

<u>Sample</u>	Cl (ppm)	<u>Depth (feet)</u>	<u>Location</u>
#1	90	2.5-3′	East
#2	<50	2.5-3'	South leg
#3	800	2.5'	West End
#4	350	2.5′	Center
#5	1300	2.5′	East End
#6	90	2.5′	East Wall
# 7	<50	2.5′	West Wall
#8	700-800	2.5′	Stockpiles
#9	1325	2.5′	Stock Piles 2/13/09 7:30 am
#10	875	2.5′	Stock Piles 2/13/09 1:00 pm
#11	200-275	2.5′	Stock Piles
#12	200-260	2.5′	Stock Piles

COMMENTS: Sample was to check the limits for NMOCD guidelines for clean up of leaks and spills.



ANALYTICAL RESULTS FOR PHOENIX ENVIRONMENTAL, LLC

ATTN: ALLEN HODGE

P.O. BOX 1856 HOBBS, NM 88241

FAX TO: (575) 391-9687

Receiving Date: 02/24/08
Reporting Date: 02/25/08
Project Number: APACHE
Project Name: NEDI 1422

Project Name: NEDU 423
Project Location: LEA CO., NM

Analysis Date: 02/25/08 Sampling Date: 02/18/08 Sample Type: SOIL

Sample Condition: INTACT Sample Received By: AB

Analyzed By: HM

LAB NUMBER SAMPLE ID

METHOD: Standard Methods

Cl⁻ (mg/kg)

H16959-1	1-WEST WALL @ 2.5'	128				
H16959-2	2-NORTH WALL @ 2.5'	112				
H16959-3	3-SOUTH WALL @ 2.5'	32				
H16959-4	4-WEST BOTTOM @ 3'	16				
H16959-5	5-EAST BOTTOM @ 3'	48				
H16959-6	6-SOUTH LEG BOTTOM @ 4'	96				
H16959-7	7-SOUTH LEG EAST WALL @ 3'	112				
H16959-8	8-SOUTH LEG WEST WALL @ 3'	16				
H16959-9	9-BACKGROUND @ 0'-6"	<16				
		500				
Quality Contr	OI	500				
True Value Q	500					
% Recovery	% Recovery					
Relative Perc	ent Difference	< 0.1				

Note: Analyses performed on 1:4 w:v aqueous extracts.

Ü

Date

4500-CIB

H16959 PHOENIX

ARDINAL LABORATORIES

101 East Marland, Hobbs, NM 88240 (575) 393-2326 Eax (575) 393-247

(575) 393-2326 Fax (575) 393-2476		Page of					
ompany Name: PLOENIX ENVIZONMENIAL LLC	BILL TO	ANALYSIS REQUEST					
roject Manager: ALLGN HODPE	P.O. #:						
Iddress: PO BOX 1856	Company: Apache						
ity: Hobbs State: NM Zip: 88241	Attn:						
ity: Aobbs State: NM Zip: 88241 Thome #: 575-391-9685 Fax #: 515-391-9687	Address:	<u> </u>					
roject #: Project Owner: A DiA Che	City:						
roject Name: NEDU 423	State: Zip:						
roject Location: LGA CG WM	Phone #:						
iampier Name: ACCCU HOOPS	Fax #:						
FOR LAB USE GALLY MATRIX	PRESERV. SAMPLING]~					
MMP R							
TEN THE RESERVE TO SERVE THE RESERVE THE R							
Lab l.D. Sample l.D.	ASE COLL						
Tap l'grand de la containers GROUNDWATER WASTEWATER SOIL	SLUDGE OTHER ACID/BASE ICE / COOL OTHER: ALIAND AL						
(G)R/ (G)R/ (MAS) SOIL OIL	DATE TIME						
H16959-1 1-WEST WALL @ 215 6 1 X -7 2-NORTH WALL @ 215 6 1 X -3 3-50UT & WALL @ 215' 6 1 X -4 4-WEST BOTTOM@ 3' 6 1 X	X 248-09 9:00						
-7 2-NORTH WALL @ 215' Q 1 X	X (9:15						
-3 3-5007 L WALL @ 215' @ 1 X	1 1 9.30						
-4 4-WEST BOTTOM@31 6 1 X	Y 45						
-5 5-EAST BOTTOM@3' 6 1 V	1 X 90:00						
-6 6-South Lie Bottone 4' 6 1 X	1 1/0:13						
JOOK LEE CHINA CONTRACT	X 10:30						
-8 8 SOUTH LEG WEST WALL @ 3' 6 1 K							
9 P-BACKGROUDE O-6" GIX	X 117.15						
PLEASE NOTE: Liability and Damages Cardinal's liability and client's exclusive remedy for any claim arising whether based in con-	ract or tort, shall be limited to the amount paid by the client f	or the					
nalyses. All claims including those for negligence and any officer cause whatsoever shall be deemed walved unless made in writing service. In no event shall Cardinal be lightle for incidental or prosequental damages, including without limitation, business interruption	ons, loss of use, or loss of profits incurred by client, its subsid	Baries,					
Iffliates or successors anappool of or related to the performance of services hereunder by Cardinal, regardless of whether such c Sampler Reliabled: / Date: Received By:	Phone R	lesult: No Add'l Phone #:					
Sampler Relinfulished: Date: 22404 Received By: Time:	Fax Res REMARK						
Refinguished BV: Time: //: 3S Date: Received By:							
Received By:							
Time:							
Delivered By: (Circle One) Temp. Sample Con	dition CHECKED BY:						
Sampler - UPS - Bus - Other: ☐ Yes 🔀	ct (Initials) Yes						

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

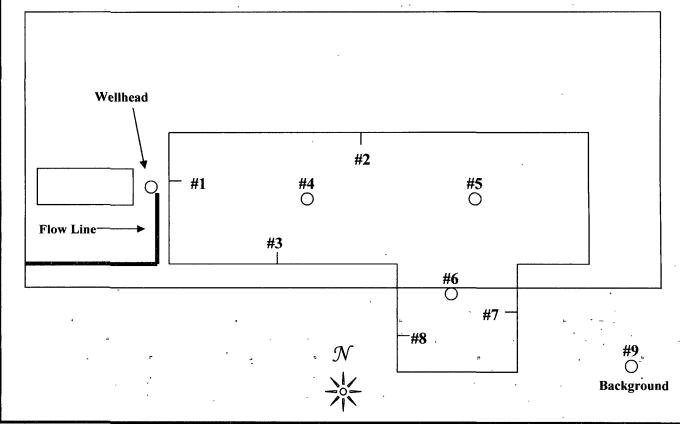


SECTION III

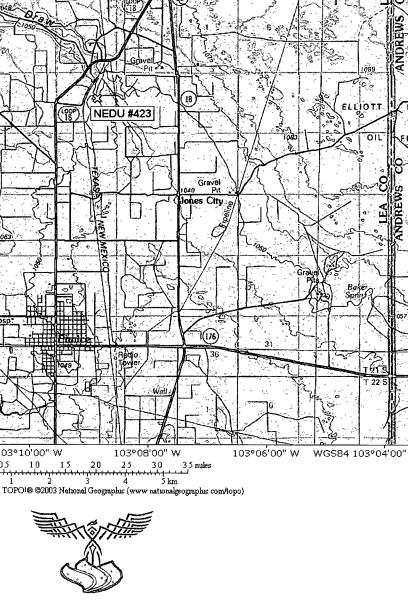
Apache Corp 🐪 🔩

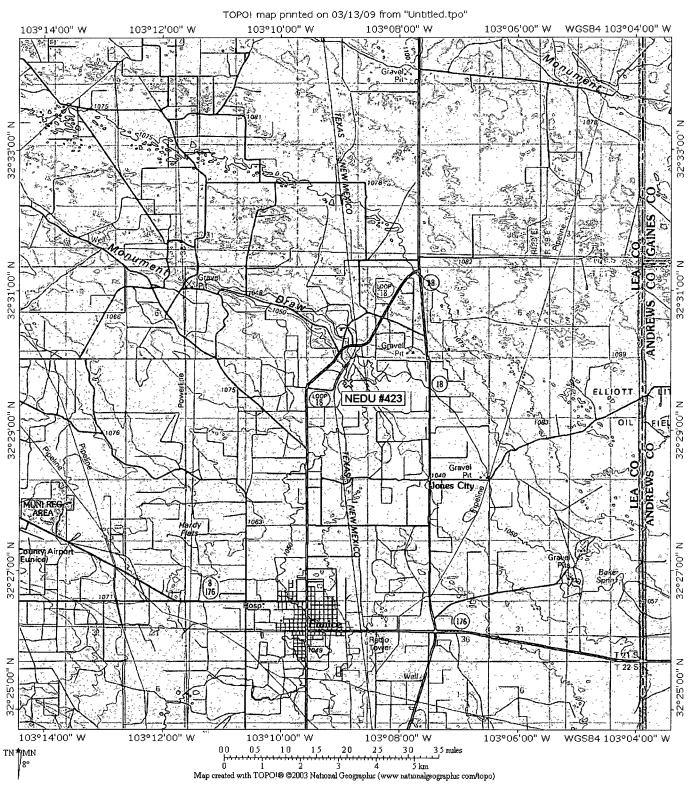
NEDU #423 UL-G SEC-10 – T21S – R37E N32° - 29' – 39.6" – W103° - 08' – 51.6"

- 1. N32° 29' 39.1" W103° 08' 51.6"
- 2. N32° 29' 39.2" W103° 08' 51.3"
- 3. N32° 29' 39.0" W103° 08' 51.2"
- 4. N32° 29' 39.2" W103° 08' 51.4"
- 5. N32° 29' 39.2" W103° 08' 51.2"
- 6. N32° 29' 38.7" W103° 08' 51.2"
- 7. N32° 29' 38.8" W103° 08' 51.1"
- 8. N32° 29' 38.8" W103° 08' 51.3"
- 9. N32° 29' 38.2" W103° 08' 49.8"











SECTION IV

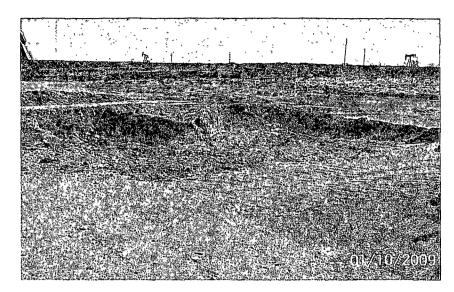


Photo #1 Remediation of Clean Up Area

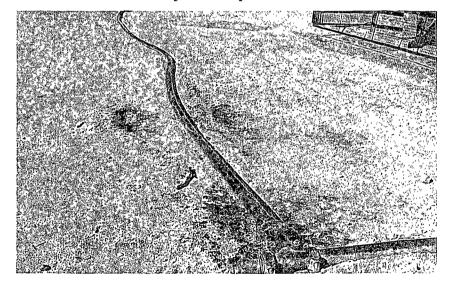


Photo #3 Remediation of Clean Up Area

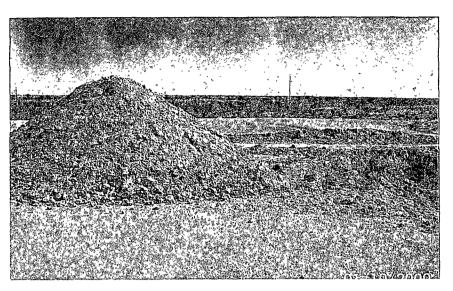


Photo #2 View of Stock Pile Material use to backfill

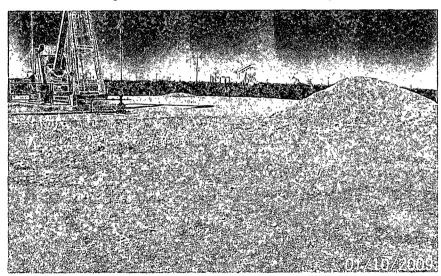


Photo #4 Remediation of Clean Up Area



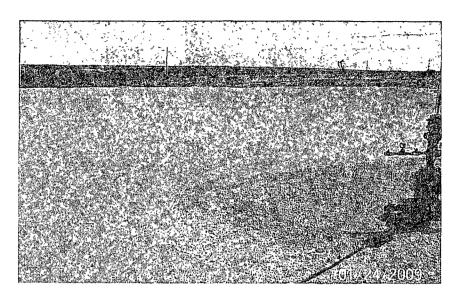


Photo #5 Final View

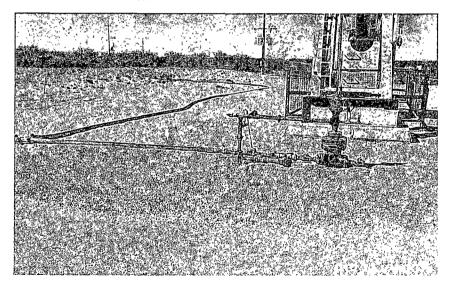


Photo #7 Final View

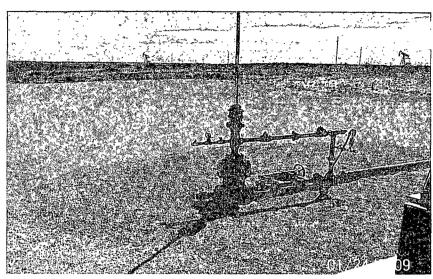


Photo # 6 Final View

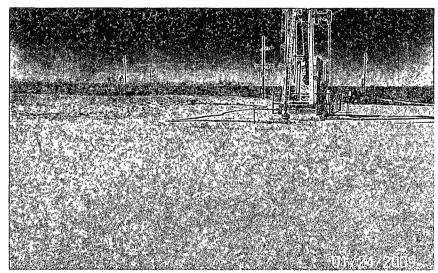


Photo #8 Final View



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

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

Form C-141 Revised October 10, 2003

. side of form

	Release Notification and Corrective Action											
						OPERA?	ГOR		Initi	al Report	☐ Final Report	
Name of Co						Contact Natalie Gladden						
		49 Eunice, l	VM 8823	1		Telephone No. 575-390-4186 Facility Type Production						
Facility Nat	ne NEDU) #423			Facility Typ	be Production						
						*			~			
Surface Ow	ner Paige	McNeil		Mineral C)wner	State of NM			Lease 1	No/30-025-	37876	
				LOCA	ATIC	N OF REI	LEASE					
Unit Letter	Section	Township	Range	Feet from the	Nort	h/South Line	Feet from the	East/V	Vest Line	County		
! G	10	21S	37E	2360	FNL		1650	FEL		Lea		
		2.5	· · · · · · · · · · · · · · · · · · ·		I						•	
			La	titude		Longitud	ıe			WTR	25	
				NAT	'URI	E OF REL	EASE					
Type of Rele				ater			Release 5			Recovered 4		
Source of Re Was Immedia			<u>k</u>			Date 1/29/			Date 1/29	9/09		
Trus Immedia	ate Notice (Yes 🗵	No 🗌 Not Re	equire		, , , , iiiii.					
By Whom?	***************************************					Date and I-	lour					
Was a Water	course Read					If YES, Vo	olume Impacting t	he Wate	ercourse.			
			Yes [No		DEACH/CD						
If a Watercou	ırse was Im	pacted, Descr	ibe Fully.	k		RECEIVED						
									בבם ע	5 2009		
Describe Co.	on of Probl	em and Reme	dial Actio	n Tokon *					HOBB	SOCD_		
					sing ar	prox. 1bbl of o	oil and 4bbls of wa				tal.	
		•		0.00	٠.	•				•		
		and Cleanup A										
							lelineated and con s some where arou			offsite for dis	sposal. All	
NIVIOCD ren	iediation gu	ndennes win	be followe	ed to obtain clean	SOII. C	oround water is	s some where arou	inu 43 .				
Lhereby certi	fy that the i	nformation gi	iven ahove	e is true and comp	lete to	the hest of my	knowledge and u	ndersta	nd that nur	suant to NM(OCD rules and	
							nd perform correc					
							arked as "Final R					
							ion that pose a three the operator of a					
		ws and/or regu			p							
/		. (\ .				OIL CONS	SERV	<u>'ATION</u>	DIVISIO	N	
Signature:	hito			 .								
			Approved by	District Supervise	65 <u></u>	- 10	١					
Printed Name: Natalie Gladden								\rightarrow	164	Vi-	<u>,</u>	
Title: EH&S	Environme	ental Tech				Approval Date: 2.5.09 Expiration Date: 4.5.09					15.09	
E-mail Addre	ess: <u>natalic.</u>	gladden@apa	checorp.c	<u>om</u>		Conditions of Approval:						
Date: 2/5/0			75-390-4186		Submit F	ina C.141 W	Docs	5 BY	IRP* 09	1.02.2074		