

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

Form C-141

Revised June 10, 2003

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
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	Eunice, NM 88231	Telephone No.	575-390-4186
Facility Name	ARNOLD A #1		Facility Type	Oil Well

Surface Owner	Private	Mineral Owner	API No.	30-025-07761
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LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from North Line	Feet from West Line	Longitude-W	Latitude-N	County
F	11	20S	38E	1980	1775	103.1361	32.5103	Lea

NATURE OF RELEASE

Type of Release	Volume of Release	Volume Recovered
Produced Water w/ significant hydrocarbon component	Greater than 165 bbl	40 bbl
Source of Release	Date and Hour of Occurrence	Date and Hour of Discovery
Tank Sight Gauge	12/16/07 3:00 AM	12/16/07 9:00 AM
Was Immediate Notice Given?	If YES, To Whom?	
<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO <input type="checkbox"/> Not Required	NMOCD - Hobbs - Larry Johnson	
By Whom?	Date and Hour	
Billy L. Stockton	12/17/07 3:00 PM	
Was a Watercourse Reached?	If YES, Volume Impacting the Watercourse	
<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO	NA	

If a Watercourse was Impacted, Describe Fully*

Describe Cause of Problem and Remedial Action Taken. *
Sight glass hose on temporary tank for well swabbing failed. Vacuum truck recovered 40-bbl.

Describe Area Affected and Cleanup Action Taken. *
The flow path extended east approximately 1100-ft along a sandy access road. Release was contained within the road until reaching east extent where it spread out south and northeast. Remediation was accomplished with excavation/disposal of grossly contaminated soil, then risk based closure with blending to <1000-ppm Cl and covering with a 20-mil polyvinyl plastic liner. Remediation was started by ELKE Environmental - Hobbs, and completed by Ocotillo Environmental - Hobbs.

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>	OIL CONSERVATION DIVISION	
Printed Name:	Natalie Gladden	<i>L. Johnson</i>	
Title:	Environmental Tech - Permian Basin	Approved by District ENVIRONMENTAL ENGINEER	
E-Mail Address:	Natalie.Gladden@usa.apachecorp.com	Approval Date: 7.7.09	Expiration Date: _____
Date:	5/29/2009	Phone:	575-390-4186
		Conditions of Approval:	1RP# 1590
			<input type="checkbox"/> Attached

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1.0 Project Summary

Release Site Name: Arnold A #1
Operating Company: Apache Corporation
Company Representative: Natalie Gladden, Environmental Tech Phone: 575-390-4186
Address: PO Box 1849, Eunice, NM 88231 Email: Natalie.Gladden@usa.apachecorp.com
Remediation Company: Ocotillo Environmental - Hobbs Phone: 575-738-0138

SITE SPECIFIC DATA:

Legal Description: Lea County, New Mexico UL-F Section 11 T20S R37E
General Location: 2.4 miles SSE (170.9°) of Nadine, NM.
Latitude: N32° 35.369' Longitude: W103° 7.295' Elevation: 3,590-ft amsl
Land Ownership: Private – Zaragoza (west), Reza (east)
Ground Water Elevation: 54-ft bgs (Monitor Well)
Water Wells within 1000-ft: none Surface Water within 1000-ft: none

RELEASE SPECIFIC DATA:

Date and Time of Release(s): 3:00 AM - - 12/16/07
Material Released: Produced Water and Crude Oil component
Volume Released: >165-bbl Volume Recovered: 40-bbl
Cause of Release: Tank sight gauge failure
Release Affected Area: >20,000-ft²
Depth of Contamination: 15-ft bgs
NMOCD Site Ranking: 20 (ground water <50-ft below lowest contamination)

Remediation Action Levels: TPH: 100-ppm; Benzene: 10-ppm; BTEX: 50-ppm; Cl – 250-ppm

REMEDIATION SUMMARY:

Remediation of the release affected area consisted of the excavation and disposal of approximately 3,200-yd³ of hydrocarbon and chloride contaminated soil from the top 3-ft of the release affected flow path. Disposal was at J&L Landfarm. Chloride contaminated soil that remained was blended with clean soil to achieve chloride concentrations of <1000-ppm. The flow path area(s) with blended soil above the regulatory limit of 250-ppm Cl were lined with 5-ft overlapping 20-mil polyvinyl liners. Subsequent to liner installation the release affected area was covered with a minimum 3-ft layer (3,108-yd³) of clean topsoil purchased from the two involved landowners. Remediation of the release site was completed on January 31, 2008.

2.0 Detailed Site Description

2.1 Geological Description

The United States Geological Survey (USGS) Ground-Water Report 6, "Geology and Ground-Water Conditions in Southern Lea County, New Mexico," A. Nicholson and A. Clebsch, 1961, describes the near surface geology of southern Lea County as "an inter-grade of the Quaternary Alluvium (QA) sediments, i.e., fine to medium sand, with the mostly eroded Cenozoic Ogallala (CO) formation. Typically, the QA and CO formations in the area are capped by a thick inter-bed of caliche and generally overlain by sandy soil." The release site is located in the High Plains physiographic subdivision (more commonly referred to as the Llano Estacado), described by Nicholson & Clebsch as "a flat, gently sloping plain, treeless, and marred only by slight undulations and covered with short prairie grass."

2.2 Ecological Description

The area is typical of the Upper Chihuahuan Desert Biome consisting primarily of hummocky sand hills covered with Harvard Shin Oak (*Quercus harvardi*) interspersed with Honey Mesquite (*Prosopis glandulosa*) along with typical desert grasses, flowering annuals and flowering perennials. Mammals represented, include Orrd's and Merriam's Kangaroo Rat, Deer Mouse, White Throated Wood Rat, Cottontail Rabbit, Black Tailed Jackrabbit, Mule Deer, Bobcat, Red Fox and Coyote. Reptiles, Amphibians, and Birds are numerous and typical of the area. A survey of Listed, Threatened, or Endangered species was not conducted.

2.3 Area Ground Water

The Chevron-Texaco water contour map (*Plate 4 of Attachments*) indicates that water in this area is 25' – 50' bgs. A monitor well drilled at the NW corner of the location measures 54-ft to water level.

2.4 Area Water Wells

There are no recorded or observed water wells within 1000 horizontal feet of the site.

2.5 Area Surface Water Features

No permanent surface water bodies exist within 1000 horizontal feet of the site.

3.0 Contaminant and Size of Area

The primary Contaminant of Concern (COC) was total chlorides resulting from the produced water release at this location. Hydrocarbon contamination was limited to the top 1-ft of the release surface area. The areal extent of the excavated release was ~20,000-ft².

4.0 NMOCD Site Ranking

Contaminant delineation and site evaluation work done at this site indicate that the chemical parameters of the soil and the physical parameters of the ground water were characterized consistent with the characterization and remediation/abatement goals and objectives set forth in the following New Mexico Oil Conservation Division (NMOCD) publications:

➤ *Guidelines for Remediation of Leaks, Spills and Releases (August 13, 1993)*

➤ *Unlined Surface Impoundment Closure Guidelines (February 1993)*

Acceptable thresholds for contaminants/constituents of concern (CoCs), i.e., TPH^{8015m}, Benzene, and the mass sum of Benzene, Toluene, Ethyl Benzene, and total Xylenes (BTEX⁸²⁶⁰), was determined based on the NMOCD Ranking Criteria as follows:

- *Depth to Ground water, i.e., distance from the lower most acceptable concentration to the ground water.*
- *Wellhead Protection Area, i.e., distance from fresh water supply wells.*
- *Distance to Surface Water Body, i.e., horizontal distance to all down gradient surface water bodies.*

Based on the proximity of the site to area water wells, surface water bodies, and depth to ground water from the lower most contamination, the NMOCD ranking score for the site is 20 points with the soil remedial goals highlighted in the Site Ranking Table.

SITE RANKING TABLE

1. GROUND WATER		2. WELLHEAD PROTECTION		3. DISTANCE TO SURFACE WATER	
DEPTH TO GW <50 FEET: 20 POINTS		IF <1000' FROM WATER SOURCE, OR; <200' FROM PRIVATE DOMESTIC WATER SOURCE: 20 POINTS		<200 HORIZONTAL FEET: 20 POINTS	
DEPTH TO GW 50 TO 99 FEET: 10 POINTS				200-1000 HORIZONTAL FEET: 10 POINTS	
DEPTH TO GW >100 FEET: 0 POINTS		IF >1000' FROM WATER SOURCE, OR; >200' FROM PRIVATE DOMESTIC WATER SOURCE: 0 POINTS		>1000 HORIZONTAL FEET: 0 POINTS	
GROUND WATER SCORE = 20				WELLHEAD PROTECTION SCORE = 0	
SITE RANK (1+2+3) = 20 + 0 + 0 = 20 POINTS					
TOTAL SITE RANKING SCORE AND ACCEPTABLE REMEDIAL GOAL CONCENTRATIONS					
PARAMETER	20+	10		0	
BENZENE	10 PPM	10 PPM		10 PPM	
BTEX	50 PPM	50 PPM		50 PPM	
TPH	100 PPM	1000 PPM		5000 PPM	

5.0 Remediation Process

Remediation of the release affected area consisted of the excavation and disposal of approximately 3,200-yd³ of hydrocarbon and chloride contaminated soil from the top 3-ft of the release affected flow path. Disposal was at J&L Landfarm. Chloride contaminated soil that remained was blended with clean soil to achieve chloride concentrations of <1000-ppm. The flow path area(s) with blended soil above the regulatory limit of 250-ppm Cl were lined with 5-ft overlapping 20-mil polyvinyl liners. Subsequent to liner installation the release affected area was covered with a minimum 3-ft layer (3,108-yd³) of clean topsoil purchased from the two involved landowners. Remediation of the release site was completed on January 31, 2008.

Based on the contents and data contained herein, Apache Corporation requests that NMOCD require “no further action” as regards the soil contamination resulting from the December 16, 2007 release of produced water and crude oil at this location.

ATTACHMENTS

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APACHE CORPORATION

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ARNOLD A #1

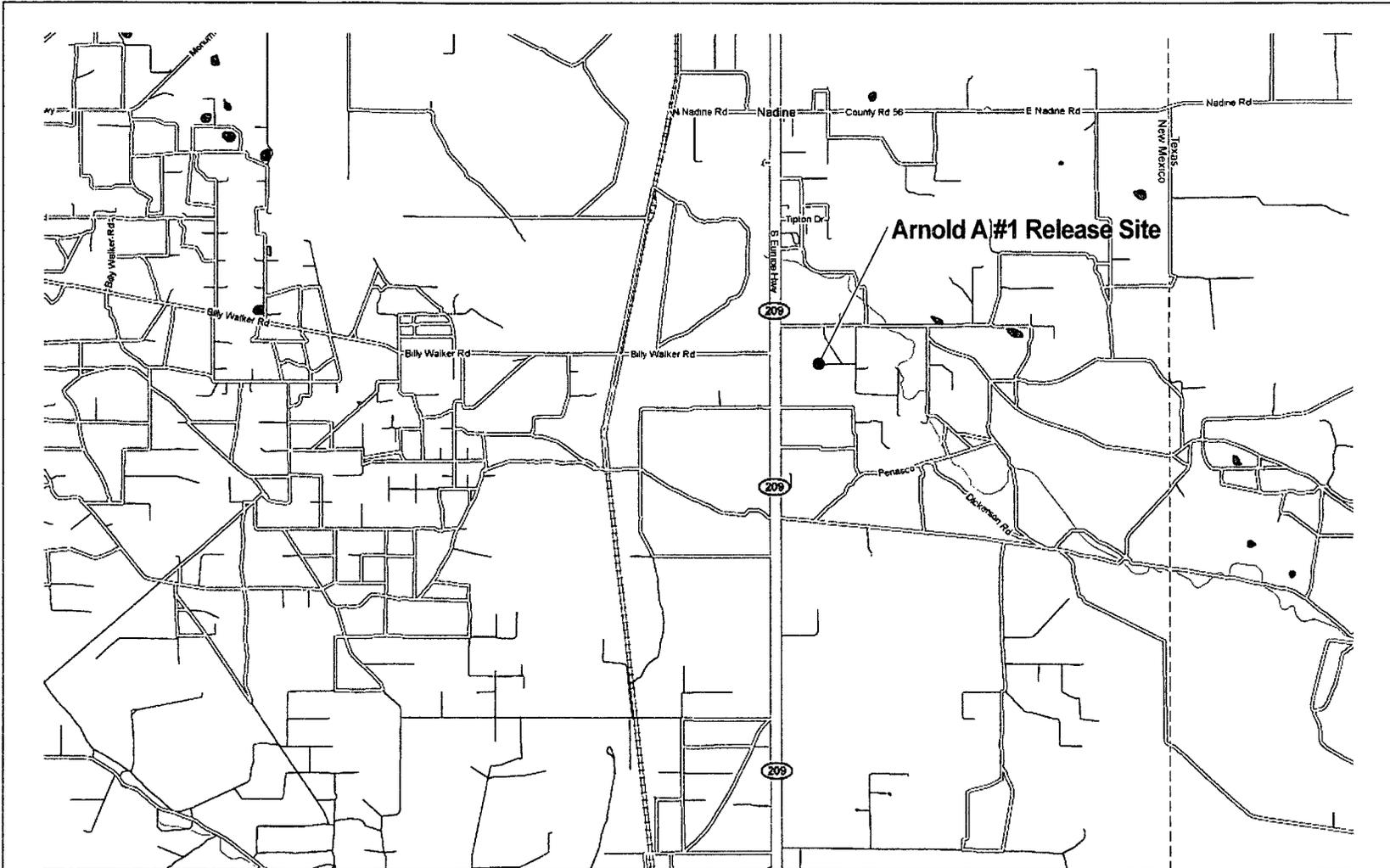
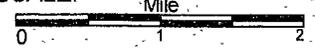


Plate 1
Release Site Location
Apache Corporation
Arnold A #1

Lea County, New Mexico
UL-F SECTION 11 T20S R38E
N 32° 35.369', W 103° 7.295'
Elevation: ~3591-ft amsl

Drawing by: John Good
May - 2009

SCALE:  Mile

Rev:
1



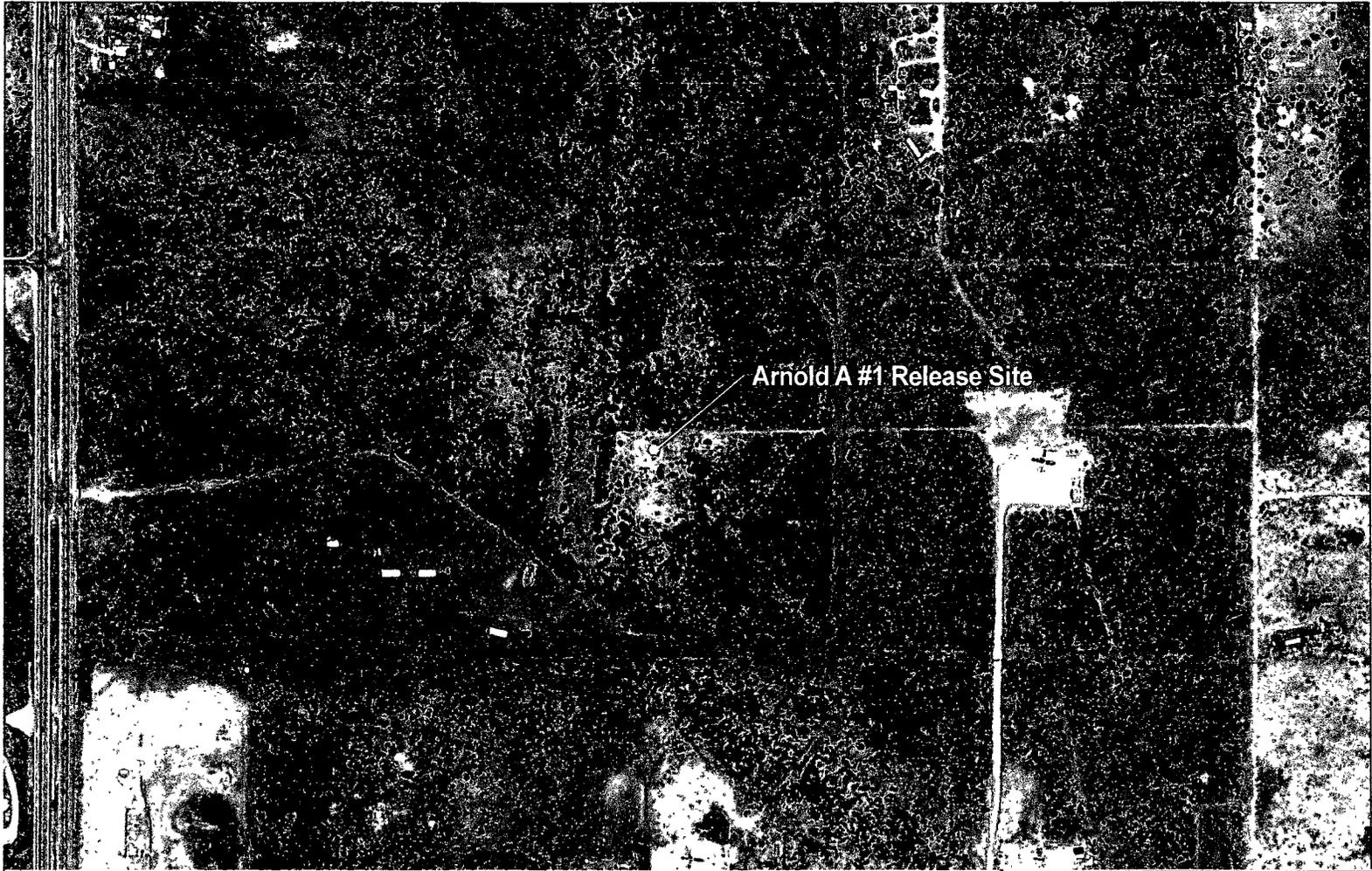


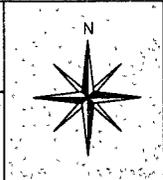
Plate 3
Release Site Aerial Photograph
Apache Corporation
Arnold A #1

Lea County, New Mexico
UL-F SECTION 11 T20S R38E
N 32° 35.369', W 103° 7.295'
Elevation: ~3591-ft amsl

Drawing by: John Good
May - 2009

Rev.
1

SCALE:
0 Feet 1000



APACHE CORPORATION

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ARNOLD A #1

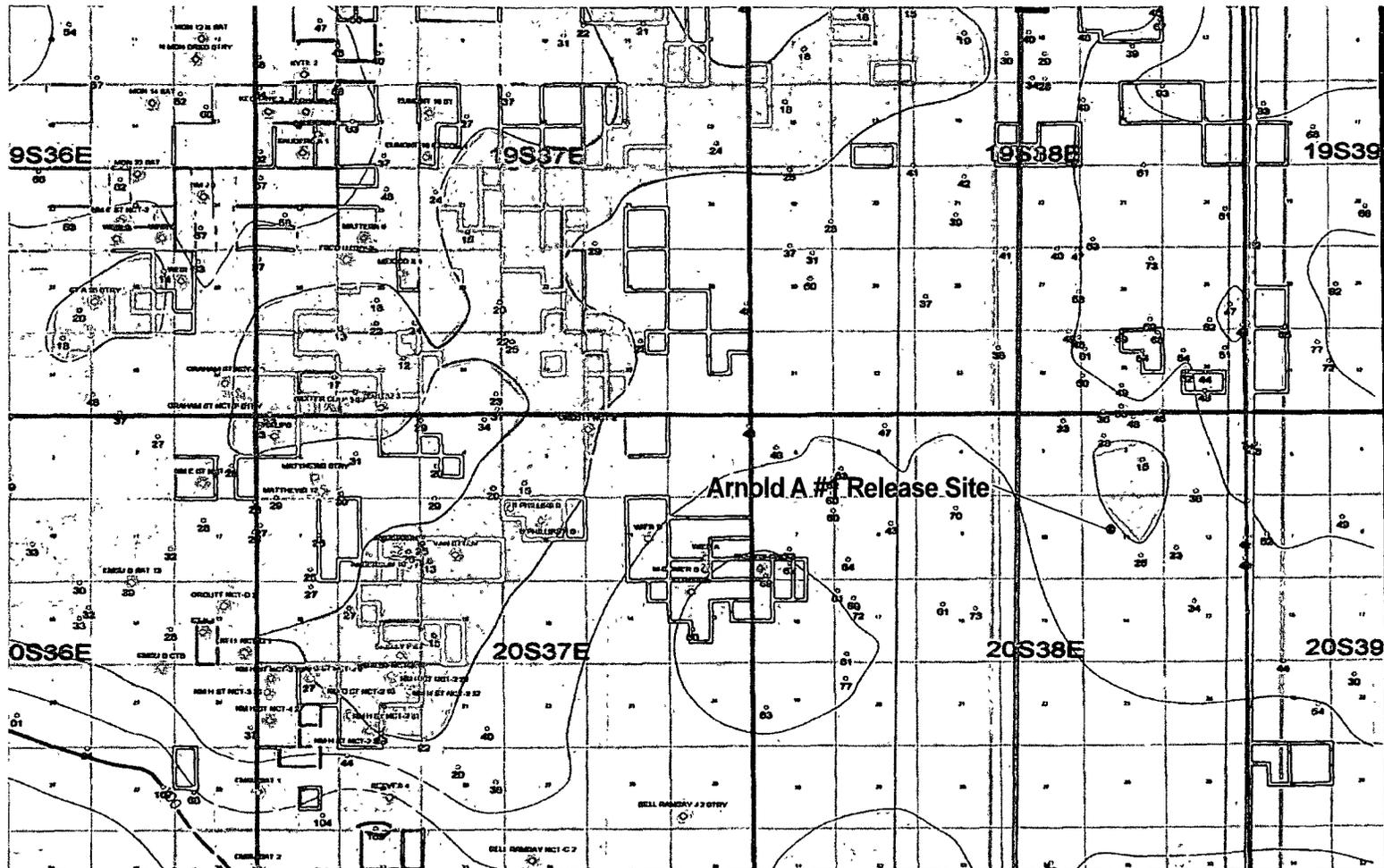


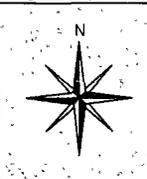
Plate 4
Release Site Water Depth Contour
Apache Corporation
Arnold A #1

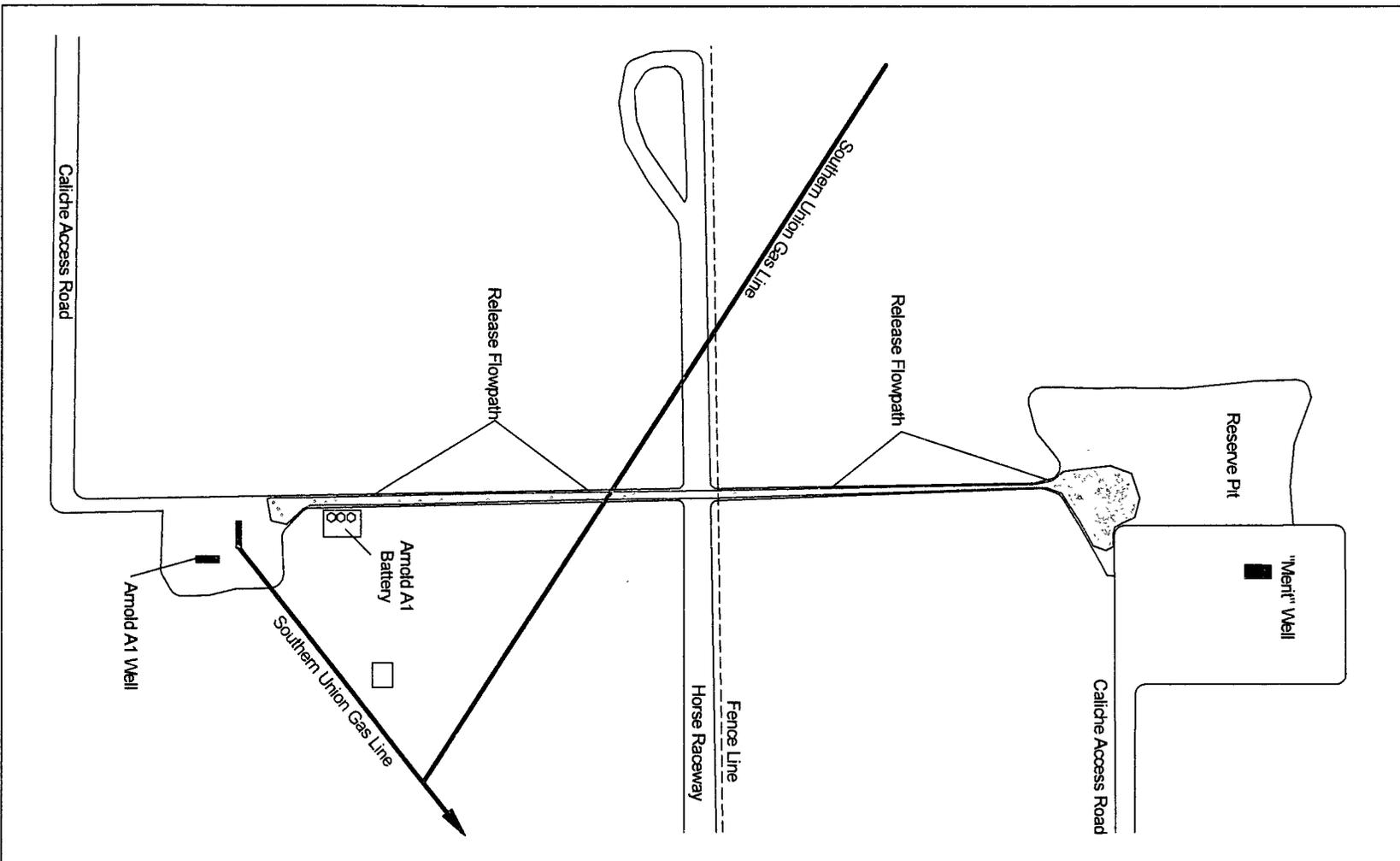
Lea County, New Mexico
UL-F SECTION 11 T20S R38E
N 32° 35.369', W 103° 7.295'
Elevation: ~3591-ft amsl

Drawing by: John Good
May - 2009

SCALE:
0 — Mile — 3

Rev:
1





APACHE CORPORATION

11

ARNOLD A #1

Plate 5
 Site Drawing
 Apache Corporation
 Arnold A #1

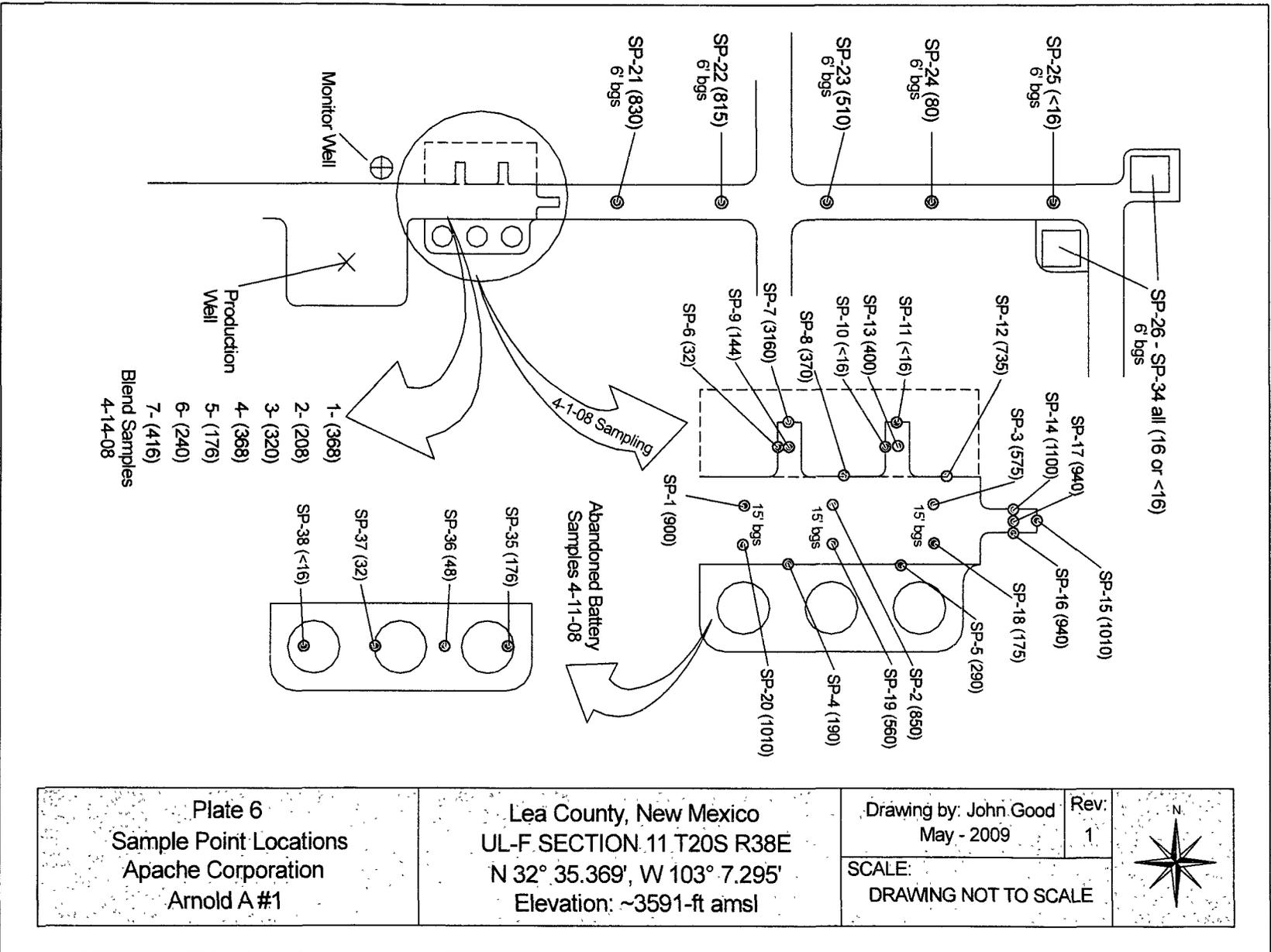
Lea County, New Mexico
 UL-F SECTION 11-T20S R38E
 N 32° 35.369', W 103° 7.295'
 Elevation: ~3591-ft amsl

Drawing by: John Good
 May - 2009

Rev: 1

SCALE:
 0 Feet 300





APACHE CORPORATION

13

ARNOLD A #1

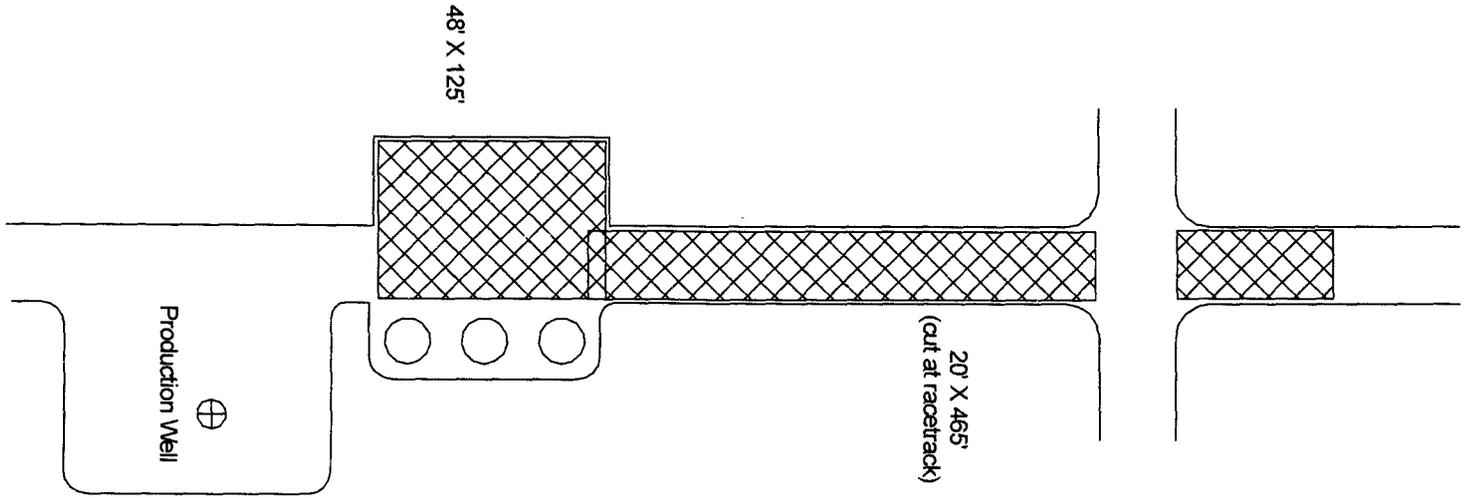


Plate 7
20-Mil Polyvinyl Liner Locations
Apache Corporation
Arnold A#1

Lea County, New Mexico
UL-F SECTION 11 T20S R38E
N 32° 35.369', W 103° 7.295'
Elevation: ~3591-ft amsl

Drawing by: John Good
May - 2009

Rev:
1

SCALE:
DRAWING NOT TO SCALE



APACHE CORP - ARNOLD A #1: LABORATORY ANALYTICAL RESULTS SUMMARY TABLE

Sample Number	Sample Depth	Sample Location	Chlorides mg/Kg	Sample Number	Sample Depth	Sample Location	Chlorides mg/Kg	Sample Number	Sample Depth	Sample Location	Chlorides mg/Kg
SP1	15-ft	Bottom	912	SP16	10-ft	SideWall	944	SP31	6-ft	Bottom	16
SP2	15-ft	Bottom	848	SP17	15-ft	Bottom	944	SP32	6-ft	Bottom	16
SP3	15-ft	Bottom	576	SP18	15-ft	Bottom	176	SP33	6-ft	Bottom	16
SP4	10-ft	SideWall	192	SP19	15-ft	Bottom	560	SP34	6-ft	Bottom	16
SP5	10-ft	SideWall	288	SP20	15-ft	Bottom	1010	SP35	3-ft	SideWall	176
SP6	10-ft	SideWall	32	SP21	6-ft	Bottom	832	SP36	3-ft	Bottom	48
SP7	10-ft	SideWall	3160	SP22	6-ft	Bottom	816	SP37	3-ft	SideWall	32
SP8	10-ft	SideWall	368	SP23	6-ft	Bottom	512	SP38	3-ft	SideWall	16
SP9	15-ft	Bottom	144	SP24	6-ft	Bottom	80	BLD1		Blend	368
SP10	10-ft	SideWall	16	SP25	6-ft	Bottom	16	BLD2		Blend	208
SP11	10-ft	SideWall	16	SP26	6-ft	Bottom	16	BLD3		Blend	320
SP12	10-ft	SideWall	736	SP27	6-ft	Bottom	16	BLD4		Blend	368
SP13	15-ft	Bottom	400	SP28	6-ft	Bottom	16	BLD5		Blend	176
SP14	10-ft	SideWall	1100	SP29	6-ft	Bottom	16	BLD6		Blend	240
SP15	10-ft	SideWall	1010	SP30	6-ft	Bottom	16	BLD7		Blend	416

APACHE CORPORATION

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ARNOLD A #1



PHONE (575) 363-2326 • 101 E. MARLAND • HOBBS, NM 88240

ANALYTICAL RESULTS FOR
 ELKE ENVIRONMENTAL, INC.
 ATTN: JOHN GOOD
 P.O. BOX 1830
 HOBBS, NM 88241
 FAX TO: (575) 738-0140

Receiving Date: 04/02/08
 Reporting Date: 04/03/08
 Project Owner: APACHE CORP.
 Project Name: ARNOLD A #1
 Project Location: UL-F S11 T20S R38E

Analysis Date: 04/02/08 & 04/03/08
 Sampling Date: 04/01/08
 Sample Type: SOIL
 Sample Condition: COOL & INTACT
 Sample Received By: ML
 Analyzed By: HM

LAB NUMBER	SAMPLE ID	Cl ⁻ (mg/kg)
H14561-1	SP-1	912
H14561-2	SP-2	848
H14561-3	SP-3	576
H14561-4	SP-4	192
H14561-5	SP-5	288
H14561-6	SP-6	32
H14561-7	SP-7	3,160
H14561-8	SP-8	368
H14561-9	SP-9	144
H14561-10	SP-10	< 16
H14561-11	SP-11	< 16
H14561-12	SP-12	736
H14561-13	SP-13	400
H14561-14	SP-14	1,100
H14561-15	SP-15	1,010
H14561-16	SP-16	944
H14561-17	SP-17	944
Quality Control		500
True Value QC		500
% Recovery		100
Relative Percent Difference		2.0

METHOD: Standard Methods 4500-ClB

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

S. M. [Signature]
 Chemist

04-03-08
 Date

H14561 ELKE

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 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.



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ANALYTICAL RESULTS FOR
 ELKE ENVIRONMENTAL, INC.
 ATTN: JOHN GOOD
 P.O. BOX 1830
 HOBBS, NM 88241
 FAX TO: (575) 738-0140

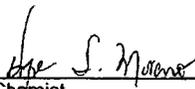
Receiving Date: 04/02/08
 Reporting Date: 04/03/08
 Project Owner: APACHE CORP.
 Project Name: ARNOLD A #1
 Project Location: UL-F S11 T20S R38E

Analysis Date: 04/03/08
 Sampling Date: 04/01/08
 Sample Type: SOIL
 Sample Condition: COOL & INTACT
 Sample Received By: ML
 Analyzed By: HM

LAB NUMBER	SAMPLE ID	Cl ⁻ (mg/kg)
H14561-18	SP-18	176
H14561-19	SP-19	560
H14561-20	SP-20	1,010
H14561-21	SP-21	832
H14561-22	SP-22	816
H14561-23	SP-23	512
H14561-24	SP-24	80
H14561-25	SP-25	< 16
H14561-26	SP-26	16
H14561-27	SP-27	< 16
H14561-28	SP-28	< 16
H14561-29	SP-29	< 16
H14561-30	SP-30	< 16
H14561-31	SP-31	< 16
H14561-32	SP-32	< 16
H14561-33	SP-33	16
H14561-34	SP-34	< 16
Quality Control		490
True Value QC		500
% Recovery		98.0
Relative Percent Difference		2.0

METHOD: Standard Methods 4500-Cl⁻B

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


 Chemist

04-03-08
 Date

H14561 ELKE

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 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.

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ARNOLD A #1



**ARDINAL
LABORATORIES**

PHONE (325) 673-7001 • 2111 BEECHWOOD • ABILENE TX 79603
PHONE (505) 393-2326 • 101 E MARLAND • HOBBS NM 88240

CHAIN OF CUSTODY AND ANALYSIS REQUEST

Sheet 2 of 2

Company Name: ELKE ENVIRONMENTAL, INC.		BILL TO		ANALYSIS REQUEST																			
Project Manager: JOHN GOOD		P.O. #:																					
Address: 3506 WEST COUNTY RD		Company: Apache Corp																					
City: HOBBS State: NM Zip: 88241		Attn: Natalie Gladden																					
Phone #: 575-738-0136 Fax #: 575-738-0140		Address: PO Box 1849																					
Project #: Project Owner APACHE CORP		City: Eunice																					
Project Name: ARNOLD A #1		State: NM Zip: 88231																					
Project Location: UL-F ST1 T20S R38E		Phone #: 390-4188																					
Sampler Name: JOHN GOOD		Fax #:																					
Lab I.D.	Sample I.D.	(GRAB OR (C)OMPOSITE # CONTAINERS	MATRIX							PRESERV	SAMPLING		Chlorides										
			GROUND WATER	WASTEWATER	SOIL	SLUDGE	OTHER	ACID/BASE	ICE/COOL		OTHER	DATE		TIME									
H 1461-18	SP-18	G 1		X					X		1-Apr	11:45	X										
H -19	SP-19	G 1		X					X		1-Apr		X										
H -20	SP-20	G 1		X					X		1-Apr		X										
H -21	SP-21	G 1		X					X		1-Apr		X										
H -22	SP-22	G 1		X					X		1-Apr		X										
H -23	SP-23	G 1		X					X		1-Apr		X										
H -24	SP-24	G 1		X					X		1-Apr		X										
H -25	SP-25	G 1		X					X		1-Apr		X										
H -26	SP-26	G 1		X					X		1-Apr		X										
H -27	SP-27	G 1		X					X		1-Apr		X										
H -28	SP-28	G 1		X					X		1-Apr		X										
H -29	SP-29	G 1		X					X		1-Apr		X										
H -30	SP-30	G 1		X					X		1-Apr		X										
H -31	SP-31	G 1		X					X		1-Apr		X										
H -32	SP-32	G 1		X					X		1-Apr		X										
H -33	SP-33	G 1		X					X		1-Apr		X										
H -34	SP-34	G 1		X					X		1-Apr	3:30	X										

PLEASE NOTE: Liability and Damages: Cardinal's liability to client is exclusive remedy for any claim arising without basis on contract or tort, shall be limited to the amount paid by the client for the analysis. All claims, including those for negligence and any other cause whatsoever, shall be deemed waived unless made in writing and received by Cardinal within 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 services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise.

Relinquished by: <i>John Good</i>	Date: 4/2/08	Received By: <i>Michelle But</i>	Phone Result: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Add'l Phone#: 631-3277 (J. Good)
	Time: 2:25		Fax Result: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Add'l Fax #:
Relinquished by:	Date:	Received By:	Remarks:	
	Time:			
Delivered By: (Circle One) Sampler - UPS - Bus - Other	Sample Condition Cool <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Intact <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	CHECKED BY: (Initials) <i>MPB</i>	Note: Cardinal cannot accept verbal changes. Please fax written changes to 575-393-2476.	

APACHE CORPORATION

20

ARNOLD A #1



CHAIN OF CUSTODY AND ANALYSIS REQUEST

PHONE (325) 673-7001 • 2111 BEECHWOOD • ABILENE TX 79603
PHONE (806) 393-2326 • 101 E MARLAND • HOBBS NM 88240

Sheet 1 of 1

Company Name: ELKE ENVIRONMENTAL, INC.				BILL TO				ANALYSIS REQUEST									
Project Manager: JOHN GOOD				P O #													
Address: 3506 WEST COUNTY RD				Company: Apache Corp													
City: HOBBS State NM Zip 88241				Attn: Natalie Gladden													
Phone #: 575-738-0138 Fax #: 875-738-0140				Address: PO Box 1849													
Project #: _____ Project Owner: APACHE CORP				City: Eunice													
Project Name: ARNOLD A #1				State: NM Zip: 88231													
Project Location: UL-F S11 T20S R38E				Phone #: 390-4186													
Sampler Name: JOHN GOOD				Fax #:													

Lab ID	Sample I.D.	(G)RAB OR (C)OMP # CONTAINERS	MATRIX						PRESERV		SAMPLING		Chlorides
			GROUND WATER	WASTEWATER	SOIL	SLUDGE	OTHER	ACID/BASE	ICE/COOL	OTHER	DATE	TIME	
H14653 -1	SP-35	G 1			X				X	11-Apr	7:30	X	
-2	SP-36	G 1			X				X	11-Apr		X	
-3	SP-37	G 1			X				X	11-Apr		X	
-4	SP-38	G 1			X				X	11-Apr	8:00	X	
-5	BLD-1	G 1			X				X	14-Apr	12:30	X	
-6	BLD-2	G 1			X				X	14-Apr		X	
-7	BLD-3	G 1			X				X	14-Apr		X	
-8	BLD-4	G 1			X				X	14-Apr		X	
-9	BLD-5	G 1			X				X	14-Apr		X	
-10	BLD-6	G 1			X				X	14-Apr		X	
-11	BLD-7	G 1			X				X	14-Apr	3:00	X	

PLEASE NOTE: Liability and Damages: Cardinal's liability and client's exclusive remedy for any claim arising whether based on 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 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 services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise.

Relinquished by: <i>John Good</i>	Date: 4/15/08	Received By: <i>Natalie LeBout</i>	Phone Result: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Add'l Phone#: 631-3277 (J. Good)
	Time: 2:25P		Fax Result: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Add'l Fax #:
Relinquished by:	Date:	Received By:	Remarks:
	Time:		

Delivered By: (Circle One) <input checked="" type="radio"/> Sampler <input type="radio"/> UPS - <input type="radio"/> Bus - <input type="radio"/> Other	Sample Condition: Cool <input checked="" type="checkbox"/> Intact <input checked="" type="checkbox"/> <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Yes <input type="checkbox"/> No	CHECKED BY: (Initials) <i>UCAB</i>	Note: Cardinal cannot accept verbal changes. Please fax written changes to 575-393-2476
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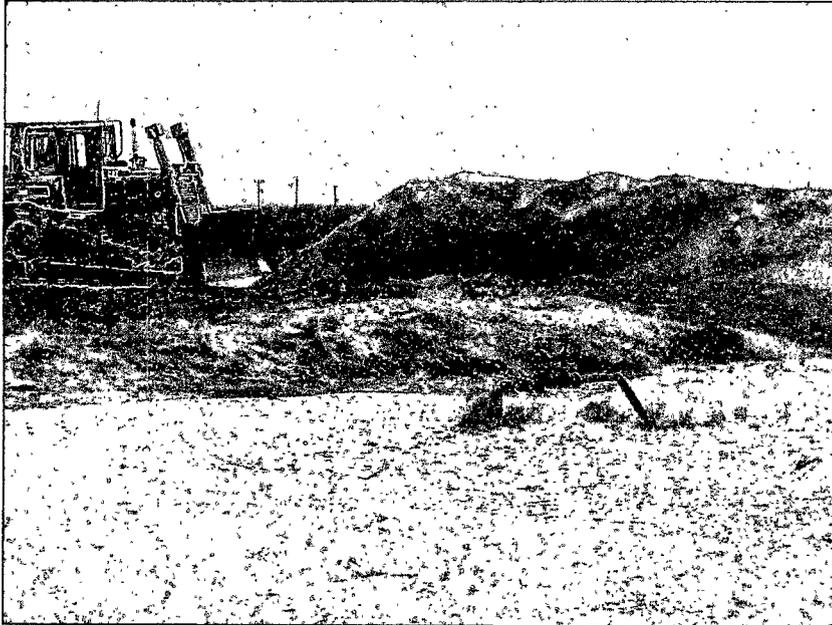
< 3/31/08 – Hauling stockpiled contaminated soil to landfarm



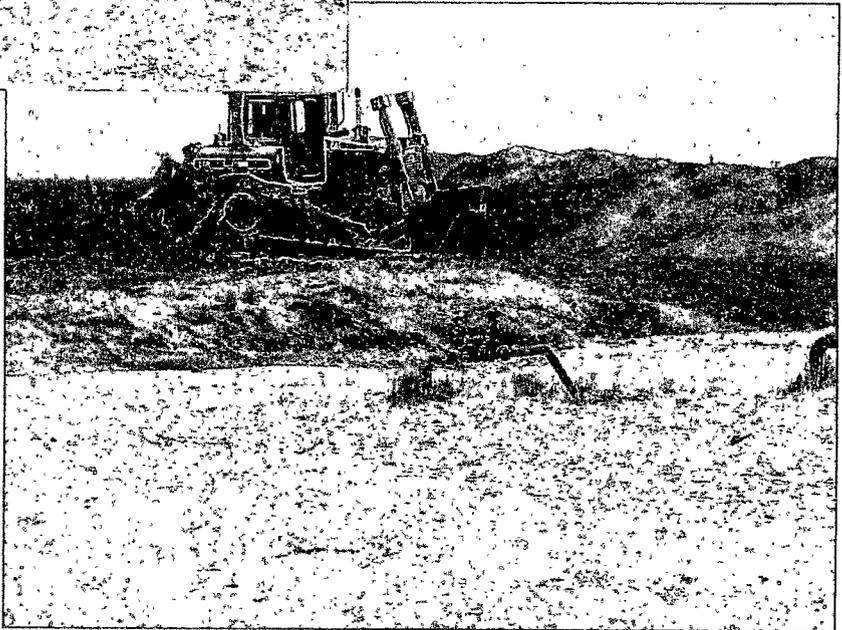
4/8/08 – Excavated area north of battery. >



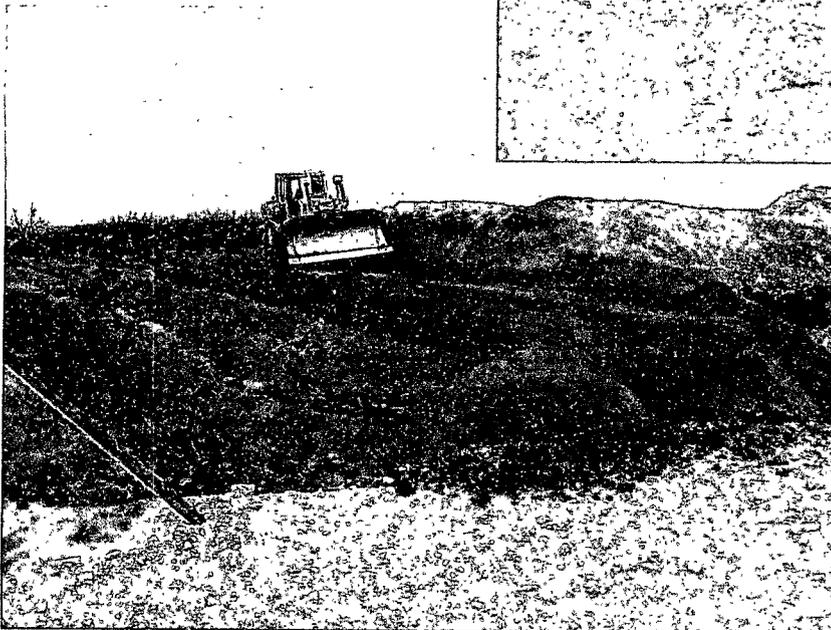
< 3/31/08 – Excavated area north of battery.



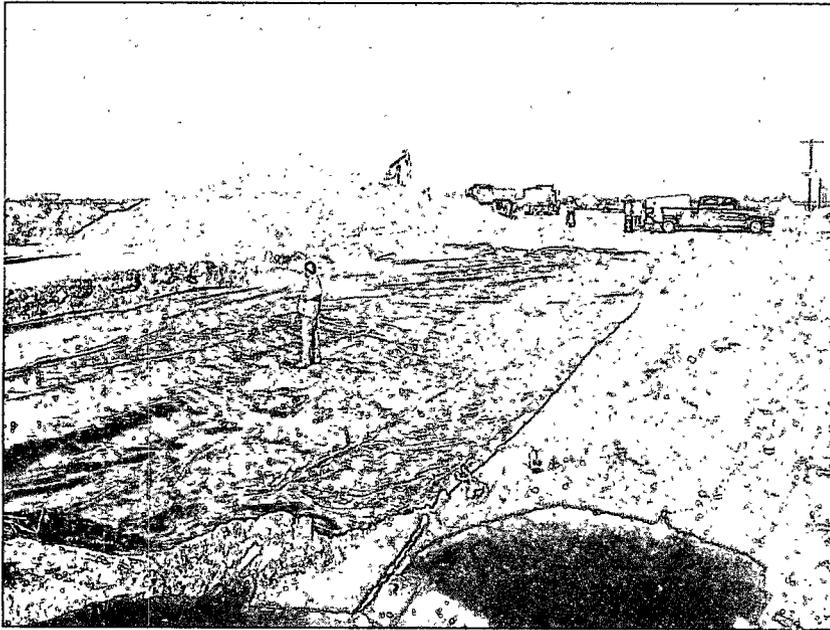
< 4/9/08 – Backfilling excavation with blended soil.



4/9/08 – Backfilling excavation with blended soil. >

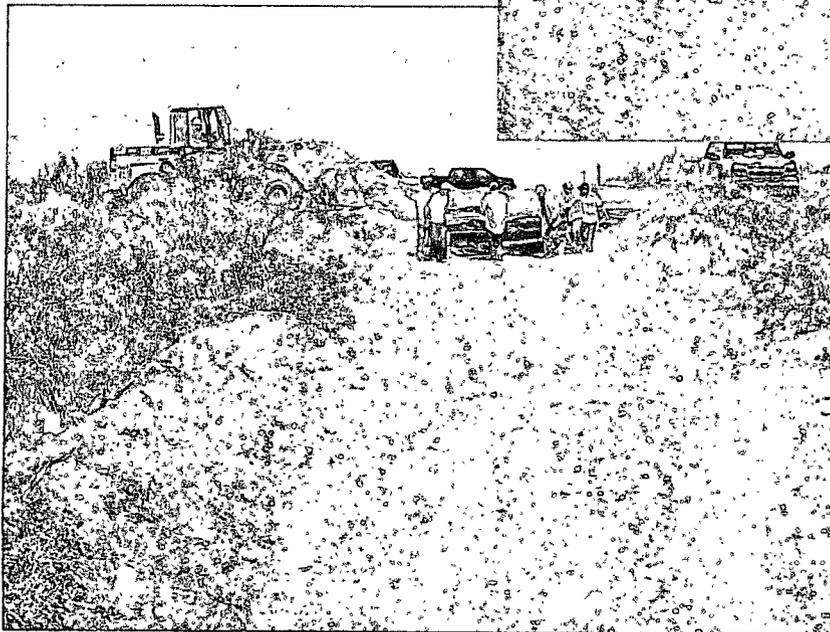


< 4/9/08 – Backfilling excavation with blended soil.

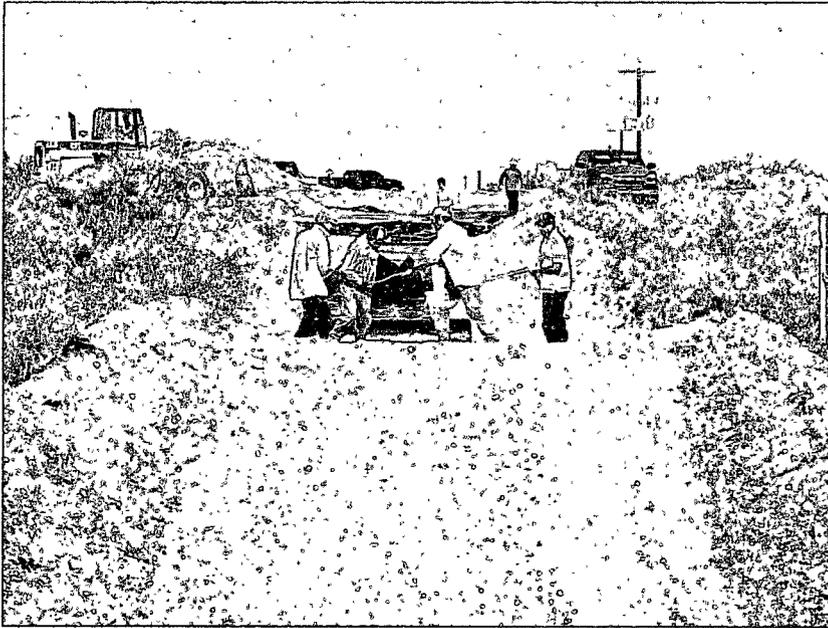


< 5/22/08 – Installing 48' X 125' liner by battery location

5/22/08 – Installing 465' X 20' liner along roadway. >



< 5/22/08 – Installing 465' X 20' liner along roadway. >



< 5/22/08 – Installing 465' X 20' liner along roadway. >

5/22/08 – Liner installed and commencing cover with topsoil. >



< 5/30/08 – 1000-ft + roadway remediation completed (photo from Merit well facing west).

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 87506

State of New Mexico
Energy Minerals and Natural Resources

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	Billy L Stockton
Address	POBox 1150 SundownTx 79372	Telephone No.	806-893-9575
Facility Name	Arnold 'A' #1	Facility Type	Temporary Oil Tank

Surface Owner	Mineral Owner	API #	30-025-07761
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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	11	20S	38E	1980'	South	1980'	West	Lea

Latitude **N-32°35.369'** Longitude **W-103°7.295'**

NATURE OF RELEASE

Type of Release	Oil	Volume of Release	165 bbls	Volume Recovered	40 bbls
Source of Release	Tank Sight Gauge	Date/Hour of Occurrence	12/16/2007 3:00am	Date /Hour of Discovery	16th 9:00am
Was Immediate Notice Given?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Required	If Yes, To Whom?			
By Whom?	Guinn Burks	Larry Johnson			
Was a Watercourse Reached?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Date and Hour			
If a Watercourse was Impacted, describe Fully*		12/17/07 3:00pm (message)			
Describe Cause of Problem and Remedial Action Taken.*		If YES, Volume Impacting the Watercourse.			
Rig had been swabbing TA'd well into temporary tank. The sight glass hose on tank failed and emptied oil onto ground. Vacuum truck recovered 40 bbls of oil.					
Describe Area Affected and Cleanup Action Taken.*					
Spill ran to the East from Battery approx 1,000 ft on lease road. Backhoe is currently removing contaminated soil and stock piling on plastic on East end of site. Plans are being made to remediate per New Mexico OCD requirements.					

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 correc

Signature: <i>Billy L Stockton</i>	Oil Conservation Division	
Printed Name: Billy L Stockton	Approved by the District Supervisor: <i>ENVIRO ENGR Johnson</i>	
Title: EH&S Environmental Tech	Approval Date: 12.18.07	Expiration Date: 2.18.08
Email Address: billy.stockton@apachecorp.com	Conditions of Approval:	Attached <i>→</i>
Date: 12/17/2007 Phone: 806-893-9575	SUBMIT FINAL BY	

*Attach Additional Sheets if Necessary

RP# 1690



Incident Date: 12/16/07 NMOCD Notified: 12/17/07

SITE: ARNOLD A #1		API No. 30-025-07761	
Company: Apache Corporation			
Street Address: North Eunice Loop, Hwy 207			
Mailing Address: P.O. Box 1849			
City, State, Zip: Eunice, NM 88231			
Representative: Natalie Gladden			
Representative Telephone: 575-390-4186			
Telephone:			
Fluid Volume Released (bbl): > 165		Volume Recovered (bbl): 40	
		Net Release: > 125	
<i>>25 bbl: Notify NMOCD verbally within 24 hours and submit C-141 within 15 days. 5-25 bbl: Submit Form C-141 within 15 days. (Also applies to unauthorized release of >50 mcf Natural Gas)</i>			
Leak, Spill, or Pit (LSP) Name:		ARNOLD A #1	
Source of Contamination:		Tank Sight Guage	
Land Owner, i.e. BLM, ST, Fee, Other:		Private	
LSP Dimensions:		~ 1000' X 10'	
LSP Area		~ 10000 -ft ²	
Location of Reference Point (RP):			
Location distance and direction from RP:			
Latitude: North		32 30.619	
Longitude: West		103 8.164	
Elevation above mean sea level (amsl):		3591 feet 1095 meters	
Distance from North Section Line (feet):		1980	
Distance from West Section Line (feet):		1775	
Location - Unit Letter and 1/4 1/4:		UL- F SE 1/4 of NW 1/4	
Location - Section		11	
Location - Township		20S	
Location - Range		38E	
Location - County		Lea	
Surface water body within 1000' radius of site:		0	
Surface water body within 1000' radius of site:		0	
Domestic water wells within 1000' radius of site:		0	
Domestic water wells within 1000' radius of site:		0	
Agricultural water wells within 1000' radius of site:		0	
Agricultural water wells within 1000' radius of site:		0	
Public water supply wells within 1000' radius of site:		0	
Public water supply wells within 1000' radius of site:		0	
Depth (feet) from land surface to Ground Water (DG):		54	
Depth (feet) of lowest contamination (DC):		20	
Depth (feet) to Ground Water (DG - DC = DtGW):		~ 34	
1. Ground Water		2. Wellhead Protection Area	
If Depth to GW <50-feet: 20 points		If <1000' from water source, or, <200' from private domestic water source:	
If Depth to GW 50 to 100-feet: 10 points		20 points	
If Depth to GW >100-feet: 0 points		If >1000' from water source, or, >200' from private domestic water source: 0 points	
Ground Water Score: 20		Wellhead Protection Score: 0	
Site Ranking (1 + 2 + 3): 20		Surface Water Score: 0	
Total Site Ranking Score and Acceptable Concentrations			
Parameter	20 or >	10	0
Benzene ¹	10-ppm	10-ppm	10-ppm
BTEX ¹	50-ppm	50-ppm	50-ppm
TPH	100-ppm	1000-ppm	5000-ppm

District I

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District IV

1220 S St Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy Minerals and Natural Resources

Form C-141

Revised June 10, 2003

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
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 Eunice, NM 88231	Telephone No.	575-390-4186
Facility Name	ARNOLD A #1	Facility Type	Oil Well

Surface Owner	Private	Mineral Owner	API No.	30-025-07761
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LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from North Line	Feet from West Line	Longitude-W	Latitude-N	County
F	11	20S	38E	1980	1775	103.1361	32.5103	Lea

NATURE OF RELEASE

Type of Release	Volume of Release	Volume Recovered
Produced Water w/ significant hydrocarbon component	Greater than 165 bbl	40 bbl

Source of Release	Date and Hour of Occurrence	Date and Hour of Discovery
Tank Sight Guage	12/16/07 3:00 AM	12/16/07 9:00 AM

Was Immediate Notice Given?	If YES, To Whom?
<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO <input type="checkbox"/> Not Required	NMOCD - Hobbs - Larry Johnson

By Whom?	Date and Hour
Billy L. Stockton	12/17/07 3:00 PM

Was a Watercourse Reached?	If YES, Volume Impacting the Watercourse
<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO	NA

If a Watercourse was Impacted, Describe Fully*

Describe Cause of Problem and Remedial Action Taken. *
Sight glass hose on temporary tank for well swabbing failed. Vacuum truck recovered 40-bbl.

Describe Area Affected and Cleanup Action Taken. *
The flow path extended east approximately 1100-ft along a sandy access road. Release was contained within the road until reaching east extent where it spread out south and northeast. Remediation was accomplished with excavation/disposal of grossly contaminated soil, then risk based closure with blending to <1000-ppm Cl and covering with a 20-mil polyvinyl plastic liner. Remediation was started by ELKE Environmental - Hobbs, and completed by Ocotillo Environmental - Hobbs.

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			
Title: Environmental Tech - Permian Basin	Approved by District Supervisor:	Approval Date:	Expiration Date:
E-Mail Address: Natalie.Gladden@usa.apachecorp.com	Conditions of Approval: 1RP# 1590	<input type="checkbox"/> Attached	
Date: 5/29/2009 Phone: 575-390-4186			