



EXPLORING WHAT'S POSSIBLE

APACHE CORPORATION

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

Randy Federal #002 AD

Closure Report

2RP-1478

API 30-015-30249

Release Date: September 11, 2012

Unit Letter G, Section 22, Township 17S, Range 30E

Rice Environmental Consulting & Safety

P.O. Box 5630 Hobbs, NM 88241

Phone 575.393.4411 Fax 575.393.0293

March 1, 2013

Mike Bratcher

New Mexico Energy, Minerals, & Natural Resources

Oil Conservation Division, Environmental Bureau – District 2

811 S. First St.

Artesia, NM 88210

RE: TERMINATION REQUEST

Apache – Randy Federal #002 AD

UL/G sec. 22 T17S R30E

API No. 30-015-30249

2RP-1478

Mr. Bratcher:

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 produced water associated with the Randy Federal #002. A surface flow line ruptured and released fluids onto pasture land south of the well pad. NMOCD was notified, and an initial form C-141 was submitted by Apache Corporation on September 15, 2012 (Appendix A). The site is located in Loco Hills, New Mexico, in unit letter 'G' of section 22, T17S, R30E in Eddy County.

On September 11, 2012, RECS personnel initiated work at the Randy Federal #002 (Figure 1). Soil samples were collected from the site at ground surface and field tested for chloride. Headspace measurements were also taken in the field using a Photo Ionization Detector (PID). The samples were submitted to a commercial laboratory for chloride and TPH (GRO/DRO) analyses (Appendix C). Chloride ranged from 4,754 mg/kg to 35,887 mg/kg. GRO ranged from <10 mg/kg in two samples to 616 mg/kg. DRO ranged from <10 mg/kg to 25,600 mg/kg.

The leak area was excavated to 4 ft. below ground surface (Figure 2). From September 28 to October 2, 2012, representative grab samples were collected from the excavation walls and submitted to a laboratory for chloride and TPH analyses (Appendix C). The West Wall Center sample contained 304 mg/kg chloride. The remaining samples contained 112 mg/kg chloride or less. GRO and DRO were <10 mg/kg in all samples.

On October 9, 2012, a representative composite soil sample was collected from the excavation bottom at 4 ft. bgs and was submitted to a laboratory for chloride and TPH analyses (Appendix

C). The sample contained 3,680 mg/kg chloride, <10 mg/kg GRO, and 45.4 mg/kg DRO (Figure 2).

On October 19, 2012, soil samples were collected by excavator from Vertical #1 within the 4 ft. deep excavation (Figure 3). The vertical was excavated to 23 ft. bgs, and samples were field tested. RECS personnel returned on October 31, 2012 to advance a soil bore. The soil bore was drilled to 100 ft. bgs within the 4 ft. deep excavation (Figure 3). Samples from the soil bore were submitted to a laboratory for chloride and TPH analyses (Appendix C). Chloride decreased from 13,600 mg/kg at 10 ft. bgs to 6,400 mg/kg at 90 ft. bgs. GRO and DRO were <10 mg/kg in all samples. At 90 ft. bgs, the soil bore entered the red bed formation. The soil bore was left open to accumulate potential groundwater. On November 3, 2012, no water was detected within the bore hole (Appendix D). On November 5, 2012, the bore hole was plugged in full with bentonite.

By December 18, 2012, the installation of a liner at the site and backfill for the excavation was approved by both NMOCD and BLM (Appendix E). On January 23, 2013, a reinforced 20 mil plastic liner was installed throughout the excavation. The excavation was backfilled with clean soil (<16 mg/kg chloride, Appendix C), and the site was contoured to the surrounding landscape. Impacted soils were removed to a NMOCD approved disposal facility. See Appendix B for photographs of field activities.

Conclusion

According to data obtained from the installation of the soil bore, no groundwater exists beneath the site (Appendix F). Due to the installation of a liner and the non-existence of groundwater, Apache submits the final C-141 (Appendix G) 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:

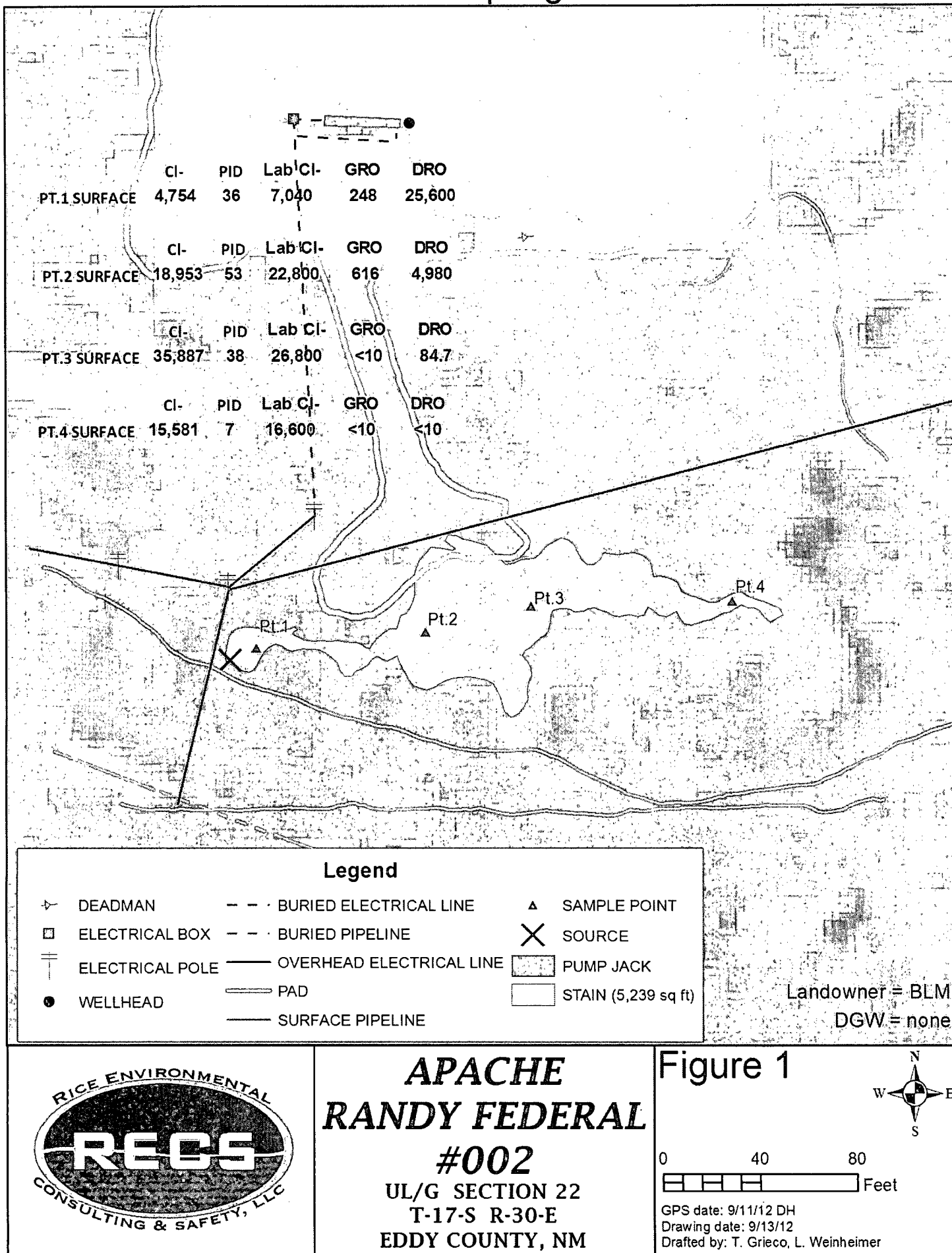
Figure 1: Site Plat with Initial Sampling Data

Figure 2: Site Plat with Final Excavation Lab Data
Figure 3: Site Plat with Vertical #1 and SB1 Sampling Data
Appendix A: Initial Form C-141
Appendix B: Site Photographs
Appendix C: Laboratory Results
Appendix D: Soil Bore Log, Letter of Groundwater Verification, and Soil Bore Photographs
Appendix E: Correspondence
Appendix F: Groundwater Study
Appendix G: Final Form C-141

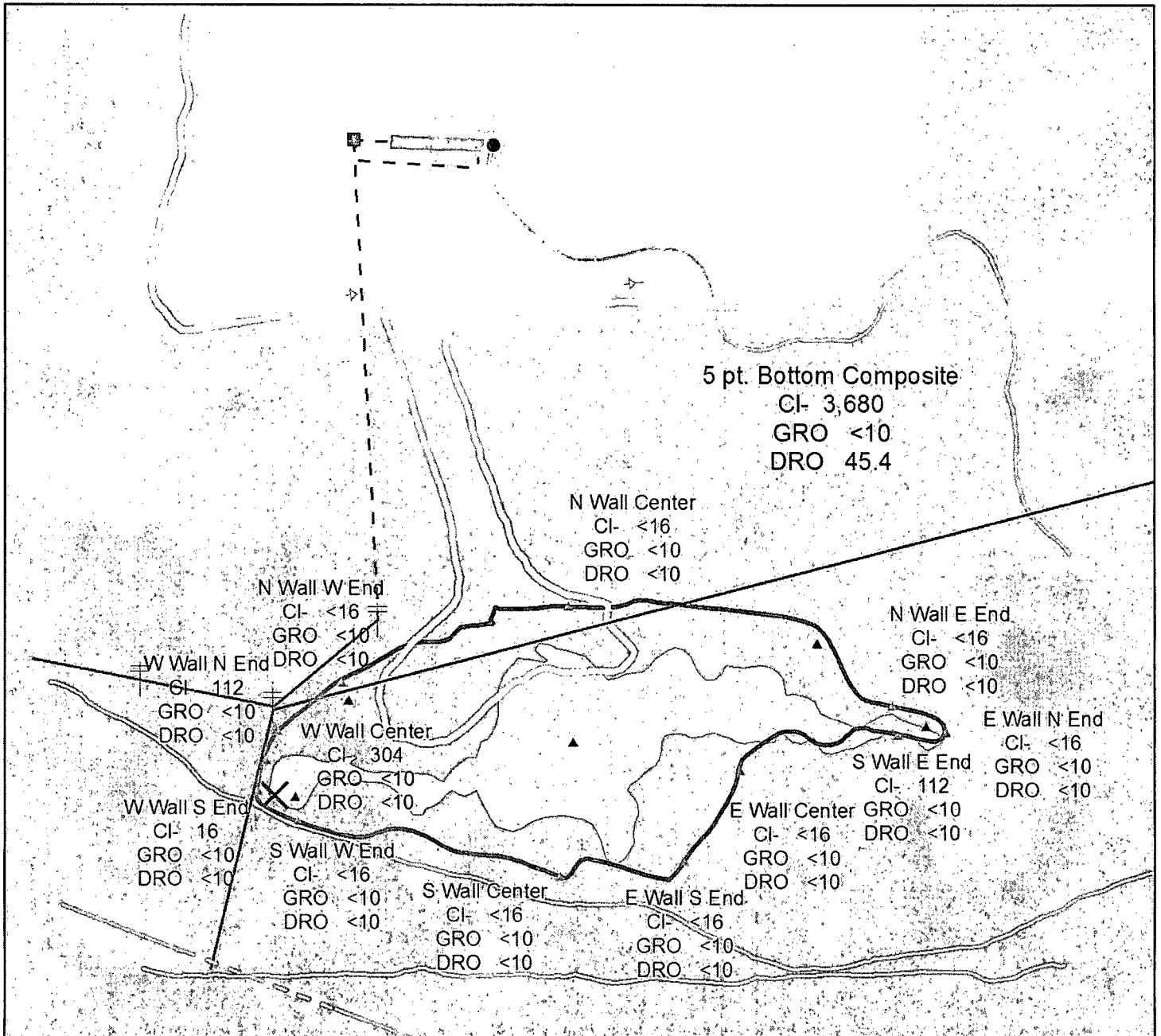
Figures

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

Initial Sampling Data



Final Excavation Lab Data



Legend

- | | | |
|--------------------------|----------------------------|-----------------------|
| ▲ 5 PT. COMPOSITE POINTS | - - BURIED ELECTRICAL LINE | ▲ FINAL SAMPLE POINT |
| ▽ DEADMAN | - - BURIED PIPELINE | ✕ SOURCE |
| □ ELECTRICAL BOX | — OVERHEAD ELECTRICAL LINE | ▭ SCRAPE |
| ⊥ ELECTRICAL POLE | ▭ PAD | ▨ PUMP JACK |
| ● WELLHEAD | — SURFACE PIPELINE | ▭ STAIN (5,239 sq ft) |

Landowner = BLM
DGW = none.



**APACHE
RANDY FEDERAL
#002**
UL/G SECTION 22
T-17-S R-30-E
EDDY COUNTY, NM

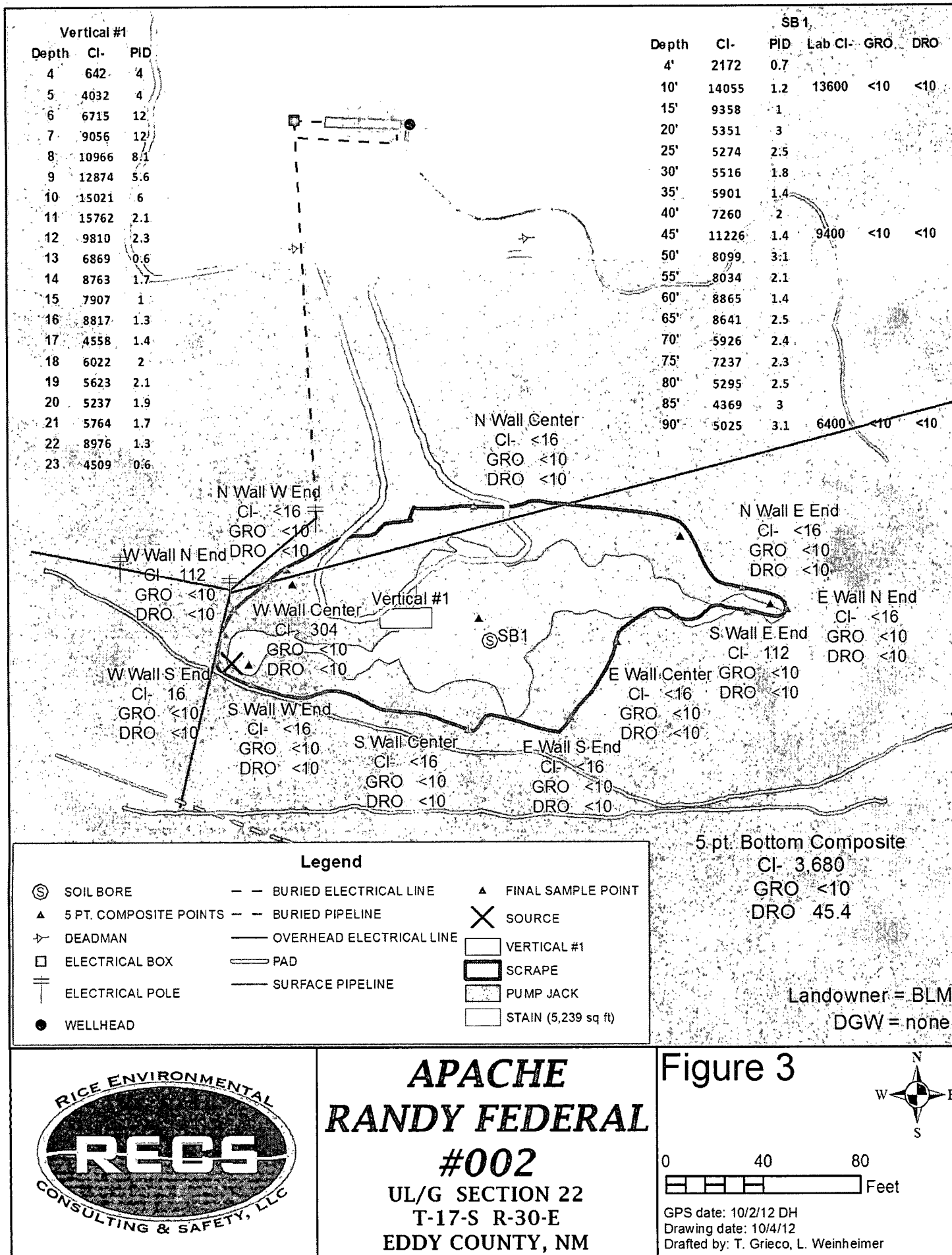
Figure 2



0 40 80
Feet

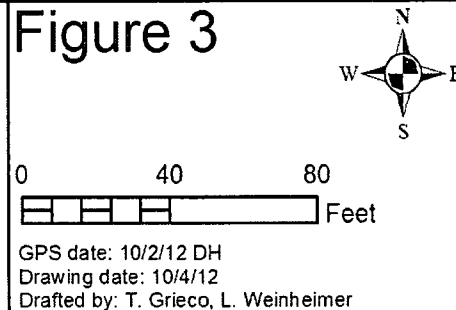
GPS date: 10/2/12 DH
Drawing date: 10/4/12
Drafted by: T. Grieco, L. Weinheimer

Vertical #1 and Soil Bore Sampling Data



**APACHE
RANDY FEDERAL
#002**
 UL/G SECTION 22
 T-17-S R-30-E
 EDDY COUNTY, NM

Figure 3



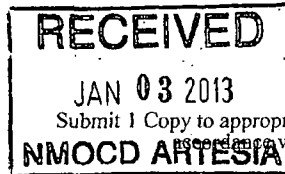
Appendix A

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

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



Form C-141
Revised August 8, 2011

Release Notification and Corrective Action

nTMM 1300356 374

Name of Company Apache Corporation <i>873</i>		OPERATOR <input checked="" type="checkbox"/> Initial Report <input type="checkbox"/> Final Report	
Address PO Box 1849, Eunice NM 88231		Contact Natalie Gladden	
Facility Name Randy Federal #2		Telephone No. 575-390-4186	
		Facility Type Producing well	
Surface Owner BLM		Mineral Owner BLM	API No. 30-015-30249

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
G	22	17S	30E	1650'	FEL	1650'	FEL	Eddy

Latitude _____ Longitude _____

NATURE OF RELEASE

Type of Release Produced water	Volume of Release 55	Volume Recovered 50
Source of Release Flowline	Date and Hour of Occurrence 09/11/2012	Date and Hour of Discovery 09/11/2012
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.* Flowline ruptured. Line was replaced and standing fluid was recovered.		
Describe Area Affected and Cleanup Action Taken.* NMOCD and BLM Remediation 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: <i>Natalie Gladden</i>		OIL CONSERVATION DIVISION	
Printed Name: Natalie Gladden		Approved by Environmental Specialist Signed By <i>Mike Benson</i>	
Title: Sr. Environmental Tech		Approval Date: <i>JAN 03 2013</i>	Expiration Date:
E-mail Address: natalie.gladden@apachecorp.com		Conditions of Approval:	
Date: 09/15/2012 Phone: 575-390-4186		Attached <input type="checkbox"/>	

* Attach Additional Sheets If Necessary

Remediation per OCD Rules &
Guidelines. **SUBMIT REMEDIATION
PROPOSAL NOT LATER THAN:
*February 3rd 2013***

2RP-1478

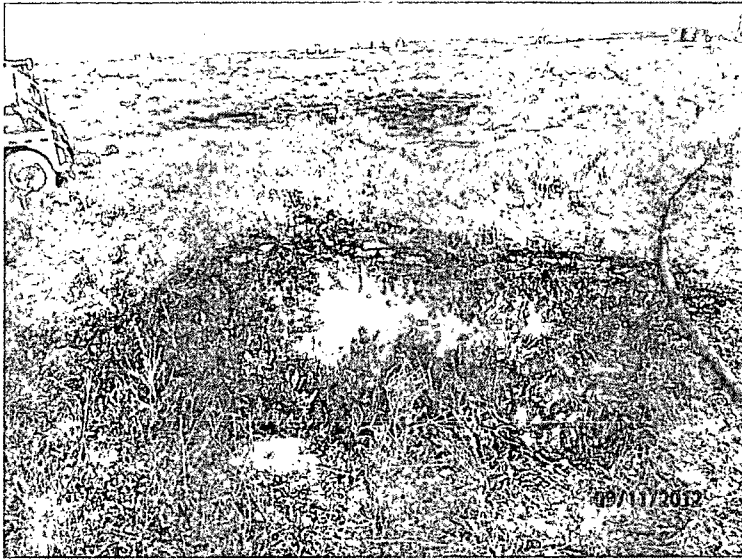
Appendix B

Site Photographs

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

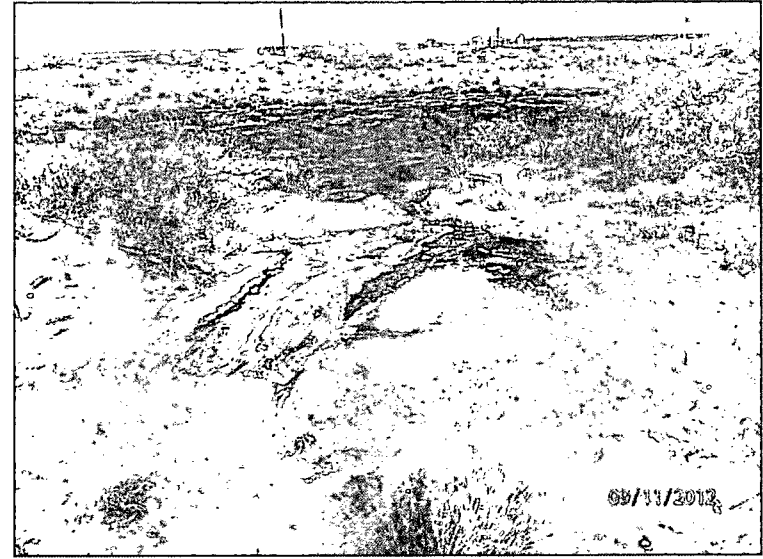
Randy Federal #2

Unit Letter G, Section 22, T17S, R30E



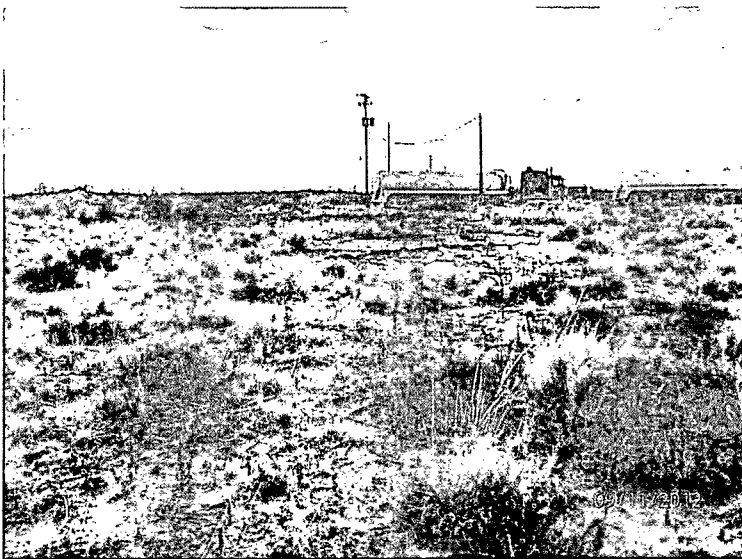
Initial release, facing east

9/11/2012



Initial release, facing east

9/11/2012



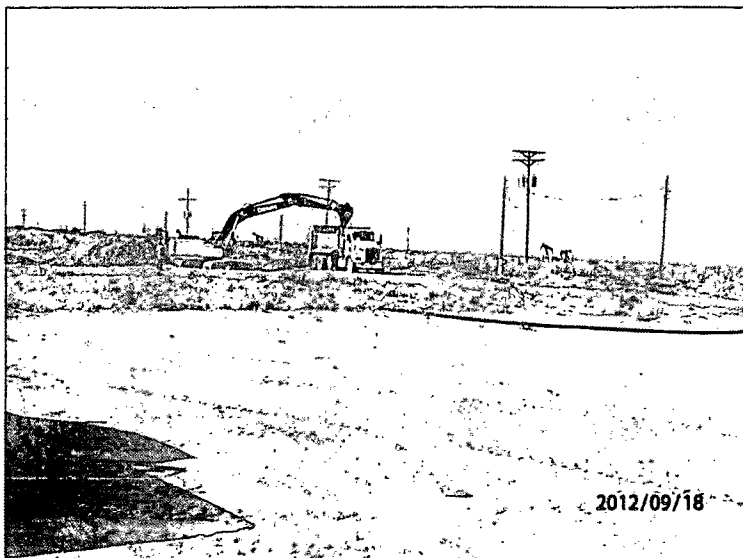
Initial release, facing west

9/11/2012



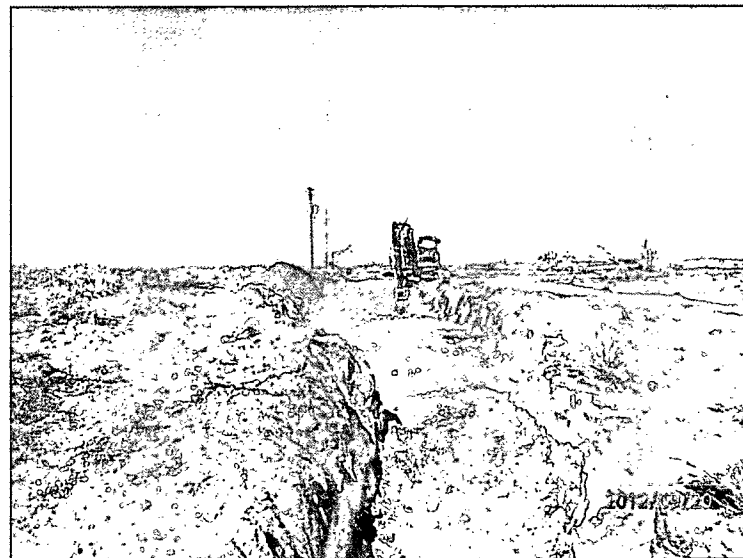
Initial release, facing west

9/11/2012



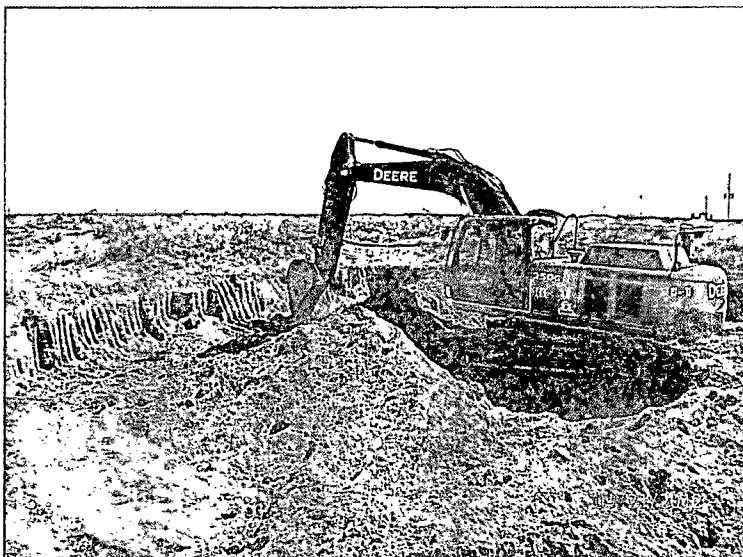
Exporting soil, facing southwest

9/18/12



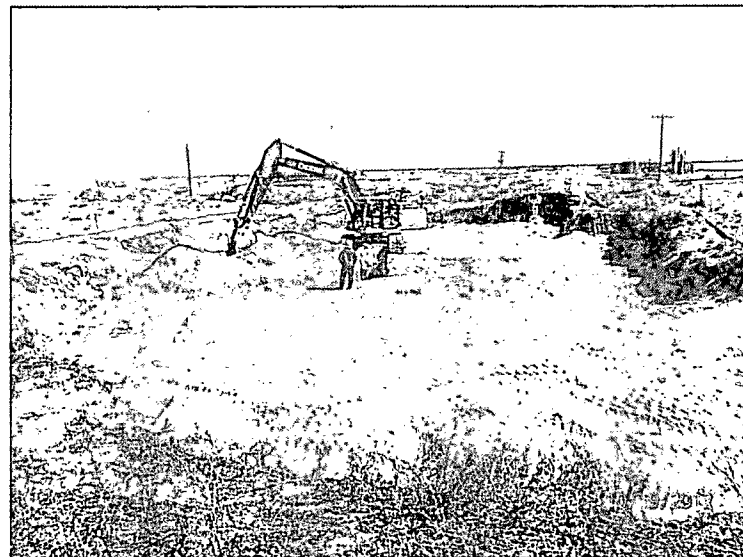
Excavating, facing west

9/20/12



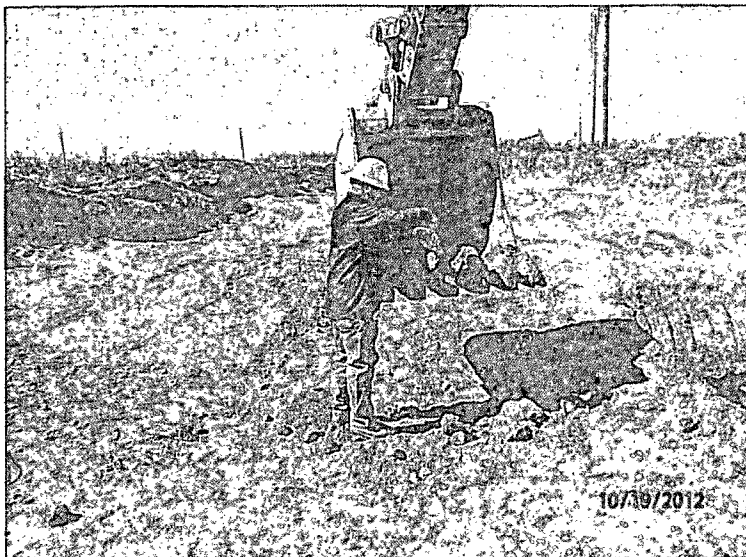
Excavating, facing south

9/21/12



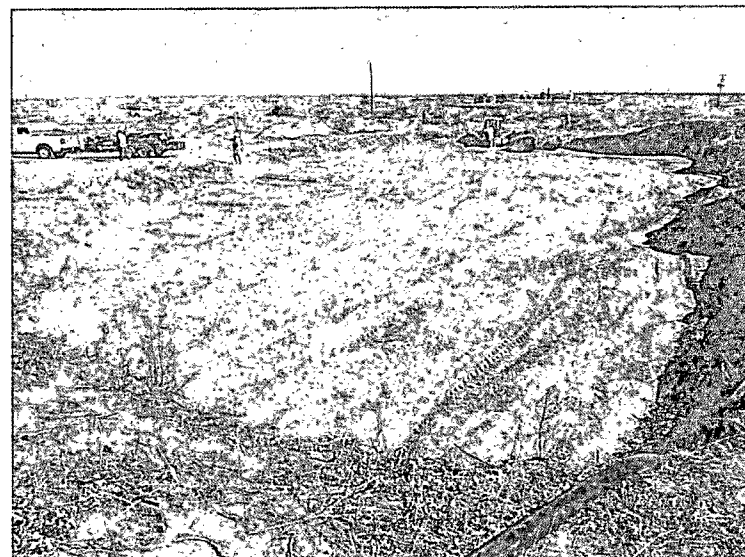
Digging vertical, facing east

10/19/12



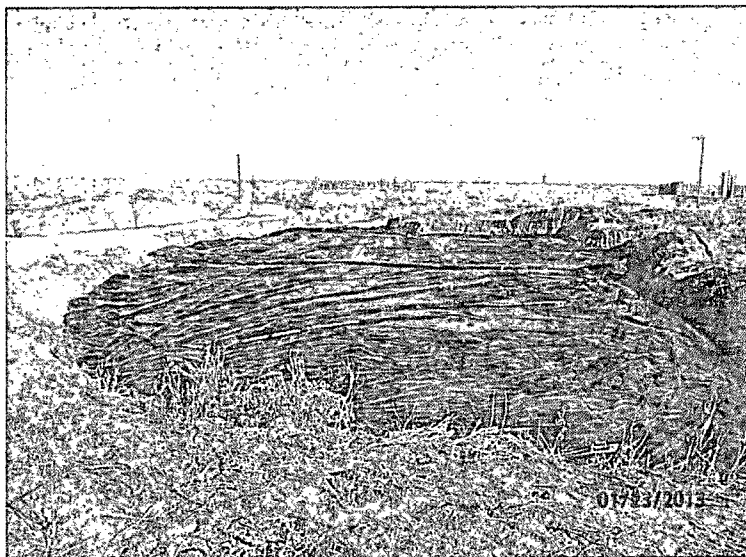
Collecting sample, facing west

10/19/12



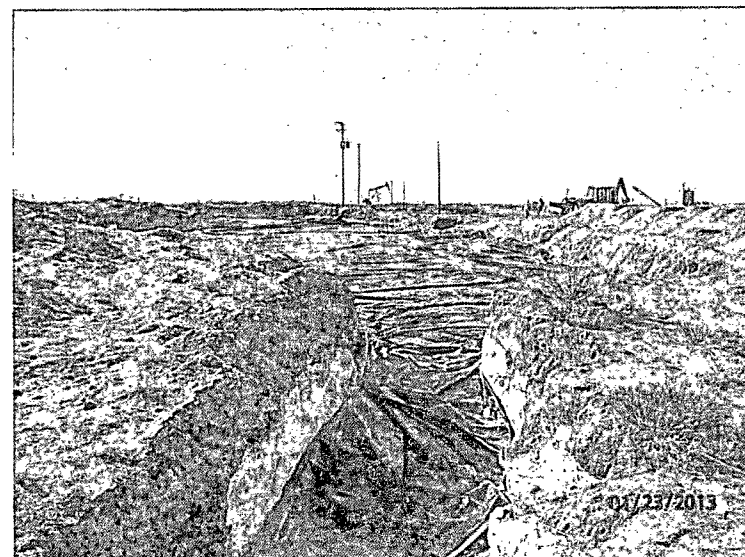
Bottom sand installed, facing east

1/23/13



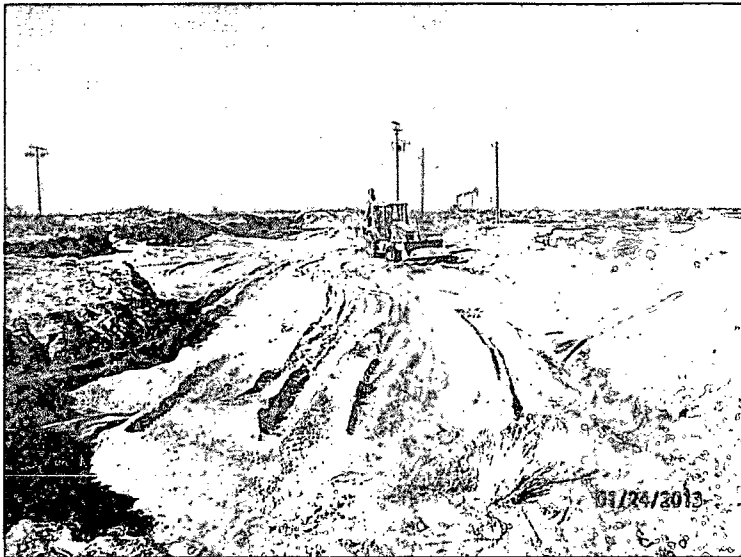
Liner installed, facing east

1/23/13



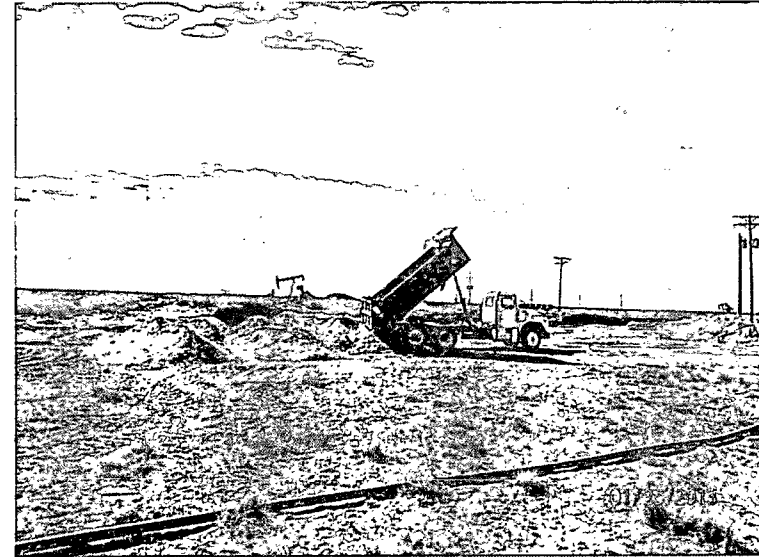
Liner installed, facing west

1/23/13



Backfilling above liner, facing west

1/24/13



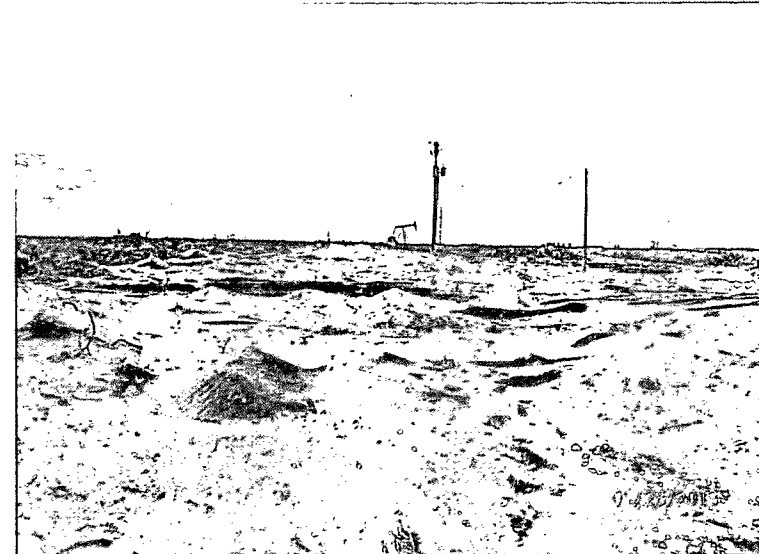
Importing soil, facing south

1/25/13



Site complete, facing east

1/28/13



Site complete, facing west

1/28/13

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



PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

September 19, 2012

NATALIE GLADDEN

APACHE - EUNICE

P. O. BOX 1849

EUNICE, NM 88231

RE: RANDY FEDERAL #2 AD

Enclosed are the results of analyses for samples received by the laboratory on 09/13/12 9:20.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-11-3. Accreditation applies to drinking water, non-potable water and solid and chemical materials. All accredited analytes are denoted by an asterisk (*). For a complete list of accredited analytes and matrices visit the TCEQ website at www.tceq.texas.gov/field/qa/lab_accred_certif.html.

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

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

Accreditation applies to public drinking water matrices.

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

Sincerely,

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: 09/13/2012
 Reported: 09/19/2012
 Project Name: RANDY FEDERAL #2 AD
 Project Number: NONE GIVEN
 Project Location: NOT GIVEN

 Sampling Date: 09/11/2012
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Jodi Henson

Sample ID: PT. 1 SURFACE (H202209-01)

Chloride, SM4500Cl-B		mg/kg		Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	7040	16.0	09/17/2012	ND	416	104	400	3.92		
TPH 8015M		mg/kg		Analyzed By: MS						S-06
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10	248	200	09/17/2012	ND	190	94.9	200	2.67		
DRO >C10-C28	25600	200	09/17/2012	ND	186	92.9	200	5.65		
Surrogate: 1-Chlorooctane										
	94.1 %	65.2-140								
Surrogate: 1-Chlorooctadecane										
	359 %	63.6-154								

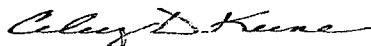
Sample ID: PT. 2 SURFACE (H202209-02)

Chloride, SM4500Cl-B		mg/kg	Analyzed By: HM							
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	22800	16.0	09/17/2012	ND	416	104	400	3.92		
TPH 8015M		mg/kg	Analyzed By: MS							S-06
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10	616	100	09/17/2012	ND	190	94.9	200	2.67		
DRO >C10-C28	4980	100	09/17/2012	ND	186	92.9	200	5.65		
Surrogate: 1-Chlorooctane										
	113 %	65.2-140								
Surrogate: 1-Chlorooctadecane										
	189 %	63.6-154								

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: 09/13/2012
 Reported: 09/19/2012
 Project Name: RANDY FEDERAL #2 AD
 Project Number: NONE GIVEN
 Project Location: NOT GIVEN

 Sampling Date: 09/11/2012
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Jodi Henson

Sample ID: PT. 3 SURFACE (H202209-03)

Chloride, SM4500CI-B			mg/kg		Analyzed By: HM				
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	26800	16.0	09/17/2012	ND	416	104	400	3.92	
TPH 8015M			mg/kg		Analyzed By: MS				
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	09/17/2012	ND	190	94.9	200	2.67	
DRO >C10-C28	84.7	10.0	09/17/2012	ND	186	92.9	200	5.65	

Surrogate: 1-Chlorooctane 85.3 % 65.2-140

Surrogate: 1-Chlorooctadecane 97.4 % 63.6-154

Sample ID: PT. 4 SURFACE (H202209-04)

Chloride, SM4500CI-B			mg/kg		Analyzed By: HM				
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	16600	16.0	09/17/2012	ND	416	104	400	3.92	
TPH 8015M			mg/kg		Analyzed By: MS				
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	09/17/2012	ND	190	94.9	200	2.67	
DRO >C10-C28	<10.0	10.0	09/17/2012	ND	186	92.9	200	5.65	

Surrogate: 1-Chlorooctane 98.0 % 65.2-140

Surrogate: 1-Chlorooctadecane 101 % 63.6-154

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

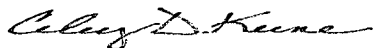
Notes and Definitions

S-06	The recovery of this surrogate is outside control limits due to sample dilution required from high analyte concentration and/or matrix interference's.
ND	Analyte NOT DETECTED at or above the reporting limit
RPD	Relative Percent Difference
**	Samples not received at proper temperature of 6°C or below..
***	Insufficient time to reach temperature.
-	Chloride by SM4500Cl-B does not require samples be received at or below 6°C Samples reported on an as received basis (wet) unless otherwise noted on report

Cardinal Laboratories

*=Accredited Analyte

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Celest D. Keene, Lab Director/Quality Manager



CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's consent *runneth* 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 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 data, 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>[Signature]</i>		Date: <i>9/13/12</i>	Received By: <i>[Signature]</i>	Phone Result: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Add'l Phone #:
Time: <i>9:20</i>				Fax Result: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Add'l Fax #:
Relinquished By:		Date:	Received By:	REMARKS:	
		Time:		email results <i>9/14/12 y/baker</i>	
Delivered By: (Circle One)			Sample Condition	CHECKED BY:	
Sampler - UPS - Bus - Other:			Cool/ Intact <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> No	(Initials) <i>[Signature]</i>	

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

A 26



PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

October 11, 2012

NATALIE GLADDEN

APACHE - EUNICE

P. O. BOX 1849

EUNICE, NM 88231

RE: RANDY FEDERAL #2 AD

Enclosed are the results of analyses for samples received by the laboratory on 10/04/12 8:25.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-11-3. Accreditation applies to drinking water, non-potable water and solid and chemical materials. All accredited analytes are denoted by an asterisk (*). For a complete list of accredited analytes and matrices visit the TCEQ website at www.tceq.texas.gov/field/ga/lab_accred_certif.html.

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

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

Accreditation applies to public drinking water matrices.

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

Sincerely,

A handwritten signature in black ink, reading "Celey D. Keene". The signature is written in a cursive, flowing style.

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: 10/04/2012
 Reported: 10/11/2012
 Project Name: RANDY FEDERAL #2 AD
 Project Number: NONE GIVEN
 Project Location: NOT GIVEN

 Sampling Date: 10/01/2012
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Jodi Henson

Sample ID: N WALL - E END (H202418-01)

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	10/08/2012	ND	400	100	400	4.08	
TPH 8015M			mg/kg		Analyzed By: MS				
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	10/05/2012	ND	203	101	200	0.901	
DRO >C10-C28	<10.0	10.0	10/05/2012	ND	204	102	200	3.59	
Surrogate: 1-Chlorooctane	88.4 %	65.2-140							
Surrogate: 1-Chlorooctadecane	85.1 %	63.6-154							

Sample ID: N WALL - CENTER (H202418-02)

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	10/08/2012	ND	400	100	400	4.08	
TPH 8015M			mg/kg		Analyzed By: MS				
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	10/05/2012	ND	203	101	200	0.901	
DRO >C10-C28	<10.0	10.0	10/05/2012	ND	204	102	200	3.59	
Surrogate: 1-Chlorooctane	90.1 %	65.2-140							
Surrogate: 1-Chlorooctadecane	87.1 %	63.6-154							

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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: 10/04/2012
 Reported: 10/11/2012
 Project Name: RANDY FEDERAL #2 AD
 Project Number: NONE GIVEN
 Project Location: NOT GIVEN

 Sampling Date: 10/01/2012
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Jodi Henson

Sample ID: N WALL - W END (H202418-03)

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	10/08/2012	ND	400	100	400	4.08	
TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	10/05/2012	ND	203	101	200	0.901	
DRO >C10-C28	<10.0	10.0	10/05/2012	ND	204	102	200	3.59	
Surrogate: 1-Chlorooctane	88.1 %	65.2-140							
Surrogate: 1-Chlorooctadecane	86.1 %	63.6-154							

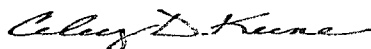
Sample ID: S WALL - E END (H202418-04)

Chloride, SM4500Cl-B		mg/kg	Analyzed By: AP							
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	112	16.0	10/08/2012	ND	400	100	400	4.08		
TPH 8015M		mg/kg	Analyzed By: MS							
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10	<10.0	10.0	10/05/2012	ND	203	101	200	0.901		
DRO >C10-C28	<10.0	10.0	10/05/2012	ND	204	102	200	3.59		
Surrogate: 1-Chlorooctane	87.0 %	65.2-140								
Surrogate: 1-Chlorooctadecane	83.4 %	63.6-154								

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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: 10/04/2012
 Reported: 10/11/2012
 Project Name: RANDY FEDERAL #2 AD
 Project Number: NONE GIVEN
 Project Location: NOT GIVEN

 Sampling Date: 09/28/2012
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Jodi Henson

Sample ID: S WALL - CENTER (H202418-05)

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	10/08/2012	ND	400	100	400	4.08		
TPH 8015M			mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10	<10.0	10.0	10/05/2012	ND	203	101	200	0.901		
DRO >C10-C28	<10.0	10.0	10/05/2012	ND	204	102	200	3.59		
Surrogate: 1-Chlorooctane	89.8 %	65.2-140								
Surrogate: 1-Chlorooctadecane	88.2 %	63.6-154								

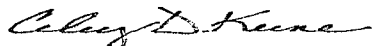
Sample ID: S WALL - W END (H202418-06)

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	10/08/2012	ND	400	100	400	4.08	
TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	10/05/2012	ND	203	101	200	0.901	
DRO >C10-C28	<10.0	10.0	10/05/2012	ND	204	102	200	3.59	
Surrogate: 1-Chlorooctane		94.8 %	65.2-140						
Surrogate: 1-Chlorooctadecane		94.3 %	63.6-154						

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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:	10/04/2012	Sampling Date:	10/01/2012
Reported:	10/11/2012	Sampling Type:	Soil
Project Name:	RANDY FEDERAL #2 AD	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	NOT GIVEN		

Sample ID: E WALL - N END (H202418-07)

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	10/08/2012	ND	400	100	400	4.08	
TPH 8015M		mg/kg	Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	10/05/2012	ND	203	101	200	0.901	
DRO >C10-C28	<10.0	10.0	10/05/2012	ND	204	102	200	3.59	
Surrogate: 1-Chlorooctane		92.4 %	65.2-140						
Surrogate: 1-Chlorooctadecane		91.1 %	63.6-154						

Sample ID: E WALL - CENTER (H202418-08)

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	10/08/2012	ND	400	100	400	4.08	
TPH 8015M		mg/kg	Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	10/05/2012	ND	203	101	200	0.901	
DRO >C10-C28	<10.0	10.0	10/05/2012	ND	204	102	200	3.59	
Surrogate: 1-Chlorooctane		89.4 %	65.2-140						
Surrogate: 1-Chlorooctadecane		87.2 %	63.6-154						

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Analytical Results For:

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

Received:	10/04/2012	Sampling Date:	10/01/2012
Reported:	10/11/2012	Sampling Type:	Soil
Project Name:	RANDY FEDERAL #2 AD	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	NOT GIVEN		

Sample ID: E WALL - S END (H202418-09)

Chloride, SM4500CI-B		mg/kg	Analyzed By: AP						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	<16.0	16.0	10/08/2012	ND	400	100	400	4.08	
TPH 8015M		mg/kg	Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	10/05/2012	ND	203	101	200	0.901	
DRO >C10-C28	<10.0	10.0	10/05/2012	ND	204	102	200	3.59	
Surrogate: 1-Chlorooctane		89.1 %	65.2-140						
Surrogate: 1-Chlorooctadecane		88.7 %	63.6-154						

Sample ID: W WALL - CENTER (H202418-10)

Chloride, SM4500CI-B		mg/kg	Analyzed By: AP						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	304	16.0	10/08/2012	ND	400	100	400	4.08	
TPH 8015M		mg/kg	Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	10/05/2012	ND	203	101	200	0.901	
DRO >C10-C28	<10.0	10.0	10/05/2012	ND	204	102	200	3.59	
Surrogate: 1-Chlorooctane		91.7 %	65.2-140						
Surrogate: 1-Chlorooctadecane		91.3 %	63.6-154						

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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: 10/04/2012
 Reported: 10/11/2012
 Project Name: RANDY FEDERAL #2 AD
 Project Number: NONE GIVEN
 Project Location: NOT GIVEN

 Sampling Date: 10/01/2012
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Jodi Henson

Sample ID: W WALL - N END (H202418-11)

Chloride, SM4500Cl-B			mg/kg							Analyzed By: AP
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	112	16.0	10/08/2012	ND	400	100	400	4.08		
TPH 8015M			mg/kg							Analyzed By: MS
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10	<10.0	10.0	10/05/2012	ND	203	101	200	0.901		
DRO >C10-C28	<10.0	10.0	10/05/2012	ND	204	102	200	3.59		

Surrogate: 1-Chlorooctane 91.5 % 65.2-140

Surrogate: 1-Chlorooctadecane 91.0 % 63.6-154

Sample ID: W WALL - S END (H202418-12)

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	10/08/2012	ND	400	100	400	4.08		
TPH 8015M			mg/kg							Analyzed By: MS
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10	<10.0	10.0	10/05/2012	ND	203	101	200	0.901		
DRO >C10-C28	<10.0	10.0	10/05/2012	ND	204	102	200	3.59		

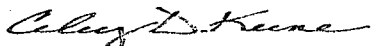
Surrogate: 1-Chlorooctane 88.5 % 65.2-140

Surrogate: 1-Chlorooctadecane 86.9 % 63.6-154

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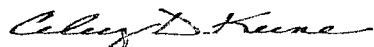
Notes and Definitions

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

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Celey D. Keene, Lab Director/Quality Manager



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101 East Marland, Hobbs, NM 88240 2111 Beechwood, Abilene, TX 79603
(505) 393-2326 FAX (505) 393-2476 (325) 673-7001 FAX (325) 673-7020

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

Company Name: Apache Corp.				BILL TO				ANALYSIS REQUEST															
Project Manager: Natalie Gladden				P.O. #:				<div style="display: flex; flex-direction: column; align-items: center;"> <div>Chlorides</div> <div>TPH 8015 M</div> <div>BTEX</div> <div>Texas TPH</div> <div>Complete Cations/Anions</div> <div>TDS</div> </div>															
Address:				Company:																			
City:		State:		Zip:		Attn:																	
Phone #:		Fax #:		Address:																			
Project #:		Project Owner:		City:																			
Project Name: <i>Randy Federal #2</i>				State:																Zip:			
Project Location:				Phone #:																			
Sampler Name: JKAMPLAIN				Fax #:																			
FOR LAB USE ONLY																							
Lab I.D.	Sample I.D.	GRAB OR (COMP. #)	CONTAINERS	MATRIX				PRESERV.		SAMPLING													
				GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER:	ACID/BASE:	ICE / COOL	OTHER:	DATE	TIME									
H202418																							
1	North well East end	5	1			/							10-1-12	11:40	/	/							
2	North well center	5	1			/							10-1-12	11:00	/	/							
3	North well West end	5	1			/							10-1-12	11:05	/	/							
4	South well East end	5	1			/							9-28-12	11:40	/	/							
5	South well center	5	1			/							9-28-12	11:50	/	/							
6	South well West end	5	1			/							10-2-12	9:09	/	/							
7	East well North end	5	1			/							10-1-12	11:55	/	/							
8	East well center	5	1			/							10-1-12	2:05	/	/							
9	East well South end	5	1			/							10-1-12	2:10	/	/							

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Relinquished By: <i>[Signature]</i>	Date: 10/1/12	Received By: <i>[Signature]</i>	Phone Result: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Add'l Phone #:
	Time: 8:25		Fax Result: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Add'l Fax #:
Relinquished By:	Date:	Received By:	REMARKS:	
	Time:		email results	
Delivered By: (Circle One)			natalie.gladden@apachecorp.com	
Sampler - UPS - Bus - Other:	-50	Sample Condition	Zconder@rice-ecs.com; Bbaker@rice-ecs.com;	
		Cool Intact	hconder@rice-ecs.com; Lweinheimer@rice-ecs.com;	
		<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	jkamplain@rice-ecs.com	
		Checked By: <i>[Signature]</i>		

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

#26



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101 East Marland, Hobbs, NM 88240 2111 Beechwood, Abilene, TX 79603
(505) 393-2326 FAX (505) 393-2476 (325) 673-7001 FAX (325) 673-7020

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

Company Name: Apache Corp.				BILL TO				ANALYSIS REQUEST																																	
Project Manager: Natalie Gladden				P.O. #:				<div style="display: flex; justify-content: space-around;"> <div>Chlorides</div> <div>TPH 8015 M</div> <div>BTEX</div> <div>Texas TPH</div> <div>Complete Cations/Anions</div> <div>TDS</div> </div>																																	
Address:				Company:																																					
City:		State:		Zip:		Attn:																																			
Phone #:		Fax #:		Address:																																					
Project #:		Project Owner:		City:																																					
Project Name: Randy Federal # 2				State:																Zip:																					
Project Location:				Phone #:																																					
Sampler Name: JKAMPLAIN				Fax #:																																					
FOR LAB USE ONLY																																									
Lab I.D.		Sample I.D.		(GRAB OR COMP.)		# CONTAINERS		MATRIX		PRESERV.		SAMPLING																													
								GROUNDWATER		WASTEWATER		SOIL		OIL		SLUDGE		OTHER:		ACID/BASE:		ICE/COOL		OTHER:		DATE		TIME													
H202418		West well cts		1		1																				10-1-12		1:00													
11		West well cts		1		1																				10-1-12		2:10													
12		West well cts		1		1																				10-1-12		2:15													

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Relinquished By:		Date: 10/4/12		Received By:		Phone Result: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		Add'l Phone #:	
Time: 10:25		Date:		Received By:		Fax Result: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		Add'l Fax #:	
Relinquished By:		Date:		Received By:		REMARKS: email results natalie.gladden@apachecorp.com Zconder@rice-ecs.com; Bbaker@rice-ecs.com; hconder@rice-ecs.com; Lweinheimer@rice-ecs.com; jkamplain@rice-ecs.com			
Time:		Date:		Received By:					
Delivered By: (Circle One)		Sample Condition		CHECKED BY: (Initials)					
Sampler - UPS - Bus - Other:		Cool Intact		Cool Intact					
		Yes No		Yes No					

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

#26

October 15, 2012

NATALIE GLADDEN

APACHE - EUNICE

P. O. BOX 1849

EUNICE, NM 88231

RE: RANDY FEDERAL #2 AD

Enclosed are the results of analyses for samples received by the laboratory on 10/09/12 16:37.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-11-3. Accreditation applies to drinking water, non-potable water and solid and chemical materials. All accredited analytes are denoted by an asterisk (*). For a complete list of accredited analytes and matrices visit the TCEQ website at www.tceq.texas.gov/field/qa/lab_accred_certif.html.

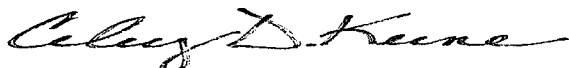
Cardinal Laboratories is accredited through the State of Colorado Department of Public Health and Environment for:

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

Accreditation applies to public drinking water matrices.

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

Sincerely,



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: 10/09/2012
 Reported: 10/15/2012
 Project Name: RANDY FEDERAL #2 AD
 Project Number: NONE GIVEN
 Project Location: NOT GIVEN

 Sampling Date: 10/09/2012
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Jodi Henson

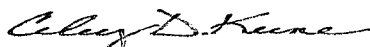
Sample ID: 5 PT. COMP (H202468-01)

Chloride, SM4500CI-B			mg/kg		Analyzed By: HM				
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	3680	16.0	10/15/2012	ND	400	100	400	3.92	
TPH 8015M			mg/kg		Analyzed By: MS				
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	10/11/2012	ND	184	91.8	200	1.63	
DRO >C10-C28	45.4	10.0	10/11/2012	ND	186	93.0	200	4.59	
<hr/>									
Surrogate: 1-Chlorooctane	84.3 %	65.2-140							
Surrogate: 1-Chlorooctadecane	88.9 %	63.6-154							

Cardinal Laboratories

*=Accredited Analyte

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Celest D. Keene, Lab Director/Quality Manager

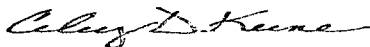
Notes and Definitions

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

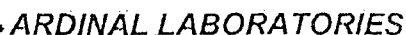
Cardinal Laboratories

* = Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager



CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

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

26



PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

November 05, 2012

NATALIE GLADDEN

APACHE - EUNICE

P. O. BOX 1849

EUNICE, NM 88231

RE: RANDY FEDERAL #2 AD

Enclosed are the results of analyses for samples received by the laboratory on 11/01/12 9:25.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-11-3. Accreditation applies to drinking water, non-potable water and solid and chemical materials. All accredited analytes are denoted by an asterisk (*). For a complete list of accredited analytes and matrices visit the TCEQ website at www.tceq.texas.gov/field/qa/lab_accred_certif.html.

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

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

Accreditation applies to public drinking water matrices.

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

Sincerely,

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

Celey D. Keene

Lab Director/Quality Manager

Analytical Results For:APACHE - EUNICE
NATALIE GLADDEN
P. O. BOX 1849
EUNICE NM, 88231
Fax To: 394-2425Received: 11/01/2012
Reported: 11/05/2012
Project Name: RANDY FEDERAL #2 AD
Project Number: NONE GIVEN
Project Location: NOT GIVENSampling Date: 10/31/2012
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Jodi Henson**Sample ID: SB - 1 @ 10' (H202657-01)**

Chloride, SM4500CI-B			mg/kg		Analyzed By: HM				
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	13600	16.0	11/02/2012	ND	432	108	400	0.00	
TPH 8015M			mg/kg		Analyzed By: MS				
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	11/03/2012	ND	196	98.0	200	4.67	
DRO >C10-C28	<10.0	10.0	11/03/2012	ND	211	105	200	7.04	
Surrogate: 1-Chlorooctane	88.7 %	65.2-140							
Surrogate: 1-Chlorooctadecane	98.5 %	63.6-154							

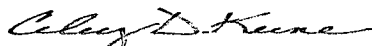
Sample ID: SB - 1 @ 45' (H202657-02)

Chloride, SM4500CI-B			mg/kg		Analyzed By: HM				
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	9400	16.0	11/02/2012	ND	432	108	400	0.00	
TPH 8015M			mg/kg		Analyzed By: MS				
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	11/03/2012	ND	196	98.0	200	4.67	
DRO >C10-C28	<10.0	10.0	11/03/2012	ND	211	105	200	7.04	
Surrogate: 1-Chlorooctane	86.5 %	65.2-140							
Surrogate: 1-Chlorooctadecane	95.8 %	63.6-154							

Cardinal Laboratories

*=Accredited Analyte

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Caley 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: 11/01/2012
Reported: 11/05/2012
Project Name: RANDY FEDERAL #2 AD
Project Number: NONE GIVEN
Project Location: NOT GIVEN

Sampling Date: 10/31/2012
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Jodi Henson

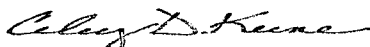
Sample ID: SB - 1 @ 90' (H202657-03)

Chloride, SM4500Cl-B			mg/kg		Analyzed By: HM				
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	6400	16.0	11/02/2012	ND	432	108	400	0.00	
TPH 8015M			mg/kg		Analyzed By: MS				
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	11/03/2012	ND	196	98.0	200	4.67	
DRO >C10-C28	<10.0	10.0	11/03/2012	ND	211	105	200	7.04	
Surrogate: 1-Chlorooctane	84.6 %	65.2-140							
Surrogate: 1-Chlorooctadecane	94.8 %	63.6-154							

Cardinal Laboratories

*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager

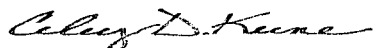
Notes and Definitions

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

Cardinal Laboratories

*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager



CARDINAL LABORATORIES

101 East Marland, Hobbs, NM 88240 2111 Beechwood, Abilene, TX 79603
(505) 393-2326 FAX (505) 393-2476 (325) 673-7001 FAX (325) 673-7020

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

Company Name: Apache				BILL TO				ANALYSIS REQUEST																		
Project Manager: Natalie Gladden				P.O. #:				<div style="display: flex; flex-direction: column; align-items: center;"> <div>Chlorides</div> <div>TPH 8015 M</div> <div>BTEX</div> <div>Texas TPH</div> <div>Complete Cations/Anions</div> <div>TDS</div> </div>																		
Address:				Company:																						
City: Hobbs State: NM Zip: 88240				Attn:																						
Phone #: Fax #:				Address:																						
Project #: Project Owner:				City:																						
Project Name:				State: Zip:																						
Project Location: <i>Randy Federal #002</i>				Phone #:																						
Sampler Name: Kyle Norman				Fax #:																						
FOR LAB USE ONLY						MATRIX		PRESERV.		SAMPLING																
Lab I.D.	Sample I.D.	GRAB OR C/COMP.	# CONTAINERS	GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER:	ACID/BASE:	ICE / COOL	OTHER:	DATE	TIME												
12D2657																										
1	SB-1 @ 10'	G	1										10-3-12	9:30	✓	✓										
2	SB-1 @ 45'	G	1										10-3-12	9:50	✓	✓										
3	SB-1 @ 90'	G	1										10-3-12	10:45	✓	✓										

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 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 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:	Date: 11-1-12	Received By: <i>Hodi Henson</i>	Phone Result: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Add'l Phone #:
<i>[Signature]</i>	Time: 4:25		Fax Result: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Add'l Fax #:
Relinquished By:	Date:	Received By:	REMARKS:	
	Time:		email results Natalie.Gladden@usa.apachecorp.com	
Delivered By: (Circle One)		Sample Condition	Knorman@rice-ecs.com	
Sampler - UPS - Bus - Other:		Cool / Intact	Bbaker@rice-ecs.com; hconder@rice-ecs.com;	
		<input type="checkbox"/> Yes <input checked="" type="checkbox"/> Yes	Lweinheimer@rice-ecs.com	
		<input type="checkbox"/> No <input type="checkbox"/> No		
		CHECKED BY: (Initials)		

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

January 29, 2013

NATALIE GLADDEN

APACHE - EUNICE

P. O. BOX 1849

EUNICE, NM 88231

RE: RANDY FEDERAL #2 AD

Enclosed are the results of analyses for samples received by the laboratory on 01/24/13 8:10.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-11-3. Accreditation applies to drinking water, non-potable water and solid and chemical materials. All accredited analytes are denoted by an asterisk (*). For a complete list of accredited analytes and matrices visit the TCEQ website at www.tceq.texas.gov/field/qa/lab_accred_certif.html.

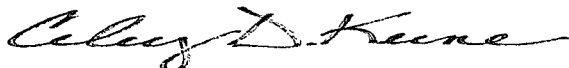
Cardinal Laboratories is accredited through the State of Colorado Department of Public Health and Environment for:

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

Accreditation applies to public drinking water matrices.

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

Sincerely,



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: 01/24/2013
Reported: 01/29/2013
Project Name: RANDY FEDERAL #2 AD
Project Number: NONE GIVEN
Project Location: NOT GIVEN

Sampling Date: 01/23/2013
Sampling Type: Soil
Sampling Condition: ** (See Notes)
Sample Received By: Jodi Henson

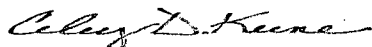
Sample ID: BACKFILL BLOWSAND (H300199-01)

Chloride, SM4500Cl-B		mg/kg		Analyzed By: DW					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	<16.0	16.0	01/28/2013	ND	432	108	400	0.00	

Cardinal Laboratories

* = Accredited Analyte

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Celest D. Keene, Lab Director/Quality Manager

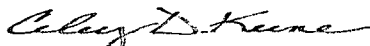
Notes and Definitions

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

Cardinal Laboratories

* = Accredited Analyte

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Celest D. Keene, Lab Director/Quality Manager



CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

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Relinquished By: <i>[Signature]</i>		Date: <i>12/13</i>	Received By: <i>[Signature]</i>	Phone Result: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Add'l Phone #:
		Time: <i>6:10</i>		Fax Result: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Add'l Fax #:
Relinquished By:		Date:	Received By:	REMARKS:	
		Time:		email results Natalie.Gladden@usa.apachecorp.com	
Delivered By: (Circle One)		Sample Condition		Knorman@rice-ecs.com	
Sampler - UPS - Bus - Other:		Cool Intact <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> No <input type="checkbox"/> No		Bbaker@rice-ecs.com; hconder@rice-ecs.com;	
		CHECKED BY: <i>[Signature]</i>		Lweinheimer@rice-ecs.com <i>caruth@rice-ecs.com</i>	

-A 26

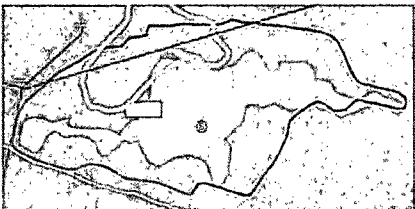

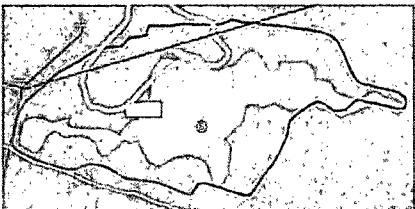
Appendix D

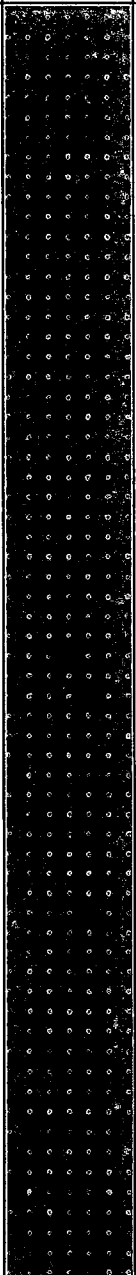
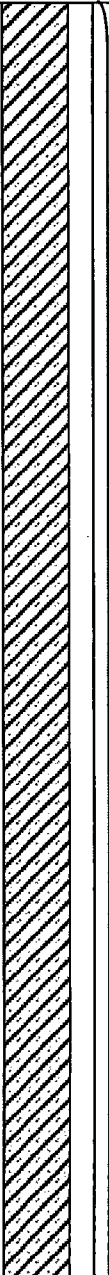
Soil Bore Log, Letter of Groundwater Verification, and
Soil Bore Photographs


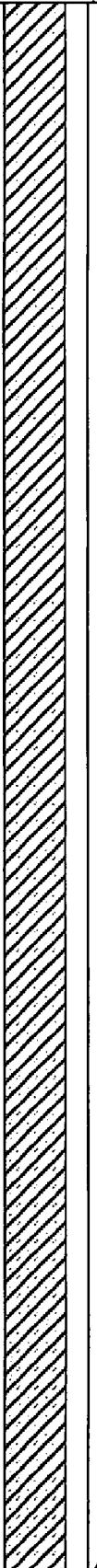

RICE Environmental Consulting and Safety (RECS)

P.O. Box 5630 Hobbs, NM 88241

Phone 575.393.4411 Fax 575.393.0293

Logger:	Kyle Norman			
Driller:	Harrison & Cooper, Inc.			
Drilling Method:	Air rotary			
Start Date:	10/31/2012		Apache Randy Federal #002 AD	Well ID: SB-1
End Date:	10/31/2012		Project Consultant: RECS	
Comments: SB-1 is located 23 ft southeast of the trench. All samples were from cuttings. DRAFTED BY: L. Weinheimer TD = 100 FT GW = NONE			Location: UL/G sec. 22 T-17-S R-30-E Lat: 32°49'19.737"N County: Eddy Long: 103°57'23.287"W State: NM	

Depth (feet)	Chloride field tests	LAB	PID	Description	Lithology	Well Construction
				Red Sandy Clay		
4 ft	2172		0.7			
10 ft	14055	Cl- 13,600	1.2			
		GRO <10				
		DRO <10				
15 ft	9358		1.4			
20 ft	5351		2.6			
25 ft	5274		2.5			
30 ft	5516		1.8			
35 ft	5901		1.4			
40 ft	7260		2			

Depth (feet)	Chloride field tests	LAB	PID	Description	Lithology	Well Construction
45 ft	11226	CI- 9400	1.4	Red Sandy Clay		
		GRO <10				
		DRO <10				
50 ft	8099		3.1			
55 ft	8034		2.1			
60 ft	8865		1.4			
65 ft	8641		2.5			
70 ft	5926		2.4			
75 ft	7237		2.3			
80 ft	5295		2.5			
85 ft	4369		3			
90 ft	5025	CI- 6400	3.1	Red Bed		
		GRO <10				
		DRO <10				
100 ft						

Arc Environmental

P. O. Box 1772
Lovington, New Mexico 88260
(575) 631-9310
Rozanne Johnson ~ rozanne@valornet.com

November 3, 2012

Mr. Hack Conder
RICE Environmental Consulting and Safety
112 West Taylor
Hobbs, New Mexico 88240

Re: Apache ~ Randy Federal #2

Mr. Conder,

On Saturday November 3, 2012 soil bore #1 at the Apache ~ Randy Federal #2, Eddy County T17S, R30E, Sec 22 was checked with a Solinst Water Level Meter for water accumulation within the borehole. The meter indicated no water within the borehole at the total depth of 73.21 feet.

Sincerely,
Arc Environmental

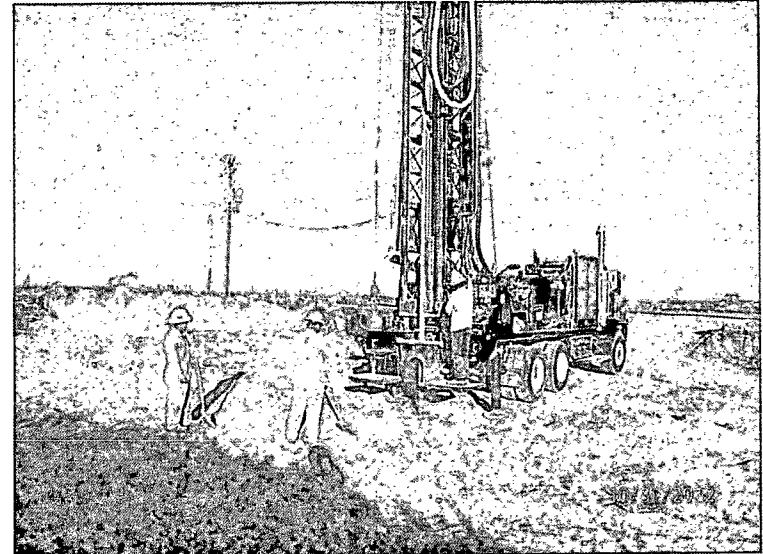
Rozanne Johnson
Rozanne Johnson

Electronic Copy: Hack Conder
Bruce Baker
Katie Jones

Randy Federal #002 AD

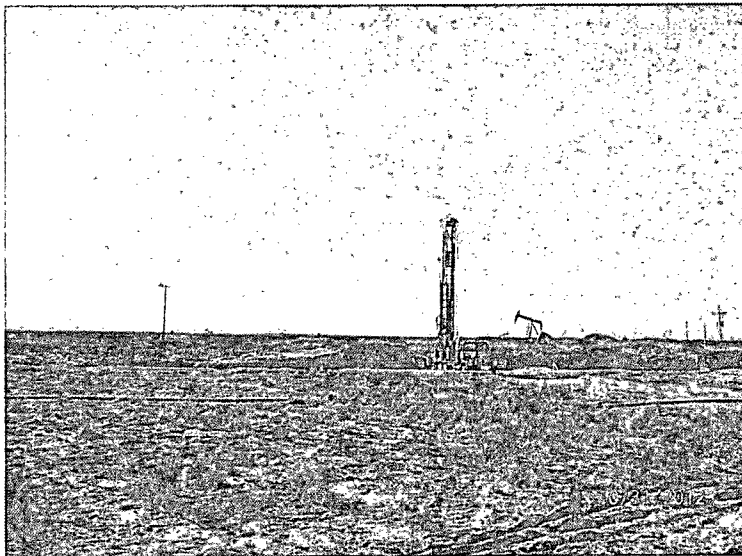
Soil Bore Installation

Unit Letter G, Section 22, T17S, R30E



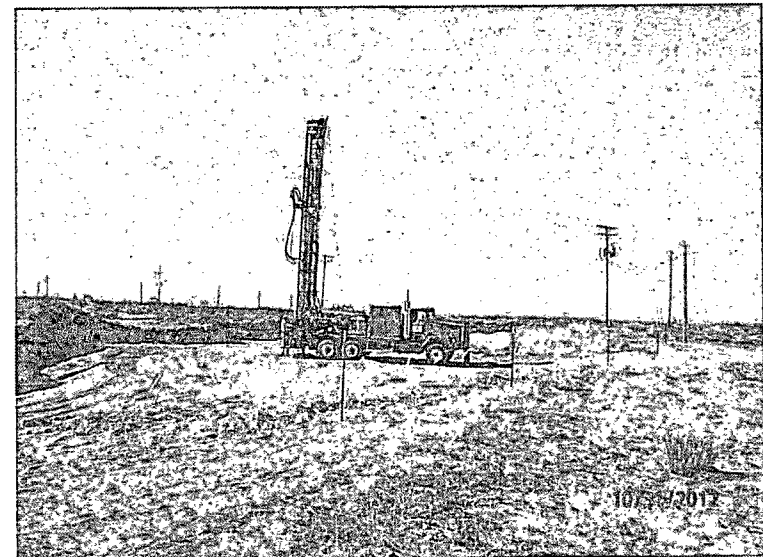
Drilling SB1, facing northwest

10/31/2012



Drilling SB1, facing south

10/31/2012



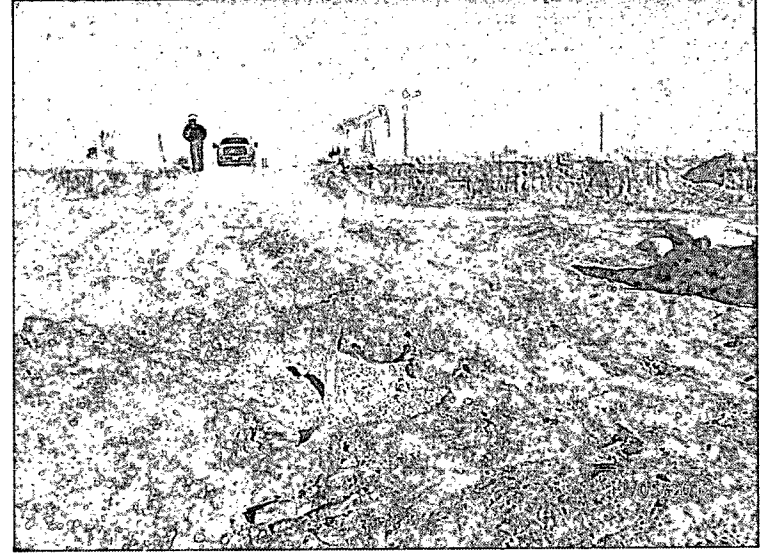
Drilling SB1, facing southwest

10/31/2012



Plugging SB1, facing north

11/5/2012



SB1 plugged, facing north

11/5/2012

Appendix E

Correspondence

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

Bruce Baker

From: Amos, James [jamos@blm.gov]
Sent: Tuesday, December 18, 2012 7:09 AM
To: Bruce Baker
Cc: Gladden, Natalie
Subject: Re: Apache Randy Federal # 002 accidental discharge

The BLM is OK with the installation of a liner, and backfill. While we're in the area, I think there is opportunity to downsize the location and address some other areas. Of course I'm looking at aerials but they are not that old. What I'm looking at is the old road that ran East and West that used to run along the south side of the pad. All should be returned to a natural contour and soil structure. All to be seeded with #2 seed mix. If any questions, please get back to me. thanks

On Mon, Dec 17, 2012 at 1:30 PM, Bruce Baker <bbaker@rice-ecs.com> wrote:

Mr. Amos,

Apache Corporation has retained Rice Environmental Consulting and Safety to address potential environmental concerns at the Randy Federal # 002 accidental discharge. The site has been excavated to 4 ft. Below ground surface and wall grab samples have been taken to a commercial laboratory for analysis of Chloride and TPH . A five point bottom composite was also taken to a commercial laboratory for analysis of TPH and Chloride. Since the bottom composite was 3,680 Chlorides a soil bore was initiated at the site and advanced to 100 ft. and samples were taken in 5 ft. intervals to 90 ft. below ground surface and field tested for chloride and organic vapors using a PID meter. At 90 ft. red bed was encountered and the bore was advanced to 100 ft. and left open for 48 hours and gauged with a Solinst Water Level meter and no water was detected. Apache Corporation would like to install a 20 ml reinforced liner at 4 ft. below ground surface and backfill the site with clean imported soil with at least 2 ft. of top soil to establish re-vegetation of site. RECS discussed this with Mike Bratcher (NMOCD) on Friday December 14, 2012 and he agreed to a liner installation at 4 ft. below ground surface with the stipulation that BLM also agreed to the liner installation. Attached is the Plat, photos, lab analysis, and groundwater verification letter. RECS appreciates the opportunity to work with you on this project. Please call me if you have any questions or wish to discuss the site. Thanks and have a good day.

Bruce Baker

Head Foreman

Phone: (575) 393-4411

Cell: (575) 631-5157

Appendix F

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

Randy Federal #2
site name

G
Unit Letter

22
Section

17S
Township

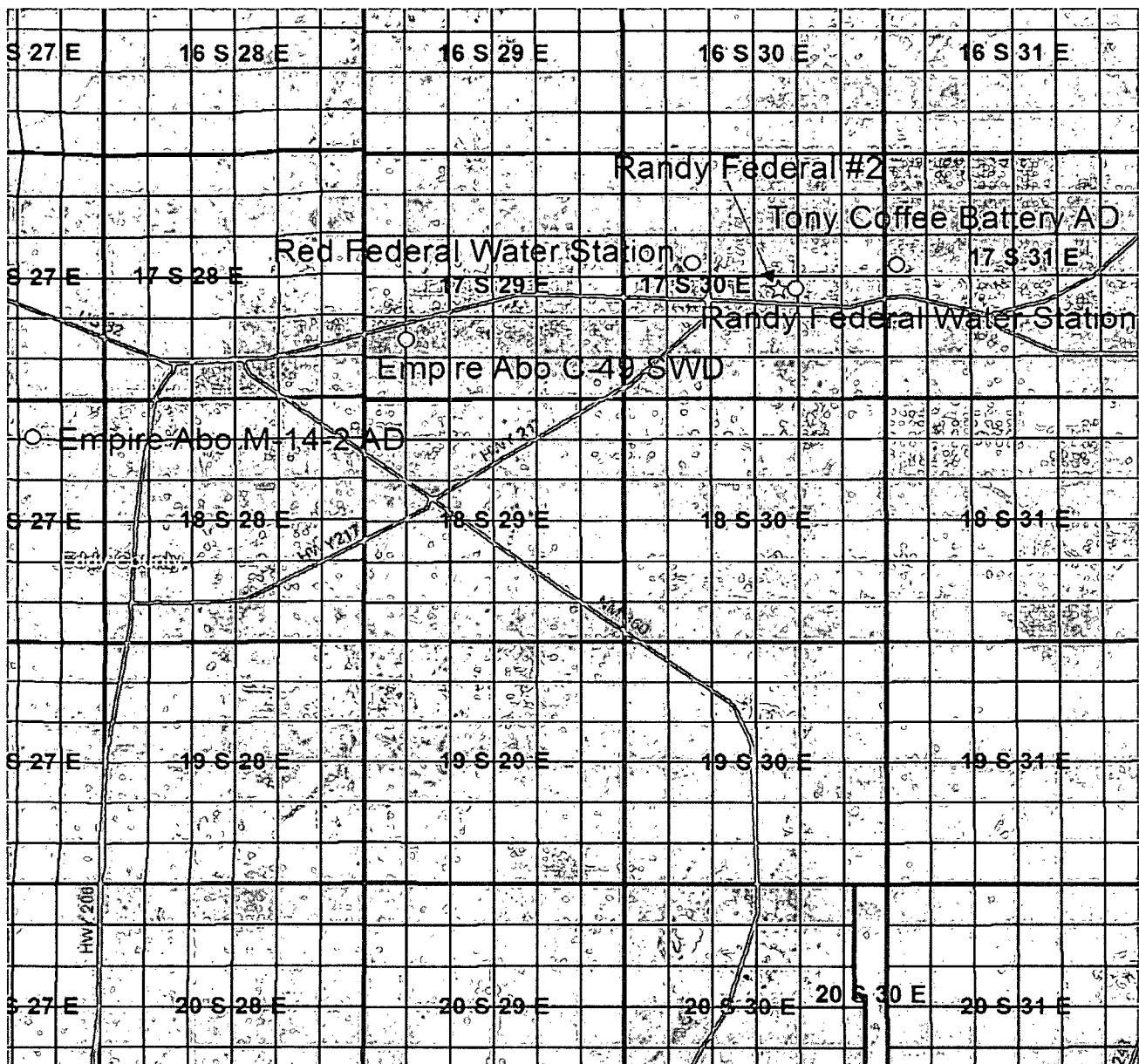
30E
Range

Groundwater Depth: none ft

Compiled by: Amy C. Ruth

Date: 9/13/2012

Comments: Site in an area of no groundwater



Appendix G

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

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	Randy Federal #2	Facility Type	Producing Well

Surface Owner	BLM	Mineral Owner	BLM	API No.	30-015-30249
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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
G	22	17S	30E	1650	FNL	1650	FEL	Eddy

Latitude _____ Longitude _____

NATURE OF RELEASE

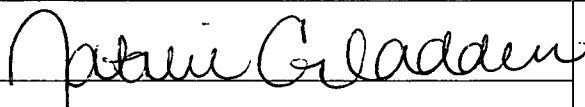
Type of Release	Produced Water	Volume of Release	55 bbls	Volume Recovered	50 bbls
Source of Release	Flow line	Date and Hour of Occurrence	9/11/2012	Date and Hour of Discovery	9/11/2012
Was Immediate Notice Given?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> 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.*
Flow line ruptured. Line was replaced and standing fluid was recovered.

Describe Area Affected and Cleanup Action Taken.*
The leak affected the 5,239 square feet of pasture land. Impacted soils were removed to a NMOCD approved disposal facility. Representative soil samples were collected from the excavation and a soil bore at the site. The samples were sent to a commercial laboratory for confirmation of chloride and TPH, and a reinforced plastic liner was installed in the excavation bottom. The excavation was backfilled with clean soil, and the site was contoured to the surrounding landscape.

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: 	<u>OIL CONSERVATION DIVISION</u>		
Printed Name: Natalie Gladden	Approved by District Supervisor:		
Title: EH&S Environmental Tech	Approval Date:	Expiration Date:	
E-mail Address: Natalie.gladden@apachecorp.com	Conditions of Approval:		Attached <input type="checkbox"/>
Date: 3/22/13	Phone: (575) 390-4186		

* Attach Additional Sheets If Necessary