



EXPLORING WHAT'S POSSIBLE

APACHE CORPORATION

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

Lee Federal #72

Termination Request

API No. 30-015-41253

Release Date: December 17th, 2013

Unit Letter J, Section 20, Township 17S, Range 31E

July 23rd, 2014

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 Corporation – Lee Federal #72
UL/J sec. 20 T17S R31E
API No. 30-015-41253**

Mr. Bratcher:

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

Background and Previous Work

The site is located approximately 5.3 miles east of Loco Hills, New Mexico at UL/J sec. 20 T17S R31E. This site is in an area of no known groundwater.

On December 17th, 2013, a release from the wellhead of 30 barrels of oil and brine water encumbered 12,987 square feet of lease pad and pasture area. The well was shut in and repaired. The release area on the lease pad was scraped to remove the wet material and the excavated material was disposed of at a NMOCD approved facility. The pad was backfilled with clean, imported soil. NMOCD and BLM were notified of the release on December 18th, 2013 and an initial C-141 was sent to NMOCD for their approval (Appendix A).

RECS personnel were on site beginning on January 8th, 2014 to assess the release. Eight samples were taken within the release area and field tested for chlorides and organic vapors (Figure 1). The field data for the lease pad showed elevated chloride readings at the surface. Point 3 was also sampled at 6 inches bgs and returned a field chloride reading of 480 mg/kg. The field data from the pasture area showed an elevated chloride reading at the surface of Point 6, chloride data that was below regulatory standards at 6 inches bgs at Point 7 and a surface sample below regulatory standards at Point 8.

Based on the field data, BLM recommended that the pasture area be scraped down 6 inches to remove the wet material. The release in the pasture and on the lease pad was initially scraped down 6 inches. On February 14th, 2014, two samples were taken from the bottom of the 6 inch scrape on the lease pad and a vertical was installed to determine the depth of contamination (Figure 2). Vertical samples were taken every 6 inches and field tested for chloride and organic

vapors. Representative samples from the vertical and the two bottom points were taken to a commercial laboratory for analysis (Appendix B). Laboratory analysis of the vertical returned chloride values of 1,020 mg/kg at 1.5 ft, 48 mg/kg at 2 ft and 496 mg/kg at 2.5 ft. Gasoline Range Organics (GRO), Diesel Range Organics (DRO) and BTEX readings at all depths returned values of non-detect. The two bottom points, Point 5 and Point 6, returned GRO, DRO and BTEX readings of non-detect, except at Point 6 where the DRO value was 326 mg/kg. Point 5 returned a laboratory chloride value of 320 mg/kg, and Point 6 returned a laboratory chloride value of 1,840 mg/kg, which was above regulatory standards.

Scraping on the lease pad continued with both depth and breadth until field chloride data indicated that all bottom and wall sample points would return laboratory chloride values below regulatory standards. However, two of the walls could not meet regulatory standards. The south wall was encroaching on the pump jack and the west wall was encroaching on the access road. Both became safety issues and a decision was made to halt scraping efforts at that time. These areas will be addressed during site abandonment. Six bottom samples and 8 wall samples were taken from the scrape and submitted to a commercial laboratory to verify the accuracy of the field data (Appendix C). All excavated soils were taken to a NMOCD approved facility for disposal. The lease pad was backfilled with clean, imported caliche and water packed to provide and stable driving surface.

Photo documentation of all activities can be found in Appendix D.

Since the majority of the contaminated soil was removed from the site and replaced with clean, imported soil, Apache respectfully requests 'remediation termination' and site closure. A final C-141 can be found in Appendix E.

RECS appreciates the opportunity to work with you on this project. Please call Hack Conder at (575) 393-2967 or me if you have any questions or wish to discuss the site.

Sincerely,



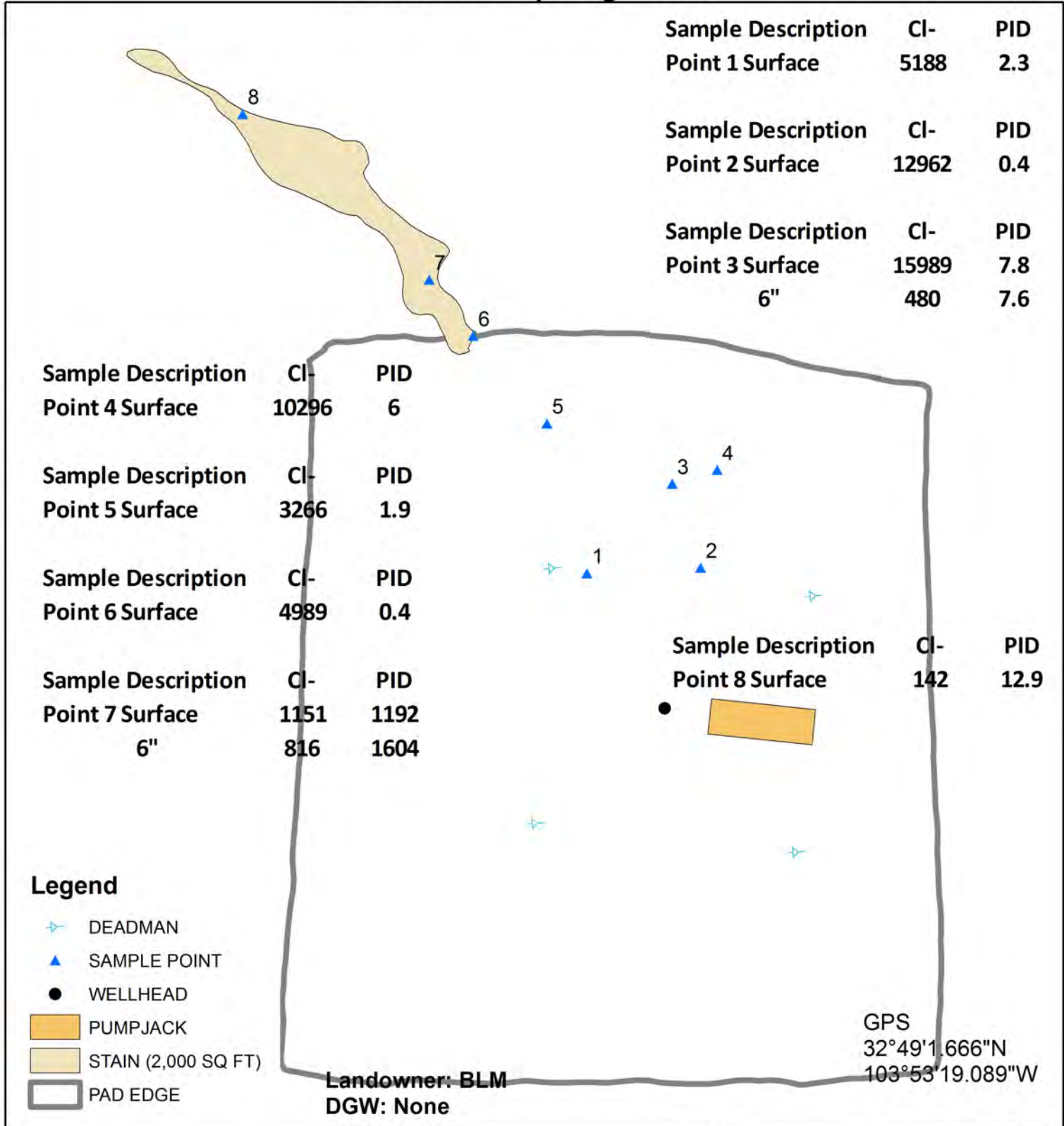
Lara Weinheimer
Project Scientist
RECS
(575) 441-0431

Attachments:

- Figure 1 – Initial Sampling Data
- Figure 2 – Excavation Data
- Appendix A – Initial C-141
- Appendix B – Initial Sampling Lab
- Appendix C – Final Sampling Labs
- Appendix D – Photo Documentation
- Appendix E – Final C-141

Figures

Initial Sampling Data



APACHE LEE FEDERAL #072

UL J SECTION 20
T-17-S R-31-E
EDDY COUNTY, NM

Figure 1



0 25 50
Feet

GPS date: 1/8/14, 2/12/14 AG
Drawing date: 2/13/14
Drafted by: T. Grieco

Excavation Data

Vertical 1	CI-	PID	GRO	DRO	B	T	E	X	BTEX
6"	5370	32.1							
1'	307	28.5							
1.5'	1020	11.3	<10	<10	<0.05	<0.05	<0.05	<0.15	<0.3
2'	48	7	<10	<10	<0.05	<0.05	<0.05	<0.15	<0.3
2.5'	496	4.3	<10	<10	<0.05	<0.05	<0.05	<0.15	<0.3

Point 5

	Cl-	PID	GRO	DRO	B	T	E	X	BTEX
6"	320	2.4	<10	<10	<0.05	<0.05	<0.05	<0.15	<0.3

Final Bottom Samples

CI-	
Pt. 1 @ 1.5'	400
Pt. 2 @ 1.5'	720
Pt. 3 @ 2'	<16
Pt. 4 @ 2'	1180
Pt. 5 @ 1'	80
Pt. 6 @ 1'	48

Final Wall Samples

	CI-	PID	GRO	DRO	B	T	E	X	BTEX
N Wall 1	144	4.3	<10	<10	<0.05	<0.05	<0.05	<0.15	<0.3
N Wall 2	592	6.2	<10	163	<0.05	<0.05	<0.05	<0.15	<0.3
N Wall 3	208	3.1	<10	<10	<0.05	<0.05	<0.05	<0.15	<0.3
E Wall	112	4.6	<10	<10	<0.05	<0.05	<0.05	<0.15	<0.3
W Wall	1140	2.9	<10	111	<0.05	<0.05	<0.05	<0.15	<0.3
S Wall 1	560	1.2	<10	38.3	<0.05	<0.05	<0.05	<0.15	<0.3
S Wall 2	8500	12.3	19.2	1020	<0.05	<0.05	0.066	0.194	<0.3
S Wall 3	672	4.6	<10	<10	<0.05	<0.05	<0.05	<0.15	<0.3

Point 6									
	Cl-	PID	GRO	DRO	B	T	E	X	BTEX
6"	1840	3.1	<10	326	<0.05	<0.05	<0.05	<0.15	<0.3

Legend

* FINAL BOTTOM SAMPLES	DEADMAN	BURIED PIPELINE	FRAC TANK
▲ POINT	ELECTRIC POLE	PAV/ROAD EDGE	GENERATOR
■ VERTICAL	ELECTRICAL BOX	SURFACE PIPELINE	PUMPJACK
▲ WALL	VALVE	SCRAPE AT 1'	SPOIL PILE
■ CONTROL BOX	WELLHEAD	SCRAPE AT 1.5'	
		SCRAPE AT 2'	
		CHEMICAL TANK	

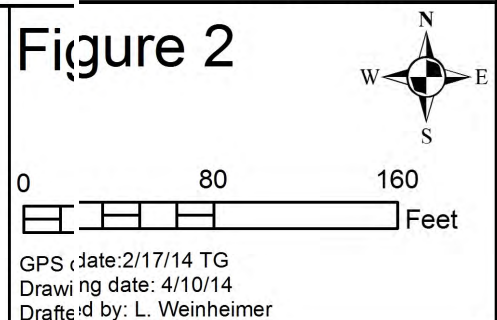
Landowner: BLM
DGW: None



**APACHE LEE
FEDERAL #072**

UL J SECTION 20
T-17-S R-31-E
EDDY COUNTY, NM

Figure 2



Appendix A

Initial C-141

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

Submit 1 Copy to appropriate District Office in
accordance with 19.15.29 NMAC.

Release Notification and Corrective Action

OPERATOR

☒ Initial Report ☐ Final Report

Name of Company: Apache Corporation	Contact Bruce Baker
Address: 8 Ellison Lane Eunice, NM 88231	Telephone No. (432) 631-6982
Facility Name Lee Federal # 72	Facility Type: Oil Well

Surface Owner BLM	Mineral Owner	API No. 30-015-41253
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LOCATION OF RELEASE

Unit Letter J	Section 20	Township 17S	Range 31E	Feet from the 1585'	North/South Line FSL	Feet from the 1650'	East/West Line FEL	County Eddy
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Latitude _____ Longitude _____

NATURE OF RELEASE

Type of Release: oil and brine water	Volume of Release 30 Barrels (3 oil and 27 brine water)	Volume Recovered Unknown
Source of Release: Well	Date and Hour of Occurrence 12/17/13 at 9:00 p.m.	Date and Hour of Discovery 12/17/13 at 9:00 p.m.
Was Immediate Notice Given? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Required	If YES, To Whom? Mike Bratcher (NMOCD) and Jeffery Robertson (BLM)	
By Whom? Bruce Baker	Date and Hour 12/18/13 at 2:54 p.m.	
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.*

TIH W/Collars hit gas bubble that unloaded the hole releasing 30 Barrels of fluid. The well was shut in.

Describe Area Affected and Cleanup Action Taken.*

The majority of the release was contained to the location pad with approximately 1 Barrel of fluid in pasture. The wet area on location was scraped up and disposed of at an NMOCD approved facility.

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>Bruce Baker</i>		<u>OIL CONSERVATION DIVISION</u>	
Printed Name: Bruce Baker		Approved by Environmental Specialist:	
Title: Environmental Technician		Approval Date:	Expiration Date:
E-mail Address: larry.baker@apachecorp.com		Conditions of Approval:	Attached <input type="checkbox"/>
Date: 12/30/13 Phone: (432) 631-6982			

* Attach Additional Sheets If Necessary

Appendix B

Initial Sampling Lab

RICE Environmental Consulting and Safety (RECS)
P.O. Box 2948 Hobbs, NM 88241
Phone 575.393.2967



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

February 18, 2014

BRUCE BAKER

APACHE - EUNICE

P. O. BOX 1849

EUNICE, NM 88231

RE: LEE FEDERAL #072

Enclosed are the results of analyses for samples received by the laboratory on 02/17/14 11:37.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-13-5. 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
BRUCE BAKER
P. O. BOX 1849
EUNICE NM, 88231
Fax To: 394-2425

Received: 02/17/2014
Reported: 02/18/2014
Project Name: LEE FEDERAL #072
Project Number: NONE GIVEN
Project Location: NOT GIVEN

Sampling Date: 02/14/2014
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Jodi Henson

Sample ID: VERT 1 @ 1.5 FT (H400464-01)

BTEX 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	02/17/2014	ND	2.30	115	2.00	4.42	
Toluene*	<0.050	0.050	02/17/2014	ND	2.26	113	2.00	3.72	
Ethylbenzene*	<0.050	0.050	02/17/2014	ND	2.26	113	2.00	4.50	
Total Xylenes*	<0.150	0.150	02/17/2014	ND	6.55	109	6.00	4.12	
Total BTEX	<0.300	0.300	02/17/2014	ND					

Surrogate: 4-Bromofluorobenzene (PID) 97.6 % 89.4-126

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	1020	16.0	02/18/2014	ND	400	100	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	02/18/2014	ND	192	96.0	200	7.22	
DRO >C10-C28	<10.0	10.0	02/18/2014	ND	187	93.7	200	11.7	

Surrogate: 1-Chlorooctane 114 % 65.2-140

Surrogate: 1-Chlorooctadecane 122 % 63.6-154

Cardinal Laboratories

*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager

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

Received: 02/17/2014
Reported: 02/18/2014
Project Name: LEE FEDERAL #072
Project Number: NONE GIVEN
Project Location: NOT GIVEN

Sampling Date: 02/14/2014
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Jodi Henson

Sample ID: VERT 1 @ 2 FT (H400464-02)

BTEx 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	02/17/2014	ND	2.30	115	2.00	4.42	
Toluene*	<0.050	0.050	02/17/2014	ND	2.26	113	2.00	3.72	
Ethylbenzene*	<0.050	0.050	02/17/2014	ND	2.26	113	2.00	4.50	
Total Xylenes*	<0.150	0.150	02/17/2014	ND	6.55	109	6.00	4.12	
Total BTEx	<0.300	0.300	02/17/2014	ND					

Surrogate: 4-Bromofluorobenzene (PID) 96.2 % 89.4-126

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	48.0	16.0	02/18/2014	ND	400	100	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	02/18/2014	ND	192	96.0	200	7.22	
DRO >C10-C28	<10.0	10.0	02/18/2014	ND	187	93.7	200	11.7	

Surrogate: 1-Chlorooctane 107 % 65.2-140

Surrogate: 1-Chlorooctadecane 112 % 63.6-154

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*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

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

Received: 02/17/2014
Reported: 02/18/2014
Project Name: LEE FEDERAL #072
Project Number: NONE GIVEN
Project Location: NOT GIVEN

Sampling Date: 02/14/2014
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Jodi Henson

Sample ID: VERT 1 @ 2.5 FT (H400464-03)

BTEx 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	02/17/2014	ND	2.30	115	2.00	4.42	
Toluene*	<0.050	0.050	02/17/2014	ND	2.26	113	2.00	3.72	
Ethylbenzene*	<0.050	0.050	02/17/2014	ND	2.26	113	2.00	4.50	
Total Xylenes*	<0.150	0.150	02/17/2014	ND	6.55	109	6.00	4.12	
Total BTEx	<0.300	0.300	02/17/2014	ND					

Surrogate: 4-Bromofluorobenzene (PID) 94.2 % 89.4-126

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	496	16.0	02/18/2014	ND	400	100	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	02/18/2014	ND	192	96.0	200	7.22	
DRO >C10-C28	<10.0	10.0	02/18/2014	ND	187	93.7	200	11.7	

Surrogate: 1-Chlorooctane 116 % 65.2-140

Surrogate: 1-Chlorooctadecane 124 % 63.6-154

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BRUCE BAKER
P. O. BOX 1849
EUNICE NM, 88231
Fax To: 394-2425

Received: 02/17/2014
Reported: 02/18/2014
Project Name: LEE FEDERAL #072
Project Number: NONE GIVEN
Project Location: NOT GIVEN

Sampling Date: 02/14/2014
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Jodi Henson

Sample ID: PT. 5 @ 6 INCHES (H400464-04)

BTX 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	02/17/2014	ND	2.30	115	2.00	4.42	
Toluene*	<0.050	0.050	02/17/2014	ND	2.26	113	2.00	3.72	
Ethylbenzene*	<0.050	0.050	02/17/2014	ND	2.26	113	2.00	4.50	
Total Xylenes*	<0.150	0.150	02/17/2014	ND	6.55	109	6.00	4.12	
Total BTX	<0.300	0.300	02/17/2014	ND					

Surrogate: 4-Bromofluorobenzene (PID) 95.0 % 89.4-126

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	320	16.0	02/18/2014	ND	400	100	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	02/18/2014	ND	192	96.0	200	7.22	
DRO >C10-C28	<10.0	10.0	02/18/2014	ND	187	93.7	200	11.7	

Surrogate: 1-Chlorooctane 98.4 % 65.2-140

Surrogate: 1-Chlorooctadecane 103 % 63.6-154

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*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

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

 Received: 02/17/2014
 Reported: 02/18/2014
 Project Name: LEE FEDERAL #072
 Project Number: NONE GIVEN
 Project Location: NOT GIVEN

 Sampling Date: 02/14/2014
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Jodi Henson

Sample ID: PT. 6 @ 6 INCHES (H400464-05)

BTX 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	02/17/2014	ND	2.30	115	2.00	4.42	
Toluene*	<0.050	0.050	02/17/2014	ND	2.26	113	2.00	3.72	
Ethylbenzene*	<0.050	0.050	02/17/2014	ND	2.26	113	2.00	4.50	
Total Xylenes*	<0.150	0.150	02/17/2014	ND	6.55	109	6.00	4.12	
Total BTX	<0.300	0.300	02/17/2014	ND					

Surrogate: 4-Bromofluorobenzene (PID) 95.8 % 89.4-126

Chloride, SM4500CI-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	1840	16.0	02/18/2014	ND	400	100	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	02/18/2014	ND	192	96.0	200	7.22	
DRO >C10-C28	326	10.0	02/18/2014	ND	187	93.7	200	11.7	

Surrogate: 1-Chlorooctane 87.5 % 65.2-140

Surrogate: 1-Chlorooctadecane 93.3 % 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

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Celey D. Keene, Lab Director/Quality Manager



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

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Relinquished By: <i>Shirley Groves</i> ²⁻¹⁷⁻¹⁴ Date: <i>2-17-14</i> Time: <i>11:37</i>		Received By: <i>Jodi Benson</i> Date: _____ Time: _____		Phone Result: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Fax Result: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Add'l Phone #: _____ Add'l Fax #: _____	
Relinquished By: _____ Date: _____ Time: _____		Received By: _____ Date: _____ Time: _____		REMARKS: email results Knorman@rice-ecs.com KJones@riceswd.com; jkamplain@rice-ecs.com hconder@rice-ecs.com; Lweinheimer@rice-ecs.com; sedwards@rice-ecs.com; lflores@rice-ecs.com; agroves@rice-ecs.com	
Delivered By: (Circle One) Sampler - UPS - Bus - Other: _____		Sample Condition Cool Intact <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> No		CHECKED BY: <i>[Signature]</i> (Initials)	

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

#54

Appendix C

Final Sampling Labs

RICE Environmental Consulting and Safety (RECS)
P.O. Box 2948 Hobbs, NM 88241
Phone 575.393.2967

February 18, 2014

BRUCE BAKER

APACHE - EUNICE

P. O. BOX 1849

EUNICE, NM 88231

RE: LEE FEDERAL #072

Enclosed are the results of analyses for samples received by the laboratory on 02/17/14 16:05.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-13-5. 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
BRUCE BAKER
P. O. BOX 1849
EUNICE NM, 88231
Fax To: 394-2425

Received: 02/17/2014
Reported: 02/18/2014
Project Name: LEE FEDERAL #072
Project Number: NONE GIVEN
Project Location: NOT GIVEN

Sampling Date: 02/17/2014
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Jodi Henson

Sample ID: N. WALL #1 (H400473-01)

BTX 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	02/18/2014	ND	2.30	115	2.00	4.42	
Toluene*	<0.050	0.050	02/18/2014	ND	2.26	113	2.00	3.72	
Ethylbenzene*	<0.050	0.050	02/18/2014	ND	2.26	113	2.00	4.50	
Total Xylenes*	<0.150	0.150	02/18/2014	ND	6.55	109	6.00	4.12	
Total BTX	<0.300	0.300	02/18/2014	ND					

Surrogate: 4-Bromofluorobenzene (PID) 96.8 % 89.4-126

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	144	16.0	02/18/2014	ND	400	100	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	02/18/2014	ND	225	112	200	20.6	
DRO >C10-C28	<10.0	10.0	02/18/2014	ND	214	107	200	19.9	

Surrogate: 1-Chlorooctane 93.8 % 65.2-140

Surrogate: 1-Chlorooctadecane 98.1 % 63.6-154

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Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

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

Received: 02/17/2014
Reported: 02/18/2014
Project Name: LEE FEDERAL #072
Project Number: NONE GIVEN
Project Location: NOT GIVEN

Sampling Date: 02/17/2014
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Jodi Henson

Sample ID: N. WALL #2 (H400473-02)

BTX 8021B		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	02/18/2014	ND	2.30	115	2.00	4.42		
Toluene*	<0.050	0.050	02/18/2014	ND	2.26	113	2.00	3.72		
Ethylbenzene*	<0.050	0.050	02/18/2014	ND	2.26	113	2.00	4.50		
Total Xylenes*	<0.150	0.150	02/18/2014	ND	6.55	109	6.00	4.12		
Total BTX	<0.300	0.300	02/18/2014	ND						

Surrogate: 4-Bromofluorobenzene (PID) 98.3 % 89.4-126

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	592	16.0	02/18/2014	ND	400	100	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	02/18/2014	ND	225	112	200	20.6	
DRO >C10-C28	163	10.0	02/18/2014	ND	214	107	200	19.9	

Surrogate: 1-Chlorooctane 103 % 65.2-140

Surrogate: 1-Chlorooctadecane 115 % 63.6-154

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Analytical Results For:

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

Received: 02/17/2014
Reported: 02/18/2014
Project Name: LEE FEDERAL #072
Project Number: NONE GIVEN
Project Location: NOT GIVEN

Sampling Date: 02/17/2014
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Jodi Henson

Sample ID: N. WALL #3 (H400473-03)

BTX 8021B		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	02/18/2014	ND	2.30	115	2.00	4.42		
Toluene*	<0.050	0.050	02/18/2014	ND	2.26	113	2.00	3.72		
Ethylbenzene*	<0.050	0.050	02/18/2014	ND	2.26	113	2.00	4.50		
Total Xylenes*	<0.150	0.150	02/18/2014	ND	6.55	109	6.00	4.12		
Total BTX	<0.300	0.300	02/18/2014	ND						

Surrogate: 4-Bromofluorobenzene (PID) 94.4 % 89.4-126

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	1500	16.0	02/18/2014	ND	400	100	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	02/18/2014	ND	225	112	200	20.6	
DRO >C10-C28	<10.0	10.0	02/18/2014	ND	214	107	200	19.9	

Surrogate: 1-Chlorooctane 122 % 65.2-140

Surrogate: 1-Chlorooctadecane 122 % 63.6-154

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Analytical Results For:

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

Received: 02/17/2014
Reported: 02/18/2014
Project Name: LEE FEDERAL #072
Project Number: NONE GIVEN
Project Location: NOT GIVEN

Sampling Date: 02/17/2014
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Jodi Henson

Sample ID: E. WALL (H400473-04)

BTEx 8021B		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	02/18/2014	ND	2.30	115	2.00	4.42		
Toluene*	<0.050	0.050	02/18/2014	ND	2.26	113	2.00	3.72		
Ethylbenzene*	<0.050	0.050	02/18/2014	ND	2.26	113	2.00	4.50		
Total Xylenes*	<0.150	0.150	02/18/2014	ND	6.55	109	6.00	4.12		
Total BTEx	<0.300	0.300	02/18/2014	ND						

Surrogate: 4-Bromofluorobenzene (PID) 95.7 % 89.4-126

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	2840	16.0	02/18/2014	ND	400	100	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	02/18/2014	ND	225	112	200	20.6	
DRO >C10-C28	<10.0	10.0	02/18/2014	ND	214	107	200	19.9	

Surrogate: 1-Chlorooctane 101 % 65.2-140

Surrogate: 1-Chlorooctadecane 105 % 63.6-154

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Analytical Results For:

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

Received: 02/17/2014
Reported: 02/18/2014
Project Name: LEE FEDERAL #072
Project Number: NONE GIVEN
Project Location: NOT GIVEN

Sampling Date: 02/17/2014
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Jodi Henson

Sample ID: W. WALL (H400473-05)

BTEx 8021B		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	02/18/2014	ND	2.30	115	2.00	4.42		
Toluene*	<0.050	0.050	02/18/2014	ND	2.26	113	2.00	3.72		
Ethylbenzene*	<0.050	0.050	02/18/2014	ND	2.26	113	2.00	4.50		
Total Xylenes*	<0.150	0.150	02/18/2014	ND	6.55	109	6.00	4.12		
Total BTEx	<0.300	0.300	02/18/2014	ND						

Surrogate: 4-Bromofluorobenzene (PID) 94.2 % 89.4-126

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	1140	16.0	02/18/2014	ND	400	100	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	02/18/2014	ND	225	112	200	20.6	
DRO >C10-C28	111	10.0	02/18/2014	ND	214	107	200	19.9	

Surrogate: 1-Chlorooctane 105 % 65.2-140

Surrogate: 1-Chlorooctadecane 113 % 63.6-154

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Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

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

Received: 02/17/2014
Reported: 02/18/2014
Project Name: LEE FEDERAL #072
Project Number: NONE GIVEN
Project Location: NOT GIVEN

Sampling Date: 02/17/2014
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Jodi Henson

Sample ID: S. WALL #1 (H400473-06)

BTEx 8021B		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	02/18/2014	ND	2.30	115	2.00	4.42		
Toluene*	<0.050	0.050	02/18/2014	ND	2.26	113	2.00	3.72		
Ethylbenzene*	<0.050	0.050	02/18/2014	ND	2.26	113	2.00	4.50		
Total Xylenes*	<0.150	0.150	02/18/2014	ND	6.55	109	6.00	4.12		
Total BTEx	<0.300	0.300	02/18/2014	ND						

Surrogate: 4-Bromofluorobenzene (PID) 95.1 % 89.4-126

Chloride, SM4500CI-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	560	16.0	02/18/2014	ND	400	100	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	02/18/2014	ND	225	112	200	20.6	
DRO >C10-C28	38.3	10.0	02/18/2014	ND	214	107	200	19.9	

Surrogate: 1-Chlorooctane 102 % 65.2-140

Surrogate: 1-Chlorooctadecane 104 % 63.6-154

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Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

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

Received: 02/17/2014
Reported: 02/18/2014
Project Name: LEE FEDERAL #072
Project Number: NONE GIVEN
Project Location: NOT GIVEN

Sampling Date: 02/17/2014
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Jodi Henson

Sample ID: S. WALL #2 (H400473-07)

BTEx 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	02/18/2014	ND	2.30	115	2.00	4.42	
Toluene*	<0.050	0.050	02/18/2014	ND	2.26	113	2.00	3.72	
Ethylbenzene*	0.066	0.050	02/18/2014	ND	2.26	113	2.00	4.50	
Total Xylenes*	0.194	0.150	02/18/2014	ND	6.55	109	6.00	4.12	
Total BTEx	<0.300	0.300	02/18/2014	ND					

Surrogate: 4-Bromofluorobenzene (PID) 103 % 89.4-126

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	8500	16.0	02/18/2014	ND	400	100	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	19.2	10.0	02/18/2014	ND	225	112	200	20.6	
DRO >C10-C28	1020	10.0	02/18/2014	ND	214	107	200	19.9	

Surrogate: 1-Chlorooctane 97.9 % 65.2-140

Surrogate: 1-Chlorooctadecane 116 % 63.6-154

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Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

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

Received: 02/17/2014
Reported: 02/18/2014
Project Name: LEE FEDERAL #072
Project Number: NONE GIVEN
Project Location: NOT GIVEN

Sampling Date: 02/17/2014
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Jodi Henson

Sample ID: S. WALL #3 (H400473-08)

BTEx 8021B		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	02/18/2014	ND	2.30	115	2.00	4.42		
Toluene*	<0.050	0.050	02/18/2014	ND	2.26	113	2.00	3.72		
Ethylbenzene*	<0.050	0.050	02/18/2014	ND	2.26	113	2.00	4.50		
Total Xylenes*	<0.150	0.150	02/18/2014	ND	6.55	109	6.00	4.12		
Total BTEx	<0.300	0.300	02/18/2014	ND						

Surrogate: 4-Bromofluorobenzene (PID) 98.3 % 89.4-126

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	672	16.0	02/18/2014	ND	400	100	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	02/18/2014	ND	225	112	200	20.6	
DRO >C10-C28	<10.0	10.0	02/18/2014	ND	214	107	200	19.9	

Surrogate: 1-Chlorooctane 92.6 % 65.2-140

Surrogate: 1-Chlorooctadecane 95.9 % 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

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*=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: <u>Apache</u>				BILL TO				ANALYSIS REQUEST																							
Project Manager: <u>Bruce Baker</u>				P.O. #:				<div>Chlorides</div> <div>TPH 8015 M</div> <div>BTEX</div> <div>Texas TPH</div> <div>Complete Cations/Anions</div> <div>TDS</div>																							
Address: <u>Larry.baker@apachecorp.com</u>				Company:																											
City: Hobbs State: NM Zip: 88240				Attn:																											
Phone #: Fax #:				Address:																											
Project #: Project Owner:				City:																											
Project Name: <u>Lee Federal #072</u>				State: Zip:																											
Project Location:				Phone #:																											
Sampler Name: <u>Amber Groves</u>				Fax #:																											
FOR LAB USE ONLY				MATRIX				PRESERV.		SAMPLING																					
Lab I.D.	Sample I.D.	GRAB OR (COMP. #)	CONTAINERS	GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER	ACID/BASE	ICE / COOL	OTHER	DATE	TIME																	
<u>H400473</u>																															
	<u>1 N wall #1</u>	<u>G</u>	<u>1</u>			<u>✓</u>							<u>2-17-14</u>	<u>8:30</u>	<u>✓</u>	<u>✓</u>	<u>✓</u>														
	<u>2 N wall #2</u>	<u>G</u>	<u>1</u>			<u>✓</u>							<u>2-17-14</u>	<u>8:35</u>	<u>✓</u>	<u>✓</u>	<u>✓</u>														
	<u>3 N wall #3</u>	<u>G</u>	<u>1</u>			<u>✓</u>							<u>2-17-14</u>	<u>8:40</u>	<u>✓</u>	<u>✓</u>	<u>✓</u>														
	<u>4 S wall</u>	<u>G</u>	<u>1</u>			<u>✓</u>							<u>2-17-14</u>	<u>9:05</u>	<u>✓</u>	<u>✓</u>	<u>✓</u>														
	<u>5 W wall</u>	<u>G</u>	<u>1</u>			<u>✓</u>							<u>2-17-14</u>	<u>9:00</u>	<u>✓</u>	<u>✓</u>	<u>✓</u>														
	<u>6 S wall #1</u>	<u>G</u>	<u>1</u>			<u>✓</u>							<u>2-17-14</u>	<u>8:45</u>	<u>✓</u>	<u>✓</u>	<u>✓</u>														
	<u>7 S wall #2</u>	<u>G</u>	<u>1</u>			<u>✓</u>							<u>2-17-14</u>	<u>8:50</u>	<u>✓</u>	<u>✓</u>	<u>✓</u>														
	<u>8 S wall #3</u>	<u>G</u>	<u>1</u>			<u>✓</u>							<u>2-17-14</u>	<u>8:55</u>	<u>✓</u>	<u>✓</u>	<u>✓</u>														

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising whether based in contract or tort, shall be limited to the amount paid by the client for the analyses. All claims including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within 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: <u>Amber Groves</u>	Date: <u>2-17-14</u>	Received By: <u>Jodi Henson</u>	Phone Result: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Add'l Phone #:
	Time: <u>4:05</u>		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)			Knorman@rice-ecs.com	
Sampler - UPS - Bus - Other:			Kjones@riceswd.com; jkamplain@rice-ecs.com	
Sample Condition			hconder@rice-ecs.com; lweinheimer@rice-ecs.com;	
Cool <input checked="" type="checkbox"/> Intact <input checked="" type="checkbox"/>			sedwards@rice-ecs.com; lflores@rice-ecs.com; agroves@rice-ecs.com	
Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>				
CHECKED BY: <u>[Signature]</u>				

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

#54



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

February 21, 2014

BRUCE BAKER

APACHE - EUNICE

P. O. BOX 1849

EUNICE, NM 88231

RE: LEE FEDERAL #072

Enclosed are the results of analyses for samples received by the laboratory on 02/20/14 14:20.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-13-5. 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
BRUCE BAKER
P. O. BOX 1849
EUNICE NM, 88231
Fax To: 394-2425Received: 02/20/2014
Reported: 02/21/2014
Project Name: LEE FEDERAL #072
Project Number: NONE GIVEN
Project Location: NOT GIVENSampling Date: 02/20/2014
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Jodi Henson**Sample ID: N WALL #3 (H400519-01)**

Chloride, SM4500Cl-B		mg/kg		Analyzed By: CK					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	208	16.0	02/21/2014	ND	400	100	400	0.00	

Sample ID: E WALL (H400519-02)

Chloride, SM4500Cl-B		mg/kg		Analyzed By: CK					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	112	16.0	02/21/2014	ND	400	100	400	0.00	

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



CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

Page 4 of 4

RELEASE NOTICE: Liabilities 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 analyses. 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>Amber Brown</i>		Date: <i>2-20-14</i> Time: <i>2:20</i>		Received By: <i>Jodi Benson</i>		Phone Result: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Fax Result: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Add'l Phone #: Add'l Fax #: REMARKS:	
Relinquished By:		Date: Time:		Received By:		email results Knorman@rice-ecs.com KJones@riceswd.com; jkamplain@rice-ecs.com hconder@rice-ecs.com; Lweinheimer@rice-ecs.com; sedwards@rice-ecs.com; lflores@rice-ecs.com; agroves@rice-ecs.com <i>regans@rice-ecs.com</i>	
Delivered By: (Circle One) Sampler - UPS - Bus - Other:				Sample Condition Cool Intact <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		CHECKED BY: (Initials) <i>EA</i>	

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

#54



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

February 24, 2014

BRUCE BAKER

APACHE - EUNICE

P. O. BOX 1849

EUNICE, NM 88231

RE: LEE FEDERAL #072

Enclosed are the results of analyses for samples received by the laboratory on 02/24/14 11:25.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-13-5. 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
BRUCE BAKER
P. O. BOX 1849
EUNICE NM, 88231
Fax To: 394-2425Received: 02/24/2014
Reported: 02/24/2014
Project Name: LEE FEDERAL #072
Project Number: NONE GIVEN
Project Location: NOT GIVENSampling Date: 02/21/2014
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Jodi Henson**Sample ID: PT. 1 @ 1.5 FT (H400545-01)**

Chloride, SM4500CI-B		mg/kg		Analyzed By: CK					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	400	16.0	02/24/2014	ND	432	108	400	3.77	

Sample ID: PT. 2 @ 1.5 FT (H400545-02)

Chloride, SM4500CI-B		mg/kg		Analyzed By: CK					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	720	16.0	02/24/2014	ND	432	108	400	3.77	

Sample ID: PT. 3 @ 1.5 FT (H400545-03)

Chloride, SM4500CI-B		mg/kg		Analyzed By: CK					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	1600	16.0	02/24/2014	ND	432	108	400	3.77	

Sample ID: PT. 4 @ 1 FT (H400545-04)

Chloride, SM4500CI-B		mg/kg		Analyzed By: CK					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	1200	16.0	02/24/2014	ND	432	108	400	3.77	

Cardinal Laboratories

*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:APACHE - EUNICE
BRUCE BAKER
P. O. BOX 1849
EUNICE NM, 88231
Fax To: 394-2425Received: 02/24/2014
Reported: 02/24/2014
Project Name: LEE FEDERAL #072
Project Number: NONE GIVEN
Project Location: NOT GIVENSampling Date: 02/21/2014
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Jodi Henson**Sample ID: PT. 5 @ 1 FT (H400545-05)**

Chloride, SM4500Cl-B		mg/kg		Analyzed By: CK						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	80.0	16.0	02/24/2014	ND	432	108	400	3.77		

Sample ID: PT. 6 @ 1 FT (H400545-06)

Chloride, SM4500Cl-B		mg/kg		Analyzed By: CK					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	48.0	16.0	02/24/2014	ND	432	108	400	3.77	

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

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(505) 393-2326 FAX (505) 393-2476 (325) 673-7001 FAX (325) 673-7020

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

* RUSH *

Company Name: <u>Apache</u>				BILL TO				ANALYSIS REQUEST																			
Project Manager: <u>Bruce Baker</u>				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: <u>Larry.baker@apachecorp.com</u>				Company:																							
City: Hobbs State: NM Zip: 88240				Attn:																							
Phone #: Fax #:				Address:																							
Project #: Project Owner:				City:																							
Project Name: <u>Lee Federal #012</u>				State: Zip:																							
Project Location:				Phone #:																							
Sampler Name: <u>Amber Groves</u>				Fax #:																							
FOR LAB USE ONLY																											
Lab I.D.	Sample I.D.	(GRAB OR C) OMP.	# CONTAINERS	MATRIX				PRESERV.		SAMPLING																	
				GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER:	ACID/BASE:	ICE / COOL	OTHER:	DATE	TIME													
H400545																											
1	Pt. 1 @ 1.5 ft	G	1			✓							2-21-14	9:00	✓												
2	Pt. 2 @ 1.5 ft	G	1			✓							2-21-14	9:05	✓												
3	Pt. 3 @ 1.5 ft	G	1			✓							2-21-14	9:10	✓												
4	Pt. 4 @ 1 ft	G	1			✓							2-21-14	9:15	✓												
5	Pt. 5 @ 1 ft	G	1			✓							2-21-14	9:20	✓												
6	Pt. 6 @ 1 ft	G	1			✓							2-21-14	9:25	✓												

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, 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: <u>Amber Groves</u>	Date: <u>2-21-14</u>	Received By: <u>Jodi Benson</u>	Phone Result: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Add'l Phone #:
	Time: <u>11:25</u>		Fax Result: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Add'l Fax #:
Relinquished By:	Date:	Received By:	REMARKS: <u>call w/ verbals</u>	
	Time:		<u>email results</u>	
Delivered By: (Circle One)			<u>Knorman@rice-ecs.com</u>	
Sampler - UPS - Bus - Other:			<u>Kjones@riceswd.com; jkamplain@rice-ecs.com</u>	
			<u>hconder@rice-ecs.com; Lweinheimer@rice-ecs.com;</u>	
			<u>sedwards@rice-ecs.com; lflores@rice-ecs.com; agroves@rice-ecs.com</u>	

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

#54



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

March 27, 2014

BRUCE BAKER

APACHE - EUNICE

P. O. BOX 1849

EUNICE, NM 88231

RE: LEE FEDERAL #072

Enclosed are the results of analyses for samples received by the laboratory on 03/18/14 16:30.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-13-5. 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
BRUCE BAKER
P. O. BOX 1849
EUNICE NM, 88231
Fax To: 394-2425Received: 03/18/2014
Reported: 03/27/2014
Project Name: LEE FEDERAL #072
Project Number: NONE GIVEN
Project Location: NOT GIVENSampling Date: 03/18/2014
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Jodi Henson**Sample ID: PT. 3 @ 2' (H400829-01)**

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	03/20/2014	ND	400	100	400	3.92	

Sample ID: PT. 4 @ 2' (H400829-02)

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	1180	16.0	03/27/2014	ND	400	100	400	3.92	

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

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Celey D. Keene, Lab Director/Quality Manager



CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

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 profit 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>Kelle Humphrey</i>		Date: <i>5/15/14</i>		Received By: <i>Jodi Benson</i>		Phone Result: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Add'l Phone #:	
Relinquished By:		Date:		Received By:		Fax Result: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Add'l Fax #:	
Delivered By: (Circle One) Sampler - UPS - Bus - Other:		Time: <i>4:30</i>		Time:		REMARKS: <i>email results</i> <i>Knorman@rice-ecs.com</i> <i>Kjones@riceswd.com; jkamplain@rice-ecs.com hconder@rice-ecs.com;</i> <i>Lweinheimer@rice-ecs.com</i> <i>Khumphrey@rice-ecs.com</i> <i>sedwards@rice-ecs.com, lflores@rice-ecs.com</i>	
		Sample Condition Cool <input type="checkbox"/> Intact <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>		CHECKED BY: <i>(initials)</i>		<i>Regans@rice-ecs.com</i> <i>Larry Baker@Apachecorp.com</i>	

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

Appendix D

Photo Documentation

RICE Environmental Consulting and Safety (RECS)
P.O. Box 2948 Hobbs, NM 88241
Phone 575.393.2967

Apache Lee Federal #72

Unit Letter J, Section 20, T17S, R31E



Initial release area, facing east

1/8/14



Initial site photo, facing northwest

1/8/14



Initial site photo, facing southwest

1/8/14



Initial site photo, facing northeast

1/8/14



Collecting initial sample, facing south 1/8/14



Hand shoveling release in pasture, facing north 2/12/14



Scraping site, facing south 2/12/14



Installing vertical, facing southeast 2/14/14



Exporting soil, facing southeast

2/14/14



Sampling site, facing southeast

2/21/14



Downsizing pad, facing northwest

3/18/14



Excavation completed, facing west

3/19/14



Backfilling excavation, facing southwest 3/19/14



Importing soil, facing south 3/19/14



Watering pad, facing northwest 3/20/14



Packing backfilled area, facing northeast 3/20/14



Site completed, facing east

3/20/14



Site completed, facing northeast

3/20/14

Appendix E

Final C-141

RICE Environmental Consulting and Safety (RECS)
P.O. Box 2948 Hobbs, NM 88241
Phone 575.393.2967

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

Form C-141
Revised August 8, 2011

Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, NM 87505

Submit 1 Copy to appropriate District Office in
accordance with 19.15.29 NMAC.

Release Notification and Corrective Action

OPERATOR

☐ Initial Report ☒ Final Report

Name of Company Apache Corporation	Contact Bruce Baker	
Address 8 Ellison Lane, Eunice, NM 88231	Telephone No. (432) 631-6982	
Facility Name Lee Federal #72	Facility Type Oil Well	
Surface Owner BLM	Mineral Owner	API No. 30-015-41253

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
J	20	17S	31E	1585'	FSL	1650'	FEL	Eddy

Latitude _____ Longitude _____

NATURE OF RELEASE

Type of Release oil and brine water	Volume of Release 30 Barrels (3 oil and 27 brine water)	Volume Recovered Unknown
Source of Release Well	Date and Hour of Occurrence 12/17/13 at 9:00 p.m.	Date and Hour of Discovery 12/17/13 at 9:00 p.m.
Was Immediate Notice Given? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Required	If YES, To Whom? Mike Bratcher (NMOCD) and Jeffery Robertson (BLM)	
By Whom? Bruce Baker	Date and Hour 12/18/13 at 2:54 p.m.	
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.* TIH W/Collars hit gas bubble that unloaded the hole releasing 30 Barrels of fluid. The well was shut in.

Describe Area Affected and Cleanup Action Taken.* The majority of the release was contained to the location pad with approximately 1 Barrel of fluid in the pasture. A total of 12,987 square feet of lease pad and pasture area was affected. The release area on the lease pad was scraped to remove the wet material and the excavated material was disposed of at a NMOCD approved facility. RECS personnel were on site beginning on January 8th, 2014 to assess the release. Eight samples were taken within the release area and field tested for chlorides and organic vapors. The field data for the lease pad showed elevated chloride readings at the surface. Point 3 was also sampled at 6 inches bgs and returned a field chloride reading of 480 mg/kg. The field data from the pasture area showed an elevated chloride reading at the surface of Point 6, chloride data that was below regulatory standards at 6 inches bgs at Point 7 and a surface sample below regulatory standards at Point 8. Based on the field data, BLM recommended that the pasture area be scraped down 6 inches to remove the wet material. The release in the pasture and on the lease pad was initially scraped down 6 inches. On February 14th, 2014, two samples were taken from the bottom of the 6 inch scrape on the lease pad and a vertical was installed to determine the depth of contamination. Scraping on the lease pad continued with both depth and breadth until field chloride data indicated that all bottom and wall sample points would return laboratory chloride values below regulatory standards. However, two of the walls could not meet regulatory standards. The south wall was encroaching on the pump jack and the west wall was encroaching on the access road. Both became safety issues and a decision was made to halt scraping efforts at that time. These areas will be addressed during site abandonment. Six bottom samples and 8 wall samples were taken from the scrape and submitted to a commercial laboratory to verify the accuracy of the field data. All excavated soils were taken to a NMOCD approved facility for disposal. The lease pad was backfilled with clean, imported caliche and water packed to provide and stable driving surface.

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>Bruce Baker</i>	OIL CONSERVATION DIVISION	
Printed Name: Bruce Baker	Approved by Environmental Specialist:	
Title: Environmental Technician	Approval Date:	Expiration Date:
E-mail Address: larry.baker@apachecorp.com	Conditions of Approval:	Attached <input type="checkbox"/>
Date: 7-23-14 Phone: (432) 631-6982		

* Attach Additional Sheets If Necessary