



DAVID FEATHER
ENVIRONMENTAL SUPERVISOR
DIRECT: (432) 818-1615
E-MAIL: DAVID.FEATHER@APACHECORP.COM

October 22, 2019

Mr. Bradford Billings
State of New Mexico Oil Conservation Division
1220 South St Francis Drive
Santa Fe, NM 87505

RE: 1RP-2331 South Seven Rivers Queen Unit 426

Mr. Billings,

In compliance with 19.15.29.15(B) NMAC and the agreement submitted by Apache Corporation on November 8, 2018, Apache Corporation is submitting information related to closure for the release occurring October 23, 2009. Apache is respectfully submitting the closure report based on remediation and studies occurring in 2010 that demonstrate the site meeting the requirements of the agency. Unless further information is requested by NMOCD, Apache Corporation considers this release closed.

If there are any questions, please feel free to contact me by telephone at 432-818-1615 or by e-mail at David.Feather@ApacheCorp.com.

Sincerely,

A handwritten signature in blue ink, appearing to read "D. Feather".

David Feather
Environmental Supervisor
Apache Corporation - Permian Basin Region

Attachment: Closure Report Dated October 18, 2019

APACHE CORPORATION - PERMIAN BASIN REGION - 303 VETERANS AIRPARK LANE, STE 3000, MIDLAND, TEXAS 79705



Bruce Baker

South Seven Rivers Queen Unit #426

Closure Request

API NO. 30-025-09042

1RP-2331

Release Date: 10/23/09

U/L A, Section 26, Township 22S, Range 36E

Lea County, NM

10/18/19

Prepared By:
Hungry Horse, LLC
4024 Plains Hwy
Lovington, NM 88260

October 18, 2019

New Mexico Energy, Minerals & Natural Resources
Oil Conservation Division, Environmental Bureau – District I
C/O Dylan Rose-Coss
1625 South French Drive
Hobbs, NM 88240

RE: Closure Request
Apache Corporation
South Seven Rivers Queen Unit #426
U/L A, Section 26, Township 22S, Range 36E
API No. 30-025-34651

To Whom it May Concern:

Apache Corporation has retained Hungry Horse, LLC., to address the potential environmental concerns at the site referenced above.

Background

An initial form C-141 (Release Notification) for the site mentioned above was submitted by Apache Corporation on October 23, 2009. The site is located in Lea County, New Mexico, 11.2 miles south of Eunice, New Mexico in unit letter 'A' of section 26, T22S, R36E. Approximately 50bbls of produced water was released. None of the 50 bbls of produced water was able to be recovered. The leak was discovered by Sid Richardson and the line was isolated and repaired. The leak crossed Section 24 and 25 out in the pasture in sand dunes. Apache was unable to get a vacuum truck to the leak site. A road was built to get to the leak area and will be taken up once location is cleaned. The site was cleaned up according to NMOCD guidelines.

Groundwater Information

Hungry-Horse, LLC has conducted an extended groundwater study of the area and it has been determined that according to the New Mexico Office of the State Engineer, the three closest wells to the South Seven Rivers Queen Unit #426 range from 4699'bgs to 125'bgs within 1437' to 2001' from the site listed herein:

CP00776 POD1 – 4000'dgw with a distance of 1437' from the site
CP00397 POD1 – 118'dgw with a distance of 1712' from the site
E 03808 POD1 – 55' dgw with a distance of 2001' from the site

Karst Information

According to the Karst Map, the South Seven Rivers Queen Unit #426 is located in the low risk area. Therefore, no concerns are found.

Delineation

On March 20, 2010 Apache Corporation began delineation of the site. Five samples were taken and delivered to Cardinal Laboratories and were tested for Chlorides.

Below you will find the lab analysis for the delineation of the samples dated March 20, 2010 for Apache South Seven Rivers Queen Unit #426:

Sample ID	Chloride
SP1	560
SP2	<16
SP3	16
SP4	<16
SP5	544

Below you will find the lab analysis for the delineation of the samples dated April 01 and April 02, 2010 for Apache South Seven Rivers Queen Unit #426.

Sample ID	Chloride
SP1	<16
SP2	16
SP3	<16
SP4	16
SP5	<16
SP6	<16
SP7	16
SP8	<16

The saturated soil was excavated and all of the contaminated soil was hauled to Sundance Services in Eunice, New Mexico. Backfill was brought in from Strain Ranch to backfill the site. Apache personnel remediated the site in 2010 and based on site inspection the impacted area was remediated fully to closure. The site has adequate vegetation. See the attached map.

Conclusion

On behalf of Apache Corporation and Hungry Horse, LLC., we respectfully request closure of the release on the Apache South Seven Rivers Queen Unit #426. All work was performed in accordance with the NMOCD Rules and Regulations for Spills and Releases.

Thank you in advance for allowing Hungry-Horse LLC to assist in this matter. Please contact me with any questions and/or concerns.

Sincerely,



Traci Jennings
Compliance Manager
Hungry-Horse, LLC
4024 Plains Highway
Lovington, NM 88260
tjennings@hungry-horse.com

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

RECEIVED
State of New Mexico
Energy Minerals and Natural Resources
OCT 28 2009
Oil Conservation Division
HOBBS
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 Corporation	Contact	Natalie Gladden
Address	P.O. Box 1849 Eunice, NM 88231	Telephone No.	575-390-4186
Facility Name	South Seven Rivers Queen Unit #426	Facility Type	Injection Well

Surface Owner	State of NM	Mineral Owner	State of NM	Lease No.	30-025-09042
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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
A	26	22S	36E	660	North Line	660	East Line	Lea

Latitude _____ Longitude _____

NATURE OF RELEASE

Type of Release	Produced Water	Volume of Release	50bbls	Volume Recovered	0 bbls
Source of Release	Injection line leak	Date	10/23/09	Date	10/23/09
Was Immediate Notice Given?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Required	If YES, To Whom?	Larry Johnson		
By Whom?	Natalie Gladden	Date and Hour	10/23/09 4pm		
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.*

Leak was discovered by Sid Richardson, line was isolated and repaired.

Describe Area Affected and Cleanup Action Taken.*

This leak crosses Sec 24 and Sec 25, out in the pasture in sand dunes. We were unable to get a vacuum truck to the leak site. A road has been built to get to leak area and will be taken up once location is cleaned. NMOCD guidelines will be followed to close.

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	ENV. ENGINEER: Approved by District Supervisor: <i>Jeffrey Loring</i>	
Title: EH&S Environmental Tech	Approval Date: 10/29/09	Expiration Date: 12/29/09
E-mail Address: natalie.gladden@apachecorp.com	Conditions of Approval: DELINEATE TO CLEAN +1. SUBMIT FWAL C-141 BY	Attached <input type="checkbox"/> IRP-09-11-2331
Date: 10/27/09 Phone: 575-390-4186		

* Attach Additional Sheets If Necessary

FGRL0930940820

Form C-141

Page 3

State of New Mexico
Oil Conservation Division

Incident ID	
District RP	
Facility ID	
Application ID	

Site Assessment/Characterization

This information must be provided to the appropriate district office no later than 90 days after the release discovery date.

What is the shallowest depth to groundwater beneath the area affected by the release?	<u>55</u> (ft bgs)
Did this release impact groundwater or surface water?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 300 feet of a continuously flowing watercourse or any other significant watercourse?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 200 feet of any lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark)?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 300 feet of an occupied permanent residence, school, hospital, institution, or church?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 500 horizontal feet of a spring or a private domestic fresh water well used by less than five households for domestic or stock watering purposes?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 1000 feet of any other fresh water well or spring?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within incorporated municipal boundaries or within a defined municipal fresh water well field?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 300 feet of a wetland?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release overlying a subsurface mine?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release overlying an unstable area such as karst geology?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within a 100-year floodplain?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Did the release impact areas not on an exploration, development, production, or storage site?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No

Attach a comprehensive report (electronic submittals in .pdf format are preferred) demonstrating the lateral and vertical extents of soil contamination associated with the release have been determined. Refer to 19.15.29.11 NMAC for specifics.

Characterization Report Checklist: *Each of the following items must be included in the report.*

- ☒ Scaled site map showing impacted area, surface features, subsurface features, delineation points, and monitoring wells.
- ☐ Field data
- ☒ Data table of soil contaminant concentration data
- ☒ Depth to water determination
- ☒ Determination of water sources and significant watercourses within ½-mile of the lateral extents of the release
- ☒ Boring or excavation logs
- ☒ Photographs including date and GIS information
- ☒ Topographic/Aerial maps
- ☒ Laboratory data including chain of custody

If the site characterization report does not include completed efforts at remediation of the release, the report must include a proposed remediation plan. That plan must include the estimated volume of material to be remediated, the proposed remediation technique, proposed sampling plan and methods, anticipated timelines for beginning and completing the remediation. The closure criteria for a release are contained in Table I of 19.15.29.12 NMAC, however, use of the table is modified by site- and release-specific parameters.

Form C-141

Page 4

State of New Mexico
Oil Conservation Division

Incident ID	
District RP	
Facility ID	
Application ID	

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to OCD 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 OCD does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In addition, OCD 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.

Printed Name: Bruce Baker Title: Environmental Tech SR.
Signature: Bruce Baker Date: 10-22-19
email: larry.baker@apachecorp.com Telephone: 432-631-6982

OCD Only

Received by: _____ Date: _____

Form C-141
Page 6

State of New Mexico
Oil Conservation Division

Incident ID	nGRL0930941403
District RP	
Facility ID	
Application ID	

Closure

The responsible party must attach information demonstrating they have complied with all applicable closure requirements and any conditions or directives of the OCD. This demonstration should be in the form of a comprehensive report (electronic submittals in .pdf format are preferred) including a scaled site map, sampling diagrams, relevant field notes, photographs of any excavation prior to backfilling, laboratory data including chain of custody documents of final sampling, and a narrative of the remedial activities. Refer to 19.15.29.12 NMAC.

Closure Report Attachment Checklist: *Each of the following items must be included in the closure report.*

- ☒ A scaled site and sampling diagram as described in 19.15.29.11 NMAC
- ☒ Photographs of the remediated site prior to backfill or photos of the liner integrity if applicable (Note: appropriate OCD District office must be notified 2 days prior to liner inspection)
- ☒ Laboratory analyses of final sampling (Note: appropriate ODC District office must be notified 2 days prior to final sampling)
- ☒ Description of remediation activities

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to OCD 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 OCD does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In addition, OCD 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. The responsible party acknowledges they must substantially restore, reclaim, and re-vegetate the impacted surface area to the conditions that existed prior to the release or their final land use in accordance with 19.15.29.13 NMAC including notification to the OCD when reclamation and re-vegetation are complete.

Printed Name: Bruce Baker Title: Environmental Tech SR.
 Signature: Bruce Baker Date: 10-22-19
 email: larry.baker@apachecorp.com Telephone: 432-631-6982

OCD Only

Received by: _____ Date: _____

Closure approval by the OCD does not relieve the responsible party of liability should their operations have failed to adequately investigate and remediate contamination that poses a threat to groundwater, surface water, human health, or the environment nor does not relieve the responsible party of compliance with any other federal, state, or local laws and/or regulations.

Closure Approved by: Bradford Billings Date: 07/08/2021
 Printed Name: Bradford Billings Title: Envi.Spec.A

10/18/2019

nmwrrs.ose.state.nm.us/nmwrrs/ReportProxy?queryData=%7B%22report%3A%22waterColumn%2C%0A%22BasinDiv%3A%22true%2C%0A%22Basi...



New Mexico Office of the State Engineer

Water Column/Average Depth to Water

(A CLW##### in the POD suffix indicates the POD has been replaced & no longer serves a water right file.)

(R=POD has been replaced,
O=orphaned,
C=the file is closed)

(quarters are 1=NW 2=NE 3=SW 4=SE)

(quarters are smallest to largest)

(NAD83 UTM in meters)

(In feet)

POD Number	Code	Sub-basin	County	Q 64	Q 16	Q 4	Sec	Tws	Rng	X	Y	Distance	Depth Well	Depth Water	Water Column
CP 00776 POD1		CP	LE	4	1	3	26	22S	36E	665474	3581705*	1437	4699	4000	699
CP 00393 POD1		CP	LE	2	2	2	27	22S	36E	665060	3582703*	1513	160		
CP 00394 POD1		CP	LE	3	3	4	25	22S	36E	667696	3581341*	1712	160		
CP 00397 POD1		CP	LE	3	3	4	25	22S	36E	667696	3581341*	1712	180	118	62
E 03808 POD1		E								666105	3580686	2001	125	55	70
CP 00609		CP	LE	1	3	4	22	22S	36E	664451	3583098*	2171	199	22	177
CP 00575		CP	LE		3	4	27	22S	36E	664576	3581388*	2352	198	160	38
CP 00392 POD1		CP	LE	1	1	3	35	22S	36E	665302	3580296*	2660	225		
CP 01148 POD1		CP	LE				27	22S	36E	663840	3582232	2761	40		
CP 01148 POD3		CP	LE				27	22S	36E	663839	3582227	2762	100		
CP 01148 POD2		CP	LE				27	22S	36E	663827	3582239	2773	40		
CP 01147 POD1		CP	LE				22	22S	36E	663749	3582965	2842	25		
CP 01147 POD2		CP	LE				22	22S	36E	663749	3582965	2842	20		
CP 01146 POD1		CP	LE				34	22S	36E	664065	3580944	3023	101		
CP 01146 POD2		CP	LE				34	22S	36E	664041	3580954	3037	100		
CP 01146 POD3		CP	LE				34	22S	36E	664045	3580932	3046	20		
CP 00485 POD1		CP	LE		3	1	22	22S	36E	663732	3583788*	3065	500		
CP 01149 POD1		CP	LE				34	22S	36E	664281	3580034	3464	25		
CP 01651 POD1		CP	LE	1	3	4	12	22S	36E	667538	3586460	3946	148		
CP 00628		CP	LE		2	1	18	22S	37E	668892	3585888*	3996	525	190	335
CP 00149 POD1		CP	LE		4	1	29	22S	37E	670568	3582296*	4010			
CP 00764 POD1		CP	LE	2	1	4	16	22S	36E	663006	3585079*	4324	4700	4000	700
CP 00390 POD1		CP	LE	2	4	1	06	23S	37E	669120	3579111*	4347	100		
CP 00547		CP	LE		2	2	18	22S	37E	669696	3585901*	4520	200		
CP 01318 POD2		CP	LE	3	3	3	10	22S	36E	663672	3586106	4524	260	180	80
CP 00786 POD1		CP	LE	1	3	1	03	23S	36E	663716	3579040*	4590	200		
L 11013	C	L	LE			3	10	22S	36E	663892	3586402*	4624	222		
CP 00070		CP	LE	2	2	3	16	22S	36E	662604	3585071*	4657	220	170	50
CP 00070 CLW472929	O	CP	LE	2	2	3	16	22S	36E	662604	3585071*	4657	220	170	50

Average Depth to Water: 906 feet
Minimum Depth: 22 feet
Maximum Depth: 4000 feet

Record Count: 29



New Mexico Office of the State Engineer Point of Diversion Summary

Well Tag	POD Number	(quarters are 1=NW 2=NE 3=SW 4=SE)						(NAD83 UTM in meters)	
		(quarters are smallest to largest)						X	Y
		Q64	Q16	Q4	Sec	Tws	Rng		
		4	1	3	26	22S	36E	665474	3581705*

Driller License:		Driller Company:	
Driller Name:		V & B DILLING COMPANY	
Drill Start Date:	11/27/1992	Drill Finish Date:	01/02/1993
Log File Date:	02/04/1993	PCW Rcv Date:	
Pump Type:		Pipe Discharge Size:	
Casing Size:	7.00	Depth Well:	4699 feet
		Plug Date:	
		Source:	Shallow
		Estimated Yield:	400 GPM
		Depth Water:	4000 feet

Water Bearing Stratifications:	Top	Bottom	Description
	3850	4050	Other/Unknown
	4050	4699	Other/Unknown
Casing Perforations:	Top	Bottom	
	4158	4591	

*UTM location was derived from PLSS - see Help

The data is furnished by the NMOSE/ISC and is accepted by the recipient with the expressed understanding that the OSE/ISC make no warranties, expressed or implied, concerning the accuracy, completeness, reliability, usability, or suitability for any particular purpose of the data.

10/18/2019

nmwrrs.ose.state.nm.us/nmwrrs/ReportDispatcher?type=PODGHTML&name=PodGroundSummaryHTML.jrxml&basin=CP&nbr=00397...



New Mexico Office of the State Engineer Point of Diversion Summary

		(quarters are 1=NW 2=NE 3=SW 4=SE) (quarters are smallest to largest)						(NAD83 UTM in meters)	
Well Tag	POD Number	Q64	Q16	Q4	Sec	Tws	Rng	X	Y
	CP 00397 POD1	3	3	4	25	22S	36E	667696	3581341*
Driller License: 137		Driller Company: ROBERTS, GRADY							
Driller Name:									
Drill Start Date:		Drill Finish Date:		12/31/1940		Plug Date:			
Log File Date:		PCW Rcv Date:				Source:			
Pump Type:		Pipe Discharge Size:		2		Estimated Yield: 50 GPM			
Casing Size: 8.00		Depth Well:		180 feet		Depth Water: 118 feet			

*UTM location was derived from PLSS - see Help

The data is furnished by the NMOSE/ISC and is accepted by the recipient with the expressed understanding that the OSE/ISC make no warranties, expressed or implied, concerning the accuracy, completeness, reliability, usability, or suitability for any particular purpose of the data.

10/18/19 8:14 AM

POINT OF DIVERSION SUMMARY

10/18/2019

nmwrrs.ose.state.nm.us/nmwrrs/ReportDispatcher?type=PODGHTML&name=PodGroundSummaryHTML.jrxml&basin=E&nbr=03808&...



New Mexico Office of the State Engineer

Point of Diversion Summary

(quarters are 1=NW 2=NE 3=SW 4=SE)
(quarters are smallest to largest) (NAD83 UTM in meters)

Well Tag	POD Number	Q64 Q16 Q4 Sec Tws Rng	X	Y
	E 03808 POD1		666105	3580686

Driller License:	539	Driller Company:	GARCIA BROTHERS DRILLING CO., LLC		
Driller Name:	GARCIA, RAYMOND				
Drill Start Date:	04/27/1983	Drill Finish Date:	04/27/1983	Plug Date:	
Log File Date:	05/03/1983	PCW Rev Date:		Source:	Shallow
Pump Type:		Pipe Discharge Size:		Estimated Yield:	35 GPM
Casing Size:	5.00	Depth Well:	125 feet	Depth Water:	55 feet

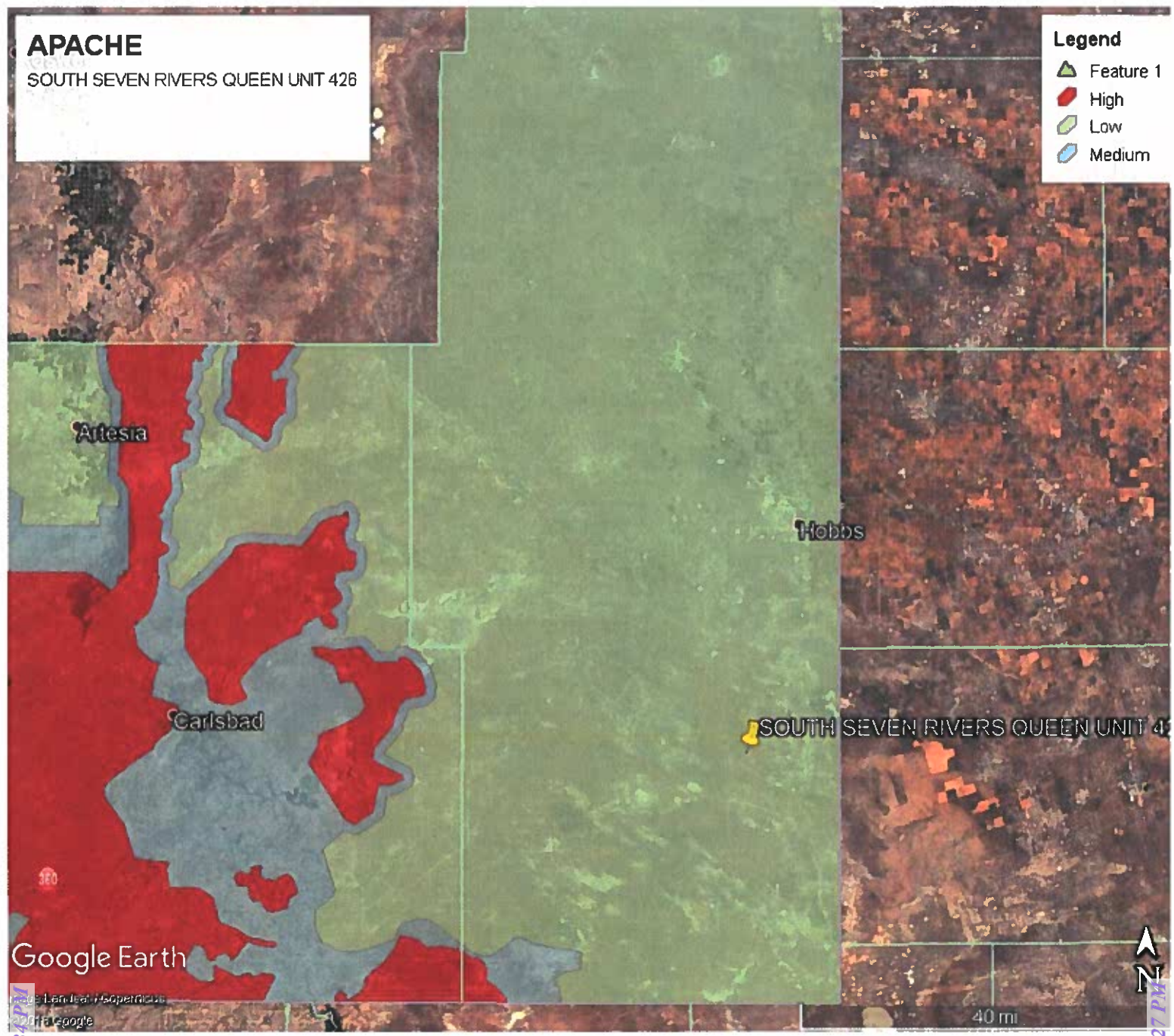
Water Bearing Stratifications:	Top	Bottom	Description
	35	55	Limestone/Dolomite/Chalk

Casing Perforations:	Top	Bottom
	30	50
	105	125

The data is furnished by the NMOSE/ISC and is accepted by the recipient with the expressed understanding that the OSE/ISC make no warranties, expressed or implied, concerning the accuracy, completeness, reliability, usability, or suitability for any particular purpose of the data.

10/18/19 8:14 AM

POINT OF DIVERSION SUMMARY



10/23/09

**ARDINAL
LABORATORIES**

PHONE (575) 393-2328 • 101 E. MARLAND • HOBBS, NM 88240

April 13, 2010

Natalie Gladden
Apache Corporation
P.O. Box 1849
Eunice, NM 88231

Re: SE7RQU #426 (1)

Enclosed are the results of analyses for sample number H19636, received by the laboratory on 04/09/10 at 2:15 pm.

Cardinal Laboratories is accredited through Texas NELAP for:

Method SW-846 8021	Benzene, Toluene, Ethyl Benzene, and Total Xylenes
Method SW-846 8260	Benzene, Toluene, Ethyl Benzene, and Total Xylenes
Method TX 1005	Total Petroleum Hydrocarbons

Certificate number T104704398-08-TX. Accreditation applies to solid and chemical materials and non-potable water matrices.

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 524.2	Regulated VOCs (V2, V3)

Accreditation applies to public drinking water matrices.

Total Number of Pages of Report: 3 (includes Chain of Custody)

Sincerely,

Celey D. Keene
Laboratory Director

This report conforms with NELAP requirements.



ARDINAL LABORATORIES

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

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

Receiving Date: 04/09/10
Reporting Date: 04/12/10
Project Owner: NOT GIVEN
Project Name: SE7RQU #426 (1)
Project Location: NOT GIVEN

Analysis Date: 04/12/10
Sampling Date: 03/20/10
Sample Type: SOIL
Sample Condition: INTACT @ 13°C
Sample Received By: AB
Analyzed By: HM

LAB NUMBER	SAMPLE ID	Cr (mg/kg)
H19836-1	SP1	580
H19836-2	SP2	< 16
H19836-3	SP3	18
H19836-4	SP4	< 16
H19836-5	SP5	544
Quality Control		500
True Value QC		500
% Recovery		100
Relative Percent Difference		< 0.1

METHOD: Standard Methods

4500-CI® B

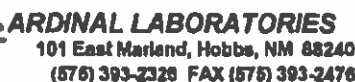
Note: Analyses performed on 1:4 w:v aqueous extracts.

Chap. Keene
Chemist

04/13/10
Date

H19838 APACHE

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of services hereunder by Cardinal, regardless of whether such claim is based upon any of the above-stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

[illegible]

FORM-008
Revision 1.0

† Cardinal cannot accept verbal changes. Please fax written changes to 476-393-3476

**ARDINAL
LABORATORIES**

PHONE (575) 393-2328 • 101 E. MARLAND • HOBBS, NM 88240

April 14, 2010

Natalie Gladden
Apache Corporation
P.O. Box 1849
Eunice, NM 88231

Re: SE7RQU #426 (2)

Enclosed are the results of analyses for sample number H19637, received by the laboratory on 04/09/10 at 2:15 pm.

Cardinal Laboratories is accredited through Texas NELAP for:

Method SW-846 8021	Benzene, Toluene, Ethyl Benzene, and Total Xylenes
Method SW-846 8260	Benzene, Toluene, Ethyl Benzene, and Total Xylenes
Method TX 1005	Total Petroleum Hydrocarbons

Certificate number T104704398-08-TX. Accreditation applies to solid and chemical materials and non-potable water matrices.

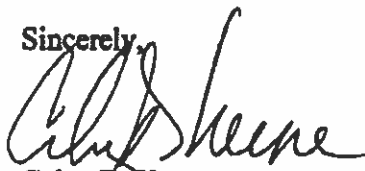
Cardinal Laboratories is accredited through the State of Colorado Department of Public Health and Environment for:

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

Accreditation applies to public drinking water matrices.

Total Number of Pages of Report: 3 (includes Chain of Custody)

Sincerely,



Celey D. Keene
Laboratory Director

This report conforms with NELAP requirements.



ARDINAL LABORATORIES

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

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

Receiving Date: 04/09/10
Reporting Date: 04/13/10
Project Owner: NOT GIVEN
Project Name: SE7RQU #426 (2)
Project Location: NOT GIVEN

Analysis Date: 04/12/10
Sampling Date: 04/01/10 & 04/02/10
Sample Type: SOIL
Sample Condition: INTACT @ 13°C
Sample Received By: AB
Analyzed By: HM

LAB NUMBER	SAMPLE ID	Cr (mg/kg)
H19637-1	SP1	< 16
H19637-2	SP2	16
H19637-3	SP3	< 16
H19637-4	SP4	16
H19637-5	SP5	< 16
H19637-6	SP6	< 16
H19637-7	SP7	16
H19637-8	SP8	< 16
Quality Control		500
True Value QC		500
% Recovery		100
Relative Percent Difference		< 0.1

METHOD: Standard Methods

4500-CIB

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

Chad. Keene
Chemist

Date 04/14/10

H19037 APACHE

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 analysis. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of services hereunder by Cardinal, regardless of whether such claim is based upon any of the above-stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.



CARDINAL LABORATORIES
101 East Marland, Hobbs, NM 88240
(575) 393-2326 FAX (575) 393-2476

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

Company Name: APACHE CORPORATION				ANALYSIS REQUEST			
Project Manager: NATALIE GLADDEN				P.O. #:			
Address: P.O. BOX 1840				Company:			
City: EUNICE St: NM Zip #:				Attn:			
Phone #: 575-393-4188 Fax #:				Address:			
Project #: Project Owner:				City:			
Project Name: SETROU #428 (2)				State: Zip:			
Project Location:				Phone #:			
Sampler Name: NATALIE GLADDEN				Fax #:			

Lab I.D.	Sample I.D.	CONTAINER	MATRIX							PRESERV	SAMPLING		REMARKS	
			GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER	ACID/BASE		ICE / COOL	OTHER		DATE
419637-1	SP1				X							4/1	430PM	
-2	SP2				X							4/1	441PM	
-3	SP3				X							4/1	508PM	
-4	SP4				X							4/1	547PM	
-5	SP5				X							4/1	6PM	
-6	SP6				X							4/1	820PM	
-7	SP7				X							4/2	7AM	
-8	SP8				X							4/2	730AM	

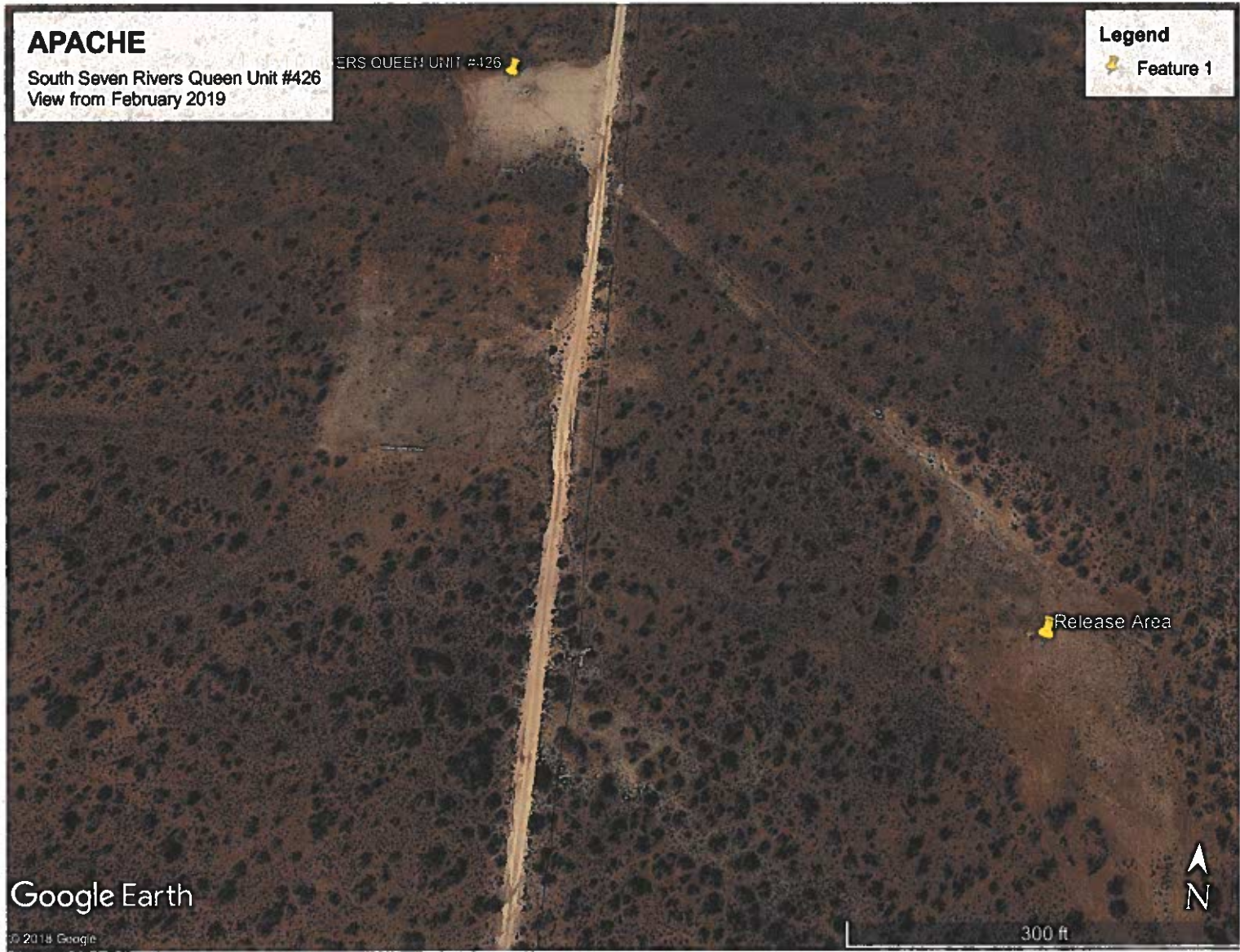
WARRANTY: Liability and Damages: Cardinal's liability shall be limited to the amount paid by the client for the analysis. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within 30 days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including without limitation, business interruptions, loss of 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 causes of liability.

Relinquished By: NATALIE GLADDEN	Date: 4/9/2010 Time:	Received By:	Phone Result: <input type="checkbox"/> Yes <input type="checkbox"/> No Add'l Phone #:
Relinquished By: <i>Natalie Gladden</i>	Date: 4/9/10 Time: 2:15p	Received By: <i>CB</i>	Fax Result: <input type="checkbox"/> Yes <input type="checkbox"/> No Add'l Fax #:
Delivered By: (circle One) Sampler - UPS - Bus - Other:	Sample Condition: Cool <input type="checkbox"/> Intact <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Yes <input type="checkbox"/> No	CHECKED BY: (Initials) <i>CB</i>	REMARKS: EMAIL TO natalie.gladden@apachecorp.com

FORM-008
Revision 1.0

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





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Phone:(505) 334-6178 Fax:(505) 334-6170
District IV
1220 S. St Francis Dr., Santa Fe, NM 87505
Phone:(505) 476-3470 Fax:(505) 476-3462

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

CONDITIONS

Action 2011

CONDITIONS

Operator: APACHE CORPORATION 303 Veterans Airpark Ln Midland, TX 79705	OGRID: 873
	Action Number: 2011
	Action Type: [C-141] Release Corrective Action (C-141)

CONDITIONS

Created By	Condition	Condition Date
bbillings	None	7/8/2021