RXSOIL

January 14, 2020

NMOCD District 2 811 S. First St.

Artesia, NM 88210

Re: Remediation Plan Apache Corporation Geronimo 28 State SWD #002 – 2RP-5705

RXSoil, Inc. is pleased to submit the remediation plan for the on-site remediation of impacted soil for the above release in Eddy County, New Mexico.

Sincerely,

Jace Caraway Chief Operating Officer RXSoil, Inc. (940) 210-2051

Kllin. inh

Zach Robbins Technical and Engineering Analyst RXSoil, Inc. (210) 400-7645

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I. Introduction

On behalf of Apache Corporation ("Apache"), RXSoil, Inc. ("RXSoil") has prepared this work plan that describes remediation of the release of produced water at the Geronimo 29 State SWD #002.

The release was discovered on 10/11/2019 in Unit Letter I, Section 28, Township 17S, Range 28E (see *Figure 1* for Vicinity Map) at approximate coordinates 32.80259, -104.17446. It was reported that 129 barrels of produced water were released, and 30 barrels of produced water were recovered during the initial response.

II. Site Assessment/Characterization

- 1. Site Map See Figure 2
- 2. Depth to ground water USGS 324855104093101 is the nearest water well with data in the past 25 years (listed in *Appendix A*) and has a reported depth to water of 78' below ground surface or 3,500' above NVGD29 with a land surface altitude of 3,578', recorded in January of 1999. The site of the release has a land surface altitude of 3,682' which would be a groundwater depth of 182'. Nearby well USGS 324724104082301 also has a listed depth to groundwater from 1994 of 257.9'. This work plan is proposing to adhere to closure criteria for depth to groundwater of >100'.
- 3. Wellhead protection area There are no known active water sources within a half mile of the release (see *Figure 3*).
- 4. **Distance to nearest significant watercourse** There is no significant watercourse within a half-mile of any horizontal boundary of the release (see *Figure 4*).
- 5. Soil/waste characteristics An initial delineation was completed on November 14, 2019 by Apache. Sample points are shown in *Figure 2* with results summarized in *Appendix B*. Lab data is displayed in *Appendix* C. All samples tested well below regulatory limits for TPH, BTEX and Benzene. Horizontal excavation will consist of sampling sidewalls (composites representing <200 square feet) to verify each wall is below thresholds listed in NMAC 19.15.29.13.D.1 (600 mg/kg chloride). Vertical delineation will continue throughout the spill area to clean material per Table I. Excavation will be guided by field data.</p>

III. Remediation Plan

The delineation points can be seen in *Figure 2* with results in *Appendix B*. As stated in **Section II**, further delineation will be conducted throughout excavation.

RXSoil's core process of on-site remediation will be used to address the contamination. RXSoil will supervise all excavation with approval from area utilities owners via NM 811.

RXSoil will construct an above-ground treatment cell adjacent to the contaminated area (final location will be determined prior to project commencement). Berms will be placed around the perimeter of the cell area. A 20-mil reinforced poly liner will be placed on the surface and up the sides of the berms

to contain treatment. A proprietary drainage and collection system will be installed prior to filling the cells with the estimated 2,800 cubic yards of contaminated soils. All excavation will be done with proper approvals and supervision from appropriate owners.

Once all contaminated material is in the treatment cell, chemical and biological treatment will begin. To confirm successful treatment, a grid of confirmation samples will be gathered at depth 36"-48" with one sample representing no more than 100 cubic yards. All samples will be field screened using Quantab Chloride Test Strips. If a sample tests above threshold, treatment will continue in that area until the soil tests clean, per strictest Table I guidelines for impacted soils. At least 50% of total samples will be transferred on ice to a third-party lab for confirmation testing using NMOCD approved testing methods. The 50% chosen will contain an approximately even distribution of the lowest, middle and highest contaminated samples based on field testing data. As all delineation samples tested below all thresholds for TPH and BTEX, RXSoil is requesting monitoring chlorides only for the remediation.

Sidewall and bottom samples will be taken using a stainless-steel hand shovel while remediation samples will be taken using a stainless-steel bucket auger. All tools are to be decontaminated before each sample, as specified in *Field Equipment Cleaning and Decontamination* (EPA, 2015). This includes wiping the equipment clean, water-rinsing the equipment, washing the equipment in detergent and water, and rinsing the equipment in water.

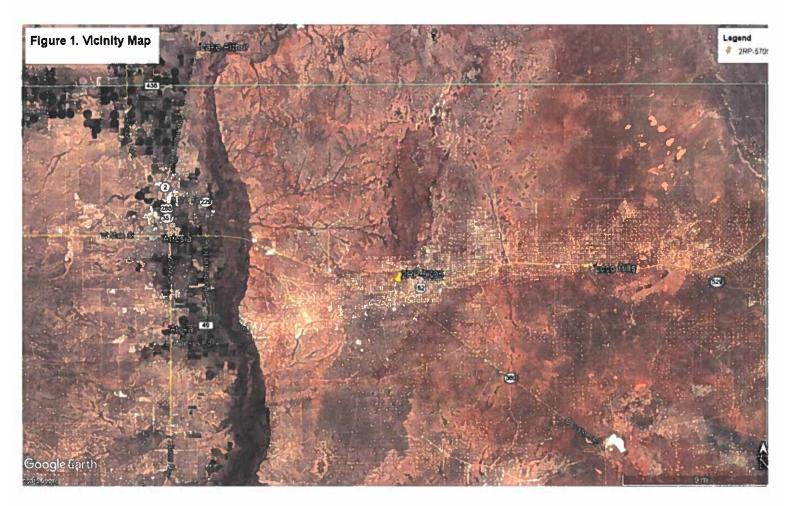
Samples will temporarily be transferred to a new plastic bag in the field. Once in a location safer for handling glass, the samples will be transferred to glass jars, supplied by an approved laboratory. The threads on all jars will be wiped clean to allow an air-tight seal. Samples will be transferred on ice to a third-party laboratory to ensure tests are completed within 28 days (as recommended for EPA methods 4500).

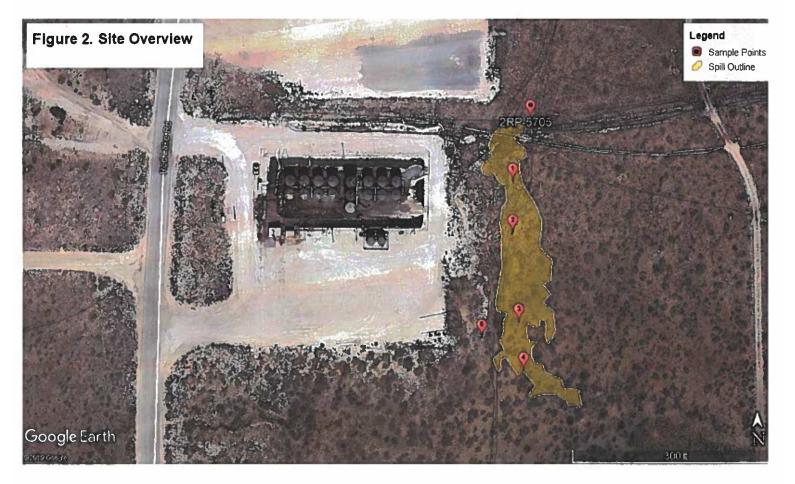
Remediation efforts will commence following the approval of this remediation plan and is estimated to take approximately 30 days.

IV. Restoration, Reclamation and Re-Vegetation

Following remediation, RXSoil will drill in seed at the discretion of the appropriate surface owners (SLO). RXSoil will continue to monitor this area to ensure growth.

4





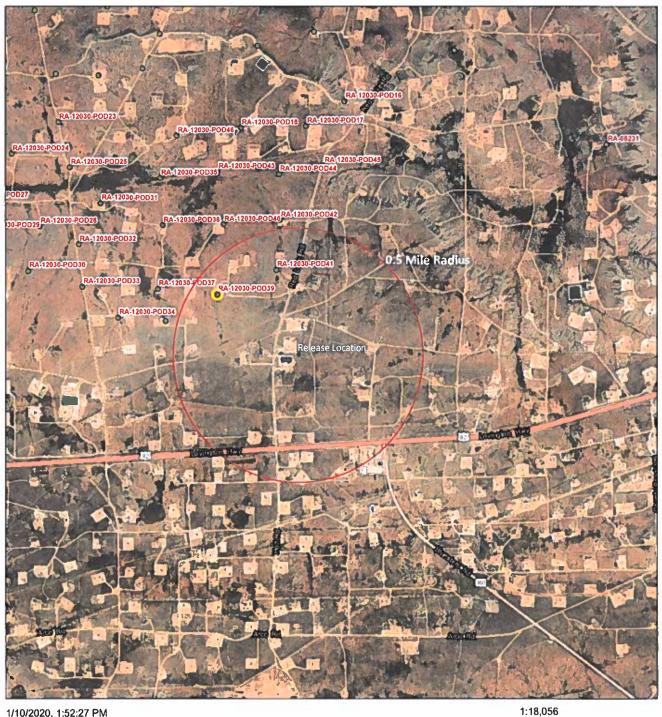


Figure 3 - Point of Diversion Map

1/10/2020, 1:52:27 PM						
OSE District Boundary						
GIS WATERS PODs						

Pending

Esri, HERE, Garmin, (c) OpenStreetMap contributors, Esri, HERE, Garmin, (c) OpenStreetMap contributors, and the GIS user community, Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and

0.35

0.55

0.7 mi

1.1 km

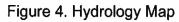
0,17

0.28

0

0

Printed from Public Web Map Unofficial Map from QSE POD Locations Web Application





New Mexico Oil Conservation Drivsion New Mexico Oil Conservation Drivsion

NM OCD Oil and Gas Map. http://mmemord.maps.a модна

APPENDIX A

NEAREST WATER WELL DATA

RXSoil, Inc. 201 Main St. Ste. 1360, Fort Worth, TX 76102 1/10/2020



USGS Groundwater for USA. Water Levels - 1 sites

USGS Home Contact USGS Search USGS

National Water Information System: Web Interface

USGS Water Resources	Data Category:	Geographic Area:	
	Groundwater 🔻	United States	GO

Click to hideNews Bulletins

- Introducing The Next Generation of USGS Water Data for the Nation
- Full News 🔊

Groundwater levels for the Nation

Search Results -- 1 sites found

site_no list =

• 324855104093101

Minimum number of levels = 1

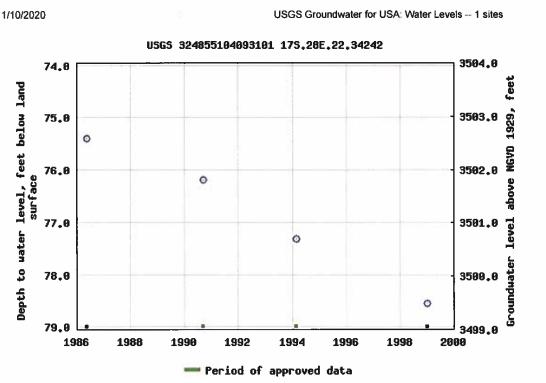
Save file of selected sites to local disk for future upload

USGS 324855104093101 17S.28E.22.34242

Available data for this site Groundwater: Field measurements V GO

Eddy County, New Mexico Hydrologic Unit Code 13060011 Latitude 32°48'55", Longitude 104°09'31" NAD27 Land-surface elevation 3,578 feet above NGVD29 The depth of the well is 95.00 feet below land surface. This well is completed in the Alluvium, Bolson Deposits and Other Surface Deposits (110AVMB) local aquifer. **Output formats**

Table of data	
Tab-separated data	
Graph of data	
Reselect period	



Breaks in the plot represent a gap of at least one year between field measurements. Download a presentation-quality graph

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U.S. Department of the Interior | U.S. Geological Survey

USA.gov

Title: Groundwater for USA: Water Levels URL: https://nwis.waterdata.usgs.gov/nwis/gwlevels?

Page Contact Information: USGS Water Data Support Team Page Last Modified: 2020-01-10 15:31:05 EST 0.92 0.5 nadww02

APPENDIX B

DELINEATION SUMMARY TABLE

RXSoil, Inc. 201 Main St. Ste. 1360, Fort Worth, TX 76102

Appendix B Delineation Data													
Sample	Denth 144	Sample Date	Chlo			BTEX (8021B)				TPH (8015M)			
Point	Depth (ft)	Sample Date	Field Test	Lab Test	Benzene	Toluene	Ethylbenzene	Total Xylenes	Total BTEX	GRO	DRO	EXT DRO	C6-C35
1	S	11/14/2019	-	12,000	< 0.050	<0.050	<0.050	<0.150	<0.300	<10.0	94.2	19.4	113.6
262231	1		11,609	-	-	-	-	-	-		•	•	· ·
	2		7,975	-	-	•	-	-	-	•	•	•	· ·
2	3		8,105	-	-	-	•	-	-	•	•	•	· ·
	4	· · · · · · · · · · · · · · · · · · ·	-	10,100	< 0.050	<0.050	<0.050	<0.150	< 0.300	<10.0	<10.0	<10.0	<30
2	S	11/14/2019		13,200	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<30
	1		•	-	-	-	-	-	-	-	-	•	-
1	2		14,894	-	-	-	-	•	-	-	-	•	-
	3		-	-	-	-	-	-	-	-	-	-	-
·	4			14,400	<0.050	<0.050	< 0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<30
3	5	11/14/2019		16,800	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<30
	1		1.5	-	•	-	-	•		-	-	-	-
	2		9,498	-	•	-	-	-	-	-	-	-	-
	3			-	•	-	-	-	-	-	-	-	-
	4		-	5,840	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<30
4	S	11/14/2019		17,200	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<30
I	1			~	-	-	-	-	-	-	-	•	-
I	2		2,886		-	•	-	-	-	-	-	•	-
	3			57	-	-	-	-	-	-		•	
	4			224	< 0.050	<0.050		<0.150	<0.300	<10.0	<10.0	<10.0	<30
5	S	11/14/2019		96	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<30
I	1			-	-	-	-	-	-	-	-	•	-
1	2		190		· ·	-	-	-	-	-	-	-	•
1	3		· ·		· · · ·	-				-	-		
	4			80	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<30
	Thresholds	and the state of the	20,000 (600	for top 4'	10	S	2. T 3.		50				2,500

BOLD results indicate results above threshold

- indicates tests were not ran All units in mg/kg unless otherwise noted

APPENDIX C

LABORATORY REPORTS

RXSoil, Inc. 201 Main St. Ste. 1360, Fort Worth, TX 76102



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

November 19, 2019 BRUCE BAKER APACHE CORP - HOBBS 2350 W. MARLAND BLVD. HOBBS, NM 88240

RE: GERONIMO STATE #2 SWD

Enclosed are the results of analyses for samples received by the laboratory on 11/14/19 15:26.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-19-12. 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 <u>www.tceq.texas.gov/field/ga/lab_accred_certif.html</u>.

Cardinal Laboratories is accreditated 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,

Celeg Li Kuna

Celey D. Keene Lab Director/Quality Manager

Page 1 of 8



PHONE (575) 393-2326 * 101 E. MARLAND * HOBBS, NH 88240

Analytical Results For:

APACHE CORP - HOBBS BRUCE BAKER 2350 W. MARLAND BLVD. HOBBS NM, 88240 Fax To: (575) 393-2432

Received:	11/14/2019	Sampling Date:	11/14/2019
Reported:	11/19/2019	Sampling Type:	Soil
Project Name:	GERONIMO STATE #2 SWD	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	NONE GIVEN		

Sample ID: SP 1 @ SURFACE (H903877-01)

mg/kg **BTEX 80218** Analyzed By: MS Analyte Result Reporting Limit Analyzed Method Blank BS % Recovery True Value QC RPD Qualifier < 0.050 0.050 11/16/2019 1.71 85.6 2.00 6.30 Benzene* ND Toluene* <0.050 0.050 11/16/2019 ND 1.71 85.3 2.00 6.39 Ethylbenzene* <0.050 0.050 11/16/2019 ND 1.72 86.2 2.00 6.22 11/16/2019 Total Xylenes* 0.150 ND 5.19 86.5 6.00 <0.150 6.39 Total BTEX < 0.300 0.300 11/16/2019 ND

73.3-129

Surrogate: 4-Bromofluorobenzene (PIE 99.7 %

Chloride, SH4500CI-8 mg/kg Analyzed By: AC Analyte Result Reporting Limit Analyzed Method Blank BS % Recovery True Value QC RPD Qualifier Chloride 12000 11/19/2019 ND 400 16.0 416 104 3.77 Analyzed By: MS TPH 8015M mg/kg Analyte Result Reporting Limit Analyzed Method Blank 8S % Recovery True Value QC RPD Qualifier 107 GRO C6-C10* <10.0 10.0 11/16/2019 ND 214 200 1.12 DRO >C10-C28* 11/16/2019 ND 94.2 10.0 217 109 200 0.635 10.0 11/16/2019 EXT DR0 >C28-C36 ND 19.4 116% 41-142 Surrogate: I-Chlorooctane Surrogate: I-Chlorooctadecane 130 % 37.6-147

Cardinal Laboratories

*=Accredited Analyte

REASE NOTE Ubbility and Gamages. Cardinal's Babatty and clears's sockaster remeatly for any clean attainty, whether beend in contract or bort, shell be lanked to the surrount, seed by cleant for analyses. All clearst, moluling these for negligence and say etter cluase whetpene shell be deamed waterial values and is in writing and received by Cardinal the Cardinal deamopes, including, when a final social clean attained and and a second and profiles including. Influence or successors aritimp cut of an registrability and clearst by Cardinal by clearst and antistration is based on any of the above stated neurone and attained and and the superference of the spin-related by the performance of the spin-related by Cardinal by Cardinal, regardless of whether such claim is based on any of the above stated neurones and attaines and attaines and the service stated claims and attaines and the services.

Certary " Ariana

Celey D. Keene, Lab Director/Quality Manager

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Laboratories

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

Analytical Results For:

APACHE CORP - HOBBS BRUCE BAKER 2350 W. MARLAND BLVD. HOBBS NM, 88240 (575) 393-2432 Fax To:

Received: 11/14/201	9	Sampling Date:	11/14/2019
Reported: 11/19/201	9	Sampling Type:	Soil
Project Name: GERONIM	O STATE #2 SWD	Sampling Condition:	Cool & Intact
Project Number: NONE GIV	EN	Sample Received By:	Tamara Oldaker
Project Location: NONE GIV	EN		

Sample ID: SP 2 @ SURFACE (H903877-02)

BTEX 80218 mg/kg Analyzed By: MS Analyte Result **Reporting Limit** Analyzed Method Blank BS % Recovery True Value QC RPD Qualifier < 0.050 0.050 11/16/2019 ND 1.71 85.6 2.00 6.30 Benzene* Toluene* < 0.050 0.050 11/16/2019 ND 1.71 85.3 2.00 6.39 <0.050 0.050 11/16/2019 ND 1.72 86.2 2.00 6.22 Ethylbenzene* Total Xylenes* <0.150 0.150 11/16/2019 ND 5.19 86.5 6.00 6.39 Total BTEX < 0.300 0.300 11/16/2019 ND

Surrogate: 4-Bromofluorobenzene (PIC 100 % 73.3-129 Analyzed By: AC

Chloride, SM4500Cl-B	mg;	/kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	85	% Recovery	True Value QC	RPD	Qualifier
Chloride	13200	16.0	11/19/2019	ND	416	104	400	3.77	
TPH 8015M	mg,	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	11/16/2019	ND	214	107	200	1.12	
DRO >C10-C28*	<10.0	10.0	11/16/2019	ND	217	109	200	0.635	
EXT DRO >C28-C36	<10.0	10.0	11/16/2019	ND					
Surrogate: 1-Chlorooctane	119	% 41-142							
Surrogate, 1 Chlorooctadecane	127	% 37 6-14	7						

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*=Accredited Analyte

PEASE NOTE Underly and Damages. Cardinal's bability and clean's cactures represent for any clean artisting, whother based in contract or text, shall be leated to the semant paid by clean artisting. A cleaned are consequented damages, including, whother based for anythere are made to the setting and regardless service. In an event shall be determined whother based or consequented damages, including, whothere based in strategies are secured and the setting setting and received shall be determined by clean and any other based of the setting and received and received setting and received setting and received setting and received setting and received and received setting and received and received

Carton Victoria

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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

Analytical Results For:

APACHE CORP - HOBBS 8RUCE BAKER 2350 W. MARLAND BLVD. HOBBS NM, 88240 Fax To: (575) 393-2432

Received:	11/14/2019	Sampling Date:	11/14/2019
Reported:	11/19/2019	Sampling Type:	Soil
Project Name:	GERONIMO STATE #2 SWD	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	NONE GIVEN		

Sample ID: SP 3 @ SURFACE (H903877-03)

STEX 8021B mg/kg Analyzed By: MS Analyte Result **Reporting Limit** Analyzed Method Blank BS % Recovery **True Value QC** RPD Qualifier < 0.050 0.050 11/16/2019 1.71 2.00 Benzene* ND 85.6 6.30 Toluene* <0.050 0.050 11/16/2019 ND 1.71 85.3 2.00 6.39 <0.050 0.050 11/16/2019 Ethylbenzene* ND 1.72 86.2 2.00 6.22 Total Xylenes* < 0.150 0.150 11/16/2019 ND 5.19 86.5 6.00 6.39 Total BTEX 0.300 11/16/2019 < 0.300 ND

73.3-129

Surrogate: 4-Bromofluorobenzene (PIE 99.1 %

Chloride, SM4500CI-8 mg/kg Analyzed By: AC Reporting Limit Analyzed Method Blank **6**S % Recovery True Value OC RPD Analyte Result Qualifier Chloride 16800 16.0 11/19/2019 ND 416 104 400 3.77 TPH 8015M mg/kg Analyzed By: MS Reporting Limit Analyzed Method Blank Analyte Result BS. % Recovery True Value QC RPD Qualifier GRO C6-C10* <10.0 10.0 11/16/2019 ND 214 107 200 1.12 DRO >C10-C28* <10.0 10.0 11/16/2019 ND 217 109 200 0.635 EXT DRO >C28-C36 <10.0 10.0 11/16/2019 ND Surrogate: 1 Chlorooctane 118 % 41-142 Surrogate. I-Chlorooctadecane 126 % 37.6-147

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Celey D. Keene, Lab Director/Quality Manager

Page 4 of 8

Laboratories

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

Analytical Results For:

APACHE CORP - HOBBS BRUCE BAKER 2350 W. MARLAND BLVD. HOBBS NM, 88240 (575) 393-2432 Fax To:

Received:	11/14/2019	Sampling Date:	11/14/2019
Reported:	11/19/2019	Sampling Type:	Soil
Project Name:	GERONIMO STATE #2 SWD	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	NONE GIVEN		
Project Location:	NONE GLAEN		

Sample ID: SP 4 @ SURFACE (H903877-04)

BTEX 80218	mg,	/kg	Analyze	d By: MS		0201000000			
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	11/16/2019	ND	1.71	85.6	2.00	6.30	
Toluene*	<0.050	0.050	11/16/2019	ND	1.71	85.3	2.00	6.39	
Ethylbenzene*	<0.050	0.050	11/16/2019	ND	1.72	86.2	2.00	6.22	
Total Xylenes*	<0.150	0.150	11/16/2019	ND	5.19	86.5	6.00	6.39	
Total BTEX	<0.300	0,300	11/16/2019	ND					

73.3-129

Surrogate: 4-Bromofluorobenzene (PIL 100 %

Chioride, SM4500CI-B	mg/	kg	Analyze	d 8y: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	85	% Recovery	True Value QC	RPD	Qualifier
Chloride	17200	16.0	11/19/2019	ND	416	104	400	3.77	
TPH 8015M	mg/kg			Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	85	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	11/16/2019	ND	214	107	200	1.12	
DR0 >C10-C28*	<10.0	10.0	1 1/16/2019	ND	217	109	200	0.635	
EXT DRO >C28-C36	<10.0	10.0	11/16/2019	ND					
Surrogate. 1-Chlorooctane	116 %	% 41-142							
Surrogate. 1-Chlorooctadecane	123 9	6 37 6-14	7						

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REBASE INSTIC Liabelity and Damages. Cardinal's fability and chora's cardeaine network for any class setters, any other cause relationers shall be deemed real-card evides shade in verting and received by Condition works including, where is brighter, business interruptions, less of use, or test of profile evidence by class, 45 subst dates to basis upon any of the above stated means or otherwise. Reals reduce only a compariso testimation. This regroup ng those I er cei ee for n ial da In ne o Wirty (30) days after i er dukou plation of the applicable service. In n among out of as related to the perform days of updates lite.

Certag ? Ariana

Celey D. Keene, Lab Director/Quality Manager

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

Analytical Results For:

APACHE CORP - HOBBS BRUCE BAKER 2350 W. MARLAND BLVD. HOBBS NM, 88240 Fax To: (575) 393-2432

Received:	11/14/2019	Sampling Date:	11/14/2019
Reported:	11/19/2019	Sampling Type:	Soil
Project Name:	GERONIMO STATE #2 SWD	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	NONE GIVEN		

Sample ID: SP 5 @ SURFACE (H903877-05)

BTEX 80218	ាទ្យ	Kg .	Analyza	ia by: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	11/16/2019	ND	1.71	85.6	2.00	6.30	
Toluene*	<0.050	0.050	11/16/2019	ND	1.71	85.3	2.00	6.39	
Ethylbenzene*	<0.050	0.050	11/16/2019	ND	1.72	86.2	2.00	6.22	
Total Xylenes*	<0.150	0.150	11/16/2019	ND	5.19	86.5	6.00	6.39	
Total BTEX	<0.300	0.300	11/16/2019	ND					

73.3-129

.....

Surrogate: 4-Bromofluorobenzene (PIE 101 %

Chioride, SM4309Ci-8	mg;	/kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	96.0	16.0	11/19/2019	ND	416	104	400	3.77	
TPH 8015M	015M mg/kg			Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	11/16/2019	ND	214	107	200	1.12	
DRO >C10-C28*	<10.0	10.0	11/16/2019	ND	217	109	200	0.635	
EXT DRO >C28-C36	<10.0	10.0	11/16/2019	ND					
Surrogate: 1-Chlorooctane	110	% 41-142)						
Surrogate: 1-Chlorooctadecane	116								

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*=Accredited Analyte

Page 6 of 8

PLEASE MOTE: Unlably and Damages. Candhal's Robby and cleark's exclusive remarky for any claim arteng, whether based in contract o pay ather cause vehiclonver shall be deamed webed unless mode in writing and received by Cardinal within Daily (30) days after on including, wohest Britzlion, business interruptions, loss of use, or less of parits incurred by clauk, ds subsidieries, afflictos or succession dares is based upon any of the above stated resome or otherwise. Republic relate only to the services letrafied above. This report shall not be republicated encopt in e for m . N 60 relation of the applicable service. In no eve arong out of or related to the performance shafi Cardinal be for in the Car iai da محمد الأحماد

Colleg I theran

Celey D. Keene, Lab Director/Quality Manager

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

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 SM4500CI-8 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

PLASE NOTE: Labelity and Genages. Contrain's Boblity and client's socialities rearredy for any claim unlang, whether based in clientest or test, shall be liveling to the ansare paid by client for analyses. All clients, including these for repliquence and any other cause vehiculate whether shall be deemed vehiced unlass made is included by Cardinal help (20) days after completion of the applicable service. In no event, shall Cardinal Cardinal be fielder for inclusional or convergenced damages, including, whether finances increased reproduces to an applicable service, and an event shall be been for inclusional or convergenced damages, including, whether finances increased reproduces to an applicable service, but does not an event shall be fielder for inclusional or convergenced damages, including, whether finances increased reproduces from any or and and profile increase by client, data shalldering, affects or successors areany even of an industry of the source stated reasons or otherwise. Results industry the samples to the live of a shall be to be performance of the services between by Cardinal, regardless of information of claim is based upon any of the above stated reasons or otherwise. Results industry to the samples to the live of an information of claims and states are applied by the source stated reasons or otherwise. Results industry to the samples to the source of the services between the samples to the source of the services between the samples to the source of the source stated reasons or otherwise.

Callery 2 trance

Celey D. Keene, Lab Director/Quality Manager

-+	Delivered By: (Circle One) Observed Temp. *C 2.32 Sample Condition Sampler - UPS - Bus - Other: Corrected Temp. *C 2.7 Cool Intact	11/14/14 Time: 3:25	analyses AI dears including these for regigneric and any dimensional shall be dearned where unless made in writing and retained by Carolina work 30 days aster completions of the applicable survey. In one work and Carolina is likely to recompute or companyerial drivings whole knowing whole knows, two is use of test of poets manned by dama, is provided. alliants or uncersion setting out of or related to be preformance of servers horizoned impactes of dama is based upon any of the above stand resources and alliants or uncersion setting out of or related to be preformance of servers horizoned impactes of dama is based upon any of the above stand resources of otherwise. The control of the servers of the control of the preformance of servers horizoned impactes of dama is based upon any of the above stand resources to otherwise. Reconstructions have Table: // Reconstructed BV:	Stes ersuntere	4 SP4 @ Surher	3 SP3 @ Surface	25Pà O Surface	(G)F # CC GRC WAS SOIL OIL SLU	DGE		Sampler Name: JEFF Brunn	science State #2 540	: Project Owner:	City: State: Cip:	ess:	Project Manager: ' Grune Beckel	LARUSE Carportions	101 East Marland, Hobbs, NM 88240 (575) 393-2326 FAX (575) 393-2476	Laboratories	
Cardinal cannot accept verbal changes. Please email changes to celey.keene@cardinallabsnm.com	on CHECKED BY: Turnaround Time: Standard & Bacteria (only) Sample Condition (Initials) Thermometer ID #37 Cool Intact Observed Temp. *C Correction Factor + 0.4 *C No No Corrected Temp. *C	emailed. Please provi	rade is writing and real-and in Gamma within 30 days after completion of the aparticuble area writingsivers, hop of use of posts re-arend by claims, as supported. writer such claim is bailed upon any of the above stand reasons of bolon-wide. I Veribal Result: 📋 Yes 🔲 No. Add'I Phone #:		12:69	1. C. D.	3 ² 65	ICE DATE TIME TIME	D/BASE	PRESERV	Phone #:	State: Zip:	City:		Company:	P.O. #:	BILL TO ANALYSIS REQUEST		CHAIN-OF-CUSTODY AND ANALYSIS REQUEST	

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END OF REPORT

RXSoil, Inc. 201 Main St. Ste. 1360, Fort Worth, TX 76102

Form C-141	State of New Mexico						
Portin C-141 Page 3		Incident ID					
	Oil Conservation Division	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?	(ft bgs)
Did this release impact groundwater or surface water?	🗌 Yes 🗹 No
Are the lateral extents of the release within 300 feet of a continuously flowing watercourse or any other significant watercourse?	Yes 🗹 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)?	🗌 Yes 🗹 No
Are the lateral extents of the release within 300 feet of an occupied permanent residence, school, hospital, institution, or church?	🗌 Yes 🗹 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?	🗋 Yes 🗹 No
Are the lateral extents of the release within 1000 feet of any other fresh water well or spring?	Yes No
Are the lateral extents of the release within incorporated municipal boundaries or within a defined municipal fresh water well field?	🗋 Yes 🗹 No
Are the lateral extents of the release within 300 feet of a wetland?	🗋 Yes 🗹 No
Are the lateral extents of the release overlying a subsurface mine?	🗌 Yes 🗹 No
Are the lateral extents of the release overlying an unstable area such as karst geology?	Yes 🗹 No
Are the lateral extents of the release within a 100-year floodplain?	Yes 🗹 No
Did the release impact areas not on an exploration, development, production, or storage site?	Yes 🗌 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.

Data table of soil contaminant concentration data

Depth to water determination

Determination of water sources and significant watercourses within 1/2-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 1 of 19.15.29.12 NMAC, however, use of the table is modified by site- and release-specific parameters.

Form C-141	State of New Mexico	0 Incident ID
Page 4	Oil Conservation Divis	
-		Facility ID
		Application ID
regulations all operators a public health or the enviro failed to adequately invest addition, OCD acceptance and/or regulations. Printed Name:	re required to report and/or file certain release onment. The acceptance of a C-141 report by tigate and remediate contamination that pose of a C-141 report does not relieve the opera	to the best of my knowledge and understand that pursuant to OCD rules and use notifications and perform corrective actions for releases which may endanger by the OCD does not relieve the operator of liability should their operations have e a threat to groundwater, surface water, human health or the environment. In ator of responsibility for compliance with any other federal, state, or local laws Title: <u>Environmental</u> Tech. SK. Date: <u>1-14-20</u> Telephone: <u>432-631-6982</u>
OCD Only		
Received by:		Date:

P 0141	State of Many Mania	
Form C-141	State of New Mexico	Incident ID
Page 5	Oil Conservation Division	District RP
		Facility ID
		Application ID

Remediation Plan

<u>Remediation Plan Checklist</u> : Each of the following items must be included in the plan.	
Detailed description of proposed remediation technique	
Scaled sitemap with GPS coordinates showing delineation points	
Estimated volume of material to be remediated	
Plosure criteria is to Table 1 specifications subject to 19.15.29.12	
Proposed schedule for remediation (note if remediation plan timeline is more than 90 days OCD approval is required)	
· · · · · ·	
Deferral Requests Only: Each of the following items must be confirmed as part of any request for deferral of remediation.	
Contamination must be in areas immediately under or around production equipment where remediation could cause a major facility deconstruction.	
Extents of contamination must be fully delineated.	
Contamination does not cause an imminent risk to human health, the environment, or groundwater.	
Liberalay contify that the information given above is true and complete to the best of my knowledge and understand that surgeout to OCD	
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 Baher	Date: 1-14-20
Printed Name: Bruce Baker Signature: Bruce Baher email: larry. baker@apachecorp.com	Telephone: 432-631-6982
OCD Only	
Received by:	Date:
Approved Approved with Attached Conditions of A	Approval Denied Deferral Approved
Signature:	Date: