

Deferment Request

October 8, 2019

Re: A State 40 Battery API# 30-015-41130 Case # 2RP-5045

To: Robert Hamlet

New Mexico Oil Conservation Division Energy, Minerals and Natural Resources

Department 811 S. 1st Street Artesia, NM 88210

Background:

On 11/07/2018 a release occurred due to a failure on a poly pipe transition. An initial C-141 was sent to NMOCD and approved on 11/13/2018. The release (GPS 32.80258 -104.14958) is located east of Artesia New Mexico in unit letter K section 26 township 17S range 28E. A groundwater survey of 2000 meters for wells in the area was conducted utilizing the NMOSE and USGS web sites. The only well in that radius shows groundwater to be a depth of 257 feet below ground surface. There is a significant water course noted on the topographic map located 630 feet north of the release location. According to the BLM Karst Map shows that the release is not in an area of Karst. To date the site has been sampled to a depth of 1 foot which could not be extended vertically due to the hardness of the soil below 1 foot. This indicates that the root zone in the area is 1 foot deep. All samples that were collected were submitted to a commercial laboratory for analysis of chlorides, total hydrocarbons, and BTEX. Laboratory results were below table one standards for sites above 100 feet to groundwater.

A remediation plan was submitted to NMOCD and denied on 4/25/2019 due to release was not fully delineated vertically. On 6/5/2019 a vertical was advanced utilizing a rock bar and shovels in the area of the original sample point one to a depth of 3 feet below ground surface. Samples were collected in one foot intervals and submitted to a commercial laboratory for analysis of Chloride, TPH, and BTEX.

Apache Corporation purposes that since the release area is under multiple poly flow lines, and is below the table one standards for releases greater than 100 feet to groundwater. That reclamation to restore vegetation be deferred until the poly lines are removed from service.

Enclosed: Initial C-141, groundwater data, Maps, Laboratory Results, Field Notes, and Photos

Submitted by;

Environmental Technician larry.baker@apachecorp.com

Bruce Baker

Cell# 432-631-6982 Off# 575-393-7106 District 1
1625 N French Dr., Hobbs, NM 88240
District II
811 5 First St., Ariesta, NM 88210
District III
1000 Rto Brazos Road, Aztec, NM 87410
District IV
1220 S St. Francis Dr., Sania Fe., NM 87505

State of New Mexico Energy Minerals and Natural Resources Department

Oil Conservation Division 1220 South St. Francis Dr. Santa Fe, NM 87505 Form C-141
Revised August 24, 2018
Submit to appropriate OCD District office

Incident ID	NAB1831736353
District RP	2RP-5045
Facility ID	
Application ID	pAB1831735840

Release Notification

Responsible Party

Responsible Party Apache Corporation			<u> </u>	OGRID	873
Contact Name Bruce Baker				Contact To	elephone 432-631-6982
Contact email larry.baker@apachecorp.com		Incident #	(assigned b) OCD)		
Contact mail	ing address	2350 W. Marla	nd BLVD Hobbs	, NM 88240	
			Location	of Release S	ource
Latitude	32	.80258	(NAD 83 in dec	Longitude	
Site Name				Site Type	
	A State	40 Battery			1 Oly Water dansier line
Date Release	Discovered	11/07/2018		API# (I) api	plicable) 30-015-41130 nearest well
Unit Letter	Section	Township	Range	Сош	nty
К	26	17S =	28E	ED	DDY
Surface Owner: State Federal Tribal Private (Name. Nature and Volume of Release Material(s) Released (Select all that apply and attach calculations or specific justification for the volumes provided below)					
Crude Oi		Volume Release			Volume Recovered (bbls)
Produced Water Volume Released (bbls) 18 barrels		rels	Volume Recovered (bbls) 8 barrels		
Is the concentration of dissolved chloride produced water >10,000 mg/l?		hloride in the	☐ Yes ☐ No		
Condensate Volume Released (bbls)			Volume Recovered (bbls)		
□ Natural Gas Volume Released (Mcf)			Volume Recovered (Mcf)		
Other (describe) Volume/Weight Released (provide units)		units)	Volume/Weight Recovered (provide units)		
Cause of Release Poly pipe transition failed resulting in the loss of fluid.					

State of New Mexico Oil Conservation Division

Incident ID	NAB1831736353
District RP	2RP-5045
Facility ID	
Application ID	pAB1831735840

Was this a major release as defined by If YES, for what reason(s) does the response as defined by	onsible party consider this a major release?		
19.15.29.7(A) NMAC?			
☐ Yes ☑ No			
If YES, was immediate notice given to the OCD? By whom? To w	dram? When and by tubal means (abone email etc.)?		
17 155, was miniculate notice given to sie OCD. By whom. To w	mont: when and by what means (phone, email, etc).		
Initial F	Response		
The responsible party must undertake the following actions immedial	ely unless they could create a safety hazard that would result in injury		
The source of the release has been stopped.			
The impacted area has been secured to protect human health an	d the environment.		
Released materials have been contained via the use of berms or	dikes, absorbent pads, or other containment devices.		
All free liquids and recoverable materials have been removed a	nd managed appropriately.		
If all the actions described above have not been undertaken, explain	why:		
Per 19.15.29.8 B. (4) NMAC the responsible party may commence remediation immediately after discovery of a release. If remediation has begun, please attach a narrative of actions to date. If remedial efforts have been successfully completed or if the release occurred within a lined containment area (see 19.15.29.11(A)(5)(a) NMAC), please attach all information needed for closure evaluation.			
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 taws and/or regulations.			
Printed Name: Bruce Baker	Title: Environmental Technician SR		
Signature: Bahr	Date: 11/12/18		
email: larry.baker@apachecorp.com	Telephone: 432-631-6982		
OCD Only			
Received by: Malant Intamente	Date: 11/13/2018		

Volume Calculation

30X30X.2=180 cubic feet X 7.48 gallon per cubic foot= 1,346 gallons/42 gallons to barrel=32 barrels X .33 soil porosity= 10 barrels + 8 barrels recovered = 18 barrels lost.

State of New Mexico Oil Conservation Division

What is the shallowest depth to groundwater beneath the area affected by the release?

Incident ID	
District RP	
Facility ID	
Application ID	

257 (ft bgs)

Site Assessment/Characterization

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

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?			
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. 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 Copographic/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.

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 regulations all operators are required to report and/or file certain release not public health or the environment. The acceptance of a C-141 report by the failed to adequately investigate and remediate contamination that pose a thr addition, OCD acceptance of a C-141 report does not relieve the operator of and/or regulations.	ifications and perform corrective actions for releases which may endanger OCD does not relieve the operator of liability should their operations have eat to groundwater, surface water, human health or the environment. In
Printed Name: Bruce Baker Signature: Bruce Baker email: larry, baker Papache corp. com	Title: Environmental Tech SR Date: 2-8-19 Telephone: 432-631-6982
OCD Only Received by:	Date:

State of New Mexico Oil Conservation Division

Incident ID	
District RP	
Facility ID	
Application ID	

Remediation Plan

Remediation Plan Checklist: 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 Closure criteria is to Table 1 specifications subject to 19.15.29.12(C)(4) NMAC 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.			
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: Brua Bahy Date: 2-8-19			
email: larry, baker@apache sorp.com Telephone: 432-631-6982			
OCD Only			
Received by: Date:			
Approved Approved with Attached Conditions of Approval Denied Deferral Approved			
Signature: Date:			

State of New Mexico Oil Conservation Division

Incident ID	
District RP	
Facility ID	
Application ID	

Remediation Plan

Remediation Plan Checklist: Each of the following items must be	e included in the plan.
☐ Detailed description of proposed remediation technique	
Scaled sitemap with GPS coordinates showing delineation poin	ıts
Estimated volume of material to be remediated	
Closure criteria is to Table 1 specifications subject to 19.15.29.	
Proposed schedule for remediation (note if remediation plan tin	neline is more than 90 days OCD approval is required)
Deferral Requests Only: Each of the following items must be con	nfirmed as part of any request for deferral of remediation.
deconstruction.	roduction equipment where remediation could cause a major facility
Extents of contamination must be fully delineated.	
Extents of containmation must be runy defineated.	
Contamination does not cause an imminent risk to human healt	h, the environment, or groundwater.
I hereby certify that the information given above is true and comple	ete to the best of my knowledge and understand that pursuant to OCD
which may endanger public health or the environment. The accepta	certain release notifications and perform corrective actions for releases
liability should their operations have failed to adequately investigat	e and remediate contamination that nose 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 Bahrs email: larry, baker @ apachecorp.com	Date: 10-8-19
amails to be been former to be a	Telephone: 432-631-6982
ellall. Jarry, baker & apaenecons. com	relephone:
OCD Only	
Received by:	Date:
☐ Approved with Attached Conditions of	Approval Denied Deferral Approved
	·
Signature:	Date:
	



USGS Home Contact USGS Search USGS

National Water Information System: Web Interface

USGS Water Resources

Data Category:	Geographic Area:		
Groundwater 🗸	New Mexico	V	GO

Click to hideNews Bulletins

- Please see news on new formats
- Full News

Groundwater levels for New Mexico

Click to hide state-specific text

Search Results -- 1 sites found

Agency code = usgs site_no list =

324724104082301

Minimum number of levels = 1

Save file of selected sites to local disk for future upload

USGS 324724104082301 17S.28E.35.42233

Available data for this site Groundwater: Field measurements GO

Eddy County, New Mexico

Hydrologic Unit Code 13060011

Latitude 32°47'24", Longitude 104°08'23" NAD27

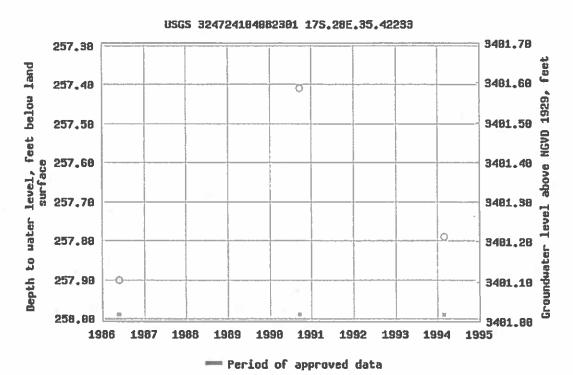
Land-surface elevation 3,659 feet above NGVD29

The depth of the well is 280.00 feet below land surface.

This well is completed in the Rustler Formation (312RSLR) 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

Questions about sites/data?
Feedback on this web site
Automated retrievals
Help
Data Tips
Explanation of terms
Subscribe for system changes
News

Accessibility

Plug-Ins

FOIA

Privacy

Policies and Notices

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

Title: Groundwater for New Mexico: Water Levels

URL: https://nwis.waterdata.usgs.gov/nm/nwis/gwlevels?

Page Contact Information: New Mexico Water Data Maintainer

Page Last Modified: 2019-02-08 08:52:13 EST

0.98 0.89 nadww01





New Mexico Office of the State Engineer Water Column/Average Depth to Water

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

No records found.

UTMNAD63 Radius Search (in meters);

Easting (X) 579665

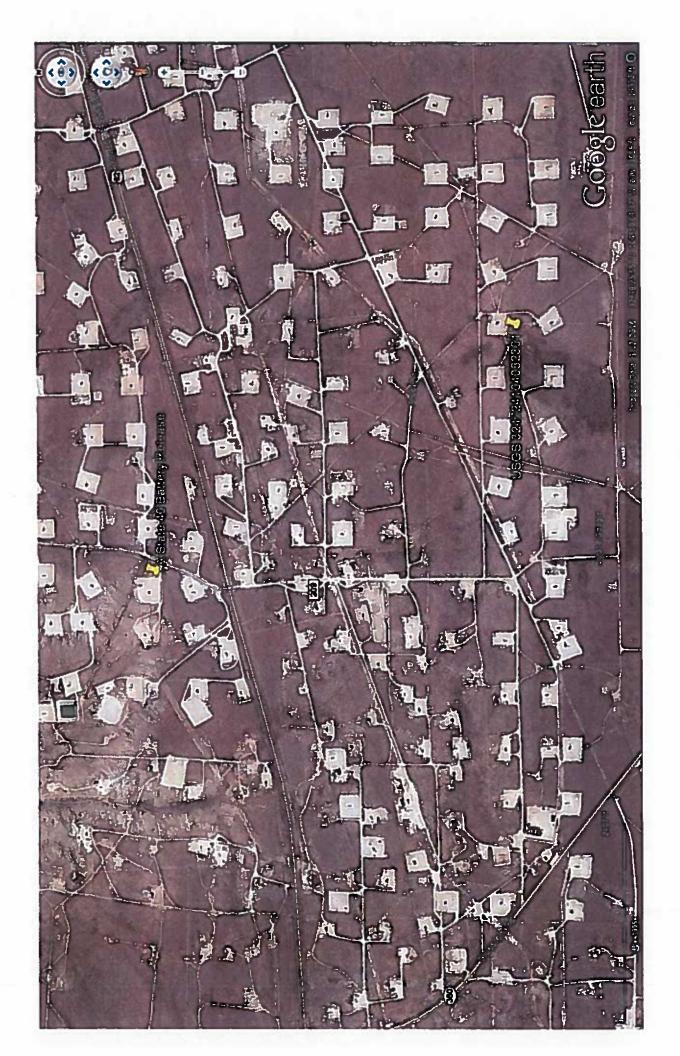
Northing (Y) 3630687

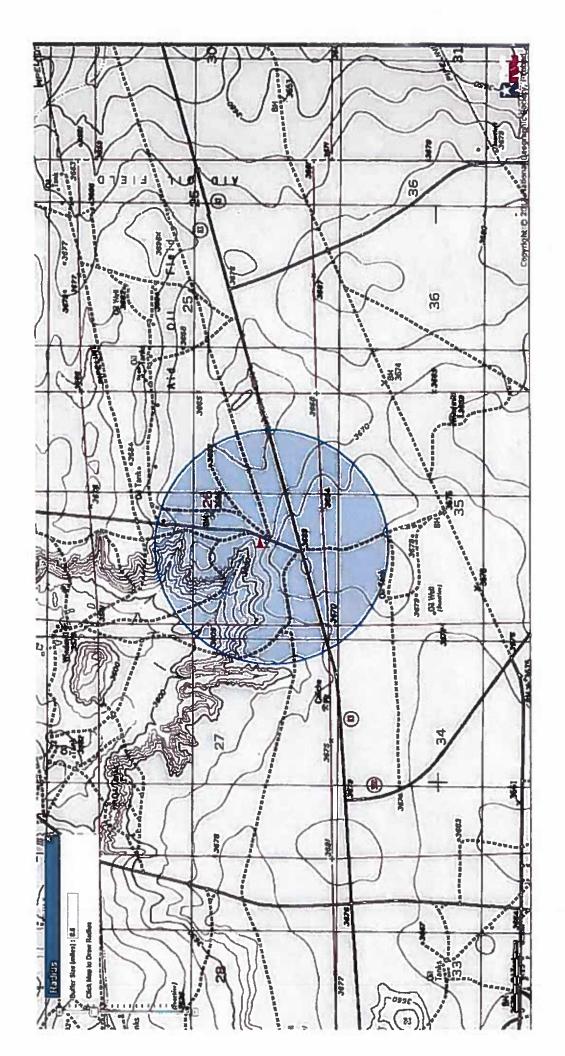
Radius: 2000

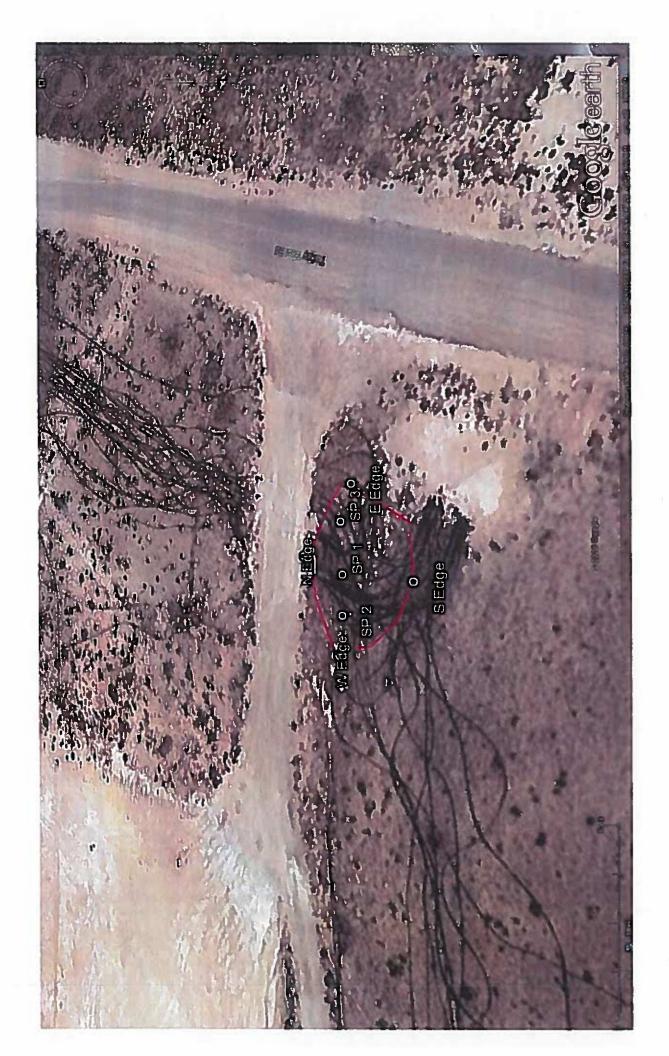
The data is furnished by the NMOSE/ISC and is accepted by the recipient with the expressed understanding that the OSE/ISC make no warranties, expressed or implied, concerning the accuracy, completeness, reliability, usability, or suitability for any particular purpose of the data.

2/8/19 6 44 AM

WATER COLUMN/ AVERAGE DEPTH TO WATER







A State 40 Battery Release

	Date Sampled	2/6/2019	2/6/2019	6/5/2019	6/5/2019	6/5/2019											
	EXT DRO	52.6	<10.0	<10.0	<10.0	<10.0		EXT DRO	<10.0	<10.0		EXT DRO	<10.0	<10.0		EXT DRO	<10.0
	DRO	161	<10.0	<10.0	<10.0	<10.0		DRO	<10.0	<10.0		DRO	<10.0	<10.0		DRO	<10.0
	GRO	<10.0	<10.0	<10.0	<10.0	<10.0		GRO	<10.0	<10.0		GRO	<10.0	<10.0		GRO	<10.0
	Total BTEX	<0.300	<0.300	<0.300	<0.300	<0.300		Total BTEX	<0.300	<0.300		Total BTEX	<0.300	<0.300		Total BTEX	<0.300
SP 1	Total Xylenes	<0.150	<0.150	<0.150	<0.150	<0.150		Total Xylenes	<0.150	<0.150		Total Xylenes	<0.150	<0.150	E	Total Xylenes	<0.150
	Ethybenzene	<0.050	<0.050	<0.050	<0.050	<0.050	SP 2	Ethybenzene	<0.050	<0.050	SP 3	Ethybenzene	<0.050	<0.050	N EDGE	Ethybenzene	<0.050
	Toluene	<0.050	<0.050	<0.050	<0.050	<0.050		Toluene	<0.050	<0.050		Toluene	<0.050	<0.050		Toluene	<0.050
	Benzene	<0.050	<0.050	<0.050	<0.050	<0.050		Benzene	<0.050	<0.050		Benzene	<0.050	<0.050		Benzene	<0.050
	Lab CI-	5840	6240	0809	3160	352		Lab Cl-	13800	9400	2	Lab Cl-	16400	6720		Lab Cl-	16
	Field CI-	6,272	3,884					Field Cl-	8,367	5752		Field CI-	12,416	2065		Field Cl-	272
	Depth	Surface	1,	1,	2,			Depth	Surface	1'		Depth	Surface	1,		Depth	Surface

Depth Field Cl- Lab Cl- Benzene Toluene Ethybenzene Total Xylenes Total BTEX GRO DRO EXT DRO Surface 407 6400 <0.050 <0.050 <0.050 <0.050 <10.0 <10.0 <10.0						W EDGI	3E		Ì	į	
<0.050 <0.050 <0.050 <0.050 <0.150 <0.300 <10.0 <10.0	Depth	Field CI-	Lab Cl-	Benzene	Toluene	Ethybenzene	×	Total BTEX	GRO	DRO	EXT DRO
	Surface	407	6400	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0

Depth	Field CI-	Lab CI-	Benzene	Toluene	Ethybenzene	Total Xylenes	Total BTEX	GRO	DRO	EXT DRO
Surface	134	<16	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0

					S EDGE	E				
Depth	Field CI-	Lab CI-	Benzene	Toluene	Ethybenzene	Total Xylenes	Total BTEX	GRO	DRO	EXT DRO
Surface	266	<16	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0



February 07, 2019

BRUCE BAKER APACHE CORP - HOBBS 2350 W. MARLAND BLVD.

RE: A STATE #40

HOBBS, NM B8240

Enclosed are the results of analyses for samples received by the laboratory on 02/06/19 15:50.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-18-11. 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.cov/field/qa/lab-accred-certif.html.

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.

Celey D. Keine

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



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

Fax To:

(575) 393-2432

Received:

02/06/2019

Reported: Project Name: 02/07/2019 A STATE #40

Project Number: Project Location:

NONE GIVEN

Sampling Date:

02/06/2019

Sampling Type:

Soil

Sampling Condition:

Cool & Intact

Sample Received By:

Jodi Henson

Sample ID: S #1 @ SURFACE (H900465-01)

BTEX 80218	mg/	kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	02/07/2019	ND	2.10	105	2.00	2.55	
Toluene*	<0.050	0.050	02/07/2019	ND	2.12	106	2.00	2.65	
Ethylbenzene*	<0.050	0.050	02/07/2019	ND	2.12	106	2.00	2.28	
Total Xylenes*	<0.150	0.150	02/07/2019	ND	6.07	101	6.00	3.28	
Total BTEX	<0.300	0.300	02/07/2019	ND					
Surrogate 4-Brontofluorobenzene (PIC	104	% 73 3-12	!9						
Chloride, SM4500CI-B	mg,	/kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	5840	16.0	02/07/2019	ND	432	108	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	02/07/2019	ND	191	95.7	200	3.04	
DRO >C10-C28*	191	10.0	02/07/2019	ND	201	100	200	1.84	
EXT DRO >C28-C36	52.6	10.0	02/07/2019	ND					
Surrogate 1-Chlorooctane	845	% 41-14	2	l,					
Surrogate I-Chlorooctadecane	101	% 37.6-1-	17						

Cardinal Laboratories

*=Accredited Analyte

PLEASE NOTE: Liability and Danages. Continuits Septiminy or claims or comment for tray claims arrang, whether bessed in contract or text, their iss lessed to be amount paid by claims for manyways. All claims, including shore for helphorece and any stem claims amount. In no event shall Currint the bases for magazine or consequential descepts, without herefore, without herefore, without herefore, without herefore, and or or including the contract of the supplication or the application amount. In no event shall Currint to these for magazine descepts, without herefore, without herefore, and of any inclined in the performance of the survices herefore the both cours to be survived in the course of the survived herefore the both cours to be survived in the survices herefore the both course to store the survived or the survived herefore the survived in the survived herefore the survived herefore the survived in the survived herefore the survive

Celling I tima



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

Fax To:

(575) 393-2432

Received:

02/06/2019 02/07/2019

Reported: Project Name:

A STATE #40

Project Number: Project Location:

NONE GIVEN

Sampling Date:

02/06/2019

Sampling Type:

Soll

Sampling Condition:

Cool & Intact

Sample Received By:

Jodi Henson

Sample ID: S #1 @ 1' (H900465-02)

BTEX 8021B	mg/	kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPO	Qualifier
Benzene*	<0.050	0.050	02/07/2019	ND	2.10	105	2.00	2.55	
Toluene*	<0.050	0.050	02/07/2019	ND	2.12	106	2.00	2.65	
Ethylbenzene*	<0.050	0.050	02/07/2019	ND	2.12	106	2.00	2.28	
Total Xylenes*	< 0.150	0.150	02/07/2019	ND	6.07	101	6,00	3.28	
Total BTEX	<0.300	0.300	02/07/2019	ND					
Surrogate 4-Bromofluorobenzene (PIC	103	% 73.3-12	19						
Chloride, SM4500CI-B	mg	/kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifler
Chloride	6240	16.0	02/07/2019	ND	432	108	400	3.77	
TPH 8015M	mg,	/kg	Analyza	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	02/07/2019	ND	191	95.7	200	3.04	
DRO >C10-C28*	<10.0	10.0	02/07/2019	ND	201	100	200	1.84	
EXT DRO > C28-C36	<10.0	10.0	02/07/2019	ND					
Surrogate 1-Chlorooctane	90.1	% 41-14.	?				nden u dvendi dividi deli d	140	
Surrogate 1-Chlorooctadecane	949	% 37 6-1-	17						

Cardinal Laboratories

*=Accredited Analyte

PLEASE POTTE: Liability and Demagns. Cardworks buildity and charts or sections recovery remark for p gains arranged per contract or sert, shall be invoked to this arranged per contract or sert, shall be invoked to this arranged per contract or sert, and the service shall be desired wearved southern mode or service shall be contracted or service shall be desired wearved southern mode or service shall be desired on the service shall be desired on the service shall be desired to the service shall be desired

Celleg Z. trama



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

Fax To:

Received:

Reported:

Project Name: Project Number: Project Location:

A STATE #40 NONE GIVEN **NOT GIVEN**

02/06/2019

02/07/2019

Sampling Date:

02/06/2019 Soll

Sampling Type: Sampling Condition:

Cool & Intact

Sample Received By:

Jodi Henson

Sample ID: S #2 @ SURFACE (H900465-03)

BTEX 80218	mg/	kg	Analyze	d By: MS					
Analyte	Result	Reporting Urnit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	02/07/2019	ND	2.10	105	2.00	2.55	
Toluene*	<0.050	0.050	02/07/2019	ND	2.12	106	2.00	2.65	
Ethylbenzene*	< 0.050	0.050	02/07/2019	ND	2.12	106	2.00	2.28	
Total Xylenes*	<0.150	0.150	02/07/2019	ND	6.07	101	6.00	3.28	
Total BTEX	<0.300	0.300	02/07/2019	ND					
Surrogate 4-Bromofluorobenzene (PIC	96.5	% 73.3-1.	29						
Chloride, SM4500CI-B	mg,	lug I	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	13800	16.0	02/07/2019	ND	432	108	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	02/07/2019	ND	191	95.7	200	3.04	
DRO >C10-C28*	<10.0	10.0	02/07/2019	ND	201	100	200	1.84	
EXT DRO >C28-C36	<10.0	10.0	02/07/2019	ND					
Surrogate 1-Chlorooctane	90.3	% 41-14	2						
Surrogate 1-Chlorooctadecane	97 7	% 37.6-1	47						

Cardinal Laboratories

*=Accredited Analyte

PLEASE NOTE: Suppley and Danneyes. Carbriel's bedding and shorts method

Colony to trong



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

rax

Received:

02/06/2019

Reported:

02/07/2019

Project Name: Project Number: A STATE #40 NONE GIVEN

Project Location:

NOT GIVEN

Sampling Date:

02/06/2019

Sampling Type:

Soil

Sampling Condition:

Cool & Intact

Sample Received By:

Jodi Henson

Sample ID: S #2 @ 1' (H900465-04)

BTEX 8021B	mg/	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	02/07/2019	ND	2.10	105	2.00	2.55	
Toluene*	<0.050	0.050	02/07/2019	ND	2.12	106	2.00	2.65	
Ethythenzene*	<0.050	0.050	02/07/2019	ND	2.12	106	2.00	2.28	
Total Xylenes*	<0.150	0.150	02/07/2019	ND	6.07	101	6.00	3.28	
Total BTEX	<0.300	0.300	02/07/2019	ND					
Surrogate 4-Bromofluorobenzene (PIC	93 0	% 73 3-12	9					-	
Chloride, SM4500CI-B	mg	/kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	9400	16.0	02/07/2019	ND	432	108	400	3.77	
TPH 8015M	mg	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	85	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	< 10.0	10.0	02/07/2019	ND	191	95.7	200	3.04	
DRO >C10-C28*	<10.0	10.0	02/07/2019	ND	201	100	200	1.84	
EXT DRO > C28-C36	<10.0	10.0	02/07/2019	ND					
Surrogate 1-Chlorooctane	91.5	% 41-14.	2					the same of the sa	
Surrogate 1-Chlorooctadecane	93.1	% 37 6-1-	17						

Cardinal Laboratories

*=Accredited Analyte

PLEASE NOTE: Lightly and Densigns. Cardnairs Editing and Short's extinctor revisitly for any starm arrang, endown hasted in contract or bett, shall be broked to the ambient paid by Libert for endysteet. All starms, excluding those for negligence and any silver characteristics which has described enough viscas makes in vesting and recovered by Cardnair extra trust (20) days after templatem of the applicable services. In on event area Cardnair be laber for reposted or company, extends from the property of the services for the services of the services of

Celing to trong



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

Received:

02/06/2019

Reported:

02/07/2019

Project Name: Project Number: A STATE #40 NONE GIVEN

Project Location:

NOT GIVEN

Sampling Date:

02/06/2019

Sampling Type:

Soll

Sampling Condition: Sample Received By: Cool & Intact

Jodi Henson

Sample ID: S #3 @ SURFACE (H900465-05)

BTEX 80218	mg/	kg	Analyze	d By: MS					
Analyta	Result	Reporting Limit	Analyzed	Method Blank	B5	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	02/07/2019	ND	2.10	105	2.00	2.55	
Toluene*	<0.050	0.050	02/07/2019	ND	2.12	106	2.00	2.65	
Ethylbenzene*	<0.050	0.050	02/07/2019	ND	2.12	106	2.00	2.28	
Total Xylenes*	< 0.150	0.150	02/07/2019	NO	6.07	101	6.00	3,2B	
Total GTEX	<0.300	0.300	02/07/2019	ND					
Surrogate 4-Bromofluorobenzene (PIC	104	% 73 3-12	9						
Chloride, SM4500CI-B	mg,	/kg	Analyza	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chioride	16400	16.0	02/07/2019	ND	432	108	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	02/07/2019	ND	191	95.7	200	3.04	
DRO >C10-C28*	<10.0	10.0	02/07/2019	ND	201	100	200	1.84	
EXT DRO >C28-C36	<10.0	10.0	02/07/2019	ND					
Surrogate 1-Chlorooctane	85 0	% 41-14:	2						······································
Surrogate 1-Chlorooctadecane	89.7	% 376-1-	17						

Cardinal Laboratories

*=Accredited Analyte

PLEASE NOTE. Limitity and Disninges. Certifical's belowing and clearly statistics received for any clear areaing, whether based or comment as both, shell be besided to the amount paid by clear for enterprise. All places, engaging those for negotives and any other clear wholsower shall be desired sometimes in writing and necessarily by clearly sorrer sorry ((atr) days after completions of the applicables approach. In our event small Cardinal be based in extensive disninges excluding, without breaking, business excomplishing, best of the complete comment of the sorrer of

Chart tree-



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

Received:

02/06/2019

Reported:

02/07/2019

Project Name: Project Number: A STATE #40 NONE GIVEN

Project Location:

NOT GIVEN

Sampling Date:

02/06/2019

Sampling Type:

Soil

Sampling Condition:

Cool & Intact

Sample Received By: Jodi Henson

Sample ID: S #3 @ 1' (H900465-06)

BTEX	80216	3		

BTEX 8021B	mg/	kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	< 0.050	0.050	02/07/2019	ND	2.10	105	2.00	2.55	
Toluene*	<0.050	0.050	02/07/2019	ND	2.12	106	2.00	2.65	
Ethylbenzene*	<0.050	0.050	02/07/2019	ND	2.12	106	2.00	2.28	
Total Xylenes*	<0.150	0.150	02/07/2019	ND	6.07	101	6.00	3.28	
Total BTEX	<0.300	0.300	02/07/2019	ND					
Surrogate 4-Bromofluorobenzene (PIE	103 9	% 73 3-12	9						
Chloride, SM45QDCI-B	mg/	'kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	6720	16.0	02/07/2019	ND	432	108	400	3.77	
TPH 8015M	mg/	lkg	Analyze	d By: MS					
Analyte	Result	Reporting Umit	Analyzed	Method Blank	85	% Recovery	True Value QC	RPD	Qualifie
GRO C6-C10*	<10.0	10.0	02/07/2019	ND	191	95.7	200	3.04	
DRO >C10-C28*	< 10.0	10.0	02/07/2019	ND	201	100	200	1.84	
EXT DRO >C28-C36	<10.0	10.0	02/07/2019	ND					
Surrogate 1-Chlorooctane	86.6	% 41-14:	?						
Surrogate 1-Chlorooctadecane	92.2	% 376-14	17						

Cardinal Laboratories

*=Accredited Analyte

PLEASE PICTE. Liability and Domegias. Cardina's Soliding and client's activative remain for any client arrang, inhebits bessel to context at taxt, shell be limited to this broken's paid by client for analyses. All deares, retain any soften cause whose which the dearest service services in the applicative prince. In no event peak Curdinal be deare for majority including, include bringing, business information, time of units information of the services by Curdinal and the representation of the applicative services by Curdinal and the representation of the above stated inverses or structure. Beautiff included in the representation of the application of the services applied of Cardinal Internations.

Celleng I strenas



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

Fax To:

(575) 393-2432

Received:

02/06/2019

Reported: Project Name: 02/07/2019 A STATE #40

Project Number: Project Location: NONE GIVEN

Sampling Date:

02/06/2019

Sampling Type:

Soll

Sampling Condition:

Cool & Intact

Sample Received By: Jodi Henson

Sample ID: N EDGE @ SURFACE (H900465-07)

BTEX 60218	mg/	kg	Analyze	d By: M5					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	02/07/2019	ND	2.10	105	2.00	2.55	
Toluene*	<0.050	0.050	02/07/2019	ND	2.12	106	2.00	2.65	
Ethylbenzene*	<0.050	0.050	02/07/2019	ND	2.12	106	2.00	2.28	
Total Xylenes*	< 0.150	0.150	02/07/2019	ND	6.07	101	6.00	3.28	
Total BTEX	<0.300	0.300	02/07/2019	ND					
Surrogate 4-Bromofluorobenzene (PIL	100 !	% 73 3-12	9						
Chloride, SM4500Cl-8	mg/	'leg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	16.0	16.0	02/07/2019	ND	432	108	400	3.77	
ТРН 8015М	mg,	kg	Analyza	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	02/07/2019	ND	191	95.7	200	3.04	
DRO >C10-C28*	<10.0	10.0	02/07/2019	ND	201	100	200	1.84	
EXT DRO >C28-C36	<10.0	10.0	02/07/2019	ND					
Surrogate 1-Chlorooctane	87 N	% 41-14:	2			որ - 19 — — ու եվրգորեց փնովհեմ	regargamin ay ayna a farafilmayaniba may ili da dabi ti	the desired literature of the	
Surrogate I-Chlorooctadecane	91.2	% 37 6-14	17						

Cardinal Laboratories

*=Accredited Analyte

PLEASE NOTE. Liability and Diverges. Cardward stating and cleares excusive remains for any state aroung whether based or control or tart, shall be forested as the amount panel by clear for environ. As cleare, excusing those for neglegation and any other cleares whether any other cleares and one control of the services hardware. As after these of use, or time of profess or increased of whether shall clear as the cleares of the services hardware. As after these of the services hardware in the cleares of the services hardware.

Colony There



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

Fax To:

(575) 393-2432

Received:

02/06/2019

Reported:

02/07/2019

Project Name:

A STATE #40

Project Number: Project Location: NONE GIVEN

NOT GIVEN

Sampling Date:

02/06/2019

Sampling Type:

Soll

Sampling Condition:

Cool & Intact

Sample Received By:

Jodi Henson

Sample ID: W EDGE @ SURFACE (H900465-08)

BTEX 80218	mg/	kg	Analyza	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	85	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	02/07/2019	ND	2.10	105	2.00	2.55	
Toluene*	<0.050	0.050	02/07/2019	ND	2.12	106	2.00	2.65	
Ethylbenzene*	<0.050	0.050	02/07/2019	ND	2.12	106	2.00	2.28	
Total Xylenes*	<0.150	0.150	02/07/2019	ND	6.07	101	6.00	3.28	
Total BTEX	<0.300	0.300	02/07/2019	ND					
Surrogate 4-Bramofluorobenzene (PIC	102	% 73 3-12	9						
Chloride, SM4500CI-B	mg,	/kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	85	% Recovery	True Value QC	RPD	Qualifier
Chloride	6400	16.0	02/07/2019	ND	416	104	400	0.00	QM-07
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	02/07/2019	ND	191	95.7	200	3.04	
DRO >C10-C28*	<10.0	10.0	02/07/2019	ND	201	100	200	1.84	
EXT DRO > C28-C36	<10.0	10.0	02/07/2019	ND					
Surrogate 1-Chlorpoctane	85 7	% 41-142	?	distribute di Semana					·····
Surrogate 1-Chlorooctadecane	91,6	54 37.6-14	17						

Cardinal Laboratories

*=Accredited Analyte

PLEASE MITE. Liablety and Director. Contracts liablety and observe exclusive revisity for any claims arising, whether based in contract or text, since its leveled for the present paid by claim for endpress. All storms, including these for registrations of the applicable sources. In no event shall be incommon to be applicable to the product of the pr

Chyl tona



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

Fax To:

Го: (575) 393-2432

Received:

02/06/2019

Reported:

02/07/2019

Project Name:

A STATE #40

Project Number: Project Location:

NONE GIVEN

Sampling Date:

02/06/2019

Sampling Type:

Soil

Sampling Condition:

Cool & Intact

Sample Received By:

Jodi Henson

Sample ID: E EDGE @ SURFACE (H900465-09)

BTEX 8021B	mg/	ig	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	85	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	02/07/2019	ND	2.10	105	2.00	2.55	
Toluene*	<0.050	0.050	02/07/2019	ND	2.12	106	2.00	2.65	
Ethylbenzene*	<0.050	0.050	02/07/2019	МÐ	2.12	106	2.00	2.28	
Total Xylenes*	<0.150	0.150	02/07/2019	GN	6.07	101	6.00	3.28	
Total BTEX	<0.300	0.300	02/07/2019	ND					
Surrogale 4-Bromofluorobenzene (PIC	100 :	73 3-12	9						
Chloride, SM4500CI-B	mg/	kg	Analyze	d By: AC		<u></u>			
Analyte	Result	Reporting Limit	Analyzed	Method Blank	85	% Recovery	True Value QC	RPD	Qualifier
Chloride	<16.0	16.0	02/07/2019	ND	416	104	400	0.00	
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	02/07/2019	ND	191	95.7	200	3.04	
DRO >C10-C28*	<10.0	10.0	02/07/2019	ND	201	100	200	1.84	
EXT DRO > C28-C36	<10.0	10.0	02/07/2019	ND					
Surrogate 1-Chlorooctane	848	% 41-14:	?						
Surrogate 1-Chlorooctadecane	83 4 5	37 6-14	17						

Cardinal Laboratories

*=Accredited Analyte

PLEASE NOTIC. Underly and Demons. Carden's belong and security exclusive revisely for any clear arrang, whether beaded in contract or tors, and be devised to the arranged power for any story clear and property for the security security of the security security security. In our security security security security, business arranged security, and the security security security security, business arranged security, business arranged security, business arranged security, business arranged security, business are security, busin

Celengt trona-



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

Received:

02/06/2019

Reported:

02/07/2019

Project Name: Project Number: A STATE #40 **NONE GIVEN**

Project Location:

NOT GIVEN

Sampling Date:

02/06/2019 Soll

Sampling Type: Sampling Condition:

Sample Received By:

Cool & Intact

Jodi Henson

Sample ID: S EDGE @ SURFACE (H900465-10)

BTEX 80218	mg/	kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	02/07/2019	ND	2.10	105	2.00	2.55	
Toluene*	<0.050	0.050	02/07/2019	ND	2.12	106	2.00	2.65	
Ethylbenzene*	<0.050	0.050	02/07/2019	ND	2.12	106	2.00	2.28	
Total Xylenes*	<0.150	0.150	02/07/2019	ND	6.07	101	6.00	3.28	
Total BTEX	<0.300	0.300	02/07/2019	ND					
Surrogate 4-Bromofluorobenzene (PIC	102	% 73 3-12	9						
Chloride, SM4500CI-B	mg,	lkg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifler
Chloride	<16.0	16 0	02/07/2019	ND	416	104	400	0,00	
TPH 8015M	រាច្ច,	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPO	Qualifier
GRO C6-C10*	<10.0	10.0	02/07/2019	ND	191	95.7	200	3.04	
DRO >C10-C28*	<10.0	10.0	02/07/2019	ND	201	100	200	1.84	
EXT DRO > C28-C36	<10.0	10.0	02/07/2019	ND					
Surrogate 1-Chlorooctane	83.2	% 41-142	,				At a th sphare		
Surrogate 1-Chlorooctadecane	88 0	54 37.6-14	17						

Cardinal Laboratories

*=Accredited Analyte

PLEASE NOTE. Listeling and Demogras. Cardina's believy and clears exclusive reviewly for any clear among whether placed or contract or text, and be feeted in the analyses. All cleans, suchdary grows for registerized any times change white cleans white the analyses and any times change white cleans white the several by cleans of the approximate or several. In one years, this was the performance of the performa

Callang T. trina



Notes and Definitions

QM-07 The spike recovery was outside acceptance limits for the MS and/or MSD. The batch was accepted based on acceptable LCS recovery.

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

PLEAS NOTE. Liesday and Danages. Carenat's liesday and disent's sociative remains for any claim entang, inheritor based on contract or cort. She'll be divised to the amount pand by clear for studyess. All claims, excluding these for negotiarities and any colors contract or contract

Celengy tomas



(

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

	Cardinal cannot accent verbal chances Dieses for written chances to IRTRI 202-222R	+ Carrinal
	- Bus - Other: 5.72 TITE Pres Pres Pres	Sampler - UPS
	アンサ	Delivered By:
アマノー・・	Time:	
ニナンニの	Date: Biceived By:	Belinquished By
REMARKS:	W 10 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	
Phone Result: D Yes D No Add'l Phone #: Fax Result: D Yes D No Add'l Fax #:	Ozalulia Registred By:	. \≐∥
		perion. In no event studio.
Pris Cherá for Pre	d Dumpyn, Cyfeini i lialwy and dwrth qualairy fyrnwy lar ney zaim ming whethe besed is control or let, shell in lialand in ma anderly ped ly t'in chet in the In the midjersco and my situs cases whatcover shell be dwared waterd when made in widey and necessal by Cardinal which 20 days after completes on the modernia	PLEASE HOTE: Usedy and Dunniges, Ca
2.55% NN	SV. 10111/1 11 11 11 12-619	0/
2,50/4 () ()	511.	56
2:456m 6 C	Sur. 611 1/1/1/1 0/2-6-19	23/
2:40 Pm V 72 CT	16 11/1/ W 22	07
1884:	3 G+1- 6 1 1 1/1 1/1 1/1 2-649	06
11:40 Pm	SW/ 6 1 M/W 1/2-6-K	20
11:35 Mm V V V	+2 G+ // [6 1 M/1/1 M/2-6-16	40
11:30 # 1/ 1/ 1/	SUC 6 1 W/W 1 W/ 2-6-19	
11:25 11 1 1	1 GX/1 6 1 V/ V/ V/ 2-6-A	02
11:20,000	1 1 1 1 1 1 1 2-6-19	0/
27	F CON GROUI WASTI SOIL OIL OTHEI ACIDIE ICE / C OTHEI	H900465-
/_ (Τ) (Τ) (Τ)	R: BASE, CODL	Lab I.D.
	ER	
		PON LAB USE ONLY
	Just Bar	Sampler Name:
	1 くたみ 井 2 N Phone #:	Project Location:
	State: Zip:	Project Name:
	Project Owner: City:	Project #:
	432-631-6982 Fax#: Address:	Phone #: 432
	bs state: h-1/2p: 882-40 Ann:	city: 1tobbs
	Сотрапу:	Address:
	Bruce Baker	Project Manager:
ANALYSIS REQUEST	House oil lorg.	Company Name:
104 1495	CX SOLE 1	



June 11, 2019

BRUCE BAKER

APACHE CORP - HOBBS

2350 W. MARLAND BLVD.

HOBBS, NM 88240

RE: A STATE #40

Enclosed are the results of analyses for samples received by the laboratory on 06/05/19 14:32.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-18-11. Accreditation applies to drinking water, non-potable water and solid and chemical materials. All accredited analytes are denoted by an asterisk (*). For a complete list of accredited analytes and matrices visit the TCEQ website at www.tceq.texas.gov/field/ga/lab accredited certif.html.

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.

Celey D. Keine

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



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

Received: Reported: 06/05/2019 06/11/2019

Project Name: Project Number: Project Location: A STATE #40 NONE GIVEN **NOT GIVEN**

Sampling Date:

06/05/2019 Sampling Type: Soil

Sampling Condition: Sample Received By:

Cool & Intact Tamara Oldaker

Sample ID: SP 1 @ 1' (H901971-01)

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	06/11/2019	ND	2.27	113	2.00	2.57	
Toluene*	<0.050	0.050	06/11/2019	ND	2.31	115	2.00	1.71	
Ethylbenzene*	<0.050	0.050	06/11/2019	ND	2.17	109	2.00	1.67	
Total Xylenes*	<0.150	0.150	06/11/2019	ND	6.59	110	6.00	1.40	
Total BTEX	<0.300	0.300	06/11/2019	ND					
			1 50			1111111	Mark		

Chloride, SM4500CI-B	mg/kg		Analyzed By: AC
Surrogate: 4-Bromojiuorobenzene (PIL	104%	73.3-129	

Chionoe, SM45UUCI-B	mg	/kg	Analyze	а ву: АС					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	6080	16.0	06/10/2019	ND	400	100	400	0.00	
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	06/06/2019	ND	192	96.0	200	3.93	
DRO >C10-C28*	<10.0	10.0	06/06/2019	ND	189	94.7	200	1.50	
EXT DRO >C28-C36	<10.0	10.0	06/06/2019	ND					

Surrogate: 1-Chlorooctane 93.3 % 41-142 Surrogate: 1-Chlorooctadecane 91.6 % 37.6-147

Cardinal Laboratories

*=Accredited Analyte

PLEASE NOTE: Liability and Chamages. Cardenal's kalokey and charity exclusive remedy for any claim arising, whether based in contract or toxt, shall be limited to the amount paid by claim for unalyses. All claims, including those for negligence and any other clause whistoever shall be deemed waved unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be lable including, without limitation, business interruptions, loss of use, or loss of profits society by chert, its authorities arithates or successors arising out of in misted to the performance of the services hereunder claim is based upon any of the above stated reasons or otherwise. Results related only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratomes.

Calego trains



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

Fax To:

(575) 393-2432

Received:

06/05/2019

Sampling Date:

06/05/2019

Reported:

06/11/2019

Sampling Type:

Soil

Project Name:

A STATE #40

Sampling Condition:

Cool & Intact

Project Number: Project Location: NONE GIVEN

Sample Received By:

Tamara Oldaker

Sample ID: SP 1 @ 2' (H901971-02)

BTEX 8021B

ma/ka

Analyzed 8v: ms

BIEX 80218	mg,	/ Kg	Analyze	d By: ms					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	06/11/2019	ND	2.27	113	2.00	2.57	
Toluene*	<0.050	0.050	06/11/2019	ND	2.31	115	2.00	1.71	
Ethylbenzene*	<0.050	0.050	06/11/2019	ND	2.17	109	2.00	1.67	
Total Xylenes*	<0.150	0.150	06/11/2019	ND	6.59	110	6.00	1.40	
Total BTEX	<0.300	0.300	06/11/2019	ND					
Surrogate: 4-Bromofluorobenze	ne (PIE 102	% 73.3-12	9						
Chloride, SM4500Ci-B	mg	/kg	Analyze	d By: AC					

Chloride, SM4500CI-B	mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	3160	16.0	06/10/2019	ND	400	100	400	0.00	
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	06/06/2019	ND	192	96.0	200	3.93	
DRO >C10-C28*	<10.0	10.0	06/06/2019	ND	189	94.7	200	1.50	
EXT DRO >C28-C36	<10.0	10.0	06/06/2019	ND					

Surrogate: 1-Chlorooctane

98.9 %

41-142

Surrogate: 1-Chlorooctadecane

98.1%

37.6-147

Cardinal Laboratories

*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remoty for any claim answip, 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 whitaknower shall be deemed weived unless made in writing and received by Cardinal within 11(1) days after completion of the applicable service. In no event shall Cardinal be Bable for Incidenced or consequenced demages, including thicknown, white a final cardinal by claims of profits incidenced by claims of profits incidenced by claims or accessions arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results related only to the semples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laborationes.

Celeng To Keene



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

Fax To:

(575) 393-2432

Received:

06/05/2019

Reported: Project Name: 06/11/2019 A STATE #40

Project Number: Project Location:

NONE GIVEN

Sampling Date:

06/05/2019

Sampling Type:

Soil

Sampling Condition:

Cool & Intact

Sample Received By:

Tamara Oldaker

Sample ID: SP 1 @ 3' (H901971-03)

BTEX 8021B	mg/	kg	Analyze	d By: ms					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	06/11/2019	ND	2.27	113	2.00	2.57	
Toluene*	<0.050	0.050	06/11/2019	ND	2.31	115	2.00	1.71	
Ethylbenzene*	<0.050	0.050	06/11/2019	ND	2.17	109	2.00	1.67	
Total Xylenes*	<0.150	0.150	06/11/2019	ND	6.59	110	6.00	1.40	
Total BTEX	<0.300	0.300	06/11/2019	ND					
Surrogate: 4-Bromofluorobenzene (PIE	103 9	% 73,3-12	9						
Chloride, SM4500CI-B	mg/	'kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	352	16.0	06/10/2019	ND	400	100	400	0.00	
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	06/06/2019	ND	192	96.0	200	3.93	
DRO >C10-C28*	<10.0	10.0	06/06/2019	ND	189	94.7	200	1.50	
EXT DRO >C28-C36	<10.0	10.0	06/06/2019	ND					
Surrogate: 1-Chlorooctane	99.9	% 41-142	2						
Surrogate: 1-Chlorooctadecane	101 9	% 37.6-14	7						

Cardinal Laboratories

*=Accredited Analyte

PLEASE NOTE: Liablety and Damages. Cardinal's Bablety and chart's exclusive remarky for any claim artsing, whether based in contract or tort, shall be limited to the amount paid by chert for analyses. All claims, including those for negligence and any other cruse whitstoever shall be deemed waved unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be Bable for incidental or consequential damages, including, without 8 mitations, business interruptions, loss of use, or loss of use, or loss of use, or loss of profits incurred by client, for authorizatives, efficients, efficients are received in full with written approval of Cardinal Laboratornes.

Celeng & Keene



Notes and Definitions

RPD	Relative Percent Difference
**	Samples not received at proper temperature of 6°C or below.
***	Insufficient time to reach temperature.
-	Chloride by SM4500CI-B does not require samples be received at or below 6°C
	Samples reported on an as received basis (wet) unless otherwise noted on repo

Analyte NOT DETECTED at or above the reporting limit

Cardinal Laboratories

*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's Bability and charact's exclusive remaily 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 neglegence and any other cause whatsoever shall be deemed waved unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be lable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of just, or loss of profits incurred by client, its autendance, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the semples identified above. This report shall not be reproduced except in full with written approved of Cardinal Laboratoriess.

Celeg & Kenne



CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

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

Company Name: APAME CARRATEN		BILL TO	ANALYSIS REQUEST
Project Manager: Reuce BAKE	P.O.#:		
Address:	Company:	7:	
City: State:	Zip: Attn:		
Phone #: Fax #:	Address:		
Project #: Project Owner:	ner: City:		
Project Name: "A" STATE 40	State:	Zip:	
n: A	Phone #:		
Sampler Name: 8/2000	Fax#:		
FOR LAB USE CHLY	MATRIX PRESERV	ERV. SAMPLING	
Lab I.D. Sample I.D.	(G)RAB OR (C)OMP # CONTAINERS GROUNDWATER WASTEWATER SOIL OIL SLUDGE OTHER: ACID/BASE: ICE / COOL	OTHER: DATE TIME	CL BTEX EX. TPH
1 50201		-	7 / /
2 SP1 @ 2'		6-5-19 69:47	
3 81 @ 3'		6-5-K 10:23	
PLEASE NOTE: Listifity and Chamages, Cardina's Bability and cleants excitative retinacy for any observating whether based in continue or and, what he include to the amount paid by the cleant for the analysis. As cleans including those for impligance and any observations of the applicable	for any chain expaing whether based in contract or bot, shell be if be deemed waired unless made in writing and received by Cu	ionaed to the amount paid by the client for I edinal within 30 days after completion of the	re applicable

Relinquished By:

Sampler - UPS - Bus - Other:

12 13 H

Sample Condition Cool Intact Tes Yes

CHECKED BY: (Initials)

Delivered By: (Circle One)

Relinquished By:

Date: 2-/3
Time: 2-32
Date: Time:

Phone Result: Fax Result: REMARKS:

☐ Yes ☐ No Add'I Phone #:

SAC S

service. In no event shall Candnal be liable for incidental or co

n. Edge Sur. 11.1/2.2 S. Edg. Sur 11.2 /300 W. Edg. Sur. 11.1 /30.2 S# 2011: = 110/30.2 5#1 00 1 = 11.0/30.2 S#3 Sur. = 11.11/30.0 S#2 Suture = 11.2 /3013 S.#1 Surface = 11.2/30,0 middle of officeted three Surface. GPS 37. 8026-104. 1495 6.15 010 S10 10 0.10 1.10 03. 100 03. 100 \$ 195 Whatel 2.73=4,639 2.70-8,367 2.69 = 6,272 151 = HET 2.70=12,416 12-6-19 2.738271 7.74 = 3,28 1.10=3,209 2.740 5/752 1-14-19

A State 40 Battery Release Photos



