



October 15, 2020

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

RE: 1RP-2989 State P/A Battery # 7

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 8, 2013. Apache is respectfully submitting the closure report based on remediation and studies occurring in 2020 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 432-631-6982 or by e-mail at [larry.baker@apachecorp.com](mailto:larry.baker@apachecorp.com).

Sincerely,

A handwritten signature in black ink that reads "Larry Baker". The signature is written in a cursive, flowing style.

Larry Baker  
Environmental Technician SR.  
Apache Corporation

Attachment: Closure Report Dated October 15, 2020



303 Veterans Airpark Lane Midland, TX 79705

## **Closure Report**

October 15, 2020

Re: State P/A Battery # 7  
Case # 1RP-2989

On 10/8/2013 a release occurred due to a man way gasket on a heater treater failed. The release (GPS: 32.386635, -103.203087 ) is located south of Eunice, New Mexico in unit letter N section 18 township 22S range 37E. A groundwater survey was conducted utilizing data from USGS and NMOSE wells of record. The nearest well suggest that groundwater is 24 feet below ground surface.

According to lab data from 2013 and 2014 the release area outside the lined containment was excavated to various depths of 4 inches to 1.5 feet. All excavated material was hauled to an OCD approved disposal facility. The excavation was backfilled with clean imported soil.

Due to the lack of remediation documentation Apache Corporation utilizing original photos of the release went back to the impacted area to confirm the remediation was completed in 2014. On 10/7/2020 4 sample points were advanced to a depth of 2 feet utilizing a hand auger in the release area. Samples were collected in one foot intervals and submitted to a commercial laboratory for analysis of chloride, TPH, and BTEX. All laboratory analysis were below table one standards for releases less than or equal to 50 feet to groundwater.

Apache Corporation has completed remediation and respectfully request closure of event 1RP-2989.

Enclosed: C-141, Groundwater Data, Maps, Sample Data, Laboratory Results, and Photos.

Submitted by;

*Bruce Baker*

**Environmental Technician**

[larry.baker@apachecorp.com](mailto:larry.baker@apachecorp.com)

**Cell# 432-631-6982**

District I  
1625 N. French Dr., Hobbs, NM 88240  
District II  
811 S. First St., Artesia, NM 88210  
District III  
1000 Rio Brazos Road, Aztec, NM 87410  
District IV  
1220 S. St. Francis Dr., Santa Fe, NM 87505

HOBBS OCD

OCT 14 2013

RECEIVED

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

Form C-141  
Revised August 8, 2011

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

## Release Notification and Corrective Action

## OPERATOR

☒ Initial Report ☐ Final Report

Name of Company Apache Corporation	Contact Bruce Baker
Address 8 Ellison Lane Eunice, NM 88231	Telephone No. (432) 631-6982
Facility Name State P/A Battery # 7	Facility Type Tank Battery
Surface Owner State	Mineral Owner
API No. 30-025-40540	

## LOCATION OF RELEASE

Unit Letter N	Section 18	Township 22S	Range 37E	Feet from the 870'	North/South Line FSL	Feet from the 2310'	East/West Line FWL	County Lea
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Latitude \_\_\_\_\_ Longitude \_\_\_\_\_

## NATURE OF RELEASE

Type of Release Oil and Produced Water	Volume of Release 13 BBLS	Volume Recovered 7 BBLS
Source of Release Heater Treater	Date and Hour of Occurrence	Date and Hour of Discovery 10-8-2013 at 4:00 p.m.
Was Immediate Notice Given? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Not Required	If YES, To Whom?	
By Whom?	Date and Hour	
Was a Watercourse Reached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If YES, Volume Impacting the Watercourse.	

If a Watercourse was Impacted, Describe Fully.\*

Describe Cause of Problem and Remedial Action Taken.\*

The man-way gasket on heater treater failed. The heater was taken out of operation and all gaskets were replaced.

Describe Area Affected and Cleanup Action Taken.\*

The release was contained inside the lined bermed area and lease pad with 25 square feet of pasture affected. The site was mapped and will be delineated.

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to NMOCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the NMOCD marked as "Final Report" does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to ground water, surface water, human health or the environment. In addition, NMOCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.

Signature: <i>Bruce Baker</i>	OIL CONSERVATION DIVISION <i>Jerry Leim</i> Approved by Environmental Specialist	
Printed Name: Bruce Baker	Approval Date: 10/15/13	Expiration Date: 12/16/13
Title: Environmental Technician	Conditions of Approval: SUBMIT FINAL C-141 BY 12/16/13	Attached <input type="checkbox"/>
E-mail Address: larry.baker@apachecorp.com	IRP-11-13-2989	
Date: 10-14-13 Phone: (432) 631-6982		

\* Attach Additional Sheets If Necessary

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>24</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 <b>not</b> 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 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

Page 4

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: Larry Baker Title: Environmental Tech SR.  
Signature: Larry Baker Date: 10/15/2020  
email: larry.baker@apachecorp.com Telephone: 432-631-6982

**OCD Only**

Received by: \_\_\_\_\_ Date: \_\_\_\_\_



Incident ID	
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 OCD 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: Larry Baker

Title: Environmental Tech SR.

Signature: Larry Baker

Date: 10/15/2020

email: larry.baker@apachecorp.com

Telephone: 432-631-6982

**OCD Only**

Received by: OCD

Date: 10/15/2020

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.

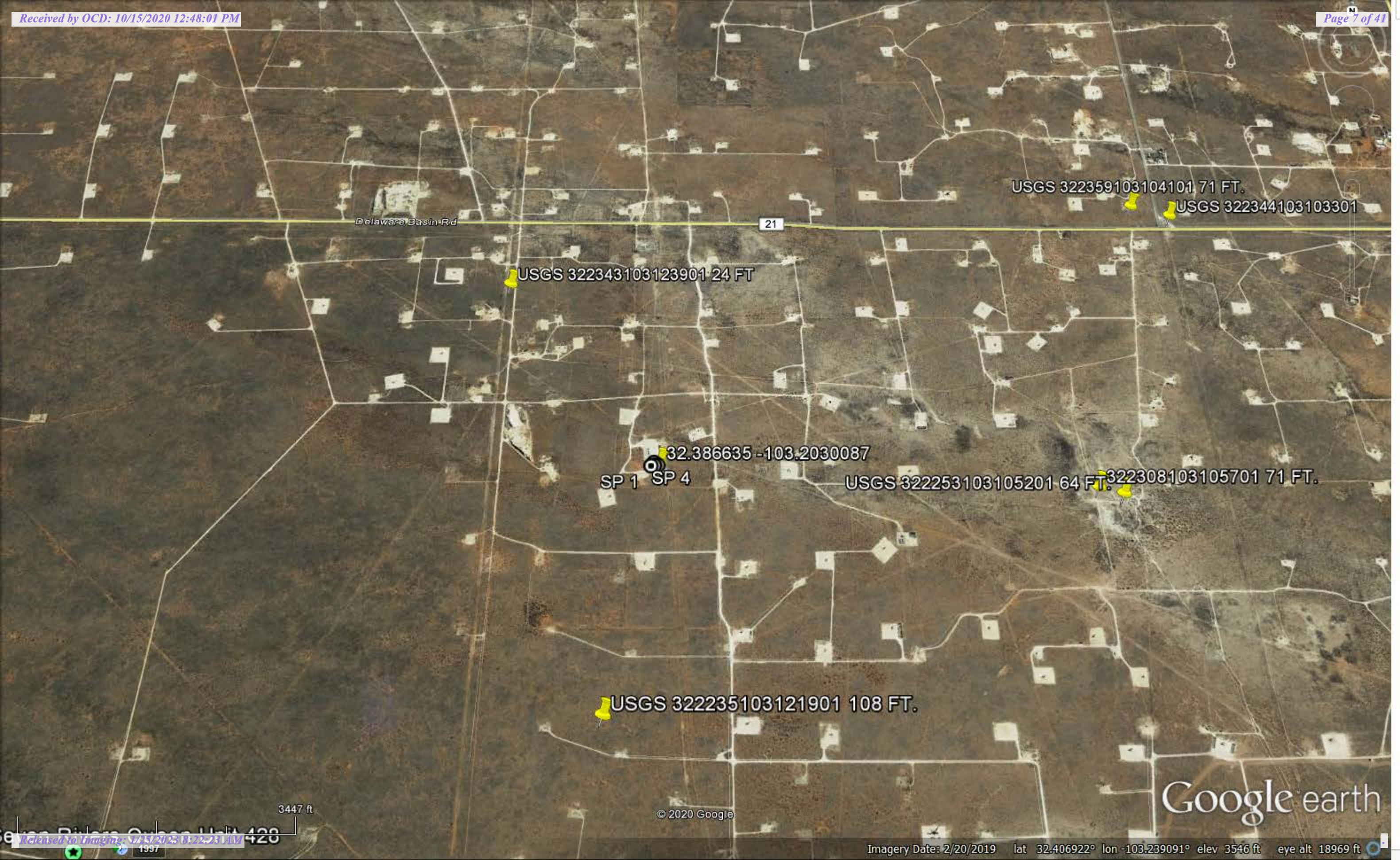
Closure Approved by: Ashley Maxwell

Date: 1/25/2023

Printed Name: Ashley Maxwell

Title: Environmental Specialist





USGS 322359103104101 71 FT.

USGS 322344103103301

Delaware Basin Rd

21

USGS 322343103123901 24 FT

32.386635 -103.2030087

SP 1 SP 4

USGS 322253103105201 64 FT.

322308103105701 71 FT.

USGS 322235103121901 108 FT.

3447 ft

© 2020 Google

Google earth

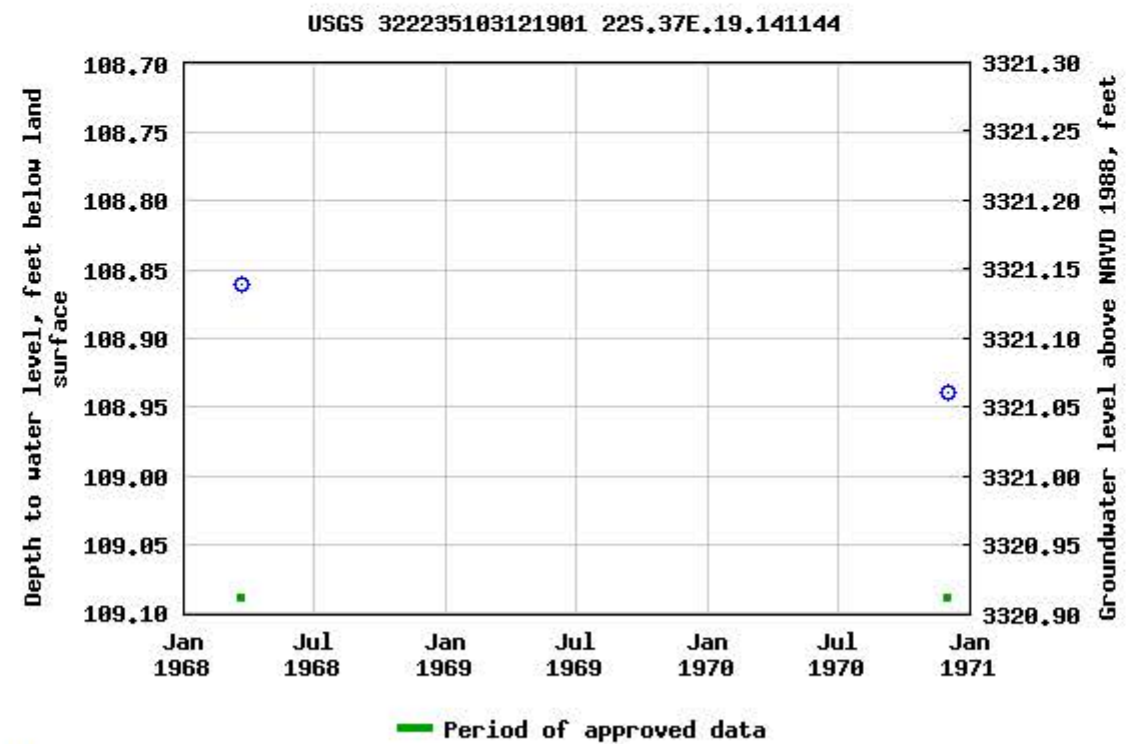


Available data for this site Groundwater: Field measurements GO

Lea County, New Mexico  
Hydrologic Unit Code 13070007  
Latitude 32°22'35", Longitude 103°12'19" NAD27  
Land-surface elevation 3,430 feet above NAVD88  
The depth of the well is 200 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](#)



[Save file of selected sites](#) to local disk for future upload

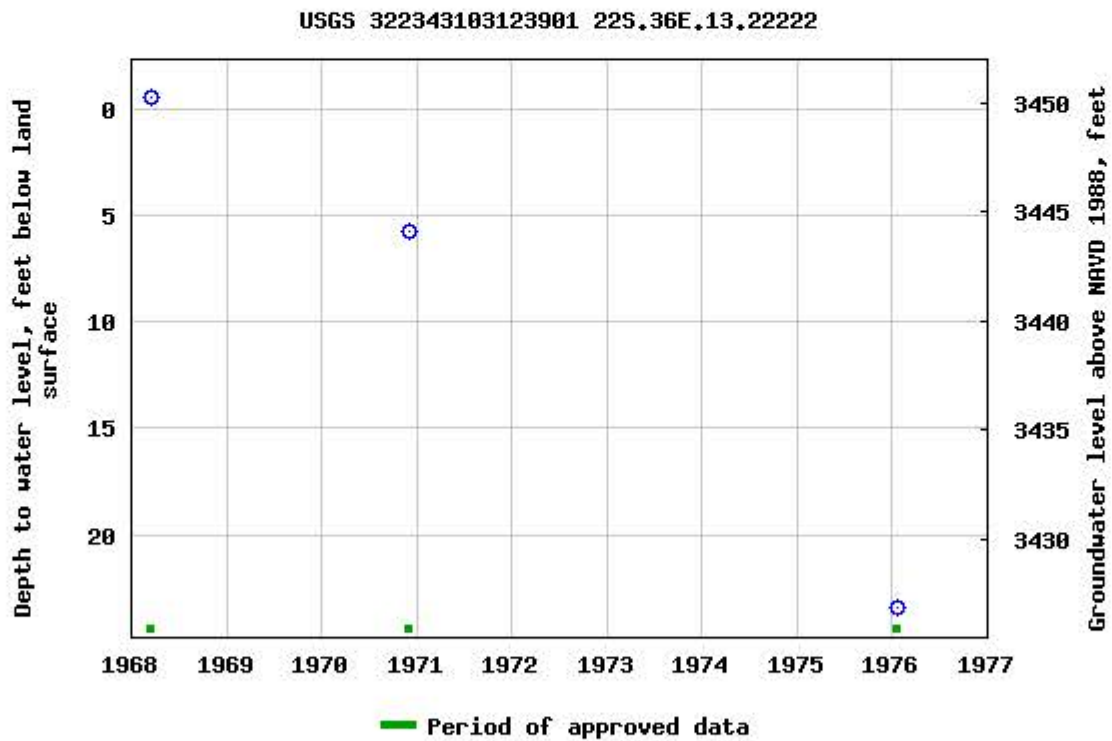
**USGS 322343103123901 22S.36E.13.22222**

Lea County, New Mexico  
Hydrologic Unit Code 13070007  
Latitude 32°23'43", Longitude 103°12'39" NAD27  
Land-surface elevation 3,450 feet above NAVD88  
This well is completed in the Chinle Formation (231CHNL) local aquifer.

Available data for this site    Groundwater: Field measurements   

**Output formats**

- [Table of data](#)
- [Tab-separated data](#)
- [Graph of data](#)
- [Reselect period](#)



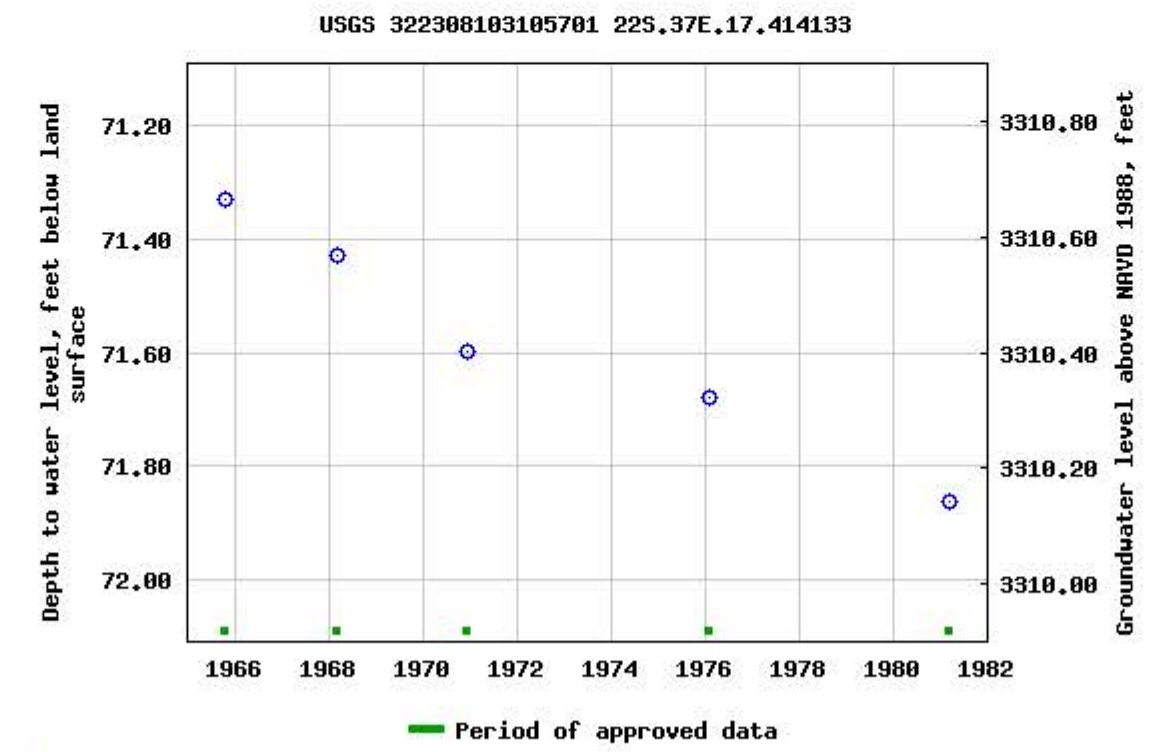
Breaks in the plot represent a gap of at least one year between field measurements.  
[Download a presentation-quality graph](#)

Available data for this site Groundwater: Field measurements GO

Lea County, New Mexico  
Hydrologic Unit Code 13070007  
Latitude 32°23'08", Longitude 103°10'57" NAD27  
Land-surface elevation 3,382 feet above NAVD88  
The depth of the well is 110 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](#)



Coordinates

Please Select a Coordinate System and enter the coordinates:

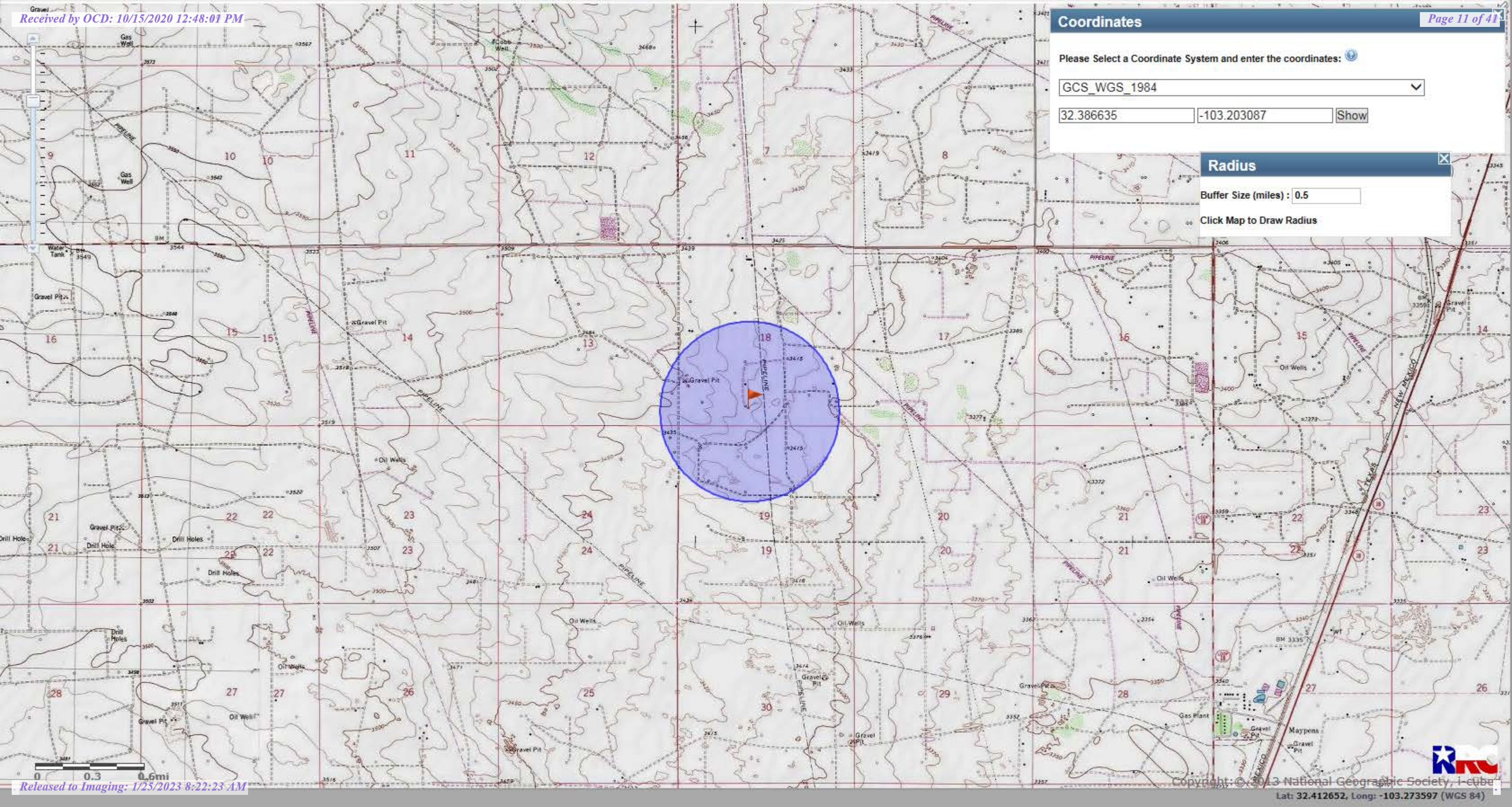
GCS\_WGS\_1984

32.386635 -103.203087 Show

Radius

Buffer Size (miles) : 0.5

Click Map to Draw Radius







SP 2

SP 4

SP 1

SP 3

© 2020 Google

Google earth



## 2020 Samples

Sample Date	Sample ID	Depth	Chloride	Benzene	Toulene	Ethybenzene	Total Xylenes	Total BTEX	GRO	DRO	EXT DRO	GPS Coordinates
10/7/2020	SP 1	Surface	128	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	32.386635, -103.203087
		1'	32.0	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	
		2'	16.0	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	
10/7/2020	SP 2	Surface	64.0	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	32.386770, -103.203105
		1'	16.0	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	
		2'	32.0	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	
10/7/2020	SP 3	Surface	80.0	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	32.386648, -103.202915
		1'	32.0	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	
		2'	<16.0	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	
10/7/2020	SP 4	Surface	64.0	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	32.386621, -103.203248
		1'	<16.0	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	
		2'	32.0	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	

## 2013 Sample Data

Sample Date	Sample ID	Depth	Chloride	GRO	DRO
11/1/2013	Spill Area 0-4"	0-4"	480	<10.0	13.3
2/7/2014	West @18"	18"	32		
2/7/2014	Center @ 18 "	18"	32		
2/7/2014	East @ 18"	18"	16		



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

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October 08, 2020

BRUCE BAKER

APACHE CORP - HOBBS

2350 W. MARLAND BLVD.

HOBBS, NM 88240

RE: STATE PA #7

Enclosed are the results of analyses for samples received by the laboratory on 10/07/20 15:11.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-20-13. Accreditation applies to drinking water, non-potable water and solid and chemical materials. All accredited analytes are denoted by an asterisk (\*). For a complete list of accredited analytes and matrices visit the TCEQ website at [www.tceq.texas.gov/field/qa/lab\\_accred\\_certif.html](http://www.tceq.texas.gov/field/qa/lab_accred_certif.html).

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

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

Accreditation applies to public drinking water matrices.

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

Sincerely,

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

Celey D. Keene

Lab Director/Quality Manager





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:	10/07/2020	Sampling Date:	10/07/2020
Reported:	10/08/2020	Sampling Type:	Soil
Project Name:	STATE PA #7	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	NOT GIVEN		

**Sample ID: SP 1 @ SURFACE (H002662-01)**

BTX 8021B		mg/kg		Analyzed By: ms					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	10/07/2020	ND	1.95	97.5	2.00	5.26	QR-03
Toluene*	<0.050	0.050	10/07/2020	ND	2.01	100	2.00	3.71	QR-03
Ethylbenzene*	<0.050	0.050	10/07/2020	ND	1.95	97.5	2.00	3.56	
Total Xylenes*	<0.150	0.150	10/07/2020	ND	5.71	95.1	6.00	2.86	
Total BTX	<0.300	0.300	10/07/2020	ND					

Surrogate: 4-Bromofluorobenzene (PID) 97.3 % 73.3-129

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	128	16.0	10/08/2020	ND	400	100	400	11.3	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	10/07/2020	ND	206	103	200	2.20	QR-03
DRO >C10-C28*	<10.0	10.0	10/07/2020	ND	220	110	200	1.56	
EXT DRO >C28-C36	<10.0	10.0	10/07/2020	ND					

Surrogate: 1-Chlorooctane 108 % 44.3-144

Surrogate: 1-Chlorooctadecane 122 % 42.2-156

Cardinal Laboratories

\*=Accredited Analyte

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

Celey D. Keene, Lab Director/Quality Manager



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: 10/07/2020  
 Reported: 10/08/2020  
 Project Name: STATE PA #7  
 Project Number: NONE GIVEN  
 Project Location: NOT GIVEN

Sampling Date: 10/07/2020  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Jodi Henson

**Sample ID: SP 1 @ 1' (H002662-02)**

BTEx 8021B		mg/kg		Analyzed By: ms					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	10/07/2020	ND	1.95	97.5	2.00	5.26	
Toluene*	<0.050	0.050	10/07/2020	ND	2.01	100	2.00	3.71	
Ethylbenzene*	<0.050	0.050	10/07/2020	ND	1.95	97.5	2.00	3.56	
Total Xylenes*	<0.150	0.150	10/07/2020	ND	5.71	95.1	6.00	2.86	
Total BTEx	<0.300	0.300	10/07/2020	ND					

Surrogate: 4-Bromofluorobenzene (PID) 97.6 % 73.3-129

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	32.0	16.0	10/08/2020	ND	400	100	400	11.3	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	10/07/2020	ND	206	103	200	2.20	
DRO >C10-C28*	<10.0	10.0	10/07/2020	ND	220	110	200	1.56	
EXT DRO >C28-C36	<10.0	10.0	10/07/2020	ND					

Surrogate: 1-Chlorooctane 118 % 44.3-144

Surrogate: 1-Chlorooctadecane 135 % 42.2-156

Cardinal Laboratories

\*=Accredited Analyte

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

Celey D. Keene, Lab Director/Quality Manager



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: 10/07/2020  
 Reported: 10/08/2020  
 Project Name: STATE PA #7  
 Project Number: NONE GIVEN  
 Project Location: NOT GIVEN

Sampling Date: 10/07/2020  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Jodi Henson

**Sample ID: SP 1 @ 2' (H002662-03)**

BTEx 8021B		mg/kg		Analyzed By: ms					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	10/07/2020	ND	1.95	97.5	2.00	5.26	
Toluene*	<0.050	0.050	10/07/2020	ND	2.01	100	2.00	3.71	
Ethylbenzene*	<0.050	0.050	10/07/2020	ND	1.95	97.5	2.00	3.56	
Total Xylenes*	<0.150	0.150	10/07/2020	ND	5.71	95.1	6.00	2.86	
Total BTEx	<0.300	0.300	10/07/2020	ND					

Surrogate: 4-Bromofluorobenzene (PID) 97.6 % 73.3-129

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	16.0	16.0	10/08/2020	ND	400	100	400	11.3	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	10/07/2020	ND	206	103	200	2.20	
DRO >C10-C28*	<10.0	10.0	10/07/2020	ND	220	110	200	1.56	
EXT DRO >C28-C36	<10.0	10.0	10/07/2020	ND					

Surrogate: 1-Chlorooctane 118 % 44.3-144

Surrogate: 1-Chlorooctadecane 134 % 42.2-156

Cardinal Laboratories

\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager





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: 10/07/2020  
 Reported: 10/08/2020  
 Project Name: STATE PA #7  
 Project Number: NONE GIVEN  
 Project Location: NOT GIVEN

Sampling Date: 10/07/2020  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Jodi Henson

**Sample ID: SP 2 @ SURFACE (H002662-04)**

BTEX 8021B			mg/kg		Analyzed By: ms					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	10/07/2020	ND	1.95	97.5	2.00	5.26		
Toluene*	<0.050	0.050	10/07/2020	ND	2.01	100	2.00	3.71		
Ethylbenzene*	<0.050	0.050	10/07/2020	ND	1.95	97.5	2.00	3.56		
Total Xylenes*	<0.150	0.150	10/07/2020	ND	5.71	95.1	6.00	2.86		
Total BTEX	<0.300	0.300	10/07/2020	ND						

Surrogate: 4-Bromofluorobenzene (PID) 95.6 % 73.3-129

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	64.0	16.0	10/08/2020	ND	400	100	400	11.3	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	10/07/2020	ND	206	103	200	2.20	
DRO >C10-C28*	<10.0	10.0	10/07/2020	ND	220	110	200	1.56	
EXT DRO >C28-C36	<10.0	10.0	10/07/2020	ND					

Surrogate: 1-Chlorooctane 114 % 44.3-144

Surrogate: 1-Chlorooctadecane 128 % 42.2-156

Cardinal Laboratories

\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager



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: 10/07/2020  
 Reported: 10/08/2020  
 Project Name: STATE PA #7  
 Project Number: NONE GIVEN  
 Project Location: NOT GIVEN

Sampling Date: 10/07/2020  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Jodi Henson

**Sample ID: SP 2 @ 1' (H002662-05)**

BTEx 8021B		mg/kg		Analyzed By: ms					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	10/07/2020	ND	1.95	97.5	2.00	5.26	
Toluene*	<0.050	0.050	10/07/2020	ND	2.01	100	2.00	3.71	
Ethylbenzene*	<0.050	0.050	10/07/2020	ND	1.95	97.5	2.00	3.56	
Total Xylenes*	<0.150	0.150	10/07/2020	ND	5.71	95.1	6.00	2.86	
Total BTEx	<0.300	0.300	10/07/2020	ND					

Surrogate: 4-Bromofluorobenzene (PID) 96.8 % 73.3-129

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	16.0	16.0	10/08/2020	ND	400	100	400	11.3	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	10/07/2020	ND	206	103	200	2.20	
DRO >C10-C28*	<10.0	10.0	10/07/2020	ND	220	110	200	1.56	
EXT DRO >C28-C36	<10.0	10.0	10/07/2020	ND					

Surrogate: 1-Chlorooctane 114 % 44.3-144

Surrogate: 1-Chlorooctadecane 131 % 42.2-156

Cardinal Laboratories

\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager



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: 10/07/2020  
 Reported: 10/08/2020  
 Project Name: STATE PA #7  
 Project Number: NONE GIVEN  
 Project Location: NOT GIVEN

Sampling Date: 10/07/2020  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Jodi Henson

**Sample ID: SP 2 @ 2' (H002662-06)**

BTEx 8021B		mg/kg		Analyzed By: ms					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	10/07/2020	ND	1.95	97.5	2.00	5.26	
Toluene*	<0.050	0.050	10/07/2020	ND	2.01	100	2.00	3.71	
Ethylbenzene*	<0.050	0.050	10/07/2020	ND	1.95	97.5	2.00	3.56	
Total Xylenes*	<0.150	0.150	10/07/2020	ND	5.71	95.1	6.00	2.86	
Total BTEx	<0.300	0.300	10/07/2020	ND					

Surrogate: 4-Bromofluorobenzene (PID) 95.5 % 73.3-129

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	32.0	16.0	10/08/2020	ND	400	100	400	11.3	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	10/07/2020	ND	206	103	200	2.20	
DRO >C10-C28*	<10.0	10.0	10/07/2020	ND	220	110	200	1.56	
EXT DRO >C28-C36	<10.0	10.0	10/07/2020	ND					

Surrogate: 1-Chlorooctane 113 % 44.3-144

Surrogate: 1-Chlorooctadecane 129 % 42.2-156

Cardinal Laboratories

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Celey D. Keene, Lab Director/Quality Manager





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: 10/07/2020  
 Reported: 10/08/2020  
 Project Name: STATE PA #7  
 Project Number: NONE GIVEN  
 Project Location: NOT GIVEN

Sampling Date: 10/07/2020  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Jodi Henson

**Sample ID: SP 3 @ SURFACE (H002662-07)**

BTX 8021B		mg/kg		Analyzed By: ms					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	10/07/2020	ND	1.95	97.5	2.00	5.26	
Toluene*	<0.050	0.050	10/07/2020	ND	2.01	100	2.00	3.71	
Ethylbenzene*	<0.050	0.050	10/07/2020	ND	1.95	97.5	2.00	3.56	
Total Xylenes*	<0.150	0.150	10/07/2020	ND	5.71	95.1	6.00	2.86	
Total BTX	<0.300	0.300	10/07/2020	ND					

Surrogate: 4-Bromofluorobenzene (PID) 101 % 73.3-129

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	80.0	16.0	10/08/2020	ND	400	100	400	11.3	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	10/07/2020	ND	206	103	200	2.20	
DRO >C10-C28*	<10.0	10.0	10/07/2020	ND	220	110	200	1.56	
EXT DRO >C28-C36	<10.0	10.0	10/07/2020	ND					

Surrogate: 1-Chlorooctane 114 % 44.3-144

Surrogate: 1-Chlorooctadecane 128 % 42.2-156

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Celey D. Keene, Lab Director/Quality Manager



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: 10/07/2020  
 Reported: 10/08/2020  
 Project Name: STATE PA #7  
 Project Number: NONE GIVEN  
 Project Location: NOT GIVEN

Sampling Date: 10/07/2020  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Jodi Henson

**Sample ID: SP 3 @ 1' (H002662-08)**

BTEx 8021B		mg/kg		Analyzed By: ms					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	10/07/2020	ND	1.95	97.5	2.00	5.26	
Toluene*	<0.050	0.050	10/07/2020	ND	2.01	100	2.00	3.71	
Ethylbenzene*	<0.050	0.050	10/07/2020	ND	1.95	97.5	2.00	3.56	
Total Xylenes*	<0.150	0.150	10/07/2020	ND	5.71	95.1	6.00	2.86	
Total BTEx	<0.300	0.300	10/07/2020	ND					

Surrogate: 4-Bromofluorobenzene (PID) 96.4 % 73.3-129

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	32.0	16.0	10/08/2020	ND	400	100	400	11.3	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	10/07/2020	ND	206	103	200	2.20	
DRO >C10-C28*	<10.0	10.0	10/07/2020	ND	220	110	200	1.56	
EXT DRO >C28-C36	<10.0	10.0	10/07/2020	ND					

Surrogate: 1-Chlorooctane 117 % 44.3-144

Surrogate: 1-Chlorooctadecane 135 % 42.2-156

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Celey D. Keene, Lab Director/Quality Manager



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: 10/07/2020  
 Reported: 10/08/2020  
 Project Name: STATE PA #7  
 Project Number: NONE GIVEN  
 Project Location: NOT GIVEN

Sampling Date: 10/07/2020  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Jodi Henson

**Sample ID: SP 3 @ 2' (H002662-09)**

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	10/07/2020	ND	1.95	97.5	2.00	5.26	
Toluene*	<0.050	0.050	10/07/2020	ND	2.01	100	2.00	3.71	
Ethylbenzene*	<0.050	0.050	10/07/2020	ND	1.95	97.5	2.00	3.56	
Total Xylenes*	<0.150	0.150	10/07/2020	ND	5.71	95.1	6.00	2.86	
Total BTEx	<0.300	0.300	10/07/2020	ND					

Surrogate: 4-Bromofluorobenzene (PID) 97.2 % 73.3-129

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	<16.0	16.0	10/08/2020	ND	400	100	400	11.3		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	10/08/2020	ND	206	103	200	2.20	
DRO >C10-C28*	<10.0	10.0	10/08/2020	ND	220	110	200	1.56	
EXT DRO >C28-C36	<10.0	10.0	10/08/2020	ND					

Surrogate: 1-Chlorooctane 115 % 44.3-144

Surrogate: 1-Chlorooctadecane 134 % 42.2-156

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Celey D. Keene, Lab Director/Quality Manager



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: 10/07/2020  
 Reported: 10/08/2020  
 Project Name: STATE PA #7  
 Project Number: NONE GIVEN  
 Project Location: NOT GIVEN

Sampling Date: 10/07/2020  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Jodi Henson

**Sample ID: SP 4 @ SURFACE (H002662-10)**

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	10/07/2020	ND	1.95	97.5	2.00	5.26	
Toluene*	<0.050	0.050	10/07/2020	ND	2.01	100	2.00	3.71	
Ethylbenzene*	<0.050	0.050	10/07/2020	ND	1.95	97.5	2.00	3.56	
Total Xylenes*	<0.150	0.150	10/07/2020	ND	5.71	95.1	6.00	2.86	
Total BTEx	<0.300	0.300	10/07/2020	ND					

Surrogate: 4-Bromofluorobenzene (PID) 97.7 % 73.3-129

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	64.0	16.0	10/08/2020	ND	400	100	400	11.3		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	10/08/2020	ND	206	103	200	2.20	
DRO >C10-C28*	<10.0	10.0	10/08/2020	ND	220	110	200	1.56	
EXT DRO >C28-C36	<10.0	10.0	10/08/2020	ND					

Surrogate: 1-Chlorooctane 103 % 44.3-144

Surrogate: 1-Chlorooctadecane 119 % 42.2-156

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Celey D. Keene, Lab Director/Quality Manager





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: 10/07/2020  
 Reported: 10/08/2020  
 Project Name: STATE PA #7  
 Project Number: NONE GIVEN  
 Project Location: NOT GIVEN

Sampling Date: 10/07/2020  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Jodi Henson

**Sample ID: SP 4 @ 1' (H002662-11)**

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	10/07/2020	ND	1.95	97.5	2.00	5.26	
Toluene*	<0.050	0.050	10/07/2020	ND	2.01	100	2.00	3.71	
Ethylbenzene*	<0.050	0.050	10/07/2020	ND	1.95	97.5	2.00	3.56	
Total Xylenes*	<0.150	0.150	10/07/2020	ND	5.71	95.1	6.00	2.86	
Total BTEx	<0.300	0.300	10/07/2020	ND					

Surrogate: 4-Bromofluorobenzene (PID) 96.1 % 73.3-129

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	<16.0	16.0	10/08/2020	ND	400	100	400	11.3		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	10/08/2020	ND	206	103	200	2.20	
DRO >C10-C28*	<10.0	10.0	10/08/2020	ND	220	110	200	1.56	
EXT DRO >C28-C36	<10.0	10.0	10/08/2020	ND					

Surrogate: 1-Chlorooctane 110 % 44.3-144

Surrogate: 1-Chlorooctadecane 127 % 42.2-156

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\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager



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: 10/07/2020  
 Reported: 10/08/2020  
 Project Name: STATE PA #7  
 Project Number: NONE GIVEN  
 Project Location: NOT GIVEN

Sampling Date: 10/07/2020  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Jodi Henson

**Sample ID: SP 4 @ 2' (H002662-12)**

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	10/07/2020	ND	1.95	97.5	2.00	5.26	
Toluene*	<0.050	0.050	10/07/2020	ND	2.01	100	2.00	3.71	
Ethylbenzene*	<0.050	0.050	10/07/2020	ND	1.95	97.5	2.00	3.56	
Total Xylenes*	<0.150	0.150	10/07/2020	ND	5.71	95.1	6.00	2.86	
Total BTEx	<0.300	0.300	10/07/2020	ND					

Surrogate: 4-Bromofluorobenzene (PID) 99.3 % 73.3-129

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	32.0	16.0	10/08/2020	ND	400	100	400	3.92	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	10/08/2020	ND	206	103	200	2.20	
DRO >C10-C28*	<10.0	10.0	10/08/2020	ND	220	110	200	1.56	
EXT DRO >C28-C36	<10.0	10.0	10/08/2020	ND					

Surrogate: 1-Chlorooctane 116 % 44.3-144

Surrogate: 1-Chlorooctadecane 134 % 42.2-156

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Celey D. Keene, Lab Director/Quality Manager



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

### Notes and Definitions

QR-03	The RPD value for the sample duplicate or MS/MSD was outside of QC acceptance limits due to matrix interference. QC batch accepted based on LCS and/or LCSD recovery and/or RPD values.
ND	Analyte NOT DETECTED at or above the reporting limit
RPD	Relative Percent Difference
**	Samples not received at proper temperature of 6°C or below.
***	Insufficient time to reach temperature.
-	Chloride by SM4500Cl-B does not require samples be received at or below 6°C Samples reported on an as received basis (wet) unless otherwise noted on report

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A handwritten signature in black ink, appearing to read "Celey D. Keene".

Celey D. Keene, Lab Director/Quality Manager



**CARDINAL**  
Laboratories

## CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

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

[illegible]





## CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

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

[illegible]



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

February 13, 2014

BRUCE BAKER

APACHE - EUNICE

P. O. BOX 1849

EUNICE, NM 88231

RE: STATE PA #007

Enclosed are the results of analyses for samples received by the laboratory on 02/07/14 16:50.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-13-5. Accreditation applies to drinking water, non-potable water and solid and chemical materials. All accredited analytes are denoted by an asterisk (\*). For a complete list of accredited analytes and matrices visit the TCEQ website at [www.tceq.texas.gov/field/qa/lab\\_accred\\_certif.html](http://www.tceq.texas.gov/field/qa/lab_accred_certif.html).

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

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

Accreditation applies to public drinking water matrices.

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

Sincerely,

A handwritten signature in black ink that reads "Celey D. Keene". The signature is written in a cursive style with a large, stylized 'C' and 'K'.

Celey D. Keene

Lab Director/Quality Manager



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

**Analytical Results For:**

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

Received: 02/07/2014  
 Reported: 02/13/2014  
 Project Name: STATE PA #007  
 Project Number: NONE GIVEN  
 Project Location: EUNICE, NM

Sampling Date: 02/06/2014  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Jodi Henson

**Sample ID: WEST @ 18" (H400397-01)**

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	32.0	16.0	02/13/2014	ND	400	100	400	0.00	

**Sample ID: CENTER @ 18" (H400397-02)**

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	32.0	16.0	02/13/2014	ND	400	100	400	0.00	

**Sample ID: EAST @ 18" (H400397-03)**

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	16.0	16.0	02/13/2014	ND	400	100	400	0.00	

Cardinal Laboratories

\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager

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 SM4500Cl-B does not require samples be received at or below 6°C Samples reported on an as received basis (wet) unless otherwise noted on report

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Cardinal Laboratories

\*=Accredited Analyte

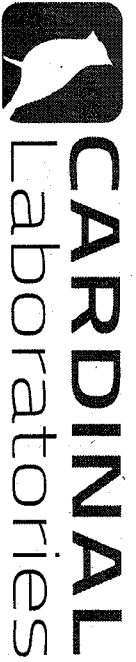
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A handwritten signature in black ink that reads "Celey D. Keene".

---

Celey D. Keene, Lab Director/Quality Manager





## CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

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

Company Name: <u>Phoenix Environmental</u>		P.O. #:		BILL TO												ANALYSIS REQUEST																											
Project Manager: <u>Allen Hobbs</u>		Company: <u>Apache</u>																																									
Address: <u>PO Box 1856</u>		Attn: <u>Dr. Baker</u>																																									
City: <u>Hobbs</u>		Address:																																									
Phone #: <u>575-391-9685</u>		City: <u>Phoenix</u>																																									
Fax #: <u>391-9687</u>		State: <u>Zip:</u>																																									
Project #: <u>Project Owner: Apache</u>		State: <u>Zip:</u>																																									
Project Name: <u>ST PA #007 TUR BAT</u>		Phone #:																																									
Project Location: <u>Ennis LAALO NM</u>		Fax #:																																									
Sampler Name: <u>Allen Hobbs</u>																																											
FOR LAB USE ONLY																																											
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															
H4DO397		WEST @ 18"		S		1						X														2-6-4		11:00		X													
		CENTER @ 18"		S		2						X														11:30		X															
		EAST @ 18"		S		3						X														12:00		+															

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Relinquished By: <u>[Signature]</u>	Date: <u>2-2-14</u>	Received By: <u>[Signature]</u>	Date: <u>4:50</u>	Phone Result: <input type="checkbox"/> Yes <input type="checkbox"/> No	Add'l Phone #: <u>541-403-2326</u>
Relinquished By: <u>[Signature]</u>	Date: <u>4:50</u>	Received By: <u>[Signature]</u>	Date: <u>4:50</u>	Fax Result: <input type="checkbox"/> Yes <input type="checkbox"/> No	Add'l Fax #: <u>541-403-2476</u>

Delivered By: (Circle One) UPS 5:30 Sample Condition: ☒ Cool ☐ Intact ☐ Yes ☐ No

Sampler - UPS - Bus - Other: 5:30 Checked By: [Signature]

REMARKS: Send copy to Allen @ EAHobbs@Phoenix-SNM. US



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

November 06, 2013

Allen Hodge

Phoenix Environmental, LLC

P.O. Box 1856

Hobbs, NM 88240

RE: STATE PA #007 TANK BATTERY

Enclosed are the results of analyses for samples received by the laboratory on 11/01/13 12:20.

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

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Method EPA 524.2	Total Trihalomethanes (TTHM)
Method EPA 524.4	Regulated VOCs (V1, V2, V3)

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

Sincerely,

A handwritten signature in black ink that reads "Celey D. Keene". The signature is written in a cursive style with a large, stylized 'C' and 'K'.

Celey D. Keene

Lab Director/Quality Manager



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

**Analytical Results For:**

Phoenix Environmental, LLC  
 Allen Hodge  
 P.O. Box 1856  
 Hobbs NM, 88240  
 Fax To: (575) 391-9687

Received:	11/01/2013	Sampling Date:	10/31/2013
Reported:	11/06/2013	Sampling Type:	Soil
Project Name:	STATE PA #007 TANK BATTERY	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Kathy Perez
Project Location:	EUNICE, NM		

**Sample ID: SPILL AREA 0-4" (H302671-01)**

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
<b>Chloride</b>	<b>480</b>	16.0	11/04/2013	ND	400	100	400	3.92	
TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	11/01/2013	ND	175	87.6	200	8.35	
<b>DRO &gt;C10-C28</b>	<b>13.3</b>	10.0	11/01/2013	ND	165	82.6	200	10.0	

Surrogate: 1-Chlorooctane 88.3 % 65.2-140

Surrogate: 1-Chlorooctadecane 95.8 % 63.6-154

Cardinal Laboratories

\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager



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

---

### Notes and Definitions

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

---

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A handwritten signature in black ink that reads "Celey D. Keene".

---

Celey D. Keene, Lab Director/Quality Manager



## **CHAIN-OF-CUSTODY AND ANALYSIS REQUEST**

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

[illegible]









**District I**  
1625 N. French Dr., Hobbs, NM 88240  
Phone:(575) 393-6161 Fax:(575) 393-0720  
**District II**  
811 S. First St., Artesia, NM 88210  
Phone:(575) 748-1283 Fax:(575) 748-9720  
**District III**  
1000 Rio Brazos Rd., Aztec, NM 87410  
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 10661

CONDITIONS

Operator: APACHE CORPORATION 303 Veterans Airpark Ln Midland, TX 79705	OGRID: 873
	Action Number: 10661
	Action Type: [C-141] Release Corrective Action (C-141)

CONDITIONS

Created By	Condition	Condition Date
amaxwell	None	1/25/2023