

Incident ID	NRM1931831123
District RP	
Facility ID	
Application ID	

## Closure

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

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

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

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to OCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the OCD does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In addition, OCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations. The responsible party acknowledges they must substantially restore, reclaim, and re-vegetate the impacted surface area to the conditions that existed prior to the release or their final land use in accordance with 19.15.29.13 NMAC including notification to the OCD when reclamation and re-vegetation are complete.

Printed Name: Larry Baker

Title: Environmental Tech Sr. Staff

Signature: Larry Baker

Date: 6/15/2023

email: larry.baker@apachecorp.com

Telephone: 432-818-1654

**OCD Only**

Received by: Robert Hamlet

Date: 11/27/2023

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: Robert Hamlet

Date: 11/27/2023

Printed Name: Robert Hamlet

Title: Environmental Specialist - Advanced



303 Veterans Airpark Lane Midland, TX 79705

June 15, 2023

Re: EAU 47

Case # NRM1931831123

The OCD has requested further information for the variance request in Sec. 4 B Floor and Sec. 5 B Floor due to the opinion that the area gives the appearance of a legacy type of pit. Attached are the photos that provide evidence that it is historical impact not associated with this release. The TPH values in the pit would have meet closure requirements prior to the new rule publication in 2018.

Apache Corporation respectfully request closure with a variance for event nRM1931831123.

Submitted by.

*Larry Baker*

**Environmental Technician Sr Staff**

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

**Cell# 432-215-2284**

**Off# 432-818-1000**















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District RP	
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## Closure

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- ☒ 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. Staff

Signature: Larry Baker

Date: 6/15/2023

email: larry.baker@apachecorp.com

Telephone: 432-818-1654

**OCD Only**

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

Date: \_\_\_\_\_

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

Closure Approved by: \_\_\_\_\_ Date: \_\_\_\_\_

Printed Name: \_\_\_\_\_

Title: \_\_\_\_\_





303 Veterans Airpark Lane Midland, TX 79705

November 2, 2022

Re: EAU 47

Case # NRM1931831123

On 9/16/2022 the closure report was denied due to OCD opinion depth to groundwater had not been adequately determined. On 10/11/2022 a soil bore (GPS: 32.794821, -104.137507) was conducted within a ½ mile radius of the release site to a depth of 114 feet. The soil bore was left open for 72 hours and gauged with no water present in the soil bore to a depth of 114 feet. The data from the soil bore indicates that groundwater is greater than 100 feet beneath the release. Attached is the soil bore log.

Submitted by.

*Larry Baker*

**Environmental Technician Sr Staff**

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

**Cell# 432-215-2284**

**Off# 432-818-1000**

# Desert Sand Water Well Services, LLC.

## Soil Bore Report

General / Well Info	Customer:		Phone:	Date:
	Well Name:		Location:	

LOG OF WELL	DEPTH		THICKNESS (feet)	COLOR AND TYPE OF MATERIAL ENCOUNTERED - INCLUDE WATER BEARING CAVITIES OR FRACTURES
	FROM	TO		

**From:** [Nobui, Jennifer, EMNRD](#)  
**To:** [Baker, Larry](#)  
**Cc:** [Billings, Bradford, EMNRD](#); [Bratcher, Michael, EMNRD](#); [Hamlet, Robert, EMNRD](#); [Harimon, Jocelyn, EMNRD](#)  
**Subject:** RE: [EXTERNAL] The Oil Conservation Division (OCD) has rejected the application, Application ID: 17889  
**Date:** Monday, October 3, 2022 3:12:34 PM

---

Hello Larry

OCD approves your request for a 2-week extension to submit a closure report. Please include a copy of this and all notifications in the remedial and/or closure reports to ensure the notifications are documented in the project file.

Thanks,  
Jennifer Nobui

---

**From:** Baker, Larry <Larry.Baker@apachecorp.com>  
**Sent:** Monday, October 3, 2022 12:24 PM  
**To:** Nobui, Jennifer, EMNRD <Jennifer.Nobui@emnrd.nm.gov>  
**Cc:** Billings, Bradford, EMNRD <Bradford.Billings@emnrd.nm.gov>; Bratcher, Michael, EMNRD <mike.bratcher@emnrd.nm.gov>; Hamlet, Robert, EMNRD <Robert.Hamlet@emnrd.nm.gov>; Harimon, Jocelyn, EMNRD <Jocelyn.Harimon@emnrd.nm.gov>  
**Subject:** RE: [EXTERNAL] The Oil Conservation Division (OCD) has rejected the application, Application ID: 17889

Ms. Nobui,

The soil bore was on site on 9/19/2022 but had some mechanical failures and could not conduct the soil bore. The repairs have been made and rescheduled the soil bore for this Wednesday. Can I request another 2 week extension. Thanks

## BRUCE BAKER

ENVIRONMENTAL TECHNICIAN SR STAFF

direct 432-818-1654 | Cell 432-215-2284

APACHE CORPORATION

303 Veterans Airpark Lane  
Midland, TX 79705

[ApacheCorp.com](#) | [LinkedIn](#) | [Facebook](#) | [Twitter](#) | [StockTwits](#) | [YouTube](#)

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**From:** Nobui, Jennifer, EMNRD <[Jennifer.Nobui@state.nm.us](mailto:Jennifer.Nobui@state.nm.us)>  
**Sent:** Wednesday, September 14, 2022 3:33 PM  
**To:** Baker, Larry <[Larry.Baker@apachecorp.com](mailto:Larry.Baker@apachecorp.com)>  
**Cc:** Billings, Bradford, EMNRD <[Bradford.Billings@state.nm.us](mailto:Bradford.Billings@state.nm.us)>; Bratcher, Mike, EMNRD <[mike.bratcher@state.nm.us](mailto:mike.bratcher@state.nm.us)>; Hamlet, Robert, EMNRD <[Robert.Hamlet@state.nm.us](mailto:Robert.Hamlet@state.nm.us)>; Harimon,



Jocelyn, EMNRD <[Jocelyn.Harimon@state.nm.us](mailto:Jocelyn.Harimon@state.nm.us)>

**Subject:** RE: [EXTERNAL] The Oil Conservation Division (OCD) has rejected the application, Application ID: 17889

Hello Larry

The OCD approves your request for a two-week extension to September 30, 2022 to submit the closure report.

Please include a copy of this and all notifications in the remedial and/or closure reports to ensure the notifications are documented in the project file.

Thanks

Jennifer Nobui

---

**From:** Baker, Larry <[Larry.Baker@apachecorp.com](mailto:Larry.Baker@apachecorp.com)>

**Sent:** Wednesday, September 14, 2022 11:13 AM

**To:** Nobui, Jennifer, EMNRD <[Jennifer.Nobui@state.nm.us](mailto:Jennifer.Nobui@state.nm.us)>

**Cc:** Billings, Bradford, EMNRD <[Bradford.Billings@state.nm.us](mailto:Bradford.Billings@state.nm.us)>; Bratcher, Mike, EMNRD <[mike.bratcher@state.nm.us](mailto:mike.bratcher@state.nm.us)>

**Subject:** RE: [EXTERNAL] The Oil Conservation Division (OCD) has rejected the application, Application ID: 17889

Ms. Nobui,

The soil bore is scheduled for Monday 9/19/2022. Apache Corporation would like to request a two week extension to resubmit the closure report. Thanks and have a good day.

**BRUCE BAKER**

ENVIRONMENTAL TECHNICIAN SR STAFF

direct 432-818-1654 | Cell 432-215-2284

APACHE CORPORATION

303 Veterans Airpark Lane

Midland, TX 79705

[ApacheCorp.com](http://ApacheCorp.com) | [LinkedIn](#) | [Facebook](#) | [Twitter](#) | [StockTwits](#) | [YouTube](#)

---

**From:** Nobui, Jennifer, EMNRD <[Jennifer.Nobui@state.nm.us](mailto:Jennifer.Nobui@state.nm.us)>

**Sent:** Tuesday, August 30, 2022 3:59 PM

**To:** Baker, Larry <[Larry.Baker@apachecorp.com](mailto:Larry.Baker@apachecorp.com)>

**Cc:** Billings, Bradford, EMNRD <[Bradford.Billings@state.nm.us](mailto:Bradford.Billings@state.nm.us)>; Bratcher, Mike, EMNRD <[mike.bratcher@state.nm.us](mailto:mike.bratcher@state.nm.us)>

**Subject:** RE: [EXTERNAL] The Oil Conservation Division (OCD) has rejected the application,

Application ID: 17889

Let me know if you need to a request an extension.

---

**From:** Baker, Larry <[Larry.Baker@apachecorp.com](mailto:Larry.Baker@apachecorp.com)>

**Sent:** Tuesday, August 30, 2022 2:56 PM

**To:** Nobui, Jennifer, EMNRD <[Jennifer.Nobui@state.nm.us](mailto:Jennifer.Nobui@state.nm.us)>

**Cc:** Billings, Bradford, EMNRD <[Bradford.Billings@state.nm.us](mailto:Bradford.Billings@state.nm.us)>; Bratcher, Mike, EMNRD <[mike.bratcher@state.nm.us](mailto:mike.bratcher@state.nm.us)>

**Subject:** RE: [EXTERNAL] The Oil Conservation Division (OCD) has rejected the application, Application ID: 17889

Ms. Nobui,

Thank you for the quick response. Although I disagree with OCD assessment of the data being insufficient Apache Corporation will spend the unnecessary cost to install a soil bore within ½ mile to demonstrate that the data provide is accurate. Please note that soil bore rigs can be difficult to schedule but I will get it done asap in attempt to meet the deadline of 9/16/2022 to resubmit a revised closure report. Thanks and have a good day.

**BRUCE BAKER**

ENVIRONMENTAL TECHNICIAN SR STAFF

direct 432-818-1654 | Cell 432-215-2284

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---

**From:** Nobui, Jennifer, EMNRD <[Jennifer.Nobui@state.nm.us](mailto:Jennifer.Nobui@state.nm.us)>

**Sent:** Tuesday, August 30, 2022 3:29 PM

**To:** Baker, Larry <[Larry.Baker@apachecorp.com](mailto:Larry.Baker@apachecorp.com)>

**Cc:** Billings, Bradford, EMNRD <[Bradford.Billings@state.nm.us](mailto:Bradford.Billings@state.nm.us)>; Bratcher, Mike, EMNRD <[mike.bratcher@state.nm.us](mailto:mike.bratcher@state.nm.us)>

**Subject:** RE: [EXTERNAL] The Oil Conservation Division (OCD) has rejected the application, Application ID: 17889

Hello Larry

The data you provided is insufficient to meet OCD requirements.

Best Regards,

**Jennifer Nobui, PG** • Environmental Specialist A  
Environmental Bureau  
EMNRD - Oil Conservation Division  
5200 Oakland Avenue N.E Suite 100 | Albuquerque, NM 87113  
505.470-3407 | [Jennifer.Nobui@state.nm.us](mailto:Jennifer.Nobui@state.nm.us)  
<http://www.emnrd.state.nm.us/OCD/>

---

**From:** Baker, Larry <[Larry.Baker@apachecorp.com](mailto:Larry.Baker@apachecorp.com)>  
**Sent:** Tuesday, August 30, 2022 1:17 PM  
**To:** Nobui, Jennifer, EMNRD <[Jennifer.Nobui@state.nm.us](mailto:Jennifer.Nobui@state.nm.us)>  
**Subject:** FW: [EXTERNAL] The Oil Conservation Division (OCD) has rejected the application, Application ID: 17889

Ms. Nobui,

Attached are two soil bore conducted that support the USGS data in the report. The soil bore to the west was conducted on 8/3/2021 and is approximately 2.24 miles from the release. That soil bore was advanced to 104 feet left open for 72 hours and no water was indicated. On 5/26/2011 a soil bore was conducted to a depth of 99.12 and left open greater than 72 hours and had no indication of water. That soil bore is approximately 1.99 miles east of the release. The USGS data last reading was conducted in 1994 with a reading 257 feet to groundwater. That well according to the GPS provided is .64 miles south of the release. Although all the data is greater than ½ mile and the well data from the USGS well is older than 25 years the data does make a good argument for water beneath the release to be greater than 100 feet. I wanted your opinion on the acceptability of this data in regards to making the case for groundwater. If it satisfies the OCD then I will include it in the closure report and resubmit to the portal. Please let me know your thoughts. Thanks and have a good day.

**BRUCE BAKER**

ENVIRONMENTAL TECHNICIAN SR STAFF  
direct 432-818-1654 | Cell 432-215-2284

APACHE CORPORATION  
303 Veterans Airpark Lane  
Midland, TX 79705

[ApacheCorp.com](http://ApacheCorp.com) | [LinkedIn](#) | [Facebook](#) | [Twitter](#) | [StockTwits](#) | [YouTube](#)

---

**From:** [OCDOnline@state.nm.us](mailto:OCDOnline@state.nm.us) <[OCDOnline@state.nm.us](mailto:OCDOnline@state.nm.us)>



**Sent:** Tuesday, August 16, 2022 2:24 PM

**To:** Baker, Larry <[Larry.Baker@apachecorp.com](mailto:Larry.Baker@apachecorp.com)>

**Subject:** [EXTERNAL] The Oil Conservation Division (OCD) has rejected the application, Application ID: 17889

To whom it may concern (c/o Larry Baker for APACHE CORPORATION),

The OCD has rejected the submitted *Application for administrative approval of a release notification and corrective action* (C-141), for incident ID (n#) nRM1931831123, for the following reasons:

- **Closure Report Denied. The depth to groundwater has not been adequately determined. When nearby wells are used to determine depth to groundwater, the wells should be no further than ½ mile away from the site, and data should be no more than 25 years old, and well construction information should be provided in the submission. The responsible party may choose to remediate to the most stringent levels listed in Table 1 of 19.15.29 NMAC in lieu of drilling to determine the depth to groundwater. Release not remediated to most stringent criteria. Please resubmit a revised Closure Report by September 16, 2022 to the OCD portal.**

The rejected C-141 can be found in the OCD Online: Permitting - Action Status, under the Application ID: 17889.

Please review and make the required correction(s) prior to resubmitting.

If you have any questions why this application was rejected or believe it was rejected in error, please contact me prior to submitting an additional C-141.

Thank you,  
Jennifer Nobui  
Environmental Specialist-Advanced  
505-470-3407  
[Jennifer.Nobui@state.nm.us](mailto:Jennifer.Nobui@state.nm.us)

**New Mexico Energy, Minerals and Natural Resources Department**  
1220 South St. Francis Drive  
Santa Fe, NM 87505

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**Apache Corporation  
EAU #47  
NRM1931831123**

**Final Remediation Report**

## Introduction

This report presents the results of remediation activities at the EAU #47. On behalf of Apache Corporation (Apache), Diamondback Disposal Services, Inc (Diamondback) was tasked with the cleanup and remediation of release NRM1931831123. The release occurred in Unit Letter P, Section 26, Township 17S, Range 28E at coordinates 32.79977, -104.13909. The remediation was performed in general accordance with the New Mexico Oil Conservation Division (NMOCD) rules and regulations for releases dated July 24, 2018.

## Overview

The spill site is located mostly on private land consisting of grass, prairie, or range lands, and active Apache lease road. Approximately 17 bbls of produced water was lost with 11 bbls being recovered and approximately 5 bbls of crude oil with 3 bbl being recovered, due to a corroded buried steel flow line.

## Regulatory Guidelines

Upon review of the site characteristics, depth to ground water being 257', according to USGS and NMOSE ground water survey, and Table 1 Closure Criteria, The Recommended Remediation Action Levels (RRAL), determined by the latest NMOCD guidelines (19.15.29 NMAC) are as follows: 20,000mg/kg Chloride, 2,500 mg/kg GRO/DRO/MRO, 1,000 mg/kg GRO/DRO, 50 mg/kg BTEX, 10mg/kg Benzene.

## Remediation Activities

Between the dates of January 5, 2021 and February 10, 2021, Diamondback excavated approximately 660 cubic yards (cy) of impacted material, loaded, and transported to R-360 (Halfway Facility) for disposal. Depth of excavation ranges from approximately 2 feet to 4 feet below ground surface (bgs). On January 8, 2021, the site was sampled to determine if RRAL's had been met. Five point composite samples were collected, every 200 square feet for both wall and floor sections, packaged and delivered to a third-party lab, with chain of custody, for testing as per regulatory standards. (see attached analytical). Upon review of analytical, not all floor and wall samples in the pasture area prove to be below RRAL's for site closure. Sections testing above RRAL's were excavated to a depth of 4 feet bgs. The site was then re-sampled on February 5, 2021. All floor samples, with the exception of B 4 (see deferment), prove to be below Table 1 closure standards, as well as restoration and reclamation standards.. All wall samples were also below Table 1 requirements as well as restoration and reclamation standards. On February 10, 2021 the site was backfilled with a total of 780 cy of clean topsoil, similar to surrounding area. Caliche was imported and placed in excavated lease road area. Material was placed in a manner to promote compaction, crowned and sloped to promote storm water runoff and erosion prevention. Excavated pasture area, including unexcavated disturbed areas., will be seeded during the next optimal growing season with State of NM Sandy Seed Mix at a rate of 30 Lbs/ acre.

## Variance of Rule

Section B 4 was investigated with vertical delineation (see analytical) to determine depth and source of impactation. Two points outside the excavation were also tested to determine horizontal extents. In our opinion this area appears to be a legacy type pit common to un-lined work-over/blowdown pits used in the past, and is unrelated to the release occurring on 8-10-20.

## **Conclusions**

Upon review all analytical and data provide by the third-party independent lab, it is our belief that all recommended remediation action levels have been met. Diamondback feels the migration of any remaining contaminants through the vadose zone, has been greatly reduced. Therefore, leaving this site in a manner that will pose very little if any future environmental threat.



SAMPLE ID	SAMPLE DATE	DEPTH (feet bgs)	CHLORIDE mg/Kg	BTEX	TPH
Sec 1 B. Floor H210061-01	1-8-21	2	160	<0.300	622
Sec 2 B. Floor H210061-02	1-8-21	2	112	<0.300	402
Sec 3 B. Floor H210061-03	1-8-21	2	96.0	<0.300	256.9
Sec 4 B. Floor H210061-04	1-8-21	2	240	<0.300	517
Sec 5 B. Floor H210061-05	1-8-21	2	368	<0.300	361
Sec 6 B. Floor H210061-01	1-8-21	2	80.0	<0.300	248.1
Sec 7 B. Floor H210061-01	1-8-21	2	288	<0.300	721
Sec 8 B. Floor H210061-08	1-8-21	2	212	<0.300	<10
Sec 9 B. Floor H210061-09	1-8-21	2	784	<0.300	39.10
Sec 10 B. Floor H210061-10	1-8-21	2	640	<0.300	268.7
Sec 11 B. Floor H210061-11	1-8-21	2	272	<0.300	10.3
Sec 12 B. Floor H210061-12	1-8-21	2	576	<0.300	64.7
Sec 13 B. Floor H210061-13	1-8-21	2	704	<0.300	273.2
Sec 14 B. Floor H210061-14	1-8-21	2	704	<0.300	134.7
Sec 15 B. Floor H210061-15	1-8-21	2	736	<0.300	163.8
Sec 16 B. Floor H210061-16	1-8-21	2	480	<0.300	23.1
Sec 17 B. Floor H210061-17	1-8-21	2	1060	<0.300	<10
Sec 18 B. Floor H210061-18	1-8-21	2	496	<0.300	18.8

Sec 19 B. Floor H210061-19	1-8-21	2	80.0	<0.300	<10
Sec 20 B. Floor H210061-20	1-8-21	2	368	<0.300	<10
Sec 21 B. Floor H210061-21	1-8-21	2	64.0	<0.300	<10
Sec 22 B. Floor H210061-22	1-8-21	2	48.0	<0.300	<10
Sec 23 B. Floor H210061-23	1-8-21	2	160	<0.300	<10.0
Sec 24 B. Floor H210061-24	1-8-21	2	128	<0.300	<10.0
Sec 25 B. Floor H210061-25	1-8-21	2	272	<0.300	<10.0
Sec 26 B. Floor H210061-26	1-8-21	2	368	<0.300	<10.0
Sec 3 W. Wall H210061-27	1-8-21	1-2	64.0	<0.300	<10.0
Sec 1 W. Wall H210061-28	1-8-21	1-2	208	<0.300	264.8
Sec 2 W. Wall H210061-29	1-8-21	1-2	112	<0.300	10.6
Sec 4 W. Wall H210061-30	1-8-21	1-2	128	<0.300	<10.0
Sec 5 W. Wall H210061-31	1-8-21	1-2	176	<0.300	<10.0
Sec 6 W. Wall H210061-32	1-8-21	1-2	192	<0.300	<10.0

SAMPLE ID	SAMPLE DATE	DEPTH (feet bgs)	CHLORIDE mg/Kg	BTEX	TPH
Sec 1 B. Floor H210294-01	2-4-21	4	N/A	N/A	274.4
Sec 2 B. Floor H210294-02	2-4-21	4	N/A	N/A	1231
Sec 3 B. Floor H210294-03	2-4-21	4	N/A	N/A	<10.0
Sec 4 B. Floor H210294-04	2-4-21	4	N/A	N/A	35.32
Sec 5 B. Floor H210294-05	2-4-21	4	N/A	N/A	2352
Sec 6 B. Floor H210294-06	2-4-21	4	N/A	N/A	,<10.0
Sec 7 B. Floor H210294-07	2-4-21	4	N/A	N/A	15.1
Sec 8 B. Floor H210294-08	2-4-21	4	N/A	N/A	<10.0
Sec 9 B. Floor H210294-08	2-4-21	4	192	N/A	N/A
Sec 10 B. Floor H210294-09	2-4-21	4	480	N/A	<10.0
Sec 13 B. Floor H210294-10	2-4-21	4	368	N/A	<10.0
Sec 13 B. Floor H210294-11	2-4-21	4	576	N/A	64.7
Sec 13 B. Floor H210294-13	2-4-21	4	704	N/A	273.2
Sec 14 B. Floor H210294-11	2-4-21	4	144	N/A	<10
Sec 15 B. Floor H210294-12	2-4-21	4	160	N/A	<10
Sec 17 B. Floor H210061-13	2-4-21	4	208	N/A	N/A
Sec 1 W. Wall H210061-14	2-4-21	1-4	48.0	N/A	<10

## Analytical Delineation

SAMPLE ID	SAMPLE DATE	DEPTH (feet bgs)	CHLORIDE mg/Kg	BTEX	TPH
Sample Field H210153-01	1-21-21	12	N/A	N/A	3806



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 ODC District office must be notified 2 days prior to final sampling)
- ☒ Description of remediation activities

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to OCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the OCD does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In addition, OCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations. The responsible party acknowledges they must substantially restore, reclaim, and re-vegetate the impacted surface area to the conditions that existed prior to the release or their final land use in accordance with 19.15.29.13 NMAC including notification to the OCD when reclamation and re-vegetation are complete.

Printed Name: Larry Baker

Title: Environmental Tech SR.

Signature: Larry Baker

Date: 2/11/2021

email: larry.baker@apachecorp.com

Telephone: 432-631-6982

**OCD Only**

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

Date: \_\_\_\_\_

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

Closure Approved by: \_\_\_\_\_ Date: \_\_\_\_\_

Printed Name: \_\_\_\_\_

Title: \_\_\_\_\_



**Legend**

- Excavation
- Floor Section Line
- Floor Sections
- W. Section Line
- Wall Sections







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## National Water Information System: Web Interface

[USGS Water Resources](#)

Data Category:


Groundwater

Geographic Area:

United States

GO

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- [Introducing The Next Generation of USGS Water Data for the Nation](#)
- [Full News](#) 

Groundwater levels for the Nation

### Search Results -- 1 sites found

site\_no list =

- 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.

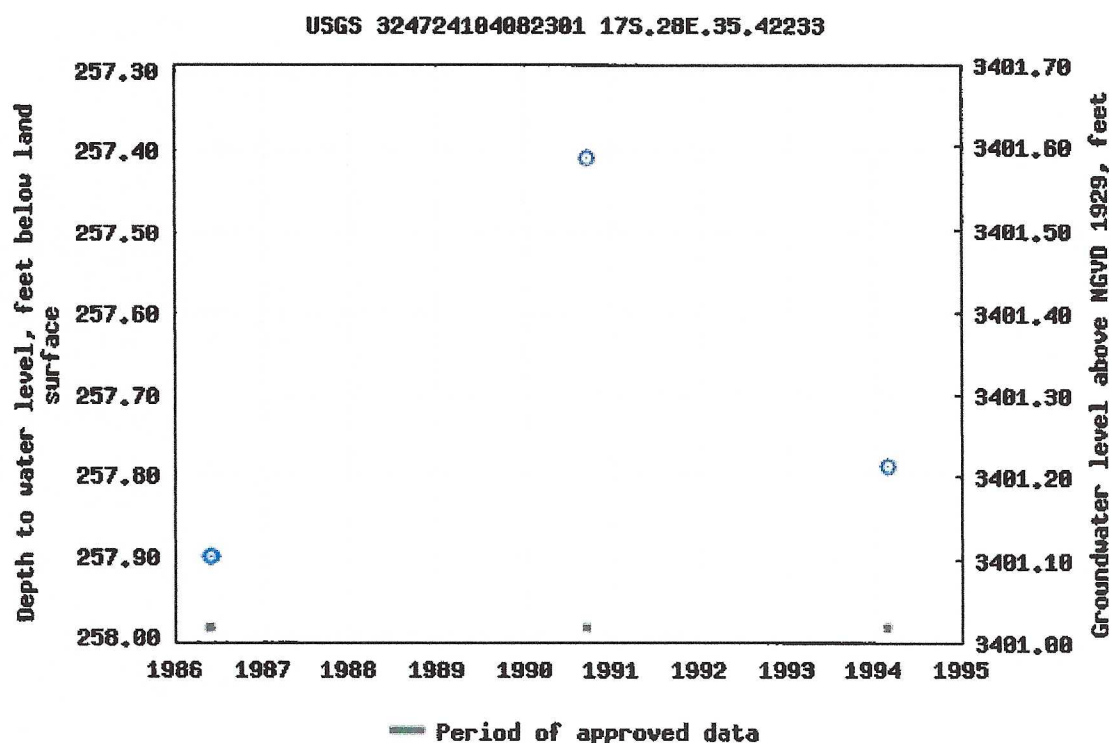
#### Output formats

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Graph of data

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Breaks in the plot represent a gap of at least one year between field measurements.

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**Title: Groundwater for USA: Water Levels**

**URL: <https://nwis.waterdata.usgs.gov/nwis/gwlevels?>**

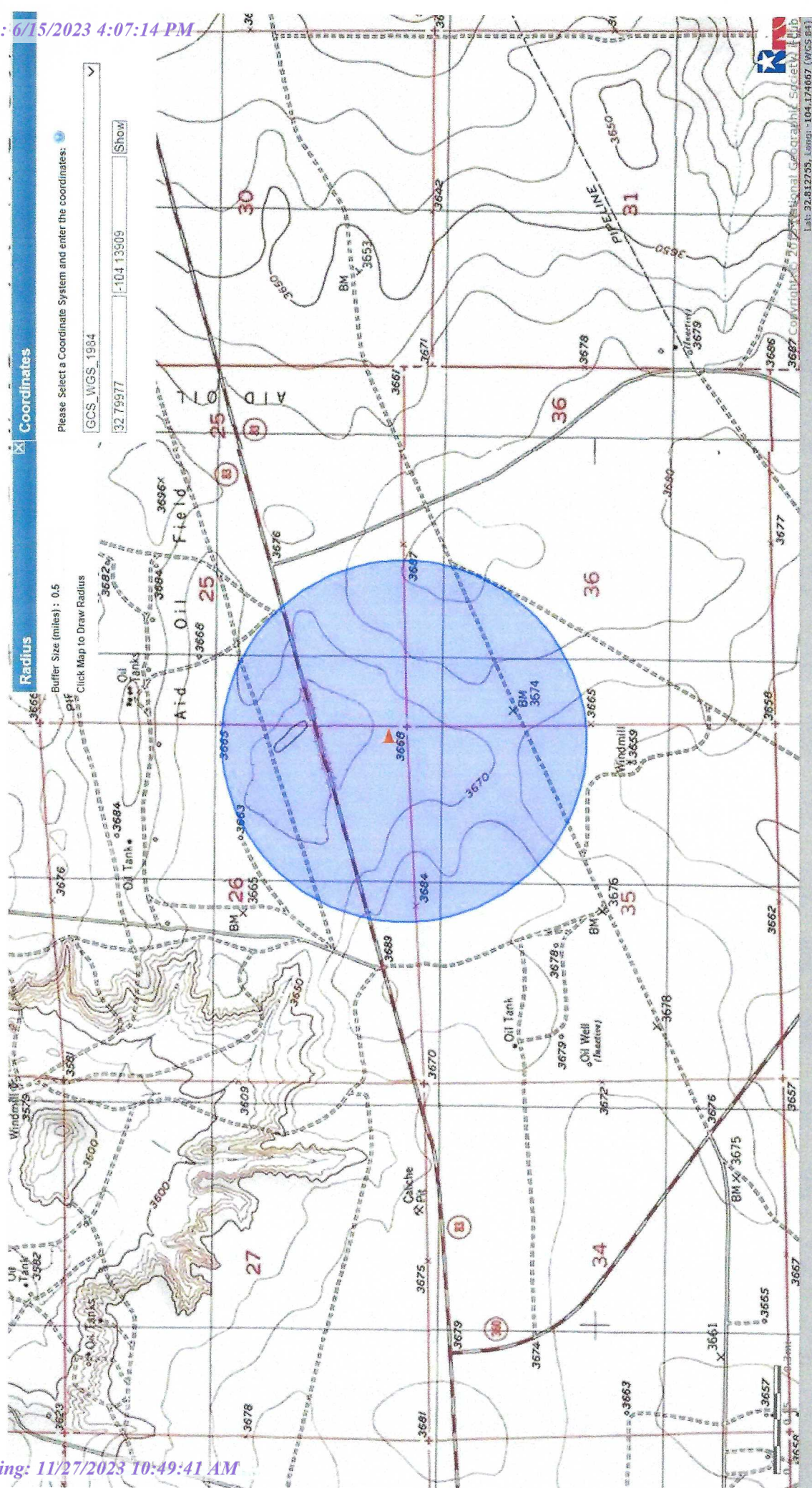
Page Contact Information: [USGS Water Data Support Team](#)

Page Last Modified: 2020-01-02 10:44:41 EST

0.57 0.48 nadww01















































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

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January 13, 2021

BRUCE BAKER

APACHE CORP - HOBBS

2350 W. MARLAND BLVD.

HOBBS, NM 88240

RE: EAU #47

Enclosed are the results of analyses for samples received by the laboratory on 01/11/21 13:30.

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".

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: 01/11/2021  
 Reported: 01/13/2021  
 Project Name: EAU #47  
 Project Number: NRM 1931831123  
 Project Location: NOT GIVEN

Sampling Date: 01/08/2021  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Jodi Henson

**Sample ID: B 1 (H210061-01)**

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	01/11/2021	ND	2.15	107	2.00	1.92	
Toluene*	<0.050	0.050	01/11/2021	ND	2.13	106	2.00	2.39	
Ethylbenzene*	<0.050	0.050	01/11/2021	ND	2.08	104	2.00	2.01	
Total Xylenes*	<0.150	0.150	01/11/2021	ND	6.04	101	6.00	2.30	
Total BTEX	<0.300	0.300	01/11/2021	ND					

Surrogate: 4-Bromofluorobenzene (PID) 99.7 % 73.3-129

Chloride, SM4500Cl-B			mg/kg		Analyzed By: GM				
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	160	16.0	01/12/2021	ND	400	100	400	0.00	

TPH 8015M			mg/kg		Analyzed By: MS				
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	01/12/2021	ND	224	112	200	1.68	
DRO >C10-C28*	407	10.0	01/12/2021	ND	209	104	200	1.10	
EXT DRO >C28-C36	215	10.0	01/12/2021	ND					

Surrogate: 1-Chlorooctane 88.2 % 44.3-144

Surrogate: 1-Chlorooctadecane 107 % 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: 01/11/2021  
 Reported: 01/13/2021  
 Project Name: EAU #47  
 Project Number: NRM 1931831123  
 Project Location: NOT GIVEN

Sampling Date: 01/08/2021  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Jodi Henson

**Sample ID: B 2 (H210061-02)**

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	01/12/2021	ND	2.15	107	2.00	1.92		
Toluene*	<0.050	0.050	01/12/2021	ND	2.13	106	2.00	2.39		
Ethylbenzene*	<0.050	0.050	01/12/2021	ND	2.08	104	2.00	2.01		
Total Xylenes*	<0.150	0.150	01/12/2021	ND	6.04	101	6.00	2.30		
Total BTEx	<0.300	0.300	01/12/2021	ND						

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

Chloride, SM4500CI-B		mg/kg		Analyzed By: GM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	112	16.0	01/12/2021	ND	400	100	400	0.00	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	01/12/2021	ND	224	112	200	1.68	
DRO >C10-C28*	245	10.0	01/12/2021	ND	209	104	200	1.10	
EXT DRO >C28-C36	157	10.0	01/12/2021	ND					

Surrogate: 1-Chlorooctane 89.8 % 44.3-144

Surrogate: 1-Chlorooctadecane 103 % 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: 01/11/2021  
 Reported: 01/13/2021  
 Project Name: EAU #47  
 Project Number: NRM 1931831123  
 Project Location: NOT GIVEN

Sampling Date: 01/08/2021  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Jodi Henson

**Sample ID: B 3 (H210061-03)**

BTX 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	01/12/2021	ND	2.15	107	2.00	1.92	
Toluene*	<0.050	0.050	01/12/2021	ND	2.13	106	2.00	2.39	
Ethylbenzene*	<0.050	0.050	01/12/2021	ND	2.08	104	2.00	2.01	
Total Xylenes*	<0.150	0.150	01/12/2021	ND	6.04	101	6.00	2.30	
Total BTX	<0.300	0.300	01/12/2021	ND					

Surrogate: 4-Bromofluorobenzene (PID) 99.0 % 73.3-129

Chloride, SM4500CI-B		mg/kg		Analyzed By: GM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	96.0	16.0	01/12/2021	ND	400	100	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	01/12/2021	ND	224	112	200	1.68	
DRO >C10-C28*	169	10.0	01/12/2021	ND	209	104	200	1.10	
EXT DRO >C28-C36	87.9	10.0	01/12/2021	ND					

Surrogate: 1-Chlorooctane 92.4 % 44.3-144

Surrogate: 1-Chlorooctadecane 103 % 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: 01/11/2021  
 Reported: 01/13/2021  
 Project Name: EAU #47  
 Project Number: NRM 1931831123  
 Project Location: NOT GIVEN

Sampling Date: 01/08/2021  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Jodi Henson

**Sample ID: B 4 (H210061-04)**

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	01/12/2021	ND	2.15	107	2.00	1.92	
Toluene*	<0.050	0.050	01/12/2021	ND	2.13	106	2.00	2.39	
Ethylbenzene*	<0.050	0.050	01/12/2021	ND	2.08	104	2.00	2.01	
Total Xylenes*	<0.150	0.150	01/12/2021	ND	6.04	101	6.00	2.30	
Total BTEx	<0.300	0.300	01/12/2021	ND					

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

Chloride, SM4500CI-B		mg/kg		Analyzed By: GM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	240	16.0	01/12/2021	ND	400	100	400	0.00	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	01/12/2021	ND	224	112	200	1.68	
DRO >C10-C28*	342	10.0	01/12/2021	ND	209	104	200	1.10	
EXT DRO >C28-C36	175	10.0	01/12/2021	ND					

Surrogate: 1-Chlorooctane 97.6 % 44.3-144

Surrogate: 1-Chlorooctadecane 110 % 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: 01/11/2021  
 Reported: 01/13/2021  
 Project Name: EAU #47  
 Project Number: NRM 1931831123  
 Project Location: NOT GIVEN

Sampling Date: 01/08/2021  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Jodi Henson

**Sample ID: B 5 (H210061-05)**

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	01/12/2021	ND	2.15	107	2.00	1.92	
Toluene*	<0.050	0.050	01/12/2021	ND	2.13	106	2.00	2.39	
Ethylbenzene*	<0.050	0.050	01/12/2021	ND	2.08	104	2.00	2.01	
Total Xylenes*	<0.150	0.150	01/12/2021	ND	6.04	101	6.00	2.30	
Total BTEX	<0.300	0.300	01/12/2021	ND					

Surrogate: 4-Bromofluorobenzene (PID) 99.8 % 73.3-129

Chloride, SM4500Cl-B		mg/kg		Analyzed By: GM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	368	16.0	01/12/2021	ND	400	100	400	0.00	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	01/12/2021	ND	224	112	200	1.68	
DRO >C10-C28*	242	10.0	01/12/2021	ND	209	104	200	1.10	
EXT DRO >C28-C36	119	10.0	01/12/2021	ND					

Surrogate: 1-Chlorooctane 80.7 % 44.3-144

Surrogate: 1-Chlorooctadecane 89.8 % 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: 01/11/2021  
 Reported: 01/13/2021  
 Project Name: EAU #47  
 Project Number: NRM 1931831123  
 Project Location: NOT GIVEN

Sampling Date: 01/08/2021  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Jodi Henson

**Sample ID: B 6 (H210061-06)**

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	01/12/2021	ND	2.15	107	2.00	1.92	
Toluene*	<0.050	0.050	01/12/2021	ND	2.13	106	2.00	2.39	
Ethylbenzene*	<0.050	0.050	01/12/2021	ND	2.08	104	2.00	2.01	
Total Xylenes*	<0.150	0.150	01/12/2021	ND	6.04	101	6.00	2.30	
Total BTEx	<0.300	0.300	01/12/2021	ND					

Surrogate: 4-Bromofluorobenzene (PID) 99.2 % 73.3-129

Chloride, SM4500CI-B		mg/kg		Analyzed By: GM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	80.0	16.0	01/12/2021	ND	400	100	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	01/12/2021	ND	224	112	200	1.68	
DRO >C10-C28*	170	10.0	01/12/2021	ND	209	104	200	1.10	
EXT DRO >C28-C36	78.1	10.0	01/12/2021	ND					

Surrogate: 1-Chlorooctane 80.0 % 44.3-144

Surrogate: 1-Chlorooctadecane 84.5 % 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: 01/11/2021  
 Reported: 01/13/2021  
 Project Name: EAU #47  
 Project Number: NRM 1931831123  
 Project Location: NOT GIVEN

Sampling Date: 01/08/2021  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Jodi Henson

**Sample ID: B 7 (H210061-07)**

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	01/12/2021	ND	2.15	107	2.00	1.92	
Toluene*	<0.050	0.050	01/12/2021	ND	2.13	106	2.00	2.39	
Ethylbenzene*	<0.050	0.050	01/12/2021	ND	2.08	104	2.00	2.01	
Total Xylenes*	<0.150	0.150	01/12/2021	ND	6.04	101	6.00	2.30	
Total BTX	<0.300	0.300	01/12/2021	ND					

Surrogate: 4-Bromofluorobenzene (PID) 99.9 % 73.3-129

Chloride, SM4500CI-B		mg/kg		Analyzed By: GM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	288	16.0	01/12/2021	ND	400	100	400	0.00	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	01/12/2021	ND	224	112	200	1.68	
DRO >C10-C28*	514	10.0	01/12/2021	ND	209	104	200	1.10	
EXT DRO >C28-C36	207	10.0	01/12/2021	ND					

Surrogate: 1-Chlorooctane 90.9 % 44.3-144

Surrogate: 1-Chlorooctadecane 117 % 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: 01/11/2021  
 Reported: 01/13/2021  
 Project Name: EAU #47  
 Project Number: NRM 1931831123  
 Project Location: NOT GIVEN

Sampling Date: 01/08/2021  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Jodi Henson

**Sample ID: B 8 (H210061-08)**

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	01/12/2021	ND	2.15	107	2.00	1.92		
Toluene*	<0.050	0.050	01/12/2021	ND	2.13	106	2.00	2.39		
Ethylbenzene*	<0.050	0.050	01/12/2021	ND	2.08	104	2.00	2.01		
Total Xylenes*	<0.150	0.150	01/12/2021	ND	6.04	101	6.00	2.30		
Total BTEx	<0.300	0.300	01/12/2021	ND						

Surrogate: 4-Bromofluorobenzene (PID) 97.8 % 73.3-129

Chloride, SM4500Cl-B		mg/kg		Analyzed By: GM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	224	16.0	01/12/2021	ND	400	100	400	0.00	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	01/12/2021	ND	224	112	200	1.68	
DRO >C10-C28*	<10.0	10.0	01/12/2021	ND	209	104	200	1.10	
EXT DRO >C28-C36	<10.0	10.0	01/12/2021	ND					

Surrogate: 1-Chlorooctane 90.4 % 44.3-144

Surrogate: 1-Chlorooctadecane 88.7 % 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: 01/11/2021  
 Reported: 01/13/2021  
 Project Name: EAU #47  
 Project Number: NRM 1931831123  
 Project Location: NOT GIVEN

Sampling Date: 01/08/2021  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Jodi Henson

**Sample ID: B 9 (H210061-09)**

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	01/12/2021	ND	2.15	107	2.00	1.92	
Toluene*	<0.050	0.050	01/12/2021	ND	2.13	106	2.00	2.39	
Ethylbenzene*	<0.050	0.050	01/12/2021	ND	2.08	104	2.00	2.01	
Total Xylenes*	<0.150	0.150	01/12/2021	ND	6.04	101	6.00	2.30	
Total BTEx	<0.300	0.300	01/12/2021	ND					

Surrogate: 4-Bromofluorobenzene (PID) 99.7 % 73.3-129

Chloride, SM4500CI-B		mg/kg		Analyzed By: GM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	784	16.0	01/12/2021	ND	400	100	400	0.00	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	01/12/2021	ND	224	112	200	1.68	
DRO >C10-C28*	29.0	10.0	01/12/2021	ND	209	104	200	1.10	
EXT DRO >C28-C36	10.1	10.0	01/12/2021	ND					

Surrogate: 1-Chlorooctane 96.1 % 44.3-144

Surrogate: 1-Chlorooctadecane 95.5 % 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: 01/11/2021  
 Reported: 01/13/2021  
 Project Name: EAU #47  
 Project Number: NRM 1931831123  
 Project Location: NOT GIVEN

Sampling Date: 01/08/2021  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Jodi Henson

**Sample ID: B 10 (H210061-10)**

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	01/12/2021	ND	2.15	107	2.00	1.92	
Toluene*	<0.050	0.050	01/12/2021	ND	2.13	106	2.00	2.39	
Ethylbenzene*	<0.050	0.050	01/12/2021	ND	2.08	104	2.00	2.01	
Total Xylenes*	<0.150	0.150	01/12/2021	ND	6.04	101	6.00	2.30	
Total BTX	<0.300	0.300	01/12/2021	ND					

Surrogate: 4-Bromofluorobenzene (PID) 99.6 % 73.3-129

Chloride, SM4500CI-B		mg/kg		Analyzed By: GM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	640	16.0	01/12/2021	ND	400	100	400	0.00	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	01/12/2021	ND	224	112	200	1.68	
DRO >C10-C28*	182	10.0	01/12/2021	ND	209	104	200	1.10	
EXT DRO >C28-C36	86.7	10.0	01/12/2021	ND					

Surrogate: 1-Chlorooctane 85.0 % 44.3-144

Surrogate: 1-Chlorooctadecane 93.5 % 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: 01/11/2021  
 Reported: 01/13/2021  
 Project Name: EAU #47  
 Project Number: NRM 1931831123  
 Project Location: NOT GIVEN

Sampling Date: 01/08/2021  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Jodi Henson

**Sample ID: B 11 (H210061-11)**

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	01/12/2021	ND	2.15	107	2.00	1.92	
Toluene*	<0.050	0.050	01/12/2021	ND	2.13	106	2.00	2.39	
Ethylbenzene*	<0.050	0.050	01/12/2021	ND	2.08	104	2.00	2.01	
Total Xylenes*	<0.150	0.150	01/12/2021	ND	6.04	101	6.00	2.30	
Total BTX	<0.300	0.300	01/12/2021	ND					

Surrogate: 4-Bromofluorobenzene (PID) 99.8 % 73.3-129

Chloride, SM4500CI-B		mg/kg		Analyzed By: GM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	272	16.0	01/12/2021	ND	400	100	400	0.00	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	01/12/2021	ND	224	112	200	1.68	
DRO >C10-C28*	10.3	10.0	01/12/2021	ND	209	104	200	1.10	
EXT DRO >C28-C36	<10.0	10.0	01/12/2021	ND					

Surrogate: 1-Chlorooctane 92.6 % 44.3-144

Surrogate: 1-Chlorooctadecane 89.8 % 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: 01/11/2021  
 Reported: 01/13/2021  
 Project Name: EAU #47  
 Project Number: NRM 1931831123  
 Project Location: NOT GIVEN

Sampling Date: 01/08/2021  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Jodi Henson

**Sample ID: B 12 (H210061-12)**

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	01/12/2021	ND	2.15	107	2.00	1.92	
Toluene*	<0.050	0.050	01/12/2021	ND	2.13	106	2.00	2.39	
Ethylbenzene*	<0.050	0.050	01/12/2021	ND	2.08	104	2.00	2.01	
Total Xylenes*	<0.150	0.150	01/12/2021	ND	6.04	101	6.00	2.30	
Total BTX	<0.300	0.300	01/12/2021	ND					

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

Chloride, SM4500CI-B		mg/kg		Analyzed By: GM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	576	16.0	01/12/2021	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	01/12/2021	ND	224	112	200	1.68	
DRO >C10-C28*	47.8	10.0	01/12/2021	ND	209	104	200	1.10	
EXT DRO >C28-C36	16.9	10.0	01/12/2021	ND					

Surrogate: 1-Chlorooctane 91.7 % 44.3-144

Surrogate: 1-Chlorooctadecane 92.0 % 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: 01/11/2021  
 Reported: 01/13/2021  
 Project Name: EAU #47  
 Project Number: NRM 1931831123  
 Project Location: NOT GIVEN

Sampling Date: 01/08/2021  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Jodi Henson

**Sample ID: B 13 (H210061-13)**

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	01/12/2021	ND	2.15	107	2.00	1.92		
Toluene*	<0.050	0.050	01/12/2021	ND	2.13	106	2.00	2.39		
Ethylbenzene*	<0.050	0.050	01/12/2021	ND	2.08	104	2.00	2.01		
Total Xylenes*	<0.150	0.150	01/12/2021	ND	6.04	101	6.00	2.30		
Total BTEx	<0.300	0.300	01/12/2021	ND						

Surrogate: 4-Bromofluorobenzene (PID) 99.6 % 73.3-129

Chloride, SM4500CI-B		mg/kg		Analyzed By: GM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	704	16.0	01/12/2021	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	01/12/2021	ND	224	112	200	1.68	
DRO >C10-C28*	186	10.0	01/12/2021	ND	209	104	200	1.10	
EXT DRO >C28-C36	87.2	10.0	01/12/2021	ND					

Surrogate: 1-Chlorooctane 89.1 % 44.3-144

Surrogate: 1-Chlorooctadecane 97.2 % 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: 01/11/2021  
 Reported: 01/13/2021  
 Project Name: EAU #47  
 Project Number: NRM 1931831123  
 Project Location: NOT GIVEN

Sampling Date: 01/08/2021  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Jodi Henson

**Sample ID: B 14 (H210061-14)**

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	01/12/2021	ND	2.15	107	2.00	1.92		
Toluene*	<0.050	0.050	01/12/2021	ND	2.13	106	2.00	2.39		
Ethylbenzene*	<0.050	0.050	01/12/2021	ND	2.08	104	2.00	2.01		
Total Xylenes*	<0.150	0.150	01/12/2021	ND	6.04	101	6.00	2.30		
Total BTEx	<0.300	0.300	01/12/2021	ND						

Surrogate: 4-Bromofluorobenzene (PID) 99.9 % 73.3-129

Chloride, SM4500CI-B		mg/kg		Analyzed By: GM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	704	16.0	01/12/2021	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	01/12/2021	ND	224	112	200	1.68	
DRO >C10-C28*	95.1	10.0	01/12/2021	ND	209	104	200	1.10	
EXT DRO >C28-C36	39.6	10.0	01/12/2021	ND					

Surrogate: 1-Chlorooctane 88.1 % 44.3-144

Surrogate: 1-Chlorooctadecane 90.2 % 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: 01/11/2021  
 Reported: 01/13/2021  
 Project Name: EAU #47  
 Project Number: NRM 1931831123  
 Project Location: NOT GIVEN

Sampling Date: 01/08/2021  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Jodi Henson

**Sample ID: B 15 (H210061-15)**

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	01/12/2021	ND	2.08	104	2.00	3.03	
Toluene*	<0.050	0.050	01/12/2021	ND	2.06	103	2.00	3.53	
Ethylbenzene*	<0.050	0.050	01/12/2021	ND	2.00	100	2.00	4.24	
Total Xylenes*	<0.150	0.150	01/12/2021	ND	5.87	97.8	6.00	3.62	
Total BTEx	<0.300	0.300	01/12/2021	ND					

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

Chloride, SM4500Cl-B		mg/kg		Analyzed By: GM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	736	16.0	01/12/2021	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	01/12/2021	ND	222	111	200	1.01	QR-03
DRO >C10-C28*	125	10.0	01/12/2021	ND	217	108	200	1.02	
EXT DRO >C28-C36	38.8	10.0	01/12/2021	ND					

Surrogate: 1-Chlorooctane 94.4 % 44.3-144

Surrogate: 1-Chlorooctadecane 96.8 % 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: 01/11/2021  
 Reported: 01/13/2021  
 Project Name: EAU #47  
 Project Number: NRM 1931831123  
 Project Location: NOT GIVEN

Sampling Date: 01/08/2021  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Jodi Henson

**Sample ID: B 16 (H210061-16)**

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	01/12/2021	ND	2.08	104	2.00	3.03		
Toluene*	<0.050	0.050	01/12/2021	ND	2.06	103	2.00	3.53		
Ethylbenzene*	<0.050	0.050	01/12/2021	ND	2.00	100	2.00	4.24		
Total Xylenes*	<0.150	0.150	01/12/2021	ND	5.87	97.8	6.00	3.62		
Total BTX	<0.300	0.300	01/12/2021	ND						

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

Chloride, SM4500CI-B		mg/kg		Analyzed By: GM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	480	16.0	01/12/2021	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	01/12/2021	ND	222	111	200	1.01	
DRO >C10-C28*	23.1	10.0	01/12/2021	ND	217	108	200	1.02	
EXT DRO >C28-C36	<10.0	10.0	01/12/2021	ND					

Surrogate: 1-Chlorooctane 94.0 % 44.3-144

Surrogate: 1-Chlorooctadecane 93.1 % 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: 01/11/2021  
 Reported: 01/13/2021  
 Project Name: EAU #47  
 Project Number: NRM 1931831123  
 Project Location: NOT GIVEN

Sampling Date: 01/08/2021  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Jodi Henson

**Sample ID: B 17 (H210061-17)**

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	01/12/2021	ND	2.08	104	2.00	3.03	
Toluene*	<0.050	0.050	01/12/2021	ND	2.06	103	2.00	3.53	
Ethylbenzene*	<0.050	0.050	01/12/2021	ND	2.00	100	2.00	4.24	
Total Xylenes*	<0.150	0.150	01/12/2021	ND	5.87	97.8	6.00	3.62	
Total BTX	<0.300	0.300	01/12/2021	ND					

Surrogate: 4-Bromofluorobenzene (PID) 99.7 % 73.3-129

Chloride, SM4500CI-B		mg/kg		Analyzed By: GM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	1060	16.0	01/12/2021	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	01/12/2021	ND	222	111	200	1.01	
DRO >C10-C28*	<10.0	10.0	01/12/2021	ND	217	108	200	1.02	
EXT DRO >C28-C36	<10.0	10.0	01/12/2021	ND					

Surrogate: 1-Chlorooctane 94.1 % 44.3-144

Surrogate: 1-Chlorooctadecane 91.4 % 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: 01/11/2021  
 Reported: 01/13/2021  
 Project Name: EAU #47  
 Project Number: NRM 1931831123  
 Project Location: NOT GIVEN

Sampling Date: 01/08/2021  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Jodi Henson

**Sample ID: B 18 (H210061-18)**

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	01/12/2021	ND	2.08	104	2.00	3.03		
Toluene*	<0.050	0.050	01/12/2021	ND	2.06	103	2.00	3.53		
Ethylbenzene*	<0.050	0.050	01/12/2021	ND	2.00	100	2.00	4.24		
Total Xylenes*	<0.150	0.150	01/12/2021	ND	5.87	97.8	6.00	3.62		
Total BTX	<0.300	0.300	01/12/2021	ND						

Surrogate: 4-Bromofluorobenzene (PID) 98.8 % 73.3-129

Chloride, SM4500CI-B		mg/kg		Analyzed By: GM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	496	16.0	01/12/2021	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	01/12/2021	ND	222	111	200	1.01	
DRO >C10-C28*	18.8	10.0	01/12/2021	ND	217	108	200	1.02	
EXT DRO >C28-C36	<10.0	10.0	01/12/2021	ND					

Surrogate: 1-Chlorooctane 89.4 % 44.3-144

Surrogate: 1-Chlorooctadecane 87.9 % 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: 01/11/2021  
 Reported: 01/13/2021  
 Project Name: EAU #47  
 Project Number: NRM 1931831123  
 Project Location: NOT GIVEN

Sampling Date: 01/08/2021  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Jodi Henson

**Sample ID: B 19 (H210061-19)**

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	01/12/2021	ND	2.08	104	2.00	3.03		
Toluene*	<0.050	0.050	01/12/2021	ND	2.06	103	2.00	3.53		
Ethylbenzene*	<0.050	0.050	01/12/2021	ND	2.00	100	2.00	4.24		
Total Xylenes*	<0.150	0.150	01/12/2021	ND	5.87	97.8	6.00	3.62		
Total BTX	<0.300	0.300	01/12/2021	ND						

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

Chloride, SM4500CI-B		mg/kg		Analyzed By: GM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	80.0	16.0	01/12/2021	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	01/12/2021	ND	222	111	200	1.01	
DRO >C10-C28*	<10.0	10.0	01/12/2021	ND	217	108	200	1.02	
EXT DRO >C28-C36	<10.0	10.0	01/12/2021	ND					

Surrogate: 1-Chlorooctane 101 % 44.3-144

Surrogate: 1-Chlorooctadecane 96.4 % 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: 01/11/2021  
 Reported: 01/13/2021  
 Project Name: EAU #47  
 Project Number: NRM 1931831123  
 Project Location: NOT GIVEN

Sampling Date: 01/08/2021  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Jodi Henson

**Sample ID: B 20 (H210061-20)**

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	01/12/2021	ND	2.08	104	2.00	3.03	
Toluene*	<0.050	0.050	01/12/2021	ND	2.06	103	2.00	3.53	
Ethylbenzene*	<0.050	0.050	01/12/2021	ND	2.00	100	2.00	4.24	
Total Xylenes*	<0.150	0.150	01/12/2021	ND	5.87	97.8	6.00	3.62	
Total BTX	<0.300	0.300	01/12/2021	ND					

Surrogate: 4-Bromofluorobenzene (PID) 100 % 73.3-129

Chloride, SM4500CI-B		mg/kg		Analyzed By: GM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	368	16.0	01/12/2021	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	01/12/2021	ND	222	111	200	1.01	
DRO >C10-C28*	<10.0	10.0	01/12/2021	ND	217	108	200	1.02	
EXT DRO >C28-C36	<10.0	10.0	01/12/2021	ND					

Surrogate: 1-Chlorooctane 91.6 % 44.3-144

Surrogate: 1-Chlorooctadecane 91.6 % 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: 01/11/2021  
 Reported: 01/13/2021  
 Project Name: EAU #47  
 Project Number: NRM 1931831123  
 Project Location: NOT GIVEN

Sampling Date: 01/08/2021  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Jodi Henson

**Sample ID: B 21 (H210061-21)**

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	01/12/2021	ND	2.08	104	2.00	3.03	
Toluene*	<0.050	0.050	01/12/2021	ND	2.06	103	2.00	3.53	
Ethylbenzene*	<0.050	0.050	01/12/2021	ND	2.00	100	2.00	4.24	
Total Xylenes*	<0.150	0.150	01/12/2021	ND	5.87	97.8	6.00	3.62	
Total BTEx	<0.300	0.300	01/12/2021	ND					

Surrogate: 4-Bromofluorobenzene (PID) 99.6 % 73.3-129

Chloride, SM4500Cl-B		mg/kg		Analyzed By: GM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	64.0	16.0	01/12/2021	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	01/12/2021	ND	222	111	200	1.01	
DRO >C10-C28*	<10.0	10.0	01/12/2021	ND	217	108	200	1.02	
EXT DRO >C28-C36	<10.0	10.0	01/12/2021	ND					

Surrogate: 1-Chlorooctane 91.2 % 44.3-144

Surrogate: 1-Chlorooctadecane 90.8 % 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: 01/11/2021  
 Reported: 01/13/2021  
 Project Name: EAU #47  
 Project Number: NRM 1931831123  
 Project Location: NOT GIVEN

Sampling Date: 01/08/2021  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Jodi Henson

**Sample ID: B 22 (H210061-22)**

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	01/12/2021	ND	2.08	104	2.00	3.03	
Toluene*	<0.050	0.050	01/12/2021	ND	2.06	103	2.00	3.53	
Ethylbenzene*	<0.050	0.050	01/12/2021	ND	2.00	100	2.00	4.24	
Total Xylenes*	<0.150	0.150	01/12/2021	ND	5.87	97.8	6.00	3.62	
Total BTX	<0.300	0.300	01/12/2021	ND					

Surrogate: 4-Bromofluorobenzene (PID) 98.0 % 73.3-129

Chloride, SM4500CI-B		mg/kg		Analyzed By: GM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	48.0	16.0	01/12/2021	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	01/12/2021	ND	222	111	200	1.01	
DRO >C10-C28*	<10.0	10.0	01/12/2021	ND	217	108	200	1.02	
EXT DRO >C28-C36	<10.0	10.0	01/12/2021	ND					

Surrogate: 1-Chlorooctane 94.0 % 44.3-144

Surrogate: 1-Chlorooctadecane 90.9 % 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: 01/11/2021  
 Reported: 01/13/2021  
 Project Name: EAU #47  
 Project Number: NRM 1931831123  
 Project Location: NOT GIVEN

Sampling Date: 01/08/2021  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Jodi Henson

**Sample ID: B 23 (H210061-23)**

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	01/12/2021	ND	2.08	104	2.00	3.03	
Toluene*	<0.050	0.050	01/12/2021	ND	2.06	103	2.00	3.53	
Ethylbenzene*	<0.050	0.050	01/12/2021	ND	2.00	100	2.00	4.24	
Total Xylenes*	<0.150	0.150	01/12/2021	ND	5.87	97.8	6.00	3.62	
Total BTX	<0.300	0.300	01/12/2021	ND					

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

Chloride, SM4500CI-B		mg/kg		Analyzed By: GM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	160	16.0	01/12/2021	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	01/12/2021	ND	222	111	200	1.01	
DRO >C10-C28*	<10.0	10.0	01/12/2021	ND	217	108	200	1.02	
EXT DRO >C28-C36	<10.0	10.0	01/12/2021	ND					

Surrogate: 1-Chlorooctane 94.2 % 44.3-144

Surrogate: 1-Chlorooctadecane 94.7 % 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: 01/11/2021  
 Reported: 01/13/2021  
 Project Name: EAU #47  
 Project Number: NRM 1931831123  
 Project Location: NOT GIVEN

Sampling Date: 01/08/2021  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Jodi Henson

**Sample ID: B 24 (H210061-24)**

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	01/12/2021	ND	2.08	104	2.00	3.03	
Toluene*	<0.050	0.050	01/12/2021	ND	2.06	103	2.00	3.53	
Ethylbenzene*	<0.050	0.050	01/12/2021	ND	2.00	100	2.00	4.24	
Total Xylenes*	<0.150	0.150	01/12/2021	ND	5.87	97.8	6.00	3.62	
Total BTEX	<0.300	0.300	01/12/2021	ND					

Surrogate: 4-Bromofluorobenzene (PID) 99.8 % 73.3-129

Chloride, SM4500Cl-B		mg/kg		Analyzed By: GM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	128	16.0	01/12/2021	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	01/12/2021	ND	222	111	200	1.01	
DRO >C10-C28*	<10.0	10.0	01/12/2021	ND	217	108	200	1.02	
EXT DRO >C28-C36	<10.0	10.0	01/12/2021	ND					

Surrogate: 1-Chlorooctane 86.3 % 44.3-144

Surrogate: 1-Chlorooctadecane 85.6 % 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: 01/11/2021  
 Reported: 01/13/2021  
 Project Name: EAU #47  
 Project Number: NRM 1931831123  
 Project Location: NOT GIVEN

Sampling Date: 01/08/2021  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Jodi Henson

**Sample ID: B 25 (H210061-25)**

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	01/12/2021	ND	2.08	104	2.00	3.03	
Toluene*	<0.050	0.050	01/12/2021	ND	2.06	103	2.00	3.53	
Ethylbenzene*	<0.050	0.050	01/12/2021	ND	2.00	100	2.00	4.24	
Total Xylenes*	<0.150	0.150	01/12/2021	ND	5.87	97.8	6.00	3.62	
Total BTX	<0.300	0.300	01/12/2021	ND					

Surrogate: 4-Bromofluorobenzene (PID) 98.6 % 73.3-129

Chloride, SM4500CI-B		mg/kg		Analyzed By: GM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	272	16.0	01/12/2021	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	01/12/2021	ND	222	111	200	1.01	
DRO >C10-C28*	<10.0	10.0	01/12/2021	ND	217	108	200	1.02	
EXT DRO >C28-C36	<10.0	10.0	01/12/2021	ND					

Surrogate: 1-Chlorooctane 85.7 % 44.3-144

Surrogate: 1-Chlorooctadecane 84.6 % 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: 01/11/2021  
 Reported: 01/13/2021  
 Project Name: EAU #47  
 Project Number: NRM 1931831123  
 Project Location: NOT GIVEN

Sampling Date: 01/08/2021  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Jodi Henson

**Sample ID: B 26 (H210061-26)**

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	01/12/2021	ND	2.08	104	2.00	3.03		
Toluene*	<0.050	0.050	01/12/2021	ND	2.06	103	2.00	3.53		
Ethylbenzene*	<0.050	0.050	01/12/2021	ND	2.00	100	2.00	4.24		
Total Xylenes*	<0.150	0.150	01/12/2021	ND	5.87	97.8	6.00	3.62		
Total BTEX	<0.300	0.300	01/12/2021	ND						

Surrogate: 4-Bromofluorobenzene (PID) 99.2 % 73.3-129

Chloride, SM4500Cl-B		mg/kg		Analyzed By: GM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	368	16.0	01/12/2021	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	01/12/2021	ND	222	111	200	1.01	
DRO >C10-C28*	<10.0	10.0	01/12/2021	ND	217	108	200	1.02	
EXT DRO >C28-C36	<10.0	10.0	01/12/2021	ND					

Surrogate: 1-Chlorooctane 81.7 % 44.3-144

Surrogate: 1-Chlorooctadecane 78.8 % 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: 01/11/2021  
 Reported: 01/13/2021  
 Project Name: EAU #47  
 Project Number: NRM 1931831123  
 Project Location: NOT GIVEN

Sampling Date: 01/08/2021  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Jodi Henson

**Sample ID: W 3 (H210061-27)**

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	01/12/2021	ND	2.08	104	2.00	3.03	
Toluene*	<0.050	0.050	01/12/2021	ND	2.06	103	2.00	3.53	
Ethylbenzene*	<0.050	0.050	01/12/2021	ND	2.00	100	2.00	4.24	
Total Xylenes*	<0.150	0.150	01/12/2021	ND	5.87	97.8	6.00	3.62	
Total BTEX	<0.300	0.300	01/12/2021	ND					

Surrogate: 4-Bromofluorobenzene (PID) 99.8 % 73.3-129

Chloride, SM4500Cl-B		mg/kg		Analyzed By: GM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	64.0	16.0	01/12/2021	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	01/12/2021	ND	222	111	200	1.01	
DRO >C10-C28*	<10.0	10.0	01/12/2021	ND	217	108	200	1.02	
EXT DRO >C28-C36	<10.0	10.0	01/12/2021	ND					

Surrogate: 1-Chlorooctane 82.6 % 44.3-144

Surrogate: 1-Chlorooctadecane 79.3 % 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: 01/11/2021  
 Reported: 01/13/2021  
 Project Name: EAU #47  
 Project Number: NRM 1931831123  
 Project Location: NOT GIVEN

Sampling Date: 01/08/2021  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Jodi Henson

**Sample ID: W 1 (H210061-28)**

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	01/12/2021	ND	2.08	104	2.00	3.03	
Toluene*	<0.050	0.050	01/12/2021	ND	2.06	103	2.00	3.53	
Ethylbenzene*	<0.050	0.050	01/12/2021	ND	2.00	100	2.00	4.24	
Total Xylenes*	<0.150	0.150	01/12/2021	ND	5.87	97.8	6.00	3.62	
Total BTEX	<0.300	0.300	01/12/2021	ND					

Surrogate: 4-Bromofluorobenzene (PID) 99.6 % 73.3-129

Chloride, SM4500Cl-B		mg/kg		Analyzed By: GM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	208	16.0	01/12/2021	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	01/12/2021	ND	222	111	200	1.01	
DRO >C10-C28*	167	10.0	01/12/2021	ND	217	108	200	1.02	
EXT DRO >C28-C36	97.8	10.0	01/12/2021	ND					

Surrogate: 1-Chlorooctane 91.3 % 44.3-144

Surrogate: 1-Chlorooctadecane 103 % 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: 01/11/2021  
 Reported: 01/13/2021  
 Project Name: EAU #47  
 Project Number: NRM 1931831123  
 Project Location: NOT GIVEN

Sampling Date: 01/08/2021  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Jodi Henson

**Sample ID: W 2 (H210061-29)**

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	01/12/2021	ND	2.08	104	2.00	3.03	
Toluene*	<0.050	0.050	01/12/2021	ND	2.06	103	2.00	3.53	
Ethylbenzene*	<0.050	0.050	01/12/2021	ND	2.00	100	2.00	4.24	
Total Xylenes*	<0.150	0.150	01/12/2021	ND	5.87	97.8	6.00	3.62	
Total BTEX	<0.300	0.300	01/12/2021	ND					

Surrogate: 4-Bromofluorobenzene (PID) 99.1 % 73.3-129

Chloride, SM4500Cl-B		mg/kg		Analyzed By: GM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	112	16.0	01/12/2021	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	01/12/2021	ND	222	111	200	1.01	
DRO >C10-C28*	10.6	10.0	01/12/2021	ND	217	108	200	1.02	
EXT DRO >C28-C36	<10.0	10.0	01/12/2021	ND					

Surrogate: 1-Chlorooctane 92.3 % 44.3-144

Surrogate: 1-Chlorooctadecane 92.1 % 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: 01/11/2021  
 Reported: 01/13/2021  
 Project Name: EAU #47  
 Project Number: NRM 1931831123  
 Project Location: NOT GIVEN

Sampling Date: 01/08/2021  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Jodi Henson

**Sample ID: W 4 (H210061-30)**

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	01/12/2021	ND	2.08	104	2.00	3.03	
Toluene*	<0.050	0.050	01/12/2021	ND	2.06	103	2.00	3.53	
Ethylbenzene*	<0.050	0.050	01/12/2021	ND	2.00	100	2.00	4.24	
Total Xylenes*	<0.150	0.150	01/12/2021	ND	5.87	97.8	6.00	3.62	
Total BTEX	<0.300	0.300	01/12/2021	ND					

Surrogate: 4-Bromofluorobenzene (PID) 98.0 % 73.3-129

Chloride, SM4500Cl-B		mg/kg		Analyzed By: GM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	128	16.0	01/12/2021	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	01/12/2021	ND	222	111	200	1.01	
DRO >C10-C28*	<10.0	10.0	01/12/2021	ND	217	108	200	1.02	
EXT DRO >C28-C36	<10.0	10.0	01/12/2021	ND					

Surrogate: 1-Chlorooctane 79.3 % 44.3-144

Surrogate: 1-Chlorooctadecane 78.0 % 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: 01/11/2021  
 Reported: 01/13/2021  
 Project Name: EAU #47  
 Project Number: NRM 1931831123  
 Project Location: NOT GIVEN

Sampling Date: 01/08/2021  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Jodi Henson

**Sample ID: W 5 (H210061-31)**

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	01/12/2021	ND	2.08	104	2.00	3.03	
Toluene*	<0.050	0.050	01/12/2021	ND	2.06	103	2.00	3.53	
Ethylbenzene*	<0.050	0.050	01/12/2021	ND	2.00	100	2.00	4.24	
Total Xylenes*	<0.150	0.150	01/12/2021	ND	5.87	97.8	6.00	3.62	
Total BTEX	<0.300	0.300	01/12/2021	ND					

Surrogate: 4-Bromofluorobenzene (PID) 98.8 % 73.3-129

Chloride, SM4500Cl-B		mg/kg		Analyzed By: GM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	176	16.0	01/12/2021	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	01/12/2021	ND	222	111	200	1.01	
DRO >C10-C28*	<10.0	10.0	01/12/2021	ND	217	108	200	1.02	
EXT DRO >C28-C36	<10.0	10.0	01/12/2021	ND					

Surrogate: 1-Chlorooctane 92.1 % 44.3-144

Surrogate: 1-Chlorooctadecane 91.5 % 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: 01/11/2021  
 Reported: 01/13/2021  
 Project Name: EAU #47  
 Project Number: NRM 1931831123  
 Project Location: NOT GIVEN

Sampling Date: 01/08/2021  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Jodi Henson

**Sample ID: W 6 (H210061-32)**

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	01/12/2021	ND	2.08	104	2.00	3.03	
Toluene*	<0.050	0.050	01/12/2021	ND	2.06	103	2.00	3.53	
Ethylbenzene*	<0.050	0.050	01/12/2021	ND	2.00	100	2.00	4.24	
Total Xylenes*	<0.150	0.150	01/12/2021	ND	5.87	97.8	6.00	3.62	
Total BTEX	<0.300	0.300	01/12/2021	ND					

Surrogate: 4-Bromofluorobenzene (PID) 100 % 73.3-129

Chloride, SM4500Cl-B		mg/kg		Analyzed By: GM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	192	16.0	01/12/2021	ND	416	104	400	0.00	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	01/12/2021	ND	222	111	200	1.01	
DRO >C10-C28*	<10.0	10.0	01/12/2021	ND	217	108	200	1.02	
EXT DRO >C28-C36	<10.0	10.0	01/12/2021	ND					

Surrogate: 1-Chlorooctane 88.6 % 44.3-144

Surrogate: 1-Chlorooctadecane 84.9 % 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

Cardinal Laboratories

\*=Accredited Analyte

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

Celey D. Keene, Lab Director/Quality Manager



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

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

Company Name: <u>Grace Baker Apache</u>		P.O. #: <u>APACHE</u>	
Project Manager: <u>Grace Baker</u>		Company: <u>APACHE</u>	
Address:		Attn:	
City: <u>Hobbs</u>	State: <u>NM</u> Zip: <u>88240</u>	Address:	
Phone #:	Fax #:	City:	State:
Project #: <u>NM 1931831123</u>	Project Owner:	City:	Zip:
Project Name:		Phone #:	
Project Location: <u>Cell #47</u>		Fax #:	
Sampler Name: <u>Sosa Duesada</u>			
FOR LAB USE ONLY			
Lab I.D. <u>H210061</u>	Sample I.D.	(G)RAB OR (C)OMP.	
		# CONTAINERS	
		GROUNDWATER	
		WASTEWATER	
		SOIL	
		OIL	
		SLUDGE	
		OTHER :	
		ACID/BASE:	
		ICE / COOL	
		OTHER :	
		DATE	TIME
1	B1	11/31/21	11:34AM
2	B2		11:36AM
3	B3		11:38AM
4	B4		11:40AM
5	B5		11:42AM
6	B6		11:44AM
7	B7		11:46AM
8	B8		11:48AM
9	B9		11:50AM
10	B10		11:52AM

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Relinquished By: <u>Grace Baker</u>	Date: <u>11-21</u>	Received By: <u>Scott Henderson</u>	Date: <u>11-21</u>
Relinquished By:	Date:	Received By:	Date:

REMARKS: Email Results to Diamondback2491@yahoo.com

Turnaround Time: Standard ☒ Rush ☐

Thermometer ID # 797 # 1115 ☒ 6440 ☐

Correction Factor 0.00 ☐ 0.00 ☐

Bacteria (only) Sample Condition ☒ Standard ☐ Rush ☐

Cool Intact ☐ Yes ☐ No ☐

Corrected Temp. °C ☐ 5.6 ☐ 5.6 ☐

Observed Temp. °C ☐ 5.6 ☐ 5.6 ☐

Corrected Temp. °C ☐ 5.6 ☐ 5.6 ☐

Delivered By: (Circle One) ☒ UPS ☐ Bus ☐ Other

FORM 006 R 3.0





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(575) 393-2326 FAX (575) 393-2476

## CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

Company Name:  
Project Manager:  
Address:  
City:  
Phone #:  
Project #:  
Project Name:  
Project Location:  
Sample Name:  
FOR LAB USE ONLY

State:  
Fax #:  
Project Owner:  
City:  
State:  
Phone #:  
Fax #:

Attn:  
Address:  
City:  
State:  
Phone #:  
Fax #:

Relinquished By:  
Relinquished By:

Date:  
Time:  
Date:  
Time:

Received By:  
Received By:

Verbal Result:  
All Results are emailed. Please provide Email address:

Delivered By:  
Sampler - UPS - Bus - Other:

Observed Temp. °C  
Corrected Temp. °C

Sample Condition  
Cool Intact  
Yes  
No

Turnaround Time:  
Thermometer ID  
Correction Factor

Standard  
Rush  
Bacteria (only) Sample Condition  
Cool Intact  
Yes  
No

Observed Temp. °C  
Corrected Temp. °C

Lab I.D.  
H210061

Sample I.D.

(G)RAB OR (C)OMP.  
# CONTAINERS  
GROUNDWATER  
WASTEWATER  
SOIL  
OIL  
SLUDGE  
OTHER :  
ACID/BASE:  
ICE / COOL  
OTHER :

DATE  
TIME

11 B11  
12 B12  
13 B13  
14 B14  
15 B15  
16 B16  
17 B17  
18 B18  
19 B19  
20 B20

13.20

13.34  
13.36  
13.38  
13.40  
13.42  
13.44  
13.46  
13.48  
13.50  
13.58

C1  
BTEX  
CXT TPH

BILL TO

ANALYSIS REQUEST

Company Name: **Arch**  
Project Manager: **Grace Baker**  
Address: **46615**  
City: **46615**  
Phone #: **46615**  
Project #: **46615**  
Project Name: **46615**  
Project Location: **46615**  
Sample Name: **46615**  
FOR LAB USE ONLY

State: **AM**  
Fax #: **46615**  
Project Owner: **46615**  
City: **46615**  
State: **46615**  
Phone #: **46615**  
Fax #: **46615**

Attn: **46615**  
Address: **46615**  
City: **46615**  
State: **46615**  
Phone #: **46615**  
Fax #: **46615**

Relinquished By: **46615**  
Relinquished By: **46615**

Date: **1-11-21**  
Time: **1:30**  
Date: **1-11-21**  
Time: **1:30**

Received By: **46615**  
Received By: **46615**

Verbal Result: ☐ Yes ☐ No ☐ Add'l Phone #:  
All Results are emailed. Please provide Email address:

Delivered By: (Circle One)  
Sampler - UPS - Bus - Other:

Observed Temp. °C **5.6**  
Corrected Temp. °C

Sample Condition  
Cool Intact  
☒ Yes ☐ No

Turnaround Time: **46615**  
Thermometer ID **46615**  
Correction Factor **46615**

Standard ☒  
Rush ☐  
Bacteria (only) Sample Condition  
Cool Intact ☐  
Yes ☐ No ☐  
Observed Temp. °C  
Corrected Temp. °C

BILL TO

ANALYSIS REQUEST





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## CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

[illegible]



ANALYSIS REQUEST

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





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

February 08, 2021

BRUCE BAKER

APACHE CORP - HOBBS

2350 W. MARLAND BLVD.

HOBBS, NM 88240

RE: EAU #47

Enclosed are the results of analyses for samples received by the laboratory on 02/05/21 10:55.

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 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: 02/05/2021  
 Reported: 02/08/2021  
 Project Name: EAU #47  
 Project Number: NRM1931831123  
 Project Location: APACHE

Sampling Date: 02/04/2021  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Tamara Oldaker

**Sample ID: B 1 (H210294-01)**

TPH 8015M	mg/kg	Analyzed By: MS							
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	02/05/2021	ND	215	108	200	8.28	
<b>DRO &gt;C10-C28*</b>	<b>200</b>	10.0	02/05/2021	ND	221	110	200	4.90	
<b>EXT DRO &gt;C28-C36</b>	<b>74.4</b>	10.0	02/05/2021	ND					
<hr/>									
Surrogate: 1-Chlorooctane	78.8 %	44.3-144							
Surrogate: 1-Chlorooctadecane	89.9 %	42.2-156							

**Sample ID: B 2 (H210294-02)**

TPH 8015M	mg/kg	Analyzed By: MS							
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	02/05/2021	ND	215	108	200	8.28	
<b>DRO &gt;C10-C28*</b>	<b>851</b>	10.0	02/05/2021	ND	221	110	200	4.90	
<b>EXT DRO &gt;C28-C36</b>	<b>380</b>	10.0	02/05/2021	ND					
<hr/>									
Surrogate: 1-Chlorooctane	86.3 %	44.3-144							
Surrogate: 1-Chlorooctadecane	113 %	42.2-156							

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Celey D. Keene, Lab Director/Quality Manager





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**Analytical Results For:**

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

Received: 02/05/2021  
 Reported: 02/08/2021  
 Project Name: EAU #47  
 Project Number: NRM1931831123  
 Project Location: APACHE

Sampling Date: 02/04/2021  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Tamara Oldaker

**Sample ID: B 3 (H210294-03)**

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	02/05/2021	ND	215	108	200	8.28	
DRO >C10-C28*	<10.0	10.0	02/05/2021	ND	221	110	200	4.90	
EXT DRO >C28-C36	<10.0	10.0	02/05/2021	ND					
Surrogate: 1-Chlorooctane	86.3 %	44.3-144							
Surrogate: 1-Chlorooctadecane	82.1 %	42.2-156							

**Sample ID: B 4 (H210294-04)**

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	02/05/2021	ND	215	108	200	8.28	
<b>DRO &gt;C10-C28*</b>	<b>2660</b>	10.0	02/05/2021	ND	221	110	200	4.90	
<b>EXT DRO &gt;C28-C36</b>	<b>872</b>	10.0	02/05/2021	ND					
Surrogate: 1-Chlorooctane	72.3 %	44.3-144							
Surrogate: 1-Chlorooctadecane	133 %	42.2-156							

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

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

Received: 02/05/2021  
 Reported: 02/08/2021  
 Project Name: EAU #47  
 Project Number: NRM1931831123  
 Project Location: APACHE

Sampling Date: 02/04/2021  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Tamara Oldaker

**Sample ID: B 5 (H210294-05)**

TPH 8015M	mg/kg	Analyzed By: MS							
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	02/05/2021	ND	215	108	200	8.28	
<b>DRO &gt;C10-C28*</b>	<b>1720</b>	10.0	02/05/2021	ND	221	110	200	4.90	
<b>EXT DRO &gt;C28-C36</b>	<b>632</b>	10.0	02/05/2021	ND					
Surrogate: 1-Chlorooctane	75.5 %	44.3-144							
Surrogate: 1-Chlorooctadecane	141 %	42.2-156							

**Sample ID: B 6 (H210294-06)**

TPH 8015M	mg/kg	Analyzed By: MS							
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	02/05/2021	ND	215	108	200	8.28	
DRO >C10-C28*	<10.0	10.0	02/05/2021	ND	221	110	200	4.90	
EXT DRO >C28-C36	<10.0	10.0	02/05/2021	ND					
Surrogate: 1-Chlorooctane	92.0 %	44.3-144							
Surrogate: 1-Chlorooctadecane	86.2 %	42.2-156							

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**Analytical Results For:**

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

Received: 02/05/2021  
 Reported: 02/08/2021  
 Project Name: EAU #47  
 Project Number: NRM1931831123  
 Project Location: APACHE

Sampling Date: 02/04/2021  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Tamara Oldaker

**Sample ID: B 7 (H210294-07)**

TPH 8015M		mg/kg	Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	02/05/2021	ND	215	108	200	8.28	
<b>DRO &gt;C10-C28*</b>	<b>15.1</b>	10.0	02/05/2021	ND	221	110	200	4.90	
EXT DRO >C28-C36	<10.0	10.0	02/05/2021	ND					
Surrogate: 1-Chlorooctane	81.5 %	44.3-144							
Surrogate: 1-Chlorooctadecane	80.0 %	42.2-156							

**Sample ID: B 9 (H210294-08)**

Chloride, SM4500Cl-B		mg/kg	Analyzed By: GM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
<b>Chloride</b>	<b>192</b>	16.0	02/05/2021	ND	416	104	400	0.00	

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

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

Received: 02/05/2021  
 Reported: 02/08/2021  
 Project Name: EAU #47  
 Project Number: NRM1931831123  
 Project Location: APACHE

Sampling Date: 02/04/2021  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Tamara Oldaker

**Sample ID: B 10 (H210294-09)**

Chloride, SM4500CI-B		mg/kg		Analyzed By: GM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	480	16.0	02/05/2021	ND	416	104	400	3.77	QM-07	
TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10*	<10.0	10.0	02/05/2021	ND	215	108	200	8.28		
DRO >C10-C28*	<10.0	10.0	02/05/2021	ND	221	110	200	4.90		
EXT DRO >C28-C36	<10.0	10.0	02/05/2021	ND						
Surrogate: 1-Chlorooctane	88.3 %	44.3-144								
Surrogate: 1-Chlorooctadecane	86.8 %	42.2-156								

**Sample ID: B 13 (H210294-10)**

Chloride, SM4500CI-B		mg/kg		Analyzed By: GM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	368	16.0	02/05/2021	ND	416	104	400	3.77		
TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10*	<10.0	10.0	02/05/2021	ND	215	108	200	8.28		
DRO >C10-C28*	<10.0	10.0	02/05/2021	ND	221	110	200	4.90		
EXT DRO >C28-C36	<10.0	10.0	02/05/2021	ND						
Surrogate: 1-Chlorooctane		87.8 %	44.3-144							
Surrogate: 1-Chlorooctadecane		82.9 %	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: 02/05/2021  
 Reported: 02/08/2021  
 Project Name: EAU #47  
 Project Number: NRM1931831123  
 Project Location: APACHE

Sampling Date: 02/04/2021  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Tamara Oldaker

**Sample ID: B 14 (H210294-11)**

Chloride, SM4500CI-B		mg/kg	Analyzed By: GM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
<b>Chloride</b>	<b>144</b>	16.0	02/05/2021	ND	416	104	400	3.77	
TPH 8015M		mg/kg	Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	02/05/2021	ND	215	108	200	8.28	
DRO >C10-C28*	<10.0	10.0	02/05/2021	ND	221	110	200	4.90	
EXT DRO >C28-C36	<10.0	10.0	02/05/2021	ND					
Surrogate: 1-Chlorooctane	78.1 %	44.3-144							
Surrogate: 1-Chlorooctadecane	75.1 %	42.2-156							

**Sample ID: B 15 (H210294-12)**

Chloride, SM4500CI-B		mg/kg	Analyzed By: GM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
<b>Chloride</b>	<b>160</b>	16.0	02/05/2021	ND	416	104	400	3.77	
TPH 8015M		mg/kg	Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	02/05/2021	ND	215	108	200	8.28	
DRO >C10-C28*	<10.0	10.0	02/05/2021	ND	221	110	200	4.90	
EXT DRO >C28-C36	<10.0	10.0	02/05/2021	ND					
Surrogate: 1-Chlorooctane	86.2 %	44.3-144							
Surrogate: 1-Chlorooctadecane	81.0 %	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: 02/05/2021  
 Reported: 02/08/2021  
 Project Name: EAU #47  
 Project Number: NRM1931831123  
 Project Location: APACHE

Sampling Date: 02/04/2021  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Tamara Oldaker

**Sample ID: B 17 (H210294-13)**

Chloride, SM4500Cl-B		mg/kg		Analyzed By: GM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	208	16.0	02/05/2021	ND	416	104	400	3.77	

**Sample ID: W 1 (H210294-14)**

Chloride, SM4500Cl-B		mg/kg		Analyzed By: GM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	48.0	16.0	02/05/2021	ND	416	104	400	3.77	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	02/05/2021	ND	215	108	200	8.28	
DRO >C10-C28*	<10.0	10.0	02/05/2021	ND	221	110	200	4.90	
EXT DRO >C28-C36	<10.0	10.0	02/05/2021	ND					

Surrogate: 1-Chlorooctane 88.0 % 44.3-144  
 Surrogate: 1-Chlorooctadecane 83.8 % 42.2-156

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Celey D. Keene, Lab Director/Quality Manager

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### 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

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Celey D. Keene, Lab Director/Quality Manager





ANALYSIS REQUEST

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



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

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January 22, 2021

BRUCE BAKER

APACHE CORP - HOBBS

2350 W. MARLAND BLVD.

HOBBS, NM 88240

RE: EAU #47

Enclosed are the results of analyses for samples received by the laboratory on 01/22/21 8:45.

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: 01/22/2021  
 Reported: 01/22/2021  
 Project Name: EAU #47  
 Project Number: NONE GIVEN  
 Project Location: NOT GIVEN

Sampling Date: 01/21/2021  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Tamara Oldaker

**Sample ID: FIELD SAMPLE @ 12 (H210153-01)**

TPH 8015M	mg/kg	Analyzed By: MS						S-04	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	01/22/2021	ND	188	94.1	200	8.01	
<b>DRO &gt;C10-C28*</b>	<b>2950</b>	10.0	01/22/2021	ND	189	94.6	200	5.38	
<b>EXT DRO &gt;C28-C36</b>	<b>856</b>	10.0	01/22/2021	ND					

Surrogate: 1-Chlorooctane 78.5 % 44.3-144

Surrogate: 1-Chlorooctadecane 314 % 42.2-156

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Celey D. Keene, Lab Director/Quality Manager



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### Notes and Definitions

S-04	The surrogate recovery for this sample is outside of established control limits due to a sample matrix effect.
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".

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Celey D. Keene, Lab Director/Quality Manager





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(575) 393-2326 FAX (575) 393-2476

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1000 Rio Brazos Rd., Aztec, NM 87410  
Phone:(505) 334-6178 Fax:(505) 334-6170  
**District IV**  
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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 228923

CONDITIONS

Operator: APACHE CORPORATION 303 Veterans Airpark Ln Midland, TX 79705	OGRID: 873
	Action Number: 228923
	Action Type: [C-141] Release Corrective Action (C-141)

CONDITIONS

Created By	Condition	Condition Date
rhamlet	We have received your closure report and final C-141 for Incident #NRM1931831123 EMPIRE ABO UNIT #047, thank you. This closure is approved.	11/27/2023