



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

RE: 1RP-5006 EBDU 28

Mr. Billings,

In compliance with 19.15.29.15(B) NMAC and the agreement submitted by Apache Corporation on November 8, 2018, Apache Corporation is submitting information related to closure for the release occurring March 23, 2018. Apache is respectfully submitting the closure report based on remediation and studies occurring in 2019 that demonstrate the site meeting the requirements of the agency. Unless further information is requested by NMOCD, Apache Corporation considers this release closed.

If there are any questions, please feel free to contact me by telephone at 432-631-6982 or by e-mail at [larry.baker@apachecorp.com](mailto:larry.baker@apachecorp.com)

Sincerely,

Larry Baker  
Environmental Technician SR.  
Apache Corporation

Attachment: Closure Report Dated September 15, 2020



303 Veterans Airpark Lane Midland, TX 79705

## **Closure Report**

September 15, 2020

Re: EBDU 28  
API# 30-025-06538  
Case # 1RP-5006

On March 23, 2018 a release occurred due to a buried injection line failed resulting in the loss of produced water. An initial C-141 was submitted to NMOCD on March 30, 2018. The release area is located north of Eunice New Mexico (GPS Coordinates 32.499752 -103.1231003) in unit letter D section 12 Township 21S Range 37E. A search radius of 2000 meters for groundwater wells was conducted utilizing data from the NMOSE and USGS. A total of 5 USGS wells were found to be inside the radius. Two wells our located inside the bottom of Monument Draw and were excluded from the average the remaining three wells estimate groundwater below the release area to be 73 feet. A corrective action plan was submitted to OCD and approved on July 27, 2018.

The release area was excavated to various depths ranging from 1 to 8 feet below ground surface. Final bottom and wall samples were collected and submitted to a commercial laboratory for analysis of chloride, TPH, and BTEX. All excavated material was hauled to an OCD approved disposal facility. The lease pad and road were backfilled with clean imported caliche. The pasture was backfilled with clean imported top soil and contoured to the surrounding area. The pasture area was reseeded with a blend of native seed in accordance with the surface landowner

Apache has completed the remediation to below table one standards for releases 51-100 feet to ground water and respectfully request closure for event 1RP-5006

Enclosed: C-141, Sample Diagram, Sample Data, Laboratory Results, Field Notes, and Photos.

Submitted by;

*Bruce Baker*

**Environmental Technician**

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

**Cell# 432-631-6982**

**Off# 575-393-7106**

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: 9/15/2020  
email: larry.baker@apachecorp.com Telephone: 432-631-6982

**OCD Only**

Received by: Chad Hensley Date: 04/20/2021

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: Chad Hensley Date: 04/20/2021  
Printed Name: Chad Hensley Title: Environmental Specialist Advanced





150 ft

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Google earth

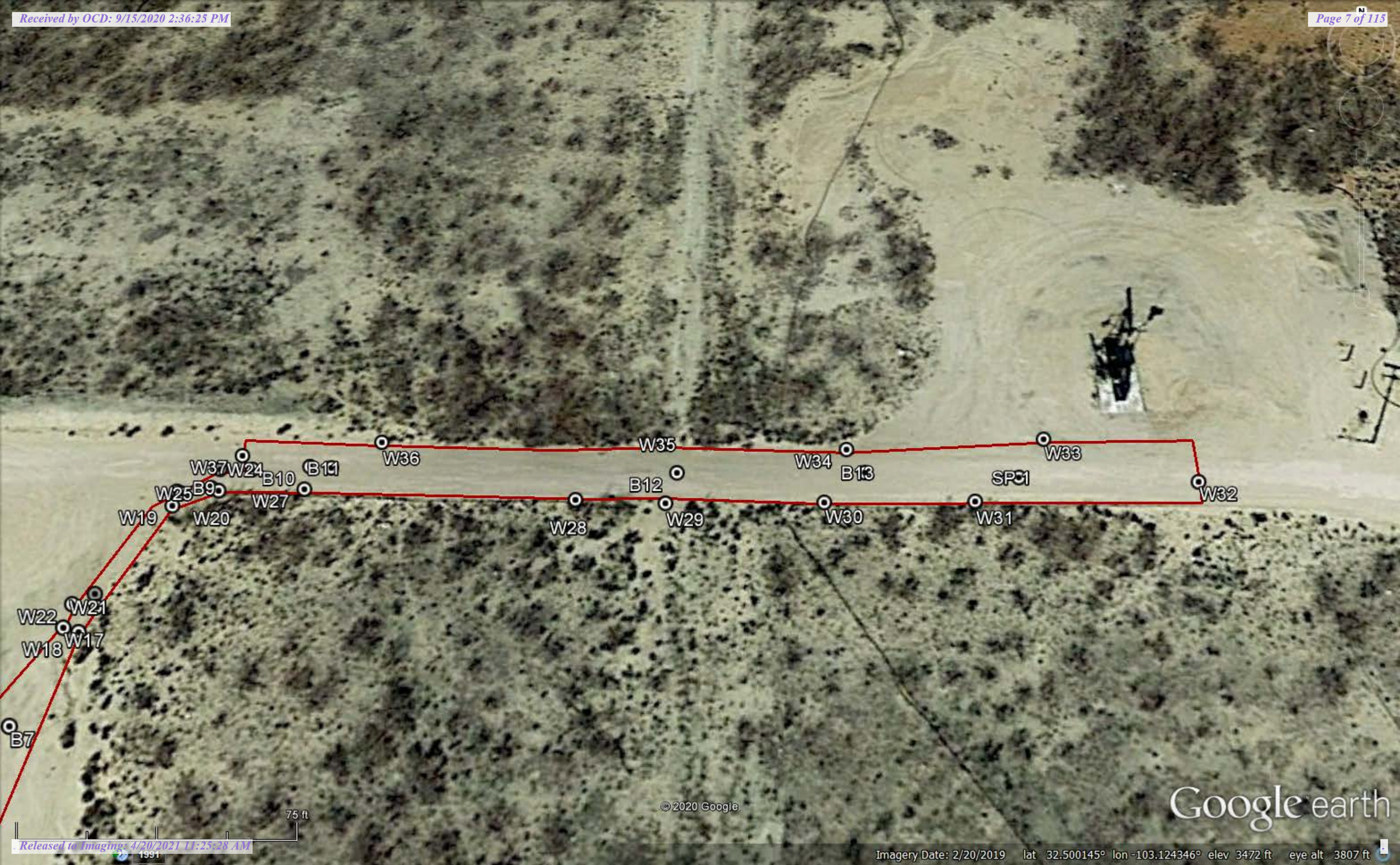












W19 W25 B9 W20 W27 W37 W24 B10 B11 W36 W35 W34 B13 W33 W32 W28 W29 W30 W31 SP31 W22 W21 W18 W17 B7

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Google earth



## Final Wall Samples

Date	Sample ID	Sample ID	Depth	Lab Cl-	Benzene	Toluene	Ethylbenzene	Total Xylene	Total BTEX	GRO	DRO	EXT DRO	GPS
3/19/2019	W1	SP 7 South Wall		32	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	
3/22/2019	W2	SP 7 50' From South Wall		336	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	
3/22/2019	W3	SP 7 E. Wall 50' N		48	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	
3/22/2019	W4	SP 7 E. Wall @ Pt. 4		224	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	
3/25/2019	W5	SP 7 PT 4 W. Wall		112	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	32.4989594, -103.1241191
3/25/2019	W6	SP 7 Pt. 5 E. Wall		400	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	32.4990620, -103.1241070
3/29/2019	W7	SP 7 E Wall 2nd Pt.		128	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	32.4987546, -103.1241044
3/29/2020	W8	SP 7 E Wall Pt. 5		320	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	32.4990954, -103.1240869
3/27/2019	W9	SP 6 @ 1' W. Wall		528	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	32.4991816, -103.1242355
3/28/2019	W10	SP 6 E. Wall @ 1'		368	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	32.4992557, -103.1241191
3/28/2019	W11	SP 6 E. Wall @ 1' 2nd		192	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	32.4993501, -103.1241758
3/28/2019	W12	SP 5 S. Wall @ 1' 2nd		256	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	32.4993326, -103.1243283
3/26/2019	W13	SP 5 @ 1' S. Wall		160	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	32.4992172, -103.1245272



3/27/2019	W14	SP 5 @ 1' W. Wall		32	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	32.4993151, -103.1247299
3/27/2019	W15	SP 4 @ 1' N. Wall		32	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	32.4994160, -103.1244799
3/26/2019	W16	SP 4 @ 1' N. Wall # 2		64	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	32.4994384, -103.1245969
3/29/2019	W17	SP 3 W. Wall @ 4'		48	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	32.4995701, -103.1241543
3/29/2019	W18	SP 3 E. Wall @ 4'		240	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	32.4995667, -103.1241419
3/26/2019	W19	SP 3 E. Wall @ 3'		624	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	32.4996739, -103.1240772
3/26/2019	W20	SP 3 N. Wall @ 3'		224	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	32.4996866, -103.1240353
3/26/2019	W21	SP 3.2 @ 4' E. Wall		672	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	32.4995741, -103.1241097
3/26/2019	W22	SP 3.2 @ 4' W. Wall		720	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	32.4995894, -103.1241526
3/26/2019	W23	SP 3 S. Wall @ 3'		192	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	32.4996767, -103.1240712
3/26/2019	W24	SP 3 W. Wall @ 3'		336	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	32.4997073, -103.1240055 1
3/26/2019	W25	SP 3 E. Wall @ 3'		624	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	32.4996739, -103.1240772
3/26/2019	W26	SP 3 N. Wall @ 3'		224	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	32.4996866, -103.1240353
4/1/2019	W27	SP2 S Wall @ 1'		96	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	32.4996765, -103.1236796
4/3/2019	W28	SP2 @ 1 Point S		96	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	12.6	<10.0	32.49967, -103.12395
4/3/2019	W29	SP2 S Wall @ 3 Point		64	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	92	<50.0	32.4996677, -103.1235913



4/3/2019	W30	SP2 S Wall @ 4 Point		144	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	32.4996677, -103.1234338
4/1/2019	W31	SP 1 S Wall @ 2'		176	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	41.7	27.6	32.4996680, -103.1232813
4/1/2019	W32	SP 1 E Wall		720	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	32.4996765, -103.1230845
4/1/2019	W33	SP 1 N wall	1210 Field Data										
4/3/2019	W34	SP2 N Wall @ 4 Point		704	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	32.4997127, -103.1234103
4/8/2019	W34	SP 2 @ P-4 N Wall		128									
4/4/2019	W35	SP2 N Wall Point 3		16	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	32.4996677, -103.1235760
4/3/2019	W36	SP 2 @ 1 Point N Wall		272	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	32.4997463, -103.1238754
4/3/2019	W37	SP2 West Wall		800	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	32.49972, -103.12402
4/8/2019	W37	SP 2 W Wall		640									

## Final Bottom Samples

Date	Map ID	Lab ID	Depth	Lab Cl-	Benzene	Toluene	Ethybenzen	total Xylene	Total BTEX	GRO	DRO	EXT DRO	GPS
3/19/2019	B1	Vertical Pt.1	7'	208	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	
3/19/2019	B2	Vertical Pt.2	8'	48	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	
3/22/2019	B3	SP 7 Pt. 4	8'	192	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	
3/28/2019	B4	SP 6 @ 1' Floor	1'	96	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	32.4992056, -103.1241637
3/27/2019	B5	SP 5 @ 1'	1'	144	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	32.4993326, -103.1246421



3/27/2019	B6	SP 4 @ 1'	1'	48	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	32.4993886, - 103.1244185
4/4/2019	B7	SP 8 Surface	0'	48	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	10.8	<10.0	
3/26/2019	B8	SP 3.2 Floor	4'	272	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	
3/26/2019	B9	SP 3 Floor	4'	336	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	32.4996864 - 103.1240397
4/3/2019	B10	SP 2 1.6' 2 Point	1.6'	880	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	32.49970, - 103.12395
4/8/2019	B10	SP2 P-2 @ 1.5' Floor		432									
4/4/2019	B11	SP 2 @ 2.5 1 point	2.5'	256	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	32.4997084 - 103.1239267
4/3/2019	B12	SP2 @ 1.6' @ 3 Point	1.6'	384	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	63.6	37.6	32.4997107, - 103.1235773
4/3/2019	B13	SP2 @ 1.4' @ point 4	1.4'	1070	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	46.1	20.6	32.4997104, - 103.1233922
4/8/2019	B13	SP 2 @ P- 4 Floor 2'	2'	624									
4/3/2019	B14	SP 1 @ 4'	4'	576	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	11.3	<10.0	32.4996838 - 103,1232430





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

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March 20, 2019

BRUCE BAKER

APACHE CORP - HOBBS

2350 W. MARLAND BLVD.

HOBBS, NM 88240

RE: EBDU 28

Enclosed are the results of analyses for samples received by the laboratory on 03/19/19 16:35.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-18-11. Accreditation applies to drinking water, non-potable water and solid and chemical materials. All accredited analytes are denoted by an asterisk (\*). For a complete list of accredited analytes and matrices visit the TCEQ website at [www.tceq.texas.gov/field/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: 03/19/2019  
 Reported: 03/20/2019  
 Project Name: EBDU 28  
 Project Number: NONE GIVEN  
 Project Location: NOT GIVEN

Sampling Date: 03/19/2019  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Tamara Oldaker

**Sample ID: SP 7 SOUTH WALL (H901059-01)**

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	03/20/2019	ND	2.07	103	2.00	0.276	
Toluene*	<0.050	0.050	03/20/2019	ND	1.89	94.7	2.00	0.0452	
Ethylbenzene*	<0.050	0.050	03/20/2019	ND	1.98	98.8	2.00	1.30	
Total Xylenes*	<0.150	0.150	03/20/2019	ND	6.02	100	6.00	1.85	
Total BTEX	<0.300	0.300	03/20/2019	ND					

Surrogate: 4-Bromofluorobenzene (PID) 92.6 % 73.3-129

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	32.0	16.0	03/20/2019	ND	448	112	400	3.64		

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	03/20/2019	ND	214	107	200	4.20		
DRO >C10-C28*	<10.0	10.0	03/20/2019	ND	195	97.5	200	12.0		
EXT DRO >C28-C36	<10.0	10.0	03/20/2019	ND						

Surrogate: 1-Chlorooctane 93.7 % 41-142

Surrogate: 1-Chlorooctadecane 89.5 % 37.6-147

Cardinal Laboratories

\*=Accredited Analyte

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

Celey D. Keene, Lab Director/Quality Manager





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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: 03/19/2019  
 Reported: 03/20/2019  
 Project Name: EBDU 28  
 Project Number: NONE GIVEN  
 Project Location: NOT GIVEN

Sampling Date: 03/19/2019  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Tamara Oldaker

**Sample ID: VERTICAL POINT 1 @ 7' (H901059-02)**

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	03/20/2019	ND	2.07	103	2.00	0.276	
Toluene*	<0.050	0.050	03/20/2019	ND	1.89	94.7	2.00	0.0452	
Ethylbenzene*	<0.050	0.050	03/20/2019	ND	1.98	98.8	2.00	1.30	
Total Xylenes*	<0.150	0.150	03/20/2019	ND	6.02	100	6.00	1.85	
Total BTX	<0.300	0.300	03/20/2019	ND					

Surrogate: 4-Bromofluorobenzene (PID) 93.4 % 73.3-129

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	208	16.0	03/20/2019	ND	448	112	400	3.64	

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	03/20/2019	ND	214	107	200	4.20	
DRO >C10-C28*	<10.0	10.0	03/20/2019	ND	195	97.5	200	12.0	
EXT DRO >C28-C36	<10.0	10.0	03/20/2019	ND					

Surrogate: 1-Chlorooctane 90.7 % 41-142

Surrogate: 1-Chlorooctadecane 85.5 % 37.6-147

Cardinal Laboratories

\*=Accredited Analyte

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

Celey D. Keene, Lab Director/Quality Manager





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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: 03/19/2019  
 Reported: 03/20/2019  
 Project Name: EBDU 28  
 Project Number: NONE GIVEN  
 Project Location: NOT GIVEN

Sampling Date: 03/19/2019  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Tamara Oldaker

**Sample ID: VERTICAL POINT 2 @ 8' (H901059-03)**

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	03/20/2019	ND	2.07	103	2.00	0.276	
Toluene*	<0.050	0.050	03/20/2019	ND	1.89	94.7	2.00	0.0452	
Ethylbenzene*	<0.050	0.050	03/20/2019	ND	1.98	98.8	2.00	1.30	
Total Xylenes*	<0.150	0.150	03/20/2019	ND	6.02	100	6.00	1.85	
Total BTX	<0.300	0.300	03/20/2019	ND					

Surrogate: 4-Bromofluorobenzene (PID) 94.0 % 73.3-129

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	48.0	16.0	03/20/2019	ND	448	112	400	3.64	

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	03/20/2019	ND	214	107	200	4.20	
DRO >C10-C28*	<10.0	10.0	03/20/2019	ND	195	97.5	200	12.0	
EXT DRO >C28-C36	<10.0	10.0	03/20/2019	ND					

Surrogate: 1-Chlorooctane 91.3 % 41-142

Surrogate: 1-Chlorooctadecane 86.5 % 37.6-147

Cardinal Laboratories

\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager





---

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

---

### Notes and Definitions

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

---

Cardinal Laboratories

\*=Accredited Analyte

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

---

Celey D. Keene, Lab Director/Quality Manager





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

Released to Imaging: 4/20/2021 11:25:28 AM



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

March 25, 2019

BRUCE BAKER

APACHE CORP - HOBBS

2350 W. MARLAND BLVD.

HOBBS, NM 88240

RE: EBDU 28

Enclosed are the results of analyses for samples received by the laboratory on 03/22/19 16:40.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-18-11. Accreditation applies to drinking water, non-potable water and solid and chemical materials. All accredited analytes are denoted by an asterisk (\*). For a complete list of accredited analytes and matrices visit the TCEQ website at [www.tceq.texas.gov/field/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 "Mike Snyder". The signature is fluid and cursive, with the first name "Mike" and last name "Snyder" clearly distinguishable.

Mike Snyder For 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: 03/22/2019  
 Reported: 03/25/2019  
 Project Name: EBDU 28  
 Project Number: NONE GIVEN  
 Project Location: NOT GIVEN

Sampling Date: 03/22/2019  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Tamara Oldaker

**Sample ID: SP 7 50' FROM S. WALL (H901115-01)**

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	03/25/2019	ND	1.91	95.3	2.00	5.99	
Toluene*	<0.050	0.050	03/25/2019	ND	1.99	99.4	2.00	6.15	
Ethylbenzene*	<0.050	0.050	03/25/2019	ND	2.16	108	2.00	7.30	
Total Xylenes*	<0.150	0.150	03/25/2019	ND	6.17	103	6.00	5.84	
Total BTEX	<0.300	0.300	03/25/2019	ND					

Surrogate: 4-Bromofluorobenzene (PID) 124 % 73.3-129

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	336	16.0	03/25/2019	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	03/25/2019	ND	213	107	200	1.22	
DRO >C10-C28*	<10.0	10.0	03/25/2019	ND	189	94.7	200	0.519	
EXT DRO >C28-C36	<10.0	10.0	03/25/2019	ND					

Surrogate: 1-Chlorooctane 100 % 41-142

Surrogate: 1-Chlorooctadecane 97.8 % 37.6-147

Cardinal Laboratories

\*=Accredited Analyte

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Mike Snyder For 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: 03/22/2019  
 Reported: 03/25/2019  
 Project Name: EBDU 28  
 Project Number: NONE GIVEN  
 Project Location: NOT GIVEN

Sampling Date: 03/22/2019  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Tamara Oldaker

**Sample ID: SP 7 E. WALL 50 ' N. (H901115-02)**

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	03/25/2019	ND	1.91	95.3	2.00	5.99	
Toluene*	<0.050	0.050	03/25/2019	ND	1.99	99.4	2.00	6.15	
Ethylbenzene*	<0.050	0.050	03/25/2019	ND	2.16	108	2.00	7.30	
Total Xylenes*	<0.150	0.150	03/25/2019	ND	6.17	103	6.00	5.84	
Total BTX	<0.300	0.300	03/25/2019	ND					

Surrogate: 4-Bromofluorobenzene (PID) 120 % 73.3-129

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	48.0	16.0	03/25/2019	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	03/25/2019	ND	213	107	200	1.22	
DRO >C10-C28*	<10.0	10.0	03/25/2019	ND	189	94.7	200	0.519	
EXT DRO >C28-C36	<10.0	10.0	03/25/2019	ND					

Surrogate: 1-Chlorooctane 100 % 41-142

Surrogate: 1-Chlorooctadecane 99.5 % 37.6-147

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\*=Accredited Analyte

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Mike Snyder For 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: 03/22/2019  
 Reported: 03/25/2019  
 Project Name: EBDU 28  
 Project Number: NONE GIVEN  
 Project Location: NOT GIVEN

Sampling Date: 03/22/2019  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Tamara Oldaker

**Sample ID: SP 7 E. WALL @ POINT 4 (H901115-03)**

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	03/25/2019	ND	1.91	95.3	2.00	5.99	
Toluene*	<0.050	0.050	03/25/2019	ND	1.99	99.4	2.00	6.15	
Ethylbenzene*	<0.050	0.050	03/25/2019	ND	2.16	108	2.00	7.30	
Total Xylenes*	<0.150	0.150	03/25/2019	ND	6.17	103	6.00	5.84	
Total BTX	<0.300	0.300	03/25/2019	ND					

Surrogate: 4-Bromofluorobenzene (PID) 114 % 73.3-129

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	224	16.0	03/25/2019	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	03/25/2019	ND	213	107	200	1.22	
DRO >C10-C28*	<10.0	10.0	03/25/2019	ND	189	94.7	200	0.519	
EXT DRO >C28-C36	<10.0	10.0	03/25/2019	ND					

Surrogate: 1-Chlorooctane 96.5 % 41-142

Surrogate: 1-Chlorooctadecane 94.5 % 37.6-147

Cardinal Laboratories

\*=Accredited Analyte

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Mike Snyder For 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: 03/22/2019  
 Reported: 03/25/2019  
 Project Name: EBDU 28  
 Project Number: NONE GIVEN  
 Project Location: NOT GIVEN

Sampling Date: 03/22/2019  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Tamara Oldaker

**Sample ID: SP 7 @ 7' POINT 4 (H901115-04)**

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	03/25/2019	ND	1.91	95.3	2.00	5.99	
Toluene*	<0.050	0.050	03/25/2019	ND	1.99	99.4	2.00	6.15	
Ethylbenzene*	<0.050	0.050	03/25/2019	ND	2.16	108	2.00	7.30	
Total Xylenes*	<0.150	0.150	03/25/2019	ND	6.17	103	6.00	5.84	
Total BTX	<0.300	0.300	03/25/2019	ND					

Surrogate: 4-Bromofluorobenzene (PID) 115 % 73.3-129

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	192	16.0	03/25/2019	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	03/25/2019	ND	213	107	200	1.22	
DRO >C10-C28*	<10.0	10.0	03/25/2019	ND	189	94.7	200	0.519	
EXT DRO >C28-C36	<10.0	10.0	03/25/2019	ND					

Surrogate: 1-Chlorooctane 101 % 41-142

Surrogate: 1-Chlorooctadecane 99.0 % 37.6-147

Cardinal Laboratories

\*=Accredited Analyte

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Mike Snyder For Celey D. Keene, Lab Director/Quality Manager



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

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### Notes and Definitions

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

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Cardinal Laboratories

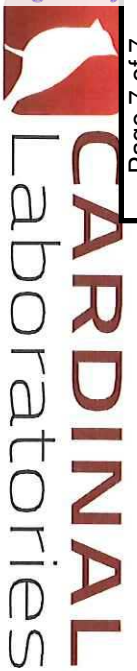
\*=Accredited Analyte

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A handwritten signature in black ink, appearing to read "Mike Snyder".

---

Mike Snyder For Celey D. Keene, Lab Director/Quality Manager



## CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

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

[illegible]





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

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March 26, 2019

BRUCE BAKER

APACHE CORP - HOBBS

2350 W. MARLAND BLVD.

HOBBS, NM 88240

RE: EBDU 28

Enclosed are the results of analyses for samples received by the laboratory on 03/25/19 16:10.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-18-11. Accreditation applies to drinking water, non-potable water and solid and chemical materials. All accredited analytes are denoted by an asterisk (\*). For a complete list of accredited analytes and matrices visit the TCEQ website at [www.tceq.texas.gov/field/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 "Mike Snyder". The signature is fluid and cursive, with the first name "Mike" and last name "Snyder" clearly distinguishable.

Mike Snyder For 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: 03/25/2019  
 Reported: 03/26/2019  
 Project Name: EBDU 28  
 Project Number: NONE GIVEN  
 Project Location: NOT GIVEN

Sampling Date: 03/25/2019  
 Sampling Type: Soil  
 Sampling Condition: \*\* (See Notes)  
 Sample Received By: Tamara Oldaker

**Sample ID: SP 7 POINT 4 W. WALL (H901124-01)**

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	03/26/2019	ND	1.91	95.5	2.00	1.13	
Toluene*	<0.050	0.050	03/26/2019	ND	1.78	88.9	2.00	2.89	
Ethylbenzene*	<0.050	0.050	03/26/2019	ND	1.90	95.1	2.00	0.944	
Total Xylenes*	<0.150	0.150	03/26/2019	ND	6.02	100	6.00	0.0473	
Total BTEX	<0.300	0.300	03/26/2019	ND					

Surrogate: 4-Bromofluorobenzene (PID) 95.7 % 73.3-129

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	112	16.0	03/26/2019	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	03/26/2019	ND	226	113	200	0.675	
DRO >C10-C28*	<10.0	10.0	03/26/2019	ND	216	108	200	1.66	
EXT DRO >C28-C36	<10.0	10.0	03/26/2019	ND					

Surrogate: 1-Chlorooctane 98.9 % 41-142

Surrogate: 1-Chlorooctadecane 93.9 % 37.6-147

Cardinal Laboratories

\*=Accredited Analyte

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Mike Snyder For 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: 03/25/2019  
 Reported: 03/26/2019  
 Project Name: EBDU 28  
 Project Number: NONE GIVEN  
 Project Location: NOT GIVEN

Sampling Date: 03/25/2019  
 Sampling Type: Soil  
 Sampling Condition: \*\* (See Notes)  
 Sample Received By: Tamara Oldaker

**Sample ID: SP 7 POINT 5 E. WALL (H901124-02)**

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	03/26/2019	ND	1.91	95.5	2.00	1.13	
Toluene*	<0.050	0.050	03/26/2019	ND	1.78	88.9	2.00	2.89	
Ethylbenzene*	<0.050	0.050	03/26/2019	ND	1.90	95.1	2.00	0.944	
Total Xylenes*	<0.150	0.150	03/26/2019	ND	6.02	100	6.00	0.0473	
Total BTEx	<0.300	0.300	03/26/2019	ND					

Surrogate: 4-Bromofluorobenzene (PID) 98.4 % 73.3-129

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	400	16.0	03/26/2019	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	03/26/2019	ND	226	113	200	0.675	
DRO >C10-C28*	<10.0	10.0	03/26/2019	ND	216	108	200	1.66	
EXT DRO >C28-C36	<10.0	10.0	03/26/2019	ND					

Surrogate: 1-Chlorooctane 98.0 % 41-142

Surrogate: 1-Chlorooctadecane 97.5 % 37.6-147

Cardinal Laboratories

\*=Accredited Analyte

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Mike Snyder For Celey D. Keene, Lab Director/Quality Manager

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

---

### Notes and Definitions

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

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\*=Accredited Analyte

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A handwritten signature in black ink, appearing to read "Mike Snyder", is written over a horizontal line.

Mike Snyder For Celey D. Keene, Lab Director/Quality Manager



# CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

Released to Imaging: 4/20/2021 11:25:28 AM



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

---

March 27, 2019

BRUCE BAKER

APACHE CORP - HOBBS

2350 W. MARLAND BLVD.

HOBBS, NM 88240

RE: EBDU 28

Enclosed are the results of analyses for samples received by the laboratory on 03/26/19 16:10.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-18-11. Accreditation applies to drinking water, non-potable water and solid and chemical materials. All accredited analytes are denoted by an asterisk (\*). For a complete list of accredited analytes and matrices visit the TCEQ website at [www.tceq.texas.gov/field/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 "Mike Snyder". The signature is fluid and cursive, with the first name "Mike" and last name "Snyder" clearly distinguishable.

Mike Snyder For 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: 03/26/2019  
 Reported: 03/27/2019  
 Project Name: EBDU 28  
 Project Number: NONE GIVEN  
 Project Location: NOT GIVEN

Sampling Date: 03/26/2019  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Tamara Oldaker

**Sample ID: SP 3 N. WALL @ 3' (H901136-01)**

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	03/27/2019	ND	1.94	96.9	2.00	1.80	
Toluene*	<0.050	0.050	03/27/2019	ND	1.83	91.4	2.00	0.722	
Ethylbenzene*	<0.050	0.050	03/27/2019	ND	1.91	95.5	2.00	1.50	
Total Xylenes*	<0.150	0.150	03/27/2019	ND	5.89	98.2	6.00	2.37	
Total BTEX	<0.300	0.300	03/27/2019	ND					

Surrogate: 4-Bromofluorobenzene (PID) 95.3 % 73.3-129

Chloride, SM4500Cl-B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	224	16.0	03/27/2019	ND	432	108	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	03/26/2019	ND	221	110	200	1.38	
DRO >C10-C28*	<10.0	10.0	03/26/2019	ND	199	99.7	200	12.8	
EXT DRO >C28-C36	<10.0	10.0	03/26/2019	ND					

Surrogate: 1-Chlorooctane 94.0 % 41-142

Surrogate: 1-Chlorooctadecane 99.1 % 37.6-147

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\*=Accredited Analyte

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Mike Snyder For 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: 03/26/2019  
 Reported: 03/27/2019  
 Project Name: EBDU 28  
 Project Number: NONE GIVEN  
 Project Location: NOT GIVEN

Sampling Date: 03/26/2019  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Tamara Oldaker

**Sample ID: SP 3 E. WALL @ 3' (H901136-02)**

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	03/27/2019	ND	1.94	96.9	2.00	1.80	
Toluene*	<0.050	0.050	03/27/2019	ND	1.83	91.4	2.00	0.722	
Ethylbenzene*	<0.050	0.050	03/27/2019	ND	1.91	95.5	2.00	1.50	
Total Xylenes*	<0.150	0.150	03/27/2019	ND	5.89	98.2	6.00	2.37	
Total BTX	<0.300	0.300	03/27/2019	ND					

Surrogate: 4-Bromofluorobenzene (PID) 94.8 % 73.3-129

Chloride, SM4500CI-B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	624	16.0	03/27/2019	ND	432	108	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	03/26/2019	ND	221	110	200	1.38	
DRO >C10-C28*	<10.0	10.0	03/26/2019	ND	199	99.7	200	12.8	
EXT DRO >C28-C36	<10.0	10.0	03/26/2019	ND					

Surrogate: 1-Chlorooctane 98.5 % 41-142

Surrogate: 1-Chlorooctadecane 105 % 37.6-147

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Mike Snyder For 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: 03/26/2019  
 Reported: 03/27/2019  
 Project Name: EBDU 28  
 Project Number: NONE GIVEN  
 Project Location: NOT GIVEN

Sampling Date: 03/26/2019  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Tamara Oldaker

**Sample ID: SP 3 W. WALL @ 3' (H901136-03)**

BTEx 8021B		mg/kg		Analyzed By: ms					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	03/27/2019	ND	1.94	96.9	2.00	1.80	
Toluene*	<0.050	0.050	03/27/2019	ND	1.83	91.4	2.00	0.722	
Ethylbenzene*	<0.050	0.050	03/27/2019	ND	1.91	95.5	2.00	1.50	
Total Xylenes*	<0.150	0.150	03/27/2019	ND	5.89	98.2	6.00	2.37	
Total BTEx	<0.300	0.300	03/27/2019	ND					

Surrogate: 4-Bromofluorobenzene (PID) 94.7 % 73.3-129

Chloride, SM4500CI-B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	336	16.0	03/27/2019	ND	432	108	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	03/27/2019	ND	221	110	200	1.38	
DRO >C10-C28*	<10.0	10.0	03/27/2019	ND	199	99.7	200	12.8	
EXT DRO >C28-C36	<10.0	10.0	03/27/2019	ND					

Surrogate: 1-Chlorooctane 99.2 % 41-142

Surrogate: 1-Chlorooctadecane 98.2 % 37.6-147

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Mike Snyder For 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: 03/26/2019  
 Reported: 03/27/2019  
 Project Name: EBDU 28  
 Project Number: NONE GIVEN  
 Project Location: NOT GIVEN

Sampling Date: 03/26/2019  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Tamara Oldaker

**Sample ID: SP 3 S. WALL @ 3' (H901136-04)**

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	03/27/2019	ND	1.94	96.9	2.00	1.80		
Toluene*	<0.050	0.050	03/27/2019	ND	1.83	91.4	2.00	0.722		
Ethylbenzene*	<0.050	0.050	03/27/2019	ND	1.91	95.5	2.00	1.50		
Total Xylenes*	<0.150	0.150	03/27/2019	ND	5.89	98.2	6.00	2.37		
Total BTX	<0.300	0.300	03/27/2019	ND						

Surrogate: 4-Bromofluorobenzene (PID) 94.5 % 73.3-129

Chloride, SM4500CI-B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	192	16.0	03/27/2019	ND	432	108	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	03/27/2019	ND	221	110	200	1.38	
DRO >C10-C28*	<10.0	10.0	03/27/2019	ND	199	99.7	200	12.8	
EXT DRO >C28-C36	<10.0	10.0	03/27/2019	ND					

Surrogate: 1-Chlorooctane 101 % 41-142

Surrogate: 1-Chlorooctadecane 102 % 37.6-147

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Mike Snyder For 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: 03/26/2019  
 Reported: 03/27/2019  
 Project Name: EBDU 28  
 Project Number: NONE GIVEN  
 Project Location: NOT GIVEN

Sampling Date: 03/26/2019  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Tamara Oldaker

**Sample ID: SP 3 FLOOR @ 4' (H901136-05)**

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	03/27/2019	ND	1.94	96.9	2.00	1.80	
Toluene*	<0.050	0.050	03/27/2019	ND	1.83	91.4	2.00	0.722	
Ethylbenzene*	<0.050	0.050	03/27/2019	ND	1.91	95.5	2.00	1.50	
Total Xylenes*	<0.150	0.150	03/27/2019	ND	5.89	98.2	6.00	2.37	
Total BTEx	<0.300	0.300	03/27/2019	ND					

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

Chloride, SM4500CI-B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	336	16.0	03/27/2019	ND	432	108	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	03/27/2019	ND	221	110	200	1.38	
DRO >C10-C28*	<10.0	10.0	03/27/2019	ND	199	99.7	200	12.8	
EXT DRO >C28-C36	<10.0	10.0	03/27/2019	ND					

Surrogate: 1-Chlorooctane 79.2 % 41-142

Surrogate: 1-Chlorooctadecane 80.4 % 37.6-147

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\*=Accredited Analyte

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Mike Snyder For 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: 03/26/2019  
 Reported: 03/27/2019  
 Project Name: EBDU 28  
 Project Number: NONE GIVEN  
 Project Location: NOT GIVEN

Sampling Date: 03/26/2019  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Tamara Oldaker

**Sample ID: SP 3.2 FLOOR @ 4' (H901136-06)**

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	03/27/2019	ND	1.94	96.9	2.00	1.80	
Toluene*	<0.050	0.050	03/27/2019	ND	1.83	91.4	2.00	0.722	
Ethylbenzene*	<0.050	0.050	03/27/2019	ND	1.91	95.5	2.00	1.50	
Total Xylenes*	<0.150	0.150	03/27/2019	ND	5.89	98.2	6.00	2.37	
Total BTEX	<0.300	0.300	03/27/2019	ND					

Surrogate: 4-Bromofluorobenzene (PID) 93.4 % 73.3-129

Chloride, SM4500CI-B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	272	16.0	03/27/2019	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	03/27/2019	ND	221	110	200	1.38	
DRO >C10-C28*	<10.0	10.0	03/27/2019	ND	199	99.7	200	12.8	
EXT DRO >C28-C36	<10.0	10.0	03/27/2019	ND					

Surrogate: 1-Chlorooctane 89.1 % 41-142

Surrogate: 1-Chlorooctadecane 88.3 % 37.6-147

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Mike Snyder For 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: 03/26/2019  
 Reported: 03/27/2019  
 Project Name: EBDU 28  
 Project Number: NONE GIVEN  
 Project Location: NOT GIVEN

Sampling Date: 03/26/2019  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Tamara Oldaker

**Sample ID: SP 3.2 @ 4' W. WALL (H901136-07)**

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	03/27/2019	ND	1.94	96.9	2.00	1.80	
Toluene*	<0.050	0.050	03/27/2019	ND	1.83	91.4	2.00	0.722	
Ethylbenzene*	<0.050	0.050	03/27/2019	ND	1.91	95.5	2.00	1.50	
Total Xylenes*	<0.150	0.150	03/27/2019	ND	5.89	98.2	6.00	2.37	
Total BTX	<0.300	0.300	03/27/2019	ND					

Surrogate: 4-Bromofluorobenzene (PID) 94.9 % 73.3-129

Chloride, SM4500CI-B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	720	16.0	03/27/2019	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	03/27/2019	ND	221	110	200	1.38	
DRO >C10-C28*	<10.0	10.0	03/27/2019	ND	199	99.7	200	12.8	
EXT DRO >C28-C36	<10.0	10.0	03/27/2019	ND					

Surrogate: 1-Chlorooctane 97.7 % 41-142

Surrogate: 1-Chlorooctadecane 99.4 % 37.6-147

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\*=Accredited Analyte

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Mike Snyder For 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: 03/26/2019  
 Reported: 03/27/2019  
 Project Name: EBDU 28  
 Project Number: NONE GIVEN  
 Project Location: NOT GIVEN

Sampling Date: 03/26/2019  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Tamara Oldaker

**Sample ID: SP 3.2 @ 4' E. WALL (H901136-08)**

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	03/27/2019	ND	1.94	96.9	2.00	1.80		
Toluene*	<0.050	0.050	03/27/2019	ND	1.83	91.4	2.00	0.722		
Ethylbenzene*	<0.050	0.050	03/27/2019	ND	1.91	95.5	2.00	1.50		
Total Xylenes*	<0.150	0.150	03/27/2019	ND	5.89	98.2	6.00	2.37		
Total BTEx	<0.300	0.300	03/27/2019	ND						

Surrogate: 4-Bromofluorobenzene (PID) 93.5 % 73.3-129

Chloride, SM4500CI-B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	672	16.0	03/27/2019	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	03/27/2019	ND	221	110	200	1.38	
DRO >C10-C28*	<10.0	10.0	03/27/2019	ND	199	99.7	200	12.8	
EXT DRO >C28-C36	<10.0	10.0	03/27/2019	ND					

Surrogate: 1-Chlorooctane 93.7 % 41-142

Surrogate: 1-Chlorooctadecane 96.6 % 37.6-147

Cardinal Laboratories

\*=Accredited Analyte

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Mike Snyder For 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: 03/26/2019  
 Reported: 03/27/2019  
 Project Name: EBDU 28  
 Project Number: NONE GIVEN  
 Project Location: NOT GIVEN

Sampling Date: 03/26/2019  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Tamara Oldaker

**Sample ID: SP 5 @ 1' S. WALL (H901136-09)**

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	03/27/2019	ND	1.94	96.9	2.00	1.80	
Toluene*	<0.050	0.050	03/27/2019	ND	1.83	91.4	2.00	0.722	
Ethylbenzene*	<0.050	0.050	03/27/2019	ND	1.91	95.5	2.00	1.50	
Total Xylenes*	<0.150	0.150	03/27/2019	ND	5.89	98.2	6.00	2.37	
Total BTEx	<0.300	0.300	03/27/2019	ND					

Surrogate: 4-Bromofluorobenzene (PID) 93.8 % 73.3-129

Chloride, SM4500CI-B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	160	16.0	03/27/2019	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	03/27/2019	ND	221	110	200	1.38	
DRO >C10-C28*	<10.0	10.0	03/27/2019	ND	199	99.7	200	12.8	
EXT DRO >C28-C36	<10.0	10.0	03/27/2019	ND					

Surrogate: 1-Chlorooctane 95.8 % 41-142

Surrogate: 1-Chlorooctadecane 98.0 % 37.6-147

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Mike Snyder For 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: 03/26/2019  
 Reported: 03/27/2019  
 Project Name: EBDU 28  
 Project Number: NONE GIVEN  
 Project Location: NOT GIVEN

Sampling Date: 03/26/2019  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Tamara Oldaker

**Sample ID: SP 4 @ 1' N. WALL #2 (H901136-10)**

BTEx 8021B		mg/kg		Analyzed By: ms						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	03/27/2019	ND	1.94	96.9	2.00	1.80		
Toluene*	<0.050	0.050	03/27/2019	ND	1.83	91.4	2.00	0.722		
Ethylbenzene*	<0.050	0.050	03/27/2019	ND	1.91	95.5	2.00	1.50		
Total Xylenes*	<0.150	0.150	03/27/2019	ND	5.89	98.2	6.00	2.37		
Total BTEx	<0.300	0.300	03/27/2019	ND						

Surrogate: 4-Bromofluorobenzene (PID) 93.9 % 73.3-129

Chloride, SM4500CI-B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	64.0	16.0	03/27/2019	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	03/27/2019	ND	221	110	200	1.38	
DRO >C10-C28*	<10.0	10.0	03/27/2019	ND	199	99.7	200	12.8	
EXT DRO >C28-C36	<10.0	10.0	03/27/2019	ND					

Surrogate: 1-Chlorooctane 97.4 % 41-142

Surrogate: 1-Chlorooctadecane 98.2 % 37.6-147

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Mike Snyder For Celey D. Keene, Lab Director/Quality Manager



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### Notes and Definitions

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

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A handwritten signature in black ink, appearing to read "Mike Snyder", is written over a horizontal line.

Mike Snyder For Celey D. Keene, Lab Director/Quality Manager

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

Released to Imaging: 4/20/2021 11:25:28 AM





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March 28, 2019

BRUCE BAKER

APACHE CORP - HOBBS

2350 W. MARLAND BLVD.

HOBBS, NM 88240

RE: EBDU 28

Enclosed are the results of analyses for samples received by the laboratory on 03/27/19 16:40.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-18-11. Accreditation applies to drinking water, non-potable water and solid and chemical materials. All accredited analytes are denoted by an asterisk (\*). For a complete list of accredited analytes and matrices visit the TCEQ website at [www.tceq.texas.gov/field/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 "Mike Snyder". The signature is fluid and cursive, with the first name "Mike" and last name "Snyder" clearly distinguishable.

Mike Snyder For 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: 03/27/2019  
 Reported: 03/28/2019  
 Project Name: EBDU 28  
 Project Number: NONE GIVEN  
 Project Location: NOT GIVEN

Sampling Date: 03/27/2019  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Tamara Oldaker

**Sample ID: SP 5 @ 1' W. WALL (H901160-01)**

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	03/28/2019	ND	1.92	96.2	2.00	0.922	
Toluene*	<0.050	0.050	03/28/2019	ND	2.01	101	2.00	0.711	
Ethylbenzene*	<0.050	0.050	03/28/2019	ND	2.14	107	2.00	0.231	
Total Xylenes*	<0.150	0.150	03/28/2019	ND	6.00	100	6.00	0.740	
Total BTEX	<0.300	0.300	03/28/2019	ND					

Surrogate: 4-Bromofluorobenzene (PID) 105 % 73.3-129

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	32.0	16.0	03/28/2019	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	03/28/2019	ND	176	88.0	200	2.44	
DRO >C10-C28*	<10.0	10.0	03/28/2019	ND	203	101	200	1.41	
EXT DRO >C28-C36	<10.0	10.0	03/28/2019	ND					

Surrogate: 1-Chlorooctane 106 % 41-142

Surrogate: 1-Chlorooctadecane 110 % 37.6-147

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\*=Accredited Analyte

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Mike Snyder For 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: 03/27/2019  
 Reported: 03/28/2019  
 Project Name: EBDU 28  
 Project Number: NONE GIVEN  
 Project Location: NOT GIVEN

Sampling Date: 03/27/2019  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Tamara Oldaker

**Sample ID: SP 4 @ 1' N. WALL (H901160-02)**

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	03/28/2019	ND	1.92	96.2	2.00	0.922	
Toluene*	<0.050	0.050	03/28/2019	ND	2.01	101	2.00	0.711	
Ethylbenzene*	<0.050	0.050	03/28/2019	ND	2.14	107	2.00	0.231	
Total Xylenes*	<0.150	0.150	03/28/2019	ND	6.00	100	6.00	0.740	
Total BTX	<0.300	0.300	03/28/2019	ND					

Surrogate: 4-Bromofluorobenzene (PID) 105 % 73.3-129

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	32.0	16.0	03/28/2019	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	03/28/2019	ND	176	88.0	200	2.44	
DRO >C10-C28*	<10.0	10.0	03/28/2019	ND	203	101	200	1.41	
EXT DRO >C28-C36	<10.0	10.0	03/28/2019	ND					

Surrogate: 1-Chlorooctane 110 % 41-142

Surrogate: 1-Chlorooctadecane 112 % 37.6-147

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\*=Accredited Analyte

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Mike Snyder For 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: 03/27/2019  
 Reported: 03/28/2019  
 Project Name: EBDU 28  
 Project Number: NONE GIVEN  
 Project Location: NOT GIVEN

Sampling Date: 03/27/2019  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Tamara Oldaker

**Sample ID: SP 4 @ 1' (H901160-03)**

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	03/28/2019	ND	1.92	96.2	2.00	0.922	
Toluene*	<0.050	0.050	03/28/2019	ND	2.01	101	2.00	0.711	
Ethylbenzene*	<0.050	0.050	03/28/2019	ND	2.14	107	2.00	0.231	
Total Xylenes*	<0.150	0.150	03/28/2019	ND	6.00	100	6.00	0.740	
Total BTX	<0.300	0.300	03/28/2019	ND					

Surrogate: 4-Bromofluorobenzene (PID) 110 % 73.3-129

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	48.0	16.0	03/28/2019	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	03/28/2019	ND	176	88.0	200	2.44	
DRO >C10-C28*	<10.0	10.0	03/28/2019	ND	203	101	200	1.41	
EXT DRO >C28-C36	<10.0	10.0	03/28/2019	ND					

Surrogate: 1-Chlorooctane 108 % 41-142

Surrogate: 1-Chlorooctadecane 111 % 37.6-147

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Mike Snyder For 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: 03/27/2019  
 Reported: 03/28/2019  
 Project Name: EBDU 28  
 Project Number: NONE GIVEN  
 Project Location: NOT GIVEN

Sampling Date: 03/27/2019  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Tamara Oldaker

**Sample ID: SP 5 @ 1' (H901160-04)**

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	03/28/2019	ND	1.92	96.2	2.00	0.922	
Toluene*	<0.050	0.050	03/28/2019	ND	2.01	101	2.00	0.711	
Ethylbenzene*	<0.050	0.050	03/28/2019	ND	2.14	107	2.00	0.231	
Total Xylenes*	<0.150	0.150	03/28/2019	ND	6.00	100	6.00	0.740	
Total BTX	<0.300	0.300	03/28/2019	ND					

Surrogate: 4-Bromofluorobenzene (PID) 105 % 73.3-129

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	144	16.0	03/28/2019	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	03/28/2019	ND	169	84.3	200	6.46	
DRO >C10-C28*	<10.0	10.0	03/28/2019	ND	191	95.4	200	7.83	
EXT DRO >C28-C36	<10.0	10.0	03/28/2019	ND					

Surrogate: 1-Chlorooctane 95.3 % 41-142

Surrogate: 1-Chlorooctadecane 97.6 % 37.6-147

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Mike Snyder For 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: 03/27/2019  
 Reported: 03/28/2019  
 Project Name: EBDU 28  
 Project Number: NONE GIVEN  
 Project Location: NOT GIVEN

Sampling Date: 03/27/2019  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Tamara Oldaker

**Sample ID: SP 6 @ 1' W. WALL (H901160-05)**

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	03/28/2019	ND	1.97	98.7	2.00	0.445	
Toluene*	<0.050	0.050	03/28/2019	ND	1.84	91.8	2.00	1.59	
Ethylbenzene*	<0.050	0.050	03/28/2019	ND	1.94	96.9	2.00	1.23	
Total Xylenes*	<0.150	0.150	03/28/2019	ND	5.87	97.8	6.00	1.22	
Total BTX	<0.300	0.300	03/28/2019	ND					

Surrogate: 4-Bromofluorobenzene (PID) 94.2 % 73.3-129

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	528	16.0	03/28/2019	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	03/28/2019	ND	169	84.3	200	6.46	
DRO >C10-C28*	<10.0	10.0	03/28/2019	ND	191	95.4	200	7.83	
EXT DRO >C28-C36	<10.0	10.0	03/28/2019	ND					

Surrogate: 1-Chlorooctane 96.5 % 41-142

Surrogate: 1-Chlorooctadecane 97.9 % 37.6-147

Cardinal Laboratories

\*=Accredited Analyte

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Mike Snyder For Celey D. Keene, Lab Director/Quality Manager



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### Notes and Definitions

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

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\*=Accredited Analyte


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A handwritten signature in black ink, appearing to read "Mike Snyder", is written over a horizontal line.

---

Mike Snyder For Celey D. Keene, Lab Director/Quality Manager





**CARDINAL**  
Laboratories

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

Released to Imaging: 4/20/2021 11:25:28 AM



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

---

March 29, 2019

BRUCE BAKER

APACHE CORP - HOBBS

2350 W. MARLAND BLVD.

HOBBS, NM 88240

RE: EBDU 28

Enclosed are the results of analyses for samples received by the laboratory on 03/28/19 16:05.

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

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

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

Accreditation applies to public drinking water matrices.

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

Sincerely,

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

Celey D. Keene

Lab Director/Quality Manager



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

**Analytical Results For:**

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

Received: 03/28/2019  
 Reported: 03/29/2019  
 Project Name: EBDU 28  
 Project Number: NONE GIVEN  
 Project Location: NOT GIVEN

Sampling Date: 03/28/2019  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Tamara Oldaker

**Sample ID: SP 5 S. WALL @ 1' 2ND (H901174-01)**

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	03/29/2019	ND	1.99	99.3	2.00	0.261	
Toluene*	<0.050	0.050	03/29/2019	ND	1.85	92.7	2.00	1.55	
Ethylbenzene*	<0.050	0.050	03/29/2019	ND	1.96	98.1	2.00	0.855	
Total Xylenes*	<0.150	0.150	03/29/2019	ND	5.94	99.1	6.00	0.0144	
Total BTEX	<0.300	0.300	03/29/2019	ND					

Surrogate: 4-Bromofluorobenzene (PID) 95.2 % 73.3-129

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	256	16.0	03/29/2019	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	03/29/2019	ND	206	103	200	2.45	
DRO >C10-C28*	<10.0	10.0	03/29/2019	ND	188	94.1	200	1.37	
EXT DRO >C28-C36	<10.0	10.0	03/29/2019	ND					

Surrogate: 1-Chlorooctane 82.7 % 41-142

Surrogate: 1-Chlorooctadecane 80.4 % 37.6-147

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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: 03/28/2019  
 Reported: 03/29/2019  
 Project Name: EBDU 28  
 Project Number: NONE GIVEN  
 Project Location: NOT GIVEN

Sampling Date: 03/28/2019  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Tamara Oldaker

**Sample ID: SP 6 @ 1' FLOOR (H901174-02)**

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	03/29/2019	ND	1.99	99.3	2.00	0.261	
Toluene*	<0.050	0.050	03/29/2019	ND	1.85	92.7	2.00	1.55	
Ethylbenzene*	<0.050	0.050	03/29/2019	ND	1.96	98.1	2.00	0.855	
Total Xylenes*	<0.150	0.150	03/29/2019	ND	5.94	99.1	6.00	0.0144	
Total BTX	<0.300	0.300	03/29/2019	ND					

Surrogate: 4-Bromofluorobenzene (PID) 94.3 % 73.3-129

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	96.0	16.0	03/29/2019	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	03/29/2019	ND	206	103	200	2.45	
DRO >C10-C28*	<10.0	10.0	03/29/2019	ND	188	94.1	200	1.37	
EXT DRO >C28-C36	<10.0	10.0	03/29/2019	ND					

Surrogate: 1-Chlorooctane 80.3 % 41-142

Surrogate: 1-Chlorooctadecane 78.0 % 37.6-147

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: 03/28/2019  
 Reported: 03/29/2019  
 Project Name: EBDU 28  
 Project Number: NONE GIVEN  
 Project Location: NOT GIVEN

Sampling Date: 03/28/2019  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Tamara Oldaker

**Sample ID: SP 6 E. WALL @ 1' (H901174-03)**

BTEx 8021B		mg/kg		Analyzed By: ms						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	03/29/2019	ND	1.99	99.3	2.00	0.261		
Toluene*	<0.050	0.050	03/29/2019	ND	1.85	92.7	2.00	1.55		
Ethylbenzene*	<0.050	0.050	03/29/2019	ND	1.96	98.1	2.00	0.855		
Total Xylenes*	<0.150	0.150	03/29/2019	ND	5.94	99.1	6.00	0.0144		
Total BTEX	<0.300	0.300	03/29/2019	ND						

Surrogate: 4-Bromofluorobenzene (PID) 94.3 % 73.3-129

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	368	16.0	03/29/2019	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	03/29/2019	ND	206	103	200	2.45	
DRO >C10-C28*	<10.0	10.0	03/29/2019	ND	188	94.1	200	1.37	
EXT DRO >C28-C36	<10.0	10.0	03/29/2019	ND					

Surrogate: 1-Chlorooctane 79.1 % 41-142

Surrogate: 1-Chlorooctadecane 78.1 % 37.6-147

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: 03/28/2019  
 Reported: 03/29/2019  
 Project Name: EBDU 28  
 Project Number: NONE GIVEN  
 Project Location: NOT GIVEN

Sampling Date: 03/28/2019  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Tamara Oldaker

**Sample ID: SP 6 E. WALL @ 1' 2ND (H901174-04)**

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	03/29/2019	ND	1.99	99.3	2.00	0.261	
Toluene*	<0.050	0.050	03/29/2019	ND	1.85	92.7	2.00	1.55	
Ethylbenzene*	<0.050	0.050	03/29/2019	ND	1.96	98.1	2.00	0.855	
Total Xylenes*	<0.150	0.150	03/29/2019	ND	5.94	99.1	6.00	0.0144	
Total BTX	<0.300	0.300	03/29/2019	ND					

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

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	192	16.0	03/29/2019	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	03/29/2019	ND	206	103	200	2.45	
DRO >C10-C28*	<10.0	10.0	03/29/2019	ND	188	94.1	200	1.37	
EXT DRO >C28-C36	<10.0	10.0	03/29/2019	ND					

Surrogate: 1-Chlorooctane 74.2 % 41-142

Surrogate: 1-Chlorooctadecane 72.5 % 37.6-147

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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

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### Notes and Definitions

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

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

---

Celey D. Keene, Lab Director/Quality Manager

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April 01, 2019

BRUCE BAKER

APACHE CORP - HOBBS

2350 W. MARLAND BLVD.

HOBBS, NM 88240

RE: EBDU 28

Enclosed are the results of analyses for samples received by the laboratory on 03/29/19 15:50.

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

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

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

Accreditation applies to public drinking water matrices.

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

Sincerely,

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

Celey D. Keene

Lab Director/Quality Manager



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

**Analytical Results For:**

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

Received: 03/29/2019  
 Reported: 04/01/2019  
 Project Name: EBDU 28  
 Project Number: NONE GIVEN  
 Project Location: NOT GIVEN

Sampling Date: 03/29/2019  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Jodi Henson

**Sample ID: SP 7 E WALL 2ND POINT (H901182-01)**

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	04/01/2019	ND	1.86	93.1	2.00	3.55		
Toluene*	<0.050	0.050	04/01/2019	ND	1.79	89.3	2.00	3.18		
Ethylbenzene*	<0.050	0.050	04/01/2019	ND	1.90	94.9	2.00	3.08		
Total Xylenes*	<0.150	0.150	04/01/2019	ND	5.96	99.3	6.00	3.68		
Total BTEX	<0.300	0.300	04/01/2019	ND						

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

Chloride, SM4500Cl-B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	128	16.0	04/01/2019	ND	432	108	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	04/01/2019	ND	154	76.8	200	10.6	
DRO >C10-C28*	<10.0	10.0	04/01/2019	ND	175	87.5	200	10.4	
EXT DRO >C28-C36	<10.0	10.0	04/01/2019	ND					

Surrogate: 1-Chlorooctane 58.6 % 41-142

Surrogate: 1-Chlorooctadecane 56.4 % 37.6-147

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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: 03/29/2019  
 Reported: 04/01/2019  
 Project Name: EBDU 28  
 Project Number: NONE GIVEN  
 Project Location: NOT GIVEN

Sampling Date: 03/29/2019  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Jodi Henson

**Sample ID: SP 7 E WALL POINT 5 (H901182-02)**

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	04/01/2019	ND	1.86	93.1	2.00	3.55		
Toluene*	<0.050	0.050	04/01/2019	ND	1.79	89.3	2.00	3.18		
Ethylbenzene*	<0.050	0.050	04/01/2019	ND	1.90	94.9	2.00	3.08		
Total Xylenes*	<0.150	0.150	04/01/2019	ND	5.96	99.3	6.00	3.68		
Total BTX	<0.300	0.300	04/01/2019	ND						

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

Chloride, SM4500CI-B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	320	16.0	04/01/2019	ND	432	108	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	04/01/2019	ND	154	76.8	200	10.6	
DRO >C10-C28*	<10.0	10.0	04/01/2019	ND	175	87.5	200	10.4	
EXT DRO >C28-C36	<10.0	10.0	04/01/2019	ND					

Surrogate: 1-Chlorooctane 66.7 % 41-142

Surrogate: 1-Chlorooctadecane 63.3 % 37.6-147

Cardinal Laboratories

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Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

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

Received: 03/29/2019  
 Reported: 04/01/2019  
 Project Name: EBDU 28  
 Project Number: NONE GIVEN  
 Project Location: NOT GIVEN

Sampling Date: 03/29/2019  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Jodi Henson

**Sample ID: SP 3 E. WALL @ 4' (H901182-03)**

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	04/01/2019	ND	1.86	93.1	2.00	3.55		
Toluene*	<0.050	0.050	04/01/2019	ND	1.79	89.3	2.00	3.18		
Ethylbenzene*	<0.050	0.050	04/01/2019	ND	1.90	94.9	2.00	3.08		
Total Xylenes*	<0.150	0.150	04/01/2019	ND	5.96	99.3	6.00	3.68		
Total BTX	<0.300	0.300	04/01/2019	ND						

Surrogate: 4-Bromofluorobenzene (PID) 97.0 % 73.3-129

Chloride, SM4500CI-B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	240	16.0	04/01/2019	ND	432	108	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	04/01/2019	ND	154	76.8	200	10.6	
DRO >C10-C28*	<10.0	10.0	04/01/2019	ND	175	87.5	200	10.4	
EXT DRO >C28-C36	<10.0	10.0	04/01/2019	ND					

Surrogate: 1-Chlorooctane 70.9 % 41-142

Surrogate: 1-Chlorooctadecane 67.3 % 37.6-147

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: 03/29/2019  
 Reported: 04/01/2019  
 Project Name: EBDU 28  
 Project Number: NONE GIVEN  
 Project Location: NOT GIVEN

Sampling Date: 03/29/2019  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Jodi Henson

**Sample ID: SP 3 W WALL @ 4' (H901182-04)**

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	04/01/2019	ND	1.86	93.1	2.00	3.55		
Toluene*	<0.050	0.050	04/01/2019	ND	1.79	89.3	2.00	3.18		
Ethylbenzene*	<0.050	0.050	04/01/2019	ND	1.90	94.9	2.00	3.08		
Total Xylenes*	<0.150	0.150	04/01/2019	ND	5.96	99.3	6.00	3.68		
Total BTX	<0.300	0.300	04/01/2019	ND						

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

Chloride, SM4500CI-B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	48.0	16.0	04/01/2019	ND	432	108	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	04/01/2019	ND	154	76.8	200	10.6	
DRO >C10-C28*	<10.0	10.0	04/01/2019	ND	175	87.5	200	10.4	
EXT DRO >C28-C36	<10.0	10.0	04/01/2019	ND					

Surrogate: 1-Chlorooctane 77.0 % 41-142

Surrogate: 1-Chlorooctadecane 73.6 % 37.6-147

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Celey D. Keene, Lab Director/Quality Manager

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

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### Notes and Definitions

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

---

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

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Celey D. Keene, Lab Director/Quality Manager



## Page 7 of 7

ANALYSIS REQUEST

Released to Imaging: 4/20/2021 11:25:28 AM



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

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April 02, 2019

BRUCE BAKER

APACHE CORP - HOBBS

2350 W. MARLAND BLVD.

HOBBS, NM 88240

RE: EBDU 28

Enclosed are the results of analyses for samples received by the laboratory on 04/01/19 16:22.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-18-11. Accreditation applies to drinking water, non-potable water and solid and chemical materials. All accredited analytes are denoted by an asterisk (\*). For a complete list of accredited analytes and matrices visit the TCEQ website at [www.tceq.texas.gov/field/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:	04/01/2019	Sampling Date:	04/01/2019
Reported:	04/02/2019	Sampling Type:	Soil
Project Name:	EBDU 28	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Celey D. Keene
Project Location:	NOT GIVEN		

**Sample ID: SP1 S WALL @ 2' (H901189-01)**

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	04/02/2019	ND	1.93	96.4	2.00	11.0		
Toluene*	<0.050	0.050	04/02/2019	ND	1.85	92.4	2.00	9.88		
Ethylbenzene*	<0.050	0.050	04/02/2019	ND	1.99	99.7	2.00	9.83		
Total Xylenes*	<0.150	0.150	04/02/2019	ND	6.16	103	6.00	9.30		
Total BTEX	<0.300	0.300	04/02/2019	ND						

Surrogate: 4-Bromofluorobenzene (PID) 95.7 % 73.3-129

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	176	16.0	04/02/2019	ND	416	104	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	04/01/2019	ND	154	76.8	200	10.6	
DRO >C10-C28*	41.7	10.0	04/01/2019	ND	175	87.5	200	10.4	
EXT DRO >C28-C36	27.6	10.0	04/01/2019	ND					

Surrogate: 1-Chlorooctane 67.6 % 41-142

Surrogate: 1-Chlorooctadecane 67.8 % 37.6-147

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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: 04/01/2019  
 Reported: 04/02/2019  
 Project Name: EBDU 28  
 Project Number: NONE GIVEN  
 Project Location: NOT GIVEN

Sampling Date: 04/01/2019  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Celey D. Keene

**Sample ID: SP1 E WALL (H901189-02)**

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	04/02/2019	ND	1.93	96.4	2.00	11.0	
Toluene*	<0.050	0.050	04/02/2019	ND	1.85	92.4	2.00	9.88	
Ethylbenzene*	<0.050	0.050	04/02/2019	ND	1.99	99.7	2.00	9.83	
Total Xylenes*	<0.150	0.150	04/02/2019	ND	6.16	103	6.00	9.30	
Total BTX	<0.300	0.300	04/02/2019	ND					

Surrogate: 4-Bromofluorobenzene (PID) 96.3 % 73.3-129

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	720	16.0	04/02/2019	ND	416	104	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	04/01/2019	ND	154	76.8	200	10.6	
DRO >C10-C28*	<10.0	10.0	04/01/2019	ND	175	87.5	200	10.4	
EXT DRO >C28-C36	<10.0	10.0	04/01/2019	ND					

Surrogate: 1-Chlorooctane 77.0 % 41-142

Surrogate: 1-Chlorooctadecane 74.2 % 37.6-147

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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: 04/01/2019  
 Reported: 04/02/2019  
 Project Name: EBDU 28  
 Project Number: NONE GIVEN  
 Project Location: NOT GIVEN

Sampling Date: 04/01/2019  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Celey D. Keene

**Sample ID: SP2 N WALL @ 1' (H901189-03)**

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	04/02/2019	ND	1.93	96.4	2.00	11.0	
Toluene*	<0.050	0.050	04/02/2019	ND	1.85	92.4	2.00	9.88	
Ethylbenzene*	<0.050	0.050	04/02/2019	ND	1.99	99.7	2.00	9.83	
Total Xylenes*	<0.150	0.150	04/02/2019	ND	6.16	103	6.00	9.30	
Total BTX	<0.300	0.300	04/02/2019	ND					

Surrogate: 4-Bromofluorobenzene (PID) 96.3 % 73.3-129

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	560	16.0	04/02/2019	ND	416	104	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	04/01/2019	ND	154	76.8	200	10.6	
DRO >C10-C28*	<10.0	10.0	04/01/2019	ND	175	87.5	200	10.4	
EXT DRO >C28-C36	<10.0	10.0	04/01/2019	ND					

Surrogate: 1-Chlorooctane 78.7 % 41-142

Surrogate: 1-Chlorooctadecane 75.5 % 37.6-147

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: 04/01/2019  
 Reported: 04/02/2019  
 Project Name: EBDU 28  
 Project Number: NONE GIVEN  
 Project Location: NOT GIVEN

Sampling Date: 04/01/2019  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Celey D. Keene

**Sample ID: SP2 S WALL @ 1' (H901189-04)**

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	04/02/2019	ND	1.93	96.4	2.00	11.0	
Toluene*	<0.050	0.050	04/02/2019	ND	1.85	92.4	2.00	9.88	
Ethylbenzene*	<0.050	0.050	04/02/2019	ND	1.99	99.7	2.00	9.83	
Total Xylenes*	<0.150	0.150	04/02/2019	ND	6.16	103	6.00	9.30	
Total BTX	<0.300	0.300	04/02/2019	ND					

Surrogate: 4-Bromofluorobenzene (PID) 95.2 % 73.3-129

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	96.0	16.0	04/02/2019	ND	416	104	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	04/01/2019	ND	154	76.8	200	10.6	
DRO >C10-C28*	<10.0	10.0	04/01/2019	ND	175	87.5	200	10.4	
EXT DRO >C28-C36	<10.0	10.0	04/01/2019	ND					

Surrogate: 1-Chlorooctane 73.0 % 41-142

Surrogate: 1-Chlorooctadecane 69.6 % 37.6-147

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

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### Notes and Definitions

QR-02	The RPD result exceeded the QC control limits; however, both percent recoveries were acceptable. Sample results for the QC batch were accepted based on percent recoveries and completeness of QC data.
ND	Analyte NOT DETECTED at or above the reporting limit
RPD	Relative Percent Difference
**	Samples not received at proper temperature of 6°C or below.
***	Insufficient time to reach temperature.
-	Chloride by SM4500Cl-B does not require samples be received at or below 6°C Samples reported on an as received basis (wet) unless otherwise noted on report

---

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

---

Celey D. Keene, Lab Director/Quality Manager



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

Page 7 of 7



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

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April 04, 2019

BRUCE BAKER

APACHE CORP - HOBBS

2350 W. MARLAND BLVD.

HOBBS, NM 88240

RE: EBDU 28

Enclosed are the results of analyses for samples received by the laboratory on 04/03/19 16:25.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-18-11. Accreditation applies to drinking water, non-potable water and solid and chemical materials. All accredited analytes are denoted by an asterisk (\*). For a complete list of accredited analytes and matrices visit the TCEQ website at [www.tceq.texas.gov/field/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: 04/03/2019  
 Reported: 04/04/2019  
 Project Name: EBDU 28  
 Project Number: NONE GIVEN  
 Project Location: NOT GIVEN

Sampling Date: 04/03/2019  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Tamara Oldaker

**Sample ID: SP 2 @ 1.4' @ 4 POINT (H901240-01)**

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	04/04/2019	ND	1.94	96.9	2.00	2.08		
Toluene*	<0.050	0.050	04/04/2019	ND	2.02	101	2.00	1.25		
Ethylbenzene*	<0.050	0.050	04/04/2019	ND	2.20	110	2.00	1.71		
Total Xylenes*	<0.150	0.150	04/04/2019	ND	6.20	103	6.00	1.29		
Total BTEX	<0.300	0.300	04/04/2019	ND						

Surrogate: 4-Bromofluorobenzene (PID) 118 % 73.3-129

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	1070	16.0	04/04/2019	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	04/04/2019	ND	171	85.6	200	8.96	
DRO >C10-C28*	46.1	10.0	04/04/2019	ND	171	85.6	200	8.62	
EXT DRO >C28-C36	20.6	10.0	04/04/2019	ND					

Surrogate: 1-Chlorooctane 96.8 % 41-142

Surrogate: 1-Chlorooctadecane 97.2 % 37.6-147

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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: 04/03/2019  
 Reported: 04/04/2019  
 Project Name: EBDU 28  
 Project Number: NONE GIVEN  
 Project Location: NOT GIVEN

Sampling Date: 04/03/2019  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Tamara Oldaker

**Sample ID: SP 2 N WALL @ 4 POINT (H901240-02)**

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	04/04/2019	ND	1.94	96.9	2.00	2.08	
Toluene*	<0.050	0.050	04/04/2019	ND	2.02	101	2.00	1.25	
Ethylbenzene*	<0.050	0.050	04/04/2019	ND	2.20	110	2.00	1.71	
Total Xylenes*	<0.150	0.150	04/04/2019	ND	6.20	103	6.00	1.29	
Total BTX	<0.300	0.300	04/04/2019	ND					

Surrogate: 4-Bromofluorobenzene (PID) 127 % 73.3-129

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	704	16.0	04/04/2019	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	04/04/2019	ND	179	89.4	200	8.61	
DRO >C10-C28*	<10.0	10.0	04/04/2019	ND	183	91.7	200	3.47	
EXT DRO >C28-C36	<10.0	10.0	04/04/2019	ND					

Surrogate: 1-Chlorooctane 75.6 % 41-142

Surrogate: 1-Chlorooctadecane 75.6 % 37.6-147

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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: 04/03/2019  
 Reported: 04/04/2019  
 Project Name: EBDU 28  
 Project Number: NONE GIVEN  
 Project Location: NOT GIVEN

Sampling Date: 04/03/2019  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Tamara Oldaker

**Sample ID: SP 2 S WALL @ 4 POINT (H901240-03)**

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	04/04/2019	ND	1.94	96.9	2.00	2.08		
Toluene*	<0.050	0.050	04/04/2019	ND	2.02	101	2.00	1.25		
Ethylbenzene*	<0.050	0.050	04/04/2019	ND	2.20	110	2.00	1.71		
Total Xylenes*	<0.150	0.150	04/04/2019	ND	6.20	103	6.00	1.29		
Total BTX	<0.300	0.300	04/04/2019	ND						

Surrogate: 4-Bromofluorobenzene (PID) 120 % 73.3-129

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	144	16.0	04/04/2019	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	04/04/2019	ND	179	89.4	200	8.61	
DRO >C10-C28*	<10.0	10.0	04/04/2019	ND	183	91.7	200	3.47	
EXT DRO >C28-C36	<10.0	10.0	04/04/2019	ND					

Surrogate: 1-Chlorooctane 80.9 % 41-142

Surrogate: 1-Chlorooctadecane 80.2 % 37.6-147

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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: 04/03/2019  
 Reported: 04/04/2019  
 Project Name: EBDU 28  
 Project Number: NONE GIVEN  
 Project Location: NOT GIVEN

Sampling Date: 04/03/2019  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Tamara Oldaker

**Sample ID: SP 2 S WALL @ 3 POINT (H901240-04)**

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	04/04/2019	ND	1.94	96.9	2.00	2.08		
Toluene*	<0.050	0.050	04/04/2019	ND	2.02	101	2.00	1.25		
Ethylbenzene*	<0.050	0.050	04/04/2019	ND	2.20	110	2.00	1.71		
Total Xylenes*	<0.150	0.150	04/04/2019	ND	6.20	103	6.00	1.29		
Total BTX	<0.300	0.300	04/04/2019	ND						

Surrogate: 4-Bromofluorobenzene (PID) 125 % 73.3-129

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	64.0	16.0	04/04/2019	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*	<50.0	50.0	04/04/2019	ND	179	89.4	200	8.61	
DRO >C10-C28*	92.0	50.0	04/04/2019	ND	183	91.7	200	3.47	
EXT DRO >C28-C36	<50.0	50.0	04/04/2019	ND					

Surrogate: 1-Chlorooctane 72.0 % 41-142

Surrogate: 1-Chlorooctadecane 77.3 % 37.6-147

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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: 04/03/2019  
 Reported: 04/04/2019  
 Project Name: EBDU 28  
 Project Number: NONE GIVEN  
 Project Location: NOT GIVEN

Sampling Date: 04/03/2019  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Tamara Oldaker

**Sample ID: SP 2 @ 1.6' @ 3 POINT (H901240-05)**

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	04/04/2019	ND	1.94	96.9	2.00	2.08		
Toluene*	<0.050	0.050	04/04/2019	ND	2.02	101	2.00	1.25		
Ethylbenzene*	<0.050	0.050	04/04/2019	ND	2.20	110	2.00	1.71		
Total Xylenes*	<0.150	0.150	04/04/2019	ND	6.20	103	6.00	1.29		
Total BTEx	<0.300	0.300	04/04/2019	ND						

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

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	384	16.0	04/04/2019	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	04/04/2019	ND	179	89.4	200	8.61	
DRO >C10-C28*	63.6	10.0	04/04/2019	ND	183	91.7	200	3.47	
EXT DRO >C28-C36	37.6	10.0	04/04/2019	ND					

Surrogate: 1-Chlorooctane 85.8 % 41-142

Surrogate: 1-Chlorooctadecane 89.3 % 37.6-147

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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: 04/03/2019  
 Reported: 04/04/2019  
 Project Name: EBDU 28  
 Project Number: NONE GIVEN  
 Project Location: NOT GIVEN

Sampling Date: 04/03/2019  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Tamara Oldaker

**Sample ID: SP 2 @ 1 POINT N WALL (H901240-06)**

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	04/04/2019	ND	1.94	96.9	2.00	2.08	
Toluene*	<0.050	0.050	04/04/2019	ND	2.02	101	2.00	1.25	
Ethylbenzene*	<0.050	0.050	04/04/2019	ND	2.20	110	2.00	1.71	
Total Xylenes*	<0.150	0.150	04/04/2019	ND	6.20	103	6.00	1.29	
Total BTX	<0.300	0.300	04/04/2019	ND					

Surrogate: 4-Bromofluorobenzene (PID) 123 % 73.3-129

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	272	16.0	04/04/2019	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	04/04/2019	ND	179	89.4	200	8.61	
DRO >C10-C28*	<10.0	10.0	04/04/2019	ND	183	91.7	200	3.47	
EXT DRO >C28-C36	<10.0	10.0	04/04/2019	ND					

Surrogate: 1-Chlorooctane 70.6 % 41-142

Surrogate: 1-Chlorooctadecane 68.0 % 37.6-147

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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: 04/03/2019  
 Reported: 04/04/2019  
 Project Name: EBDU 28  
 Project Number: NONE GIVEN  
 Project Location: NOT GIVEN

Sampling Date: 04/03/2019  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Tamara Oldaker

**Sample ID: SP 2 @ 1 POINT S (H901240-07)**

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	04/04/2019	ND	1.94	96.9	2.00	2.08	
Toluene*	<0.050	0.050	04/04/2019	ND	2.02	101	2.00	1.25	
Ethylbenzene*	<0.050	0.050	04/04/2019	ND	2.20	110	2.00	1.71	
Total Xylenes*	<0.150	0.150	04/04/2019	ND	6.20	103	6.00	1.29	
Total BTEx	<0.300	0.300	04/04/2019	ND					

Surrogate: 4-Bromofluorobenzene (PID) 122 % 73.3-129

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	96.0	16.0	04/04/2019	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	04/04/2019	ND	179	89.4	200	8.61	
DRO >C10-C28*	12.6	10.0	04/04/2019	ND	183	91.7	200	3.47	
EXT DRO >C28-C36	<10.0	10.0	04/04/2019	ND					

Surrogate: 1-Chlorooctane 75.2 % 41-142

Surrogate: 1-Chlorooctadecane 74.2 % 37.6-147

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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: 04/03/2019  
 Reported: 04/04/2019  
 Project Name: EBDU 28  
 Project Number: NONE GIVEN  
 Project Location: NOT GIVEN

Sampling Date: 04/03/2019  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Tamara Oldaker

**Sample ID: SP 2 WEST WALL (H901240-08)**

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	04/04/2019	ND	2.09	105	2.00	0.380	
Toluene*	<0.050	0.050	04/04/2019	ND	1.87	93.7	2.00	1.81	
Ethylbenzene*	<0.050	0.050	04/04/2019	ND	1.99	99.6	2.00	0.242	
Total Xylenes*	<0.150	0.150	04/04/2019	ND	6.24	104	6.00	1.72	
Total BTEx	<0.300	0.300	04/04/2019	ND					

Surrogate: 4-Bromofluorobenzene (PID) 93.6 % 73.3-129

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	800	16.0	04/04/2019	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	04/04/2019	ND	179	89.4	200	8.61	
DRO >C10-C28*	<10.0	10.0	04/04/2019	ND	183	91.7	200	3.47	
EXT DRO >C28-C36	<10.0	10.0	04/04/2019	ND					

Surrogate: 1-Chlorooctane 80.6 % 41-142

Surrogate: 1-Chlorooctadecane 78.5 % 37.6-147

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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: 04/03/2019  
 Reported: 04/04/2019  
 Project Name: EBDU 28  
 Project Number: NONE GIVEN  
 Project Location: NOT GIVEN

Sampling Date: 04/03/2019  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Tamara Oldaker

**Sample ID: SP 2 @ 1.6' @ 2 POINT (H901240-09)**

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	04/04/2019	ND	2.09	105	2.00	0.380	
Toluene*	<0.050	0.050	04/04/2019	ND	1.87	93.7	2.00	1.81	
Ethylbenzene*	<0.050	0.050	04/04/2019	ND	1.99	99.6	2.00	0.242	
Total Xylenes*	<0.150	0.150	04/04/2019	ND	6.24	104	6.00	1.72	
Total BTEX	<0.300	0.300	04/04/2019	ND					

Surrogate: 4-Bromofluorobenzene (PID) 95.1 % 73.3-129

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	880	16.0	04/04/2019	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	04/04/2019	ND	179	89.4	200	8.61	
DRO >C10-C28*	<10.0	10.0	04/04/2019	ND	183	91.7	200	3.47	
EXT DRO >C28-C36	<10.0	10.0	04/04/2019	ND					

Surrogate: 1-Chlorooctane 86.1 % 41-142

Surrogate: 1-Chlorooctadecane 82.6 % 37.6-147

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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: 04/03/2019  
 Reported: 04/04/2019  
 Project Name: EBDU 28  
 Project Number: NONE GIVEN  
 Project Location: NOT GIVEN

Sampling Date: 04/03/2019  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Tamara Oldaker

**Sample ID: SP 1 @ 4' (H901240-10)**

BTEx 8021B		mg/kg		Analyzed By: ms						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	04/04/2019	ND	2.09	105	2.00	0.380		
Toluene*	<0.050	0.050	04/04/2019	ND	1.87	93.7	2.00	1.81		
Ethylbenzene*	<0.050	0.050	04/04/2019	ND	1.99	99.6	2.00	0.242		
Total Xylenes*	<0.150	0.150	04/04/2019	ND	6.24	104	6.00	1.72		
Total BTEx	<0.300	0.300	04/04/2019	ND						

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

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	576	16.0	04/04/2019	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	04/04/2019	ND	179	89.4	200	8.61	
DRO >C10-C28*	11.3	10.0	04/04/2019	ND	183	91.7	200	3.47	
EXT DRO >C28-C36	<10.0	10.0	04/04/2019	ND					

Surrogate: 1-Chlorooctane 74.6 % 41-142

Surrogate: 1-Chlorooctadecane 71.8 % 37.6-147

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Celey D. Keene, Lab Director/Quality Manager



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

---

### Notes and Definitions

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

\*=Accredited Analyte

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A handwritten signature in black ink, appearing to read "C. D. Keene", is written over a horizontal line.

Celey D. Keene, Lab Director/Quality Manager

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

Released to Imaging: 4/20/2021 11:25:28 AM



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

---

April 05, 2019

BRUCE BAKER

APACHE CORP - HOBBS

2350 W. MARLAND BLVD.

HOBBS, NM 88240

RE: EBDU 28

Enclosed are the results of analyses for samples received by the laboratory on 04/04/19 15:55.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-18-11. Accreditation applies to drinking water, non-potable water and solid and chemical materials. All accredited analytes are denoted by an asterisk (\*). For a complete list of accredited analytes and matrices visit the TCEQ website at [www.tceq.texas.gov/field/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: 04/04/2019  
 Reported: 04/05/2019  
 Project Name: EBDU 28  
 Project Number: NONE GIVEN  
 Project Location: NOT GIVEN

Sampling Date: 04/04/2019  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Tamara Oldaker

**Sample ID: SP 8 SURFACE (H901253-01)**

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	04/04/2019	ND	2.06	103	2.00	2.24	
Toluene*	<0.050	0.050	04/04/2019	ND	1.89	94.7	2.00	0.117	
Ethylbenzene*	<0.050	0.050	04/04/2019	ND	1.99	99.4	2.00	2.43	
Total Xylenes*	<0.150	0.150	04/04/2019	ND	6.07	101	6.00	2.78	
Total BTEx	<0.300	0.300	04/04/2019	ND					

Surrogate: 4-Bromofluorobenzene (PID) 96.0 % 73.3-129

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	48.0	16.0	04/05/2019	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	04/05/2019	ND	203	101	200	10.9	
DRO >C10-C28*	10.8	10.0	04/05/2019	ND	210	105	200	9.40	
EXT DRO >C28-C36	<10.0	10.0	04/05/2019	ND					

Surrogate: 1-Chlorooctane 89.5 % 41-142

Surrogate: 1-Chlorooctadecane 91.3 % 37.6-147

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: 04/04/2019  
 Reported: 04/05/2019  
 Project Name: EBDU 28  
 Project Number: NONE GIVEN  
 Project Location: NOT GIVEN

Sampling Date: 04/04/2019  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Tamara Oldaker

**Sample ID: SP 2 N WALL POINT 3 (H901253-02)**

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	04/04/2019	ND	2.06	103	2.00	2.24	
Toluene*	<0.050	0.050	04/04/2019	ND	1.89	94.7	2.00	0.117	
Ethylbenzene*	<0.050	0.050	04/04/2019	ND	1.99	99.4	2.00	2.43	
Total Xylenes*	<0.150	0.150	04/04/2019	ND	6.07	101	6.00	2.78	
Total BTEx	<0.300	0.300	04/04/2019	ND					

Surrogate: 4-Bromofluorobenzene (PID) 95.0 % 73.3-129

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	16.0	16.0	04/05/2019	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	04/05/2019	ND	203	101	200	10.9	
DRO >C10-C28*	<10.0	10.0	04/05/2019	ND	210	105	200	9.40	
EXT DRO >C28-C36	<10.0	10.0	04/05/2019	ND					

Surrogate: 1-Chlorooctane 85.8 % 41-142

Surrogate: 1-Chlorooctadecane 84.2 % 37.6-147

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: 04/04/2019  
 Reported: 04/05/2019  
 Project Name: EBDU 28  
 Project Number: NONE GIVEN  
 Project Location: NOT GIVEN

Sampling Date: 04/04/2019  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Tamara Oldaker

**Sample ID: SP 2 @ 2.5' 1 POINT (H901253-03)**

BTEx 8021B		mg/kg		Analyzed By: ms						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	04/04/2019	ND	2.06	103	2.00	2.24		
Toluene*	<0.050	0.050	04/04/2019	ND	1.89	94.7	2.00	0.117		
Ethylbenzene*	<0.050	0.050	04/04/2019	ND	1.99	99.4	2.00	2.43		
Total Xylenes*	<0.150	0.150	04/04/2019	ND	6.07	101	6.00	2.78		
Total BTEX	<0.300	0.300	04/04/2019	ND						

Surrogate: 4-Bromofluorobenzene (PID) 94.8 % 73.3-129

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	256	16.0	04/05/2019	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	04/05/2019	ND	203	101	200	10.9	
DRO >C10-C28*	<10.0	10.0	04/05/2019	ND	210	105	200	9.40	
EXT DRO >C28-C36	<10.0	10.0	04/05/2019	ND					

Surrogate: 1-Chlorooctane 82.2 % 41-142

Surrogate: 1-Chlorooctadecane 81.3 % 37.6-147

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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

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### Notes and Definitions

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

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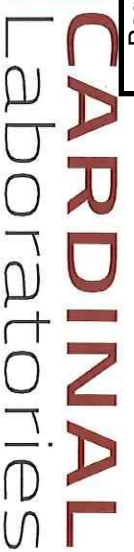
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A handwritten signature in black ink, appearing to read "Celey D. Keene".

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Celey D. Keene, Lab Director/Quality Manager



## CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

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

Released to Imaging: 4/20/2021 11:25:28 AM



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April 09, 2019

BRUCE BAKER

APACHE CORP - HOBBS

2350 W. MARLAND BLVD.

HOBBS, NM 88240

RE: EBDU 28

Enclosed are the results of analyses for samples received by the laboratory on 04/08/19 16:25.

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

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

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

Accreditation applies to public drinking water matrices.

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

Sincerely,

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

Celey D. Keene

Lab Director/Quality Manager



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

**Analytical Results For:**

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

Received: 04/08/2019  
 Reported: 04/09/2019  
 Project Name: EBDU 28  
 Project Number: NONE GIVEN  
 Project Location: NOT GIVEN

Sampling Date: 04/08/2019  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Tamara Oldaker

**Sample ID: SP 2 P-2 @ 1' 5" FLOOR (H901280-01)**

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	432	16.0	04/09/2019	ND	416	104	400	0.00	

**Sample ID: SP 2 W WALL (H901280-02)**

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	640	16.0	04/09/2019	ND	416	104	400	0.00		

**Sample ID: SP 2 @ P-4 FLOOR 2' (H901280-03)**

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	624	16.0	04/09/2019	ND	416	104	400	0.00		

**Sample ID: SP 2 @ P-4 N WALL (H901280-04)**

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	128	16.0	04/09/2019	ND	416	104	400	0.00		

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Celey D. Keene, Lab Director/Quality Manager



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

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### Notes and Definitions

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

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Cardinal Laboratories

\*=Accredited Analyte

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

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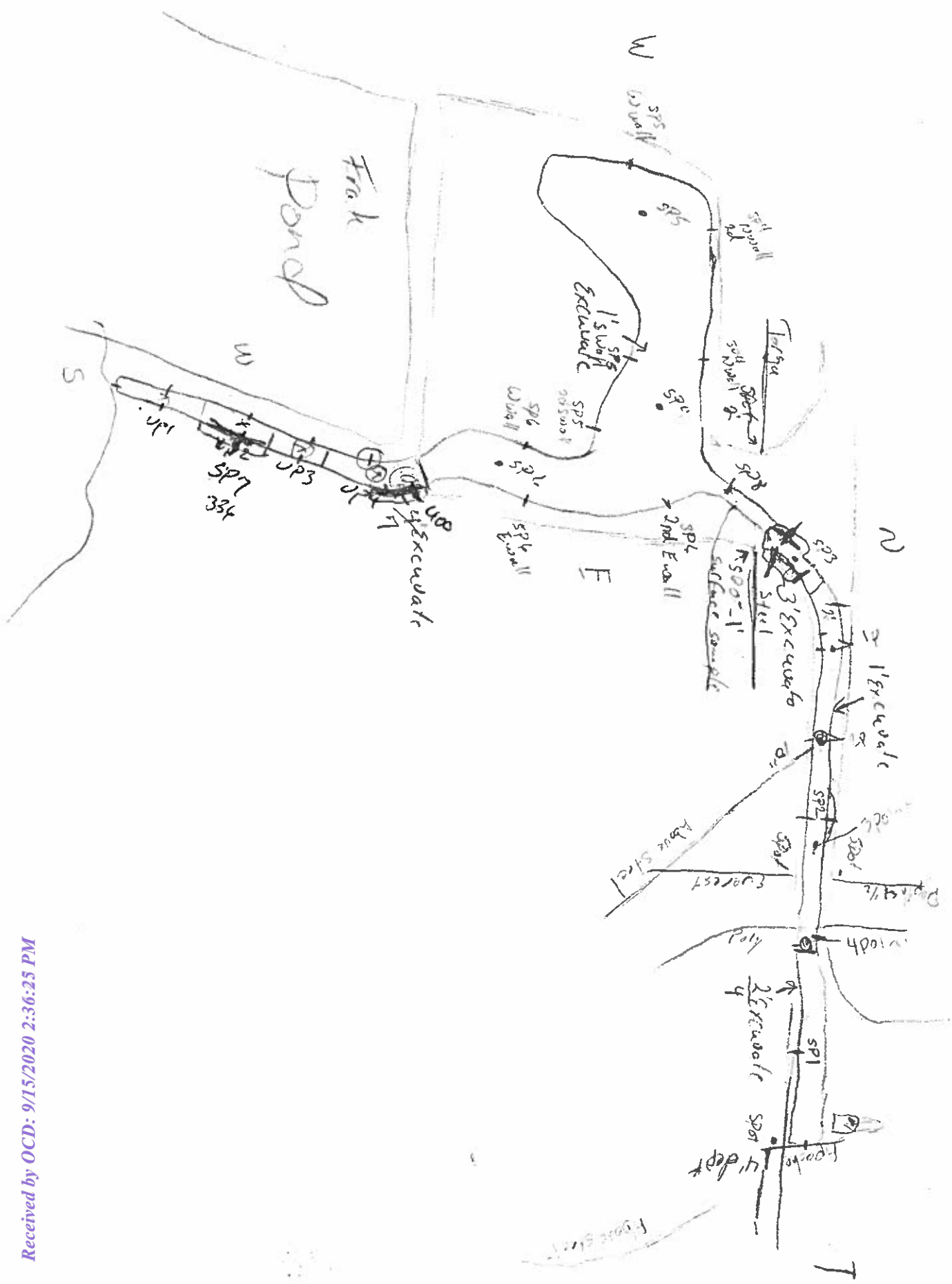
Celey D. Keene, Lab Director/Quality Manager



## CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

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

Company Name: <u>Proctor</u>		P.O. #:		BILL TO		ANALYSIS REQUEST												
Project Manager: <u>Barbara Baker / Jeff Broom</u>		Company:																
Address:		Attn:																
City: <u>Hobbs</u>		State: <u>NM</u> Zip: <u>88240</u>		Address:														
Phone #:		Fax #:		City:														
Project #:		Project Owner:		State:		Zip:												
Project Location: <u>EBDA 28</u>		Phone #:																
Sample Name: <u>See Attached</u>		Fax #:																
FOR LAB USE ONLY																		
Lab I.D.	Sample I.D.	LAB OR (C)OMP.		MATRIX		PRESERV.		SAMPLING										
		# CONTAINERS	GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER:	ACID/BASE:	COOL / COOL	OTHER:	DATE	TIME					
<u>H901280</u>	<u>SP2 P-2-2015 5' Str</u>	<u>6</u>	<u>1</u>								<u>4/8</u>	<u>2:13pm</u>	<u>1</u>	<u>2</u>				
	<u>SP2 water</u>	<u>6</u>	<u>1</u>								<u>4/8</u>	<u>3:30p</u>	<u>1</u>	<u>2</u>				
	<u>SP2 20-4 floor 2'</u>	<u>6</u>	<u>1</u>								<u>4/8</u>	<u>5:55p</u>	<u>1</u>	<u>2</u>				
	<u>SP2 20-4 floor 2'</u>	<u>6</u>	<u>1</u>								<u>4/8</u>	<u>4:02am</u>	<u>1</u>	<u>2</u>				
<p>PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising whether based in contract or tort, shall be limited to the amount paid by the client for the analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within 30 days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise.</p>																		
Relinquished By: <u>[Signature]</u>		Date: <u>4-8-19</u>		Received By: <u>[Signature]</u>														
Relinquished By: <u>[Signature]</u>		Date: <u>4-8-19</u>		Received By: <u>[Signature]</u>														
Delivered By: (Circle One)		Sample Condition		CHECKED BY: (Initials)														
Sampler - UPS - Bus - Other:		Cool <input checked="" type="checkbox"/> Intact <input checked="" type="checkbox"/>		T.D.														
5.8c #97		Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>		T.D.														
<p>REMARKS: <u>also To Jeff Broom. Broom@Proctorcorp.com for how on. Please Thank you! (Broom)</u></p>																		



Apache EBDU #28 March 19, 2019  
 Posture  
 under  
 250

Sp7 @ 4' S. wall	11.0 / 30.1	0.10	2.73 = 272 X	Brown dirt
Sp7 @ 4' Floor	11.0 / 30.1	0.10	2.73 = 272 X	Caliche
Sp7 @ 4.5' Floor	11.0 / 30.0	0.23	2.72 = 625 X	Caliche
Sp7 @ 4.5' S. wall	11.0 / 30.0	0.08	2.72 = 217 ✓	Caliche
Sp7 @ 5' Floor	11.0 / 30.1	0.44	2.73 = 1,337 X	Caliche
Sp7 @ 5' E wall	11.2 / 30.2	0.11	2.69 = 295 X	tan Caliche
Sp7 @ 5' W wall	11.1 / 30.2	0.44	2.72 = 1,196 X	tan Caliche
Sp7 @ 4.5' floor 2 point	11.2 / 30.3	0.35	2.70 = 944 X	Caliche
Sp7 @ 3' floor 3 point	11.0 / 30.0	0.55	2.72 = 1,495 X	tan Caliche
Sp7 @ 4' floor 3 point	11.1 / 30.3	0.45	2.72 = 1,223 X	Caliche
Sp7 @ 4' 4 point floor	11.0 / 30.2	0.30	2.74 = 821 X	
Sp7 @ 5' 4 point floor	11.1 / 30.2	0.53	2.72 = 1,441 X	tan Caliche

Continue

UP1 @ 6' 4 point

11.1 / 30.3 0.42

2.72 = 1,142

Ton Col/ste

UP1 @ 7' 4 point

11.2 / 30.1 0.09

2.71 = 243

Brown Sand

UP1 @ 8' 4 point

11.2 / 30.0 0.06

2.67 = 213

ton Col/ste

UP2 @ 5' 3 point

11.1 / 30.2 0.40

2.72 = 1,087

ton Col/ste

UP2 @ 6' 3 point

11.3 / 30.0 0.20

2.65 = ~~543~~ 529

ton Col/ste

UP2 @ 7' 3 point

11.1 / 30.2 0.15

2.72 = 407x

ton Col

UP2 @ 8' 3 point

11.0 / 30.1 0.06

2.72 = 163 ✓

ton Col.

March 20, 2019 EBDU #28

E. wall @ 7' UP1

11.2 / 30.3 0.73

2.70 = 1,970

W. wall @ 7' UP1

11.1 / 30.1 0.79

2.71 = 2,140x

E. wall @ 8' UP2

11.2 / 30.3 0.31

2.70 = 836

W. wall @ 8' UP2

11.1 / 30.3 0.43

2.72 = 1,169



EBDU #28 March 20, 2019

VP3 @ 5' 2nd point

11.0/30.0

0.10

2.72 =

Sand

271 X

Ton  
cal. 1/2

VP3 @ 6' 2nd point

11.3/30.2

0.09

2.67 = 240

VP4 @ 6' 1st point

11.0/30.0

0.10

2.72 = 271 X Tan  
cal.

VP4 @ 7' 1st point

11.0/30.2

0.09

2.74 = 246 Tan  
cal.

W. wall @ 7' 1st point

11.2/30.1

0.45

2.68 = 1205 X  
Ton  
cal. 1/2

E. wall @ 7' 1st point

11.1/30.2

0.48

2.72 = 1305 X

W. wall 1st point

11.0/30.0

0.17

2.72 = 462

Ton  
cal. 1/2

E. wall 1st point

11.2/30.3

0.07

2.70 = 198 ✓

Ton  
cal. 1/2

W. wall 1st point

11.4/30.3

0.10

2.72 = 271

Ton  
cal. 1/2

W. wall 1st point

11.0/30.0

0.07

2.72 = 190 ✓

Ton  
cal. 1/2

W. wall

11.3/30.1

2.66 = 186

Brown Art.

Surface SP7 @ Point 4

11.2/30.1

2.68 = 1500

March 21, 2019 EBD4 #28

Surface 1

11.1/30.0

0.51

 $2.70 = 1,349$ 

Surface 2

11.1/30.3

0.50

 $2.72 = 1,359$ 

Surface 3

11.0/30.3

0.70

 $2.75 = 1,929$ 

Surface 4

11.1/30.1

0.46

 $2.71 = 1,246$ 

Surface 5

11.0/30.1

0.20

 $2.73 = 1,910$ 

Surface 6

11.2/30.2

0.48

 $2.69 = 1,290$ 

Surface 7

11.0/30.0

0.30

 $2.72 = 815$ 

Surface 8

11.0/30.0

0.09

 $2.72 = 244 /$ 

Surface 9

11.3/30.0

0.09

 $2.65 = 238 /$ 9.05  
5.10

EBDU #28		March 21-2019	
West Wall Surfaces	Surface 1		
	11.3 / 30.1	0.31	2.68 = 830
	Surface 2		
	11.3 / 30.1	0.10	2.66 = 251
	Surface 3		
	11.2 / 30.0	0.55	2.67 = 1468
	Surface 4		
	11.2 / 30.0	0.18	2.67 = 374
	Surface 5		
	11.3 / 30.0	0.11	2.65 = 291
10 /	Surface 6		
	11.3 / 30.2	0.09	2.67 = 240
	Surface 7		
	11.1 / 30.1	0.11	2.71 = 298
	Surface 8		
	11.3 / 30.2	0.25	2.67 = 667
	Surface 9		
	11.2 / 30.6	<del>0.45</del> 0.45	2.67 = 1201

EBDU # 28 March 21 2019

Floor @ 4'

$$11.0 / 30.0 \quad 0.13 \quad 2.72 = 353 \times$$

w. wall

$$11.1 / 30.3 \quad 0.50 \quad 2.72 = 1,359 \times$$

E wall

$$11.0 / 30.2 \quad 0.53 \quad 2.74 = 1,451$$

March 22, 2019 EBDU #28

E. wall 50' from S wall

$$11.0 / 30.3 \quad 0.06 \quad 2.75 = 164 /$$

Floor @ 7' @ UP 3.

$$11.0 / 30.3 \quad 0.09 \quad 2.75 = 2.47 /$$

E wall @ point 4

$$11.1 / 50.0 \quad 0.08 \quad 2.70 = 215 /$$

SP 7 @ Point 4 7'

$$11.0 / 30.0 \quad 0.09 \quad 2.72 = 2.44 /$$

3-25-19

EBDU #28

SP 7 @ 4'

$$11.3 / 30.4 \quad 0.22 \quad 2.69 = 591$$

SP 7 Point 4 west wall 32.4985594 - 103.1241191

$$11.2 / 30.2 \quad 0.09 \quad 2.69 = 242 /$$

SP 7 Point 4 East wall

$$11.2 / 30.0 \quad 0.63 \quad 2.67 = 1,681 \times$$

HPueche

EBDU #28

March 25 2019

SP7 @ 7' Point S

11.3/30.3 0.11

2.68 = 294 ~

SP7 @ N wall Point S 32.4990971 - 103.1241325

11.01 30.1 0.36

2.71 = 975 X

SP7 @ Point S E wall 32.4990620 - 103.1241070

11.4 30.2 0.14

2.64 = 376 X

SP7 @ Point S W wall 32.4990954 - 103.1240869

11.21 30.0 0.51

2.67 = 1,361 X

SP7 @ 7.5'

11.21 30.1 0.13

2.68 = 348

SP7 N wall

11.31 30.2 0.26

2.67 = 693

SP7 E wall

11.01 30.0 0.32

2.72 = 870

SP7 W wall

11.01 30.1 0.35

2.73 = 955

Surface E.

11.11 30.1 0.08

2.71 = 214

W surface

11.11 30.1 0.10

2.71 = 270

N wall

11.31 30.3 0.19

2.68 = 509 X

E wall

11.01 30.0 0.07

2.72 = 190 ✓

W wall

11.01 30.0 0.15

2.72 = 407 ✓



March 26, 2019

EBDU #28

1'

11.0/30.3

SP3 @ 3' Brown Orb <sup>GPS</sup> 32.4996864 -103.1240397

11.0/30.0 0.44 2.72 = 1,196.1 X

SP3 N wall 32.4996866 -103.1240353

11.3/30.3 0.06 2.68 = 160 ✓

SP3 <sup>E</sup> wall 32.4996739 -103.1240772

11.2/30.3 0.18 2.70 = 485 ✓

SP3 <sup>W</sup> wall 32.4997073 -103.1240551

11.2/30.2 0.11 2.64 = 298 ✓

SP3 <sup>S</sup> wall 32.4996767 -103.1240712

11.0/30.3 0.10 2.75 = 274 ✓

SP3 @ 4' 32.4996864 -103.1240397

11.3/30.1 0.12 2.66 = 319 ✓

SP3 @ 4' w. wall 32.4995894 -103.1241526

11.2/30.5 0.21 2.72 = 571 ✓

SP3.2 @ 4' S. wall 32.4995410 -103.1241654

11.0/30.1 0.26 2.73 = 709 X

SP3.2 @ 4' E wall 32.4995741 -103.1241097

11.1/30.0 0.36 2.70 = 971 X

SP3.2 @ 4'

11.3/30.3 0.12 2.68 = 321. ✓

SP3 E wall

11.0/30.2 0.19 2.74 = 520 ✓

EBDU 281 Apache  
 SP5 @1' Swall 32.4992172 -103.1245272  
 11.0/30.0 0.09 2.72 = 244 ✓  
 SP 4 @1' N wall 32.4994160 -103.1244799  
 11.3/30.1 0.47 2.64 = 1281 X  
 SP 4 @1' N wall #2 32.4994384 -103.1245969  
 11.1/30.3 0.09 2.72 = 244 ✓  
 SP5 @1' W wall 32.4993151 -103.1247299  
 11.0/30.0 0.29 2.72 = 788 X  
 March 27, 2019 Apache EBDU #28

SP 4 N wall @1' 32.4994160 -103.1244799  
 11.1/30.2 0.39 2.72 = 1060 X  
 SP 5 W wall @1' 32.4993151 -103.1247299  
 11.1/30.1 0.08 2.71 = 216 ✓  
 SP 4 N wall @1' 32.4993886 -103.1244185  
 11.1/30.2 0.07 2.72 = 190 ✓  
 SP 4 @1' floor 32.4993326 -103.1246421  
 11.1/30.3 0.08 2.72 = 217 ✓  
 SP 5 @1' floor 32.4992701 -103.1248283  
 11.0/30.2 0.09 2.74 = 246 ✓  
 SP 5 Swall @1' 2nd 32.4991816 -103.1242355  
 11.1/30.1 0.50 2.71 = 1354 X  
 SP 6 W wall @1' 32.4991816 -103.1242355  
 11.0/30.3 0.26 2.75 = 714 X

1600

Hullene Bruce Bazz

EBD# 28

SP6 E wall @ 1'

11.1/30.2

0.45

March 28 2019

2.72 = 1223 X

SP6 W wall @ 1'

11.0/30.1

0.20

2.73 = ~~0.45~~ 425 ✓

March 28, 2019 Apache EBD# 28

SP5 small @ 1' 2nd

11.0/30.2

0.18

2.74 = 493 ✓

SP6 E wall @ 1' 32.4992557 - 103.1241191

11.2/30.3

0.75

2.70 = 2024 X

SP6 E wall @ 1'

11.2/30.3

0.12

2.70 = 323 ✓

SP6 @ 1' 32.4992056 - 103.1241637

11.2/30.0

0.06

2.67 = 166 ✓

SP6 E wall @ 1' 2 point 32.4993501 - 103.1241758

11.0/30.0

0.08

2.72 = 217 ✓

March 29, 2019 Apache EBD# 28

SP7 E wall 2 point @ 7' 32.4987546 - 103.1241044

11.0/30.1

0.07

2.73 = 191 ✓

SP7 E wall Point 5 32.4990620 - 103.1241070

11.0/30.1

0.07

2.73 = 191 ✓

SP32 W wall @ 4' 32.4995701 - 103.1241543

11.2/30.0

0.09

2.67 = 240 ✓

SP32 E wall @ 4' 32.4995667 - 103.1241419

11.2/30.0

0.11

2.67 = 293 ✓

EBDU 28 Apache March 24, 1988

Surface 1 E point			
11.1/30.3	0.08	2.70 =	Tan ca x 215
Surface 2 W Point			Tan ca
11.1/30.2	0.08	2.72 =	217 ✓
Surface 2 E			
11.2/30.3	0.10	2.70 =	269 ✓
Surface 2 W			
11.2/30.0	0.08	2.67 =	215 ✓
Surface 3 E			
11.0/30.0	0.08	2.72 =	217 ✓
Surface 3 W			
11.0/30.1	0.12	2.73 =	327 ✓
Surface 4 E			
11.3/30.2	0.08	2.67 =	215
Surface 5 E			
11.2/30.1	0.15		
Surface 5 W			
11.3/30	0.10		

April 1 2019 Apache EBDU#128

SP1 @ 2' 32.4996838 - 103.1232430

11.1/30.3 0.39 2.72 = 1060 X

SP1 N wall @ 2' 32.4997121 - 103.1232390

11.3/30.3 0.36 2.68 = 964 X

SP1 S wall @ 2' 32.4996680 - 103.1232813

11.0/30.2 0.05 2.74 136 ✓

SP1 E wall @ 2' 32.4996745 - 103.1230845

11.2/30.1 0.25 2.68 664 X

SP1 @ 3'

11.0/30.0 0.22 2.72 = 598 ~

SP1 N wall @ 3'

11.0/30.1 0.45 2.73 = 1228

SP1 E wall

11.1/30.1 0.13 2.71 = 352 ✓

SP1 @ 3.5'

11.1/30.2 0.28 2.72 = 761

SP1 N wall

11.2/30.2 0.45 2.69 = 1,210

SP1 @ 2' 32.4996889 - 103.1231119

11.0/30.1 0.35 2.73 = 955 X

SP2 @ 1' 32.4997013 - 103.1235699

11.1/30.2 0.40 2.72 = 1087 X

SP2 N wall @ 1' 32.4997373 - 103.1237024

11.2/30.0 0.15 2.67 = 400 ✓

SP2 S wall @ 1' 32.4996765 - 103.1236794

11.3/30.1 0.08 2.66 = 212 ✓



April 3, 2019 Apache EBDU#128

SP2@1' 1 point 32.4997084 - 103.1239267

11.3/30.1 0.39 2.66 = 1,037 X

SP2@1' 2 point 32.4996957 - 103.1237379

11.0/30.1 0.60 2.71 = 1,254 X

SP2@1' 3 point 32.4997107 - 103.1235773

11.3/30.2 0.37 2.67 = 987 X

SP2@1' 4 point 32.4997104 - 103.1233922

11.1/30.3 0.30 2.72 = 815 X

1239 SP2@1.4' floor @ 4 point

11.0/30.0 0.23 2.72 = 625 ~

1217 SP2 N wall @ 4 point 32.4997127 - 103.1234103

11.1/30.1 0.18 2.71 = 487 ✓

1220 SP2 S wall @ 4 point 32.4996677 - 103.1234338

11.3/30.2 0.09 2.67 = 240 ✓

1222 SP2 S wall @ 3 point 32.4996677 - 103.1239913

11.2/30.0 0.07 2.67 = 186 ✓

SP2 N wall @ 3 point 32.4997279 - 103.1235760

11.2/30.1 0.35 2.68 = 937 X

1224 SP2@1.6' 3 point

11.3/30.2 0.15 2.67 = 400 ✓

SP2@1.4' @ 2 point

11.2/30.0 0.30 2.67 = 800 X

EB Du #28

April 3, 2019

SP2 N wall 3 point

11.1 / 30.3 0.35

2.72 = 951

SP2 @ 1.6" 2 point

11.1 / 30.2 0.24

2.72 = 652

SP2 N wall 1 point 32.4997463 - 103.1238754

11.2 / 30.2 0.15

2.69 = 403

SP2 S wall 1 point 32.49967 - 103.12395

11.0 / 30.1 0.10

2.73 = 272

SP2 @ 1.6' 1 point 32.49970 - 103.12395

11.1 / 30.2 0.15

2.72 = 1223

SP2 W wall 32.49972 - 103.12402

11.1 / 30.0 0.16

2.70 = 431

SP1 @ 3.9'

11.3 / 30.3 0.34

2.68 = 910

2.0 @ 4'

11.3 / 30.3 0.20

2.68 = 535

April 4 2019

Apache EB Du #28

SP8 Surface 32.4994684 - 103.1242049

11.2 / 30.3 0.08

2.70 = 215

SP2 @ 1.9 1 point

11.2 / 30.0 0.31

2.67 = 827

SP2 N wall 3 point

11.2 / 30.3 0.07

2.70 = 188

SP2 @ 2' 1 point

11.0 / 30.2 0.35

2.75 955

Apr: 14 2019 EBDU#28

SP2 @ 2' 1 point

1058 11.3/30.3 0.25

2.68 = 669

SP2 @ 2.5 1 point

11.1/30.0 0.10

2.70 = 269 ✓

April 8, 2019 EBDU#28

SP2 well

11.0/30.2 0.27

2.74 = 739 X

SP 2 @ Point 2 @ 1' 5" 32.499 7081 - 103 - 12384 12

11.0/30.0 0.14

2.72 = 516 ✓

SP2 Point 4 well

11.2/30.0 0.54

2.67 = 0

SP2 Point 4 @ 1' 6" floor

11.2/30.0 0.23

2.67 = 613 X

SP2 well well 32.499 7064 - 103, 1240122

11.0/30.0 0.22

2.72 = 588 ✓

SP2 @ Point 4 @ 2' 0"

11.1/30.0 0.20

2.70 = 534 ✓

SP 2 &amp; well

11.0/30.0 0.08

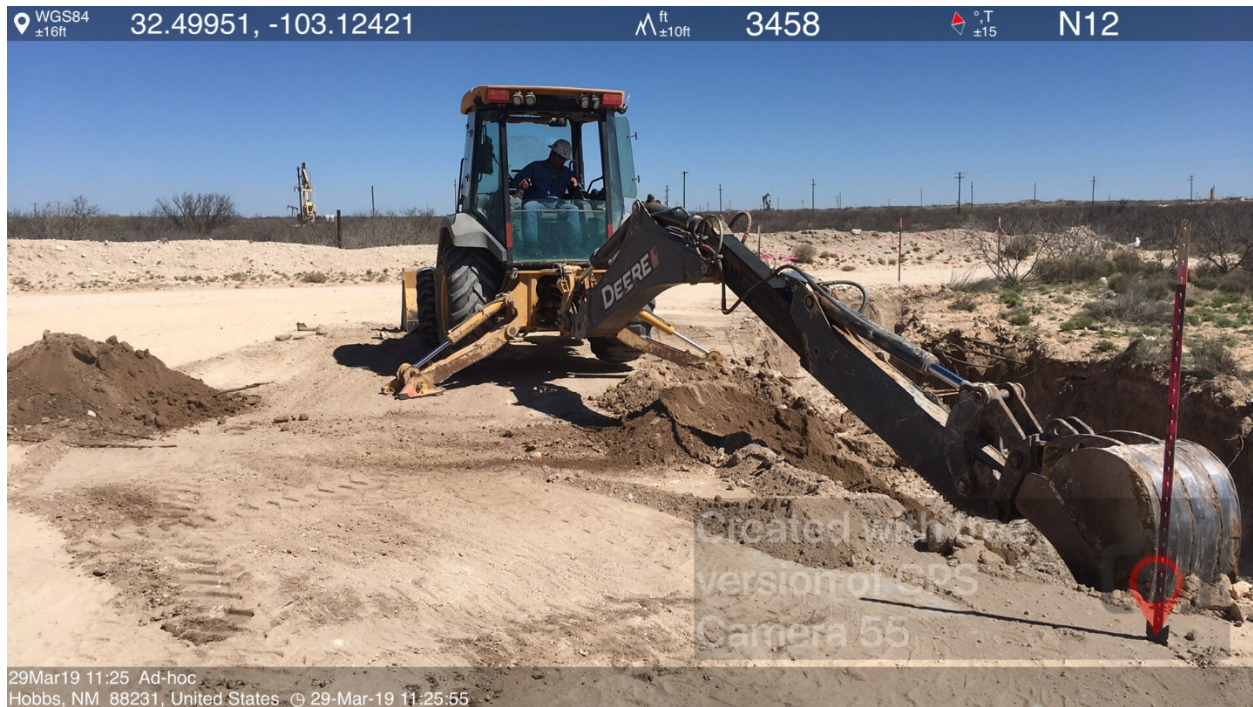
2.72 = 217 ✓



Photos















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

CONDITIONS

Action 10201

**CONDITIONS OF APPROVAL**

Operator: #1000	APACHE CORPORATION Midland, TX79705	303 Veterans Airpark Ln	OGRID: 873	Action Number: 10201	Action Type: C-141
OCD Reviewer chensley	Condition None				