

September 16, 2016

BRUCE BAKER

APACHE CORP - HOBBS

2350 W. MARLAND BLVD.

HOBBS, NM 88240

RE: NBTWEEN

Enclosed are the results of analyses for samples received by the laboratory on 09/08/16 13:00.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-16-8. 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.

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

Analytical Results For:

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

Received:	09/08/2016	Sampling Date:	09/08/2016
Reported:	09/16/2016	Sampling Type:	Soil
Project Name:	NBTWEEN	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	EDDY COUNTY		

Sample ID: S-5 (H602022-01)

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	09/12/2016	ND	2.10	105	2.00	0.123	
Toluene*	<0.050	0.050	09/12/2016	ND	2.16	108	2.00	0.288	
Ethylbenzene*	<0.050	0.050	09/12/2016	ND	2.10	105	2.00	0.00802	
Total Xylenes*	0.169	0.150	09/12/2016	ND	6.37	106	6.00	0.0381	
Total BTEX	<0.300	0.300	09/12/2016	ND					

Surrogate: 4-Bromofluorobenzene (PID) 103 % 73.6-140

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	09/12/2016	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	09/14/2016	ND	205	102	200	4.27	
DRO >C10-C28	1040	10.0	09/14/2016	ND	220	110	200	9.53	

Surrogate: 1-Chlorooctane 88.8 % 35-147
Surrogate: 1-Chlorooctadecane 117 % 28-171

Cardinal Laboratories

*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

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

 Received: 09/08/2016
 Reported: 09/16/2016
 Project Name: NBTWEEN
 Project Number: NONE GIVEN
 Project Location: EDDY COUNTY

 Sampling Date: 09/08/2016
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Jodi Henson

Sample ID: S-6 (H602022-02)

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	09/12/2016	ND	2.10	105	2.00	0.123	
Toluene*	<0.050	0.050	09/12/2016	ND	2.16	108	2.00	0.288	
Ethylbenzene*	0.434	0.050	09/12/2016	ND	2.10	105	2.00	0.00802	
Total Xylenes*	0.446	0.150	09/12/2016	ND	6.37	106	6.00	0.0381	
Total BTEX	0.881	0.300	09/12/2016	ND					

Surrogate: 4-Bromofluorobenzene (PID) 112 % 73.6-140

Chloride, SM4500Cl-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	09/12/2016	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	09/14/2016	ND	205	102	200	4.27	
DRO >C10-C28	530	10.0	09/14/2016	ND	220	110	200	9.53	

Surrogate: 1-Chlorooctane 94.0 % 35-147

Surrogate: 1-Chlorooctadecane 96.9 % 28-171

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Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

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

 Received: 09/08/2016
 Reported: 09/16/2016
 Project Name: NBTWEEN
 Project Number: NONE GIVEN
 Project Location: EDDY COUNTY

 Sampling Date: 09/08/2016
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Jodi Henson

Sample ID: S-7 (H602022-03)

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	09/12/2016	ND	2.10	105	2.00	0.123	
Toluene*	<0.050	0.050	09/12/2016	ND	2.16	108	2.00	0.288	
Ethylbenzene*	<0.050	0.050	09/12/2016	ND	2.10	105	2.00	0.00802	
Total Xylenes*	<0.150	0.150	09/12/2016	ND	6.37	106	6.00	0.0381	
Total BTEX	<0.300	0.300	09/12/2016	ND					

Surrogate: 4-Bromofluorobenzene (PID) 96.6 % 73.6-140

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	09/12/2016	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	09/14/2016	ND	205	102	200	4.27	
DRO >C10-C28	1140	10.0	09/14/2016	ND	220	110	200	9.53	

Surrogate: 1-Chlorooctane 92.0 % 35-147

Surrogate: 1-Chlorooctadecane 122 % 28-171

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Celey D. Keene, Lab Director/Quality Manager

Notes and Definitions

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



Celey D. Keene, Lab Director/Quality Manager



CARDINAL Laboratories

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

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

BILL TO

ANALYSIS REQUEST

Company Name: Talcom/PE
 Project Manager: David Adkins
 Address: 408 West Texas
 City: Artesia State: NM Zip: 88210
 Phone #: 575-8768 Fax #: 575-746-8905
 Project #: _____ Project Owner: Apache
 Project Name: NB Tween City: _____ State: _____ Zip: _____
 Project Location: Eddy City Phone #: _____
 Sampler Name: Kim Wilson Fax #: _____

Lab I.D.	Sample I.D.	(G)RAB OR (C)OMP.	# CONTAINERS	MATRIX							DATE	TIME	TPH	BTEX	Cl
				GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER :	ACID/BASE:					
<u>H002002</u>															
	<u>1</u>		<u>91</u>			<u>✓</u>				<u>9/9/16</u>	<u>8:00</u>	<u>✓</u>	<u>✓</u>	<u>✓</u>	
	<u>2</u>		<u>5-6</u>			<u>✓</u>					<u>8:04</u>	<u>✓</u>	<u>✓</u>	<u>✓</u>	
	<u>3</u>		<u>5-7</u>			<u>✓</u>					<u>8:02</u>	<u>✓</u>	<u>✓</u>	<u>✓</u>	

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Relinquished By: Kim Wilson Date: 9/9/16
 Received By: Scott Jensen Date: 9/9/16
 Time: _____

Delivered By: (Circle One) UPS 5.10c
 Sampler - UPS - Bus - Other: _____
 Sample Condition: Cool Intact
 Checked By: AA
 Phone Result: Yes No Add'l Phone #: _____
 Fax Result: Yes No Add'l Fax #: _____
 REMARKS: Kimberly added Cl

† Cardinal cannot accept verbal changes. Please fax written changes to 505-393-2476 #95