

February 17, 2016

CHRISTINE ALDERMAN

CIMAREX ENERGY CO.-MIDLAND

600 N. MARIENFELD ST, SUITE 600

MIDLAND, TX 79701

RE: COTTONWOOD DRAW 22 FED #2H

Enclosed are the results of analyses for samples received by the laboratory on 02/16/16 11:25.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-15-7. 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 <a href="https://www.tceq.texas.gov/field/ga/lab-accred-certif.html">www.tceq.texas.gov/field/ga/lab-accred-certif.html</a>.

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

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

Celey D. Keine

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,

Celey D. Keene

Lab Director/Quality Manager



## Analytical Results For:

CIMAREX ENERGY CO.-MIDLAND
CHRISTINE ALDERMAN
600 N. MARIENFELD ST, SUITE 600
MIDLAND TY, 70701

MIDLAND TX, 79701 Fax To: UNK-NOWN

Received: 02/16/2016 Sampling Date: 02/15/2016

Reported: 02/17/2016 Sampling Type: Soil

Project Name: COTTONWOOD DRAW 22 FED #2H Sampling Condition: Cool & Intact
Project Number: NONE GIVEN Sample Received By: Celey D. Keene

Project Location: NONE GIVEN

## Sample ID: 7' EXCAVATION BOTTOM (H600352-01)

BTEX 8021B	mg/	kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	02/16/2016	ND	1.99	99.4	2.00	6.93	
Toluene*	<0.050	0.050	02/16/2016	ND	1.96	97.9	2.00	6.53	
Ethylbenzene*	<0.050	0.050	02/16/2016	ND	1.79	89.4	2.00	6.11	
Total Xylenes*	<0.150	0.150	02/16/2016	ND	5.51	91.9	6.00	5.87	
Total BTEX	<0.300	0.300	02/16/2016	ND					
Surrogate: 4-Bromofluorobenzene (PID	105 9	% 73.6-14	0						
Chloride, SM4500CI-B	mg/	kg	Analyze	d By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	304	16.0	02/17/2016	ND	416	104	400	3.92	
TPH 8015M	mg/	kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	02/16/2016	ND	208	104	200	1.10	
DRO >C10-C28	<10.0	10.0	02/16/2016	ND	218	109	200	0.367	
Surrogate: 1-Chlorooctane	94.0	% 35-147	,						
Surrogate: 1-Chlorooctadecane	103 9	% 28-171							

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 whistoever 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 related only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keine



## **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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Celey D. Keine



## CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

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

7	(575) 393-2326 FAX (5/5) 393-24/6	0	ш		ANALYSIS BEOLIEST	
Company Name: Cimarex	limanex		BILL TO		ANALIOIO REGOTO	
Project Manager: ()	Montstone Albertuan		P.O. #:			
Address:			Company:			
City:	State:	Zip:	Attn:			
Phone #:	Fax #:		Address:			
Project #:	Project Owner:		City:			
ame: /	mare x		State: Zip:			
notion landing	road Draw 92	Fed 2H	Phone #:			
Project Location			Fax #:			
Sampler Name: (	Mis Mores	MATRIX	PRESERV SAMPLING			
FOR LAB USE ONLY	14					
Lab I.D.	Sample I.D.	# CONTAINERS GROUNDWATER WASTEWATER SOIL OIL SLUDGE	OTHER: ACID/BASE: ICE / COOL OTHER:	× Chloride × TPH		
0	4 executation Bottom	0	J 2/15/2016 4:204M	4.204M > /		
	2					
PLEASE NOTE: Liability a analyses. All claims includi	PLEASE NOTE: Liability and Damages. Cardinal's liability and clients exclusive remedy for any claim arising whether based in contract or tort, shall be limited to the amount paid by the client for the please. In contract or tort, shall be limited to the amount paid by the client for the applicable analyses. All daims 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.	r any claim arising whether based in contr e deemed waived unless made in writing in whiting in the control was the control writing in the control was the control with the control was the control with the control was the c	act or tort, shall be limited to the amount paid and received by Cardinal within 30 days after is, loss of use, or loss of profits incurred by cli	by the client for the completion of the applicable ent, its subsidiaries,		
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† Cardinal cannot accept verbal changes. Please fax written changes to (575) 393-2326