

February 23, 2017

ZACK THOMAS
MEWBOURNE OIL COMPANY
P. O. BOX 5270
HOBBS, NM 88240

RE: QUICK DRAW 10 Y2AP

Enclosed are the results of analyses for samples received by the laboratory on 02/17/17 14:00.

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,



Celey D. Keene
Lab Director/Quality Manager

Analytical Results For:

 MEWBOURNE OIL COMPANY
 ZACK THOMAS
 P. O. BOX 5270
 HOBBS NM, 88240
 Fax To: (575) 937-6252

Received:	02/17/2017	Sampling Date:	02/17/2017
Reported:	02/23/2017	Sampling Type:	Soil
Project Name:	QUICK DRAW 10 Y2AP	Sampling Condition:	** (See Notes)
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	NOT GIVEN		

Sample ID: SP1 3' BGS (H700420-01)

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	02/21/2017	ND	2.12	106	2.00	3.29	
Toluene*	<0.050	0.050	02/21/2017	ND	1.98	98.9	2.00	2.98	
Ethylbenzene*	<0.050	0.050	02/21/2017	ND	1.96	98.2	2.00	2.35	
Total Xylenes*	<0.150	0.150	02/21/2017	ND	5.65	94.1	6.00	2.87	
Total BTEX	<0.300	0.300	02/21/2017	ND					

Surrogate: 4-Bromofluorobenzene (PID) 99.0 % 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	144	16.0	02/21/2017	ND	448	112	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	02/20/2017	ND	195	97.6	200	3.76	
DRO >C10-C28	<10.0	10.0	02/20/2017	ND	218	109	200	6.59	

Surrogate: 1-Chlorooctane 79.0 % 35-147
Surrogate: 1-Chlorooctadecane 90.0 % 28-171

Cardinal Laboratories

*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager

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Received:	02/17/2017	Sampling Date:	02/17/2017
Reported:	02/23/2017	Sampling Type:	Soil
Project Name:	QUICK DRAW 10 Y2AP	Sampling Condition:	** (See Notes)
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	NOT GIVEN		

Sample ID: SP2 3' BGS (H700420-02)

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	02/21/2017	ND	2.12	106	2.00	3.29	
Toluene*	<0.050	0.050	02/21/2017	ND	1.98	98.9	2.00	2.98	
Ethylbenzene*	<0.050	0.050	02/21/2017	ND	1.96	98.2	2.00	2.35	
Total Xylenes*	0.276	0.150	02/21/2017	ND	5.65	94.1	6.00	2.87	
Total BTEX	<0.300	0.300	02/21/2017	ND					

Surrogate: 4-Bromofluorobenzene (PID) 105 % 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	02/21/2017	ND	448	112	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	02/20/2017	ND	195	97.6	200	3.76	
DRO >C10-C28	<10.0	10.0	02/20/2017	ND	218	109	200	6.59	

Surrogate: 1-Chlorooctane 78.0 % 35-147
Surrogate: 1-Chlorooctadecane 91.2 % 28-171

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*=Accredited Analyte

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Received:	02/17/2017	Sampling Date:	02/17/2017
Reported:	02/23/2017	Sampling Type:	Soil
Project Name:	QUICK DRAW 10 Y2AP	Sampling Condition:	** (See Notes)
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	NOT GIVEN		

Sample ID: SP3 3' BGS (H700420-03)

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	02/21/2017	ND	2.12	106	2.00	3.29	
Toluene*	<0.050	0.050	02/21/2017	ND	1.98	98.9	2.00	2.98	
Ethylbenzene*	<0.050	0.050	02/21/2017	ND	1.96	98.2	2.00	2.35	
Total Xylenes*	<0.150	0.150	02/21/2017	ND	5.65	94.1	6.00	2.87	
Total BTEX	<0.300	0.300	02/21/2017	ND					

Surrogate: 4-Bromofluorobenzene (PID) 98.8 % 73.6-140

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	176	16.0	02/21/2017	ND	448	112	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	02/20/2017	ND	195	97.6	200	3.76	
DRO >C10-C28	<10.0	10.0	02/20/2017	ND	218	109	200	6.59	

Surrogate: 1-Chlorooctane 80.6 % 35-147

Surrogate: 1-Chlorooctadecane 92.6 % 28-171

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Celey D. Keene, Lab Director/Quality Manager

Notes and Definitions

S-06	The recovery of this surrogate is outside control limits due to sample dilution required from high analyte concentration and/or matrix interference's.
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



Celey D. Keene, Lab Director/Quality Manager

