

**RECEIVED**

*By OCD District 1 at 10:03 am, Jun 30, 2015*

**APPROVED ; Conditionally**

*By OCD District 1 at 10:05 am, Jun 30, 2015*

**1. Ensure BLM approval/concurrence.**



**QPQASU #24**

**T18S, R32E, Sec 27**

**API # 30-025-25618**

**Corrective Action Plan**

Release Date: May 19, 2015

**May 21, 2015**

Prepared by:

Zack Thomas

Environmental Representative

Mewbourne Oil Company

701 S. Cecil

Hobbs, NM 88240

Kellie Jones  
Oil Conservation Division, EMNRD  
E-Mail: [kellie.jones@state.nm.us](mailto:kellie.jones@state.nm.us)

**RE: QPQASU #24 - Remediation Work Plan**

Kellie,

Mewbourne has retained Turnco Enterprises LLC, to address environmental issues for the site detailed herein.

The site is located south of Maljamar NM, in Lea County. The leak site resulted from a hydrocarbon/produce water leak. The source of the leak was due to a stuffing box blowout. A C-141 was submitted to the NMOCD on May 20, 2015.

**Site Assessment**

Mewbourne has conducted a groundwater study of the area and has determined that according to the New Mexico Office of the State Engineer the average depth to groundwater for this area is 400 foot below ground surface. Therefore, no eminent danger of groundwater impact or threat to life is anticipated.

Mewbourne has also determined that the site is inside the MOA area which allows archaeological clearance by contributing to the Permian Basin Cultural Resource Mitigation Fund.

**Conclusion**

After careful review of the delineation soil sample data Mewbourne would like to propose the following:

Our suggestion would be to excavate at a depth of 2 feet throughout the entire release area and dispose of at a NMOCD approved facility. After excavation is completed, clean top soil (Sand) will be used to backfill. Area will be reseeded with approved seed blend when backfill is complete.

Following the approval of the above plan, Mewbourne will submit all proper closure documentation to the NMOCD and BLM in accordance to the State and Federal Guidelines set forth.

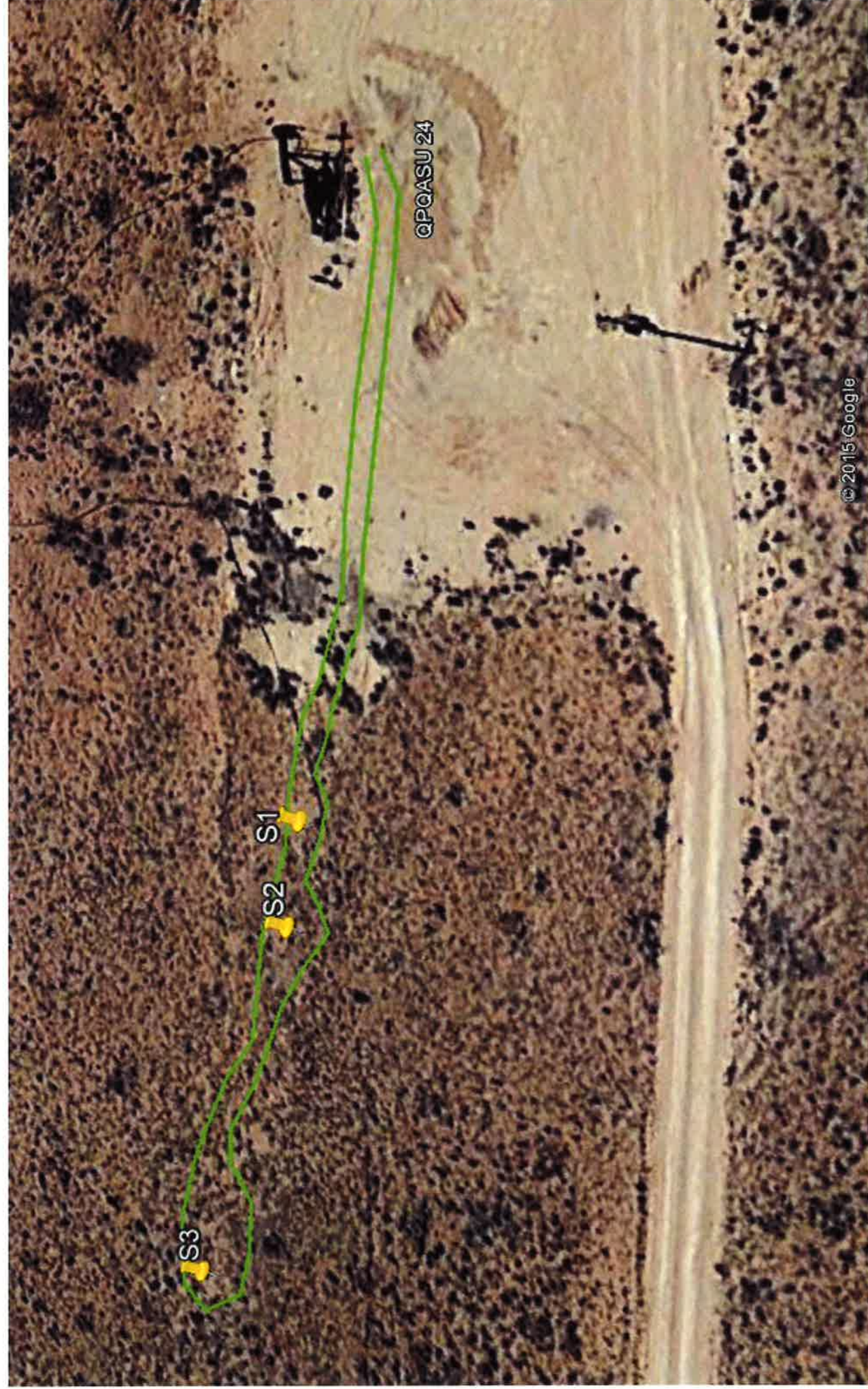
Please feel free to contact me with any questions concerning this remediation plan request.

Sincerely,

A handwritten signature in black ink, appearing to read "Z. Thomas". The signature is fluid and cursive, with the first letter of the last name being a large, stylized 'T'.

Zack Thomas  
Environmental Representative  
Mewbourne Oil Company  
701 S. Cecil  
Hobbs, NM 88240  
Office: (575) 393-5905  
Mobile: (575) 602-2188  
Fax: (575) 393-7259  
Email: [zthomas@mewbourne.com](mailto:zthomas@mewbourne.com)







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

June 15, 2015

ZACK THOMAS

MEWBOURNE OIL COMPANY

P. O. BOX 5270

HOBBS, NM 88240

RE: QPQASU #24

Enclosed are the results of analyses for samples received by the laboratory on 06/09/15 10:05.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-13-5. 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,

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: 06/09/2015  
Reported: 06/15/2015  
Project Name: QPQASU #24  
Project Number: NONE GIVEN  
Project Location: LEA COUNTY, NM

Sampling Date: 06/08/2015  
Sampling Type: Soil  
Sampling Condition: Cool & Intact  
Sample Received By: Jodi Henson

**Sample ID: S1 - 001 0' (H501476-01)**

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	06/10/2015	ND	2.05	103	2.00	0.638	
Toluene*	<0.050	0.050	06/10/2015	ND	2.04	102	2.00	0.700	
Ethylbenzene*	<0.050	0.050	06/10/2015	ND	2.13	107	2.00	2.01	
Total Xylenes*	<0.150	0.150	06/10/2015	ND	5.81	96.9	6.00	2.27	
Total BTEx	<0.300	0.300	06/10/2015	ND					

Surrogate: 4-Bromofluorobenzene (PIE) 108 % 61-154

Chloride, SM4500Cl-B			mg/kg		Analyzed By: AP				
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	656	16.0	06/11/2015	ND	416	104	400	3.92	

TPH 8015M		mg/kg		Analyzed By: MS				S-06	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<100	100	06/09/2015	ND	182	91.2	200	1.35	
DRO >C10-C28	9340	100	06/09/2015	ND	194	97.2	200	1.68	

Surrogate: 1-Chlorooctane 99.7 % 47.2-157

Surrogate: 1-Chlorooctadecane 324 % 52.1-176

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

**Analytical Results For:**

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

 Received: 06/09/2015  
 Reported: 06/15/2015  
 Project Name: QPQASU #24  
 Project Number: NONE GIVEN  
 Project Location: LEA COUNTY, NM

 Sampling Date: 06/08/2015  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Jodi Henson

**Sample ID: S1 - 002 2' (H501476-02)**

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	06/10/2015	ND	2.05	103	2.00	0.638	
Toluene*	<0.050	0.050	06/10/2015	ND	2.04	102	2.00	0.700	
Ethylbenzene*	<0.050	0.050	06/10/2015	ND	2.13	107	2.00	2.01	
Total Xylenes*	<0.150	0.150	06/10/2015	ND	5.81	96.9	6.00	2.27	
Total BTEx	<0.300	0.300	06/10/2015	ND					

Surrogate: 4-Bromofluorobenzene (PIE) 111 % 61-154

Chloride, SM4500Cl-B			mg/kg		Analyzed By: AP				
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	32.0	16.0	06/11/2015	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	<50.0	50.0	06/09/2015	ND	182	91.2	200	1.35	
DRO >C10-C28	<50.0	50.0	06/09/2015	ND	194	97.2	200	1.68	

Surrogate: 1-Chlorooctane 83.8 % 47.2-157

Surrogate: 1-Chlorooctadecane 118 % 52.1-176

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

**Analytical Results For:**

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

 Received: 06/09/2015  
 Reported: 06/15/2015  
 Project Name: QPQASU #24  
 Project Number: NONE GIVEN  
 Project Location: LEA COUNTY, NM

 Sampling Date: 06/08/2015  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Jodi Henson

**Sample ID: S1 - 003 4' (H501476-03)**

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	06/10/2015	ND	2.05	103	2.00	0.638	
Toluene*	<0.050	0.050	06/10/2015	ND	2.04	102	2.00	0.700	
Ethylbenzene*	<0.050	0.050	06/10/2015	ND	2.13	107	2.00	2.01	
Total Xylenes*	<0.150	0.150	06/10/2015	ND	5.81	96.9	6.00	2.27	
Total BTEX	<0.300	0.300	06/10/2015	ND					

Surrogate: 4-Bromofluorobenzene (PII) 110 % 61-154

Chloride, SM4500Cl-B			mg/kg		Analyzed By: AP				
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	96.0	16.0	06/11/2015	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	06/09/2015	ND	182	91.2	200	1.35	
DRO >C10-C28	<10.0	10.0	06/09/2015	ND	194	97.2	200	1.68	

Surrogate: 1-Chlorooctane 101 % 47.2-157

Surrogate: 1-Chlorooctadecane 120 % 52.1-176

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



**Analytical Results For:**

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

Received: 06/09/2015  
Reported: 06/15/2015  
Project Name: QPQASU #24  
Project Number: NONE GIVEN  
Project Location: LEA COUNTY, NM

Sampling Date: 06/08/2015  
Sampling Type: Soil  
Sampling Condition: Cool & Intact  
Sample Received By: Jodi Henson

**Sample ID: S2 - 001 0' (H501476-04)**

BTEX 8021B			mg/kg		Analyzed By: MS				
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	06/10/2015	ND	2.05	103	2.00	0.638	
Toluene*	<0.050	0.050	06/10/2015	ND	2.04	102	2.00	0.700	
Ethylbenzene*	<0.050	0.050	06/10/2015	ND	2.13	107	2.00	2.01	
Total Xylenes*	<0.150	0.150	06/10/2015	ND	5.81	96.9	6.00	2.27	
Total BTEX	<0.300	0.300	06/10/2015	ND					

Surrogate: 4-Bromofluorobenzene (PIL) 109 % 61-154

Chloride, SM4500Cl-B			mg/kg		Analyzed By: AP				
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	80.0	16.0	06/11/2015	ND	416	104	400	3.92	

TPH 8015M			mg/kg		Analyzed By: MS					S-06
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10	<100	100	06/09/2015	ND	182	91.2	200	1.35		
DRO >C10-C28	3960	100	06/09/2015	ND	194	97.2	200	1.68		

Surrogate: 1-Chlorooctane 102 % 47.2-157

Surrogate: 1-Chlorooctadecane 291 % 52.1-176

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

**Analytical Results For:**

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

Received: 06/09/2015  
Reported: 06/15/2015  
Project Name: QPQASU #24  
Project Number: NONE GIVEN  
Project Location: LEA COUNTY, NM

Sampling Date: 06/08/2015  
Sampling Type: Soil  
Sampling Condition: Cool & Intact  
Sample Received By: Jodi Henson

**Sample ID: S2 - 002 2' (H501476-05)**

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	06/10/2015	ND	2.05	103	2.00	0.638	
Toluene*	<0.050	0.050	06/10/2015	ND	2.04	102	2.00	0.700	
Ethylbenzene*	<0.050	0.050	06/10/2015	ND	2.13	107	2.00	2.01	
Total Xylenes*	<0.150	0.150	06/10/2015	ND	5.81	96.9	6.00	2.27	
Total BTEx	<0.300	0.300	06/10/2015	ND					

Surrogate: 4-Bromofluorobenzene (PIE) 109 % 61-154

Chloride, SM4500Cl-B			mg/kg		Analyzed By: AP				
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	48.0	16.0	06/11/2015	ND	416	104	400	3.92	

TPH 8015M		mg/kg		Analyzed By: MS				S-06	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<100	100	06/09/2015	ND	182	91.2	200	1.35	
DRO >C10-C28	697	100	06/09/2015	ND	194	97.2	200	1.68	

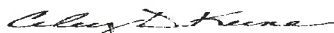
Surrogate: 1-Chlorooctane 102 % 47.2-157

Surrogate: 1-Chlorooctadecane 193 % 52.1-176

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

**Analytical Results For:**

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

Received: 06/09/2015  
Reported: 06/15/2015  
Project Name: QPQASU #24  
Project Number: NONE GIVEN  
Project Location: LEA COUNTY, NM

Sampling Date: 06/08/2015  
Sampling Type: Soil  
Sampling Condition: Cool & Intact  
Sample Received By: Jodi Henson

**Sample ID: S2 - 003 4' (H501476-06)**

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	06/10/2015	ND	2.05	103	2.00	0.638	
Toluene*	<0.050	0.050	06/10/2015	ND	2.04	102	2.00	0.700	
Ethylbenzene*	<0.050	0.050	06/10/2015	ND	2.13	107	2.00	2.01	
Total Xylenes*	<0.150	0.150	06/10/2015	ND	5.81	96.9	6.00	2.27	
Total BTEX	<0.300	0.300	06/10/2015	ND					

Surrogate: 4-Bromofluorobenzene (PID) 112 % 61-154

Chloride, SM4500Cl-B			mg/kg		Analyzed By: AP				
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	64.0	16.0	06/11/2015	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	06/09/2015	ND	182	91.2	200	1.35	
DRO >C10-C28	<10.0	10.0	06/09/2015	ND	194	97.2	200	1.68	

Surrogate: 1-Chlorooctane 98.3 % 47.2-157

Surrogate: 1-Chlorooctadecane 117 % 52.1-176

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

**Analytical Results For:**

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

Received: 06/09/2015  
Reported: 06/15/2015  
Project Name: QPQASU #24  
Project Number: NONE GIVEN  
Project Location: LEA COUNTY, NM

Sampling Date: 06/08/2015  
Sampling Type: Soil  
Sampling Condition: Cool & Intact  
Sample Received By: Jodi Henson

**Sample ID: S3 - 001 0' (H501476-07)**

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	06/10/2015	ND	2.05	103	2.00	0.638	
Toluene*	<0.050	0.050	06/10/2015	ND	2.04	102	2.00	0.700	
Ethylbenzene*	<0.050	0.050	06/10/2015	ND	2.13	107	2.00	2.01	
Total Xylenes*	<0.150	0.150	06/10/2015	ND	5.81	96.9	6.00	2.27	
Total BTX	<0.300	0.300	06/10/2015	ND					

Surrogate: 4-Bromofluorobenzene (PIB) 112 % 61-154

Chloride, SM4500Cl-B			mg/kg		Analyzed By: AP				
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	80.0	16.0	06/11/2015	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	06/09/2015	ND	182	91.2	200	1.35	
DRO >C10-C28	<10.0	10.0	06/09/2015	ND	194	97.2	200	1.68	

Surrogate: 1-Chlorooctane 95.3 % 47.2-157

Surrogate: 1-Chlorooctadecane 116 % 52.1-176

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

**Analytical Results For:**

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

Received: 06/09/2015  
Reported: 06/15/2015  
Project Name: QPQASU #24  
Project Number: NONE GIVEN  
Project Location: LEA COUNTY, NM

Sampling Date: 06/08/2015  
Sampling Type: Soil  
Sampling Condition: Cool & Intact  
Sample Received By: Jodi Henson

**Sample ID: S3 - 002 2' (H501476-08)**

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	06/10/2015	ND	2.05	103	2.00	0.638	
Toluene*	<0.050	0.050	06/10/2015	ND	2.04	102	2.00	0.700	
Ethylbenzene*	<0.050	0.050	06/10/2015	ND	2.13	107	2.00	2.01	
Total Xylenes*	<0.150	0.150	06/10/2015	ND	5.81	96.9	6.00	2.27	
Total BTX	<0.300	0.300	06/10/2015	ND					

Surrogate: 4-Bromofluorobenzene (PIE) 113 % 61-154

Chloride, SM4500Cl-B			mg/kg		Analyzed By: AP				
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	32.0	16.0	06/11/2015	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	06/09/2015	ND	182	91.2	200	1.35	
DRO >C10-C28	<10.0	10.0	06/09/2015	ND	194	97.2	200	1.68	

Surrogate: 1-Chlorooctane 97.7 % 47.2-157

Surrogate: 1-Chlorooctadecane 116 % 52.1-176

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



**Analytical Results For:**

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

Received: 06/09/2015  
Reported: 06/15/2015  
Project Name: QPQASU #24  
Project Number: NONE GIVEN  
Project Location: LEA COUNTY, NM

Sampling Date: 06/08/2015  
Sampling Type: Soil  
Sampling Condition: Cool & Intact  
Sample Received By: Jodi Henson

**Sample ID: S3 - 003 4' (H501476-09)**

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	06/10/2015	ND	2.05	103	2.00	0.638	
Toluene*	<0.050	0.050	06/10/2015	ND	2.04	102	2.00	0.700	
Ethylbenzene*	<0.050	0.050	06/10/2015	ND	2.13	107	2.00	2.01	
Total Xylenes*	<0.150	0.150	06/10/2015	ND	5.81	96.9	6.00	2.27	
Total BTEX	<0.300	0.300	06/10/2015	ND					

Surrogate: 4-Bromofluorobenzene (PIL) 113 % 61-154

Chloride, SM4500Cl-B			mg/kg		Analyzed By: AP				
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	48.0	16.0	06/11/2015	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	06/09/2015	ND	182	91.2	200	1.35	
DRO >C10-C28	<10.0	10.0	06/09/2015	ND	194	97.2	200	1.68	

Surrogate: 1-Chlorooctane 96.3 % 47.2-157

Surrogate: 1-Chlorooctadecane 113 % 52.1-176

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

### 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.
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

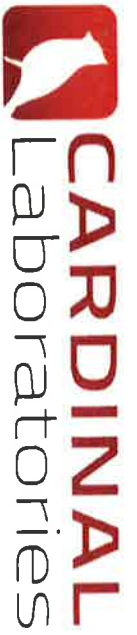
\*=Accredited Analyte

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



CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

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

<b>Company Name:</b> Meadowbourn Dr		<b>P.O. #:</b>									
<b>Project Manager:</b> Zach Thomas		<b>Company:</b>									
<b>Address:</b>		<b>Attn:</b>									
<b>City:</b>		<b>Address:</b>									
<b>State:</b>		<b>City:</b>									
<b>Zip:</b>		<b>State:</b>									
<b>Phone #:</b>		<b>Zip:</b>									
<b>Fax #:</b>		<b>Phone #:</b>									
<b>Project #:</b>		<b>Fax #:</b>									
<b>Project Name:</b> APQASU #24		<b>Project Owner:</b>									
<b>Project Location:</b> Lea County, NM		<b>Project Location:</b>									
<b>Sampler Name:</b> Zach Thomas		<b>Project Location:</b>									
<b>FOR LAB USE ONLY</b>		<b>FOR LAB USE ONLY</b>									
<b>Lab I.D.</b>	<b>Sample I.D.</b>	<b>(G)RAB OR (C)OMP</b>	<b># CONTAINERS</b>	<b>MATRIX</b>	<b>PRESERV</b>	<b>SAMPLING</b>	<b>DATE</b>	<b>TIME</b>	<b>CL</b>	<b>TPH</b>	<b>BTEX</b>
H501476	51-001		1				12/15	12:15			
1	51-002		1				12/15	12:15			
2	51-003		1				12/15	12:20			
3	52-001		1				12/15	12:21			
4	52-002		1				12/15	12:25			
5	52-003		1				12/15	12:27			
6	53-001		1				12/15	12:30			
7	53-002		1				12/15	12:32			
8	53-003		1				12/15	12:34			
9	53-003		1				12/15	12:34			
<b>PLEASE NOTE: Liability and Damages. Cardinal's liability and damage coverage is limited to the amount paid by the client for the analysis. 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 analysis. 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, as a result of the analysis.</b>											
<b>Relinquished By:</b> B. Thomas											
<b>Received By:</b> Scott Steuber											
<b>Date:</b> 12/15											
<b>Time:</b> 12:05											
<b>Delivered By:</b> (Circle One) 3.22c											
<b>Sample Condition:</b> Cool <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No											
<b>Checked By:</b> (Initials) [Signature]											
<b>Remarks:</b>											