

OCD

30-025-01493

#83



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

April 04, 2014

BRIAN WALL

LINN OPERATING-HOBBS

2130 W. BENDER

HOBBS, NM 88240

HOBBS OCD
APR 07 2014
RECEIVED

RE: CAPROCK MALJAMAR UNITS

Enclosed are the results of analyses for samples received by the laboratory on 03/31/14 11:45.

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.

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:

 LINN OPERATING-HOBBS
 BRIAN WALL
 2130 W. BENDER
 HOBBS NM, 88240
 Fax To: (575) 738-1740

 Received: 03/31/2014
 Reported: 04/04/2014
 Project Name: CAPROCK MALJAMAR UNITS
 Project Number: NONE GIVEN
 Project Location: ANGEL RANCH

 Sampling Date: 03/31/2014
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Jodi Henson

Sample ID: O #1 CMU #83 (H400949-01)

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	04/02/2014	ND	2.64	132	2.00	4.76		
Toluene*	<0.050	0.050	04/02/2014	ND	2.55	128	2.00	5.08		
Ethylbenzene*	<0.050	0.050	04/02/2014	ND	2.51	126	2.00	4.96		
Total Xylenes*	<0.150	0.150	04/02/2014	ND	7.31	122	6.00	5.65		
Total BTEX	<0.300	0.300	04/02/2014	ND						

Surrogate: 4-Bromofluorobenzene (PIE) 112 % 89.4-126

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	192	16.0	04/02/2014	ND	400	100	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	04/02/2014	ND	187	93.4	200	1.94		
DRO >C10-C28	<10.0	10.0	04/02/2014	ND	216	108	200	2.56		

Surrogate: 1-Chlorooctane 105 % 65.2-140

Surrogate: 1-Chlorooctadecane 101 % 63.6-154

Cardinal Laboratories

*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

 LINN OPERATING-HOBBS
 BRIAN WALL
 2130 W. BENDER
 HOBBS NM, 88240
 Fax To: (575) 738-1740

Received:	03/31/2014	Sampling Date:	03/31/2014
Reported:	04/04/2014	Sampling Type:	Soil
Project Name:	CAPROCK MALJAMAR UNITS	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	ANGEL RANCH		

Sample ID: O #2 CMU #83 (H400949-02)

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	04/02/2014	ND	2.64	132	2.00	4.76		
Toluene*	<0.050	0.050	04/02/2014	ND	2.55	128	2.00	5.08		
Ethylbenzene*	<0.050	0.050	04/02/2014	ND	2.51	126	2.00	4.96		
Total Xylenes*	<0.150	0.150	04/02/2014	ND	7.31	122	6.00	5.65		
Total BTEX	<0.300	0.300	04/02/2014	ND						

Surrogate: 4-Bromofluorobenzene (PII) 109 % 89.4-126

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	240	16.0	04/02/2014	ND	400	100	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	04/02/2014	ND	187	93.4	200	1.94		
DRO >C10-C28	<10.0	10.0	04/02/2014	ND	216	108	200	2.56		

Surrogate: 1-Chlorooctane 102 % 65.2-140

Surrogate: 1-Chlorooctadecane 100 % 63.6-154

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* = Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

 LINN OPERATING-HOBBS
 BRIAN WALL
 2130 W. BENDER
 HOBBS NM, 88240
 Fax To: (575) 738-1740

 Received: 03/31/2014
 Reported: 04/04/2014
 Project Name: CAPROCK MALJAMAR UNITS
 Project Number: NONE GIVEN
 Project Location: ANGEL RANCH

 Sampling Date: 03/31/2014
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Jodi Henson

Sample ID: O #3 CMU #83 (H400949-03)

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	04/02/2014	ND	2.64	132	2.00	4.76		
Toluene*	<0.050	0.050	04/02/2014	ND	2.55	128	2.00	5.08		
Ethylbenzene*	<0.050	0.050	04/02/2014	ND	2.51	126	2.00	4.96		
Total Xylenes*	<0.150	0.150	04/02/2014	ND	7.31	122	6.00	5.65		
Total BTEX	<0.300	0.300	04/02/2014	ND						

Surrogate: 4-Bromofluorobenzene (PIE) 109 % 89.4-126

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	<16.0	16.0	04/02/2014	ND	400	100	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	04/02/2014	ND	187	93.4	200	1.94		
DRO >C10-C28	19.1	10.0	04/02/2014	ND	216	108	200	2.56		

Surrogate: 1-Chlorooctane 96.6 % 65.2-140

Surrogate: 1-Chlorooctadecane 90.7 % 63.6-154

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 LINN OPERATING-HOBBS
 BRIAN WALL
 2130 W. BENDER
 HOBBS NM, 88240
 Fax To: (575) 738-1740

Received:	03/31/2014	Sampling Date:	03/31/2014
Reported:	04/04/2014	Sampling Type:	Soil
Project Name:	CAPROCK MALJAMAR UNITS	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	ANGEL RANCH		

Sample ID: O #4 CMU #83 (H400949-04)

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	04/02/2014	ND	2.64	132	2.00	4.76		
Toluene*	<0.050	0.050	04/02/2014	ND	2.55	128	2.00	5.08		
Ethylbenzene*	<0.050	0.050	04/02/2014	ND	2.51	126	2.00	4.96		
Total Xylenes*	<0.150	0.150	04/02/2014	ND	7.31	122	6.00	5.65		
Total BTEX	<0.300	0.300	04/02/2014	ND						

Surrogate: 4-Bromofluorobenzene (PIE) 111 % 89.4-126

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	04/02/2014	ND	400	100	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	04/02/2014	ND	187	93.4	200	1.94		
DRO >C10-C28	140	50.0	04/02/2014	ND	216	108	200	2.56		

Surrogate: 1-Chlorooctane 90.9 % 65.2-140

Surrogate: 1-Chlorooctadecane 96.6 % 63.6-154

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 BRIAN WALL
 2130 W. BENDER
 HOBBS NM, 88240
 Fax To: (575) 738-1740

Received:	03/31/2014	Sampling Date:	03/31/2014
Reported:	04/04/2014	Sampling Type:	Soil
Project Name:	CAPROCK MALJAMAR UNITS	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	ANGEL RANCH		

Sample ID: O #5 CMU #83 (H400949-05)

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	04/02/2014	ND	2.64	132	2.00	4.76		
Toluene*	<0.050	0.050	04/02/2014	ND	2.55	128	2.00	5.08		
Ethylbenzene*	<0.050	0.050	04/02/2014	ND	2.51	126	2.00	4.96		
Total Xylenes*	<0.150	0.150	04/02/2014	ND	7.31	122	6.00	5.65		
Total BTEX	<0.300	0.300	04/02/2014	ND						

Surrogate: 4-Bromofluorobenzene (PIE) 110 % 89.4-126

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	688	16.0	04/02/2014	ND	400	100	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	04/02/2014	ND	187	93.4	200	1.94		
DRO >C10-C28	27.5	10.0	04/02/2014	ND	216	108	200	2.56		


Surrogate: 1-Chlorooctane 74.0 % 65.2-140

Surrogate: 1-Chlorooctadecane 70.4 % 63.6-154

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Celey D. Keene, Lab Director/Quality Manager

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

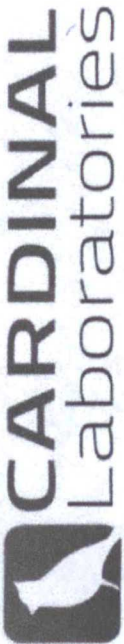
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Celey D. Keene, Lab Director/Quality Manager



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

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

Company Name: <i>Viper</i>		BILL TO		ANALYSIS REQUEST	
Project Manager: <i>Fred Ramsey</i>		P.O. #:			
Address: <i>State Line R.V. Park #36</i>		Company: <i>Linn operating</i>			
City: <i>Hobbs</i>		Attn: <i>Boya Wall</i>			
Phone #: <i>940-395-3308</i>		Address: <i>2130 W Bender</i>			
Project #:		City: <i>Hobbs</i>			
Project Name: <i>Caprock Majamar units</i>		State: <i>N.M.</i>			
Project Location: <i>CMU Angel Ranch</i>		Zip: <i>88241</i>			
Sampler Name: <i>Dusty Boggs</i>		Phone #: <i>575-738-1739</i>			
FOR LAB USE ONLY		Fax #:			
		MATRIX			
		GROUNDWATER			
		WASTEWATER			
		SOIL			
		OIL			
		SLUDGE			
		OTHER:			
		ACID/BASE:			
		ICE / COOL			
		OTHER:			
		DATE			
		TIME			
		PRESERV			
		SAMPLING			
		# CONTAINERS			
		(G) RAB OR (C) OMP			
Lab I.D.		Sample I.D.			
<i>H40094</i>		<i>83</i>			
<i>1 0#1 CMU #</i>		<i>83</i>			
<i>2 0#2 CMU #</i>		<i>83</i>			
<i>3 0#3 CMU #</i>		<i>83</i>			
<i>4 0#4 CMU #</i>		<i>83</i>			
<i>5 0#5 CMU #</i>		<i>83</i>			

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Relinquished By: <i>Dusty Boggs</i>	Received By: <i>Jodi Jensen</i>	Phone Result: <input type="checkbox"/> Yes <input type="checkbox"/> No	Add'l Phone #:
Relinquished By:	Received By:	Fax Result: <input type="checkbox"/> Yes <input type="checkbox"/> No	Add'l Fax #:
Date: <i>5-31-14</i>	Time: <i>11:45</i>	REMARKS: <i>Dusty Boggs @ viking-comp</i>	
Delivered By: (Circle One) <i>Sampler - UPS - Bus - Other:</i>	Sample Condition: Cool <input type="checkbox"/> Intact <input checked="" type="checkbox"/>	<i>Fred Ramsey 711 @ g Mail.com</i>	

† Cardinal cannot accept verbal changes. Please fax written changes to (575) 393-2326 #54