



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

November 17, 2016

VERNON BLACK

Hungry Horse Environmental

P.O. Box 1058

Hobbs, NM 88240

RE: COTTON DRAW #182

Enclosed are the results of analyses for samples received by the laboratory on 11/15/16 9:15.

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:

Hungry Horse Environmental
VERNON BLACK
P.O. Box 1058
Hobbs NM, 88240
Fax To: (505) 391-4585

Received: 11/15/2016
Reported: 11/17/2016
Project Name: COTTON DRAW #182
Project Number: NONE GIVEN
Project Location: EDDY COUNTY, NM

Sampling Date: 11/14/2016
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Jodi Henson

Sample ID: SP 1 2' (H602556-01)

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	11/15/2016	ND	1.82	90.8	2.00	0.868	
Toluene*	<0.050	0.050	11/15/2016	ND	1.86	92.8	2.00	0.962	
Ethylbenzene*	<0.050	0.050	11/15/2016	ND	1.80	89.8	2.00	1.43	
Total Xylenes*	<0.150	0.150	11/15/2016	ND	5.46	91.0	6.00	1.73	
Total BTEX	<0.300	0.300	11/15/2016	ND					

Surrogate: 4-Bromofluorobenzene (PID) 113 % 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	11/15/2016	ND	416	104	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	11/15/2016	ND	191	95.7	200	3.77	
DRO >C10-C28	<10.0	10.0	11/15/2016	ND	199	99.4	200	1.91	

Surrogate: 1-Chlorooctane 101 % 35-147

Surrogate: 1-Chlorooctadecane 89.2 % 28-171

Cardinal Laboratories

*=Accredited Analyte

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Received: 11/15/2016
Reported: 11/17/2016
Project Name: COTTON DRAW #182
Project Number: NONE GIVEN
Project Location: EDDY COUNTY, NM

Sampling Date: 11/14/2016
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Jodi Henson

Sample ID: SP 2 2' (H602556-02)

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	11/15/2016	ND	1.82	90.8	2.00	0.868	
Toluene*	<0.050	0.050	11/15/2016	ND	1.86	92.8	2.00	0.962	
Ethylbenzene*	<0.050	0.050	11/15/2016	ND	1.80	89.8	2.00	1.43	
Total Xylenes*	<0.150	0.150	11/15/2016	ND	5.46	91.0	6.00	1.73	
Total BTX	<0.300	0.300	11/15/2016	ND					

Surrogate: 4-Bromofluorobenzene (PID) 114 % 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	208	16.0	11/15/2016	ND	416	104	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	11/15/2016	ND	191	95.7	200	3.77	
DRO >C10-C28	<10.0	10.0	11/15/2016	ND	199	99.4	200	1.91	

Surrogate: 1-Chlorooctane 97.2 % 35-147

Surrogate: 1-Chlorooctadecane 92.5 % 28-171

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Received: 11/15/2016
Reported: 11/17/2016
Project Name: COTTON DRAW #182
Project Number: NONE GIVEN
Project Location: EDDY COUNTY, NM

Sampling Date: 11/14/2016
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Jodi Henson

Sample ID: SP 3 2' (H602556-03)

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	11/15/2016	ND	1.82	90.8	2.00	0.868	
Toluene*	<0.050	0.050	11/15/2016	ND	1.86	92.8	2.00	0.962	
Ethylbenzene*	<0.050	0.050	11/15/2016	ND	1.80	89.8	2.00	1.43	
Total Xylenes*	<0.150	0.150	11/15/2016	ND	5.46	91.0	6.00	1.73	
Total BTX	<0.300	0.300	11/15/2016	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	304	16.0	11/15/2016	ND	416	104	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	11/15/2016	ND	191	95.7	200	3.77	
DRO >C10-C28	<10.0	10.0	11/15/2016	ND	199	99.4	200	1.91	

Surrogate: 1-Chlorooctane 96.6 % 35-147

Surrogate: 1-Chlorooctadecane 92.8 % 28-171

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 Reported: 11/17/2016
 Project Name: COTTON DRAW #182
 Project Number: NONE GIVEN
 Project Location: EDDY COUNTY, NM

 Sampling Date: 11/14/2016
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Jodi Henson

Sample ID: SP 4 2' (H602556-04)

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	11/16/2016	ND	2.17	109	2.00	0.665	QM-07
Toluene*	<0.050	0.050	11/16/2016	ND	2.21	110	2.00	0.443	QM-07
Ethylbenzene*	<0.050	0.050	11/16/2016	ND	2.15	108	2.00	0.430	QM-07
Total Xylenes*	<0.150	0.150	11/16/2016	ND	6.51	108	6.00	0.339	QM-07
Total BTX	<0.300	0.300	11/16/2016	ND					

Surrogate: 4-Bromofluorobenzene (PID) 111 % 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	1180	16.0	11/15/2016	ND	416	104	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	11/15/2016	ND	191	95.7	200	3.77	
DRO >C10-C28	<10.0	10.0	11/15/2016	ND	199	99.4	200	1.91	

Surrogate: 1-Chlorooctane 90.8 % 35-147

Surrogate: 1-Chlorooctadecane 93.6 % 28-171

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Notes and Definitions

QR-03	The RPD value for the sample duplicate or MS/MSD was outside if QC acceptance limits due to matrix interference. QC batch accepted based on LCS and/or LCSD recovery and/or RPD values.
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

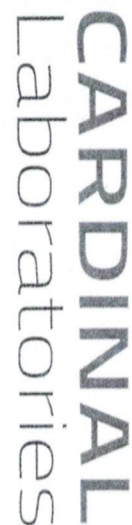
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CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

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