

December 21, 2015

HARLEY EVERHART

FRONTIER FIELD SERVICES

4200 SKELLY DRIVE, SUITE 700

TULSA, OK 74135

RE: ABO 16" LATTERAL

Enclosed are the results of analyses for samples received by the laboratory on 12/15/15 16:10.

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:

FRONTIER FIELD SERVICES
HARLEY EVERHART
4200 SKELLY DRIVE, SUITE 700
TULSA OK, 74135
Fax To: (575) 676-2401

Received:	12/15/2015	Sampling Date:	12/15/2015
Reported:	12/21/2015	Sampling Type:	Soil
Project Name:	ABO 16" LATERAL	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	ARTESIA, NM		

Sample ID: #1 (H503263-01)

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	12/16/2015	ND	1.95	97.5	2.00	0.179	
Toluene*	<0.050	0.050	12/16/2015	ND	1.97	98.6	2.00	0.739	
Ethylbenzene*	<0.050	0.050	12/16/2015	ND	2.00	100	2.00	0.0556	
Total Xylenes*	<0.150	0.150	12/16/2015	ND	5.99	99.9	6.00	0.291	
Total BTEX	<0.300	0.300	12/16/2015	ND					

Surrogate: 4-Bromofluorobenzene (PID) 108 % 73.6-140

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	12/16/2015	ND	432	108	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	12/16/2015	ND	194	97.0	200	5.68	
DRO >C10-C28	56.6	10.0	12/16/2015	ND	183	91.7	200	4.78	

Surrogate: 1-Chlorooctane 91.9 % 35-147

Surrogate: 1-Chlorooctadecane 96.1 % 28-171

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Received:	12/15/2015	Sampling Date:	12/15/2015
Reported:	12/21/2015	Sampling Type:	Soil
Project Name:	ABO 16" LATERAL	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	ARTESIA, NM		

Sample ID: #2 (H503263-02)

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	12/16/2015	ND	1.95	97.5	2.00	0.179	
Toluene*	<0.050	0.050	12/16/2015	ND	1.97	98.6	2.00	0.739	
Ethylbenzene*	<0.050	0.050	12/16/2015	ND	2.00	100	2.00	0.0556	
Total Xylenes*	<0.150	0.150	12/16/2015	ND	5.99	99.9	6.00	0.291	
Total BTX	<0.300	0.300	12/16/2015	ND					

Surrogate: 4-Bromofluorobenzene (PID) 108 % 73.6-140

Chloride, SM4500CI-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	12/17/2015	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	12/16/2015	ND	194	97.0	200	5.68	
DRO >C10-C28	45.6	10.0	12/16/2015	ND	183	91.7	200	4.78	

Surrogate: 1-Chlorooctane 89.9 % 35-147

Surrogate: 1-Chlorooctadecane 87.5 % 28-171

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Reported:	12/21/2015	Sampling Type:	Soil
Project Name:	ABO 16" LATERAL	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	ARTESIA, NM		

Sample ID: #3 (H503263-03)

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	12/16/2015	ND	1.95	97.5	2.00	0.179	
Toluene*	<0.050	0.050	12/16/2015	ND	1.97	98.6	2.00	0.739	
Ethylbenzene*	<0.050	0.050	12/16/2015	ND	2.00	100	2.00	0.0556	
Total Xylenes*	<0.150	0.150	12/16/2015	ND	5.99	99.9	6.00	0.291	
Total BTX	<0.300	0.300	12/16/2015	ND					

Surrogate: 4-Bromofluorobenzene (PID) 109 % 73.6-140

Chloride, SM4500CI-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	12/17/2015	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	12/16/2015	ND	194	97.0	200	5.68	
DRO >C10-C28	<10.0	10.0	12/16/2015	ND	183	91.7	200	4.78	

Surrogate: 1-Chlorooctane 86.1 % 35-147

Surrogate: 1-Chlorooctadecane 86.2 % 28-171

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Reported:	12/21/2015	Sampling Type:	Soil
Project Name:	ABO 16" LATERAL	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	ARTESIA, NM		

Sample ID: #4 (H503263-04)

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	12/17/2015	ND	1.95	97.5	2.00	0.179	
Toluene*	<0.050	0.050	12/17/2015	ND	1.97	98.6	2.00	0.739	
Ethylbenzene*	<0.050	0.050	12/17/2015	ND	2.00	100	2.00	0.0556	
Total Xylenes*	<0.150	0.150	12/17/2015	ND	5.99	99.9	6.00	0.291	
Total BTEx	<0.300	0.300	12/17/2015	ND					

Surrogate: 4-Bromofluorobenzene (PID) 107 % 73.6-140

Chloride, SM4500CI-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	12/17/2015	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	12/16/2015	ND	194	97.0	200	5.68	
DRO >C10-C28	383	10.0	12/16/2015	ND	183	91.7	200	4.78	

Surrogate: 1-Chlorooctane 85.3 % 35-147

Surrogate: 1-Chlorooctadecane 96.1 % 28-171

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Reported:	12/21/2015	Sampling Type:	Soil
Project Name:	ABO 16" LATERAL	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	ARTESIA, NM		

Sample ID: #5 (H503263-05)

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	12/17/2015	ND	1.95	97.5	2.00	0.179	
Toluene*	<0.050	0.050	12/17/2015	ND	1.97	98.6	2.00	0.739	
Ethylbenzene*	<0.050	0.050	12/17/2015	ND	2.00	100	2.00	0.0556	
Total Xylenes*	<0.150	0.150	12/17/2015	ND	5.99	99.9	6.00	0.291	
Total BTEx	<0.300	0.300	12/17/2015	ND					

Surrogate: 4-Bromofluorobenzene (PID) 110 % 73.6-140

Chloride, SM4500CI-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	112	16.0	12/17/2015	ND	400	100	400	3.92	

TPH 8015M		mg/kg		Analyzed By: MS				S-04	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	21.9	10.0	12/16/2015	ND	194	97.0	200	5.68	
DRO >C10-C28	6660	10.0	12/16/2015	ND	183	91.7	200	4.78	

Surrogate: 1-Chlorooctane 112 % 35-147

Surrogate: 1-Chlorooctadecane 208 % 28-171

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Received:	12/15/2015	Sampling Date:	12/15/2015
Reported:	12/21/2015	Sampling Type:	Soil
Project Name:	ABO 16" LATERAL	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	ARTESIA, NM		

Sample ID: #6 (H503263-06)

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	12/17/2015	ND	1.95	97.5	2.00	0.179	
Toluene*	<0.050	0.050	12/17/2015	ND	1.97	98.6	2.00	0.739	
Ethylbenzene*	<0.050	0.050	12/17/2015	ND	2.00	100	2.00	0.0556	
Total Xylenes*	<0.150	0.150	12/17/2015	ND	5.99	99.9	6.00	0.291	
Total BTEx	<0.300	0.300	12/17/2015	ND					

Surrogate: 4-Bromofluorobenzene (PID) 107 % 73.6-140

Chloride, SM4500CI-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	12/17/2015	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	12/16/2015	ND	194	97.0	200	5.68	
DRO >C10-C28	124	10.0	12/16/2015	ND	183	91.7	200	4.78	

Surrogate: 1-Chlorooctane 86.3 % 35-147

Surrogate: 1-Chlorooctadecane 95.2 % 28-171

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Received:	12/15/2015	Sampling Date:	12/15/2015
Reported:	12/21/2015	Sampling Type:	Soil
Project Name:	ABO 16" LATERAL	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	ARTESIA, NM		

Sample ID: #7 (H503263-07)

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	12/17/2015	ND	1.95	97.5	2.00	0.179	
Toluene*	<0.050	0.050	12/17/2015	ND	1.97	98.6	2.00	0.739	
Ethylbenzene*	0.127	0.050	12/17/2015	ND	2.00	100	2.00	0.0556	
Total Xylenes*	0.801	0.150	12/17/2015	ND	5.99	99.9	6.00	0.291	
Total BTX	0.929	0.300	12/17/2015	ND					

Surrogate: 4-Bromofluorobenzene (PID) 121 % 73.6-140

Chloride, SM4500CI-B		mg/kg		Analyzed By: AP						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	320	16.0	12/17/2015	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	58.6	50.0	12/16/2015	ND	194	97.0	200	5.68	
DRO >C10-C28	4200	50.0	12/16/2015	ND	183	91.7	200	4.78	

Surrogate: 1-Chlorooctane 128 % 35-147

Surrogate: 1-Chlorooctadecane 170 % 28-171

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Received:	12/15/2015	Sampling Date:	12/15/2015
Reported:	12/21/2015	Sampling Type:	Soil
Project Name:	ABO 16" LATERAL	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	ARTESIA, NM		

Sample ID: #8 (H503263-08)

BTX 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	0.052	0.050	12/17/2015	ND	1.95	97.5	2.00	0.179	
Toluene*	0.168	0.050	12/17/2015	ND	1.97	98.6	2.00	0.739	
Ethylbenzene*	0.112	0.050	12/17/2015	ND	2.00	100	2.00	0.0556	
Total Xylenes*	<0.150	0.150	12/17/2015	ND	5.99	99.9	6.00	0.291	
Total BTX	0.332	0.300	12/17/2015	ND					

Surrogate: 4-Bromofluorobenzene (PID) 108 % 73.6-140

Chloride, SM4500CI-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	192	16.0	12/17/2015	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	12/16/2015	ND	194	97.0	200	5.68	
DRO >C10-C28	576	10.0	12/16/2015	ND	183	91.7	200	4.78	

Surrogate: 1-Chlorooctane 105 % 35-147

Surrogate: 1-Chlorooctadecane 115 % 28-171

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Reported:	12/21/2015	Sampling Type:	Soil
Project Name:	ABO 16" LATERAL	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	ARTESIA, NM		

Sample ID: #9 (H503263-09)

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	12/17/2015	ND	2.09	104	2.00	5.69	
Toluene*	0.398	0.050	12/17/2015	ND	2.07	104	2.00	6.88	
Ethylbenzene*	0.321	0.050	12/17/2015	ND	2.10	105	2.00	7.92	
Total Xylenes*	1.20	0.150	12/17/2015	ND	6.34	106	6.00	6.97	
Total BTEX	1.92	0.300	12/17/2015	ND					

Surrogate: 4-Bromofluorobenzene (PID) 106 % 73.6-140

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	160	16.0	12/17/2015	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	15.1	10.0	12/16/2015	ND	194	97.0	200	5.68	
DRO >C10-C28	2360	10.0	12/16/2015	ND	183	91.7	200	4.78	

Surrogate: 1-Chlorooctane 101 % 35-147

Surrogate: 1-Chlorooctadecane 135 % 28-171

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Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

FRONTIER FIELD SERVICES
HARLEY EVERHART
4200 SKELLY DRIVE, SUITE 700
TULSA OK, 74135
Fax To: (575) 676-2401

Received:	12/15/2015	Sampling Date:	12/15/2015
Reported:	12/21/2015	Sampling Type:	Soil
Project Name:	ABO 16" LATERAL	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	ARTESIA, NM		

Sample ID: #10 (H503263-10)

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	12/17/2015	ND	2.09	104	2.00	5.69	
Toluene*	0.101	0.050	12/17/2015	ND	2.07	104	2.00	6.88	
Ethylbenzene*	0.217	0.050	12/17/2015	ND	2.10	105	2.00	7.92	
Total Xylenes*	1.16	0.150	12/17/2015	ND	6.34	106	6.00	6.97	
Total BTEX	1.47	0.300	12/17/2015	ND					

Surrogate: 4-Bromofluorobenzene (PID) 113 % 73.6-140

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	288	16.0	12/17/2015	ND	400	100	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	<200	200	12/17/2015	ND	194	97.0	200	5.68		
DRO >C10-C28	10800	200	12/17/2015	ND	183	91.7	200	4.78		

Surrogate: 1-Chlorooctane 140 % 35-147

Surrogate: 1-Chlorooctadecane 285 % 28-171

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Celey D. Keene, Lab Director/Quality Manager

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FRONTIER FIELD SERVICES
HARLEY EVERHART
4200 SKELLY DRIVE, SUITE 700
TULSA OK, 74135
Fax To: (575) 676-2401

Received:	12/15/2015	Sampling Date:	12/15/2015
Reported:	12/21/2015	Sampling Type:	Soil
Project Name:	ABO 16" LATERAL	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	ARTESIA, NM		

Sample ID: #11 (H503263-11)

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	12/17/2015	ND	2.09	104	2.00	5.69	
Toluene*	<0.050	0.050	12/17/2015	ND	2.07	104	2.00	6.88	
Ethylbenzene*	<0.050	0.050	12/17/2015	ND	2.10	105	2.00	7.92	
Total Xylenes*	<0.150	0.150	12/17/2015	ND	6.34	106	6.00	6.97	
Total BTEx	<0.300	0.300	12/17/2015	ND					

Surrogate: 4-Bromofluorobenzene (PID) 108 % 73.6-140

Chloride, SM4500CI-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	12/17/2015	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	12/16/2015	ND	194	97.0	200	5.68	
DRO >C10-C28	28.2	10.0	12/16/2015	ND	183	91.7	200	4.78	

Surrogate: 1-Chlorooctane 90.3 % 35-147

Surrogate: 1-Chlorooctadecane 93.4 % 28-171

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Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

FRONTIER FIELD SERVICES
HARLEY EVERHART
4200 SKELLY DRIVE, SUITE 700
TULSA OK, 74135
Fax To: (575) 676-2401

Received:	12/15/2015	Sampling Date:	12/15/2015
Reported:	12/21/2015	Sampling Type:	Soil
Project Name:	ABO 16" LATERAL	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	ARTESIA, NM		

Sample ID: #12 (H503263-12)

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	12/17/2015	ND	2.09	104	2.00	5.69	
Toluene*	<0.050	0.050	12/17/2015	ND	2.07	104	2.00	6.88	
Ethylbenzene*	<0.050	0.050	12/17/2015	ND	2.10	105	2.00	7.92	
Total Xylenes*	<0.150	0.150	12/17/2015	ND	6.34	106	6.00	6.97	
Total BTEx	<0.300	0.300	12/17/2015	ND					

Surrogate: 4-Bromofluorobenzene (PID) 106 % 73.6-140

Chloride, SM4500CI-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	12/17/2015	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	12/16/2015	ND	194	97.0	200	5.68	
DRO >C10-C28	337	10.0	12/16/2015	ND	183	91.7	200	4.78	

Surrogate: 1-Chlorooctane 85.9 % 35-147

Surrogate: 1-Chlorooctadecane 91.0 % 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.
S-04	The surrogate recovery for this sample is outside of established control limits due to a sample matrix effect.
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

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

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

Company Name: <u>Frontier Field Services (Alka Energy)</u>				BILL TO				ANALYSIS REQUEST																											
Project Manager:				P.O. #:																															
Address:				Company:																															
City: <u>Maljamar</u> State: <u>NM</u> Zip:				Attn:																															
Phone #: <u>575 513 4922</u> Fax #:				Address:																															
Project #: _____ Project Owner:				City: <u>gpm</u>																															
Project Name: <u>Abo 16" Lateral</u>				State: _____ Zip:																															
Project Location: <u>Holisia, NM</u>				Phone #:																															
Sampler Name: <u>Hecky Evershart</u>				Fax #:																															
FOR LAB USE ONLY				MATRIX		PRESERV.		SAMPLING																											
Lab I.D.		Sample I.D.		(G)RAB OR (C)OMP.		# CONTAINERS		GROUNDWATER		WASTEWATER		SOIL		OIL		SLUDGE		OTHER :		ACID/BASE:		ICE / COOL		OTHER :		DATE		TIME		TPH		BTX		Chlorides	
<u>H5D3263</u>																																			
1 #1				/								/								/						12-15-15		12 00		x		x		x	
2 #2				/								/								/								12 10		x		x		x	
3 #3				/								/								/								12 20		x		x		x	
4 #4				/								/								/								12 30		x		x		x	
5 #5				/								/								/								12 45		x		x		x	
6 #6				/								/								/								12 50		x		x		x	
7 #7				/								/								/								13 00		x		x		x	
8 #8				/								/								/								13 10		x		x		x	
9 #9				/								/								/								13 20		x		x		x	
10 #10				/								/								/								13 30		x		x		x	

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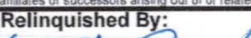
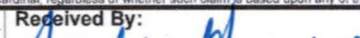
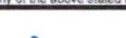
Relinquished By: <u>[Signature]</u>		Date: <u>12-15-15</u>		Received By: <u>[Signature]</u>		Phone Result: <input type="checkbox"/> Yes <input type="checkbox"/> No		Add'l Phone #:	
		Time: <u>16:10</u>				Fax Result: <input type="checkbox"/> Yes <input type="checkbox"/> No		Add'l Fax #:	
Relinquished By:		Date:		Received By:		REMARKS:			
		Time:				<u>email results</u> <u>76</u> <u>heuerhart@akaenergy.com</u>			
Delivered By: (Circle One)				Sample Condition		CHECKED BY:			
Sampler - UPS - Bus - Other:				Cool Intact		(Initials)			
				<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No			



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[illegible]

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Relinquished By: 		Date: 12.15.15 Time: 16:10		Received By: 		Phone Result: <input type="checkbox"/> Yes <input type="checkbox"/> No Add'l Phone #: _____ Fax Result: <input type="checkbox"/> Yes <input type="checkbox"/> No Add'l Fax #: _____ REMARKS:	
Relinquished By:		Date: Time:		Received By:		Email Results heverhart@aleenergy.com	
Delivered By: (Circle One) Sampler - UPS - Bus - Other:		Sample Condition Cool Intact <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		CHECKED BY: (Initials) 			

† Cardinal cannot accept verbal changes. Please fax written changes to (575) 393-2826

#54



New Mexico Office of the State Engineer

Water Column/Average Depth to Water

(A CLW##### in the
POD suffix indicates the
POD has been replaced
& no longer serves a
water right file.)

(R=POD has
been replaced,
O=orphaned,
C=the file is
closed)

(quarters are 1=NW 2=NE 3=SW 4=SE)

(quarters are smallest to largest)

(NAD83 UTM in meters)

(In feet)

POD Number	POD Sub-Code	basin	County	Q 64	Q 16	Q 4	Sec	Tws	Rng	X	Y	Distance	Depth Well	Depth Water	Water Column
RA 04561			ED	4	2	26	17S	27E		570871	3630142*	4313	250		
RA 11857 POD1			ED	1	1	2	05	18S	26E	577784	3625988	4323	235	95	140
RA 04048			LE	1	4	4	14	18S	27E	570841	3623030*	4582	2096		
RA 03917			LE	4	1	2	10	18S	27E	569019	3625660*	4636	130	50	80

Average Depth to Water: 72 feet

Minimum Depth: 50 feet

Maximum Depth: 95 feet

Record Count: 4

UTM NAD83 Radius Search (in meters):

Easting (X): 573527

Northing (Y): 3626743

Radius: 5000

*UTM location was derived from PLSS - see Help

The data is furnished by the NMOSE/ISC and is accepted by the recipient with the expressed understanding that the OSE/ISC make no warranties, expressed or implied, concerning the accuracy, completeness, reliability, usability, or suitability for any particular purpose of the data.

