

April 06, 2016

MIKE STUBBLEFIELD

R T HICKS CONSULTANTS

901 RIO GRANDE BLVD SUITE F-142

ALBUQUERQUE, NM 87104

RE: ATOKA SAN ANDRES UNIT NO. 141

Enclosed are the results of analyses for samples received by the laboratory on 04/05/16 13:30.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-15-7. 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:

R T HICKS CONSULTANTS
MIKE STUBBLEFIELD
901 RIO GRANDE BLVD SUITE F-142
ALBUQUERQUE NM, 87104
Fax To: NONE

Received:	04/05/2016	Sampling Date:	04/05/2016
Reported:	04/06/2016	Sampling Type:	Soil
Project Name:	ATOKA SAN ANDRES UNIT NO. 141	Sampling Condition:	Cool & Intact
Project Number:	30-015-10550	Sample Received By:	Jodi Henson
Project Location:	UT. J SEC. 13 T185 R26E		

Sample ID: S-5 32.74652-104.33421 (H600722-01)

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	224	16.0	04/06/2016	ND	416	104	400	3.92		

Sample ID: S-6 32.74657-104.33424 (H600722-02)

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	04/06/2016	ND	416	104	400	3.92	

Sample ID: S-7 32.74666-104.33424 (H600722-03)

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	368	16.0	04/06/2016	ND	416	104	400	3.92	

Sample ID: S-8 32.74657-104.33415 (H600722-04)

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	1230	16.0	04/06/2016	ND	416	104	400	3.92	

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*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

 R T HICKS CONSULTANTS
 MIKE STUBBLEFIELD
 901 RIO GRANDE BLVD SUITE F-142
 ALBUQUERQUE NM, 87104
 Fax To: NONE

Received:	04/05/2016	Sampling Date:	04/05/2016
Reported:	04/06/2016	Sampling Type:	Soil
Project Name:	ATOKA SAN ANDRES UNIT NO. 141	Sampling Condition:	Cool & Intact
Project Number:	30-015-10550	Sample Received By:	Jodi Henson
Project Location:	UT. J SEC. 13 T185 R26E		

Sample ID: S-9 32.74675-104.33413 (H600722-05)

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	672	16.0	04/06/2016	ND	416	104	400	3.92		

Sample ID: S-10 32.74677-104.33413 (H600722-06)

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	1840	16.0	04/06/2016	ND	416	104	400	3.92	

Sample ID: S-11 2' BGS 32.74657-104.33421 (H600722-07)

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	944	16.0	04/06/2016	ND	416	104	400	3.92	

Sample ID: S-12 2' BGS 32.74665-104.33421 (H600722-08)

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	768	16.0	04/06/2016	ND	416	104	400	3.92	

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Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

R T HICKS CONSULTANTS
MIKE STUBBLEFIELD
901 RIO GRANDE BLVD SUITE F-142
ALBUQUERQUE NM, 87104
Fax To: NONE

Received: 04/05/2016
Reported: 04/06/2016
Project Name: ATOKA SAN ANDRES UNIT NO. 141
Project Number: 30-015-10550
Project Location: UT. J SEC. 13 T185 R26E

Sampling Date: 04/05/2016
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Jodi Henson

Sample ID: S-13 2' BGS 32.74673-104.33421 (H600722-09)

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	04/05/2016	ND	2.02	101	2.00	1.46		
Toluene*	<0.050	0.050	04/05/2016	ND	1.93	96.4	2.00	1.02		
Ethylbenzene*	<0.050	0.050	04/05/2016	ND	1.69	84.7	2.00	0.715		
Total Xylenes*	<0.150	0.150	04/05/2016	ND	5.28	88.1	6.00	0.873		
Total BTEx	<0.300	0.300	04/05/2016	ND						

Surrogate: 4-Bromofluorobenzene (PID) 103 % 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	04/06/2016	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	04/05/2016	ND	175	87.3	200	6.15	
DRO >C10-C28	<10.0	10.0	04/05/2016	ND	163	81.4	200	6.29	

Surrogate: 1-Chlorooctane 85.7 % 35-147

Surrogate: 1-Chlorooctadecane 93.7 % 28-171

Sample ID: S-13 6' BGS (H600722-10)

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	320	16.0	04/06/2016	ND	416	104	400	3.92		

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Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

R T HICKS CONSULTANTS
MIKE STUBBLEFIELD
901 RIO GRANDE BLVD SUITE F-142
ALBUQUERQUE NM, 87104
Fax To: NONE

Received:	04/05/2016	Sampling Date:	04/05/2016
Reported:	04/06/2016	Sampling Type:	Soil
Project Name:	ATOKA SAN ANDRES UNIT NO. 141	Sampling Condition:	Cool & Intact
Project Number:	30-015-10550	Sample Received By:	Jodi Henson
Project Location:	UT. J SEC. 13 T185 R26E		

Sample ID: S-14 BACKGROUND 32.74677-104.33454 (H600722-11)

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	256	16.0	04/06/2016	ND	416	104	400	3.92		

Sample ID: S-15 32.74688-104.33422 (H600722-12)

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	1090	16.0	04/06/2016	ND	416	104	400	3.92		

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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



CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

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

Company Name: R.T. Miller Consultants		BILL TO		ANALYSIS REQUEST																					
Project Manager: Mike Stubblefield		P.O. #:																							
Address: 2411 South 13th Street		Company: LR																							
City: Artesia State: N.M. Zip: 88210		Attn: Mike Barrett																							
Phone #: 505-365-5034 Fax #: 		Address: RM-2 N. 24th St.																							
Project #: 30-015-10550 Project Owner: Line Rock Res.		City: Artesia																							
Project Name: Atoka San Andres Unit No. 141		State: NM Zip: 88210																							
Project Location: UT 5 sec. 13 T18S R26E		Phone #: 505-353-2644																							
Sample Name: micaceous sand		Fax #: 																							
FOR LAB USE ONLY																									
Lab I.D.	Sample I.D.	(G)RAB OR (C)OMP.	# CONTAINERS	MATRIX					PRESERV.	SAMPLING	DATE	TIME	8015 m - TPH	80208 - BTEX	Total Chloride										
				GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE								OTHER :	ACID/BASE:	ICE / COOL	OTHER :						
H400722	5-5 32.24657-104.33421	G	4	4/5/16	8:00 A	8015 m - TPH	80208 - BTEX	Total Chloride																	
1	5-5 32.24657-104.33421	G	4	4/5/16	8:00 A	8015 m - TPH	80208 - BTEX	Total Chloride																	
2	5-6 32.24657-104.33424	G	4	4/5/16	8:05 A	8015 m - TPH	80208 - BTEX	Total Chloride																	
3	5-7 32.24657-104.33424	G	4	4/5/16	8:10 A	8015 m - TPH	80208 - BTEX	Total Chloride																	
4	5-8 32.24657-104.33415	G	4	4/5/16	8:15 A	8015 m - TPH	80208 - BTEX	Total Chloride																	
5	5-9 32.24675-104.33413	G	4	4/5/16	8:20 A	8015 m - TPH	80208 - BTEX	Total Chloride																	
6	5-10 32.24675-104.33413	G	4	4/5/16	8:25 A	8015 m - TPH	80208 - BTEX	Total Chloride																	
7	5-11 32.24675-104.33413	G	4	4/5/16	8:30 A	8015 m - TPH	80208 - BTEX	Total Chloride																	
8	5-12 32.24675-104.33413	G	4	4/5/16	8:35 A	8015 m - TPH	80208 - BTEX	Total Chloride																	
9	5-13 32.24675-104.33413	G	4	4/5/16	8:40 A	8015 m - TPH	80208 - BTEX	Total Chloride																	
10	5-13 32.24675-104.33413	G	4	4/5/16	9:00 A	8015 m - TPH	80208 - BTEX	Total Chloride																	
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Relinquished By: micaceous sand		Date: 4/5/16		Received By: LR		REMARKS: RUST!!																			
Relinquished By: micaceous sand		Date: 4/5/16		Received By: LR																					
Delivered By: (Circle One)		Sample Condition		CHECKED BY: (Initials)																					
Sampler - UPS - Bus - Other: 3.02		Cool <input checked="" type="checkbox"/> Intact <input checked="" type="checkbox"/>		LR																					
		Yes <input checked="" type="checkbox"/> No <input checked="" type="checkbox"/>																							



2-2

(575) 393-2326 FAX (575) 393-2476

yes to 505-393-2476
#54