



REVIEWED

By Kellie Jones at 10:23 am, Feb 29, 2016

APPROVED

By Kellie Jones at 10:23 am, Feb 29, 2016

PO Box 2948 | Hobbs, NM 88241 | Phone 575.393.2967

February 16, 2016

Attn. Kellie Jones

Environmental Specialists, District 1
Oil Conservation Division, EMNRD
1625 N. French Drive
Hobbs, NM 88240

**RE: Path Forward
Grand Banks Energy Lease
ARU #14
UL/O sec. 2 T16S R32E
1RP - 3985**

Ms. Jones:

Unique Vacuum Services, LLC (Vacuum) has retained Basin Environmental Service Technologies (Basin) to address potential environmental concerns at the above-referenced site. Grand Banks Energy (Banks) is the operator of the ARU #14 lease where the release occurred.

Background and Previous Work

The site is located approximately six (6) miles northeast of Maljamar, New Mexico at Unit Letter O of Section 2 in Township 16 South of Range 32 East. This site is located in an area where groundwater is anticipated to be at approximately two-hundred seventy-five (275) +/- feet below ground surface (bgs).

On October 30th, 2015, Grand Banks discovered a release of approximately seventy-five (75) barrels (bbls) of crude oil when a poly flow-line repair failed. An undetermined amount of crude was recovered. Approximately forty-six thousand seven-hundred ninety-eight (46,798) square feet (ft²) of pasture was impacted. New Mexico Oil Conservation Division (NMOCD) was notified of the release on approximately October 30th, 2015, and an initial C-141 was submitted to NMOCD on November 19th, 2015, for approval.

Basin personnel were on site beginning January 8th, 2016, to begin delineation activities. Five (5) sample points were established. The sample points, (PT.1, PT.2, PT.3, PT.4, PT.5) from the release area were field tested for chlorides and organic vapors. Confirmatory samples were submitted to a NMOCD approved and certified laboratory. Chloride, gasoline range organics (GRO) and diesel range organics (DRO) were analyzed in addition to benzene, toluene, ethylbenzene, and xlyenes.

On January 29th, 2016, Basin personnel continued delineation for areas 1, 2, 4, 5. Further delineation for chloride concentration of Area 1 is required to meet the NMOCD guideline of delineation below 250 mg/kg. Area 5 delineation ceased as the impermeable cap-rock restricted depth with conventional methods with TPH concentrations slightly above the 5,000 mg/kg guideline. (See Figure 2)

Corrective Action Plan

Sample areas 1 and 5 require further delineation for either chloride and/or total petroleum hydrocarbons (TPH) as shown by analytical reports from the approved laboratory. An additional sample point (6) will be added and delineated at the northern tip of impacted area. Samples taken in areas 2 and 4 exhibited concentrations less than the limits established for remediation clean-up with groundwater being greater than 275 feet bgs. Therefore, further delineation will occur for Area 1 and Area 5 until both sample areas are within the NMOCD limits for chlorides (250 mg/kg) and a concentration from a photo-ionization detector (PID) of less than 100 mg/kg.

At the completion of delineation, the impacted soils will be excavated to a maximum depth of eighteen (18) inches bgs for areas 1, 2, 4, 5. Area 3 will be excavated to three (3) inches to ensure impacted soils are removed and there is no visible stain. The excavated area will then be backfilled with clean, non-impacted material and contoured to the surrounding area.

At the completion of remediation and at a time conducive for germination, Basin will seed the imported and contoured soil with a blend of native, non-noxious vegetation approved by the New Mexico State Land Office (NMSLO). The seed will be applied with either a drill or broadcast method to ensure complete coverage of affected area. The seeds will then be sown with a disc (in compacted soils), rake or a harrow.

The supporting documentation for this Corrective Action Plan is attached.

Basin appreciates the opportunity to work with you on this project. Please contact me if you have any questions or wish to discuss the site.

Sincerely,

A handwritten signature in black ink, appearing to read 'Robbie Runnels', followed by a long horizontal line.

Robbie Runnels
Project Manager
Basin Environmental Service Technologies
(575) 393-2967

Attachments:

Figure 1 - Initial Sampling Data

Figure 2 - Area Sampling Data

Appendix A – Initial C-141

Appendix B – Laboratory Analysis

Appendix C – Photo Documentation

FIGURE 1

Initial Sampling

Initial Sampling

Sample Description	CI-	PID	GRO	DRO	B	T	E	X	TOTAL
Point 1 @ 3"	1630	47.7	2110	39800	<0.5	0.755	1.14	22.4	24.3
Point 2 @ 3"	<16	0.8	<10	181	<0.5	<0.5	<0.5	0.274	<0.3
Point 3 @ 3"	<16	5	55.8	3080	<0.5	0.159	0.27	4.02	4.44
Point 4 @ 3"	432	1.2	<10	277	<0.5	<0.5	<0.5	<0.15	<0.3
Point 5 @ 3"	64	172.3	3690	29200	0.773	25	9.23	107	142



Landowner: State
DGW: 275 ft

- Legend**
- ELECTRIC POLE
 - ▲ SAMPLE POINT
 - OVERHEAD ELECTRIC LINE
 - SURFACE PIPELINE
 - STAIN - 46,798 SQ FT



**GRAND BANKS
ARU #14**

UL O SECTION 2
T-16-S R-32-E
LEA COUNTY, NM

**Underground facilities are
spatially projected
and need to be field verified.**

GPS: 32.943974 -103.734328

0 50 100
Feet

GPS date: 1/8/16 KL
Drawing date: 2/25/16
Drafted by: M. Grieco

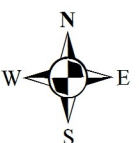


FIGURE 2

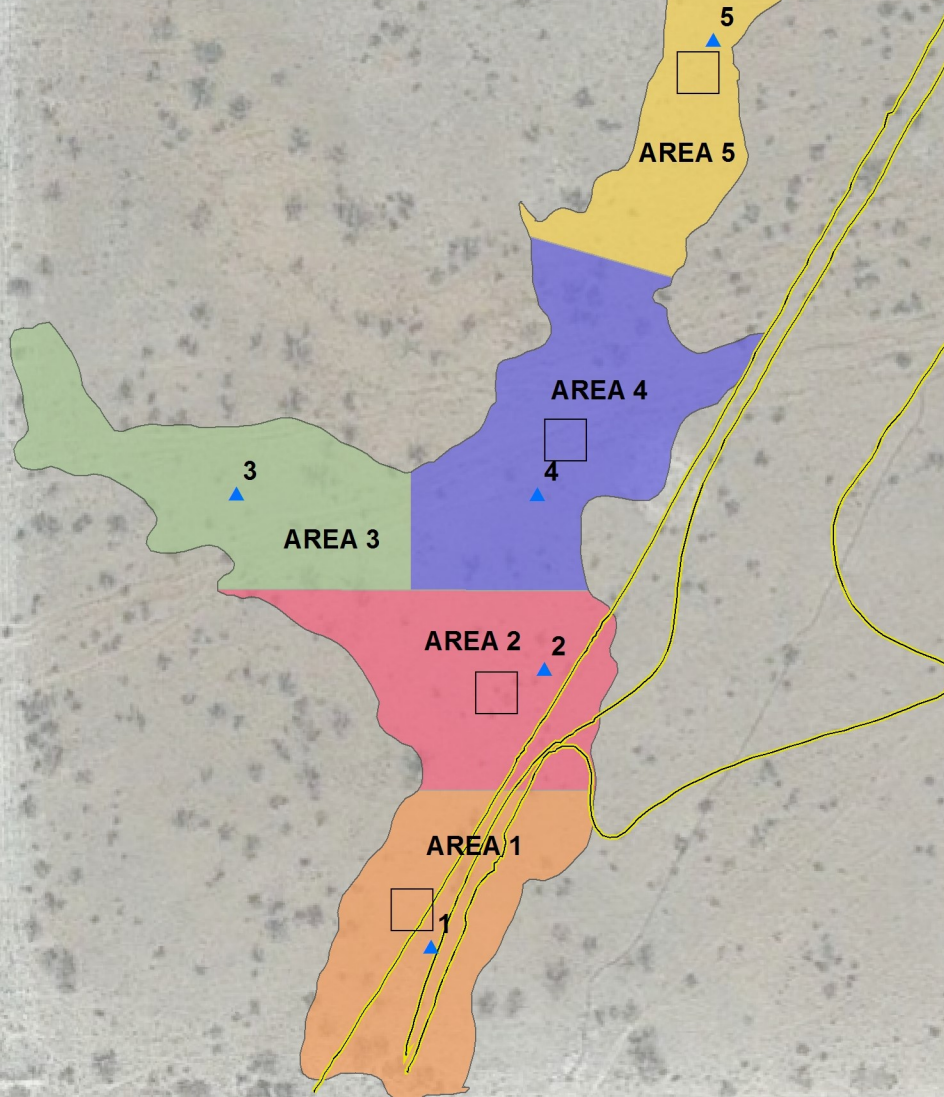
Area Sampling

Area Sampling Data

Sample Description	Cl-	GRO	DRO	EXT DRO
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Area 1 @18"	528	<10	292	43.1
Area 2 @ 18"	<16	<10	255	33.8
Area 4 @ 18"	40	<10	308	34.3
Area 5 @ 18"	48	745	4010	403

Proposed Sample Point #6



Landowner: State
DGW: 275 ft

- Legend**
- ELECTRIC POLE
 - SAMPLE AREA
 - ▲ SAMPLE POINT
 - SURFACE PIPELINE
 - STAIN - 46,798 SQ FT



**GRAND BANKS
ARU #14**

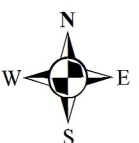
UL O SECTION 2
T-16-S R-32-E
LEA COUNTY, NM

**Underground facilities are
spatially projected
and need to be field verified.**

GPS: 32.943974 -103.734328

0 50 100
Feet

GPS date: 1/8/16 KL
Drawing date: 2/25/16
Drafted by: M. Grieco



APPENDICES

APPENDIX A

C-141

District I
1625 N. French Dr., Hobbs, NM 88240
District II
811 S. First St., Artesia, NM 88210
District III
1000 Rio Brazos Road, Aztec, NM 87410
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy Minerals and Natural Resources

Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, NM 87505

Form C-141
Revised August 8, 2011

Submit 1 Copy to appropriate District Office in
accordance with 19.15.29 NMAC.

Release Notification and Corrective Action

OPERATOR

XX Initial Report Final Report

Name of Company: Grand Banks Energy	Contact: Wayne Price-Price LLC
Address: 10 Desta Drive Midland TX 79705	Telephone No. 505-715-2809
Facility Name: ARU #14	Facility Type: Oil Flow Line
Surface Owner: NMSLO	Mineral Owner: NMSLO
API No.30-025-00365	

LOCATION OF RELEASE

Unit Letter I	Section 2	Township 16S	Range 32E	Feet from the 20	North/South Line South	Feet from the 660	East/West Line East	County Lea
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Latitude N 32 56 36.29 Longitude W 103 43 51.34

NATURE OF RELEASE- See Initial Report Attached

Type of Release: Crude Oil	Volume of Release: 75 bbl- estimated-initially	Volume Recovered- Pending
Source of Release: New Surface Poly Flow Line	Date and Hour of Occurrence: Sometime Thursday Night-Fri Morning Oct 29-30?	Date and Hour of Discovery: Friday Oct 30, 2015 9 am estimated
Was Immediate Notice Given? <input type="checkbox"/> Yes <input type="checkbox"/> No XX Not Required	If YES, To Whom? NA	
By Whom? Pumper	Date and Hour Same as Above	
Was a Watercourse Reached? <input type="checkbox"/> Yes XX No	If YES, Volume Impacting the Watercourse.	

If a Watercourse was Impacted, Describe Fully.*- **NO**

Describe Cause of Problem and Remedial Action Taken. Appears new poly flow line parted in new welded joint located on surface just past road crossing of Patterson oil field lease road, north side. System shut down and emergency crews called out, made 1-811 call and started emergency response actions to stop flow of oil.

Describe Area Affected and Cleanup Action Taken. Approximately 600' x 75' surface pasture land impacted. Emergency response actions to date, scraped up all saturated oily soil and hauled approximately 400 yards to Gandy-Marley Landfill. Non-saturated remaining soils being scraped up and stocked piled for evaluation, installed runoff berms. Once Emergency actions are complete, Grand Banks will perform vertical and horizontal investigations to determine a path forward for final closure.

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to NMOCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the NMOCD marked as "Final Report" does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to ground water, surface water, human health or the environment. In addition, NMOCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.

OIL CONSERVATION DIVISION

Approved by Environmental Specialist:

Signature:

Printed Name: Wayne Price-Agent/Consultant for Grand Banks

Title: Price LLC-Mg Member

Approval Date:

Expiration Date:

E-mail Address: wayneprice77@earthlink.net

Conditions of Approval:

Attached ☐

Date: Nov 02, 2015 Phone: 505-715-2809

* Attach Additional Sheets If Necessary-

APPENDIX B

Laboratory Analysis



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

January 18, 2016

KYLE NORMAN

Basin Environmental Service

P.O. Box 301

Lovington, NM 88260

RE: GRAND BANKS A. D.

Enclosed are the results of analyses for samples received by the laboratory on 01/12/16 8:45.

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,

A handwritten signature in black ink that reads "Celey D. Keene". The signature is written in a cursive, flowing style.

Celey D. Keene

Lab Director/Quality Manager

Analytical Results For:

Basin Environmental Service
KYLE NORMAN
P.O. Box 301
Lovington NM, 88260
Fax To: (575) 396-1429

Received: 01/12/2016
Reported: 01/18/2016
Project Name: GRAND BANKS A. D.
Project Number: NONE GIVEN
Project Location: NOT GIVEN

Sampling Date: 01/08/2016
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Jodi Henson

Sample ID: INITIAL SAMPLE PT. 1 @ 3" (H600062-01)

BTX 8021B		mg/kg	Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.500	0.500	01/15/2016	ND	2.22	111	2.00	12.2	
Toluene*	0.755	0.500	01/15/2016	ND	2.17	109	2.00	12.0	
Ethylbenzene*	1.14	0.500	01/15/2016	ND	1.97	98.7	2.00	11.0	
Total Xylenes*	22.4	1.50	01/15/2016	ND	5.93	98.9	6.00	10.3	
Total BTX	24.3	3.00	01/15/2016	ND					

Surrogate: 4-Bromofluorobenzene (PID) 107 % 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	1630	16.0	01/13/2016	ND	448	112	400	3.64	

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	2110	100	01/12/2016	ND	201	100	200	4.33		
DRO >C10-C28	39800	100	01/12/2016	ND	186	92.8	200	7.29		

Surrogate: 1-Chlorooctane 248 % 35-147

Surrogate: 1-Chlorooctadecane 1070 % 28-171

Cardinal Laboratories

*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager

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KYLE NORMAN
P.O. Box 301
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Received: 01/12/2016
Reported: 01/18/2016
Project Name: GRAND BANKS A. D.
Project Number: NONE GIVEN
Project Location: NOT GIVEN

Sampling Date: 01/08/2016
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Jodi Henson

Sample ID: INITIAL SAMPLE PT. 2 @ 3" (H600062-02)

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	01/12/2016	ND	2.22	111	2.00	12.2		
Toluene*	<0.050	0.050	01/12/2016	ND	2.17	109	2.00	12.0		
Ethylbenzene*	<0.050	0.050	01/12/2016	ND	1.97	98.7	2.00	11.0		
Total Xylenes*	0.274	0.150	01/12/2016	ND	5.93	98.9	6.00	10.3		
Total BTEx	<0.300	0.300	01/12/2016	ND						

Surrogate: 4-Bromofluorobenzene (PID) 128 % 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	01/13/2016	ND	448	112	400	3.64		

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	01/12/2016	ND	201	100	200	4.33	
DRO >C10-C28	181	10.0	01/12/2016	ND	186	92.8	200	7.29	

Surrogate: 1-Chlorooctane 91.1 % 35-147

Surrogate: 1-Chlorooctadecane 104 % 28-171

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*=Accredited Analyte

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Basin Environmental Service
KYLE NORMAN
P.O. Box 301
Lovington NM, 88260
Fax To: (575) 396-1429

Received: 01/12/2016
Reported: 01/18/2016
Project Name: GRAND BANKS A. D.
Project Number: NONE GIVEN
Project Location: NOT GIVEN

Sampling Date: 01/08/2016
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Jodi Henson

Sample ID: INITIAL SAMPLE PT. 3 @ 3" (H600062-03)

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	01/12/2016	ND	2.22	111	2.00	12.2	
Toluene*	0.159	0.050	01/12/2016	ND	2.17	109	2.00	12.0	
Ethylbenzene*	0.270	0.050	01/12/2016	ND	1.97	98.7	2.00	11.0	
Total Xylenes*	4.02	0.150	01/12/2016	ND	5.93	98.9	6.00	10.3	
Total BTX	4.44	0.300	01/12/2016	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	<16.0	16.0	01/13/2016	ND	448	112	400	3.64	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	55.8	10.0	01/12/2016	ND	201	100	200	4.33	
DRO >C10-C28	3080	10.0	01/12/2016	ND	186	92.8	200	7.29	

Surrogate: 1-Chlorooctane 107 % 35-147

Surrogate: 1-Chlorooctadecane 141 % 28-171

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*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager

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KYLE NORMAN
P.O. Box 301
Lovington NM, 88260
Fax To: (575) 396-1429

Received: 01/12/2016
Reported: 01/18/2016
Project Name: GRAND BANKS A. D.
Project Number: NONE GIVEN
Project Location: NOT GIVEN

Sampling Date: 01/08/2016
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Jodi Henson

Sample ID: INITIAL SAMPLE PT. 4 @ 3" (H600062-04)

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	01/12/2016	ND	2.22	111	2.00	12.2	
Toluene*	<0.050	0.050	01/12/2016	ND	2.17	109	2.00	12.0	
Ethylbenzene*	<0.050	0.050	01/12/2016	ND	1.97	98.7	2.00	11.0	
Total Xylenes*	<0.150	0.150	01/12/2016	ND	5.93	98.9	6.00	10.3	
Total BTX	<0.300	0.300	01/12/2016	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	432	16.0	01/13/2016	ND	400	100	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	01/12/2016	ND	201	100	200	4.33	
DRO >C10-C28	277	10.0	01/12/2016	ND	186	92.8	200	7.29	

Surrogate: 1-Chlorooctane 94.4 % 35-147

Surrogate: 1-Chlorooctadecane 92.0 % 28-171

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*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager

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Basin Environmental Service
KYLE NORMAN
P.O. Box 301
Lovington NM, 88260
Fax To: (575) 396-1429

Received: 01/12/2016
Reported: 01/18/2016
Project Name: GRAND BANKS A. D.
Project Number: NONE GIVEN
Project Location: NOT GIVEN

Sampling Date: 01/08/2016
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Jodi Henson

Sample ID: INITIAL SAMPLE PT. 5 @ 3" (H600062-05)

BTEx 8021B		mg/kg	Analyzed By: MS					S-04	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	0.773	0.500	01/15/2016	ND	2.22	111	2.00	12.2	
Toluene*	25.0	0.500	01/15/2016	ND	2.17	109	2.00	12.0	
Ethylbenzene*	9.23	0.500	01/15/2016	ND	1.97	98.7	2.00	11.0	
Total Xylenes*	107	1.50	01/15/2016	ND	5.93	98.9	6.00	10.3	
Total BTEX	142	3.00	01/15/2016	ND					

Surrogate: 4-Bromofluorobenzene (PID) 119 % 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	64.0	16.0	01/13/2016	ND	400	100	400	0.00	

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	3690	50.0	01/12/2016	ND	201	100	200	4.33	
DRO >C10-C28	29200	50.0	01/12/2016	ND	186	92.8	200	7.29	

Surrogate: 1-Chlorooctane 249 % 35-147

Surrogate: 1-Chlorooctadecane 730 % 28-171

Cardinal Laboratories

*=Accredited Analyte

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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

Cardinal Laboratories

*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager



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

February 19, 2016

BEN J. ARGUIJO

Basin Environmental Service

P.O. Box 301

Lovington, NM 88260

RE: GRAND BANKS ARU #14

Enclosed are the results of analyses for samples received by the laboratory on 02/02/16 8:40.

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,

A handwritten signature in black ink that reads "Celey D. Keene". The signature is written in a cursive, flowing style.

Celey D. Keene

Lab Director/Quality Manager

Analytical Results For:

Basin Environmental Service
BEN J. ARGUIJO
P.O. Box 301
Lovington NM, 88260
Fax To: (575) 396-1429

Received:	02/02/2016	Sampling Date:	01/29/2016
Reported:	02/19/2016	Sampling Type:	Soil
Project Name:	GRAND BANKS ARU #14	Sampling Condition:	Cool & Intact
Project Number:	AFE 26056	Sample Received By:	Jodi Henson
Project Location:	NOT GIVEN		

Sample ID: AREA 1 @ 18" (H600231-01)

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	528	16.0	02/03/2016	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	02/02/2016	ND	214	107	200	2.54		
DRO >C10-C28	292	10.0	02/02/2016	ND	208	104	200	6.50		
EXT DRO >C28-C35	43.1	10.0	02/02/2016	ND						
<hr/>										
Surrogate: 1-Chlorooctane	81.7 %	35-147								
Surrogate: 1-Chlorooctadecane	86.3 %	28-171								

Sample ID: AREA 2 @ 18" (H600231-02)

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	02/03/2016	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	02/02/2016	ND	214	107	200	2.54		
DRO >C10-C28	255	10.0	02/02/2016	ND	208	104	200	6.50		
EXT DRO >C28-C35	33.8	10.0	02/02/2016	ND						
<hr/>										
Surrogate: 1-Chlorooctane	83.2 %	35-147								
Surrogate: 1-Chlorooctadecane	89.3 %	28-171								

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Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

Basin Environmental Service
BEN J. ARGUIJO
P.O. Box 301
Lovington NM, 88260
Fax To: (575) 396-1429

Received:	02/02/2016	Sampling Date:	01/29/2016
Reported:	02/19/2016	Sampling Type:	Soil
Project Name:	GRAND BANKS ARU #14	Sampling Condition:	Cool & Intact
Project Number:	AFE 26056	Sample Received By:	Jodi Henson
Project Location:	NOT GIVEN		

Sample ID: AREA 4 @ 18" (H600231-03)

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	02/03/2016	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	02/02/2016	ND	214	107	200	2.54	
DRO >C10-C28	308	10.0	02/02/2016	ND	208	104	200	6.50	
EXT DRO >C28-C35	34.3	10.0	02/02/2016	ND					
Surrogate: 1-Chlorooctane	75.6 %	35-147							
Surrogate: 1-Chlorooctadecane	83.2 %	28-171							

Sample ID: AREA 5 @ 18" (H600231-04)

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	02/03/2016	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	745	10.0	02/02/2016	ND	214	107	200	2.54	
DRO >C10-C28	4010	10.0	02/02/2016	ND	208	104	200	6.50	
EXT DRO >C28-C35	403	10.0	02/02/2016	ND					
Surrogate: 1-Chlorooctane									
	129 %	35-147							
Surrogate: 1-Chlorooctadecane									
	128 %	28-171							

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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



ARDINAL LABORATORIES

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

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

Company Name: Basin Environmental Service Technologies, LLC

Project Manager: Ben Arguilo

Address: P.O. Box 301

City: Lovington

Phone #: (575) 396-2378

Project #: AFE 26056

Project Name:

Project Location: GRAND BANKS ARU #14

Sampler Name: Steve Taylor

BILL TO

P.O. #:

Company: BASIN

Attn:

Address:

City: State: NM Zip: 88220

Phone #:

Fax #:

ANALYSIS REQUEST

Chloride
TPH (8015M)
BTEx (8021B) HOLD

Lab I.D. Sample I.D. #

HL00231

1 SP#1@18" Area 1 @ 18"
2 SP#2@18" Area 2 @ 18"
3 SP#3@18" Area 4 @ 18"
4 SP#4@18" Area 5 @ 18"

(G)RAB OR (C)OMP.

CONTAINERS

GROUNDWATER

WASTEWATER

SOIL

OIL

SLUDGE

OTHER:

ACID/BASE:

ICE / COOL

OTHER:

DATE TIME

DATE

TIME

DATE

TIME

DATE

TIME

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Relinquished By:

Date: 12/16

Received By:

Date: 12/16

Phone Result: ☐ Yes ☐ No

Fax Result: ☐ Yes ☐ No

Add'l Phone #:

Add'l Fax #:

REMARKS:

Relinquished By:

Date: 12-16

Received By:

Date: 12-16

Phone Result: ☐ Yes ☐ No

Fax Result: ☐ Yes ☐ No

Add'l Phone #:

Add'l Fax #:

REMARKS:

Delivered By: (Circle One)

Date: 12-16

Received By:

Date: 12-16

Phone Result: ☐ Yes ☐ No

Fax Result: ☐ Yes ☐ No

Add'l Phone #:

Add'l Fax #:

REMARKS:

Sampler - UPS - Bus - Other:

Date: 12-16

Received By:

Date: 12-16

Phone Result: ☐ Yes ☐ No

Fax Result: ☐ Yes ☐ No

Add'l Phone #:

Add'l Fax #:

REMARKS:

FORM-006

Revision 1.0

+ Cardinal cannot accept verbal changes. Please fax written changes to 575-393-2476

#54

Please email results to pm@basinenr.com & Tasavioe@BassPet.com

Sample IDs changed as per Kobb's 2/19/16

OK

APPENDIX C

Photo Documentation

Grand Banks AD – ARU #14

Unit Letter O, Section 2, T16S, R32E



Release area, facing north

1/8/16



Release area, facing south

1/8/16



Release area, facing east

1/8/16



Release area, facing northeast

1/8/16