# Basin Environmental Service Technologies, LLC

3100 Plains Highway
P. O. Box 301
Lovington, New Mexico 88260
rrunnels@basinenv.com
Office: (575) 396-2378
Fax: (575) 396-1429



# **REMEDIATION SUMMARY &**

# SITE CLOSURE REQUEST

Grand Banks Energy ARU #14 Lea County, New Mexico Unit Letter "I", Section 2, Township 16 South, Range 32 East Latitude 32.943974° North, Longitude -103.734328° West NMOCD Reference #: 1RP-3985

Prepared For:

Grand Banks Energy 10 Desta Drive Midland, Texas 79705

Prepared By: Basin Environmental Service Technologies, LLC 3100 Plains Highway Lovington, New Mexico 88260

May 2016

**APPROVED** By Olivia Yu at 2:43 pm, Jun 28, 2017

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NMOCD grants closure to 1RP-3985.

Robbie Runnels Project Manager

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# **1.0 INTRODUCTION & BACKGROUND INFORMATION**

Basin Environmental Service Technologies, LLC (Basin Environmental), on behalf of Grand Banks Energy (Grand Banks) has prepared this *Remediation Summary & Site Closure Request* for the release site known as the ARU #14. The legal description of the release site is Unit Letter "I", Section 2, Township 16 South, Range 32 East, in Lea County, New Mexico. The geographic coordinates of the release site are 32.943974° North latitude and -103.734328° West longitude. The property affected by the release is owned by the state of New Mexico. Please reference Figure 1 for a "Site Location Map".

On October 30, 2015, Grand Banks discovered a release had occurred at the ARU #14. A welded joint on a poly flow line parted causing a release of crude oil in the pasture. The release was later reported to the New Mexico Oil Conservation Division (NMOCD) Hobbs District Office on November 19, 2015. The "Release Notification and Corrective Action" (Form C-141) indicated approximately seventy-five (75) barrels (bbls) of crude oil were released. During initial response activities, the system was shut down and emergency crews were call to the release site where saturated soils were excavated and stockpiled. The entirety of the release (approximately 75 bbls) was in the pasture, impacting approximately forty-two thousand nine-hundred ninety-eight (42,998) square feet (ft<sup>2</sup>).

The Form C-141 is provided as Appendix A. General photographs of the release site are provided in Appendix B.

# 2.0 NMOCD SITE CLASSIFICATION

A search of the New Mexico Water Rights Reporting System (NMWRRS) database maintained by the New Mexico Office of the State Engineer (NMOSE) indicated information for the southeast quarter of Section 2, Township 16 South, Range 32 East, had three (3) wells placed and average depth to water being two-hundred seventy-two (272) feet below ground surface (bgs). Based on the NMOCD ranking system, zero (0) points were assigned to the site as a result of this criterion.

A search of the NMWRRS database indicated there are no water wells within one thousand (1,000') feet of the release. Based on the NMOCD ranking system, zero (0) points were assigned to the site as a result of this criterion.

There are no surface water bodies within one thousand feet (1,000') of the release. Based on the NMOCD ranking system, zero (0) points were assigned to the site as a result of this criterion.

NMOCD guidelines indicate the ARU #14 release site has an initial ranking score of zero (0) points. The soil remediation levels for a site with a ranking score of zero (0) points are as follows:

- Benzene 10 mg/kg (ppm)
- Benzene, ethylbenzene, toluene, and xylenes (BTEX) 50 mg/kg (ppm)
- Total petroleum hydrocarbons (TPH) 5,000 mg/kg (ppm)

The New Mexico Administrative Code (NMAC) does not currently specify a remediation level for chloride concentrations in soil. Chloride remediation levels are set by the NMOCD on a site-specific basis.

# 3.0 SUMMARY OF SOIL REMEDIATION ACTIVITIES

Basin personnel were on site beginning January 8, 2016 to begin delineation and remediation activities. Initial samples taken with depth were retrieved and submitted to a certified NMOCD approved commercial laboratory for initial analysis of chloride concentration utilizing method SM4500Cl-B. Gasoline range organics (GRO) and diesel range organics (DRO) were analyzed utilizing method TPH 8015M. Benzene, toluene, ethylbenzene and xylenes (BTEX) were analyzed utilizing method BTEX 8021B. A "Site & Sample Location Map" is provided as Figure 2. Laboratory analytical reports are provided as Appendix D.

On January 29, 2016, excavation of impacted soil commenced at the site. A chloride test kit was used to field-screen the horizontal extent and depth of impacted soil and to guide the excavation process. A photo-ionization detector (PID) was also used for determining the presence of hydrocarbons and the boundaries of the impacted soil. The impacted soil was excavated and transported to Gandy Marley Inc. Landfarm (Permit # NM-711-1-0019), for disposal.

The impacted area was excavated down to approximately two (2) feet bgs. The release site was broken down into five (5) distinct areas. Each individual area had numerous soil sample points placed at approximately fifty (50) foot intervals. In Area 5, two (2) floor samples points (Area 5 #2, Area 5 #3) were excavated deeper (4' and 6' bgs respectively) in order to extract the contaminated soils. Wall samples were taken at half of the total depth of excavation to ensure the removal of all impacted soils above the recommended remediation action levels (RRAL). Soil samples were sent to an approved NMOCD laboratory for concentration analysis of chlorides and total petroleum hydrocarbons (TPH).

Discrete wall soil samples were retrieved at half the depth of excavation for all Area sample points and submitted to an approved NMOCD laboratory for concentration analysis of chlorides, BTEX and TPH. Laboratory analysis confirms that the boundaries of the release were encompassed within the excavated area. Laboratory analysis also shows the impacted areas of the release met the criteria necessary for closure of the release.

The excavated area encompassed forty-six thousand seven-hundred ninety-eight (46,798)  $\text{ft}^2$  and was backfilled utilizing clean, non-impacted soils and contoured to fit the surrounding topography. The release site was blended with straw for soil retention and seeded with a native blend of vegetation free from invasive and noxious species.

Table 1 summarizes the "Concentrations of BTEX, TPH & Chloride in Soil".

# 4.0 QA/QC PROCEDURES

### 4.1 Soil Sampling

Soil samples were delivered to Cardinal Laboratories in Hobbs, New Mexico, for TPH, and/or chloride analysis using the methods described below:

- TPH concentrations in accordance with EPA Method SW-846 8015M
- Chloride concentrations in accordance with EPA Methods 4500 Cl-B

## 4.2 Decontamination of Equipment

Cleaning of the sampling equipment was the responsibility of the environmental technician. Prior to use, and between each sample, the sampling equipment was cleaned with Liqui-Nox® detergent and rinsed with distilled water.

### 4.3 Laboratory Protocol

The laboratory was responsible for proper QA/QC procedures after signing the chain-of-custody form(s). These procedures were either transmitted with the laboratory reports or are on file at the laboratory.

## 5.0 SITE CLOSURE REQUEST

Soil samples collected from the sidewalls of the ARU #14 excavation were analyzed by an NMOCD-approved laboratory, and concentrations of benzene, BTEX, and TPH were below the regulatory remediation action levels established for the site by the NMOCD.

Basin Environmental recommends Grand Banks provide the NMOCD Hobbs District Office a copy of this *Remediation Summary & Site Closure Request* and request the NMOCD grant site closure to the ARU #14 release site.

### 6.0 LIMITATIONS

Basin Environmental Service Technologies, LLC, has prepared this *Remediation Summary & Site Closure Request* to the best of its ability. No other warranty, expressed or implied, is made or intended. Basin Environmental has examined and relied upon documents referenced in the report and on oral statements made by certain individuals. Basin Environmental has not conducted an independent examination of the facts contained in referenced materials and statements. Basin Environmental has presumed the genuineness of these documents and statements and that the information provided therein is true and accurate. Basin Environmental has prepared this report in a professional manner, using the degree of skill and care exercised by similar environmental consultants. Basin Environmental notes that the facts and conditions referenced in this report may change over time, and the conclusions and recommendations set forth herein are applicable only to the facts and conditions as described at the time of this report.

This report has been prepared for the benefit of Grand Banks Energy. The information contained in this report, including all exhibits and attachments, may not be used by any other party without the express consent of Basin Environmental Service Technologies, LLC, and/or Grand Banks Energy.

# 7.0 DISTRIBUTION:

- Copy 1: Jamie Keyes New Mexico Energy, Minerals and Natural Resources Department Oil Conservation Division (District 1) 1625 N. French Drive Hobbs, NM 88240
- Copy 2: Wayne Price Grand Banks Energy 10 Desta Drive Midland, TX 79705
- Copy 3: Basin Environmental Service Technologies, LLC P.O. Box 301 Lovington, NM 88260

# FIGURES

# Site Location Map



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ELECTR     SAMPLE     SAMPLE     SURFACE	area e POIN e PIPE	iron Solut	tions	n Lal		GRA A UL C T-1	<b>RU #1</b> D SECTIO 16-S R-33	Area 1 #1 W Wali Area 1 #1 E Wali Area 1 #2 Floor Area 1 #2 Floor @ 2' Area 1 #2 E Wali Area 1 #2 E Wali Are	48 < 80 < 1390 1 304 64 144 1 464 < 464 < 0 GPS	1- 9 10 53 4 10 9.9 1 2.7 2 10 Un and GP H date:	98.4 373 1300 421 (400 1240 181 181 derg spa nee S: 3; 50 H ::1/8/1	<10 41 560 135 302 31.8 groun atiall ed to 2.943 6 KL	Image: A constraint of the second	dowr V: 27 cilitio eld v -103.7	ner: '2 ft es a ed	State re ied.
ELECTR     SAMPLE     SAMPLE     SURFACE	area e POIN e PIPE	iron Solut	tions	n Lal		GRA A UL C T-1	<b>RU #1</b>	Area 1 #1 W Wali Area 1 #1 E Wali Area 1 #2 Floor Area 1 #2 Floor @ 2' Area 1 #2 E Wali Area 1 #2 E Wali Are	48 < 80 < 1390 1 304 69 144 12 464 < 464 < 0 GPS Draw	1- 9 10 53 4 10 9.9 1 2.7 2 10 Un and GP H date: ing d	es.4 373 1300 421 1400 1240 181 181 S: 32 50 1 1/8/11 ate: 2	<10 41 560 135 302 31.8 groun atiall ed to 2.943	Image: A constraint of the second	dowr V: 27 cilitio eld v -103.7	ner: '2 ft es a ed	State re ied.

# TABLES

#### TABLE 1 CONCENTRATIONS OF BENZENE, BTEX, TPH & CHLORIDE IN SOIL

#### GRAND BANKS ENERGY ARU #14 LEA COUNTY, NEW MEXICO NMOCD # - 1RP - 3985

					METHOD: E	PA SW 846	-8021B, 503	0	ME	FHOD: 80	15M		4500 CI-B
SAMPLE LOCATION	SAMPLE DEPTH (BGS)	SAMPLE DATE	SOIL STATUS	(mg/Kg)	TOLUENE (mg/Kg)	ETHYL- BENZENE (mg/Kg)	(mg/Kg)	TOTAL BTEX (mg/Kg)	GRO C <sub>6</sub> -C <sub>10</sub> (mg/Kg)	DRO C <sub>10</sub> -C <sub>28</sub> (mg/Kg)	ORO C <sub>28</sub> -C <sub>35</sub> (mg/Kg)	TPH C <sub>6</sub> -C₃₅ (mg/Kg)	CHLORIDE (mg/Kg)
Initial SP 1 @ 3"	3"	1/8/2016	In-Situ	<0.050	0.7550	1.14	22.4000	24.3000	2110.0	39800.0	NA	41910	1,630
Initial SP 2 @ 3"	3"	1/8/2016	In-Situ	<0.050	<0.050	<0.050	0.2740	<0.300	<10.0	181.0	NA	181	<16.0
Initial SP 3 @ 3"	3"	1/8/2016	In-Situ	<0.050	0.159	0.27	4.02	4.44	55.8	3080.0	NA	3136	<16.0
Initial SP 4 @ 3"	3"	1/8/2016	In-Situ	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	277.0	NA	277	432.0
Initial SP 5 @ 3"	3"	1/8/2016	In-Situ	0.773	25	9.23	107	142	3690.0	29200.0	NA	32890	64.0
Area 1 @ 18"	18"	1/29/2016	In-Situ	NA	NA	NA	NA	NA	<10.0	292.0	43.1	335	528.0
Area 2 @ 18"	18"	1/29/2016	In-Situ	NA	NA	NA	NA	NA	<10.0	255.0	33.8	289	<16.0
Area 4 @ 18"	18"	1/29/2016	In-Situ	NA	NA	NA	NA	NA	<10.0	308.0	34.3	342	48.0
Area 5 @ 18"	18"	1/29/2016	In-Situ	NA	NA	NA	NA	NA	745.0	4010.0	403.0	5158	48.0
Area 5 - N Wall	1'	3/22/2016	In-Situ	NA	NA	NA	NA	NA	<10.0	<10.0	<10.0	0	<16.0
Area 5 - #1 Floor	2'	3/22/2016	In-Situ	NA	NA	NA	NA	NA	<10.0	1500.0	241.0	1741	<16.0
Area 5 - #1 W Wall	1'	3/22/2016	In-Situ	NA	NA	NA	NA	NA	<10.0	<10.0	<10.0	0	<16.0
Area 5 - #1 E Wall	1'	3/22/2016	In-Situ	NA	NA	NA	NA	NA	157.0	11800.0	1820.0	13777	<16.0
Area 5 - #2 Floor	2'	3/22/2016	In-Situ	NA	NA	NA	NA	NA	137.0	4610.0	531.0	5278	<16.0
Area 5 - #2 W Wall	1'	3/22/2016	In-Situ	NA	NA	NA	NA	NA	<10.0	12.5	20.2	33	<16.0
Area 5 - #2 E Wall	1'	3/22/2016	In-Situ	NA	NA	NA	NA	NA	254.0	10300.0	1440.0	11994	<16.0
Area 5 - #3 Floor	2'	3/22/2016	In-Situ	<.050	<.050	0.062	0.862	0.924	20.2	7050.0	1130.0	8200	32.0
Area 5 - #3 E Wall	1'	3/22/2016	In-Situ	NA	NA	NA	NA	NA	123.0	10000.0	1310.0	11433	<16.0
Area 5 - #3 W Wall	1'	3/22/2016	In-Situ	NA	NA	NA	NA	NA	<10.0	280.0	65.6	346	80.0
Area 5 - #4 Floor	2'	3/22/2016	In-Situ	NA	NA	NA	NA	NA	<10.0	2410.0	397.0	2807	48.0
Area 5 - #4 W Wall	1'	3/22/2016	In-Situ	NA	NA	NA	NA	NA	<10.0	212.0	32.0	244	32.0
Area 5 - #4 E Wall	1'	3/22/2016	In-Situ	NA	NA	NA	NA	NA	<10.0	113.0	<10.0	113	<16.0
Area 4 - #1 Floor	2'	3/22/2016	In-Situ	<0.100	<0.100	<0.100	0.465	<0.600	139.0	7470.0	1000.0	8609	64.0
Area 4 - #1 W Wall	1'	3/22/2016	In-Situ	NA	NA	NA	NA	NA	<10.0	1080.0	217.0	1297	112.0
Area 4 - #1 E Wall	1'	3/22/2016	In-Situ	NA	NA	NA	NA	NA	<10.0	19.1	<10.0	19	112.0
Area 4 - #2 Floor	2'	3/22/2016	In-Situ	NA	NA	NA	NA	NA	48.7	3420.0	357.0	3826	160.0
Area 4 - #2 E Wall	1'	3/22/2016	In-Situ	NA	NA	NA	NA	NA	<10.0	280.0	63.6	344	160.0
Area 4 - #2 W Wall	1'	3/22/2016	In-Situ	NA	NA	NA	NA	NA	<10.0	<10.0	<10.0	0	<16.0
Area 4 - #3 Floor	2'	3/22/2016	In-Situ	< 0.050	<0.050	<0.050	<0.150	< 0.300	15.6	3450.0	396.0	3862	224.0
Area 4 - #3 E Wall	1'	3/22/2016	In-Situ	NA	NA	NA	NA	NA	<10.0	80.0	<10.0	80	64.0
Area 4 - #3 W Wall	1'	3/22/2016	In-Situ	NA	NA	NA	NA	NA	<10.0	97.0	11.0	108	64.0
Area 2 - #1 E Wall	1'	3/22/2016	In-Situ	NA	NA	NA	NA	NA	<10.0	217.0	27.6	245	144.0
Area 2 - #1 Floor	2'	3/22/2016	In-Situ	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	2260.0	281.0	2541	272.0
Area 2 - #2 E Wall	1'	3/22/2016	In-Situ	NA	NA	NA	NA	NA	62.5	4130.0	558.0	4751	384.0
Area 2 - #2 Floor	2'	3/22/2016	In-Situ	NA	NA	NA	NA	NA	31.9	1340.0	194.0	1566	208.0
Area 3 - W Wall	1'	3/22/2016	In-Situ	NA	NA	NA	NA	NA	<10.0	406.0	84.7	491	<16.0
Area 3 - #1 Floor	2'	3/22/2016	In-Situ	NA	NA	NA	NA	NA	12.3	2550.0	372.0	2934	<16.0

TABLE 1
CONCENTRATIONS OF BENZENE, BTEX, TPH & CHLORIDE IN SOIL

#### GRAND BANKS ENERGY ARU #14 LEA COUNTY, NEW MEXICO NMOCD # - 1RP - 3985

Area 3 - #1 N Wall	1'	3/22/2016	In-Situ	NA	NA	NA	NA	NA	<10.0	466.0	127.0	593	<16.0
Area 3 - #1 S Wall	1'	3/22/2016	In-Situ	NA	NA	NA	NA	NA	<10.0	343.0	63.1	406	<16.0
Area 3 - #2 Floor	2'	3/22/2016	In-Situ	<1.00	<1.00	<1.00	<3.00	<6.00	103.0	2530.0	301.0	2934	192.0
Area 3 - #2 N Wall	1'	3/22/2016	In-Situ	NA	NA	NA	NA	NA	<10.0	884.0	141.0	1025	48.0
Area 3 - #2 S Wall	1'	3/22/2016	In-Situ	NA	NA	NA	NA	NA	<10.0	337.0	65.9	403	<16.0
Area 3 - #3 Floor	2'	3/22/2016	In-Situ	NA	NA	NA	NA	NA	118.0	3840.0	442.0	4400	432.0
Area 3 - #3 N Wall	1'	3/22/2016	In-Situ	NA	NA	NA	NA	NA	<10.0	2080.0	337.0	2417	144.0
Area 3 - #3 S Wall	1'	3/22/2016	In-Situ	NA	NA	NA	NA	NA	<10.0	172.0	18.3	190	48.0
								1					
Area 1 - #1 Floor	2'	3/24/2016	In-Situ	< 0.050	< 0.050	<0.050	<0.150	< 0.300	<10.0	485.0	49.9	535	272.0
Area 1 - #1 W Wall	1'	3/24/2016	In-Situ	NA	NA	NA	NA	NA	<10.0	98.4	<10.0	98	48.0
Area 1 - #1 E Wall	1'	3/24/2016	In-Situ	NA	NA	NA	NA	NA	<10.0	373.0	41.9	415	80.0
Area 1 - #2 Floor	2'	3/24/2016	In-Situ	<0.100	<0.100	0.123	2.07	2.19	153.0	4300.0	560.0	5013	1,390.0
Area 1 - #2 W Wall	1'	3/24/2016	In-Situ	NA	NA	NA	NA	NA	69.9	1400.0	135.0	1605	304.0
Area 1 - #2 E Wall	1'	3/24/2016	In-Situ	NA	NA	NA	NA	NA	12.7	2240.0	302.0	2555	144.0
Area 1 - S Wall	1'	3/24/2016	In-Situ	NA	NA	NA	NA	NA	<10.0	181.0	31.8	213	464.0
Area 1 - SP #2 - Floor @ 2'	2'	4/7/2016	In-Situ	NA	NA	NA	NA	NA	<10.0	421.0	NA	421	NA
Area 5 - SP #1 - Floor @ 2'	2'	4/7/2016	In-Situ	NA	NA	NA	NA	NA	<10.0	<10.0	NA	<10.0	NA
Area 5 - SP #2 - Floor @ 4'	4'	4/7/2016	In-Situ	NA	NA	NA	NA	NA	<10.0	<10.0	NA	<10.0	NA
Area 5 - SP #3 - Floor @ 6'	6'	4/7/2016	In-Situ	NA	NA	NA	NA	NA	<10.0	<10.0	NA	<10.0	NA
Area 4 - SP #2 - Floor @ 2'	2'	4/7/2016	In-Situ	NA	NA	NA	NA	NA	<10.0	<10.0	NA	<10.0	NA
Area 3 - SP #3 - Floor @ 2'	2'	4/7/2016	In-Situ	NA	NA	NA	NA	NA	<10.0	<10.0	NA	<10.0	NA
Area 5 - SP #1 - East Wall	1'	4/7/2016	In-Situ	NA	NA	NA	NA	NA	<10.0	35.4	<10.0	35	NA
Area 5 - SP #2 - East Wall	1'	4/7/2016	In-Situ	NA	NA	NA	NA	NA	<10.0	438.0	<10.0	438	NA
Area 5 - SP #3 - East Wall	1'	4/7/2016	In-Situ	NA	NA	NA	NA	NA	<10.0	22.1	<10.0	22	NA
								ĺ					
Area #1 SP #1 East Wall	1'	4/27/2016	In-Situ	< 0.050	<0.050	< 0.050	<0.150	< 0.300	<10.0	667.0	97.9	765	640.0
Area #1 SP #1 West Wall	1'	4/27/2016	In-Situ	<0.050	<0.050	<0.050	<0.150	< 0.300	<10.0	271.0	48.5	320	176.0
Area #2 SP #1 East Wall	1'	4/27/2016	In-Situ	<0.050	<0.050	<0.050	<0.150	< 0.300	<10.0	345.0	69.0	414	112.0
Area #2 SP #1 West Wall	1'	4/27/2016	In-Situ	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	1740.0	338.0	2078	112.0
Area #4 SP #1 East Wall	1'	4/27/2016	In-Situ	<0.050	<0.050	<0.050	<0.150	< 0.300	<10.0	581.0	122.0	703	224.0
Area #4 SP #1 West Wall	1'	4/27/2016	In-Situ	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	196.0	32.9	229	48.0
Area #4 SP #2 East Wall	1'	4/27/2016	In-Situ	<0.050	<0.050	<0.050	0.473	0.473	17.0	1940.0	333.0	2290	112.0
Area #4 SP #2 West Wall	1'	4/27/2016	In-Situ	<0.050	<0.050	<0.050	<0.150	< 0.300	<10.0	55.5	15.6	71	80.0
Area #5 SP #1 East Wall	1'	4/27/2016	In-Situ	< 0.050	< 0.050	< 0.050	<0.150	< 0.300	<10.0	19.4	11.1	31	96.0
Area #5 SP #1 West Wall	1'	4/27/2016	In-Situ	< 0.050	< 0.050	< 0.050	< 0.150	< 0.300	<10.0	27.5	<10.0	28	48.0
Area #5 SP #2 East Wall	2'	4/27/2016	In-Situ	< 0.050	< 0.050	< 0.050	<0.150	< 0.300	<10.0	528.0	74.0	602	<16.0
Area #5 SP #2 West Wall	2'	4/27/2016	In-Situ	< 0.050	< 0.050	< 0.050	<0.150	<0.300	<10.0	83.2	<10.0	83	<16.0
Area #5 SP #3 East Wall	3'	4/27/2016	In-Situ	< 0.050	< 0.050	< 0.050	< 0.150	<0.300	<10.0	84.6	12.8	97	16.0
Area #5 SP #3 West Wall	3'	4/27/2016	In-Situ	<0.050	< 0.050	<0.050	<0.150	< 0.300	<10.0	13.7	<10.0	14	48.0
Area #5 SP #4 East Wall	1'	4/27/2016	In-Situ	< 0.050	< 0.050	< 0.050	<0.150	< 0.300	<10.0	473.0	57.2	530	80.0
Area #5 SP #4 West Wall	1'	4/27/2016	In-Situ	< 0.050	< 0.050	<0.050	<0.150	< 0.300	<10.0	112.0	18.2	130	96.0

#### TABLE 1 CONCENTRATIONS OF BENZENE, BTEX, TPH & CHLORIDE IN SOIL

#### GRAND BANKS ENERGY ARU #14 LEA COUNTY, NEW MEXICO NMOCD # - 1RP - 3985

NMOCD Recommended Remediation Action Level	10		50	I I	5000	1.000
Ninood Recommended Remediation Action Level	10		- 50		5000	1,000
NA - Not applyzed						

NA = Not analyzed.

# APPENDICES

# APPENDIX – A C-141

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 = accordance with 19.15.29 NMAC.

			Rele	ase Notific	ation	and Co	rrective A	ction				
	44-16-16-16-16-16-16-16-16-16-16-16-16-16-					<b>OPERA</b>			🗌 Initia	al Report	X I	Final Report
							n Kimberly					
			JE, Mid	land, 1X /9/05		Felephone N	e: Oil Flow Lin	0				
				1			e. On Plow Lin	C	•			
Surface Own	ner: NMS	LO		Mineral O	wner: 1	MSLO			API No	. 30-025-0	00365	
	LC T Section Township Range Section 20 Latitude Latitude Latitude Release: Crude Oil Release: New surface poly flow line ediate Notice Given? Yes No No No ? Pumper Area Affected and Cleanup Action Taken.* the weld failed, causing the release. System was shut Area Affected and Cleanup Action Taken.* the weld failed, causing the release. System was shut Area Affected and Cleanup Action Taken.* the weld failed, causing the release. System was shut the weld failed, causing the release. System was shut Area Affected and Cleanup Action Taken.* the weld failed, causing the release. System was shut the conducive for germination. ertify that the information given above is true and or s all operators are required to report and/or file cer- th or the environment. The acceptance of a C-141 bir operations have failed to adequately investigate ironment. In addition, NMOCD acceptance of a C-141 bir operations have failed to adequately investigate ironment. In addition, NMOCD acceptance of a C-141 bir operations have failed to adequately investigate ironment. In addition, NMOCD acceptance of a C-141 bir operations have failed to adequately investigate ironment. In addition, NMOCD acceptance of a C-141 bir operations have failed to adequately investigate ironment. In addition, NMOCD acceptance of a C-141 bir operations have failed to adequately investigate ironment. In addition, NMOCD acceptance of a C-141 bir operations have failed to adequately investigate ironment. In addition, NMOCD acceptance of a C-141 bir operations have failed to adequately investigate ironment. In addition, NMOCD acceptance of a C-141 bir operations have failed to adequately investigate ironment. Job An E. Kirmbertly Resident Meres: Jek 37738@gmail.com				OF REI	LEASE						
Unit Letter I	S		1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	Feet from the 20	North/South	South Line	Feet from the 660	East/V East	Vest Line	County	Lea	
				Latitude: 32.	943974	Longitude	<b>:</b> -103.734328					
				NAT	URE	OF RELI						
			low line				Release: 75 bbls our of Occurrenc		Volume R			
Source of Rei	case. New	surface pory r	low line			1 I I I I I I I I I I I I I I I I I I I	or 30-2015	e:	2015 - 9 = 2000 - 2000		scovery: (	October 30,
Was Immedia	te Notice (		Yes 📋	No 🛛 Not Re	quired	If YES, To N/A	Whom?			_		
By Whom? F							our: Same as abo					
Was a Watero	ourse Read	hed?	Ves 🕅	No		If YES, Vo	lume Impacting t	he Wate	crcourse.			
If a Wata-agu							APPRO	OVF	D			
II a watercou	rse was Im	pacted, Descri	be Fully.*				By Olivi			8 pm, .	Jun 2a	8, 2017
Describe Area Approximatel backfilled wit	a Affected a y 600'X75 h clean, no	and Cleanup A ' of area impa n-impacted so	Action Tak cted. Area il and con	en.* was excavated do	own to a	pproximately	4' in some areas	. Once r	emediation r approved	was comp non-invasi	lete, area ve, non-no	was
I hereby certific regulations all public health should their of or the environ federal, state,	by that the in l operators or the envir perations h ment. In a	nformation gir are required to onment. The ave failed to a ddition, NMO	ven above o report ar acceptance dequately CD accep	d/or file certain re e of a C-141 report investigate and re	lease no t by the mediate	NMOCD ma contamination	d perform correc urked as "Final Re on that pose a thre	tive acti eport" d eat to gr	ons for rele oes not reli ound water	eases which eve the ope surface w	n may end crator of li rater, hum	anger ability an health
Signature:	S. 1	h.	L	1	A	Approved by	OIL CONS				<u>ON</u>	
Printed Name	John	1 E. f	cimb	erly						Ø		
Title: <b>P</b>				,		Approval Date	6/28/201	7 <sub>I</sub>	Expiration I	Date: XX/X	xx/xxxx	
E-mail Addres	ss: jek	37386	) gmai	.com	(	Conditions of	Approval:			Attached	1 🗌	
Date: 12 Attach Addit	ional Shee	ts If Necess	ne: <b>432</b> arv	682 104	F	3						
							1RP	-3985	5			

# APPENDIX – B Photo Documentation

# Grand Banks Energy – ARU #144 Unit Letter I, Section 2, T16S, R32E



Release area, facing north

1/8/16



Excavation, facing north

4/14/16



Initial release area, facing south

1/8/16



Excavation, facing northeast

4/14/16



Excavation, facing southwest

4/14/16



Backfilling, facing northwest

5/13/16



Backfilling, facing north



Site complete, facing north

5/23/16

# APPENDIX – C Analytical Reports



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 <a href="https://www.tceq.texas.gov/field/ga/lab\_accred\_certif.html">www.tceq.texas.gov/field/ga/lab\_accred\_certif.html</a>.

Cardinal Laboratories is accreditated 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. Keine

Celey D. Keene Lab Director/Quality Manager



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

Received:	01/12/2016	Sampling Date:	01/08/2016
Reported:	01/18/2016	Sampling Type:	Soil
Project Name:	GRAND BANKS A. D.	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	NOT GIVEN		

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

BTEX 8021B	mg/	/kg	Analyze	d 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 BTEX	24.3	3.00	01/15/2016	ND					
Surrogate: 4-Bromofluorobenzene (PID	107 9	% 73.6-14	0						
Chloride, SM4500Cl-B	mg/	/kg	Analyze	d 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	Analyze	d 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 9	% 35-147	7						
Surrogate: 1-Chlorooctadecane	1070	% 28-171	,						

#### **Cardinal Laboratories**

\*=Accredited Analyte

Celeg D. Keine

Celey D. Keene, Lab Director/Quality Manager



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

Received:	01/12/2016	Sampling Date:	01/08/2016
Reported:	01/18/2016	Sampling Type:	Soil
Project Name:	GRAND BANKS A. D.	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	NOT GIVEN		

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

BTEX 8021B	mg/	kg	Analyze	d 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 9	73.6-14	0						
Chloride, SM4500Cl-B	mg/	kg	Analyze	d 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	Analyze	d 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 9	28-171							

#### **Cardinal Laboratories**

\*=Accredited Analyte

Celez D. Keine

Celey D. Keene, Lab Director/Quality Manager



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

Received:	01/12/2016	Sampling Date:	01/08/2016
Reported:	01/18/2016	Sampling Type:	Soil
Project Name:	GRAND BANKS A. D.	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	NOT GIVEN		

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

BTEX 8021B	mg,	/kg	Analyze	d 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 BTEX	4.44	0.300	01/12/2016	ND					
Surrogate: 4-Bromofluorobenzene (PID	110 9	% 73.6-14	0						
Chloride, SM4500Cl-B	mg/	/kg	Analyze	d 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	Analyze	d 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	7						
Surrogate: 1-Chlorooctadecane	141	% 28-171							

#### Cardinal Laboratories

\*=Accredited Analyte

Celeg D. Keine

Celey D. Keene, Lab Director/Quality Manager



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

Received:	01/12/2016	Sampling Date:	01/08/2016
Reported:	01/18/2016	Sampling Type:	Soil
Project Name:	GRAND BANKS A. D.	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	NOT GIVEN		

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

BTEX 8021B	mg/	kg	Analyze	d 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 BTEX	<0.300	0.300	01/12/2016	ND					
Surrogate: 4-Bromofluorobenzene (PID	106 9	73.6-14	0						
Chloride, SM4500Cl-B	mg/	'kg	Analyze	d 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	Analyze	d 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							

#### **Cardinal Laboratories**

\*=Accredited Analyte

Celeg D. Keine

Celey D. Keene, Lab Director/Quality Manager



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

Received:	01/12/2016	Sampling Date:	01/08/2016
Reported:	01/18/2016	Sampling Type:	Soil
Project Name:	GRAND BANKS A. D.	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	NOT GIVEN		

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

BTEX 8021B	mg/	′kg	Analyze	d 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 9	% 73.6-14	0						
Chloride, SM4500Cl-B	mg/	′kg	Analyze	d 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	Analyze	d 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 9	% 35-147	7						
Surrogate: 1-Chlorooctadecane	730 9	% 28-171	,						

#### Cardinal Laboratories

\*=Accredited Analyte

Celeg D. Keine

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

Celeg D. Keine

Celey D. Keene, Lab Director/Quality Manager

Company Name:	(505) 393-2326	, Hobbs, NM 88240 ; FAX (505) 393-2476 ; FAX (505) 393-2476 ;	40	2111 Beechwood, Abilene, TX 79603 (325) 673-7001 FAX (325)673-7020 BILL TO	2 March 194				ANALYSIS		REQUEST	EST			
Project Manager:			Ĵ	P.O. #:		-			_		_	_			
Address:				Company: Basit					IS				,		
city: Hobbs		State: NM	Zip: 88240	Attn:					ior	_	_				
Phone #:		Fax #:		Address:					٩n		-				
Project #:		Project Owner:	a	City:	s			Н	s//		_				-
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Project Location:	: Grand Bank	KS A.I	.0	Phone #:	prio	-	TE.	s	-	DS	_		-		
Sampler Name:	Karania L	ewis		Fax #:	hlo		B	xa	-	Т	_	-			
FOR LAB USE ONLY	5		AP. MATRIX	PRESERV SAM	SAMPLING	TPI		Те	ete		-				
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	Т			Comple						
2-	Sample	A. 10.3"	1	- 1-8-16	-	11	11			+	+	+	+		T
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enalyses. All claims including service. In no event shall Ca affiliates or successors arisin	TC-ASE NOTE: Listenty and centrages. Certains a security and central analyses, All claims including those for negligence and any other ca service. In no event shall Cardinal be lisble for incidental or consequent anticiaes or successors arisino out of or related to the performance or attigates.	use whatsoever shall be use whatsoever shall be usetel damages, includin f services heraunder by (	any camp ensure unless made in writin dearned walved unless made in writin g without ilmitation, business interrupil Cardinal, recardless of whether such o	PLCASE WVI E: Liability and usining and usining and using and using a substrate drawing interval waters and and using an order of a substrate analyses. All claims including those for negligence and any other cause whichever shall be dearned waived in whiting and reacived by Certified within 30 of the substrate analyses. All claims including those for negligence and any other cause whichever shall be dearned waived in whiting and reacived by Certified within 30 of the substrate analyses. All claims including those for negligence and any other cause whichever shall be dearned waived in whiting and reacived by Certified by effect cause whichever is half be dearned waived in the substrate and including within 30 of use, to see of profile incurring by clean, it is substrated to any other substrates and any other	a efter completion of the appl by client, its subskillaries. I freesons or otherwise.	cable									
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Relinquished By:		Date: Time:	Received By:		jkamplain@basinenv.com	alts:	Desin	env.	Com						
Delivered By: (Circle One) Sampler - UPS - Bus - Other	(Circle One) - Bus - Other:	-9	8.60 Sample Condition	No CHECKED BY:	Knorman@basinend.com	eba	basin env.com Blasinenv.co	W.CON	OW						

t Cardinal cannot accept verbal changes. Please fax written changes to 505-393-2416



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 <a href="https://www.tceq.texas.gov/field/ga/lab\_accred\_certif.html">www.tceq.texas.gov/field/ga/lab\_accred\_certif.html</a>.

Cardinal Laboratories is accreditated 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. Keine

Celey D. Keene Lab Director/Quality Manager



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	Analyze	d 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	Analyze	d 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	
DR0 >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					
Surrogate: 1-Chlorooctane	81.7	% 35-147	7						
Surrogate: 1-Chlorooctadecane	86.3	% 28-171							

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

Chloride, SM4500Cl-B	mg,	/kg	Analyze	d 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	Analyze	d 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					
Surrogate: 1-Chlorooctane	83.2	% 35-147	,						
Surrogate: 1-Chlorooctadecane	89.3	% 28-171							

#### **Cardinal Laboratories**

#### \*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the sample identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celeg D. Keine

Celey D. Keene, Lab Director/Quality Manager



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	Analyze	d 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	Analyze	d 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	
DR0 >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	Analyze	d 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	Analyze	d 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 9	% 35-147	,						
Surrogate: 1-Chlorooctadecane	128 9	28-171							

#### **Cardinal Laboratories**

#### \*=Accredited Analyte

Celeg D. Keine

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

#### Cardinal Laboratories

#### \*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the sample identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celeg D. Keine

Celey D. Keene, Lab Director/Quality Manager

-	Basin Environmental Service Technologies, LLC	gies, LLC	17/6	BILL TO				ANALYSIS REQUEST
Project Manager: Ben Arguijo			P.O. #:					
Bo			Company:	BASIN		-		
8	State: NM	Zip: 88260	Attn:			1		
*	Fax #: (575)396-1429	6-1429	Address:			-	D	
÷.	Project Owner:		City:		1	(N	-	
Project Name:			State: NM Z	Zip: 88220		-	-	
Project Location: GRAND BANKS ARU #14	(S ARU #14		Phone #:		hlor	(80	-	
Sampler Name: Steve Talyor			Fax #:		Cł	-	_	
FOR LAB USE ONLY		AP. MATRIX	PRESERV.	SAMPLING		-	BTE	
Lab I.D. Samp	Sample I.D. <b>F</b>	(G)RAB OR (C)ON # CONTAINERS GROUNDWATER WASTEWATER SOIL OIL	SLUDGE OTHER : ACID/BASE: ICE / COOL OTHER :	DATE	TIME			
00 # 4 0 40"	An 10/811	1 0 0 0	×	6	9:00 X	×	×	
5	18/ 1/2/1	-			10:00 X	-	X X	
SP#3@18"	649			1/29/2016	+	+	+	
	Ancas 519"	G 1 X	×	1/29/2016	12:00	×	×	
PLEASE NOTE: Lability and Damagos. Cardinal's lability and client's analyzes. All claims including those for megigenose and any other causes analyzes.	clerrt's exclusive remody for a r cause whatscewer shall be d	aim arising whether based in cont ed waived unless made in writing put limitation, business interruption	rad; or lost, shall be limited to the amount paid by the cleart for the and received by Cardinal within 30 days after completion of the ep ex, loss of use, or loss of profils incurred by cleart, its subsidiaries,	# 10 F	e client for the letion of the applicable a subsidiaries,			
affiliates or successors anising out of or related to the performant of the performance o	nce of services hereusder by	Received By:	such claim is based upon any of the above st	9	Phone Result: Fax Result:	- 1 -	D Yes D	No Add'l Phone #: No Add'l Fax #:
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Beilvered By: (Circle One) Sampler - UPS - Bus - Other:	- 10	Sample Cool	Condition CHECKED BY: Intacts (Intention)		tsan	ple	IDS C	hanged as per labbic. 2/19/16
FORM-006 Revision 1.0		+ Cardinal cannot accept verbal changes. Please fax written changes to 575-393-2476	cept verbal change	s. Please fax	written ch	anges	to 575-39:	3-2476

Page 5 of 5

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March 30, 2016

ROBBIE RUNNELS 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 03/23/16 10:35.

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 <a href="https://www.tceq.texas.gov/field/ga/lab\_accred\_certif.html">www.tceq.texas.gov/field/ga/lab\_accred\_certif.html</a>.

Cardinal Laboratories is accreditated 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. Keine

Celey D. Keene Lab Director/Quality Manager



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

Received:	03/23/2016	Sampling Date:	03/22/2016
Reported:	03/30/2016	Sampling Type:	Soil
Project Name:	GRAND BANKS ARU #14	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	LEA COUNTY, NM		

#### Sample ID: AREA 5 - N WALL (H600621-01)

mg/	/kg	Analyze	d By: AP					
Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
<16.0	16.0	03/23/2016	ND	416	104	400	0.00	
mg/	/kg	Analyze	d By: CK					
Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
<10.0	10.0	03/23/2016	ND	203	101	200	4.31	
<10.0	10.0	03/23/2016	ND	215	108	200	14.0	
<10.0	10.0	03/23/2016	ND					
97.0	% 35-147	,						
107 9	% 28-171							
	Result <16.0 mg, Result <10.0 <10.0 <10.0 97.0	<16.0 16.0 mg/kg Result Reporting Limit <10.0 10.0 <10.0 10.0 <10.0 10.0 97.0 % 35-147	Result         Reporting Limit         Analyzed           <16.0	Result         Reporting Limit         Analyzed         Method Blank           <16.0	Result         Reporting Limit         Analyzed         Method Blank         BS           <16.0	Result         Reporting Limit         Analyzed         Method Blank         BS         % Recovery           <16.0	Result         Reporting Limit         Analyzed         Method Blank         BS         % Recovery         True Value QC           <16.0	Result         Reporting Limit         Analyzed         Method Blank         BS         % Recovery         True Value QC         RPD           <16.0

#### **Cardinal Laboratories**

\*=Accredited Analyte

Celeg D. Keine

Celey D. Keene, Lab Director/Quality Manager


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Received:	03/23/2016	Sampling Date:	03/22/2016
Reported:	03/30/2016	Sampling Type:	Soil
Project Name:	GRAND BANKS ARU #14	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	LEA COUNTY, NM		

#### Sample ID: AREA 5 - # 1 FLOOR (H600621-02)

BTEX 8021B	mg,	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	03/24/2016	ND	2.00	99.9	2.00	3.95	
Toluene*	<0.050	0.050	03/24/2016	ND	1.93	96.5	2.00	4.58	
Ethylbenzene*	<0.050	0.050	03/24/2016	ND	1.71	85.6	2.00	5.45	
Total Xylenes*	<0.150	0.150	03/24/2016	ND	5.26	87.7	6.00	5.58	
Total BTEX	<0.300	0.300	03/24/2016	ND					
Surrogate: 4-Bromofluorobenzene (PID	100 9	% 73.6-14	0						
Chloride, SM4500Cl-B	mg/	/kg	Analyze	d By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	<16.0	16.0	03/23/2016	ND	416	104	400	0.00	
TPH 8015M	mg/	/kg	Analyze	d By: CK					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	03/23/2016	ND	203	101	200	4.31	
DRO >C10-C28	1500	10.0	03/23/2016	ND	215	108	200	14.0	
EXT DRO >C28-C35	241	10.0	03/23/2016	ND					
Surrogate: 1-Chlorooctane	93.1	% 35-147	7						
Surrogate: 1-Chlorooctadecane	119 9	28-171							

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Received:	03/23/2016	Sampling Date:	03/22/2016
Reported:	03/30/2016	Sampling Type:	Soil
Project Name:	GRAND BANKS ARU #14	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	LEA COUNTY, NM		

#### Sample ID: AREA 5 - #1 W WALL (H600621-03)

Chloride, SM4500Cl-B	mg,	/kg	Analyze	d By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	<16.0	16.0	03/23/2016	ND	416	104	400	0.00	
TPH 8015M	mg	/kg	Analyze	d By: CK					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	03/23/2016	ND	203	101	200	4.31	
DRO >C10-C28	<10.0	10.0	03/23/2016	ND	215	108	200	14.0	
EXT DRO >C28-C35	<10.0	10.0	03/23/2016	ND					
Surrogate: 1-Chlorooctane	93.0	% 35-147	,						
Surrogate: 1-Chlorooctadecane	101	% 28-171							

## Sample ID: AREA 5 - #1 E WALL (H600621-04)

Chloride, SM4500Cl-B	mg,	/kg	Analyze	d By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	<16.0	16.0	03/23/2016	ND	432	108	400	3.77	
TPH 8015M	mg,	/kg	Analyze	d By: CK					S-04
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	157	10.0	03/23/2016	ND	203	101	200	4.31	
DR0 >C10-C28	11800	10.0	03/23/2016	ND	215	108	200	14.0	
EXT DRO >C28-C35	1820	10.0	03/23/2016	ND					
Surrogate: 1-Chlorooctane	141	% 35-147	,						
Surrogate: 1-Chlorooctadecane	381	% 28-171							

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Received:	03/23/2016	Sampling Date:	03/22/2016
Reported:	03/30/2016	Sampling Type:	Soil
Project Name:	GRAND BANKS ARU #14	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	LEA COUNTY, NM		

#### Sample ID: AREA 5 - #2 FLOOR (H600621-05)

Chloride, SM4500Cl-B	mg,	/kg	Analyze	d By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	<16.0	16.0	03/23/2016	ND	432	108	400	3.77	
TPH 8015M	mg,	/kg	Analyze	d By: CK					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	137	10.0	03/23/2016	ND	203	101	200	4.31	
DRO >C10-C28	4610	10.0	03/23/2016	ND	215	108	200	14.0	
EXT DRO >C28-C35	531	10.0	03/23/2016	ND					
Surrogate: 1-Chlorooctane	126	% 35-147	,						
Surrogate: 1-Chlorooctadecane	153	% 28-171							

## Sample ID: AREA 5 - #2 W WALL (H600621-06)

Chloride, SM4500Cl-B	mg	/kg	Analyze	d By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	<16.0	16.0	03/23/2016	ND	432	108	400	3.77	
TPH 8015M	mg	/kg	Analyze	d By: CK					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	03/23/2016	ND	203	101	200	4.31	
DRO >C10-C28	12.5	10.0	03/23/2016	ND	215	108	200	14.0	
EXT DRO >C28-C35	20.2	10.0	03/23/2016	ND					
Surrogate: 1-Chlorooctane	99.5	% 35-147	,						
Surrogate: 1-Chlorooctadecane	101	% 28-171							

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Received:	03/23/2016	Sampling Date:	03/22/2016
Reported:	03/30/2016	Sampling Type:	Soil
Project Name:	GRAND BANKS ARU #14	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	LEA COUNTY, NM		

#### Sample ID: AREA 5 - #2 E WALL (H600621-07)

mg/kg		Analyzed By: AP						
Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
<16.0	16.0	03/23/2016	ND	432	108	400	3.77	
mg/	′kg	Analyze	d By: CK					S-04
Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
254	10.0	03/23/2016	ND	203	101	200	4.31	
10300	10.0	03/23/2016	ND	215	108	200	14.0	
1440	10.0	03/23/2016	ND					
168 9	% 35-147	,						
275 9	28-171							
	Result <16.0 mg/ Result 254 10300 1440	Result         Reporting Limit           <16.0	Result         Reporting Limit         Analyzed           <16.0	Result         Reporting Limit         Analyzed         Method Blank           <16.0	Result         Reporting Limit         Analyzed         Method Blank         BS           <16.0	Result       Reporting Limit       Analyzed       Method Blank       BS       % Recovery         <16.0	Result         Reporting Limit         Analyzed         Method Blank         BS         % Recovery         True Value QC           <16.0	Result         Reporting Limit         Analyzed         Method Blank         BS         % Recovery         True Value QC         RPD           <16.0

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Celez D. Keine

Celey D. Keene, Lab Director/Quality Manager



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Received:	03/23/2016	Sampling Date:	03/22/2016
Reported:	03/30/2016	Sampling Type:	Soil
Project Name:	GRAND BANKS ARU #14	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	LEA COUNTY, NM		

#### Sample ID: AREA 5 - #3 FLOOR (H600621-08)

BTEX 8021B	mg	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	03/24/2016	ND	2.00	99.9	2.00	3.95	
Toluene*	<0.050	0.050	03/24/2016	ND	1.93	96.5	2.00	4.58	
Ethylbenzene*	0.062	0.050	03/24/2016	ND	1.71	85.6	2.00	5.45	
Total Xylenes*	0.862	0.150	03/24/2016	ND	5.26	87.7	6.00	5.58	
Total BTEX	0.924	0.300	03/24/2016	ND					
Surrogate: 4-Bromofluorobenzene (PID	101	% 73.6-14	0						
Chloride, SM4500Cl-B	mg	/kg	Analyze	d By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	32.0	16.0	03/23/2016	ND	432	108	400	3.77	
TPH 8015M	mg	/kg	Analyze	d By: CK					S-04
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	20.2	10.0	03/23/2016	ND	203	101	200	4.31	
DRO >C10-C28	7050	10.0	03/23/2016	ND	215	108	200	14.0	
EXT DRO >C28-C35	1130	10.0	03/23/2016	ND					
Surrogate: 1-Chlorooctane	97.3	% 35-147	,						
Surrogate: 1-Chlorooctadecane	224	% 28-171							

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Received:	03/23/2016	Sampling Date:	03/22/2016
Reported:	03/30/2016	Sampling Type:	Soil
Project Name:	GRAND BANKS ARU #14	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	LEA COUNTY, NM		

#### Sample ID: AREA 5 - #3 E WALL (H600621-09)

Chloride, SM4500Cl-B	mg,	/kg	Analyze	d By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	<16.0	16.0	03/23/2016	ND	432	108	400	3.77	
TPH 8015M	mg,	/kg	Analyze	d By: CK					S-04
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	123	10.0	03/23/2016	ND	199	99.4	200	6.46	
DRO >C10-C28	10000	10.0	03/23/2016	ND	189	94.3	200	0.437	
EXT DRO >C28-C35	1310	10.0	03/23/2016	ND					
Surrogate: 1-Chlorooctane	157	% 35-147	,						
Surrogate: 1-Chlorooctadecane	299	% 28-171							

# Sample ID: AREA 5 - #3 W WALL (H600621-10)

Chloride, SM4500Cl-B	mg	/kg	Analyze	d By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	80.0	16.0	03/23/2016	ND	432	108	400	3.77	
TPH 8015M	mg	/kg	Analyze	d By: CK					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	03/23/2016	ND	199	99.4	200	6.46	
DRO >C10-C28	280	10.0	03/23/2016	ND	189	94.3	200	0.437	
EXT DRO >C28-C35	65.6	10.0	03/23/2016	ND					
Surrogate: 1-Chlorooctane	104	% 35-147	7						
Surrogate: 1-Chlorooctadecane	109	% 28-171							

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Received:	03/23/2016	Sampling Date:	03/22/2016
Reported:	03/30/2016	Sampling Type:	Soil
Project Name:	GRAND BANKS ARU #14	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	LEA COUNTY, NM		

#### Sample ID: AREA 5 - #4 FLOOR (H600621-11)

Chloride, SM4500Cl-B	mg	/kg	Analyze	d By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	48.0	16.0	03/23/2016	ND	432	108	400	3.77	
TPH 8015M	mg,	/kg	Analyze	d By: CK					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	03/24/2016	ND	199	99.4	200	6.46	
DRO >C10-C28	2410	10.0	03/24/2016	ND	189	94.3	200	0.437	
EXT DRO >C28-C35	397	10.0	03/24/2016	ND					
Surrogate: 1-Chlorooctane	83.5	% 35-147	,						
Surrogate: 1-Chlorooctadecane	129	% 28-171							

# Sample ID: AREA 5 - #4 W WALL (H600621-12)

Chloride, SM4500Cl-B	mg	/kg	Analyze	d By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	32.0	16.0	03/23/2016	ND	432	108	400	3.77	
TPH 8015M	mg	/kg	Analyze	d By: CK					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	03/24/2016	ND	199	99.4	200	6.46	
DRO >C10-C28	212	10.0	03/24/2016	ND	189	94.3	200	0.437	
EXT DRO >C28-C35	32.0	10.0	03/24/2016	ND					
Surrogate: 1-Chlorooctane	100	% 35-147	7						
Surrogate: 1-Chlorooctadecane	115	28-171							

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Received:	03/23/2016	Sampling Date:	03/22/2016
Reported:	03/30/2016	Sampling Type:	Soil
Project Name:	GRAND BANKS ARU #14	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	LEA COUNTY, NM		

#### Sample ID: AREA 5 - #4 E WALL (H600621-13)

Chloride, SM4500CI-B	mg/kg		Analyze	Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	<16.0	16.0	03/23/2016	ND	432	108	400	3.77	
TPH 8015M	mg/	/kg	Analyze	d By: CK					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	03/24/2016	ND	199	99.4	200	6.46	
DR0 >C10-C28	113	10.0	03/24/2016	ND	189	94.3	200	0.437	
EXT DRO >C28-C35	<10.0	10.0	03/24/2016	ND					
Surrogate: 1-Chlorooctane	90.9	% 35-147							
Surrogate: 1-Chlorooctadecane	112 9	% 28-171							

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Received:	03/23/2016	Sampling Date:	03/22/2016
Reported:	03/30/2016	Sampling Type:	Soil
Project Name:	GRAND BANKS ARU #14	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	LEA COUNTY, NM		

#### Sample ID: AREA 4 - #1 FLOOR (H600621-14)

BTEX 8021B	mg,	′kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.100	0.100	03/24/2016	ND	2.00	99.9	2.00	3.95	
Toluene*	<0.100	0.100	03/24/2016	ND	1.93	96.5	2.00	4.58	
Ethylbenzene*	<0.100	0.100	03/24/2016	ND	1.71	85.6	2.00	5.45	
Total Xylenes*	0.465	0.300	03/24/2016	ND	5.26	87.7	6.00	5.58	
Total BTEX	<0.600	0.600	03/24/2016	ND					
Surrogate: 4-Bromofluorobenzene (PID	106	% 73.6-14	0						
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	03/23/2016	ND	432	108	400	3.77	
TPH 8015M	mg/	′kg	Analyze	d By: CK					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	139	10.0	03/24/2016	ND	199	99.4	200	6.46	
DRO >C10-C28	7470	10.0	03/24/2016	ND	189	94.3	200	0.437	
EXT DRO >C28-C35	1000	10.0	03/24/2016	ND					
Surrogate: 1-Chlorooctane	201	% 35-147	,						
Surrogate: 1-Chlorooctadecane	436	28-171							

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Received:	03/23/2016	Sampling Date:	03/22/2016
Reported:	03/30/2016	Sampling Type:	Soil
Project Name:	GRAND BANKS ARU #14	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	LEA COUNTY, NM		

#### Sample ID: AREA 4 - #1 W WALL (H600621-15)

Chloride, SM4500Cl-B	mg	/kg	Analyze	d By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	112	16.0	03/23/2016	ND	432	108	400	3.77	
TPH 8015M	mg,	/kg	Analyze	d By: CK					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	03/24/2016	ND	199	99.4	200	6.46	
DRO >C10-C28	1080	10.0	03/24/2016	ND	189	94.3	200	0.437	
EXT DRO >C28-C35	217	10.0	03/24/2016	ND					
Surrogate: 1-Chlorooctane	96.2	% 35-147							
Surrogate: 1-Chlorooctadecane	123	% 28-171							

## Sample ID: AREA 4 - #1 E WALL (H600621-16)

Chloride, SM4500Cl-B	mg	/kg	Analyze	d By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	112	16.0	03/23/2016	ND	432	108	400	3.77	
TPH 8015M	mg	/kg	Analyze	d By: CK					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	03/24/2016	ND	199	99.4	200	6.46	
DR0 >C10-C28	19.1	10.0	03/24/2016	ND	189	94.3	200	0.437	
EXT DRO >C28-C35	<10.0	10.0	03/24/2016	ND					
Surrogate: 1-Chlorooctane	97.4	% 35-147	,						
Surrogate: 1-Chlorooctadecane	104	% 28-171							

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#### \*=Accredited Analyte

Celeg D. Keine

Celey D. Keene, Lab Director/Quality Manager



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

Received:	03/23/2016	Sampling Date:	03/22/2016
Reported:	03/30/2016	Sampling Type:	Soil
Project Name:	GRAND BANKS ARU #14	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	LEA COUNTY, NM		

#### Sample ID: AREA 4 - #2 FLOOR (H600621-17)

Chloride, SM4500Cl-B	mg,	/kg	Analyze	d By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	160	16.0	03/23/2016	ND	432	108	400	3.77	
TPH 8015M	mg,	/kg	Analyze	d By: CK					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	48.7	10.0	03/24/2016	ND	199	99.4	200	6.46	
DRO >C10-C28	3420	10.0	03/24/2016	ND	189	94.3	200	0.437	
EXT DRO >C28-C35	357	10.0	03/24/2016	ND					
Surrogate: 1-Chlorooctane	117	% 35-147	,						
Surrogate: 1-Chlorooctadecane	156	% 28-171							

## Sample ID: AREA 4 - #2 E WALL (H600621-18)

Chloride, SM4500Cl-B	mg,	/kg	Analyze	d By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	160	16.0	03/23/2016	ND	432	108	400	3.77	
TPH 8015M	mg,	/kg	Analyze	d By: CK					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	03/24/2016	ND	199	99.4	200	6.46	
DRO >C10-C28	280	10.0	03/24/2016	ND	189	94.3	200	0.437	
EXT DRO >C28-C35	63.6	10.0	03/24/2016	ND					
Surrogate: 1-Chlorooctane	105	% 35-147	,						
Surrogate: 1-Chlorooctadecane	116	% 28-171							

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Celey D. Keene, Lab Director/Quality Manager



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

Received:	03/23/2016	Sampling Date:	03/22/2016
Reported:	03/30/2016	Sampling Type:	Soil
Project Name:	GRAND BANKS ARU #14	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	LEA COUNTY, NM		

#### Sample ID: AREA 4 - #2 W WALL (H600621-19)

Chloride, SM4500Cl-B	mg,	/kg	Analyze	d By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	<16.0	16.0	03/23/2016	ND	432	108	400	3.77	
TPH 8015M	mg,	/kg	Analyze	d By: CK					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	03/24/2016	ND	199	99.4	200	6.46	
DRO >C10-C28	<10.0	10.0	03/24/2016	ND	189	94.3	200	0.437	
EXT DRO >C28-C35	<10.0	10.0	03/24/2016	ND					
Surrogate: 1-Chlorooctane	91.5	% 35-147	,						
Surrogate: 1-Chlorooctadecane	104	% 28-171							

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Celey D. Keene, Lab Director/Quality Manager



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Received:	03/23/2016	Sampling Date:	03/22/2016
Reported:	03/30/2016	Sampling Type:	Soil
Project Name:	GRAND BANKS ARU #14	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	LEA COUNTY, NM		

#### Sample ID: AREA 4 - #3 FLOOR (H600621-20)

BTEX 8021B	mg,	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	03/24/2016	ND	2.00	99.9	2.00	3.95	
Toluene*	<0.050	0.050	03/24/2016	ND	1.93	96.5	2.00	4.58	
Ethylbenzene*	<0.050	0.050	03/24/2016	ND	1.71	85.6	2.00	5.45	
Total Xylenes*	<0.150	0.150	03/24/2016	ND	5.26	87.7	6.00	5.58	
Total BTEX	<0.300	0.300	03/24/2016	ND					
Surrogate: 4-Bromofluorobenzene (PID	101	% 73.6-14	0						
Chloride, SM4500Cl-B	mg/	/kg	Analyze	d By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	224	16.0	03/23/2016	ND	432	108	400	3.77	
TPH 8015M	mg/	/kg	Analyze	d By: CK					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	15.6	10.0	03/24/2016	ND	199	99.4	200	6.46	
DRO >C10-C28	3450	10.0	03/24/2016	ND	189	94.3	200	0.437	
EXT DRO >C28-C35	396	10.0	03/24/2016	ND					
Surrogate: 1-Chlorooctane	101	% 35-147	,						
Surrogate: 1-Chlorooctadecane	145	% 28-171							

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Celeg D. Keine

Celey D. Keene, Lab Director/Quality Manager



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Received:	03/23/2016	Sampling Date:	03/22/2016
Reported:	03/30/2016	Sampling Type:	Soil
Project Name:	GRAND BANKS ARU #14	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	LEA COUNTY, NM		

#### Sample ID: AREA 4 - #3 E WALL (H600621-21)

Chloride, SM4500Cl-B	mg/	/kg	Analyze	d By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	64.0	16.0	03/23/2016	ND	432	108	400	3.77	
TPH 8015M	mg,	/kg	Analyze	d By: CK					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	03/24/2016	ND	199	99.4	200	6.46	
DRO >C10-C28	80.0	10.0	03/24/2016	ND	189	94.3	200	0.437	
EXT DRO >C28-C35	<10.0	10.0	03/24/2016	ND					
Surrogate: 1-Chlorooctane	95.5	% 35-147							
Surrogate: 1-Chlorooctadecane	118 9	28-171							

## Sample ID: AREA 4 - #3 W WALL (H600621-22)

Chloride, SM4500Cl-B	mg/	′kg	Analyze	d By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	64.0	16.0	03/23/2016	ND	432	108	400	3.77	
TPH 8015M	mg,	′kg	Analyze	d By: CK					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	03/24/2016	ND	199	99.4	200	6.46	
DRO >C10-C28	97.0	10.0	03/24/2016	ND	189	94.3	200	0.437	
EXT DRO >C28-C35	11.0	10.0	03/24/2016	ND					
Surrogate: 1-Chlorooctane	102	% 35-147							
Surrogate: 1-Chlorooctadecane	121	28-171							

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Celeg D. Keine

Celey D. Keene, Lab Director/Quality Manager



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Received:	03/23/2016	Sampling Date:	03/22/2016
Reported:	03/30/2016	Sampling Type:	Soil
Project Name:	GRAND BANKS ARU #14	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	LEA COUNTY, NM		

#### Sample ID: AREA 2 - #1 E WALL (H600621-23)

Chloride, SM4500Cl-B	mg/kg		Analyze	Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	144	16.0	03/23/2016	ND	432	108	400	3.77	
TPH 8015M	mg,	/kg	Analyze	d By: CK					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	03/24/2016	ND	199	99.4	200	6.46	
DRO >C10-C28	217	10.0	03/24/2016	ND	189	94.3	200	0.437	
EXT DRO >C28-C35	27.6	10.0	03/24/2016	ND					
Surrogate: 1-Chlorooctane	94.1	% 35-147	7						
Surrogate: 1-Chlorooctadecane	106	% 28-171							

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Celez D. Keine

Celey D. Keene, Lab Director/Quality Manager



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Received:	03/23/2016	Sampling Date:	03/22/2016
Reported:	03/30/2016	Sampling Type:	Soil
Project Name:	GRAND BANKS ARU #14	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	LEA COUNTY, NM		

#### Sample ID: AREA 2 - #1 FLOOR (H600621-24)

BTEX 8021B	mg/	′kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	03/24/2016	ND	2.00	99.9	2.00	3.95	
Toluene*	<0.050	0.050	03/24/2016	ND	1.93	96.5	2.00	4.58	
Ethylbenzene*	<0.050	0.050	03/24/2016	ND	1.71	85.6	2.00	5.45	
Total Xylenes*	<0.150	0.150	03/24/2016	ND	5.26	87.7	6.00	5.58	
Total BTEX	<0.300	0.300	03/24/2016	ND					
Surrogate: 4-Bromofluorobenzene (PID	103 9	% 73.6-14	0						
Chloride, SM4500Cl-B	mg/	′kg	Analyze	d By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	272	16.0	03/24/2016	ND	368	92.0	400	8.33	
TPH 8015M	mg/	′kg	Analyze	d By: CK					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	03/24/2016	ND	199	99.4	200	6.46	
DRO >C10-C28	2260	10.0	03/24/2016	ND	189	94.3	200	0.437	
EXT DRO >C28-C35	281	10.0	03/24/2016	ND					
Surrogate: 1-Chlorooctane	100 9	% 35-147	,						
Surrogate: 1-Chlorooctadecane	142 9	28-171							

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Celez D. Keine

Celey D. Keene, Lab Director/Quality Manager



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Received:	03/23/2016	Sampling Date:	03/22/2016
Reported:	03/30/2016	Sampling Type:	Soil
Project Name:	GRAND BANKS ARU #14	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	LEA COUNTY, NM		

#### Sample ID: AREA 2 - #1 E WALL (H600621-25)

Chloride, SM4500Cl-B	mg/	′kg	Analyze	d By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	384	16.0	03/24/2016	ND	368	92.0	400	8.33	
TPH 8015M	mg/	′kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	62.5	10.0	03/24/2016	ND	189	94.4	200	1.39	
DR0 >C10-C28	4130	10.0	03/24/2016	ND	185	92.3	200	1.14	
EXT DRO >C28-C35	558	10.0	03/24/2016	ND					
Surrogate: 1-Chlorooctane	95.7	% 35-147							
Surrogate: 1-Chlorooctadecane	128 9	28-171							

## Sample ID: AREA 2 - #2 FLOOR (H600621-26)

Chloride, SM4500Cl-B	mg/	′kg	Analyze	d By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	208	16.0	03/24/2016	ND	368	92.0	400	8.33	
TPH 8015M	mg/	′kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	31.9	10.0	03/24/2016	ND	189	94.4	200	1.39	
DRO >C10-C28	1340	10.0	03/24/2016	ND	185	92.3	200	1.14	
EXT DRO >C28-C35	194	10.0	03/24/2016	ND					
Surrogate: 1-Chlorooctane	106 9	% 35-147	,						
Surrogate: 1-Chlorooctadecane	101 9	28-171							

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Celeg D. Keine

Celey D. Keene, Lab Director/Quality Manager



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

Received:	03/23/2016	Sampling Date:	03/22/2016
Reported:	03/30/2016	Sampling Type:	Soil
Project Name:	GRAND BANKS ARU #14	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	LEA COUNTY, NM		

#### Sample ID: AREA 3 - W WALL (H600621-27)

Chloride, SM4500Cl-B	mg,	/kg	Analyze	d By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	<16.0	16.0	03/24/2016	ND	368	92.0	400	8.33	
TPH 8015M	mg	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	03/24/2016	ND	189	94.4	200	1.39	
DR0 >C10-C28	406	10.0	03/24/2016	ND	185	92.3	200	1.14	
EXT DRO >C28-C35	84.7	10.0	03/24/2016	ND					
Surrogate: 1-Chlorooctane	70.5	% 35-147	,						
Surrogate: 1-Chlorooctadecane	70.7	% 28-171							

# Sample ID: AREA 3 - #1 FLOOR (H600621-28)

Chloride, SM4500Cl-B	mg/	/kg	Analyze	d By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	<16.0	16.0	03/24/2016	ND	368	92.0	400	8.33	
TPH 8015M	mg,	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	12.3	10.0	03/24/2016	ND	189	94.4	200	1.39	
DRO >C10-C28	2550	10.0	03/24/2016	ND	185	92.3	200	1.14	
EXT DRO >C28-C35	372	10.0	03/24/2016	ND					
Surrogate: 1-Chlorooctane	82.9	% 35-147	,						
Surrogate: 1-Chlorooctadecane	102	% 28-171							

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Celey D. Keene, Lab Director/Quality Manager



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Received:	03/23/2016	Sampling Date:	03/22/2016
Reported:	03/30/2016	Sampling Type:	Soil
Project Name:	GRAND BANKS ARU #14	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	LEA COUNTY, NM		

#### Sample ID: AREA 3 - #1 N WALL (H600621-29)

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	03/24/2016	ND	368	92.0	400	8.33	
TPH 8015M	mg,	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	03/24/2016	ND	189	94.4	200	1.39	
DRO >C10-C28	466	10.0	03/24/2016	ND	185	92.3	200	1.14	
EXT DRO >C28-C35	127	10.0	03/24/2016	ND					
Surrogate: 1-Chlorooctane	90.6	% 35-147							
Surrogate: 1-Chlorooctadecane	96.8	% 28-171							

## Sample ID: AREA 3 - #1 S WALL (H600621-30)

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	03/24/2016	ND	368	92.0	400	8.33	
TPH 8015M	mg/	kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	03/24/2016	ND	189	94.4	200	1.39	
DR0 >C10-C28	343	10.0	03/24/2016	ND	185	92.3	200	1.14	
EXT DRO >C28-C35	63.1	10.0	03/24/2016	ND					
Surrogate: 1-Chlorooctane	89.8	% 35-147	,						
Surrogate: 1-Chlorooctadecane	91.2	% 28-171							

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Celeg D. Keine

Celey D. Keene, Lab Director/Quality Manager



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Received:	03/23/2016	Sampling Date:	03/22/2016
Reported:	03/30/2016	Sampling Type:	Soil
Project Name:	GRAND BANKS ARU #14	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	LEA COUNTY, NM		

#### Sample ID: AREA 3 - #2 FLOOR (H600621-31)

BTEX 8021B	mg,	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<1.00	1.00	03/24/2016	ND	2.00	99.9	2.00	3.95	
Toluene*	<1.00	1.00	03/24/2016	ND	1.93	96.5	2.00	4.58	
Ethylbenzene*	<1.00	1.00	03/24/2016	ND	1.71	85.6	2.00	5.45	
Total Xylenes*	<3.00	3.00	03/24/2016	ND	5.26	87.7	6.00	5.58	
Total BTEX	<6.00	6.00	03/24/2016	ND					
Surrogate: 4-Bromofluorobenzene (PID	105	% 73.6-14	0						
Chloride, SM4500Cl-B	mg,	/kg	Analyze	d By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	192	16.0	03/24/2016	ND	368	92.0	400	8.33	
TPH 8015M	mg	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	103	10.0	03/24/2016	ND	189	94.4	200	1.39	
DRO >C10-C28	2530	10.0	03/24/2016	ND	185	92.3	200	1.14	
EXT DRO >C28-C35	301	10.0	03/24/2016	ND					
Surrogate: 1-Chlorooctane	110	% 35-147	7						
Surrogate: 1-Chlorooctadecane	108	% 28-171	,						

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Celez D. Keine

Celey D. Keene, Lab Director/Quality Manager



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Received:	03/23/2016	Sampling Date:	03/22/2016
Reported:	03/30/2016	Sampling Type:	Soil
Project Name:	GRAND BANKS ARU #14	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	LEA COUNTY, NM		

#### Sample ID: AREA 3 - #2 N WALL (H600621-32)

Chloride, SM4500Cl-B	mg	/kg	Analyze	d By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	48.0	16.0	03/24/2016	ND	368	92.0	400	8.33	
TPH 8015M	mg	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	03/24/2016	ND	189	94.4	200	1.39	
DRO >C10-C28	884	10.0	03/24/2016	ND	185	92.3	200	1.14	
EXT DRO >C28-C35	141	10.0	03/24/2016	ND					
Surrogate: 1-Chlorooctane	95.8	% 35-147							
Surrogate: 1-Chlorooctadecane	105	% 28-171							

## Sample ID: AREA 3 - #2 S WALL (H600621-33)

Chloride, SM4500Cl-B	mg,	′kg	Analyze	d By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	<16.0	16.0	03/24/2016	ND	368	92.0	400	8.33	
TPH 8015M	mg,	′kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	03/24/2016	ND	189	94.4	200	1.39	
DR0 >C10-C28	337	10.0	03/24/2016	ND	185	92.3	200	1.14	
EXT DRO >C28-C35	65.9	10.0	03/24/2016	ND					
Surrogate: 1-Chlorooctane	87.1	% 35-147	,						
Surrogate: 1-Chlorooctadecane	90.5	% 28-171							

#### Cardinal Laboratories

#### \*=Accredited Analyte

Celeg D. Keine

Celey D. Keene, Lab Director/Quality Manager



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

Received:	03/23/2016	Sampling Date:	03/22/2016
Reported:	03/30/2016	Sampling Type:	Soil
Project Name:	GRAND BANKS ARU #14	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	LEA COUNTY, NM		

#### Sample ID: AREA 3 - #3 FLOOR (H600621-34)

Chloride, SM4500Cl-B	mg/	′kg	Analyze	d By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	432	16.0	03/24/2016	ND	368	92.0	400	8.33	
TPH 8015M	mg/	′kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	118	10.0	03/24/2016	ND	189	94.4	200	1.39	
DRO >C10-C28	3840	10.0	03/24/2016	ND	185	92.3	200	1.14	
EXT DRO >C28-C35	442	10.0	03/24/2016	ND					
Surrogate: 1-Chlorooctane	118 9	% 35-147							
Surrogate: 1-Chlorooctadecane	116 9	28-171							

## Sample ID: AREA 3 - #3 N WALL (H600621-35)

Chloride, SM4500Cl-B	mg,	/kg	Analyze	d By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	144	16.0	03/24/2016	ND	368	92.0	400	8.33	
TPH 8015M	mg,	/kg	Analyze	d By: MS					S-04
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	03/24/2016	ND	189	94.4	200	1.39	
DRO >C10-C28	2080	10.0	03/24/2016	ND	185	92.3	200	1.14	
EXT DRO >C28-C35	337	10.0	03/24/2016	ND					
Surrogate: 1-Chlorooctane	155	% 35-147	,						
Surrogate: 1-Chlorooctadecane	165	% 28-171							

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PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the sample identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celeg D. Keine

Celey D. Keene, Lab Director/Quality Manager



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

Received:	03/23/2016	Sampling Date:	03/22/2016
Reported:	03/30/2016	Sampling Type:	Soil
Project Name:	GRAND BANKS ARU #14	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	LEA COUNTY, NM		

#### Sample ID: AREA 3 - #3 S WALL (H600621-36)

Chloride, SM4500Cl-B	mg,	/kg	Analyze	d By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	48.0	16.0	03/24/2016	ND	368	92.0	400	8.33	
TPH 8015M	mg,	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	03/24/2016	ND	194	96.8	200	2.99	
DRO >C10-C28	172	10.0	03/24/2016	ND	200	99.8	200	17.4	QR-03
EXT DRO >C28-C35	18.3	10.0	03/24/2016	ND					
Surrogate: 1-Chlorooctane	96.4	% 35-147	,						
Surrogate: 1-Chlorooctadecane	105	% 28-171							

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Celez D. Keine

Celey D. Keene, Lab Director/Quality Manager



## **Notes and Definitions**

S-04	The surrogate recovery for this sample is outside of established control limits due to a sample matrix effect.
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.
QR-02	The RPD result exceeded the QC control limits; however, both percent recoveries were acceptable. Sample results for the QC batch were accepted based on percent recoveries and completeness of QC data.
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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Celey D. Keine

Celey D. Keene, Lab Director/Quality Manager

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roject Manager: Robbie Runnels		P.O. #		_	_	_	5	-		
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ARDINAL LABORATORIES 101 East Marland, Hobbs, NM 88240 2111 Beechwood, Abilene, TX 79603

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service. In no event shall Cardinal be liable for incidental or cons affiliates or successors arising out of or related to the performance	t of or related to the performance	of services hereunder by (	der by Cardinal, regardless of whe Received By:	d By:	ther such claim is based upon any of the above the state of the state	If the above stated rea	Phone Result:	ult:	T Yes	S No	1.1	Add'I Phone #: Add'I Fax #:	#		
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# ANALYSIS REQUEST

Page 30 of 30



March 30, 2016

ROBBIE RUNNELS 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 03/24/16 11:47.

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 <a href="https://www.tceq.texas.gov/field/ga/lab\_accred\_certif.html">www.tceq.texas.gov/field/ga/lab\_accred\_certif.html</a>.

Cardinal Laboratories is accreditated 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. Keine

Celey D. Keene Lab Director/Quality Manager



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

Received:	03/24/2016	Sampling Date:	03/24/2016
Reported:	03/30/2016	Sampling Type:	Soil
Project Name:	GRAND BANKS ARU #14	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	LEA COUNTY, NM		

#### Sample ID: AREA 1 - #1 FLOOR (H600640-01)

BTEX 8021B	mg,	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	03/29/2016	ND	2.07	104	2.00	5.25	
Toluene*	<0.050	0.050	03/29/2016	ND	1.96	97.8	2.00	7.05	
Ethylbenzene*	<0.050	0.050	03/29/2016	ND	1.72	85.9	2.00	8.63	
Total Xylenes*	<0.150	0.150	03/29/2016	ND	5.28	87.9	6.00	8.62	
Total BTEX	<0.300	0.300	03/29/2016	ND					
Surrogate: 4-Bromofluorobenzene (PID	100	% 73.6-14	0						
Chloride, SM4500Cl-B	mg,	/kg	Analyze	d By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	272	16.0	03/28/2016	ND	416	104	400	3.92	
TPH 8015M	mg/	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	03/28/2016	ND	179	89.3	200	3.87	
DRO >C10-C28	485	10.0	03/28/2016	ND	160	79.9	200	4.90	
EXT DRO >C28-C35	49.9	10.0	03/28/2016	ND					
Surrogate: 1-Chlorooctane	82.8	% 35-147	,						
Surrogate: 1-Chlorooctadecane	87.4	% 28-171							

#### Cardinal Laboratories

\*=Accredited Analyte

Celeg D. Keine

Celey D. Keene, Lab Director/Quality Manager



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

Received:	03/24/2016	Sampling Date:	03/24/2016
Reported:	03/30/2016	Sampling Type:	Soil
Project Name:	GRAND BANKS ARU #14	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	LEA COUNTY, NM		

#### Sample ID: AREA 1 - #1 W WALL (H600640-02)

Chloride, SM4500Cl-B	mg	′kg	Analyze	d By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	48.0	16.0	03/28/2016	ND	416	104	400	3.92	
TPH 8015M	mg,	′kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	03/28/2016	ND	179	89.3	200	3.87	
DRO >C10-C28	98.4	10.0	03/28/2016	ND	160	79.9	200	4.90	
EXT DRO >C28-C35	<10.0	10.0	03/28/2016	ND					
Surrogate: 1-Chlorooctane	94.3	% 35-147							
Surrogate: 1-Chlorooctadecane	106	28-171							

## Sample ID: AREA 1 - #1 E WALL (H600640-03)

Chloride, SM4500Cl-B	mg,	/kg	Analyze	d By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	80.0	16.0	03/28/2016	ND	416	104	400	3.92	
TPH 8015M	mg,	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	03/28/2016	ND	179	89.3	200	3.87	
DRO >C10-C28	373	10.0	03/28/2016	ND	160	79.9	200	4.90	
EXT DRO >C28-C35	41.9	10.0	03/28/2016	ND					
Surrogate: 1-Chlorooctane	88.5	% 35-147	,						
Surrogate: 1-Chlorooctadecane	100 :	% 28-171							

#### **Cardinal Laboratories**

#### \*=Accredited Analyte

Celeg D. Keine

Celey D. Keene, Lab Director/Quality Manager



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

Received:	03/24/2016	Sampling Date:	03/24/2016
Reported:	03/30/2016	Sampling Type:	Soil
Project Name:	GRAND BANKS ARU #14	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	LEA COUNTY, NM		

#### Sample ID: AREA 1 - #2 FLOOR (H600640-04)

BTEX 8021B	mg	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.100	0.100	03/29/2016	ND	2.07	104	2.00	5.25	
Toluene*	<0.100	0.100	03/29/2016	ND	1.96	97.8	2.00	7.05	
Ethylbenzene*	0.123	0.100	03/29/2016	ND	1.72	85.9	2.00	8.63	
Total Xylenes*	2.07	0.300	03/29/2016	ND	5.28	87.9	6.00	8.62	
Total BTEX	2.19	0.600	03/29/2016	ND					
Surrogate: 4-Bromofluorobenzene (PID	111 9	% 73.6-14	0						
Chloride, SM4500Cl-B	mg/	/kg	Analyze	d By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	1390	16.0	03/28/2016	ND	416	104	400	3.92	
TPH 8015M	mg/	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	153	10.0	03/28/2016	ND	179	89.3	200	3.87	
DRO >C10-C28	4300	10.0	03/28/2016	ND	160	79.9	200	4.90	
EXT DRO >C28-C35	560	10.0	03/28/2016	ND					
Surrogate: 1-Chlorooctane	109	% 35-147	7						
Surrogate: 1-Chlorooctadecane	135	% 28-171							

#### Cardinal Laboratories

#### \*=Accredited Analyte

Celeg D. Keine

Celey D. Keene, Lab Director/Quality Manager



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

Received:	03/24/2016	Sampling Date:	03/24/2016
Reported:	03/30/2016	Sampling Type:	Soil
Project Name:	GRAND BANKS ARU #14	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	LEA COUNTY, NM		

#### Sample ID: AREA 1 - #2 W WALL (H600640-05)

Chloride, SM4500Cl-B	mg	/kg	Analyze	d By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	304	16.0	03/28/2016	ND	416	104	400	3.92	
TPH 8015M	mg	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	69.9	10.0	03/28/2016	ND	179	89.3	200	3.87	
DRO >C10-C28	1400	10.0	03/28/2016	ND	160	79.9	200	4.90	
EXT DRO >C28-C35	135	10.0	03/28/2016	ND					
Surrogate: 1-Chlorooctane	98.4	% 35-147	,						
Surrogate: 1-Chlorooctadecane	101	% 28-171							

## Sample ID: AREA 1 - #2 E WALL (H600640-06)

Chloride, SM4500Cl-B	mg	/kg	Analyze	d By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	144	16.0	03/28/2016	ND	416	104	400	3.92	
TPH 8015M	mg,	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	12.7	10.0	03/28/2016	ND	179	89.3	200	3.87	
DRO >C10-C28	2240	10.0	03/28/2016	ND	160	79.9	200	4.90	
EXT DRO >C28-C35	302	10.0	03/28/2016	ND					
Surrogate: 1-Chlorooctane	87.3	% 35-147	,						
Surrogate: 1-Chlorooctadecane	114	28-171							

#### Cardinal Laboratories

#### \*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the sample identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celeg D. Keine

Celey D. Keene, Lab Director/Quality Manager



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

Received:	03/24/2016	Sampling Date:	03/24/2016
Reported:	03/30/2016	Sampling Type:	Soil
Project Name:	GRAND BANKS ARU #14	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	LEA COUNTY, NM		

#### Sample ID: AREA 1 - S WALL (H600640-07)

Chloride, SM4500Cl-B	mg,	/kg	Analyze	d By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	464	16.0	03/28/2016	ND	416	104	400	3.92	
TPH 8015M	mg,	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	03/28/2016	ND	179	89.3	200	3.87	
DRO >C10-C28	181	10.0	03/28/2016	ND	160	79.9	200	4.90	
EXT DRO >C28-C35	31.8	10.0	03/28/2016	ND					
Surrogate: 1-Chlorooctane	72.1	% 35-147	7						
Surrogate: 1-Chlorooctadecane	78.6	% 28-171							

#### **Cardinal Laboratories**

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the sample identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celeg D. Keine

Celey D. Keene, Lab Director/Quality Manager



## **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 SM4500CI-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

Celeg D. Keine

Celey D. Keene, Lab Director/Quality Manager

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9 8	ent's exclusive remedy for any claim arising whether based in contract cause whatsoever shall be deemed waived unless made in writing an muchai damages including without limitation, business interruptions,	nct or tort, shall be limited to the amount p and received by Cardinal within 30 days a s, loss of use, or loss of profits incurred b	aid by the client for the fier completion of the applica y client, its subsidiaries.	able					
Affinities or successors analyging out of or mailed to the performance of services herewinder by C Relinquished By: Date: 3/24/16 Relin W/OODEV Time:	Cardinal, negardless of whether such claim Received By:	The based upon any of the acove stated reactions of weaking of the acove stated reactions of the state of the	Phone Result: Fax Result: REMARKS:	□ Yes	55	NO A	Add'l Phone #: Add'l Fax #:	me#:	
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† Cardinal cannot accept verbal changes. Please fax written changes to 505-393-2476

po#

Page 8 of 8


April 11, 2016

ROBBIE RUNNELS 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 04/08/16 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 <a href="https://www.tceq.texas.gov/field/ga/lab\_accred\_certif.html">www.tceq.texas.gov/field/ga/lab\_accred\_certif.html</a>.

Cardinal Laboratories is accreditated 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. Keine

Celey D. Keene Lab Director/Quality Manager



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

Received:	04/08/2016	Sampling Date:	04/07/2016
Reported:	04/11/2016	Sampling Type:	Soil
Project Name:	GRAND BANKS ARU #14	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	LEA COUNTY, NM		

## Sample ID: AREA 1 - SP #2 - FLOOR @ 2' (H600764-01)

TPH 8015M	mg,	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	04/08/2016	ND	164	82.0	200	17.7	
DRO >C10-C28	421	10.0	04/08/2016	ND	166	83.0	200	6.94	
Surrogate: 1-Chlorooctane	105	% 35-147	,						
Surrogate: 1-Chlorooctadecane	113	% 28-171							

### Sample ID: AREA 5 - SP #1 - FLOOR @ 2' (H600764-02)

TPH 8015M	mg	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	04/08/2016	ND	164	82.0	200	17.7	
DRO >C10-C28	<10.0	10.0	04/08/2016	ND	166	83.0	200	6.94	
Surrogate: 1-Chlorooctane	93.6	% 35-147	,						
Surrogate: 1-Chlorooctadecane	110	% 28-171							

#### **Cardinal Laboratories**

\*=Accredited Analyte

Celeg D. Keine

Celey D. Keene, Lab Director/Quality Manager



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

Received:	04/08/2016	Sampling Date:	04/04/2016
Reported:	04/11/2016	Sampling Type:	Soil
Project Name:	GRAND BANKS ARU #14	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	LEA COUNTY, NM		

#### Sample ID: AREA 5 - SP #2 - FLOOR @ 4' (H600764-03)

TPH 8015M	mg/	′kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	04/08/2016	ND	164	82.0	200	17.7	
DRO >C10-C28	<10.0	10.0	04/08/2016	ND	166	83.0	200	6.94	
Surrogate: 1-Chlorooctane	91.7	% 35-147	,						
Surrogate: 1-Chlorooctadecane	112 9	% 28-171							

## Sample ID: AREA 5 - SP #3 - FLOOR @ 6' (H600764-04)

TPH 8015M	mg	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	04/08/2016	ND	164	82.0	200	17.7	
DRO >C10-C28	<10.0	10.0	04/08/2016	ND	166	83.0	200	6.94	
Surrogate: 1-Chlorooctane	86.8	% 35-147	7						
Surrogate: 1-Chlorooctadecane	101	% 28-171	,						

#### **Cardinal Laboratories**

\*=Accredited Analyte

Celeg D. Keine

Celey D. Keene, Lab Director/Quality Manager



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

Received:	04/08/2016	Sampling Date:	04/05/2016
Reported:	04/11/2016	Sampling Type:	Soil
Project Name:	GRAND BANKS ARU #14	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	LEA COUNTY, NM		

#### Sample ID: AREA 4 - SP #2 - FLOOR @ 2' (H600764-05)

TPH 8015M	mg/	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	04/08/2016	ND	164	82.0	200	17.7	
DRO >C10-C28	<10.0	10.0	04/08/2016	ND	166	83.0	200	6.94	
Surrogate: 1-Chlorooctane	98.8	% 35-147	,						
Surrogate: 1-Chlorooctadecane	115 9	28-171							

## Sample ID: AREA 3 - SP #3 - FLOOR @ 2' (H600764-06)

TPH 8015M	mg/	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	04/08/2016	ND	164	82.0	200	17.7	
DRO >C10-C28	<10.0	10.0	04/08/2016	ND	166	83.0	200	6.94	
Surrogate: 1-Chlorooctane	98.4	% 35-147	,						
Surrogate: 1-Chlorooctadecane	115 9	% 28-171							

### **Cardinal Laboratories**

#### \*=Accredited Analyte

Celeg D. Keine

Celey D. Keene, Lab Director/Quality Manager



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

Received:	04/08/2016	Sampling Date:	04/04/2016
Reported:	04/11/2016	Sampling Type:	Soil
Project Name:	GRAND BANKS ARU #14	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	LEA COUNTY, NM		

#### Sample ID: AREA 5 - SP #1 - EAST WALL (H600764-07)

TPH 8015M	mg,	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	04/08/2016	ND	164	82.0	200	17.7	
DRO >C10-C28	35.4	10.0	04/08/2016	ND	166	83.0	200	6.94	
Surrogate: 1-Chlorooctane	73.7	% 35-147	,						
Surrogate: 1-Chlorooctadecane	92.6	% 28-171							

## Sample ID: AREA 5 - SP #2 - EAST WALL (H600764-08)

TPH 8015M	mg	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	04/08/2016	ND	164	82.0	200	17.7	
DRO >C10-C28	438	10.0	04/08/2016	ND	166	83.0	200	6.94	
Surrogate: 1-Chlorooctane	102	% 35-147	7						
Surrogate: 1-Chlorooctadecane	123	% 28-171							

#### **Cardinal Laboratories**

\*=Accredited Analyte

Celeg D. Keine

Celey D. Keene, Lab Director/Quality Manager



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

Received:	04/08/2016	Sampling Date:	04/05/2016
Reported:	04/11/2016	Sampling Type:	Soil
Project Name:	GRAND BANKS ARU #14	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	LEA COUNTY, NM		

#### Sample ID: AREA 5 - SP #3 - EAST WALL (H600764-09)

TPH 8015M	mg,	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	04/08/2016	ND	164	82.0	200	17.7	
DRO >C10-C28	22.1	10.0	04/08/2016	ND	166	83.0	200	6.94	
Surrogate: 1-Chlorooctane	94.1	% 35-147	,						
Surrogate: 1-Chlorooctadecane	112	% 28-171							

#### **Cardinal Laboratories**

\*=Accredited Analyte

Celez D. Keine

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.
QR-02	The RPD result exceeded the QC control limits; however, both percent recoveries were acceptable. Sample results for the QC batch were accepted based on percent recoveries and completeness of QC data.
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

#### **Cardinal Laboratories**

## \*=Accredited Analyte

Celey D. Keine

Celey D. Keene, Lab Director/Quality Manager

Project Manager: Robbie Runnels Address: State: Z City: State: Z Phone #: Fax #: Project #: Project Owner: Project Name: Grand Banks ARU #14 Project Location: Lea County Sampler Name: Bill Wooley FOR LABUSE ONLY	MATRIX	P.O. #: Company: Basin Attn: Address: City: State: Zip: State: Zip: Phone #: Fax #: PRESERV SAMPLING	Chlorides	TPH 8015 M	BTEX	Texas TPH		mplete Cations/Anions	TDS
	GR WA	OT	TIME	+	+	+	+	+	
Area 1 - SP#2 - Floor@2'		4/7/16	10:30		-	-		-	
	1 V		15:00	~					
	V 1 V		13:30	<		-	-		
5 Area 4 - SP#2 - Floor@2'	× 1 × ×	4/5/16	11:45	~		+	-		
Area 3 - SP#3 - Floor@2"		4/5/16	Ö						
A dams had damager, and any an organized and any other analysis. All dams including theorem is also been registerior and any other analysis. In closer shall be derived and any other analysis. In closer shall be derived by the parformance of services there by Cardinal damages. Including with attack or accesses anising out of or related to the parformance of services there by Cardinal damages. Including with attack or accesses anison out of or related to the parformance of services there by Cardinal damages. Including with attack or accesses anison out of or related to the parformance of services there by Cardinal damages. Including with attack or accesses and any other services the parformance of services there by Cardinal damages. All damages is a service of the parformance of services there are by Cardinal damages. All damages is a service of the parformance of services there are by Cardinal damages. All damages is a service of the parformance of services there are all days of the services the services of services there are all days of the services the services the services of the services of the services the services the services the services of the services the services of the	ed waves unless music in writing and received at immation, business itemptions, loss of use, at imparties of whether such claim is based up ecpived By: DULL JULM	ined by Cardinal within 30 days after it use, or loss of profile incurred by cl ad upon any of the above stated rea-	Phone Result: Phone Result:	: D	□ Yes □ Yes	No No		dd'l Pi dd'l Fa	Add'l Phone # Add'l Fax #:
Sampler - UPS - Bus - Other:	Sample Condition C Cool Intact	HECKED BY:				~		_	1



April 29, 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 04/28/16 8:15.

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 <a href="https://www.tceq.texas.gov/field/ga/lab\_accred\_certif.html">www.tceq.texas.gov/field/ga/lab\_accred\_certif.html</a>.

Cardinal Laboratories is accreditated 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. Keine

Celey D. Keene Lab Director/Quality Manager



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

Received:	04/28/2016	Sampling Date:	04/27/2016
Reported:	04/29/2016	Sampling Type:	Soil
Project Name:	GRAND BANKS ARU #14	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	LEA COUNTY, NM		

## Sample ID: AREA #1 SP #1 EAST WALL (H600911-01)

BTEX 8021B	mg,	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	04/28/2016	ND	2.05	103	2.00	1.04	
Toluene*	<0.050	0.050	04/28/2016	ND	1.98	99.0	2.00	1.21	
Ethylbenzene*	<0.050	0.050	04/28/2016	ND	1.79	89.4	2.00	0.818	
Total Xylenes*	<0.150	0.150	04/28/2016	ND	5.55	92.6	6.00	0.0397	
Total BTEX	<0.300	0.300	04/28/2016	ND					
Surrogate: 4-Bromofluorobenzene (PID	96.3	% 73.6-14	0						
Chloride, SM4500Cl-B	mg	/kg	Analyze	d By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	640	16.0	04/28/2016	ND	400	100	400	7.69	
TPH 8015M	mg	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	04/28/2016	ND	203	102	200	5.92	
DRO >C10-C28	667	10.0	04/28/2016	ND	225	112	200	6.90	QM-07
EXT DRO >C28-C35	97.9	10.0	04/28/2016	ND					
Surrogate: 1-Chlorooctane	77.3	% 35-147							
Surrogate: 1-Chlorooctadecane	115	% 28-171							

### Cardinal Laboratories

## \*=Accredited Analyte

Celeg D. Keine

Celey D. Keene, Lab Director/Quality Manager



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

Received:	04/28/2016	Sampling Date:	04/27/2016
Reported:	04/29/2016	Sampling Type:	Soil
Project Name:	GRAND BANKS ARU #14	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	LEA COUNTY, NM		

#### Sample ID: AREA #1 SP #1 WEST WALL (H600911-02)

BTEX 8021B	mg,	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	04/28/2016	ND	2.05	103	2.00	1.04	
Toluene*	<0.050	0.050	04/28/2016	ND	1.98	99.0	2.00	1.21	
Ethylbenzene*	<0.050	0.050	04/28/2016	ND	1.79	89.4	2.00	0.818	
Total Xylenes*	<0.150	0.150	04/28/2016	ND	5.55	92.6	6.00	0.0397	
Total BTEX	<0.300	0.300	04/28/2016	ND					
Surrogate: 4-Bromofluorobenzene (PID	97.9	% 73.6-14	0						
Chloride, SM4500Cl-B	mg,	/kg	Analyze	d By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	176	16.0	04/28/2016	ND	400	100	400	7.69	
TPH 8015M	mg/	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	04/28/2016	ND	203	102	200	5.92	
DRO >C10-C28	271	10.0	04/28/2016	ND	225	112	200	6.90	
EXT DRO >C28-C35	48.5	10.0	04/28/2016	ND					
Surrogate: 1-Chlorooctane	77.8	% 35-147							
Surrogate: 1-Chlorooctadecane	92.4	% 28-171							

#### Cardinal Laboratories

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Celeg D. Keine

Celey D. Keene, Lab Director/Quality Manager



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

Received:	04/28/2016	Sampling Date:	04/27/2016
Reported:	04/29/2016	Sampling Type:	Soil
Project Name:	GRAND BANKS ARU #14	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	LEA COUNTY, NM		

### Sample ID: AREA #2 SP #1 EAST WALL (H600911-03)

BTEX 8021B	mg/	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	04/28/2016	ND	2.05	103	2.00	1.04	
Toluene*	<0.050	0.050	04/28/2016	ND	1.98	99.0	2.00	1.21	
Ethylbenzene*	<0.050	0.050	04/28/2016	ND	1.79	89.4	2.00	0.818	
Total Xylenes*	<0.150	0.150	04/28/2016	ND	5.55	92.6	6.00	0.0397	
Total BTEX	<0.300	0.300	04/28/2016	ND					
Surrogate: 4-Bromofluorobenzene (PID	97.5	% 73.6-14	0						
Chloride, SM4500Cl-B	mg/	/kg	Analyze	d By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	112	16.0	04/28/2016	ND	400	100	400	7.69	
TPH 8015M	mg/	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	04/28/2016	ND	203	102	200	5.92	
DRO >C10-C28	345	10.0	04/28/2016	ND	225	112	200	6.90	
EXT DRO >C28-C35	69.0	10.0	04/28/2016	ND					
Surrogate: 1-Chlorooctane	79.6	% 35-147	,						
Surrogate: 1-Chlorooctadecane	100 9	% 28-171							

#### Cardinal Laboratories

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Celeg D. Keine

Celey D. Keene, Lab Director/Quality Manager



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

Received:	04/28/2016	Sampling Date:	04/27/2016
Reported:	04/29/2016	Sampling Type:	Soil
Project Name:	GRAND BANKS ARU #14	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	LEA COUNTY, NM		

### Sample ID: AREA #2 SP #1 WEST WALL (H600911-04)

BTEX 8021B	mg,	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	04/28/2016	ND	2.05	103	2.00	1.04	
Toluene*	<0.050	0.050	04/28/2016	ND	1.98	99.0	2.00	1.21	
Ethylbenzene*	<0.050	0.050	04/28/2016	ND	1.79	89.4	2.00	0.818	
Total Xylenes*	<0.150	0.150	04/28/2016	ND	5.55	92.6	6.00	0.0397	
Total BTEX	<0.300	0.300	04/28/2016	ND					
Surrogate: 4-Bromofluorobenzene (PID	96.4	% 73.6-14	0						
Chloride, SM4500Cl-B	mg,	/kg	Analyze	d By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	112	16.0	04/28/2016	ND	400	100	400	7.69	
TPH 8015M	mg/	/kg	Analyze	d By: MS					S-04
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	04/28/2016	ND	203	102	200	5.92	
DRO >C10-C28	1740	10.0	04/28/2016	ND	225	112	200	6.90	
EXT DRO >C28-C35	338	10.0	04/28/2016	ND					
Surrogate: 1-Chlorooctane	81.8	% 35-147	,						
Surrogate: 1-Chlorooctadecane	191	% 28-171							

#### Cardinal Laboratories

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Celeg D. Keine

Celey D. Keene, Lab Director/Quality Manager



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

Received:	04/28/2016	Sampling Date:	04/27/2016
Reported:	04/29/2016	Sampling Type:	Soil
Project Name:	GRAND BANKS ARU #14	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	LEA COUNTY, NM		

### Sample ID: AREA #4 SP #1 EAST WALL (H600911-05)

BTEX 8021B	mg/	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	04/28/2016	ND	2.05	103	2.00	1.04	
Toluene*	<0.050	0.050	04/28/2016	ND	1.98	99.0	2.00	1.21	
Ethylbenzene*	<0.050	0.050	04/28/2016	ND	1.79	89.4	2.00	0.818	
Total Xylenes*	<0.150	0.150	04/28/2016	ND	5.55	92.6	6.00	0.0397	
Total BTEX	<0.300	0.300	04/28/2016	ND					
Surrogate: 4-Bromofluorobenzene (PID	97.2	% 73.6-14	0						
Chloride, SM4500Cl-B	mg/	′kg	Analyze	d By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	224	16.0	04/28/2016	ND	400	100	400	7.69	
TPH 8015M	mg/	′kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	04/28/2016	ND	203	102	200	5.92	
DRO >C10-C28	581	10.0	04/28/2016	ND	225	112	200	6.90	
EXT DRO >C28-C35	122	10.0	04/28/2016	ND					
Surrogate: 1-Chlorooctane	82.5	% 35-147							
Surrogate: 1-Chlorooctadecane	120 \$	28-171							

### **Cardinal Laboratories**

## \*=Accredited Analyte

Celeg D. Keine

Celey D. Keene, Lab Director/Quality Manager



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

Received:	04/28/2016	Sampling Date:	04/27/2016
Reported:	04/29/2016	Sampling Type:	Soil
Project Name:	GRAND BANKS ARU #14	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	LEA COUNTY, NM		

#### Sample ID: AREA #4 SP #1 WEST WALL (H600911-06)

BTEX 8021B	mg,	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	04/28/2016	ND	2.05	103	2.00	1.04	
Toluene*	<0.050	0.050	04/28/2016	ND	1.98	99.0	2.00	1.21	
Ethylbenzene*	<0.050	0.050	04/28/2016	ND	1.79	89.4	2.00	0.818	
Total Xylenes*	<0.150	0.150	04/28/2016	ND	5.55	92.6	6.00	0.0397	
Total BTEX	<0.300	0.300	04/28/2016	ND					
Surrogate: 4-Bromofluorobenzene (PID	98.0	% 73.6-14	0						
Chloride, SM4500Cl-B	mg/	/kg	Analyze	d By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	48.0	16.0	04/28/2016	ND	400	100	400	7.69	
TPH 8015M	mg/	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	04/28/2016	ND	203	102	200	5.92	
DRO >C10-C28	196	10.0	04/28/2016	ND	225	112	200	6.90	
EXT DRO >C28-C35	32.9	10.0	04/28/2016	ND					
Surrogate: 1-Chlorooctane	87.9	% 35-147							
Surrogate: 1-Chlorooctadecane	101	% 28-171							

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\*=Accredited Analyte

Celeg D. Keine

Celey D. Keene, Lab Director/Quality Manager



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

Received:	04/28/2016	Sampling Date:	04/27/2016
Reported:	04/29/2016	Sampling Type:	Soil
Project Name:	GRAND BANKS ARU #14	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	LEA COUNTY, NM		

### Sample ID: AREA #4 SP #2 EAST WALL (H600911-07)

BTEX 8021B	mg,	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	04/28/2016	ND	2.05	103	2.00	1.04	
Toluene*	<0.050	0.050	04/28/2016	ND	1.98	99.0	2.00	1.21	
Ethylbenzene*	<0.050	0.050	04/28/2016	ND	1.79	89.4	2.00	0.818	
Total Xylenes*	0.473	0.150	04/28/2016	ND	5.55	92.6	6.00	0.0397	
Total BTEX	0.473	0.300	04/28/2016	ND					
Surrogate: 4-Bromofluorobenzene (PID	97.8	% 73.6-14	0						
Chloride, SM4500Cl-B	mg/	/kg	Analyze	d By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	112	16.0	04/28/2016	ND	400	100	400	7.69	
TPH 8015M	mg/	/kg	Analyze	d By: MS					S-04
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	17.0	10.0	04/28/2016	ND	203	102	200	5.92	
DRO >C10-C28	1940	10.0	04/28/2016	ND	225	112	200	6.90	
EXT DRO >C28-C35	333	10.0	04/28/2016	ND					
Surrogate: 1-Chlorooctane	91.2	% 35-147	,						
Surrogate: 1-Chlorooctadecane	197	% 28-171							

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Celeg D. Keine

Celey D. Keene, Lab Director/Quality Manager



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

Received:	04/28/2016	Sampling Date:	04/27/2016
Reported:	04/29/2016	Sampling Type:	Soil
Project Name:	GRAND BANKS ARU #14	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	LEA COUNTY, NM		

#### Sample ID: AREA #4 SP #2 WEST WALL (H600911-08)

BTEX 8021B	mg,	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	04/28/2016	ND	2.05	103	2.00	1.04	
Toluene*	<0.050	0.050	04/28/2016	ND	1.98	99.0	2.00	1.21	
Ethylbenzene*	<0.050	0.050	04/28/2016	ND	1.79	89.4	2.00	0.818	
Total Xylenes*	<0.150	0.150	04/28/2016	ND	5.55	92.6	6.00	0.0397	
Total BTEX	<0.300	0.300	04/28/2016	ND					
Surrogate: 4-Bromofluorobenzene (PID	98.9	% 73.6-14	0						
Chloride, SM4500Cl-B	mg/	/kg	Analyze	d By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	80.0	16.0	04/28/2016	ND	400	100	400	7.69	
TPH 8015M	mg/	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	04/28/2016	ND	203	102	200	5.92	
DRO >C10-C28	55.5	10.0	04/28/2016	ND	225	112	200	6.90	
EXT DRO >C28-C35	15.6	10.0	04/28/2016	ND					
Surrogate: 1-Chlorooctane	80.2	% 35-147							
Surrogate: 1-Chlorooctadecane	99.2	% 28-171							

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Celey D. Keene, Lab Director/Quality Manager



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

Received:	04/28/2016	Sampling Date:	04/27/2016
Reported:	04/29/2016	Sampling Type:	Soil
Project Name:	GRAND BANKS ARU #14	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	LEA COUNTY, NM		

#### Sample ID: AREA #5 SP #1 EAST WALL (H600911-09)

BTEX 8021B	mg,	/kg	Analyze	ed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	04/28/2016	ND	2.05	103	2.00	1.04	
Toluene*	<0.050	0.050	04/28/2016	ND	1.98	99.0	2.00	1.21	
Ethylbenzene*	<0.050	0.050	04/28/2016	ND	1.79	89.4	2.00	0.818	
Total Xylenes*	<0.150	0.150	04/28/2016	ND	5.55	92.6	6.00	0.0397	
Total BTEX	<0.300	0.300	04/28/2016	ND					
Surrogate: 4-Bromofluorobenzene (PID	103	% 73.6-14	0						
Chloride, SM4500Cl-B	mg,	/kg	Analyze	ed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	96.0	16.0	04/28/2016	ND	400	100	400	7.69	
TPH 8015M	mg,	/kg	Analyze	ed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	04/28/2016	ND	203	102	200	5.92	
DRO >C10-C28	19.4	10.0	04/28/2016	ND	225	112	200	6.90	
EXT DRO >C28-C35	11.1	10.0	04/28/2016	ND					
Surrogate: 1-Chlorooctane	75.2	% 35-147							
Surrogate: 1-Chlorooctadecane	87.9	% 28-171							

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Celey D. Keene, Lab Director/Quality Manager



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Received:	04/28/2016	Sampling Date:	04/27/2016
Reported:	04/29/2016	Sampling Type:	Soil
Project Name:	GRAND BANKS ARU #14	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	LEA COUNTY, NM		

#### Sample ID: AREA #5 SP #1 WEST WALL (H600911-10)

BTEX 8021B	mg,	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	04/28/2016	ND	2.05	103	2.00	1.04	
Toluene*	<0.050	0.050	04/28/2016	ND	1.98	99.0	2.00	1.21	
Ethylbenzene*	<0.050	0.050	04/28/2016	ND	1.79	89.4	2.00	0.818	
Total Xylenes*	<0.150	0.150	04/28/2016	ND	5.55	92.6	6.00	0.0397	
Total BTEX	<0.300	0.300	04/28/2016	ND					
Surrogate: 4-Bromofluorobenzene (PID	101	% 73.6-14	0						
Chloride, SM4500Cl-B	mg,	/kg	Analyze	d By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	48.0	16.0	04/28/2016	ND	400	100	400	7.69	
TPH 8015M	mg,	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	04/28/2016	ND	203	102	200	5.92	
DRO >C10-C28	27.5	10.0	04/28/2016	ND	225	112	200	6.90	
EXT DRO >C28-C35	<10.0	10.0	04/28/2016	ND					
Surrogate: 1-Chlorooctane	75.2	% 35-147	,						
Surrogate: 1-Chlorooctadecane	90.6	% 28-171							

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Celey D. Keene, Lab Director/Quality Manager



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

Received:	04/28/2016	Sampling Date:	04/27/2016
Reported:	04/29/2016	Sampling Type:	Soil
Project Name:	GRAND BANKS ARU #14	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	LEA COUNTY, NM		

### Sample ID: AREA #5 SP #2 EAST WALL (H600911-11)

BTEX 8021B	mg,	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	04/28/2016	ND	2.05	103	2.00	1.04	
Toluene*	<0.050	0.050	04/28/2016	ND	1.98	99.0	2.00	1.21	
Ethylbenzene*	<0.050	0.050	04/28/2016	ND	1.79	89.4	2.00	0.818	
Total Xylenes*	<0.150	0.150	04/28/2016	ND	5.55	92.6	6.00	0.0397	
Total BTEX	<0.300	0.300	04/28/2016	ND					
Surrogate: 4-Bromofluorobenzene (PID	97.3	% 73.6-14	0						
Chloride, SM4500Cl-B	mg/	/kg	Analyze	d By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	<16.0	16.0	04/28/2016	ND	400	100	400	7.69	
TPH 8015M	mg/	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	04/28/2016	ND	203	102	200	5.92	
DRO >C10-C28	528	10.0	04/28/2016	ND	225	112	200	6.90	
EXT DRO >C28-C35	74.0	10.0	04/28/2016	ND					
Surrogate: 1-Chlorooctane	90.5	% 35-147	,						
Surrogate: 1-Chlorooctadecane	126	% 28-171							

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Celey D. Keene, Lab Director/Quality Manager



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

Received:	04/28/2016	Sampling Date:	04/27/2016
Reported:	04/29/2016	Sampling Type:	Soil
Project Name:	GRAND BANKS ARU #14	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	LEA COUNTY, NM		

#### Sample ID: AREA #5 SP #2 WEST WALL (H600911-12)

BTEX 8021B	mg,	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	04/28/2016	ND	2.05	103	2.00	1.04	
Toluene*	<0.050	0.050	04/28/2016	ND	1.98	99.0	2.00	1.21	
Ethylbenzene*	<0.050	0.050	04/28/2016	ND	1.79	89.4	2.00	0.818	
Total Xylenes*	<0.150	0.150	04/28/2016	ND	5.55	92.6	6.00	0.0397	
Total BTEX	<0.300	0.300	04/28/2016	ND					
Surrogate: 4-Bromofluorobenzene (PID	94.7	% 73.6-14	0						
Chloride, SM4500Cl-B	mg,	/kg	Analyze	d By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	<16.0	16.0	04/28/2016	ND	400	100	400	7.69	
TPH 8015M	mg/	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	04/28/2016	ND	203	102	200	5.92	
DRO >C10-C28	83.2	10.0	04/28/2016	ND	225	112	200	6.90	
EXT DRO >C28-C35	<10.0	10.0	04/28/2016	ND					
Surrogate: 1-Chlorooctane	77.5	% 35-147							
Surrogate: 1-Chlorooctadecane	88.3	% 28-171							

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Celey D. Keene, Lab Director/Quality Manager



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

Received:	04/28/2016	Sampling Date:	04/27/2016
Reported:	04/29/2016	Sampling Type:	Soil
Project Name:	GRAND BANKS ARU #14	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	LEA COUNTY, NM		

### Sample ID: AREA #5 SP #3 EAST WALL (H600911-13)

BTEX 8021B	mg	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	04/28/2016	ND	2.05	103	2.00	1.04	
Toluene*	<0.050	0.050	04/28/2016	ND	1.98	99.0	2.00	1.21	
Ethylbenzene*	<0.050	0.050	04/28/2016	ND	1.79	89.4	2.00	0.818	
Total Xylenes*	<0.150	0.150	04/28/2016	ND	5.55	92.6	6.00	0.0397	
Total BTEX	<0.300	0.300	04/28/2016	ND					
Surrogate: 4-Bromofluorobenzene (PID	99.7	% 73.6-14	0						
Chloride, SM4500Cl-B	mg/	/kg	Analyze	d By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	16.0	16.0	04/28/2016	ND	400	100	400	7.69	
TPH 8015M	mg/	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	04/28/2016	ND	203	102	200	5.92	
DRO >C10-C28	84.6	10.0	04/28/2016	ND	225	112	200	6.90	
EXT DRO >C28-C35	12.8	10.0	04/28/2016	ND					
Surrogate: 1-Chlorooctane	77.5	% 35-147	,						
Surrogate: 1-Chlorooctadecane	89.6	% 28-171							

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Celey D. Keene, Lab Director/Quality Manager



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

Received:	04/28/2016	Sampling Date:	04/27/2016
Reported:	04/29/2016	Sampling Type:	Soil
Project Name:	GRAND BANKS ARU #14	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	LEA COUNTY, NM		

#### Sample ID: AREA #5 SP #3 WEST WALL (H600911-14)

BTEX 8021B	mg,	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	04/28/2016	ND	2.05	103	2.00	1.04	
Toluene*	<0.050	0.050	04/28/2016	ND	1.98	99.0	2.00	1.21	
Ethylbenzene*	<0.050	0.050	04/28/2016	ND	1.79	89.4	2.00	0.818	
Total Xylenes*	<0.150	0.150	04/28/2016	ND	5.55	92.6	6.00	0.0397	
Total BTEX	<0.300	0.300	04/28/2016	ND					
Surrogate: 4-Bromofluorobenzene (PID	96.7	% 73.6-14	0						
Chloride, SM4500Cl-B	mg,	/kg	Analyze	d By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	48.0	16.0	04/28/2016	ND	400	100	400	7.69	
TPH 8015M	mg/	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	04/28/2016	ND	203	102	200	5.92	
DRO >C10-C28	13.7	10.0	04/28/2016	ND	225	112	200	6.90	
EXT DRO >C28-C35	<10.0	10.0	04/28/2016	ND					
Surrogate: 1-Chlorooctane	81.7	% 35-147							
Surrogate: 1-Chlorooctadecane	92.6	% 28-171							

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

Received:	04/28/2016	Sampling Date:	04/27/2016
Reported:	04/29/2016	Sampling Type:	Soil
Project Name:	GRAND BANKS ARU #14	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	LEA COUNTY, NM		

### Sample ID: AREA #5 SP #4 EAST WALL (H600911-15)

BTEX 8021B	mg/	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	04/28/2016	ND	2.05	103	2.00	1.04	
Toluene*	<0.050	0.050	04/28/2016	ND	1.98	99.0	2.00	1.21	
Ethylbenzene*	<0.050	0.050	04/28/2016	ND	1.79	89.4	2.00	0.818	
Total Xylenes*	<0.150	0.150	04/28/2016	ND	5.55	92.6	6.00	0.0397	
Total BTEX	<0.300	0.300	04/28/2016	ND					
Surrogate: 4-Bromofluorobenzene (PID	97.6	% 73.6-14	0						
Chloride, SM4500Cl-B	mg/	/kg	Analyze	d By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	80.0	16.0	04/28/2016	ND	400	100	400	7.69	
TPH 8015M	mg/	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	04/28/2016	ND	203	102	200	5.92	
DRO >C10-C28	473	10.0	04/28/2016	ND	225	112	200	6.90	
EXT DRO >C28-C35	57.2	10.0	04/28/2016	ND					
Surrogate: 1-Chlorooctane	77.1	% 35-147	7						
Surrogate: 1-Chlorooctadecane	103 9	% 28-171							

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

Received:	04/28/2016	Sampling Date:	04/27/2016
Reported:	04/29/2016	Sampling Type:	Soil
Project Name:	GRAND BANKS ARU #14	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	LEA COUNTY, NM		

### Sample ID: AREA #5 SP #4 WEST WALL (H600911-16)

BTEX 8021B	mg,	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	04/29/2016	ND	2.02	101	2.00	0.375	
Toluene*	<0.050	0.050	04/29/2016	ND	1.95	97.3	2.00	0.137	
Ethylbenzene*	<0.050	0.050	04/29/2016	ND	1.74	87.0	2.00	1.37	
Total Xylenes*	<0.150	0.150	04/29/2016	ND	5.37	89.4	6.00	1.05	
Total BTEX	<0.300	0.300	04/29/2016	ND					
Surrogate: 4-Bromofluorobenzene (PID	96.6	% 73.6-14	0						
Chloride, SM4500Cl-B	mg,	/kg	Analyze	d By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	96.0	16.0	04/28/2016	ND	400	100	400	7.69	
TPH 8015M	mg/	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	04/29/2016	ND	197	98.3	200	1.25	
DRO >C10-C28	112	10.0	04/29/2016	ND	224	112	200	8.70	
EXT DRO >C28-C35	18.2	10.0	04/29/2016	ND					
Surrogate: 1-Chlorooctane	76.5	% 35-147							
Surrogate: 1-Chlorooctadecane	91.6	% 28-171							

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Celey D. Keene, Lab Director/Quality Manager



## **Notes and Definitions**

S-04	The surrogate recovery for this sample is outside of established control limits due to a sample matrix effect.
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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	(575) 393-2326 FAX (575) 393-2476	575) 393-24	76										
Company Name:	Basin Environmental Service Technologies, LLC	rvice Technolo	gies, LLC		BILL TO	3					ANALYSIS RE	REQUEST	
roject Manager:	Ben Arguijo			P.O. #:	*			-		-			
Address: P.O.	P.O. Box 301			Com	Company:	Basin Env	×.		_				_
City: Lovington		State: NM	Zip: 88260	Attn:		Jody							
hone #: (575	(575)396-2378 F:	Fax #: (575)396-1429	6-1429	Address:		P.O. Box 301	-			_			
Project #:	P	Project Owner:		City:		Lovington		_	)	)			
Project Name:	Grand B	Banks A	ARu - 14	State:	NM Zi	): 88260		-	5M	21E			
Project Location:	Lea			Phone #:		(575) 396-2378		lori	(801	(80			
Sampler Name:	Steve Taylor			Fax #:		(575) 396-1429		_	РН	EX			
FOR LAB USE ONLY			N	MATRIX P	PRESERV.	SAMPLING		_	T	BT			_
Lab I.D. HleOC9.11	Sample I.D.		(G)RAB OR (C)OMP. # CONTAINERS GROUNDWATER WASTEWATER	SOIL OIL SLUDGE OTHER : ACID/BASE:	ICE / COOL OTHER :	DATE	TIME	-					
-	Area #1 SP#1 Eastwall		g 1	×	X 4/2	4/27/2016	9:40	×	×	×			
2	Area #1 SP#1 Wesrwall		g 1	×	× 4/2	4/27/2016	9:45	×	×	×			
1	Area#2 SP#1 Eastwall		g 1	×	× 4/2	4/27/2016	9:35	×	×	×			
t	Area#2 SP#1 Westwall		g 1	×	× 4/2	4/27/2016	9:30	×	×	×			
ce.	Area#4 SP#1 Easrwall		g 1	×	× 4/2	4/27/2016	9:15	×	×	×			
6	Area#4 SP#1 Westwall		g 1	×	× 4/2	4/27/2016	9:10	×	×	×			
7	Area#4 SP#2 Eastwall		g 1	×	× 4/	4/27/2016	9:25	×	×	×			
<i>b</i>	Area#4 SP#2 Westwall		g 1	×	× 4/	4/27/2016	9:20	×	×	×			
2	Area#5 SP#1 Eastwall		9 1	×	× 4/	4/27/2016	8:30	×	×	×			
ID IN EASE NOTE: Linkary and	Area#5 SP#! Westwall g 1 x 4/27/2016 8:	tsive remedy for any d	g 1 aim arising whether based in	X contract or tort, shall be li	x 4/	4/27/2016 unt paid by the client fo	8:35	×	×	×			-
PLEASE NOTE: Liability and Dama analyses. All claims including those service. In no event shall Cardinal b	PLEASE MOTE: Labelity and Damages. Candral's labelity and clear's sectance remoty to any seam areas processor in constance or our, seam or minor uncerninous your or uncerninous parts of the applicable analyzes. All clears including those for regigneroe and any other cause whatsoever shall be deemed waked unkseamable in whing and neoveled by Cardral within 30 days after completion of the applicable analyzes. All clears including those for regigneroe and any other cause whatsoever shall be deemed waked unkseamable in whing and neoveeled by Cardral within 30 days after completion of the applicable association of the able for incidental or consequential damages, including without limitation, basiness interruptions, loss of use, or bas of ports incurred by cleart, its subsidiaries, arrest or an uncerning the conformance of subclear hearing by Cardral without limitation, basiness interruptions, loss of use, or bas of ports incurred by cleart, its subsidiaries, arrest or any other subsociation of the above stated to accelerate or concentrate by Cardral without limitation, basiness interruptions, loss of use, or bas of ports incurred by cleart, its subsidiaries, arrest or any other subsociation of the above stated to accelerate or concentrate by Cardral without limitation, basiness interruptions, loss of use, or bas of ports incurred by cleart, its subsidiaries, arrest or any other subsociation of the above stated to accelerate or concentrate by Cardral without limitation, the applicable of why the subsociation of the above stated to accelerate or concentrate or by Cardral and accelerate or concentrate or the applicable of why the subsociation of any other above stated to accelerate or concentrate or by Cardral and accelerate or concentrate or the applicable of the above stated to accelerate or concentrate or by Cardral and accelerate or concentrate or accelerate or concentrate or accelerate or	lusive remody for any c atsoever shall be deem famages, including with fore benearder by Card	aim arising whether based in ed waived unless made in wr out limitation, business internu inal moandless of whether su	sed in contract or torit, sites the immodu to the animous in writing and received by Cardinali within 30 days interruptions, loss of use, or loss of profits incurred by ther such cakin is based upon any of the above stated	inal within 30 days af of profits incurred by of the above stated	reasons or otherw	re applicable rres, rres,	1					
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Sampler - UPS - Bus - Other:

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FORM-006 Revision 1.0

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ARDINAL LABORATORIES 101 East Marland, Hobbs, NM 88240

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Company Name:	Basin Environmental Service Technologies, LLC	rice Technologi	es, LL	<u>.</u> C					81	BILL TO						ANALYSIS	1'S		REQUEST	ŰE	1St						1
Project Manager:	Ben Arguijo						P.O. #:	*										_	_					-	_		_
Address: P.O.I	P.O. Box 301						Com	Company:	×	Basin Env.	Env.														_		_
City: Lovington	St	State: NM Z	Zip: 8	88260			Attn:			Jody							-	_						-			
Phone #: (575):	(575)396-2378 Fax	Fax #: (575)396-1429	1429				Add	Address:		P.O. Box 301	301						-	_						-			
Project #:	Pro	Project Owner:					City:			Lovington		1.1	)	3)				_			_						_
ame:	Grand Banks ARU-14						State:		MN	Zip: 8	88260	de	15M	216			_				_	_		-			_
Project Location:	Lea						Pho	Phone #:		(575) 396-2378	2378	lori	(80	(80				_			-	_			_		_
Sampler Name: S	Steve Taylor						Fax #:	*		575) 396-1429	429	Ch	РН	TE)			-				-	_		-	_		_
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Lab I.D.	Sample I.D.		(G)RAB OR (C)O # CONTAINERS	GROUNDWATEF WASTEWATER	SOIL	SLUDGE	OTHER :	ACID/BASE:	OTHER :	DATE	TIME															19	
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6	Ib         Area#5 SP#4 Westwall         g         1         x         4/27/2016         9:0           Ib         Area#5 SP#4 Westwall         Ib         Ib<		0		×				×	4/27/2016	9:00	×	×	×													
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Delivered By: (Circle One) Sampler - UPS - Bus - Other:		0.40		Cool	C B O		o s lon		E H	(mittals)	Please email results to pm@basinenv.com & Tasavoie@BassPet.com	email	result	s to pm	@bas	inen	V.COI	n &	Tas	voie	(a)	ass	Petr	om			-

Revision 1.0 FORM-006

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Page 20 of 20

Company Name:	a: Basin Env		BILL	BIL	BILLE TO					ANAL	LYSIS	REQUEST
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roject Name:	Project Name: Grand Banks ARU #14	#14		State: Z	Zip:		-	-	-	-	-	
roject Locatio	Project Location: Lea County			Phone #:			orie	TE		-	D	
Sampler Name:	: Bill Wooley			Fax #:			-		-	-	-	
FOR LAB USE ONLY			MATRIX	PRESERV.	SAMPLING		-	ΓΡΙ	Те	-		
Lab I.D.	Sample I.D.	I.D.	G)RABOR (C)OM CONTAINERS BROUNDWATER VASTEWATER BOIL DIL	SLUDGE DTHER : ACID/BASE: CE / COOL DTHER :	DATE	TIME		-		Compl		
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.هـ		t Wall		<	4/5/16	08:30		1				
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