# Basin Environmental Service Technologies, LLC

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æ **Effective Solutions** 

# **REMEDIATION SUMMARY**

# AND RISK-BASED SITE CLOSURE REQUEST

#### **BOPCO**, LP

Remuda Basin Unit #1 Battery Eddy County, New Mexico Unit Letter "I" (NE/SE), Section 24, Township 23 South, Range 29 East Latitude 32.288041° North, Longitude 103.936333° West NMOCD Reference # 2RP-1458

Prepared For:

BOPCO, LP 522 W. Mermod, Suite 704 Carlsbad, New Mexico 88220

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

June 2014

NM OIL CONSERVATION ARTESIA DISTRICT

JUL 01 2014

Project Manager

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## **1.0 INTRODUCTION & BACKGROUND INFORMATION**

Basin Environmental Service Technologies, LLC (Basin), on behalf of BOPCO, LP (BOPCO), has prepared this *Remediation Summary and Risk-Based Site Closure Request* for the release site known as Remuda Basin Unit #1 Battery (RBU #1 Battery). The legal description of the release site is Unit Letter "I" (NE/SE), Section 24, Township 23 South, Range 29 East, in Eddy County, New Mexico. The geographic coordinates of the release site are 32.288041° North latitude and 103.936333° West longitude. The property affected by the release is owned by the State of New Mexico and administered by the New Mexico State Land Office (NMSLO). A "Site Location Map" is provided as Figure 1.

On November 26, 2012, during a routine inspection, BOPCO discovered a produced water transport truck illegally dumped an unknown volume of produced water on the well pad at the Remuda Basin Unit #1 tank battery. The New Mexico Oil Conservation Division (NMOCD)-Artesia District Office was notified immediately upon discovery. The "Release Notification and Corrective Action" (Form C-141) indicated the release affected the well pad, adjacent pasture land and a historic drilling reserve pit north of the well pad. The Form C-141 is provided as Appendix A. General photographs of the release site are provided as Appendix B.

The release site is located atop a small hill composed of interbedded gypsum, limestone, siltstone and clay.

## 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 was unavailable for Section 24, Township 23 South, Range 29 East. A depth to groundwater reference map utilized by the NMOCD indicates groundwater should be encountered at approximately sixty (60) to seventy feet (70') below ground surface (bgs). Based on the NMOCD ranking system, ten (10) points will be assigned to the site as a result of this criterion.

There is one (1) water well located approximately one hundred and forty feet (140') to the west (cross-gradient) of the release site. Based on the NMOCD ranking system, twenty (20) points will be assigned to the site as a result of this criterion.

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

NMOCD guidelines indicate the RBU #1 Battery release site has an initial ranking score of thirty (30) points. The soil remediation levels for a site with a ranking score of greater than nineteen (>19) points are as follows:

- Benzene 10 mg/Kg (ppm)
- Benzene, ethylbenzene, toluene and xylene (BTEX) 50 mg/Kg (ppm)
- Total petroleum hydrocarbon (TPH) 100 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

On March 7, 2014, Basin began excavating impacted soil from the northern portion of the well pad. The floor of the excavation was advanced to approximately four feet (4') bgs before layers of gypsum and limestone became overly burdensome. The excavation sidewalls were advanced until concentrations of BTEX, TPH and chloride were less than NMOCD regulatory standards. During the excavation of impacted material, it became apparent the most recent release comingled with other illegal dumps and the adjacent historic reserve pit located north of the well pad.

On March 14, 2014, six (6) soil samples (WSW @ 3', SSW #1 @ 4', Floor #1 @ 4', Floor #2 @ 4', Floor #3 @ 4' and Floor #4 @ 4') were collected from the floor and sidewalls of the excavated area in the northern portion of the release site and submitted to Cardinal Laboratories, of Hobbs, New Mexico, for analysis of chloride concentrations. Laboratory analytical results indicated chloride concentrations ranged from 1,500 ppm for soil sample Floor #2 @ 4' to 4,400 ppm for soil sample Floor #1 @ 4'. In addition, one (1) 5-point composite soil sample (stockpile) was collected from the stockpiled material for analysis of chloride concentrations which were determined to be 5,040 ppm. A summary of "Concentrations of Benzene, BTEX, TPH and Chloride in Soil" is provided in Table 1. Laboratory analytical reports are provided as Appendix C. Sample locations are depicted on Figure 2a, "Site & Sample Location Map – Northern Portion of Release Site" and Figure 2b, "Site & Sample Location Map – Southern Portion of Release Site".

Beginning March 24, 2014, Basin conducted an environmental investigation in an effort to characterize the release and determine the vertical and horizontal extent of soil impact. During the investigation a series of text trenches were advanced on an approximate fifty-foot (50') grid and around the inferred release margins. Soil samples were collected from the trenches at approximate two-foot (2') intervals, or the deepest extent practicable given the occurrence of a resilient gypsum layer at two (2) to six feet (6') bgs across a majority the release site. Field test results from soil samples suggested soil impact above NMOCD Regulatory Standards extended to greater than four feet (4') bgs across a majority of the northern portion of the release site. Field test results indicated chloride impact extended to approximately two (2) to four feet (4') bgs across a majority of the release site. A resilient gypsum layer prevented the further advancement of the test trenches in other areas on the well pad.

On March 19, 2014, one (1) confirmation soil sample (ESW #1) was collected from the excavated area in the northern portion of the release site and submitted to the laboratory for analysis of chloride concentrations. Laboratory analytical results indicated the chloride concentration was 304 ppm.

On March 28, 2014, four (4) soil samples (NFL Sec. D Floor #3, NFL Sec. D ESW #1, NFL Sec. D ESW #2 and NFL Sec. D ESW #3) were collected from the floor and sidewalls of the excavated area in the northern portion of the release site and submitted to the laboratory for analysis of chloride concentrations. Laboratory analytical results indicated chloride concentrations ranged

from 32.0 for soil sample NFL Sec. D ESW #2 to 2,400 ppm for soil sample NFL Sec. D Floor #3.

In addition, eleven (11) soil samples (Sec. A WSW #3, Sec. A WSW #4, Sec. A SESW, Sec. A ESW #3, Sec. B Floor, Sec. B SSW, Sec. C Floor (Rock), Sec. C SSW, Sec. D Floor, Sec. D SSW and Sec. E Floor (Rock)) were collected from the floor and sidewalls of the excavated area in the southern portion of the release site and submitted to the laboratory for analysis of chloride concentrations. Laboratory analytical results indicated chloride concentrations ranged from 96.0 ppm for soil sample Sec. E. Floor (Rock) to 9,200 ppm for soil sample Sec. B Floor. Soil samples Sec. C Floor (Rock) and Sec. D Floor were also analyzed for concentrations of TPH, which were determined to be less than the appropriate laboratory method detection limit (MDL) for each of the submitted soil samples. Soil sample Sec. D Floor was also analyzed for concentrations of BTEX, which were determined to be less than the appropriate laboratory MDL. The floor of the excavation was advanced in the area represented by soil sample Sec. B Floor.

On April 1, 2014, NMOCD and BOPCO representatives met to discuss a path forward on the Remuda Basin Unit #1 Battery remediation project. BOPCO proposed a risk-based closure strategy to progress release site toward an NMOCD-approved closure. Within the risk-based closure strategy, it was proposed that the northern portion of the well pad be excavated to match the existing grade of the historic drilling reserve pit north of the well pad. A twenty-millimeter polyurethane liner would be installed in the floor of the environmental excavation atop soil exhibiting chloride impact above NMOCD regulatory standards and extended to the north, effectively recapping the historic drilling reserve pit. This engineering control is designed to inhibit the vertical migration of contaminants left in-situ, as well as prevent further erosion and exhumation of the historic drilling reserve pit.

On April 10, 2014, nine (9) in-situ soil samples (Sec. B #1 Floor, Sec. B #2 Floor, Sec. B #3 Floor, Sec. C #1 Floor, Sec. C #2 Floor, Sec. C #3 Floor, Sec. D #1 Floor, Sec. D #2 Floor and Sec. D #3 Floor) were collected from the floor of the excavated area in the northern portion of the release site to characterize contaminants left in-situ. Collected soil samples were submitted to the laboratory for analysis of chloride concentrations. Laboratory analytical results indicated chloride concentrations ranged from 144 ppm for soil sample Sec. D #2 Floor to 12,600 ppm for soil sample Sec. B #1 Floor. Soil samples Sec. B #2 Floor, Sec. C #2 Floor and Sec. D #2 Floor were also analyzed for concentrations of TPH, which were determined to be less than the appropriate laboratory MDL. Soil samples Sec. C #2 Floor was also analyzed for concentrations of BTEX, which were determined to be less than the appropriate laboratory MDL.

In addition, a delineation trench (DT) was advanced in the area exhibiting the highest chloride concentration at four feet (4') bgs. During the advancement of the delineation trench, three soil samples (DT @ 6', DT @ 8' and DT @ 9') were collected and submitted to the laboratory for analysis of chloride concentrations. Laboratory analytical results indicated soil sample DT @ 6' exhibited chloride concentration of 3,440 ppm, soil sample DT @ 8' exhibited a chloride concentration of 5,840 ppm. Further advancement of the delineation trench was impracticable due to the presence of an impenetrable rock layer.

On April 16, 2014, a twenty-millimeter polyurethane liner measuring approximately one hundred (100) by two hundred and fifty feet (250') was installed in the floor of the excavated area in the northern portion of the release site. An additional section of liner measuring approximately one hundred and seventy (170' by one hundred and eighty-five feet (185') was sewn on and extended out over the historic drilling reserve pit. A one-foot (1') layer of pad sand was installed above and below the liner to maintain its integrity during backfilling activities. This engineering control was designed to inhibit the vertical migration of contaminants left in-situ, as well as prevent further erosion and exhumation of the historic drilling reserve pit. Upon installing the liner, the northern portion of the existing well pad. Approximately eighteen inches (18") of topsoil was installed atop the remaining portion of the liner capping the historic drilling reserve pit. Erosion controls were installed along the northern portion of the well pad to help shed run-off to the edges of the reclaimed historic drilling reserve pit.

On April 29, 2014, two (2) confirmation soil samples (Sec. A Floor #1 and Sec. A Floor #2) were collected from the floor of the excavated area in the southern portion of the release site and submitted to the laboratory for analysis of chloride concentrations. Laboratory analytical results indicated chloride concentrations ranged from 368 ppm for soil sample Sec. A Floor #1 to 416 ppm for soil sample Sec. A Floor #2. Soil sample Sec. A Floor #2 was also analyzed for concentrations of BTEX and TPH, which were determined to be less than the appropriate laboratory MDL.

On April 30, 2014, one (1) confirmation soil sample (Sec. B Floor B) was collected from the floor of the excavated area in the southern portion of the release site and submitted to the laboratory for analysis of chloride concentrations. Laboratory analytical results indicated soil sample Sec. B Floor B exhibited a chloride concentration of 624 ppm.

On May 8, 2014, two (2) confirmation soil samples (Sec. A WSW #3b and Sec. A SSW) were collected from the excavated area in the southern portion of the release site and submitted to the laboratory for analysis of chloride concentrations. Laboratory analytical results indicated chloride concentrations ranged from 832 ppm for soil sample Sec. A SSW to 1,310 ppm for soil sample Sec. A WSW #3b. Further excavation in the area of Sec. A WSW #3b was limited due to the presence of an active natural gas pipeline.

In addition, a delineation trench (5/8 DT) was advanced in the area exhibiting the highest chloride concentration at four feet (4') bgs. During the advancement of the delineation trench, three soil samples (5/8 DT @ 5', 5/8 DT @ 7' and 5/8 DT @ 8') were collected and submitted to the laboratory for analysis of chloride concentrations. Laboratory analytical results indicated soil sample 5/8 DT @ 5' exhibited chloride concentration of 2,920 ppm, soil sample 5/8 DT. @ 7' exhibited a chloride concentration of 3,320 ppm and soil sample 5/8 DT @ 8' exhibited a chloride concentration of 672 ppm.

On May 9, 2014, NMOCD and BOPCO representatives met to discuss remediation activities on the well pad at Remuda Basin Unit #1 Battery. BOPCO proposed a risk-based closure strategy to progress release site toward an NMOCD-approved closure. Within the risk-based closure strategy, it was proposed that the remaining impacted portion of the well pad be excavated to the maximum extent practicable and a twenty-millimeter polyurethane liner be installed in the floor of the environmental excavation atop soil exhibiting chloride impact above NMOCD regulatory standards. Upon completion of remediation activities and repairing the well pad, above ground tanks associated with the Remuda Basin Unit #1 Battery will be relocated atop the risked-out portion of the well pad. A new, impervious containment will be constructed around the Remuda Basin Unit #1 Tank Battery. The containment will consist of steel walls extending approximately two feet (2') above ground surface, lined with felt, and coated with an impermeable spray-on polyurethane liner.

On May 14, 2014, a twenty-millimeter polyurethane liner measuring approximately sixty-five (65) by one hundred and thirty feet (130') was installed in the floor of the excavated area in the southern portion of the release site atop soil exhibiting chloride concentrations above NMOCD Regulatory Standards. A one-foot (1') layer of pad sand was installed above and below the liner to maintain its integrity during backfilling activities. This engineering control was designed to inhibit the vertical migration of contaminants left in-situ, as well as mitigate any future releases associated with the tank battery upon its relocation. Upon installing the liner, the excavation was backfilled with compacted caliche and graded to meet the needs of the well pad.

On June 3, 2014, two (2) soil samples (RO #1 and RO #2) were collected at four (4) to six inches (6") depth from two (2) run-off areas exiting the historic reserve pit area to the north. The soil samples were submitted to the laboratory for analysis of chloride, BTEX and TPH concentrations. Soil sample RO #1 exhibited a chloride concentration of 400 ppm, a TPH concentration of 17.3 ppm and BTEX concentrations of less than the appropriate laboratory MDL. Soil sample RO #2 exhibited a chloride concentration of 416 ppm, a TPH concentration of 10.7 ppm and BTEX concentrations of less than the appropriate laboratory MDL. Based on field observations and laboratory analytical results from the two (2) run-off areas, it was determined soil and vegetation had not been substantially affected in those areas.

The "risked-out" portion of the well pad characterized by the primary release measured approximately sixty-five feet (65') in width, one hundred and thirty feet (130') in length and four feet (4') in depth. An additional area on the well pad measuring approximately forty (40) to eighty feet (80') in width and one hundred and eighty feet (180') in length was excavated to four (4) to five and one-half feet (5.5') in depth. The northern portion of the well pad, an area measuring approximately one hundred feet (100') in width and two hundred and fifty feet (250') in length, was excavated to approximately four feet (4') bgs before installing a twenty-millimeter polyurethane liner. In addition, a historic drilling reserve pit measuring approximately one hundred and one hundred and eighty-five feet (185') in length was lined and capped with approximately two feet (2') of topsoil. Affected areas outside the well pad will be reseeded in accordance with the NMSLO.

Between March 14 and May 6, 2014, approximately four thousand, four hundred and forty cubic yards (4,440 yd<sup>3</sup>) of impacted material was transported to Lea Land, Inc. (NMOCD Permit #WM-01-035), for disposal. Approximately seven thousand, nine hundred and forty cubic yards (7,940 yd<sup>3</sup>) of locally purchased, non-impacted soil was hauled into the location for use as backfill and to cap the historic drilling reserve pit.

## 4.0 QA/QC PROCEDURES

#### 4.1 Soil Sampling

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

- BTEX concentrations in accordance with EPA Method SW-846 8021b
- TPH concentrations in accordance with EPA Method SW-846 8015M
- Chloride concentrations in accordance with EPA Method 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

Remediation activities conducted at the Remuda Basin Unit #1 Battery release site met the objectives set forth by the NMOCD. Impacted soil was excavated to the maximum extent practicable, given the presence of an impenetrable rock layer. A twenty-millimeter polyurethane liner was placed in the floor of the excavation at approximately four feet (4') bgs atop of areas exhibiting chloride concentrations above NMOCD regulatory standards. This engineering control was designed to inhibit the vertical migration of contaminants left in-situ. In addition, a drilling reserve pit adjacent to the release site was lined and capped with approximately two feet (2') of topsoil. Based on the results of confirmation soil samples and the installation of approved engineering controls, Basin recommends BOPCO provide the NMOCD Artesia District Office and the NMSLO a copy of this *Remediation Summary and Risk-Based Site Closure Request* and request the NMOCD grant site closure to the Remuda Basin Unit #1 Battery Illegal Dump release site.

### 6.0 LIMITATIONS

Basin Environmental Service Technologies, LLC, has prepared this *Remediation Summary and Risk-Based Site Closure Request* to the best of its ability. No other warranty, expressed or implied, is made or intended. Basin has examined and relied upon documents referenced in the report and on oral statements made by certain individuals. Basin has not conducted an independent examination of the facts contained in referenced materials and statements. Basin has presumed the genuineness of these documents and statements and that the information provided therein is true and accurate. Basin has prepared this report in a professional manner, using the degree of skill and care exercised by similar environmental consultants. Basin 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.

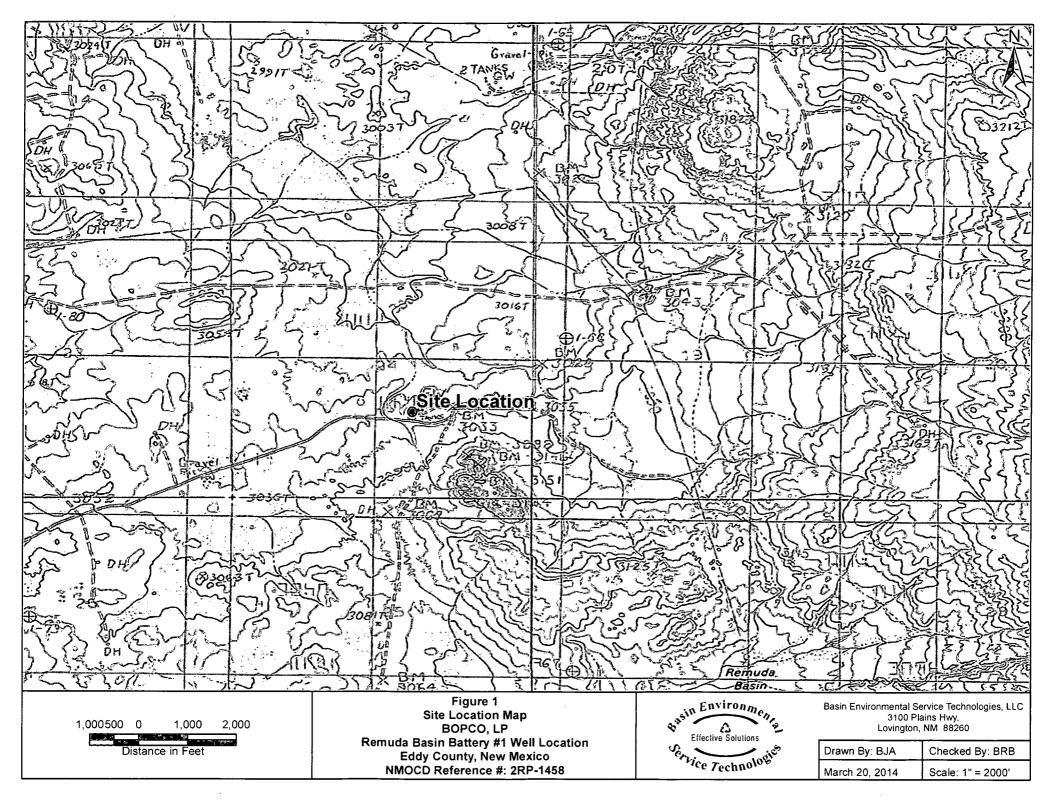
This report has been prepared for the benefit of BOPCO, LP. The information contained in this report, including all exhibits and attachments, may not be used by any other party without the express consent of Basin Environmental Service Technologies, LLC, and/or BOPCO, LP.

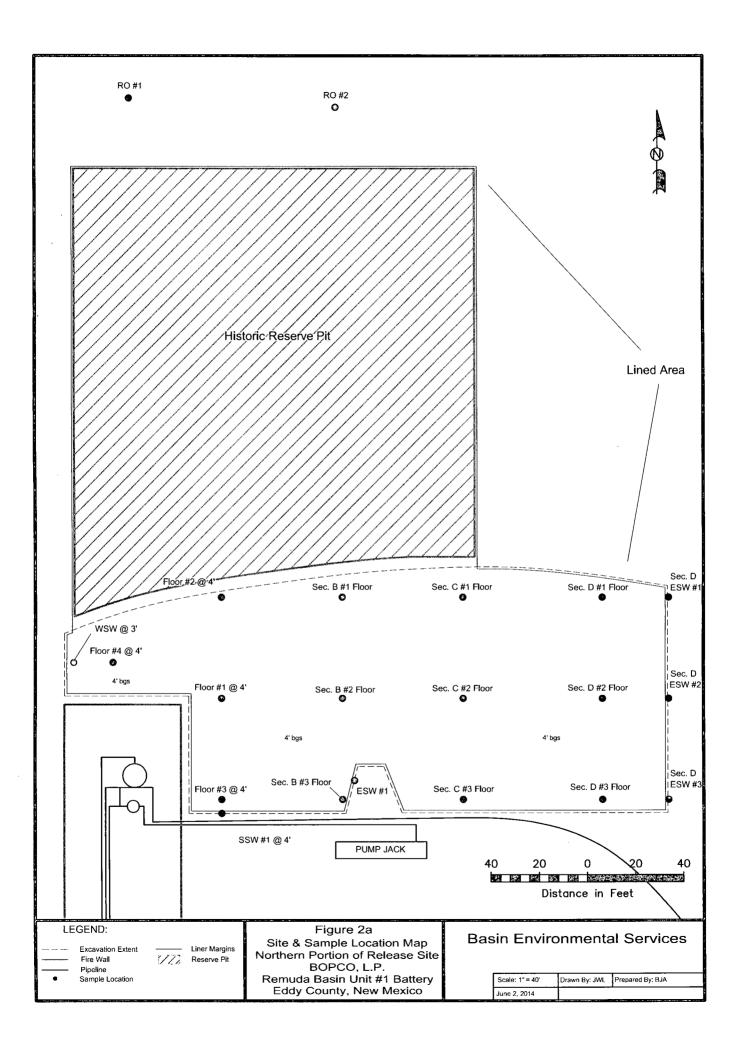
# 7.0 **DISTRIBUTION:**

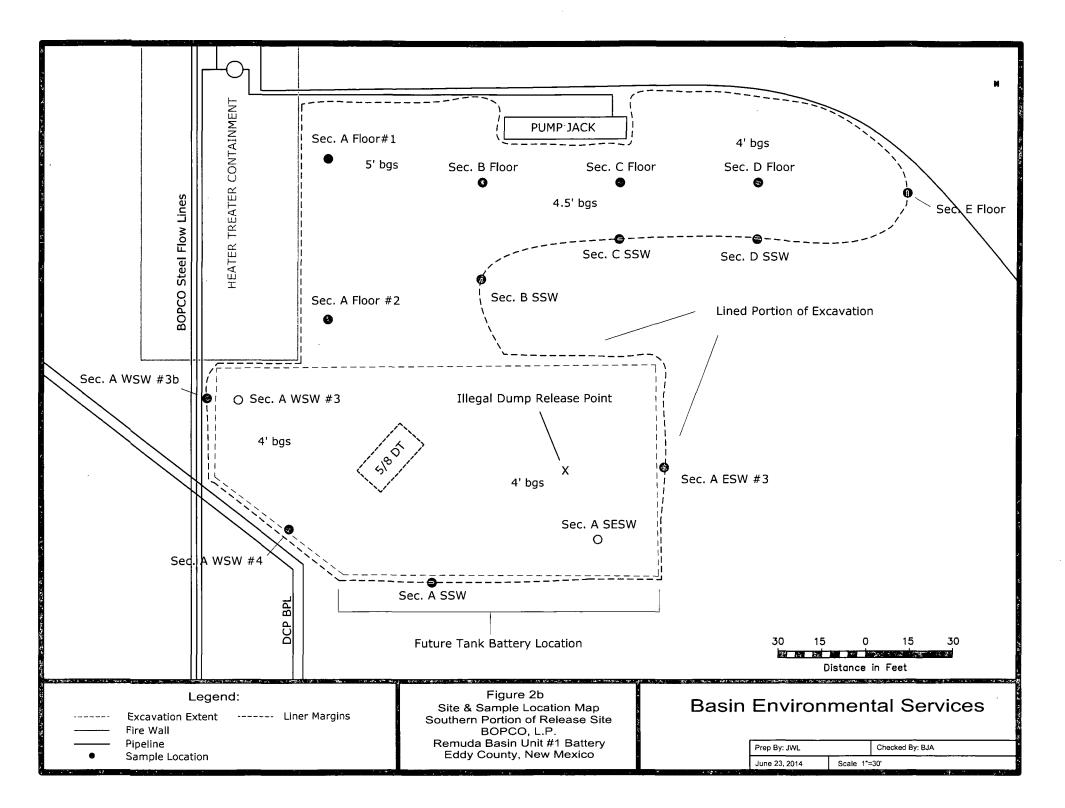
- Copy 1: Mike Bratcher New Mexico Energy, Minerals and Natural Resources Department Oil Conservation Division (District 2) 1301 E. Grand Avenue Artesia, NM 88210
- Copy 2: Andrew Kraemer New Mexico State Land Office 602 N. Canal, Suite B. Carlsbad, New Mexico 88220
- Copy 3: Tony Savoie BOPCO, LP 522 W. Mermod, Suite 704 Carlsbad, NM 88220
- Copy 4: Basin Environmental Service Technologies, LLC P.O. Box 301 Lovington, NM 88260

FIGURES

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# TABLES

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

#### BOPCO, LP REMUDA BASIN BATTERY #1 BATTERY EDDY COUNTY, NEW MEXICO NMOCD REFERENCE #: 2RP-1458

				METHOD: EPA SW 846-8021B, 5030						FHOD: 80	TOTAL	4500 CI-B	
SAMPLE LOCATION	SAMPLE DEPTH (BGS)	SAMPLE DATE	SOIL STATUS			ETHYL- BENZENE	TOTAL XYLENES	TOTAL BTEX	GRO C <sub>6</sub> -C <sub>12</sub>	DRO C <sub>12</sub> -C <sub>28</sub>	ORO C <sub>28</sub> -C <sub>35</sub>	TPH C <sub>6</sub> -C <sub>35</sub>	CHLORIDE
	(603)			(mg/Kg)	(mg/Kg)	(mg/Kg)	(mg/Kg)	(mg/Kg)		(mg/Kg)		(mg/Kg)	(mg/Kg)
WSW @ 3'	3'	3/14/2014	In-Situ	-	-	-	-	-		-	-	-	2,280
SSW #1 @ 4'	4'	3/14/2014	In-Situ	-	-	-	-	-	-	-	-	-	2,360
Floor #1 @ 4'	4'	3/14/2014	In-Situ	-	-	-	-	-	-	-	-	-	4,400
Floor #2 @ 4'	4'	3/14/2014	In-Situ	-	-		-	-	-	-	-	-	1,500
Floor #3 @ 4'	4'	3/14/2014	In-Situ	-	-	-	-	-	-	-	-	-	1,820
Floor #4 @ 4'	4'	3/14/2014	In-Situ	-	-	•	-	-	-	-	-	-	3,840
Stockpile	N/A	3/14/2014	Stockpiled		•	-	-		-	-	-	-	5,040
ESW #1	3'	3/19/2014	In-Situ	-	-	-	-	•	-	-	-	-	304
			· · ·										
NFL Sec. D Floor #3	4'	3/28/2014	In-Situ	-	-	-	-	-	-	-	-	-	2,400
NFL Sec. D ESW #1	3'	3/28/2014	In-Situ	· ·	-		-	-	-	-	-	-	448
NFL Sec. D ESW #2	3'	3/28/2014	In-Situ	· .	-	-	-	-	-	-		-	32.0
NFL Sec. D ESW #3	3'	3/28/2014	In-Situ		•	-	-	-	-	-	-	-	80.0
Sec. A WSW #3	3'	3/28/2014	In-Situ	· .	-	-	-	-	-	-	-	-	2,000
Sec. A WSW #4	3'	3/28/2014	In-Situ		-	-	-	-	-	-	-	-	928
Sec. A SESW	3'	3/28/2014	In-Situ	•	-	-	•	-	-	-	-	-	1,070
Sec. A ESW #3	3'	3/28/2014	In-Situ	-	-	-	-		•	-	-		560
Sec. B Floor	2'	3/28/2014	In-Situ	-	-		-	•	<u> </u>	-	-		9,200
Sec. B SSW	3'	3/28/2014	In-Situ	•	-	-	· .	-	<10.0	<10.0	<10.0	<10.0	496
Sec. C Floor (Rock)	4.5'	3/28/2014	In-Situ	<u>-</u>	-	-	-		-	-			224
Sec. C SSW	3'	3/28/2014	In-Situ	-	-	-	-	•	· ·	-	•	-	192
Sec. D Floor	4'	3/28/2014	In-Situ	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<10.0	656
Sec. D SSW	3'	3/28/2014	In-Situ	-	-	-	-	-	-	-	-	-	192
Sec. E Foor (Rock)	2'	3/28/2014	In-Situ	· .		-	•		-	-	-	-	96.0
	<u> </u>												10.000
Sec. B #1 Floor	4'	4/10/2014	In-Situ	-	-		•	-	-	-	-	-	12,600
Sec. B #2 Floor	4'	4/10/2014	In-Situ	-	-	-	-		<10.0	<10.0	<10.0	<10.0	6,200
Sec. B #3 Floor	4' 4'	4/10/2014		-	-		-	<u> </u>	-	-	-	-	1,000
Sec. C #1 Floor	4'	4/10/2014	In-Situ	-	-	-	-	-	-	-	-	-	4,880
Sec. C #2 Floor	4'	4/10/2014	In-Situ	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<10.0	3,360
Sec. C #3 Floor	4	4/10/2014	In-Situ	-	-	-	-	·	-	-	-	-	1,200
Sec. D #1 Floor	4 4'	4/10/2014	In-Situ	-	•	<sup>-</sup>	-		-	-	-	-	720
Sec. D #2 Floor	4 4'·		In-Situ	-	-	· · ·	•	-	<10.0	<10.0	<10.0	<10.0	144
Sec. D #3 Floor	6	4/10/2014	In-Situ	-		-	-		-	· -	-	-	1,260 3,440
D.T.@6' D.T.@8'	8'	4/10/2014	In-Situ In-Situ		-	-	•		-	-	· ·	-	5,440
D.T. @ 9'	9'	4/10/2014		< 0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<10.0	5,440
<u>D.1.@9</u>	3	4/10/2014	in-Situ	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<10.0	5,640
Sec. A Floor #1	5'	4/29/2014	In-Situ										368
Sec. A Floor #2	5.5'	4/29/2014	In-Situ	<0.050	< 0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<10.0	416
360. A FIUUI #2	0.0	-123/2014	in-onu	<0.000	<0.050	<0.050	<0.100	<0.300	< 10.0	<10.0	<10.0	<10.0	410
Sec. B Floor B	4'	4/30/2014	In-Situ	· ·	-	-	-				-	-	624
	· · · · ·	4/00/2014			_	-			-	-	-	-	
5/8 DT @ 5'	5'	5/8/2014	In-Situ		-	-		-	-	-	-	-	2,920
5/8 DT @ 7'	7'	5/8/2014	In-Situ	-	-				-	-	-	-	3,320
5/8 DT @ 8'	8'	5/8/2014	In-Situ		-	-		<u> </u>	<u> </u>	-		-	672
Sec. A WSW #3b	3'	5/8/2014	In-Situ	-		-	-					<u> </u>	1,310
Sec. A SSW	3'	5/8/2014	In-Situ	-	-	-			-	-	-	-	832
	<u> </u>	0.0.2014			1				1			1	
RO #1	4"-6"	6/3/2014	In-Situ	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	17.3	<10.0	17.3	400
RO #2	4"-6"	6/3/2014	In-Situ	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	10.7	<10.0	10.7	416
	<b>T</b>				10000			10,000	1		1	1	1
NMOCD Criteria	t —		1	10		t		50	1	t	t	100	1,000

- = Not analyzed.

# APPENDICES

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# Appendix A

# Release Notification and Corrective Action (Form C-141)

District 1 1625 N. French Dr., Hobbs, NM 88240 District II 811 S. First St., Artesia, NM 88210 District III 1000 Rio Brazos Road, Aztec, NM 87410 District IV 1220 S. St. Francis Dr., Santa Fe, NM 87503

#### State of New Mexico Energy Minerals and Natural Resources

Form C-141 Revised August 8, 2011

Oil Conservation Division 1220 South St. Francis Dr. Santa Fe, NM 87505 Submit 1 Copy to appropriate District Office in accordance with 19.15.29 NMAC.

| 1220 S. St. Fran                                            | 220 S. St. Francis Dr., Santa Fe, NM 87505 Santa Fe, NM 87505 Santa Fe, NM 87505 |                                                 |            |                                            |          |                                                                  |             |          |          |                                         |                                       |        |                                                                                                                |
|-------------------------------------------------------------|----------------------------------------------------------------------------------|-------------------------------------------------|------------|--------------------------------------------|----------|------------------------------------------------------------------|-------------|----------|----------|-----------------------------------------|---------------------------------------|--------|----------------------------------------------------------------------------------------------------------------|
|                                                             |                                                                                  | <u>a an an</u> | Rel        | ease Notific                               |          |                                                                  |             | IP A     | ction    |                                         |                                       |        | an and the second s |
| Tal                                                         | ne                                                                               | 1206 01                                         |            |                                            |          |                                                                  |             |          | CUOL     | -                                       | I Domont                              |        | Final Deport                                                                                                   |
| Name of Co                                                  |                                                                                  | 332604                                          |            | 26073                                      |          | OPERATOR<br>Contact: Tony Savoie                                 |             |          |          | 🛛 Initia                                | al Report                             |        | Final Report                                                                                                   |
|                                                             |                                                                                  |                                                 |            | oad, N.M. 8822                             |          | Telephone 1                                                      |             |          | 29       | · · · _ · · · _ · · · · · · · · · · · · |                                       |        |                                                                                                                |
|                                                             |                                                                                  |                                                 |            | Vell Location                              |          | Facility Typ                                                     |             |          |          | duction                                 |                                       |        |                                                                                                                |
| Surface Ow                                                  | ner: State                                                                       | of N.M.                                         | · · · · ·  | Mineral C                                  | )wner: S | State of N.M                                                     | [.          |          |          | API No                                  | . 30-015-03                           | 3691   | ]                                                                                                              |
|                                                             | ,                                                                                |                                                 | •          | LOCA                                       | TIO      | N OF REI                                                         | LEASE       |          |          |                                         |                                       |        |                                                                                                                |
| Unit Letter                                                 | Section                                                                          | Township                                        | Range      | Feet from the                              |          | South Line                                                       | Feet from   | the      | East/V   | West Line                               | County                                |        |                                                                                                                |
| I                                                           | 24                                                                               | 238                                             | 29E        |                                            |          |                                                                  |             |          |          |                                         | Eddy                                  |        |                                                                                                                |
| L                                                           | <u> </u>                                                                         |                                                 | <u> </u>   | L                                          | l        |                                                                  |             |          |          |                                         | · · · · · · · · · · · · · · · · · · · | · · ·  |                                                                                                                |
| Latitude: <u>N 32.288041</u> Longitude: <u>W 103.936333</u> |                                                                                  |                                                 |            |                                            |          |                                                                  |             |          |          |                                         |                                       |        |                                                                                                                |
| r <u> </u>                                                  |                                                                                  |                                                 |            | NAT                                        | URE      | OF RELI                                                          |             |          |          |                                         |                                       |        | - <u></u>                                                                                                      |
| Type of Release<br>Source of Rel                            |                                                                                  |                                                 | nuthorized | relaceo                                    |          | Volume of<br>Date and H                                          |             |          |          |                                         | ecovered: N<br>Hour of Disc           |        |                                                                                                                |
| Source of Rel                                               | case. Ulikii                                                                     | OWILL UCK UN                                    | autionized | TCICASC                                    |          | Date and h                                                       |             |          | с.<br>   | 11/26/12                                |                                       | overy. |                                                                                                                |
| Was Immediate Notice Given?                                 |                                                                                  |                                                 |            |                                            |          | If YES, To                                                       |             |          |          |                                         |                                       |        |                                                                                                                |
| · · · · · · · · · · · · · · · · · · ·                       |                                                                                  |                                                 | Yes [      | No 🗌 Not Re                                | quired   | NMOCD e                                                          |             |          |          |                                         |                                       |        |                                                                                                                |
| By Whom? T                                                  |                                                                                  |                                                 |            | <u> </u>                                   |          | Date and H                                                       |             |          |          |                                         | <u></u>                               |        |                                                                                                                |
| Was a Watero                                                | ourse Reac                                                                       |                                                 | Yes 🔲      | No                                         |          | If YES, Vo                                                       | lume Impac  |          |          |                                         |                                       |        |                                                                                                                |
| 10 11/ 1                                                    |                                                                                  |                                                 |            |                                            |          |                                                                  |             |          |          |                                         |                                       |        |                                                                                                                |
| If a Watercou                                               | rse was imp                                                                      | bacted, Descri                                  | be runy.   |                                            |          |                                                                  | 1           | r        |          | 1 77 2012                               |                                       |        |                                                                                                                |
|                                                             |                                                                                  |                                                 | •          |                                            |          |                                                                  |             | 1        | DELI     | 7 2012                                  |                                       |        |                                                                                                                |
| Describe Cau                                                |                                                                                  |                                                 |            |                                            |          |                                                                  |             | NINA     | ncn      | ARTES                                   |                                       |        | 1                                                                                                              |
| The spin was                                                | caused by a                                                                      | n un-aumoriz                                    | eu release | on the well pad l                          | ocation. |                                                                  | _ L         | 0.0101   |          |                                         |                                       |        |                                                                                                                |
|                                                             |                                                                                  |                                                 |            |                                            |          |                                                                  |             |          |          |                                         |                                       |        |                                                                                                                |
| Describe Area                                               |                                                                                  |                                                 |            |                                            |          | t- 141-4 - 4                                                     | 1           |          |          | . *                                     |                                       |        | }                                                                                                              |
|                                                             |                                                                                  |                                                 |            | e land. No clean l<br>d in accordance t    |          |                                                                  |             | gation   | at the s | site.                                   |                                       |        |                                                                                                                |
|                                                             | -                                                                                | <u>.</u>                                        |            |                                            |          |                                                                  |             |          |          |                                         |                                       |        |                                                                                                                |
|                                                             |                                                                                  |                                                 |            | is true and compl                          |          |                                                                  |             |          |          |                                         |                                       |        |                                                                                                                |
|                                                             |                                                                                  |                                                 |            | d/or file certain re<br>cof a C-141 report |          |                                                                  |             |          |          |                                         |                                       |        |                                                                                                                |
|                                                             |                                                                                  |                                                 |            | investigate and re                         |          |                                                                  |             |          |          |                                         |                                       |        |                                                                                                                |
|                                                             |                                                                                  |                                                 | -          | ance of a C-141 r                          | eport do | es not relieve                                                   | the operato | or of re | sponsit  | oility for con                          | mpliance wit                          | h any  | other                                                                                                          |
| federal, state, o                                           | or local law                                                                     | s and/or regul                                  | ations.    |                                            | <u>-</u> |                                                                  |             | ONIC     | EDV      | ATIONI                                  | NUIGIO                                | T      |                                                                                                                |
| • •                                                         |                                                                                  |                                                 | ٥          |                                            | ·        |                                                                  | UILU        | UN2      | CKV      | ALIONI                                  | DIVISION                              | Ň      | }                                                                                                              |
| Signature: 🤇                                                | 1 on                                                                             | <u>-Dau</u>                                     | ui         |                                            |          |                                                                  |             | •        |          |                                         |                                       | ,      |                                                                                                                |
| Printed Name:                                               | Tony Savo                                                                        | ie                                              |            |                                            | A        | Approved by Environmental Specialist:<br>Signed By Mile Brancher |             |          |          |                                         |                                       |        |                                                                                                                |

Title: Waste Management and Remediation Specialist

E-mail Address: tasavoie@basspet.com

Date: 12/17/12 \* Attach Additional Sheets If Necessary

Phone: 432-556-8730

Remediation per OCD Rules & Guidelines. SUBMIT REMEDIATION PROPOSAL NOT LATER THAN:

Expiration Date:

Attached

2RF

1458

Approval Date: 1 8 2012

conditions of Approval: <u>e: 432-556-8730</u> Remediation per O( Guidelines, SUBSUZ PER

Guideline **PROPOSA** 

### State of New Mexico Energy Minerals and Natural Resources

Oil Conservation Division 1220 South St. Francis Dr. Santa Fe, NM 87505 Form C-141 Revised August 8, 2011

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

# **Release Notification and Corrective Action**

|                                                        | OPERATOR                          | Initial Report | Final Report |
|--------------------------------------------------------|-----------------------------------|----------------|--------------|
| Name of Company: BOPCO, L.P.                           | Contact: Tony Savoie              |                |              |
| Address: 522 W. Mermod, Suite 704 Carlsbad, N.M. 88220 | Telephone No. 575-887-7329        |                |              |
| Facility Name: Remuda Basin Battery #1(2RP-1458)       | Facility Type: Exploration and Pr | roduction      |              |
|                                                        |                                   |                |              |

Surface Owner: Federal

.

Mineral Owner: Federal

API No. 30-015-03691

Attached 🔲

# LOCATION OF RELEASE

| Unit Letter | Section | Township | Range | Feet from the | North/South Line | Feet from the | East/West Line | County: |
|-------------|---------|----------|-------|---------------|------------------|---------------|----------------|---------|
| I I         | 24      | 238      | 29E   |               |                  |               |                |         |
|             |         |          |       |               |                  |               |                |         |

Latitude N 32.288041 Longitude W 103.936333

| NATURE OF RELEASE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                                                           |                                                   |  |  |  |  |  |  |  |  |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------|---------------------------------------------------|--|--|--|--|--|--|--|--|
| Type of Release: Produced Water                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Volume of Release: Unknown                                                | Volume Recovered: None                            |  |  |  |  |  |  |  |  |
| Source of Release: Unknown truck unauthorized release<br>Was Immediate Notice Given?                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | Date and Hour of Occurrence:<br>Date and hour unknown<br>If YES, To Whom? | Date and Hour of Discovery:<br>11/26/12 8:00 a.m. |  |  |  |  |  |  |  |  |
| Yes No Not Required                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                                                           |                                                   |  |  |  |  |  |  |  |  |
| By Whom? Tony Savoie                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | Date and Hour: 11/26/12 at 10:22                                          | 2 p.m                                             |  |  |  |  |  |  |  |  |
| Was a Watercourse Reached?                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | If YES, Volume Impacting the W                                            | atercourse.                                       |  |  |  |  |  |  |  |  |
| If a Watercourse was Impacted, Describe Fully.*  NM OIL CONSERVATION  ARTESIA DISTRICT                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                                                                           |                                                   |  |  |  |  |  |  |  |  |
| Describe Cause of Problem and Remedial Action Taken.* JUL 0 1 2014<br>The spill was caused by an un-authorized release on the well pad location.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                                                           |                                                   |  |  |  |  |  |  |  |  |
| Describe Area Affected and Cleanup Action Taken.* Well pad location, drilling reserve pit, and pasture land. No cleanup has been initiate pending investigation at the site. The affected area in the pasture will be remediated in accordance to the NMOCD Guidelines. Approximately 4,440 cu. yds of impacted soil was excavated from the affected well pad location. Impacted soil was hauled to an NMOCD-approved disposal facility. During the remediation of the affected well pad, a historic drilling reserve pit north of the release site was also reclaimed. Please reference the attached Remediation Summary and Risk-Based Site Closure Request for detail of Remediation Activities.                                                                                                                            |                                                                           |                                                   |  |  |  |  |  |  |  |  |
| I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to NMOCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the NMOCD marked as "Final Report" does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to ground water, surface water, human health or the environment. In addition, NMOCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations. |                                                                           |                                                   |  |  |  |  |  |  |  |  |
| Signature: OIL CONSERVATION DIVISION                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                                                           |                                                   |  |  |  |  |  |  |  |  |
| Printed Name: Tony Savoie                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | Approved by Environmental Specialist:                                     |                                                   |  |  |  |  |  |  |  |  |
| Title: Waste Management and Remediation Specialist                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | Approval Date:                                                            | Expiration Date:                                  |  |  |  |  |  |  |  |  |

Conditions of Approval:

Phone: 432-556-8730

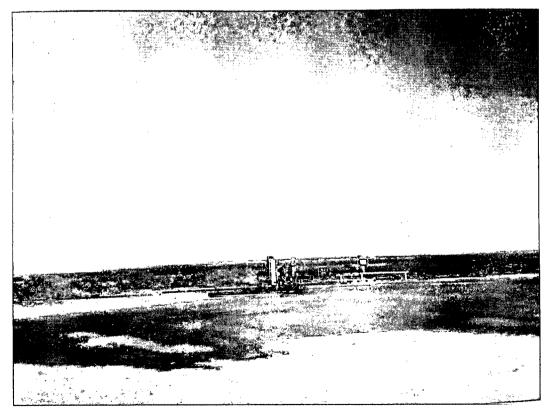
Date: 4/9/14 7/1/14 \* Attach Additional Sheets If Necessary

E-mail Address: tasavoie@basspet.com

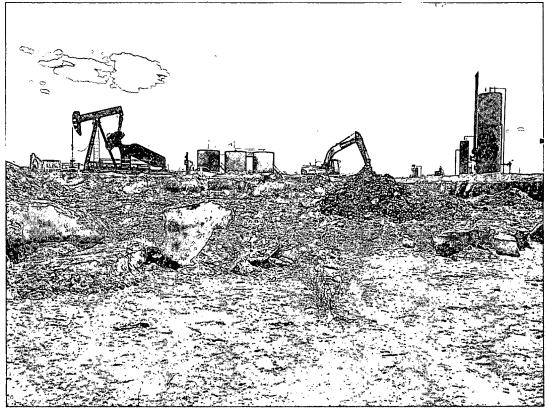
# Appendix B Photographs



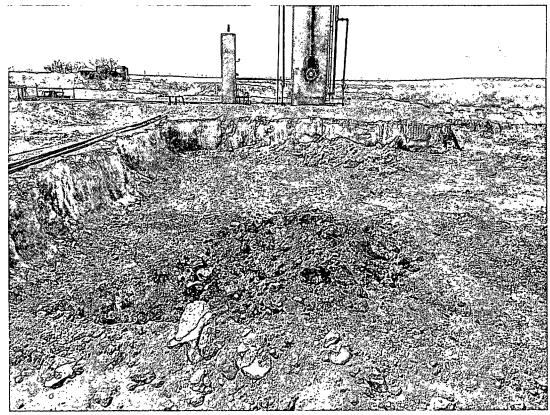
Photograph of the illegal dump at the Remuda Basin Unit #1 Battery.



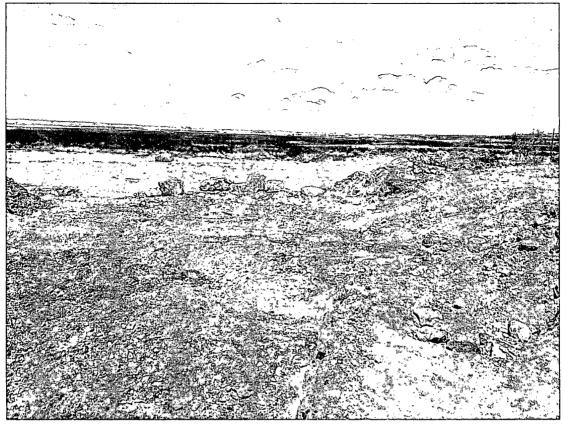
Photograph of the illegal dump at the Remuda Basin Unit #1 Battery.



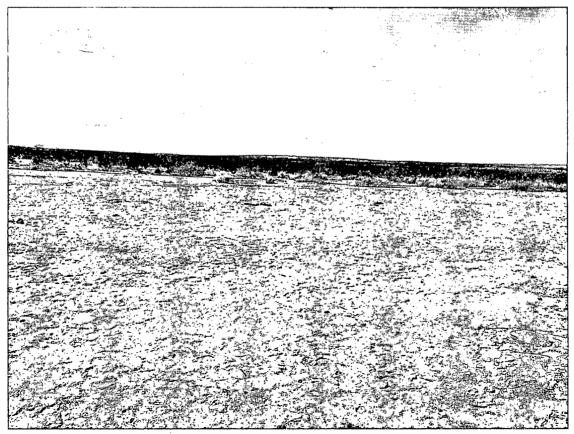
Photograph of the excavated area on the northern portion of the well pad taken from the edge of the drilling reserve pit. (Looking South)



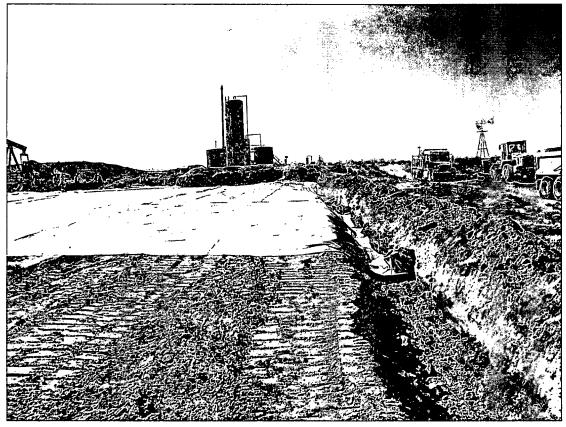
Photograph of the excavated area on the northern portion of the well pad. (Looking West)



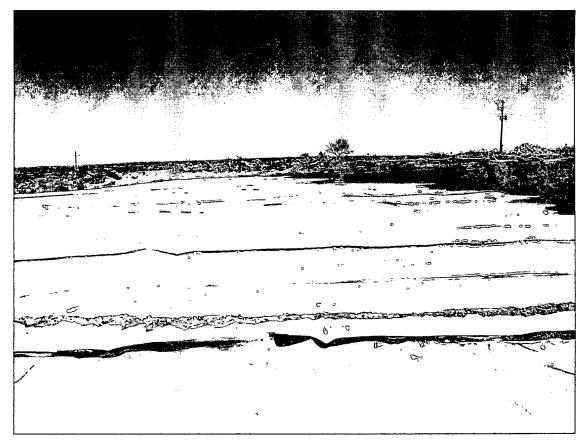
Photograph of the excavated area on the northern portion of the well pad looking over the drilling reserve pit. (Looking North)



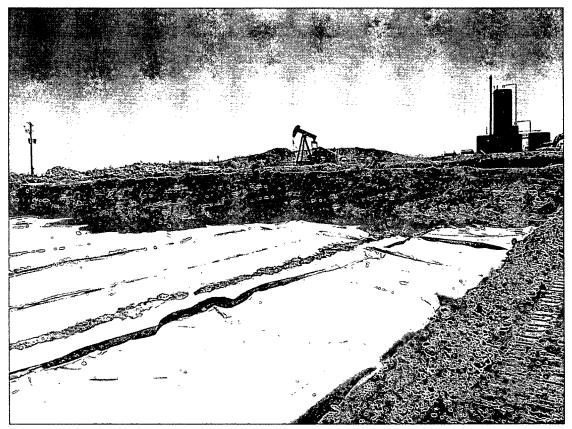
Photograph of the drilling reserve pit and exposed liner. (Looking West)



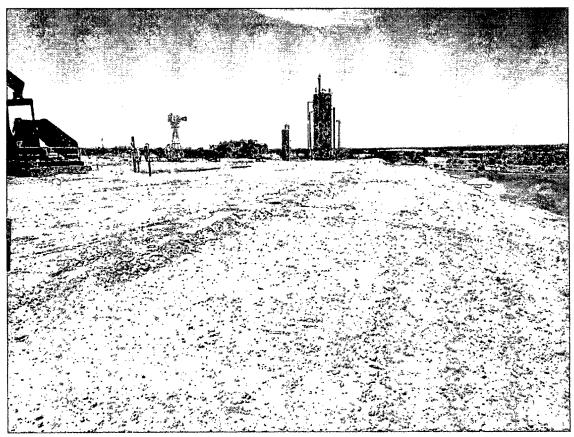
Photograph of the installation of 20-mil polyurethane liner cap atop historic drilling reserve pit. (Looking North)



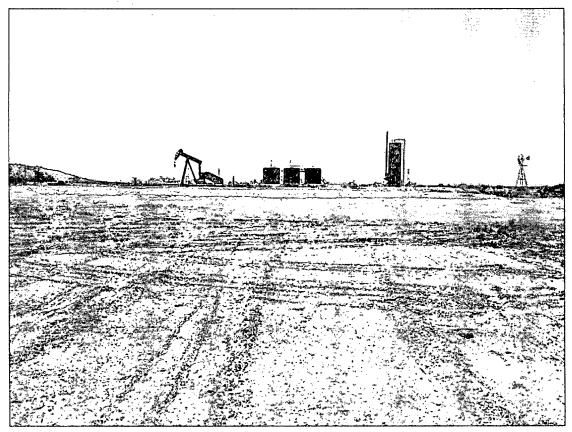
Photograph of 20-mil polyurethane liner cap installed on top of historic drilling reserve pit. (Looking East)



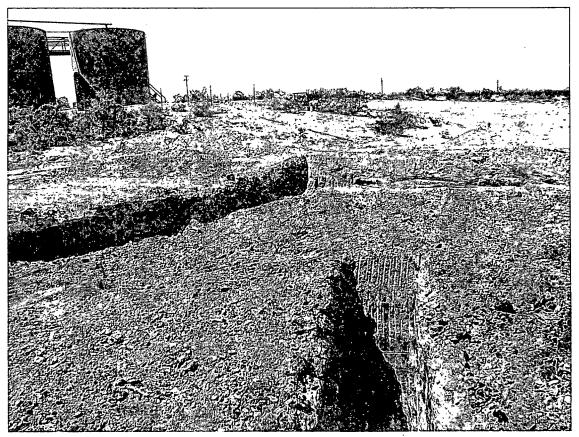
Photograph of 20-mil polyurethane liner cap and layer of top soil installed on top of historic drilling reserve pit. (Looking Southeast)



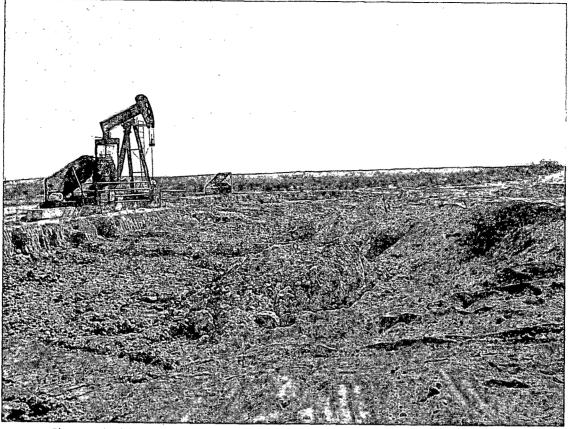
Photograph of the northern edge of the well pad meeting the recapped drilling reserve pit. (Looking West)



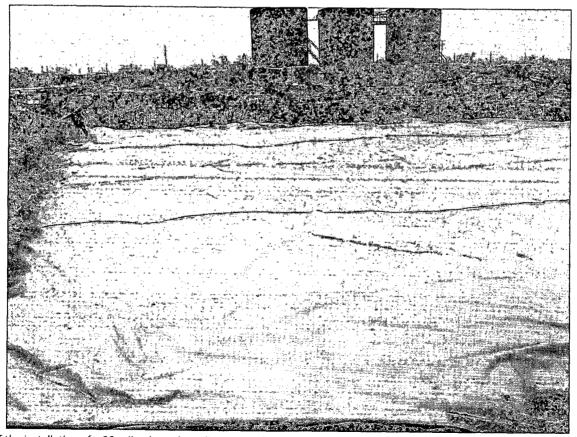
Photograph taken from the northern edge of the recapped reserve pit looking toward the well pad. (Looking North)



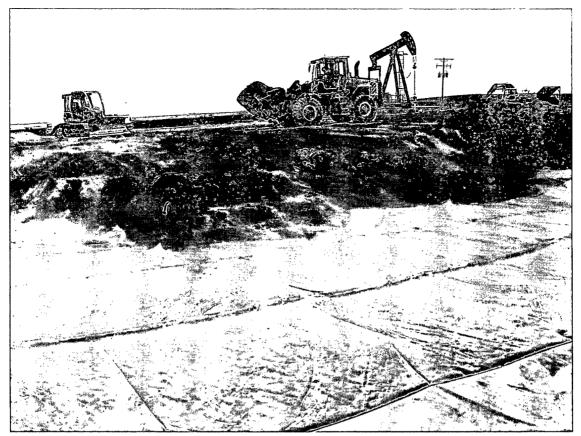
Photograph of the excavated area and delineation trench in the southern portion of the well pad. (Looking Southwest)



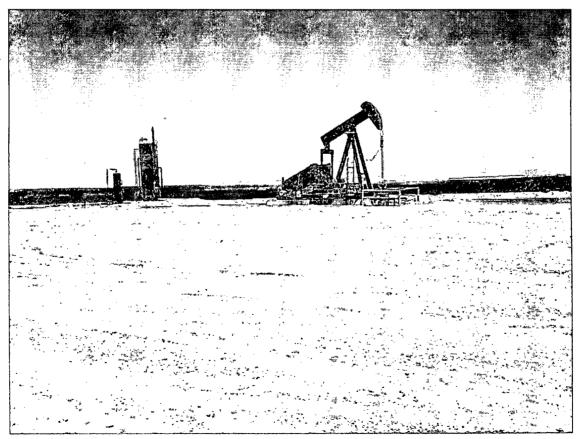
Photograph of the excavated area in the southern portion of the well pad. (Looking Northeast)



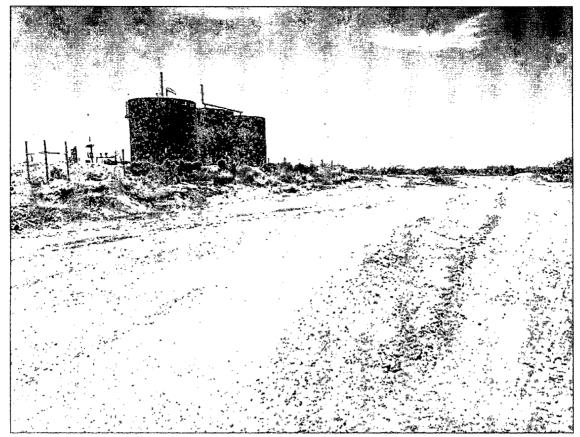
Photograph of the installation of a 20-mil polyurethane liner in the floor of the excavation in the southern portion of the well pad (Looking South)



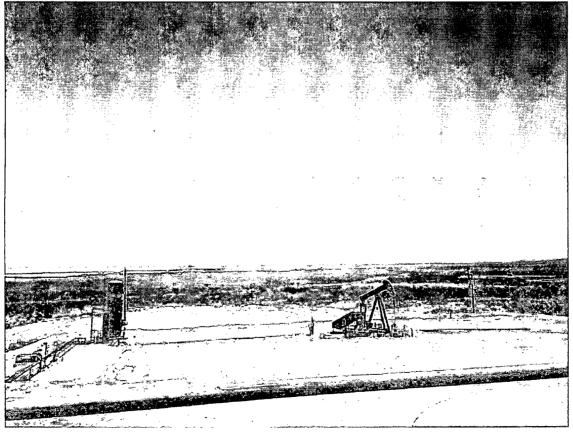
Photograph of the installation of pad sand atop the polyurethane liner in the southern portion of the well pad (Looking Northeast)



Photograph of the Remuda Basin Unit #1 Tank Battery after remediation activities. (Looking Northwest)



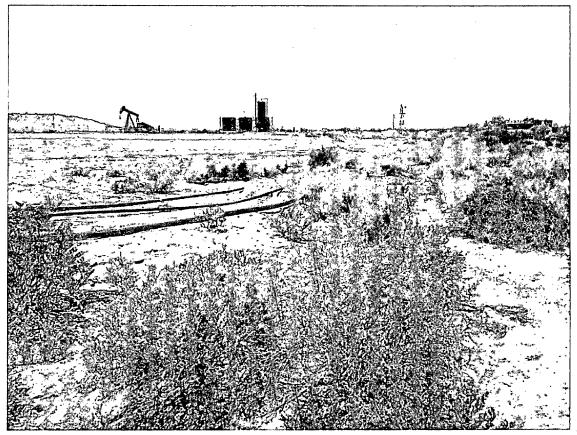
Photograph of the remediated well pad and future tank battery location at the Remuda Basin Unit #1 Tank Battery. (Looking West)



Photograph of the remediated well pad looking out over the recapped drilling reserve pit. (Looking North)



Photograph of the inferred affected run-off area exiting the historic drilling reserve pit at Remuda Basin Unit #1 Tank Battery. (Looking North)



Photograph of the inferred affected run-off area exiting the historic drilling reserve pit at Remuda Basin Unit #1 Tank Battery. (Looking South)

# Appendix C

# Laboratory Analytical Reports



March 17, 2014

BEN J. ARGUIJO Basin Environmental Service P.O. Box 301 Lovington, NM 88260

RE: REMUDA BASIN UNIT #1 BATTERY

Enclosed are the results of analyses for samples received by the laboratory on 03/14/14 16:20.

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.tceg.texas.gov/field/ga/lab\_accred\_certif.html">www.tceg.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. Kune

Celey D. Keene Lab Director/Quality Manager



#### Analytical Results For:

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

| Received:         | 03/14/2014                   | Sampling Date:      | 03/14/2014     |
|-------------------|------------------------------|---------------------|----------------|
| Reported:         | 03/17/2014                   | Sampling Type:      | Soil           |
| Project Name:     | REMUDA BASIN UNIT #1 BATTERY | Sampling Condition: | ** (See Notes) |
| Project Number:   | NONE GIVEN                   | Sample Received By: | Jodi Henson    |
| Project Location: | NOT GIVEN                    |                     |                |

#### Sample ID: STOCKPILE (H400787-01)

| Chloride, SM4500Cl-B | mg     | /kg             | Analyze    | Analyzed By: AP |     |            |               |      |           |
|----------------------|--------|-----------------|------------|-----------------|-----|------------|---------------|------|-----------|
| Analyte              | Result | Reporting Limit | Analyzed   | Method Blank    | BS  | % Recovery | True Value QC | RPD  | Qualifier |
| Chloride             | 5040   | 16.0            | 03/17/2014 | ND              | 448 | 112        | 400           | 7.41 |           |

#### Sample ID: FLOOR #1 @ 4' (H400787-02)

| Chloride, SM4500CI-B | mg,    | /kg             | Analyzed By: AP |              |     |            |               |      |           |
|----------------------|--------|-----------------|-----------------|--------------|-----|------------|---------------|------|-----------|
| Analyte              | Result | Reporting Limit | Analyzed        | Method Blank | BS  | % Recovery | True Value QC | RPD  | Qualifier |
| Chloride             | 4400   | 16.0            | 03/17/2014      | ND           | 448 | 112        | 400           | 7.41 |           |

#### Sample ID: FLOOR #2 @ 4' (H400787-03)

| Chloride, SM4500Cl-B | mg/    | /kg             | Analyzed By: AP |              |     |            |               |      |           |
|----------------------|--------|-----------------|-----------------|--------------|-----|------------|---------------|------|-----------|
| Analyte              | Result | Reporting Limit | Analyzed        | Method Blank | BS  | % Recovery | True Value QC | RPD  | Qualifier |
| Chloride             | 1500   | 16.0            | 03/17/2014      | ND           | 448 | 112        | 400           | 7.41 |           |

#### Sample ID: WSW @ 3' (H400787-04)

| Chloride, SM4500Cl-B | mg/kg  |                 | Analyzed By: AP |              |     |            |               |      |           |
|----------------------|--------|-----------------|-----------------|--------------|-----|------------|---------------|------|-----------|
| Analyte              | Result | Reporting Limit | Analyzed        | Method Blank | BS  | % Recovery | True Value QC | RPD  | Qualifier |
| Chloride             | 2280   | 16.0            | 03/17/2014      | ND           | 448 | 112        | 400           | 7.41 |           |

#### **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 label for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incured 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 claims based boyos stated reasons or otherwise. Results relate only to the sample identified above. This report shall hole the provided except in full whitten approval of Cardinal Lionatories.

Celey D. Kune

Celey D. Keene, Lab Director/Quality Manager



#### Analytical Results For:

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

| Received:         | 03/14/2014                   | Sampling Date:      | 03/14/2014     |
|-------------------|------------------------------|---------------------|----------------|
| Reported:         | 03/17/2014                   | Sampling Type:      | Soil           |
| Project Name:     | REMUDA BASIN UNIT #1 BATTERY | Sampling Condition: | ** (See Notes) |
| Project Number:   | NONE GIVEN                   | Sample Received By: | Jodi Henson    |
| Project Location: | NOT GIVEN                    |                     |                |

#### Sample ID: SSW #1 @ 4' (H400787-05)

| Chloride, SM4500Cl-B | mg/kg  |                 | Analyzed By: AP |              |     |            |               |      |           |
|----------------------|--------|-----------------|-----------------|--------------|-----|------------|---------------|------|-----------|
| Analyte              | Result | Reporting Limit | Analyzed        | Method Blank | BS  | % Recovery | True Value QC | RPD  | Qualifier |
| Chloride             | 2360   | 16.0            | 03/17/2014      | ND           | 448 | 112        | 400           | 7.41 |           |

#### Sample ID: FLOOR #3 @ 4' (H400787-06)

| Chloride, SM4500Cl-B | mg,    | /kg             | Analyzed By: AP |              |     |            |               |      |           |
|----------------------|--------|-----------------|-----------------|--------------|-----|------------|---------------|------|-----------|
| Analyte              | Result | Reporting Limit | Analyzed        | Method Blank | BS  | % Recovery | True Value QC | RPD  | Qualifier |
| Chloride             | 1820   | 16.0            | 03/17/2014      | ND           | 448 | 112        | 400           | 7.41 |           |

#### Sample ID: FLOOR #4 @ 4' (H400787-07)

| Chloride, SM4500CI-B | mg/kg  |                 | Analyzed By: AP |              |     |            |               |      |           |
|----------------------|--------|-----------------|-----------------|--------------|-----|------------|---------------|------|-----------|
| Analyte              | Result | Reporting Limit | Analyzed        | Method Blank | BS  | % Recovery | True Value QC | RPD  | Qualifier |
| Chloride             | 3840   | 16.0            | 03/17/2014      | ND           | 448 | 112        | 400           | 7.41 |           |

#### **Cardinal Laboratories**

\*=Accredited Analyte

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Celey D. Kune

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 $6^{\circ}\mathrm{C}$ |

Samples reported on an as received basis (wet) unless otherwise noted on report

Cardinal Laboratories

#### \*=Accredited Analyte

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Celey D.Kune

Celey D. Keene, Lab Director/Quality Manager



## CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

5 of 5

Page

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

|                  | (010) 000 2020 1707 (010) 000 201       |        |              |             |            |     |        |          |            |            |        |          |       | -           |   |   | - |   |       |       |      |     |     |   |   |  |
|------------------|-----------------------------------------|--------|--------------|-------------|------------|-----|--------|----------|------------|------------|--------|----------|-------|-------------|---|---|---|---|-------|-------|------|-----|-----|---|---|--|
| Company Name     | " Basi'n                                |        |              |             |            |     |        |          |            |            | BIL    | ul to    |       |             |   | 2 |   |   | ANA   | LYSIS | 3 RE | QUE | ST  |   |   |  |
| Project Manage   | r Ben                                   |        |              |             |            |     |        | Ρ.       | 0. #       | : _        | Bo     | peo      |       |             |   |   |   | Π | a add |       |      |     | ·   |   |   |  |
| Address:         | -                                       |        |              |             |            |     |        | Ca       | omp        | any        | :      |          |       |             |   |   |   |   |       |       |      |     |     |   |   |  |
| City: 🖌          | State:                                  | Zip    | ):           |             |            |     |        | At       | tn:        |            |        |          |       |             |   |   |   |   |       |       |      |     |     | - |   |  |
|                  | Fax #:                                  |        |              |             |            |     |        | Ac       | ldre       | ss:        |        |          |       |             |   |   |   |   |       |       |      |     |     |   |   |  |
| Project #: Rey   | Fax #:<br>udu Basin un'un Project Owner | ;      |              |             |            |     |        | ĊI       | ty:        |            |        |          |       |             |   |   |   |   |       |       |      |     |     |   |   |  |
| Project Name:    |                                         |        |              |             |            |     |        | Śt       | ate:       |            |        | Zip:     |       |             |   |   |   |   |       |       |      |     |     |   |   |  |
| Project Locatio  | n:                                      |        |              |             |            |     |        | Ph       | ione       | #:         |        |          |       |             |   |   |   |   |       |       |      |     |     |   |   |  |
| Sampler Name:    | · .                                     |        |              |             |            |     |        | Fa       | x #:       |            |        |          |       |             | · |   |   |   |       |       |      |     |     |   |   |  |
| FOR LAB USE ONLY |                                         |        | ŀ            |             | M          | ATR | IX     |          | PR         | ESE        | RV.    | SAMPL    | NG .  | ]           |   |   |   |   |       |       |      |     |     |   |   |  |
|                  |                                         | (C)OMP |              | Ř           |            |     |        |          |            |            |        |          |       |             |   |   |   |   |       |       |      |     |     |   |   |  |
|                  |                                         | õ      | # CONTAINERS | GROUNDWATER | WASTEWATER |     |        |          | I          |            |        |          | 1     |             |   |   |   |   |       |       |      |     |     |   |   |  |
| Lab I.D.         | Sample I.D.                             | В      | AIN          | Ň           | M          |     | ш      |          | ASE        | б          |        |          |       | $  \rangle$ | - |   |   |   |       |       |      |     |     |   |   |  |
|                  |                                         | ₹B     | ž            | S           | STE .      |     |        | μË       | <u>B</u>   | Š          | Ψ      |          |       | نيا         |   |   |   |   |       |       | 1    |     |     |   |   |  |
| H400787          |                                         | Ō      | Ŭ<br>#       | GR(         | M          |     | SLUDGE | Ē        | ACID/BASE: | ICE / COOL | OTHER: | DATE     | TIME  | 5           |   |   |   |   |       |       |      |     |     |   |   |  |
| . 1              | Stockpik                                | Ĺ      | ·            |             |            |     |        |          |            | ·          |        | 3/141/14 | 11:00 | Π           |   |   | Т |   |       |       |      |     |     |   |   |  |
| 2                | Floor#1 @ 41                            |        |              |             |            |     |        |          |            |            |        |          | 12100 | $  \rangle$ |   |   |   |   |       |       |      |     |     |   |   |  |
| 3                | F100T#2 04'                             |        |              |             |            |     |        |          |            |            |        |          | 12:45 |             |   |   |   |   |       |       |      |     |     |   |   |  |
| . 4              | WSWD B. 31                              |        |              |             |            |     |        |          |            |            |        |          | 1:00  |             |   |   |   |   |       |       |      |     | · · |   |   |  |
| 5                | 55W#2R4'                                |        |              |             |            |     |        |          |            |            |        |          | 1:15  |             |   |   |   |   | •     |       |      |     |     |   |   |  |
| 6                | Floor#3 , 4'                            |        |              |             |            |     |        | <u> </u> |            |            |        |          | 1:30  |             |   |   |   |   |       |       |      |     | ·   |   |   |  |
| 57               | 55W#2@4'<br>Floor#3 @4'<br>Floor#4 @4'  | 1      |              |             |            |     |        |          |            |            | ·      |          | 1:45  | 1           | F |   |   | · |       |       |      |     |     |   | · |  |
|                  |                                         |        |              |             |            |     |        |          |            |            |        |          |       |             | 1 |   |   |   |       |       |      |     |     |   |   |  |
| ·.               |                                         |        |              |             |            |     |        |          |            |            |        |          |       | · .         |   |   |   |   |       |       |      |     |     |   |   |  |
|                  |                                         |        |              |             |            |     |        |          |            |            |        |          |       |             | 1 |   |   |   | ***** |       |      |     |     | · |   |  |

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| _affiliates or successors arising out of or related to the perform                                               | ance of services hereunder by Cardinal, regardle | ess of whether such claim is based upon any of the above | e stated reasons or otherwise. |            |                | ·         |
|------------------------------------------------------------------------------------------------------------------|--------------------------------------------------|----------------------------------------------------------|--------------------------------|------------|----------------|-----------|
| Relinguished By:                                                                                                 | Bate / / / Regeive                               | d By:                                                    | Phone Result:                  | 🗆 Yes 🗀 No | Add'l Phone #: |           |
| 1. 10                                                                                                            | 3/14/19 /1.                                      |                                                          | Fax Result:                    | Yes No     | Add'l Fax #:   | ·         |
|                                                                                                                  | Time:                                            | ALL MANNOUL                                              | REMARKS:                       |            |                | TI Roa    |
| She Rehm                                                                                                         | 4 AU UNLA                                        | ai Henson                                                |                                |            | lonus          | Jody, Ben |
| Relinquished By.                                                                                                 | Date: Receive                                    | d By:                                                    |                                |            |                |           |
| · · · · · · · · · · · · · · · · · · ·                                                                            |                                                  | •                                                        |                                |            | 9              |           |
| and the second | Time:                                            |                                                          |                                | .1111      |                |           |
|                                                                                                                  |                                                  | · · · ·                                                  |                                | ISH".      |                |           |
| Delivered By: (Circle One)                                                                                       |                                                  | Sample Condition CHECKED                                 | BY:                            |            |                |           |
|                                                                                                                  | I An                                             | Cool Intact                                              |                                |            |                | -         |
| Sampler - UPS - Bus - Other:                                                                                     | 10.7.                                            | Ves Ves Ves                                              | - ·                            |            |                |           |
|                                                                                                                  |                                                  |                                                          |                                |            |                |           |
| the cardinal cannot accept vert                                                                                  | el chenges Diseas for unit                       | on changes to (F7E) 303 2226                             | •                              |            |                |           |
| T Cardinal Cannot accept vere                                                                                    | ar changes. Flease fax whit                      | CII CHAINES IN (343) 333 Z320                            |                                |            |                |           |

ardinal cannot accept verbal changes. Please fax written changes to (575) 393423 #594



March 26, 2014

BEN J. ARGUIJO Basin Environmental Service P.O. Box 301 Lovington, NM 88260

RE: REMUDA BASIN UNIT #1 BATTERY

Enclosed are the results of analyses for samples received by the laboratory on 03/20/14 12:55.

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/qa/lab\_accred\_certif.html">www.tceq.texas.gov/field/qa/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,

Celez D. Kune

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:         | 03/20/2014                   | Sampling Date:      | 03/19/2014    |
|-------------------|------------------------------|---------------------|---------------|
| Reported:         | 03/26/2014                   | Sampling Type:      | Soil          |
| Project Name:     | REMUDA BASIN UNIT #1 BATTERY | Sampling Condition: | Cool & Intact |
| Project Number:   | NONE GIVEN                   | Sample Received By: | Jodi Henson   |
| Project Location: | EDDY COUNTY, NM              |                     |               |

## Sample ID: ESW #1 (H400850-01)

| Chloride, SM4500CI-B | /kg    | Analyze         | d By: AP   |              |     |            |               |      |           |
|----------------------|--------|-----------------|------------|--------------|-----|------------|---------------|------|-----------|
| Analyte              | Result | Reporting Limit | Analyzed   | Method Blank | BS  | % Recovery | True Value QC | RPD  | Qualifier |
| Chloride             | 304    | 16.0            | 03/26/2014 | ND           | 416 | 104        | 400           | 0.00 |           |

#### Cardinal Laboratories

#### \*=Accredited Analyte

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Celey D. Kune

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 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

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Celeg D. Keine

Celey D. Keene, Lab Director/Quality Manager

ARDINAL LABORATORIES

# CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

101 East Marland, Hobbs, NM 88240

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

| Company Name:                  | Basin Environmental Service Technol                                                                                                          | ogies,                           | LLC         |                 |                            |             |         |            | 1          | $\mathcal{I}$ | $p_{15}$           |                                |                 |                 |                  |                 | ANA                                              | LYSI            | SR            | EQUE            | ST       |       |                      |          |
|--------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------|-------------|-----------------|----------------------------|-------------|---------|------------|------------|---------------|--------------------|--------------------------------|-----------------|-----------------|------------------|-----------------|--------------------------------------------------|-----------------|---------------|-----------------|----------|-------|----------------------|----------|
| Project Manager:               | Ben Arguijo                                                                                                                                  |                                  | ,           |                 |                            |             | Р.(     | ), #:      |            |               |                    |                                | 1               |                 |                  |                 |                                                  |                 |               |                 | 1        |       |                      |          |
| Address: P.O.                  | Box 301                                                                                                                                      |                                  |             |                 |                            |             | Co      | mpa        | iny:       |               | BOPC               | CO, LP                         | <u> </u>        |                 |                  |                 |                                                  |                 |               |                 |          |       |                      |          |
| City: Lovington                | State: NM                                                                                                                                    | Zip: 8                           | 3826        | 0               |                            |             | Att     | n:         |            |               | Tony Save          | ole                            |                 |                 |                  |                 | ł                                                | I               |               |                 |          |       |                      |          |
| <b>Phone #:</b> (575)          | 396-2378 Fax #: (575)396                                                                                                                     | 5-1429                           |             |                 |                            |             | Ad      | dres       | S:         |               | 522 W. M           | larland                        | ]               |                 |                  |                 |                                                  |                 |               |                 |          |       |                      |          |
| Project #:                     | Project Owner:                                                                                                                               | B                                | OPC         | 0, L            | P                          |             | Cit     | y:         |            |               | Carlsba            | d                              |                 |                 |                  |                 |                                                  |                 |               |                 |          |       |                      |          |
| Project Name:                  | Remuda Basin Unit #1 Battery                                                                                                                 |                                  |             |                 |                            |             | Sta     | ite:       | N          | A .           | Zlp:               | 88220                          | e l             | 5M              | 218              | 1               |                                                  | 1               |               |                 |          |       |                      |          |
| <b>Project Location:</b>       | Eddy Co., NM                                                                                                                                 |                                  |             |                 |                            |             | Ph      | one        | #:         |               | (432)556           | -8730                          | Chloride        | TPH (8015M)     | BTEX (8021B)     | ĺ               |                                                  | }               |               |                 |          |       |                      |          |
| Sampler Name:                  | Steve Taylor                                                                                                                                 |                                  |             |                 |                            |             | Fa      | x #:       |            |               |                    |                                | ਤਿ              | H               | Ш                |                 |                                                  |                 |               |                 |          |       |                      |          |
| FOR LAB USE ONLY               |                                                                                                                                              |                                  |             | M               | ATRI                       | X           |         | PRE        | SEI        | <u>۷۷.</u>    | SAMPLI             | ING                            | ]               | F               | 8                |                 |                                                  |                 |               |                 |          |       |                      |          |
| Lab I.D.<br>HUDDS65D           | Sample I.D.                                                                                                                                  | (G)RAB OR (C)OMP<br># CONTAINERS | GROUNDWATER | WASTEWATER      | SUIL                       | SLUDGE      | OTHER : | ACID/BASE: | ICE / COOL | OTHER :       | DATE               | TIME                           |                 |                 |                  |                 |                                                  |                 |               |                 | -        |       | -                    |          |
|                                | ESW #1                                                                                                                                       | G 1                              |             |                 | x                          |             |         |            | X          |               | 3/19/14            | 1500                           | X               |                 |                  |                 | •                                                |                 |               |                 |          |       |                      |          |
|                                |                                                                                                                                              |                                  |             |                 |                            | 1           |         |            |            |               |                    |                                | <b>_</b>        |                 |                  |                 |                                                  |                 |               |                 |          |       |                      |          |
|                                | · · · · · · · · · · · · · · · · · · ·                                                                                                        |                                  | <b> </b>    |                 |                            |             |         |            |            | _             |                    |                                | ļ               |                 |                  | ļ               | ļ                                                | ļ               | ļ             |                 | ļ        |       |                      |          |
|                                |                                                                                                                                              |                                  |             |                 |                            |             |         |            |            |               |                    |                                |                 | ļ               |                  |                 | <b> </b>                                         | <b> </b>        |               | <b>_</b>        | ļ        |       |                      |          |
| ·                              |                                                                                                                                              |                                  |             |                 |                            | +           |         |            |            |               |                    | <b> </b>                       |                 |                 | · · ·            |                 |                                                  |                 |               |                 | ļ        |       |                      |          |
|                                |                                                                                                                                              |                                  |             |                 |                            |             |         |            |            | -             |                    | <u> </u>                       |                 |                 |                  |                 |                                                  |                 | <u></u>       | +               |          | · · · |                      |          |
|                                |                                                                                                                                              |                                  |             |                 |                            | +           |         |            |            | -             | <u></u>            |                                |                 |                 | <u> </u>         |                 | +                                                | <u> </u>        |               |                 |          |       |                      | <u> </u> |
|                                |                                                                                                                                              |                                  | -           |                 |                            |             |         |            | +          |               | ·                  |                                |                 |                 |                  |                 | +                                                |                 |               | +               | <u> </u> |       |                      |          |
| ```                            |                                                                                                                                              |                                  |             | $\neg \uparrow$ |                            | +           |         |            | +          |               |                    |                                |                 |                 | [                |                 |                                                  | ļ.              | 1             | +               |          |       | ;i-                  |          |
|                                | i Demages. Cardinal's liability and client's Sectioniusive remed<br>those for negligance and any other cause whatsoever shall be deal        |                                  |             |                 |                            |             |         |            |            |               |                    |                                |                 |                 | 8                |                 | alara ang sa |                 |               |                 |          |       | <u>a a contra da</u> | ليستجد   |
| service. In no event shall Car | dinal be liable for incidental or consequental damages, including wit<br>g out of or related to the performance of services hereunder by Can | hout limital                     | lon, bus    | iness in        | terruptio                  | ons, los    | is of u | 56, or k   | ass of     | profit        | e incurred by cli  | ent, its subsidiari            | <del>6</del> 9, |                 |                  |                 |                                                  |                 |               |                 |          |       |                      |          |
| Relinguished By:               |                                                                                                                                              | Rece                             |             |                 |                            | /           |         |            |            |               |                    | Phone Re<br>Fax Resu<br>REMARK | sult:<br>It:    | U Ye            |                  | No<br>No        |                                                  | Phone<br>Fax #: | #:            |                 |          |       |                      |          |
| Relinguished By:               | Relinquished By:<br>Date: 3/20/14<br>Time: 07/15<br>Date: 1/1/2<br>Time: 07/15                                                               |                                  |             |                 |                            |             |         |            |            |               |                    |                                |                 |                 |                  |                 |                                                  |                 |               |                 |          |       |                      |          |
| Delivered By:<br>Sampler UPS   | Circle Objectent Appendix Bus - Other:                                                                                                       | sou                              |             | Cooi<br>T       | le Co<br>Int<br>es E<br>No | act<br>] Ye | s       |            |            |               | ED BY:<br>als<br>A | Plea<br>TAS                    | ise en<br>avoie | nail re<br>@Bas | sults l<br>sPet. | to bja<br>com 8 | rguijo<br>& SJM                                  | @bas<br>alters  | inenv<br>s@Ba | .com,<br>ssPet. | com      |       |                      |          |
| Revision 1                     | .0 + Car<br>12:55                                                                                                                            | dinal                            |             |                 | :сер<br><i>О,</i>          |             | •       | cha        | nge        | s√r<br>→      | lease fax          | written cł                     | nange           | s to 57         | 5-393            | -2476           |                                                  |                 |               |                 |          |       |                      |          |

Page 4 of 4



April 04, 2014

JOEL LOWRY Basin Environmental Service P.O. Box 301 Lovington, NM 88260

RE: REMUDA BASIN UNIT #1 BATTERY

Enclosed are the results of analyses for samples received by the laboratory on 03/31/14 15:55.

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/qa/lab\_accred\_certif.html">www.tceq.texas.gov/field/qa/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 JOEL LOWRY P.O. Box 301 Lovington NM, 88260 Fax To: (575) 396-1429

| Received:         | 03/31/2014                   | Sampling Date:      | 03/28/2014    |
|-------------------|------------------------------|---------------------|---------------|
| Reported:         | 04/04/2014                   | Sampling Type:      | Soil          |
| Project Name:     | REMUDA BASIN UNIT #1 BATTERY | Sampling Condition: | Cool & Intact |
| Project Number:   | NONE GIVEN                   | Sample Received By: | Jodi Henson   |
| Project Location: | EDDY COUNTY, NM              |                     |               |

#### Sample ID: SEC. A WSW #3 (H400956-01)

| Chloride, SM4500Cl-B | /kg    | Analyze         | d By: AP   |              |     |            |               | · · · · · · · · · · · · · · · · · · · |           |
|----------------------|--------|-----------------|------------|--------------|-----|------------|---------------|---------------------------------------|-----------|
| Analyte              | Result | Reporting Limit | Analyzed   | Method Blank | BS  | % Recovery | True Value QC | RPD                                   | Qualifier |
| Chloride             | 2000   | 16.0            | 04/03/2014 | ND           | 416 | 104        | 400           | 0.00                                  |           |

## Sample ID: SEC. A WSW #4 (H400956-02)

| Chloride, SM4500CI-B | mg,    | /kg             | Analyze    | d By: AP     |     |            |               |      |           |
|----------------------|--------|-----------------|------------|--------------|-----|------------|---------------|------|-----------|
| Analyte              | Result | Reporting Limit | Analyzed   | Method Blank | BS  | % Recovery | True Value QC | RPD  | Qualifier |
| Chloride             | 928    | 16.0            | 04/03/2014 | ND           | 416 | 104        | 400           | 0.00 |           |

#### Sample ID: SEC. A SESW (H400956-03)

| Chloride, SM4500Cl-B | /kg    | Analyze         | d By: AP   |              |     |            |               |      |           |
|----------------------|--------|-----------------|------------|--------------|-----|------------|---------------|------|-----------|
| Analyte              | Result | Reporting Limit | Analyzed   | Method Blank | BS  | % Recovery | True Value QC | RPD  | Qualifier |
| Chloride             | 1070   | 16.0            | 04/03/2014 | ND           | 416 | 104        | 400           | 0.00 |           |

## Sample ID: SEC. A ESW #3 (H400956-04)

| Chloride, SM4500Cl-B | /kg    | Analyze         | d By: AP   |              |     |            |               |      |           |
|----------------------|--------|-----------------|------------|--------------|-----|------------|---------------|------|-----------|
| Analyte              | Result | Reporting Limit | Analyzed   | Method Blank | BS  | % Recovery | True Value QC | RPD  | Qualifier |
| Chloride             | 560    | 16.0            | 04/03/2014 | ND           | 416 | 104        | 400           | 0.00 |           |

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Celeg D. Kene

Celey D. Keene, Lab Director/Quality Manager



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

| Received:         | 03/31/2014                   | Sampling Date:      | 03/28/2014    |
|-------------------|------------------------------|---------------------|---------------|
| Reported:         | 04/04/2014                   | Sampling Type:      | Soil          |
| Project Name:     | REMUDA BASIN UNIT #1 BATTERY | Sampling Condition: | Cool & Intact |
| Project Number:   | NONE GIVEN                   | Sample Received By: | Jodi Henson   |
| Project Location: | EDDY COUNTY, NM              |                     |               |
|                   |                              |                     |               |

#### Sample ID: SEC. B FLOOR (H400956-05)

| Chloride, SM4500Cl-B | mg/kg  |                 | Analyzed By: AP |              |     |            |               | <u> </u> |           |
|----------------------|--------|-----------------|-----------------|--------------|-----|------------|---------------|----------|-----------|
| Analyte              | Result | Reporting Limit | Analyzed        | Method Blank | BS  | % Recovery | True Value QC | RPD      | Qualifier |
| Chloride             | 9200   | 16.0            | 04/03/2014      | ND           | 416 | 104        | 400           | 0.00     |           |

## Sample ID: SEC. B SSW (H400956-06)

| Chloride, SM4500CI-B          | mg/kg       |                 | Analyze    | Analyzed By: AP |     |            |               |      |           |
|-------------------------------|-------------|-----------------|------------|-----------------|-----|------------|---------------|------|-----------|
| Analyte                       | Result      | Reporting Limit | Analyzed   | Method Blank    | BS  | % Recovery | True Value QC | RPD  | Qualifier |
| Chloride                      | 496         | 16.0            | 04/03/2014 | ND              | 416 | 104        | 400           | 0.00 |           |
| TPH 8015M                     | 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            | 04/02/2014 | ND              | 187 | 93.4       | 200           | 1.94 |           |
| DRO >C10-C28                  | <10.0       | 10.0            | 04/02/2014 | ND              | 216 | 108        | 200           | 2.56 |           |
| EXT DRO >C28-C35              | <10.0       | 10.0            | 04/02/2014 | ND              |     |            |               |      |           |
| Surrogate: 1-Chlorooctane     | 110         | % 65.2-14       | 0          |                 |     |            |               |      |           |
| Surrogate: 1-Chlorooctadecane | 104         | % 63.6-15       | 4          |                 |     |            |               |      |           |

## Sample ID: SEC. C FLOOR (ROCK) (H400956-07)

| Chloride, SM4500Cl-B mg/kg |        | Analyzed By: AP |            |              |     |            |               |      |           |
|----------------------------|--------|-----------------|------------|--------------|-----|------------|---------------|------|-----------|
| Analyte                    | Result | Reporting Limit | Analyzed   | Method Blank | BS  | % Recovery | True Value QC | RPD  | Qualifier |
| Chloride                   | 224    | 16.0            | 04/03/2014 | ND           | 416 | 104        | 400           | 0.00 |           |

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Celey D. Keene, Lab Director/Quality Manager



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| Received:         | 03/31/2014                   | Sampling Date:      | 03/28/2014    |
|-------------------|------------------------------|---------------------|---------------|
| Reported:         | 04/04/2014                   | Sampling Type:      | Soil          |
| Project Name:     | REMUDA BASIN UNIT #1 BATTERY | Sampling Condition: | Cool & Intact |
| Project Number:   | NONE GIVEN                   | Sample Received By: | Jodi Henson   |
| Project Location: | EDDY COUNTY, NM              |                     |               |

## Sample ID: SEC. C SSW (H400956-08)

| 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            | 04/03/2014 | ND           | 416 | 104        | 400           | 0.00 |           |

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| Received:         | 03/31/2014                   | Sampling Date:      | 03/28/2014    |
|-------------------|------------------------------|---------------------|---------------|
| Reported:         | 04/04/2014                   | Sampling Type:      | Soil          |
| Project Name:     | REMUDA BASIN UNIT #1 BATTERY | Sampling Condition: | Cool & Intact |
| Project Number:   | NONE GIVEN                   | Sample Received By: | Jodi Henson   |
| Project Location: | EDDY COUNTY, NM              |                     |               |

#### Sample ID: SEC. D FLOOR (H400956-09)

| 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           | 04/02/2014 | ND           | 2.64 | 132        | 2.00          | 4.76 |           |
| Toluene*                             | <0.050 | 0.050           | 04/02/2014 | ND           | 2.55 | 128        | 2.00          | 5.08 |           |
| Ethylbenzene*                        | <0.050 | 0.050           | 04/02/2014 | ND           | 2.51 | 126        | 2.00          | 4.96 |           |
| Total Xylenes*                       | <0.150 | 0.150           | 04/02/2014 | ND           | 7.31 | 122        | 6.00          | 5.65 |           |
| Total BTEX                           | <0.300 | 0.300           | 04/02/2014 | ND           |      |            |               |      |           |
| Surrogate: 4-Bromofluorobenzene (PIL | 110 %  | 6 89.4-12       | 6          |              |      |            |               |      |           |
| Chloride, SM4500Cl-B                 | mg/    | kg              | Analyze    | d By: AP     |      | - · ··     |               |      |           |
| Analyte                              | Result | Reporting Limit | Analyzed   | Method Blank | BS   | % Recovery | True Value QC | RPD  | Qualifier |
| Chloride                             | 656    | 16.0            | 04/03/2014 | ND           | 416  | 104        | 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            | 04/02/2014 | ND           | 187  | 93.4       | 200           | 1.94 |           |
| DRO >C10-C28                         | <10.0  | 10.0            | 04/02/2014 | ND           | 216  | 108        | 200           | 2.56 |           |
| EXT DRO >C28-C35                     | <10.0  | 10.0            | 04/02/2014 | ND           |      |            |               |      |           |
| Surrogate: 1-Chlorooctane            | 1169   | 65.2-14         | 10         |              |      |            |               |      |           |
| Surrogate: 1-Chlorooctadecane        | 112 9  | 63.6-15         | 4          |              |      |            |               |      |           |

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| Received:         | 03/31/2014                   | Sampling Date:      | 03/28/2014    |
|-------------------|------------------------------|---------------------|---------------|
| Reported:         | 04/04/2014                   | Sampling Type:      | Soil          |
| Project Name:     | REMUDA BASIN UNIT #1 BATTERY | Sampling Condition: | Cool & Intact |
| Project Number:   | NONE GIVEN                   | Sample Received By: | Jodi Henson   |
| Project Location: | EDDY COUNTY, NM              |                     |               |

## Sample ID: SEC. D SSW (H400956-10)

| Chloride, SM4500Cl-B | mg/kg  |                 | Analyzed By: AP |              |     |            |               | · · · · · · · · · · · · · · · · · · · |           |  |
|----------------------|--------|-----------------|-----------------|--------------|-----|------------|---------------|---------------------------------------|-----------|--|
| Analyte              | Result | Reporting Limit | Analyzed        | Method Blank | BS  | % Recovery | True Value QC | RPD                                   | Qualifier |  |
| Chloride             | 192    | 16.0            | 04/03/2014      | ND           | 416 | 104        | 400           | 0.00                                  |           |  |

## Sample ID: SEC. E FLOOR (ROCK) (H400956-11)

| Chloride, SM4500Cl-B mg/kg |        |                 | Analyzed By: AP |              |     |            |               |      |           |
|----------------------------|--------|-----------------|-----------------|--------------|-----|------------|---------------|------|-----------|
| Analyte                    | Result | Reporting Limit | Analyzed        | Method Blank | BS  | % Recovery | True Value QC | RPD  | Qualifier |
| Chloride                   | 96.0   | 16.0            | 04/03/2014      | ND           | 416 | 104        | 400           | 0.00 |           |

## Sample ID: NFL SEC. D FLOOR #3 (H400956-12)

| Chloride, SM4500CI-B mg/kg |        | Analyzed By: AP |            |              |     |            |               |      |           |
|----------------------------|--------|-----------------|------------|--------------|-----|------------|---------------|------|-----------|
| Analyte                    | Result | Reporting Limit | Analyzed   | Method Blank | BS  | % Recovery | True Value QC | RPD  | Qualifier |
| Chloride                   | 2400   | 16.0            | 04/03/2014 | ND           | 416 | 104        | 400           | 0.00 |           |

## Sample ID: NFL SEC. D ESW #1 (H400956-13)

| Chloride, SM4500Cl-B | mg,    | /kg             | Analyze    | d By: AP     |     |            |               |      |           |
|----------------------|--------|-----------------|------------|--------------|-----|------------|---------------|------|-----------|
| Analyte              | Result | Reporting Limit | Analyzed   | Method Blank | BS  | % Recovery | True Value QC | RPD  | Qualifier |
| Chloride             | 448    | 16.0            | 04/03/2014 | ND           | 416 | 104        | 400           | 0.00 |           |

## Sample ID: NFL SEC. D ESW #2 (H400956-14)

| 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            | 04/03/2014 | ND           | 416 | 104        | 400           | 0.00 |           |

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| Received:         | 03/31/2014                   | Sampling Date:      | 03/28/2014    |
|-------------------|------------------------------|---------------------|---------------|
| Reported:         | 04/04/2014                   | Sampling Type:      | Soil          |
| Project Name:     | REMUDA BASIN UNIT #1 BATTERY | Sampling Condition: | Cool & Intact |
| Project Number:   | NONE GIVEN                   | Sample Received By: | Jodi Henson   |
| Project Location: | EDDY COUNTY, NM              |                     |               |

## Sample ID: NFL SEC. D ESW #3 (H400956-15)

| Chloride, SM4500Cl-B | mg/    | 'kg             | Analyze    | d By: AP     |     |            |               |      |           |
|----------------------|--------|-----------------|------------|--------------|-----|------------|---------------|------|-----------|
| Analyte              | Result | Reporting Limit | Analyzed   | Method Blank | BS  | % Recovery | True Value QC | RPD  | Qualifier |
| Chloride             | 80.0   | 16.0            | 04/03/2014 | ND           | 416 | 104        | 400           | 0.00 |           |

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## **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 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

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ARDINAL LABORATORIES

# CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

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

|                                                                | (575) 393-2326 FAX (575) 393-2                                                                                                                                                                                                                                             | 24/6              |                   |                     |                  |                       |                       |                    |                 | _                |                      |                |                                        |                                         | _          |                    | _       |    |          |       | _        |     |    |   |   |  |
|----------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------|-------------------|---------------------|------------------|-----------------------|-----------------------|--------------------|-----------------|------------------|----------------------|----------------|----------------------------------------|-----------------------------------------|------------|--------------------|---------|----|----------|-------|----------|-----|----|---|---|--|
| Company Name:                                                  | Basin Environmental Service Tech                                                                                                                                                                                                                                           | nolo              | gies              | , LLC               | C _              |                       |                       |                    |                 |                  | B                    | IL             | L TO                                   |                                         |            |                    |         |    | ANA      | LYSI  | S RE     | QUE | ST |   |   |  |
| Project Manager:                                               | Joel Lowry                                                                                                                                                                                                                                                                 |                   |                   |                     |                  |                       |                       | F                  | P.O.            | . #:             |                      |                |                                        |                                         |            |                    |         |    |          |       |          |     |    |   |   |  |
| Address: P.O.                                                  | Box 301                                                                                                                                                                                                                                                                    |                   |                   |                     |                  |                       |                       | c                  | Com             | npa              | ny:                  |                | BOPO                                   | CO, LP                                  | ]          | 1                  | 1       |    | 1        |       |          |     | 1  | 1 | [ |  |
| City: Lovingtor                                                | n State: NM                                                                                                                                                                                                                                                                | Zip               | o: 8              | 3826                | 60               |                       |                       | A                  | Attn            | :                |                      |                | Tony Sav                               | oie                                     |            |                    |         |    |          |       |          |     |    |   |   |  |
| Phone #: (575)                                                 | )396-2378 Fax #: (575):                                                                                                                                                                                                                                                    | 396-1             | 429               |                     |                  |                       |                       | A                  | \dd             | res              | s:                   |                | 522 W. M                               | arland                                  |            |                    |         |    | 1        |       |          |     |    |   |   |  |
| Project #:                                                     | Project Own                                                                                                                                                                                                                                                                | er:               |                   |                     |                  |                       |                       | 6                  | City:           | :                |                      |                | Carlsba                                | d                                       | 1          |                    |         |    |          |       |          |     |    |   |   |  |
| Project Name:                                                  | Remuda Basin Unit #1 Battery                                                                                                                                                                                                                                               |                   |                   |                     |                  |                       |                       | s                  | itat            | e:               | NM                   | Z              | Zip:                                   | 88220                                   | <u>a</u>   | 5M)                | 218     |    |          |       |          |     |    |   |   |  |
| Project Location:                                              | Eddy Co., NM                                                                                                                                                                                                                                                               | *******           |                   |                     |                  |                       |                       | Р                  | ho              | ne f             | <b>#</b> :           |                | (432)556                               | -8730                                   | Chloride   | 801                | (8021B) |    |          |       |          |     |    |   |   |  |
| Sampler Name:                                                  |                                                                                                                                                                                                                                                                            |                   |                   |                     |                  |                       |                       | F                  | ax              | #:               |                      |                |                                        |                                         | Ř          | <b>FPH (8015M)</b> | втех    |    |          |       |          |     |    | 1 |   |  |
| FOR LAB USE ONLY                                               |                                                                                                                                                                                                                                                                            | Τ                 | Γ                 |                     |                  | MATI                  | RIX                   |                    |                 |                  | SERV                 | 4              | SAMPLI                                 | NG                                      | 1          |                    | BT      |    |          |       |          |     |    |   |   |  |
| Lab I.D.<br>H4009 <i>5</i> 6                                   | Sample I.D.                                                                                                                                                                                                                                                                | (G)RAB OR (C)OMP. | # CONTAINERS      | GROUNDWATER         | WASTEWATER       | SOIL                  | OIL<br>SI IDGE        | JUDGE              |                 | ACIU/BASE:       | DTHER:               |                | DATE                                   | TIME                                    |            |                    |         |    |          |       |          |     |    |   |   |  |
| 1                                                              | Sec. A WSW #3                                                                                                                                                                                                                                                              | G                 |                   |                     |                  | x                     | 1                     | Τ                  | Т               | 1                | ×                    | T              | 3/28/14                                | 1210                                    | ×          |                    |         | 1  |          | 1     | 1        | 1   | 1  |   |   |  |
| Z                                                              | Sec. A WSW #4                                                                                                                                                                                                                                                              | G                 |                   |                     |                  | x                     |                       | T                  |                 |                  | x                    | T              | 3/28/14                                | 1220                                    | ×          |                    |         |    | 1        | 1     |          |     |    |   |   |  |
| 3                                                              | Sec. A SESW                                                                                                                                                                                                                                                                | G                 | 1                 |                     |                  | x                     |                       | 1                  | - -             |                  | x                    | T              | 3/28/14                                | 1230                                    | ×          |                    |         | 1  | <u> </u> | 1     | 1        |     | 1  |   |   |  |
| Ч                                                              | Sec. A ESW #3                                                                                                                                                                                                                                                              | G                 | 1                 |                     |                  | x                     |                       |                    |                 |                  | x                    | Τ              | 3/28/14                                | 1235                                    | ×          |                    |         |    |          |       |          |     |    |   |   |  |
| ی                                                              | Sec B Floor                                                                                                                                                                                                                                                                | G                 | 1                 |                     |                  | x                     |                       |                    |                 |                  | x                    | Γ              | 3/28/14                                | 1240                                    | x          |                    |         |    |          |       |          |     |    |   |   |  |
| 6                                                              | Sec. B SSW                                                                                                                                                                                                                                                                 | G                 | 1                 |                     |                  | x                     |                       |                    |                 |                  | x                    |                | 3/28/14                                | 1245                                    | x          | x                  |         |    |          |       |          |     |    |   |   |  |
| 7                                                              | Sec. C Floor (Rock)                                                                                                                                                                                                                                                        | G                 | 1                 |                     |                  | x                     |                       |                    |                 | ;                | x                    |                | 3/28/14                                | 1250                                    | ×          |                    |         |    |          |       |          |     |    |   |   |  |
| 8                                                              | Sec. C SSW                                                                                                                                                                                                                                                                 | G                 | 1                 |                     |                  | x                     |                       |                    |                 |                  | ×                    |                | 3/28/14                                | 1255                                    | x          |                    |         |    | <u> </u> |       | <u> </u> |     |    |   |   |  |
| 9                                                              | Sec. D Floor                                                                                                                                                                                                                                                               | G                 | 1                 |                     |                  | x                     |                       |                    |                 | ;                | ×                    | L              | 3/28/14                                | 1300                                    | x          | x                  | x       |    |          |       | <u> </u> |     |    |   |   |  |
| 10                                                             | Sec. D SSW                                                                                                                                                                                                                                                                 | G                 | 1                 |                     |                  | x                     |                       |                    |                 | 1,               | x                    |                | 3/28/14                                | 1305                                    | x          |                    |         |    |          |       |          |     |    |   |   |  |
| ·1                                                             | Sec E Floor (Rock)                                                                                                                                                                                                                                                         | G                 | 1                 |                     |                  | x                     |                       |                    |                 |                  | ×                    |                | 3/28/14                                | 1310                                    | x          |                    |         |    |          |       |          |     |    |   |   |  |
| analyses. All claims including service, in no event shall Card | Damages. Cardinal's liability and client's exclusive remody for ar<br>those for negligence and any other cause whatsoever shall be<br>final be liable for incidental or consequental damages, including<br>out of or related to the certormance of services hereunder by C | berned v          | waived<br>limtati | l unies:<br>on, bus | s made<br>viness | e in writ<br>Interrut | ting and<br>ptions, i | l recei<br>loss of | ived b<br>fuse, | ry Can<br>or los | dinal wi<br>a of pro | thin<br>Sits i | n 30 days after o<br>incurred by clies | empletion of the<br>st, ts subsidiaries | applicable |                    |         |    |          |       |          | _   |    |   |   |  |
| Relinguished By:                                               |                                                                                                                                                                                                                                                                            |                   | _                 | ved                 | _                |                       | i çiastî              | 4 D83              |                 | LAT BT           | Y CH LINE            | and            | UNG SLATED TELIS                       | Phone Res                               | sult:      | C Yes              | s 🛛     | No | IAdd'i   | Phone | #:       |     | _  |   |   |  |

| Relinguished By:                         | Date: Received By:                                  | Phone Result:   Yes  No  Add'I Phone #:                                                  |
|------------------------------------------|-----------------------------------------------------|------------------------------------------------------------------------------------------|
| $\cap$                                   | 3/3//14                                             | Fax Result:         D         Yes         D         Add'I Fax #:                         |
| Jael form                                | Time:<br>1:00 DR Clahan                             | REMARKS:                                                                                 |
| Relinquished By:                         | Date: 4/1/ Received By:                             |                                                                                          |
| St Blacker O                             | TIM3:55 Den Henson                                  | Please email results to pm@basinenv.com,<br>TASavoie@BassPet.com & SJWalters@BassPet.com |
| Delivered By: (Circle One)               | Sample Condition   CHECKED BY:                      | 1                                                                                        |
| Sampler - UPS - Bus - Other:<br>FORM-006 | -6.4 Cres Pres                                      |                                                                                          |
| Revision 1.0                             | † Cardinal cannot accept verbal changes. Please fai | x written changes to 575-393-2476                                                        |

#54

ARDINAL LABORATORIES

# CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

101 East Marland, Hobbs, NM 88240

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

| Company Name:               | Basin Environmental Service Tech |                   | ies          | , LLC       | ;          | <u>.</u> |                         |         |              |            | Bl      | LL TO    |         |          |             |         |   | ANA | LYSI | S RE | QUE | ST |   |   |          |
|-----------------------------|----------------------------------|-------------------|--------------|-------------|------------|----------|-------------------------|---------|--------------|------------|---------|----------|---------|----------|-------------|---------|---|-----|------|------|-----|----|---|---|----------|
| Project Manager:            | Joel Lowry                       |                   |              |             |            |          |                         | Р.      | <b>)</b> . # | :          |         |          |         | Γ        |             |         |   | Γ   | T    | T    |     |    | T |   |          |
| Address: P.O.               | Box 301                          |                   |              |             |            |          |                         | Co      | mp           | any        | ŗ.      | BOP      | CO, LP  | ]        |             |         |   | [   |      | 1    |     |    |   |   | 1        |
| City: Lovington             | State: NM                        | Zip               | : 8          | 3826        | 0          |          |                         | Att     | :n:          |            |         | Tony Sav | oie     |          | [           |         | [ |     | [    | [    |     |    | [ | ļ |          |
| Phone #: (575)              | 396-2378 Fax #: (575)3           | 96-14             | 429          | )           |            |          |                         | Ad      | dre          | ss:        |         | 522 W. N | larland | ]        | 1           |         |   |     |      |      |     |    |   | ļ |          |
| Project #:                  | Project Owne                     | r:                |              |             |            |          |                         | Cit     | y:           |            |         | Carlsba  | d       |          |             |         |   |     |      |      |     |    |   |   |          |
| Project Name:               | Remuda Basin Unit #1 Battery     |                   |              |             |            |          |                         | Sta     | ite:         | N          | IM      | Zip:     | 88220   |          | 2W          | 218     |   |     |      |      |     |    |   |   |          |
| Project Location:           | Eddy Co., NM                     |                   |              | ·····       |            |          |                         |         | one          |            |         | (432)556 | -8730   | P id     | 801         | (8021B) |   |     |      |      |     |    |   |   |          |
| Sampler Name:               |                                  |                   |              |             |            |          |                         |         | x #:         |            |         |          |         | Chloride | TPH (8015M) | BTEX    | [ |     | [    |      |     |    |   |   |          |
| FOR LAB USE ONLY            |                                  | T                 |              | <u> </u>    | N          | ATRI     | $\langle \cdot \rangle$ |         | PR           | ESE        | RV.     | SAMPL    | NG      |          |             | ВТ      |   |     | 1    |      |     |    |   |   |          |
| Lab I.D.<br>140095 <b>6</b> | Sample I.D.                      | (G)RAB OR (C)OMP. | # CONTAINERS | GROUNDWATER | WASTEWATER | SOIL     | SLUDGE                  | OTHER : | ACID/BASE:   | ICE / COOL | OTHER : | DATE     | TIME    |          |             |         |   |     |      |      |     |    |   |   |          |
| 12                          | NFL Sec. D Floor #3              | G                 |              |             |            | ×        |                         |         |              | x          |         | 3/28/14  | 1210    | x        |             |         |   |     |      |      |     |    |   |   |          |
| 13<br>143                   | NFL Sec. D ESW #1                | G                 | 1            |             |            | ×        |                         |         |              | x          |         | 3/28/14  | 1220    | x        |             |         |   |     |      |      |     |    |   |   |          |
| 143                         |                                  | G                 | 1            |             |            | ×        |                         |         |              | x          |         | 3/28/14  | 1230    | x        |             |         |   |     |      |      |     | L  |   |   |          |
| 154                         | NFL Sec. D ESW #3                | G                 | 1            |             | _          | ×        |                         |         |              | x          |         | 3/28/14  | 1235    | x        |             |         |   |     | ļ    | ļ    | ļ   | [  |   |   |          |
|                             |                                  |                   |              |             |            |          |                         |         |              |            |         |          |         |          |             |         |   |     | ļ    | ļ    | ļ   |    |   |   |          |
|                             |                                  |                   |              |             |            |          |                         |         |              |            |         |          |         |          |             |         |   |     |      | ļ    | ļ   |    |   |   |          |
|                             |                                  |                   |              |             |            |          |                         |         |              |            |         |          |         |          |             |         |   |     |      |      |     |    |   |   |          |
|                             |                                  | .                 |              |             | _          |          | $\square$               |         |              |            |         |          |         |          |             |         |   |     |      |      |     |    |   |   |          |
|                             |                                  |                   |              |             |            |          |                         |         |              |            |         |          |         |          |             |         |   |     |      | ļ    |     |    |   |   | $\vdash$ |
|                             |                                  | -                 | —            | <b> </b>    | _          |          |                         |         |              |            |         |          |         |          |             |         |   |     | ļ    | ļ    |     |    |   |   |          |
|                             |                                  |                   |              |             |            |          |                         |         |              |            |         |          |         |          |             |         |   |     |      | L    | [   |    |   |   | il       |

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| Relinguished By:                         | Date: Received By:                  | Phone Result:  Yes Noi Add'i Phone #:            |
|------------------------------------------|-------------------------------------|--------------------------------------------------|
|                                          | 3/3//19                             | Fax Result: 🛛 Yes 🗆 No Add'I Fax #:              |
| Chel Arun                                | Time:                               | REMARKS:                                         |
| Y X                                      | 9:00 RT Dlaken                      | rek                                              |
| Relinquished By:                         | Date 151/16/ Received By:           |                                                  |
| 1/1/1/                                   |                                     |                                                  |
| A Mailer C                               | TIMAL EST / MINI                    | Please email results to pm@basinenv.com,         |
| Choma                                    | 13.5.7 - Juli Storing               | TASavoie@BassPet.com & SJWalters@BassPet.com     |
| Delivered By: (Circle One)               |                                     | HEGKED BY:                                       |
|                                          | -) 49 Cool Intact                   |                                                  |
| Sampler - UPS - Bus - Other:<br>FORM-006 |                                     |                                                  |
|                                          |                                     |                                                  |
| Revision 1.0                             | + Cardinal cannot accept verbal cha | uges. Please fax written changes to 575-393-2476 |
|                                          | -#                                  |                                                  |
|                                          | 4                                   | 54                                               |



April 23, 2014

JOEL LOWRY Basin Environmental Service P.O. Box 301 Lovington, NM 88260

**RE: REMUDA BASIN UNIT #1 BATTERY** 

Enclosed are the results of analyses for samples received by the laboratory on 04/15/14 10:30.

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/qa/lab\_accred\_certif.html">www.tceq.texas.gov/field/qa/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,

Celez D. Keine

Celey D. Keene Lab Director/Quality Manager



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

| Received:         | 04/15/2014                   | Sampling Date:      | 04/10/2014    |
|-------------------|------------------------------|---------------------|---------------|
| Reported:         | 04/23/2014                   | Sampling Type:      | Soil          |
| Project Name:     | REMUDA BASIN UNIT #1 BATTERY | Sampling Condition: | Cool & Intact |
| Project Number:   | NONE GIVEN                   | Sample Received By: | Jodi Henson   |
| Project Location: | EDDY COUNTY, NM              |                     |               |

#### Sample ID: SEC. B #1 FLOOR (H401131-01)

| Chloride, SM4500Cl-B | mg,    | 'kg             | Analyze    | d By: AP     |     |            |               |      |           |
|----------------------|--------|-----------------|------------|--------------|-----|------------|---------------|------|-----------|
| Analyte              | Result | Reporting Limit | Analyzed   | Method Blank | BS  | % Recovery | True Value QC | RPD  | Qualifier |
| Chloride             | 12600  | 16.0            | 04/17/2014 | ND           | 416 | 104        | 400           | 3.77 |           |

## Sample ID: SEC. B #2 FLOOR (H401131-02)

| Chloride, SM4500Cl-B          | mg,    | /kg             | Analyze             | d By: AP     |     |            |               |      |           |
|-------------------------------|--------|-----------------|---------------------|--------------|-----|------------|---------------|------|-----------|
| Analyte                       | Result | Reporting Limit | Analyzed            | Method Blank | BS  | % Recovery | True Value QC | RPD  | Qualifier |
| Chloride                      | 6200   | 16.0            | 04/17/2014          | ND           | 416 | 104        | 400           | 3.77 |           |
| 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            | 04/16/2014          | ND           | 192 | 96.2       | 200           | 3.12 |           |
| DRO >C10-C28                  | <10.0  | 10.0            | 04/16/2014          | ND           | 210 | 105        | 200           | 2.25 |           |
| EXT DRO >C28-C35              | <10.0  | 10.0            | 0 <b>4/16/</b> 2014 | ND           |     |            |               |      |           |
| Surrogate: 1-Chlorooctane     | 110    | % 65.2-14       | 0                   |              |     |            |               |      |           |
| Surrogate: 1-Chlorooctadecane | 100    | % 63.6-15       | 4                   |              |     |            |               |      |           |

## Sample ID: SEC. B #3 FLOOR (H401131-03)

| Chloride, SM4500Cl-B | mg,    | /kg             | Analyze    | d By: AP     |     |            |               |      |           |
|----------------------|--------|-----------------|------------|--------------|-----|------------|---------------|------|-----------|
| Analyte              | Result | Reporting Limit | Analyzed   | Method Blank | BS  | % Recovery | True Value QC | RPD  | Qualifier |
| Chloride             | 1000   | 16.0            | 04/17/2014 | ND           | 416 | 104        | 400           | 3.77 |           |

### **Cardinal Laboratories**

#### \*=Accredited Analyte

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Celey Di Keine

Celey D. Keene, Lab Director/Quality Manager



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

| Received:         | 04/15/2014                   | Sampling Date:      | 04/10/2014    |
|-------------------|------------------------------|---------------------|---------------|
| Reported:         | 04/23/2014                   | Sampling Type:      | Soil          |
| Project Name:     | REMUDA BASIN UNIT #1 BATTERY | Sampling Condition: | Cool & Intact |
| Project Number:   | NONE GIVEN                   | Sample Received By: | Jodi Henson   |
| Project Location: | EDDY COUNTY, NM              |                     |               |

## Sample ID: SEC. C #1 FLOOR (H401131-04)

| Chloride, SM4500Cl-B | mg,    | /kg             | Analyze    | d By: AP     |     | • • • • • • • • • • • • • • • • • • • |               |      |           |
|----------------------|--------|-----------------|------------|--------------|-----|---------------------------------------|---------------|------|-----------|
| Analyte              | Result | Reporting Limit | Analyzed   | Method Blank | BS  | % Recovery                            | True Value QC | RPD  | Qualifier |
| Chloride             | 4880   | 16.0            | 04/17/2014 | ND           | 416 | 104                                   | 400           | 3.77 |           |

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## \*=Accredited Analyte

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Celey D. Kune

Celey D. Keene, Lab Director/Quality Manager



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

| Received:         | 04/15/2014                   | Sampling Date:      | 04/10/2014    |
|-------------------|------------------------------|---------------------|---------------|
| Reported:         | 04/23/2014                   | Sampling Type:      | Soil          |
| Project Name:     | REMUDA BASIN UNIT #1 BATTERY | Sampling Condition: | Cool & Intact |
| Project Number:   | NONE GIVEN                   | Sample Received By: | Jodi Henson   |
| Project Location: | EDDY COUNTY, NM              |                     |               |

#### Sample ID: SEC. C #2 FLOOR (H401131-05)

| mg/    | /kg                                            | Analyze                                                      | d By: CK                                                         |                                                                                       |                                                                                                  |                                                                                                                     |                                                                                                                                           |                                                                                                                                                       |
|--------|------------------------------------------------|--------------------------------------------------------------|------------------------------------------------------------------|---------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------|
| Result | Reporting Limit                                | Analyzed                                                     | Method Blank                                                     | BS                                                                                    | % Recovery                                                                                       | True Value QC                                                                                                       | RPD                                                                                                                                       | Qualifier                                                                                                                                             |
| <0.050 | 0.050                                          | 04/17/2014                                                   | ND                                                               | 2.68                                                                                  | 134                                                                                              | 2.00                                                                                                                | 12.6                                                                                                                                      |                                                                                                                                                       |
| <0.050 | 0.050                                          | 04/17/2014                                                   | ND                                                               | 2.55                                                                                  | 127                                                                                              | 2.00                                                                                                                | 13.1                                                                                                                                      |                                                                                                                                                       |
| <0.050 | 0.050                                          | 04/17/2014                                                   | ND                                                               | 2 <b>.</b> 53 <sup>·</sup>                                                            | 126                                                                                              | 2.00                                                                                                                | 14.0                                                                                                                                      |                                                                                                                                                       |
| <0.150 | 0.150                                          | 04/17/2014                                                   | ND                                                               | 7.29                                                                                  | 122                                                                                              | 6.00                                                                                                                | 13.9                                                                                                                                      |                                                                                                                                                       |
| <0.300 | 0.300                                          | 04/17/2014                                                   | ND                                                               |                                                                                       |                                                                                                  |                                                                                                                     |                                                                                                                                           |                                                                                                                                                       |
|        | Result<br><0.050<br><0.050<br><0.050<br><0.150 | <0.050 0.050<br><0.050 0.050<br><0.050 0.050<br><0.150 0.150 | Result         Reporting Limit         Analyzed           <0.050 | Result         Reporting Limit         Analyzed         Method Blank           <0.050 | Result         Reporting Limit         Analyzed         Method Blank         BS           <0.050 | Result         Reporting Limit         Analyzed         Method Blank         BS         % Recovery           <0.050 | Result         Reporting Limit         Analyzed         Method Blank         BS         % Recovery         True Value QC           <0.050 | Result         Reporting Limit         Analyzed         Method Blank         BS         % Recovery         True Value QC         RPD           <0.050 |

Surrogate: 4-Bromofluorobenzene (PIL 117 % 89.4-126

| Chloride, SM4500Cl-B          | mg             | /kg             | Analyze         | d By: AP     |     |            |               |                  |           |
|-------------------------------|----------------|-----------------|-----------------|--------------|-----|------------|---------------|------------------|-----------|
| Analyte                       | Result         | Reporting Limit | Analyzed        | Method Blank | BS  | % Recovery | True Value QC | RPD              | Qualifier |
| Chloride                      | 3360           | 16.0            | 04/17/2014      | ND           | 416 | 104        | 400           | 3.77             |           |
| TPH 8015M                     | PH 8015M mg/kg |                 | Analyzed By: ms |              |     |            |               |                  |           |
| Analyte                       | Result         | Reporting Limit | Analyzed        | Method Blank | BS  | % Recovery | True Value QC | RPD              | Qualifier |
| GRO C6-C10                    | <10.0          | 10.0            | 04/16/2014      | ND           | 192 | 96.2       | 200           | 3.12             |           |
| DRO >C10-C28                  | <10.0          | 10.0            | 04/16/2014      | ND           | 210 | 105        | 200           | 2.25             |           |
| EXT DRO >C28-C35              | <10.0          | 10.0            | 04/16/2014      | ND           |     |            |               |                  |           |
| Surrogate: 1-Chlorooctane     | 114            | % 65.2-14       | 0               |              |     |            |               | ····• <u>-</u> · |           |
| Surrogate: 1-Chlorooctadecane | 104            | % 63.6-15       | 4               |              |     |            |               |                  |           |

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\*=Accredited Analyte

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Celey D. Keene

Celey D. Keene, Lab Director/Quality Manager



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

| Received:         | 04/15/2014                   | Sampling Date:      | 04/10/2014    |
|-------------------|------------------------------|---------------------|---------------|
| Reported:         | 04/23/2014                   | Sampling Type:      | Soil          |
| Project Name:     | REMUDA BASIN UNIT #1 BATTERY | Sampling Condition: | Cool & Intact |
| Project Number:   | NONE GIVEN                   | Sample Received By: | Jodi Henson   |
| Project Location: | EDDY COUNTY, NM              |                     |               |

## Sample ID: SEC. C #3 FLOOR (H401131-06)

| Chloride, SM4500Cl-B | mg     | /kg             | Analyze    | d By: AP     |     |            |               |      |           |
|----------------------|--------|-----------------|------------|--------------|-----|------------|---------------|------|-----------|
| Analyte              | Result | Reporting Limit | Analyzed   | Method Blank | BS  | % Recovery | True Value QC | RPD  | Qualifier |
| Chloride             | 1200   | 16.0            | 04/17/2014 | ND           | 416 | 104        | 400           | 3.77 |           |

## Sample ID: SEC. D #1 FLOOR (H401131-07)

| Chloride, SM4500CI-B | mg     | /kg             | Analyze    | d By: AP     |     |            |               |      |           |
|----------------------|--------|-----------------|------------|--------------|-----|------------|---------------|------|-----------|
| Analyte              | Result | Reporting Limit | Analyzed   | Method Blank | BS  | % Recovery | True Value QC | RPD  | Qualifier |
| Chloride             | 720    | 16.0            | 04/16/2014 | ND           | 400 | 100        | 400           | 3.92 | • •       |

## Sample ID: SEC. D #2 FLOOR (H401131-08)

| 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            | 04/16/2014      | ND           | 400 | 100        | 400           | 3.92 |           |
| TPH 8015M                     | TPH 8015M mg/kg |                 | Analyzed By: ms |              |     |            |               |      |           |
| Analyte                       | Result          | Reporting Limit | Analyzed        | Method Blank | BS  | % Recovery | True Value QC | RPD  | Qualifier |
| GRO C6-C10                    | <10.0           | 10.0            | 04/16/2014      | ND           | 192 | 96.2       | 200           | 3.12 |           |
| DRO >C10-C28                  | <10.0           | 10.0            | 04/16/2014      | ND           | 210 | 105        | 200           | 2.25 |           |
| EXT DRO >C28-C35              | <10.0           | 10.0            | 04/16/2014      | ND           |     |            |               |      |           |
| Surrogate: 1-Chlorooctane     | 99.7            | % 65.2-14       | 0               |              |     |            |               |      |           |
| Surrogate: 1-Chlorooctadecane | 94.1            | % 63.6-15       | 4               |              |     |            |               |      |           |

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Celey D. Kune

Celey D. Keene, Lab Director/Quality Manager



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

| Received:         | 04/15/2014                   | Sampling Date:      | 04/10/2014    |
|-------------------|------------------------------|---------------------|---------------|
| Reported:         | 04/23/2014                   | Sampling Type:      | Soil          |
| Project Name:     | REMUDA BASIN UNIT #1 BATTERY | Sampling Condition: | Cool & Intact |
| Project Number:   | NONE GIVEN                   | Sample Received By: | Jodi Henson   |
| Project Location: | EDDY COUNTY, NM              |                     |               |

#### Sample ID: SEC. D #3 FLOOR (H401131-09)

| Chloride, SM4500CI-B | mg/    | /kg             | Analyze    | d By: AP     |     |            |               |      |           |
|----------------------|--------|-----------------|------------|--------------|-----|------------|---------------|------|-----------|
| Analyte              | Result | Reporting Limit | Analyzed   | Method Blank | BS  | % Recovery | True Value QC | RPD  | Qualifier |
| Chloride             | 1260   | 16.0            | 04/16/2014 | ND           | 400 | 100        | 400           | 3.92 |           |

## Sample ID: D. T. @ 6' (H401131-10)

| Chloride, SM4500Cl-B | mg/    | /kg             | Analyze    | d By: AP     |     |            |               |      |           |
|----------------------|--------|-----------------|------------|--------------|-----|------------|---------------|------|-----------|
| Analyte              | Result | Reporting Limit | Analyzed   | Method Blank | BS  | % Recovery | True Value QC | RPD  | Qualifier |
| Chloride             | 3440   | 16.0            | 04/17/2014 | ND           | 416 | 104        | 400           | 3.77 |           |

## Sample ID: D. T. @ 8' (H401131-11)

| Chloride, SM4500Cl-B | mg     | /kg             | Analyze    | d By: AP     |     |            |               |      |           |
|----------------------|--------|-----------------|------------|--------------|-----|------------|---------------|------|-----------|
| Analyte              | Result | Reporting Limit | Analyzed   | Method Blank | BS  | % Recovery | True Value QC | RPD  | Qualifier |
| Chloride             | 5440   | 16.0            | 04/17/2014 | ND           | 416 | 104        | 400           | 3.77 |           |

## **Cardinal Laboratories**

\*=Accredited Analyte

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Celey D. Kune

Celey D. Keene, Lab Director/Quality Manager



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

| Received:         | 04/15/2014                   | Sampling Date:      | 04/10/2014    |
|-------------------|------------------------------|---------------------|---------------|
| Reported:         | 04/23/2014                   | Sampling Type:      | Soil          |
| Project Name:     | REMUDA BASIN UNIT #1 BATTERY | Sampling Condition: | Cool & Intact |
| Project Number:   | NONE GIVEN                   | Sample Received By: | Jodi Henson   |
| Project Location: | EDDY COUNTY, NM              |                     |               |

## Sample ID: D. T. @ 9' (H401131-12)

| BTEX 8021B                           | mg/    | kg              | Analyze    | d By: CK     |      |            |               |      |            |
|--------------------------------------|--------|-----------------|------------|--------------|------|------------|---------------|------|------------|
| Analyte                              | Result | Reporting Limit | Analyzed   | Method Blank | BS   | % Recovery | True Value QC | RPD  | Qualifier  |
| Benzene*                             | <0.050 | 0.050           | 04/17/2014 | ND           | 2.68 | 134        | 2.00          | 12.6 |            |
| Toluene*                             | <0.050 | 0.050           | 04/17/2014 | ND           | 2.55 | 127        | 2.00          | 13.1 |            |
| Ethylbenzene*                        | <0.050 | 0.050           | 04/17/2014 | ND           | 2.53 | 126        | 2.00          | 14.0 |            |
| Total Xylenes*                       | <0.150 | 0.150           | 04/17/2014 | ND           | 7.29 | 122        | 6.00          | 13.9 |            |
| Total BTEX                           | <0.300 | 0.300           | 04/17/2014 | ND           |      |            |               |      |            |
| Surrogate: 4-Bromofluorobenzene (PIL | 118 %  | 6 89.4-12       | 6          |              |      |            |               |      |            |
| Chloride, SM4500Cl-B                 | mg/    | kg              | Analyze    | d By: AP     |      |            |               |      | . <u>.</u> |
| Analyte                              | Result | Reporting Limit | Analyzed   | Method Blank | BS   | % Recovery | True Value QC | RPD  | Qualifier  |
| Chloride                             | 5840   | 16.0            | 04/17/2014 | ND           | 416  | 104        | 400           | 3.77 |            |
| TPH 8015M                            | mg/    | kg              | Analyze    | d By: ms     |      |            |               |      |            |

Method Blank

ND

ND

ND

BS

192

210

% Recovery

96.2

105

True Value QC

200

200

RPD

3.12

2.25

Qualifier

Analyzed

04/16/2014

04/16/2014

04/16/2014

#### **Cardinal Laboratories**

Analyte

GRO C6-C10

DRO >C10-C28

EXT DRO >C28-C35

Surrogate: 1-Chlorooctane

Surrogate: 1-Chlorooctadecane

Result

<10.0

<10.0

<10.0

104 %

96.6 %

Reporting Limit

10.0

10.0

10.0

65.2-140

63.6-154

#### \*=Accredited Analyte

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Celey D. Kune

Celey D. Keene, Lab Director/Quality Manager

Page 7 of 10



## **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 SM4500CI-B does not require samples be received at or below $6^{\circ}C$ |
|     | Samples reported on an as received basis (wet) unless otherwise noted on report      |

#### **Cardinal Laboratories**

#### \*=Accredited Analyte

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Celey D. Kune

Celey D. Keene, Lab Director/Quality Manager

# CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

ARDINAL LABORATORIES

## 101 East Marland, Hobbs, NM 88240

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

| Company Name:        | Basin Environmental Service Tech | nolog             | ies,         | LLC         | )          |      |                |         |                |            | BI      | LL TO    |         |          |                    |         |         | ANA | LYSI | S RE | QUE      | ST |   |  |
|----------------------|----------------------------------|-------------------|--------------|-------------|------------|------|----------------|---------|----------------|------------|---------|----------|---------|----------|--------------------|---------|---------|-----|------|------|----------|----|---|--|
| Project Manager:     | Joel Lowry                       |                   |              |             |            |      |                | ГР      | . <b>O</b> . 1 | <b>#</b> : |         |          |         | ]        | Γ                  |         |         | 1   |      |      | 1        |    | Τ |  |
| Address: P.O.        | Box 301                          |                   |              |             |            |      |                | С       | omj            | залу       | r:      | BOPO     | CO, LP  | ]        | [                  |         |         |     | [    |      |          |    |   |  |
| City: Lovington      | State: NM                        | Zip               | : 8          | 826         | 0          |      |                | A       | ttn:           |            |         | Tony Sav | oie     |          |                    |         |         |     |      |      |          |    |   |  |
| Phone #: (575)       | 396-2378 Fax #: (575)3           | 96-1              | 429          |             |            |      |                | A       | ddre           | ess:       |         | 522 W. M | larland |          |                    |         |         |     |      |      |          |    |   |  |
| Project #:           | Project Owne                     | r:                |              |             |            |      |                | c       | ity:           |            |         | Carlsba  | d       |          |                    |         | II      |     |      |      |          |    |   |  |
| Project Name:        | Remuda Basin Unit #1 Battery     |                   |              |             |            |      |                | s       | tate           | : N        | M       | Zip:     | 88220   | 0        | SM)                | (8021B) | FOR TPH |     |      |      |          | 1  |   |  |
| Project Location:    | Eddy Co., NM                     |                   |              |             | <b>.</b>   |      |                |         |                | e #:       |         | (432)556 | -8730   | Chloride | <b>FPH (8015M)</b> | 802     | No.     |     |      |      |          |    |   |  |
| Sampler Name:        |                                  |                   |              |             |            |      |                |         | ax #           |            |         | (        |         | Ĭ        | H                  | BTEX (  | L<br>D  | [   |      | [    | 1        |    | [ |  |
| FOR LAB USE ONLY     |                                  | Т                 |              |             | N          | ATR  | IX             |         | PR             | ESE        | RV.     | SAMPLI   | NG      | 1        | ₽                  | BT      | НОГР    |     |      |      |          |    |   |  |
| Lab I.D.<br>H40113 J | Sample I.D.                      | (G)RAB OR (C)OMP. | # CONTAINERS | GROUNDWATER | WASTEWATER | soit | SULLE<br>SULLE | OTHER : | ACID/BASE:     | ICE / COOL | OTHER : | DATE     | TIME    |          |                    |         |         |     |      |      |          |    |   |  |
| 1                    | Sec. B #1 Floor                  | G                 | 1            |             | 1          | x    |                |         |                | x          |         | 4/10/14  | 930     | x        |                    | ļ       |         | L   |      |      | <u> </u> |    |   |  |
| 2                    | Sec. B #2 Floor                  | G                 | 1            |             |            | x    |                |         |                | x          |         | 4/10/14  | 940     | x        | x                  |         |         |     |      |      |          |    |   |  |
| 3                    | Sec. B #3 Floor                  | G                 | 1            |             |            | x    |                |         |                | x          |         | 4/10/14  | 950     | ×        |                    |         |         |     |      |      |          |    |   |  |
| ų                    | Sec. C #1 Floor                  | G                 | 1            |             |            | x    |                |         |                | x          |         | 4/10/14  | 1000    | ×        |                    |         |         |     |      |      |          |    |   |  |
| 5                    | * Sec. C #2 Floor                | G                 | 1            |             |            | x    |                |         |                | x          |         | 4/10/14  | 1010    | x        | x                  | x       |         |     |      |      |          |    |   |  |
| 6                    | Sec. C #3 Floor                  | G                 | 1            |             |            | x    |                |         |                | x          |         | 4/10/14  | 1020    | x        |                    |         |         |     |      |      |          |    |   |  |
| 7                    | Sec. D #1 Floor                  | G                 | 1            |             |            | ×    |                |         |                | x          |         | 4/10/14  | 1030    | x        |                    |         |         |     |      |      |          |    |   |  |
| G                    | Sec. D #2 Floor                  | G                 | 1            |             |            | x    |                |         |                | x          |         | 4/10/14  | 1040    | x        | x                  |         |         |     |      |      |          |    |   |  |
| 9                    | Sec. D #3 Floor                  | G                 | 1            |             |            | x    |                | Τ       |                | x          |         | 4/10/14  | 1050    | x        |                    |         |         |     |      |      |          |    |   |  |
| ID                   | D.T @ 6'                         | G                 | 1            |             |            | ×    |                |         |                | x          |         | 4/10/14  | 1000    | x        |                    |         |         | [   |      |      |          |    |   |  |

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**Relinquished By:** Date: **Received By:** Phone Result: O Yes D No Add'l Phone #: 4/15/14 Fax Result: C Yes Add'l Fax #: Time: 9:00 **REMARKS: ReUnquished By** Date: Received By HOLD FOR TPH 4-15-14 Please email results to pm@basinenv.com, TASavoie@BassPet.com & SJWalters@BassPet.com Time CHECKED BY: Delivered By: (Circle One) Sample Condition Cool /Intact/ fais) Đ I Ves I Ves Sampler - UPS - Bus - Other: No No FORM-006 † Cardinal cannot accept verbal changes. Please fax written changes to 575-393-2476 **Revision 1.0** 

ARDINAL LABORATORIES 101 East Marland, Hobbs, NM 88240

# CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

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

|                                  |                                                                             |                                              |                  |            |             |               |                    | _         |              | _                         |            |                     | and the second | the second s |                  |                   |             |                    |                  |              |          |    |        |   | Name of Column 2 is not |
|----------------------------------|-----------------------------------------------------------------------------|----------------------------------------------|------------------|------------|-------------|---------------|--------------------|-----------|--------------|---------------------------|------------|---------------------|------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------|------------------|-------------------|-------------|--------------------|------------------|--------------|----------|----|--------|---|-------------------------|
| Company Name:                    | Basin Environm                                                              | asin Environmental Service Technologies, LLC |                  |            |             |               |                    |           |              |                           | BI         | LL TO               |                                                                                                                  |                                                                                                                |                  |                   |             | ANA                | LYSIS            | S RE         | QUE      | ST |        |   |                         |
| Project Manager:                 | Joel Lowry                                                                  |                                              |                  |            |             |               |                    | F         | <b>P.O</b> . | #:                        |            |                     |                                                                                                                  |                                                                                                                |                  |                   |             |                    |                  |              |          |    |        |   |                         |
| Address: P.O.                    | Box 301                                                                     |                                              |                  |            |             |               |                    |           | Com          | pan                       | <b>y</b> : | BOP                 | CO, LP                                                                                                           |                                                                                                                |                  |                   |             |                    |                  |              |          |    |        |   |                         |
| City: Lovingtor                  | )                                                                           | State: NM                                    | Zip              | : 8        | 8260        |               |                    | /         | Attn:        |                           |            | Tony Sav            | oie                                                                                                              | [                                                                                                              |                  |                   |             |                    |                  |              |          |    |        |   |                         |
| Phone #: (575)                   | 396-2378                                                                    | Fax #: (575)3                                | 96-14            | 429        |             |               |                    |           | ١ddr         | ess                       | :          | 522 W. N            | larland                                                                                                          |                                                                                                                |                  |                   |             |                    |                  |              |          |    |        |   |                         |
| Project #:                       |                                                                             | Project Owne                                 | r:               |            |             |               |                    |           | City:        |                           |            | Carlsba             | d                                                                                                                | ]                                                                                                              |                  |                   | Ŧ           |                    |                  |              |          |    |        |   |                         |
| Project Name:                    | Remuda Basin Unit                                                           | #1 Battery                                   |                  |            |             |               |                    | s         | State        | ): I                      | NM         | Zip:                | 88220                                                                                                            | e e                                                                                                            | TPH (8015M)      | BTEX (8021B)      | К ТРН       |                    |                  |              |          |    |        |   |                         |
| Project Location:                | Eddy Co., NM                                                                |                                              |                  |            |             |               |                    | F         | hor          | ne #                      | :          | (432)556            | -8730                                                                                                            | Chloride                                                                                                       | 801              | (80               | FOR         |                    |                  |              |          |    |        |   |                         |
| Sampler Name:                    |                                                                             |                                              |                  |            |             |               |                    | F         | ax           | ¥:                        |            |                     |                                                                                                                  | ਤ                                                                                                              | H                | Ш                 | ā           |                    |                  |              |          |    |        |   |                         |
| FOR LAB USE ONLY                 |                                                                             |                                              | T ·              |            |             | MA            | TRIX               |           | Р            | RES                       | ERV.       | SAMPL               | ING                                                                                                              | ]                                                                                                              | 1                | BT                | НОГР        |                    |                  | ·            |          |    |        |   |                         |
| Lab I.D.<br>ド4011ろ 1             | Sample                                                                      | e I.D.                                       | G)RAB OR (C)OMP. | CONTAINERS | GROUNDWATER | SOL           | OIL                | SLUDGE    | OTHER :      | ICE / COOL                | OTHER :    | DATE                | TIME                                                                                                             |                                                                                                                |                  |                   | *           |                    |                  |              |          |    |        |   |                         |
|                                  | ΩТ                                                                          | @ 8'                                         | G                | **<br>1    |             |               | 1 1                |           | ╣            |                           | 1          | 4/10/14             | 1110                                                                                                             | x                                                                                                              |                  |                   |             |                    |                  |              |          |    |        |   |                         |
| 11                               |                                                                             | @ 9'                                         | G                | 1          |             | 1<br>x        | $\left  - \right $ |           | - -          | T <sub>x</sub>            |            | 4/10/14             | 1120                                                                                                             | x                                                                                                              | ×                | X                 |             |                    |                  |              | i        |    |        |   |                         |
|                                  |                                                                             | <u> </u>                                     | Ť                | <b>—</b>   |             | Ť             | $\square$          |           | - -          | +-                        |            |                     |                                                                                                                  |                                                                                                                | <u> </u>         | $-\infty$         |             |                    |                  |              | <u> </u> |    |        |   |                         |
|                                  | an fan fan fan de fan de fan            |                                              | -                |            |             | Ť             |                    |           | - -          | 1                         | 1          |                     |                                                                                                                  |                                                                                                                |                  |                   |             |                    |                  |              | <b> </b> |    |        |   |                         |
|                                  |                                                                             |                                              | 1                |            |             | 1             | $\top$             |           | - -          | $\top$                    |            |                     |                                                                                                                  |                                                                                                                |                  |                   |             |                    |                  |              | [        | 1  |        |   | -1                      |
|                                  |                                                                             |                                              |                  |            |             | 1             |                    |           |              |                           |            |                     |                                                                                                                  |                                                                                                                |                  |                   |             |                    |                  |              |          |    |        |   |                         |
|                                  |                                                                             |                                              |                  |            |             |               |                    |           |              |                           |            |                     |                                                                                                                  |                                                                                                                |                  |                   |             |                    |                  |              |          |    |        |   |                         |
|                                  |                                                                             |                                              |                  |            |             |               |                    |           |              |                           |            |                     |                                                                                                                  |                                                                                                                |                  |                   |             |                    |                  |              |          |    |        |   |                         |
|                                  |                                                                             |                                              |                  |            |             |               |                    |           |              |                           |            |                     |                                                                                                                  |                                                                                                                |                  |                   |             |                    |                  |              |          |    |        |   |                         |
|                                  |                                                                             |                                              |                  |            |             |               |                    |           |              |                           |            |                     |                                                                                                                  |                                                                                                                |                  |                   |             |                    |                  |              |          |    |        |   |                         |
| analyses. All claims including   | Damages, Cardinal's liability and<br>those for negligence and any oth       | er causo whatsoever shall be do              | w bornee         | vaived     | uniess n    | ade in        | writing e          | and rece  | shed b       | y Card                    | inal witt  | vin 30 days after i | completion of the                                                                                                | applicable                                                                                                     |                  |                   |             |                    |                  |              |          |    |        |   |                         |
| affiliates or successors arising | final be liable for incidental or co-<br>out of or related to the performat | nce of services hereunder by Ca              | rdinal, re       | eqardi     | ess of wh   | ether s       |                    |           |              |                           |            |                     | ons or otherwise.                                                                                                |                                                                                                                |                  |                   |             |                    |                  |              |          |    |        |   |                         |
| Relinquished By:                 | m                                                                           | Date:<br>4/15/14<br>Time:<br>8:00            | Re<br>-          | ceiv<br>L  | red B       | v:<br>J       | 59                 | /<br>la   | ļ            | 1                         |            |                     | Phone Res<br>Fax Resul<br>REMARKS                                                                                | t:                                                                                                             | □ Yes            |                   |             | Add'l F<br>Add'l F |                  | t:           |          |    | ······ |   |                         |
| Reinquished By:                  | . 8 .                                                                       | Date:<br>4-15-14                             | Re               | Gei        | red B       | ý:            | 1.1                | 1         |              |                           |            |                     | ļ                                                                                                                |                                                                                                                |                  |                   | H           | OLD F              | OR TI            | ΡΗ           |          |    |        |   |                         |
| -BRX                             | Shuken Time: 30 Mart                                                        |                                              |                  |            |             |               |                    | U         | N            | $\underline{\mathcal{U}}$ | W          |                     | Pleas<br>TASa                                                                                                    | se em<br>ivoie@                                                                                                | ail res<br>DBass | ults to<br>Pet.co | pm@<br>om & | )basin<br>SJWa     | env.co<br>lters@ | om,<br>)Bass | Pet.co   | m  |        |   |                         |
| Delivered By:                    |                                                                             |                                              | , Ú              | ຄ          | C(          | , loc         | Intac              | ct/       |              | CF                        | IECK       | ED BY:              |                                                                                                                  |                                                                                                                |                  |                   |             |                    |                  |              |          |    |        |   |                         |
| Sampler - UPS -                  | Bus - Other:                                                                | ~ <i>C</i>                                   | 5.6              | 0'         |             | ] Ye:<br>] No | s 🛛                | Yes<br>No |              |                           | /A         | <u>н</u>            |                                                                                                                  |                                                                                                                |                  |                   |             |                    | والمعرب معروي    |              |          |    |        | · |                         |
| FORM-00                          | -                                                                           | t Ca                                         | ardin            | al c       | аппо        | t acc         | ept                | verb      | al c         | han                       | des.       | Please fa           | k written c                                                                                                      | hange                                                                                                          | es to 5          | 75-393            | -2476       |                    |                  |              |          |    |        |   |                         |
| Revision 1                       | .0                                                                          |                                              |                  |            |             |               |                    | . 1.      | L,           | - 1                       | 1          |                     |                                                                                                                  |                                                                                                                |                  |                   |             |                    |                  |              |          |    |        |   |                         |

45



May 06, 2014

BEN J. ARGUIJO Basin Environmental Service P.O. Box 301 Lovington, NM 88260

RE: REMUDA BASIN UNIT #1 BATTERY

Enclosed are the results of analyses for samples received by the laboratory on 04/30/14 12:05.

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/qa/lab\_accred\_certif.html">www.tceq.texas.gov/field/qa/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,

Celez 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:         | 04/30/2014                   | Sampling Date:      | 04/29/2014    |
|-------------------|------------------------------|---------------------|---------------|
| Reported:         | 05/06/2014                   | Sampling Type:      | Soil          |
| Project Name:     | REMUDA BASIN UNIT #1 BATTERY | Sampling Condition: | Cool & Intact |
| Project Number:   | NONE GIVEN                   | Sample Received By: | Jodi Henson   |
| Project Location: | EDDY COUNTY, NM              |                     |               |

#### Sample ID: SEC. A FLOOR #1 (H401302-01)

| Chloride, SM4500Cl-B | mg     | /kg             | Analyze    | d By: AP     |     |            |               |      |           |
|----------------------|--------|-----------------|------------|--------------|-----|------------|---------------|------|-----------|
| Analyte              | Result | Reporting Limit | Analyzed   | Method Blank | BS  | % Recovery | True Value QC | RPD  | Qualifier |
| Chloride             | 368    | 16.0            | 05/06/2014 | ND           | 400 | 100        | 400           | 3.92 |           |

## Sample ID: SEC. A FLOOR #2 (H401302-02)

| BTEX 8260B                      | 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           | 05/05/2014 | ND           | 2.17 | 109        | 2.00          | 0.904 |           |
| Toluene*                        | <0.050      | 0.050           | 05/05/2014 | ND           | 2,33 | 117        | 2,00          | 2,93  |           |
| Ethylbenzene*                   | <0.050      | 0.050           | 05/05/2014 | ND           | 2.25 | 112        | 2.00          | 2.74  |           |
| Total Xylenes*                  | <0.150      | 0.150           | 05/05/2014 | ND           | 6.94 | 116        | 6.00          | 3.25  |           |
| Total BTEX                      | <0.300      | 0.300           | 05/05/2014 | ND           |      |            |               |       |           |
| Surrogate: Dibromofluoromethane | 98.9        | % 61.3-14       | 2          |              |      |            |               |       |           |
| Surrogate: Toluene-d8           | 104         | % 71.3-12       | 9          |              |      |            |               |       |           |
| Surrogate: 4-Bromofluorobenzene | <i>98.9</i> | % 65.7-14       | 1          |              |      |            |               |       |           |
| Chloride, SM4500CI-B            | mg,         | /kg             | Analyze    | d By: AP     |      |            |               |       |           |
| Analyte                         | Result      | Reporting Limit | Analyzed   | Method Blank | BS   | % Recovery | True Value QC | RPD   | Qualifier |
| Chloride                        | 416         | 16.0            | 05/06/2014 | ND           | 400  | 100        | 400           | 3.92  |           |
| ТРН 8015М                       | 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            | 05/06/2014 | ND           | 194  | 97.1       | 200           | 2.55  |           |
| DRO >C10-C28                    | <10.0       | 10.0            | 05/06/2014 | ND           | 212  | 106        | 200           | 4.06  |           |
| EXT DRO >C28-C35                | <10.0       | 10.0            | 05/06/2014 | ND           |      |            |               |       |           |

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\*=Accredited Analyte

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Celeg Di Kune

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:         | 04/30/2014                   | Sampling Date:      | 04/29/2014    |
|-------------------|------------------------------|---------------------|---------------|
| Reported:         | 05/06/2014                   | Sampling Type:      | Soil          |
| Project Name:     | REMUDA BASIN UNIT #1 BATTERY | Sampling Condition: | Cool & Intact |
| Project Number:   | NONE GIVEN                   | Sample Received By: | Jodi Henson   |
| Project Location: | EDDY COUNTY, NM              |                     |               |

## Sample ID: SEC. A FLOOR #2 (H401302-02)

| TPH 8015M                     | mg/kg                  | Analyzed By: MS       |               | · •               |           |
|-------------------------------|------------------------|-----------------------|---------------|-------------------|-----------|
| Analyte                       | Result Reporting Limit | Analyzed Method Blank | BS % Recovery | True Value QC RPD | Qualifier |
| Surrogate: 1-Chlorooctane     | 131 % 65.2-1           | 40                    |               |                   |           |
| Surrogate: 1-Chlorooctadecane | 130 % 63.6-1.          | 54                    |               |                   |           |

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Celeg D. Kune

Celey D. Keene, Lab Director/Quality Manager



## **Notes and Definitions**

| ND  | Analyte NOT DETECTED at or above the reporting limit                            |
|-----|---------------------------------------------------------------------------------|
| RPD | Relative Percent Difference                                                     |
| **  | Samples not received at proper temperature of 6°C or below.                     |
| *** | Insufficient time to reach temperature.                                         |
| -   | Chloride by SM4500Cl-B does not require samples be received at or below 6°C     |
|     | Samples reported on an as received basis (wet) unless otherwise noted on report |

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#### \*=Accredited Analyte

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Celey Di Kune

Celey D. Keene, Lab Director/Quality Manager

# ARDINAL LABORATORIES

# CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

.

101 East Marland, Hobbs, NM 88240

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

| Company Name:              | Basin Environmental Service Technol                           |                  | ×s, L        | LC          |            |                |          |            |            |            | BI       | LL TO               |                |            |                    |         |          | ANA | LYS      | IS R     | EQUE     | ST       |          |          |   |
|----------------------------|---------------------------------------------------------------|------------------|--------------|-------------|------------|----------------|----------|------------|------------|------------|----------|---------------------|----------------|------------|--------------------|---------|----------|-----|----------|----------|----------|----------|----------|----------|---|
| Project Manager:           | Ben Arguijo                                                   |                  |              |             |            |                |          | Ρ.         | 0. #       | :          |          |                     |                |            |                    |         |          | Ι   |          |          |          | 1        |          |          |   |
| Address: P.O.              | Box 301                                                       |                  |              |             |            |                |          | C          | omp        | any        | /:       | BOPO                | CO, LP         |            | ł                  |         |          |     |          |          |          |          |          |          |   |
| City: Lovington            | State: NM                                                     | Zip:             | : 8          | 826         | 60         |                |          | A          | tn:        |            |          | Tony Sav            | oie            | [          |                    |         |          |     |          |          |          |          |          |          |   |
| Phone #: (575)             | 396-2378 Fax #: (575)39                                       | 96-14            | 29           |             |            |                |          | A          | ddre       | ss:        |          | 522 W. N            | larland        |            |                    |         |          |     |          |          |          | }        |          | 1        |   |
| Project #:                 | Project Owner                                                 | r:               | BC           | DPC         | ю,         | LP             |          | Ci         | ty:        |            |          | Carlsba             | d              | }          |                    |         |          |     |          |          |          |          |          |          |   |
| Project Name:              | Remuda Basin Unit #1 Battery                                  |                  |              |             |            |                |          | St         | ate:       | N          | M        | Zip:                | 88220          | e l        | 5W                 | 218     |          |     |          |          |          |          |          |          |   |
| Project Location:          | Eddy Co., NM                                                  |                  |              |             |            |                |          | P          | none       | #:         |          | (432)556            | -8730          | Chloride   | <b>FPH (8015M)</b> | (8021B) |          | 1   |          |          |          |          |          | ĺ        |   |
| Sampler Name:              | Steve Taylor                                                  |                  |              |             |            |                |          | Fa         | 1x #:      |            |          |                     |                | ਤਿ         | H H                | втех    |          |     |          |          |          |          |          |          |   |
| FOR LAB USE ONLY           |                                                               |                  |              |             |            | MATRI          | <u>×</u> | τ          | PR         | ESE        | RV.      | SAMPL               | NG             |            | 12                 | 8       |          | }   | 1        |          |          |          |          |          |   |
| Lab I.D.<br>H4D1302        | Sample I.D.                                                   | (G)RAB OR (C)OMP | # CONTAINERS | GROUNDWATER | WASTEWATER | SOIL           | SLUDGE   | OTHER :    | ACID/BASE: | ICE / COOL | OTHER :  | DATE                | TIME           |            |                    |         |          |     |          |          |          |          |          |          |   |
| <u> </u>                   | Sec. A Floor #1                                               | G                | 1            |             |            | x              |          |            |            | X          |          | 4/29/14             | 1230           | X          |                    |         |          |     |          |          |          |          |          |          |   |
| 2                          | Sec. A Floor #2                                               | G                | 1            |             |            | x              |          |            |            | X          |          | 4/29/14             | 1245           | X          | X                  | X       | ļ        |     |          | <u> </u> | <u> </u> | ļ        | <u> </u> |          |   |
|                            |                                                               |                  |              |             |            |                | <u> </u> |            |            |            |          |                     |                | ļ          | ļ                  | ļ       | ļ        | ļ   | ļ        | ļ        | <u> </u> | ļ        | ļ        | ļ        |   |
|                            |                                                               |                  |              |             |            |                | ļ        | <u> </u>   | .          |            |          |                     |                |            |                    |         |          | ļ   | ļ        | <u> </u> | <u></u>  | <b>_</b> | <b>_</b> |          |   |
|                            |                                                               |                  |              |             | }          |                |          |            |            |            |          |                     |                | <b> </b>   | <b> </b>           |         | ļ        | ļ   | <u> </u> | <b>_</b> | <u> </u> | <b> </b> | <b>_</b> |          |   |
|                            |                                                               | ·                |              |             |            |                |          | ┣-         |            |            |          |                     |                | <b> </b>   | <u> </u>           |         |          |     |          | <u> </u> | ┦───     | <b> </b> | ╂        |          |   |
|                            |                                                               |                  |              |             |            |                |          |            | ·]         |            | <u> </u> |                     |                | <u> </u>   |                    |         | ┣        |     |          |          |          | ╂        | <u> </u> | <u> </u> |   |
|                            |                                                               |                  |              |             |            |                |          |            |            |            |          |                     |                | <b> </b>   | <b> </b>           |         |          |     | +        | +        |          | ╂        | ╂        |          |   |
|                            |                                                               |                  |              |             |            |                |          |            |            |            |          |                     |                | ┨────      |                    |         | <u> </u> |     | +        | +        |          | +        | ╂───     |          |   |
| PLEASE NOTE: Lizbility and | Damages. Cardinal's liability and client's Sectioniusive reme | I dy for a       | илу сі       | taim ai     | i<br>ising | l<br>whether t | lased    | i<br>In co | Intract    | or to      | rt, sha  | all be limited to t | he amount paid | by the cli | ent for th         | ļ       | L        | L   | 1        |          | 1        | <u> </u> | <u> </u> | L        | L |

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 30 days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including without finitiation, business interruptions, loss of use, or bass of profile incurred by client, its subsidiaries, efficience or subsequence and the profile and the conformation of senders being included and the senders and the client stated research and the senders and th

| annates of successors ansing out of or related to the perioritum. | a or services hereurider by Cardinal regardless of wreuter such ceatrilis dased upon any of the above scaled | Treasons of Guilerwise.                      |
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| l. fl                                                             | 412914 1 1                                                                                                   | Fax Result: 🛛 Yes 🖾 No 🔤 Add'I Fax #:        |
| Atom Naulor                                                       | Time I IIII MILLAN                                                                                           | REMARKS:                                     |
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| Relinquished By:                                                  | Date: 1/1/1 Received By:                                                                                     | HOLD FOR TPH                                 |
|                                                                   | Date: 4/9/14 Received By:                                                                                    |                                              |
| Nill lown                                                         | Time: III P DAALA I M                                                                                        | Please email results to pm@basinenv.com,     |
|                                                                   | 11/5 Aundance                                                                                                | TASavoie@BassPet.com & SJWalters@BassPet.com |
| Delivered By (Circle One)                                         | Dai Denserve Condition CHECKED BY:                                                                           |                                              |
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| Sampler - UPS - Bus - Other:                                      | A 10.0C - Uves Pres                                                                                          |                                              |
| L Jamely                                                          | No No                                                                                                        |                                              |
| FORM-006                                                          | † Cardinal cannot accept verbal changes. Please f                                                            | ax written changes to 575-393-2476           |
| Revision 1.0                                                      |                                                                                                              |                                              |
|                                                                   | ショル ア ア コ ロ                                                                                                  |                                              |



May 08, 2014

JOEL LOWRY Basin Environmental Service P.O. Box 301 Lovington, NM 88260

RE: REMUDA BASIN UNIT #1 BATTERY

Enclosed are the results of analyses for samples received by the laboratory on 05/01/14 9:05.

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/qa/lab\_accred\_certif.html">www.tceq.texas.gov/field/qa/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. Kune

Celey D. Keene Lab Director/Quality Manager



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

| Received:         | 05/01/2014                   | Sampling Date:      | 04/30/2014    |
|-------------------|------------------------------|---------------------|---------------|
| Reported:         | 05/08/2014                   | Sampling Type:      | Soil          |
| Project Name:     | REMUDA BASIN UNIT #1 BATTERY | Sampling Condition: | Cool & Intact |
| Project Number:   | NONE GIVEN                   | Sample Received By: | Jodi Henson   |
| Project Location: | EDDY COUNTY, NM              |                     |               |

## Sample ID: SEC B FLOOR B (H401323-01)

| Chloride, SM4500CI-B | mg     | /kg             | Analyze    | d By: AP     |     |            |               |      |           |
|----------------------|--------|-----------------|------------|--------------|-----|------------|---------------|------|-----------|
| Analyte              | Result | Reporting Limit | Analyzed   | Method Blank | BS  | % Recovery | True Value QC | RPD  | Qualifier |
| Chloride             | 624    | 16.0            | 05/08/2014 | ND           | 416 | 104        | 400           | 0.00 |           |

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## \*=Accredited Analyte

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Celey D. Kune

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 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

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#### \*=Accredited Analyte

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Celey D. Kune

Celey D. Keene, Lab Director/Quality Manager

# CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

RDINAL LABORATORIES

101 East Mariand, Hobbs, NM 88240

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

| Company Name: Basin Environmental Service Technologies, LLC    |                                                                                                                                                                                                                                                                                        |                                  |                       |                           |                         |                            |                       | BILL TO ANALYSIS REQUEST |                  |                                       |                     |            |             |              |          |          |          |          |          |    |          |  |  |
|----------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------|-----------------------|---------------------------|-------------------------|----------------------------|-----------------------|--------------------------|------------------|---------------------------------------|---------------------|------------|-------------|--------------|----------|----------|----------|----------|----------|----|----------|--|--|
| Project Manager:                                               | Joel Lowry                                                                                                                                                                                                                                                                             |                                  |                       |                           |                         | Р.                         | O. #:                 | :                        |                  |                                       |                     |            |             |              |          |          |          |          |          |    |          |  |  |
| Address: P.O.                                                  | Box 301                                                                                                                                                                                                                                                                                |                                  |                       |                           |                         | C                          | ompa                  | any:                     |                  | BOPC                                  | 0, LP               |            |             |              |          |          |          |          |          |    |          |  |  |
| City: Lovington                                                | State: NM                                                                                                                                                                                                                                                                              | Zip:                             | 8826                  | 50                        |                         | A                          | tn:                   |                          |                  | Tony Sav                              | oie                 |            |             |              |          |          |          |          |          |    |          |  |  |
| Phone #: (575)                                                 | <b>396-2378</b> Fax #: (575)39                                                                                                                                                                                                                                                         | 6-142                            | 9                     |                           |                         | A                          | Address: 522 W. Ma    |                          |                  |                                       | larland             |            |             |              |          |          |          |          |          |    |          |  |  |
| Project #:                                                     | Project Owner                                                                                                                                                                                                                                                                          | :                                |                       |                           |                         | Ci                         | City: Carlsbac        |                          |                  |                                       | d                   |            |             |              | I        |          |          |          |          |    |          |  |  |
| Project Name:                                                  | Remuda Basin Unit #1 Battery                                                                                                                                                                                                                                                           |                                  |                       |                           |                         | St                         | ate:                  | NM                       | 1 2              | Zip:                                  | 88220               | e<br>P     | TPH (8015M) | BTEX (8021B) | R TPH    |          |          |          |          |    |          |  |  |
| <b>Project Location:</b>                                       | Eddy Co., NM                                                                                                                                                                                                                                                                           |                                  |                       |                           |                         | PI                         | none                  | #:                       |                  | (432)556                              | -8730               | Chloride   | 801         | (80          | HOLD FOR |          |          |          |          |    |          |  |  |
| Sampler Name:                                                  | Joel Lowry                                                                                                                                                                                                                                                                             |                                  |                       |                           |                         | Fa                         | 9x #:                 |                          |                  |                                       |                     | ਤ          | H<br>H      | Ц.           | 2        |          |          |          |          |    |          |  |  |
| FOR LAB USE ONLY                                               |                                                                                                                                                                                                                                                                                        |                                  |                       | M                         | ATRIX                   | - 1 -                      | PR                    | SER                      | <u>v</u>         | SAMPLI                                | NG                  | ]          | ŭ,          | 6            | <u></u>  |          |          |          | 1        |    |          |  |  |
| Lab I.D.<br>H401323                                            | Sample I.D.                                                                                                                                                                                                                                                                            | (G)RAB OR (C)OMP<br># CONTAINERS | GROUNDWATER           | WASTEWATER                | OIL                     | SLUDGE<br>OTHER :          | ACID/BASE:            | ICE / COOL               | ОІНЕК:           | DATE                                  | TIME                |            |             | -            |          |          |          |          |          |    |          |  |  |
| <u> </u>                                                       | Sec. B Floor B                                                                                                                                                                                                                                                                         | G                                | -                     | ,                         | 1 1                     |                            |                       | x                        |                  | 4/30/14                               | 1330                | x          |             |              |          |          |          |          |          |    |          |  |  |
|                                                                | · · ·                                                                                                                                                                                                                                                                                  |                                  |                       |                           |                         |                            |                       |                          |                  |                                       |                     | <u> </u>   |             | L            |          | L        | ļ        | ļ        | ļ        | ļ  |          |  |  |
|                                                                |                                                                                                                                                                                                                                                                                        |                                  | -                     |                           |                         |                            | .                     |                          | _                |                                       |                     |            |             |              |          | ļ        | ļ        | <b></b>  | <b></b>  | ļ  |          |  |  |
|                                                                |                                                                                                                                                                                                                                                                                        |                                  |                       |                           |                         |                            | -                     |                          |                  |                                       |                     | <b> </b>   |             |              |          | <b> </b> | ļ        | <b>_</b> |          |    |          |  |  |
|                                                                |                                                                                                                                                                                                                                                                                        |                                  | -                     |                           | -                       |                            |                       |                          | ╌┝               |                                       |                     |            |             |              |          | ļ        |          | <u> </u> | <u> </u> |    |          |  |  |
| ······································                         |                                                                                                                                                                                                                                                                                        |                                  | -                     | <u> </u>                  |                         |                            | -                     |                          | ┢                |                                       |                     | <b> </b>   |             |              | ļ        | <b> </b> | <b> </b> | <u> </u> |          |    | $\vdash$ |  |  |
|                                                                |                                                                                                                                                                                                                                                                                        |                                  | -                     | $\left  - \right $        | +                       |                            | -                     |                          |                  |                                       |                     | <b> </b>   |             |              |          | <b> </b> | <b> </b> |          | ╆───     |    |          |  |  |
|                                                                |                                                                                                                                                                                                                                                                                        |                                  | -                     |                           |                         |                            |                       |                          |                  | ·                                     |                     |            |             |              |          | <u> </u> |          | <u> </u> | ╂───     |    |          |  |  |
|                                                                |                                                                                                                                                                                                                                                                                        |                                  | -                     |                           |                         |                            | · <b> </b> †          |                          | ┢                |                                       |                     | <b> </b>   |             |              |          | <b> </b> |          | <u> </u> | <u> </u> |    |          |  |  |
|                                                                |                                                                                                                                                                                                                                                                                        |                                  | -                     |                           |                         |                            | ╏━┤                   |                          | ┢                |                                       |                     |            |             |              |          |          |          | <u> </u> | 1        |    |          |  |  |
| analyses. All claims including service, in no event shall Carr | Damages. Candinal's liability and client's exclusive remody for any<br>those for negligence and any other cause whatsoever shall be dee<br>linal be liable for incidental or consequential damages, including wi<br>out of or related to the performance of services hereauted by Card | med waiv<br>thout limit          | ed unles<br>ation, bu | is made is<br>isiness int | s writing a<br>emuption | and receiv<br>s, loss of : | red by C<br>use, or N | ardinal<br>oss of p      | within<br>vofits | 1 30 days after o<br>incurred by clie | completion of the i | applicable |             | L            | L        | <u>L</u> | <u></u>  | <u> </u> |          | L  |          |  |  |
| Relinquished By:                                               | 四年1114                                                                                                                                                                                                                                                                                 | Rece                             |                       |                           |                         | 11                         |                       |                          |                  |                                       | Phone Res           |            | C Yes       |              | No       | Add'l    |          | #:       |          |    |          |  |  |
| Jullo                                                          | Tinge 65                                                                                                                                                                                                                                                                               |                                  | $\gamma$              | ЛI.                       |                         | ŬŰ                         |                       | Λ                        | R                | M                                     | Fax Resul           |            | O Yes       | <u>s_u</u>   | No       | Add'l I  | -ax #:   |          |          |    |          |  |  |
| Relinguished By:                                               | Date:                                                                                                                                                                                                                                                                                  | Rece                             | Ived                  | By:                       | 9                       | ~~~                        | M                     | 12                       | Ľ                |                                       |                     |            |             |              | بن       | OLD F    |          | ъц       |          |    |          |  |  |
| Time:                                                          |                                                                                                                                                                                                                                                                                        |                                  |                       |                           |                         |                            |                       |                          |                  |                                       | Pleas               | se em      | ail res     | ults to      |          | )basin   |          |          |          |    |          |  |  |
| Delivered Dur                                                  |                                                                                                                                                                                                                                                                                        |                                  |                       | Samel                     | - [                     | dition                     |                       | CUEC                     |                  | D BY:                                 | TASa                | avoie@     | Bass        | Pet.c        | om &     | ŚJWa     | lters@   | Bass     | sPet.co  | om |          |  |  |
| Delivered By:                                                  | 1                                                                                                                                                                                                                                                                                      | .go                              |                       | Sampl<br>Cool             | / intac                 | anion                      |                       | une(<br>)                | nitia            | lls)                                  |                     |            |             |              |          |          |          |          |          |    |          |  |  |
| Sampler UPS<br>FORM-000                                        | Bus - Other:                                                                                                                                                                                                                                                                           | .00                              | -                     |                           |                         | Yes<br>No                  |                       | 4                        | $\mathcal{H}$    | $\vdash$                              |                     |            |             |              |          |          |          |          |          |    |          |  |  |

Revision 1.0

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



May 14, 2014

JOEL LOWRY

Basin Environmental Service

P.O. Box 301

Lovington, NM 88260

RE: REMUDA BASIN UNIT #1 BATTERY

Enclosed are the results of analyses for samples received by the laboratory on 05/09/14 15:35.

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. Kune

Celey D. Keene Lab Director/Quality Manager



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

| Received:         | 05/09/2014                   | Sampling Date:      | 05/08/2014    |
|-------------------|------------------------------|---------------------|---------------|
| Reported:         | 05/14/2014                   | Sampling Type:      | Soil          |
| Project Name:     | REMUDA BASIN UNIT #1 BATTERY | Sampling Condition: | Cool & Intact |
| Project Number:   | NONE GIVEN                   | Sample Received By: | Jodi Henson   |
| Project Location: | EDDY COUNTY, NM              |                     |               |

#### Sample ID: SEC. A SSW (H401419-01)

| Chloride, SM4500Cl-B | mg,    | /kg             | Analyze    | d By: AP     |     |            |               |      |           |
|----------------------|--------|-----------------|------------|--------------|-----|------------|---------------|------|-----------|
| Analyte              | Result | Reporting Limit | Analyzed   | Method Blank | BS  | % Recovery | True Value QC | RPD  | Qualifier |
| Chloride             | 832    | 16.0            | 05/14/2014 | ND           | 416 | 104        | 400           | 0.00 |           |

## Sample ID: SEC. A WSWB (H401419-02)

| Chloride, SM4500CI-B | mg     | /kg             | Analyze    | d By: AP     |     |            |               |      |           |
|----------------------|--------|-----------------|------------|--------------|-----|------------|---------------|------|-----------|
| Analyte              | Result | Reporting Limit | Analyzed   | Method Blank | BS  | % Recovery | True Value QC | RPD  | Qualifier |
| Chloride             | 1310   | 16.0            | 05/14/2014 | ND           | 416 | 104        | 400           | 0.00 |           |

#### Sample ID: 5/8 DT @ 5' (H401419-03)

| Chloride, SM4500CI-B | mg     | /kg             | Analyze    | d By: AP     |     |            |               |      |           |
|----------------------|--------|-----------------|------------|--------------|-----|------------|---------------|------|-----------|
| Analyte              | Result | Reporting Limit | Analyzed   | Method Blank | BS  | % Recovery | True Value QC | RPD  | Qualifier |
| Chloride             | 2920   | 16.0            | 05/14/2014 | ND           | 416 | 104        | 400           | 0.00 |           |

## Sample ID: 5/8 DT @ 7' (H401419-04)

| Chloride, SM4500Cl-B | mg,    | /kg             | Analyzed By: AP |              |     |            |               |      | <u></u>   |
|----------------------|--------|-----------------|-----------------|--------------|-----|------------|---------------|------|-----------|
| Analyte              | Result | Reporting Limit | Analyzed        | Method Blank | BS  | % Recovery | True Value QC | RPD  | Qualifier |
| Chloride             | 3320   | 16.0            | 05/14/2014      | ND           | 416 | 104        | 400           | 0.00 |           |

## **Cardinal Laboratories**

\*=Accredited Analyte

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Celey D. Kune

Celey D. Keene, Lab Director/Quality Manager



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

| Received:         | 05/09/2014                   | Sampling Date:      | 05/08/2014    |
|-------------------|------------------------------|---------------------|---------------|
| Reported:         | 05/14/2014                   | Sampling Type:      | Soil          |
| Project Name:     | REMUDA BASIN UNIT #1 BATTERY | Sampling Condition: | Cool & Intact |
| Project Number:   | NONE GIVEN                   | Sample Received By: | Jodi Henson   |
| Project Location: | EDDY COUNTY, NM              |                     |               |

#### Sample ID: 5/8 DT @ 8' (H401419-05)

| Chloride, SM4500Cl-B | mg     | /kg             | Analyze    | d By: AP     |     |              |               |      |           |
|----------------------|--------|-----------------|------------|--------------|-----|--------------|---------------|------|-----------|
| Analyte              | Result | Reporting Limit | Analyzed   | Method Blank | BS  | % Recovery . | True Value QC | RPD  | Qualifier |
| Chloride             | 672    | 16.0            | 05/14/2014 | ND           | 416 | 104          | 400           | 0.00 |           |

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## \*=Accredited Analyte

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Celey 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 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

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Celeg D. Kuna

Celey D. Keene, Lab Director/Quality Manager

# ARDINAL LABORATORIES

# CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

101 East Marland, Hobbs, NM 88240

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

| Company Name:       | Basin Environmental Service Tech                                |                   | ies.         | LLC         | :          |      |        |           |            |            | BI      | LL TO    |                  | <b></b>  |             |              |          | ΔΝΔ |   | S RF | QUE | ST |          | سنبر سرد کند.             |
|---------------------|-----------------------------------------------------------------|-------------------|--------------|-------------|------------|------|--------|-----------|------------|------------|---------|----------|------------------|----------|-------------|--------------|----------|-----|---|------|-----|----|----------|---------------------------|
| Project Manager:    |                                                                 |                   |              |             |            |      | •••••• | Þ         | 0. #       |            |         |          | **************** | i        |             | 1            | <u> </u> |     |   |      | T   |    | <b>—</b> | <br>                      |
| Address: P.O.       | · · · · · · · · · · · · · · · · · · ·                           |                   |              |             |            |      |        |           |            |            |         |          |                  |          |             |              |          |     |   |      |     | ļ  |          |                           |
|                     |                                                                 |                   |              |             |            |      |        | <u> C</u> | omp        | any        |         | BOPC     | O, LP            |          |             |              |          |     |   |      |     | 1  |          |                           |
| City: Lovington     | State: NM                                                       | Zip               | : 8          | 826         | 0          |      |        | At        | tn:        |            |         | Tony Sav | Die              | Į        |             |              |          |     |   |      |     |    |          |                           |
| Phone #: (575)      | 396-2378 Fax #: (575)3                                          | 96-1              | 429          |             |            |      |        | Ad        | idre       | ss:        |         | 522 W. M | arland           |          |             |              |          |     |   |      |     |    |          |                           |
| Project #:          | Project Owne                                                    | r:                |              |             |            |      |        | Ci        | ty:        |            |         | Carlsba  | t                |          |             |              | Ξ        |     |   |      |     |    |          |                           |
| Project Name:       | Remuda Basin Unit #1 Battery                                    |                   |              |             |            |      |        | St        | ate:       | N          | М       | Zip:     | 88220            | <u> </u> | 2W)         | 218          | L L      |     |   |      |     |    |          |                           |
| Project Location:   | Eddy Co., NM                                                    |                   |              |             |            |      |        | Pł        | none       | #:         |         | (432)556 | -8730            | Chloride | 801         | (80)         | FOR TPH  |     |   |      |     |    |          |                           |
| Sampler Name:       |                                                                 |                   |              |             |            |      |        | Fa        | x #:       |            |         |          |                  | ਲੌ       | TPH (8015M) | BTEX (8021B) |          |     | } |      |     |    |          |                           |
| FOR LAB USE ONLY    |                                                                 | Τ                 |              |             | N          | IATR | IX     |           | PR         | ESE        | RV.     | SAMPLI   | NG               |          | 14          | 81           | НОГР     |     |   |      |     |    |          |                           |
| Lab I.D.<br>H4DJ419 | Sample I.D.                                                     | (G)RAB OR (C)OMP. | # CONTAINERS | GROUNDWATER | WASTEWATER | SOIL | SLUDGE | OTHER :   | ACID/BASE: | ICE / COOL | OTHER : | DATE     | TIME             |          |             |              |          |     |   |      |     |    |          |                           |
| 1                   | Sec. A SSW                                                      |                   | 1            |             |            | x    |        |           |            |            |         | 5/8/14   | 1310             | x        |             |              |          |     |   |      |     |    |          |                           |
| 2                   | Sec. A WSWb                                                     | Ŀ                 | 1            |             |            | x    |        |           |            |            |         | 5/8/14   | 1320             | x        |             |              |          |     |   |      |     |    |          |                           |
| 3                   | 5/8 DT @ 5'                                                     |                   | 1            |             |            | x    |        |           |            |            |         | 5/8/14   | 1400             | x        |             |              |          |     |   |      |     |    |          |                           |
| 4                   | 5/8 DT @ 7'                                                     |                   | 1            |             |            | x    |        |           |            |            |         | 5/8/14   | 1410             | x        |             |              |          |     |   |      |     |    |          |                           |
| 5                   | 5/8 DT @ 8'                                                     |                   | 1            |             |            | x    |        |           |            |            |         | 5/8/14   | 1420             | x        |             |              |          |     |   |      |     |    |          |                           |
|                     |                                                                 |                   |              |             |            |      |        |           |            |            |         |          |                  |          |             |              |          |     |   |      |     |    |          |                           |
|                     |                                                                 |                   |              |             |            |      |        |           |            |            |         |          |                  |          |             |              |          |     |   |      |     |    |          |                           |
|                     |                                                                 |                   |              |             |            |      |        |           |            |            |         |          |                  |          |             |              |          |     |   |      |     |    |          |                           |
|                     |                                                                 |                   |              |             |            | 1    |        |           |            |            |         |          |                  |          |             |              |          |     |   |      |     |    |          |                           |
|                     |                                                                 |                   |              |             | 1          | T    | Τ      | Γ         |            |            |         |          |                  |          |             |              |          |     |   |      |     |    |          |                           |
|                     | Demages, Cardinal's inhiby and client's exclusive remedy for an | and a l           |              |             |            |      |        |           |            |            |         |          |                  |          |             |              |          |     |   |      |     |    |          | <br>successive statements |

PLEASE NOTE: Lisbility and Damages. Cardinal's lisbility and client's exclusive remedy for any daim arising whether based in contract or tart, shall be limited to the amount paid by the client for the analyses. All claims including those for negligence and any other cause whatbeever shall be deemed walved unless made in writing and received by Cardinal within 30 days after completion of the applicable service. In no event shall Cardinal be fable for incidental or consequential damages, including without filmation, business interruptions, loss of use, or loss of profits incurred by client, its autositiaries, affilters or successors arising out of or related to the performance of services hereunder by Cardinal, recardless of whether such claim is based upon any of the above stated reasons or otherwise.

| Relinquished By:             |                                                   | Phone Result:  Ves No Add'i Phone #:                                                     |
|------------------------------|---------------------------------------------------|------------------------------------------------------------------------------------------|
| Cree C                       | Date:<br>3/0.K/4<br>Time:<br>2.3: DAN HENSON      | Fax Result:     Image: Yes     No!     Add'I Fax #:       REMARKS:                       |
| Relinquished By:             | Date: Received By:                                |                                                                                          |
|                              | Time:                                             | Please email results to pm@basinenv.com,<br>TASavoie@BassPet.com & SJWalters@BassPet.com |
| Delivered By: (Circle One)   | Sample Condition CHECKED BY:                      |                                                                                          |
| Sampler - UPS - Bus - Other: | 4,80 Cool Intact<br>Pres Pres<br>No No No         |                                                                                          |
| FORM-006                     | † Cardinal cannot accept verbal changes. Please f | ax written changes to 575-393-2476                                                       |
| Revision 1.0                 | #54                                               |                                                                                          |

June 10, 2014

JOEL LOWRY

Basin Environmental Service

P.O. Box 301

Lovington, NM 88260

RE: REMUDA BASIN UNIT #1 BATTERY

Enclosed are the results of analyses for samples received by the laboratory on 06/04/14 15:15.

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,

Celez D. Keine

Celey D. Keene Lab Director/Quality Manager



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

| Received:         | 06/04/2014                   | Sampling Date:      | 06/03/2014    |
|-------------------|------------------------------|---------------------|---------------|
| Reported:         | 06/10/2014                   | Sampling Type:      | Soil          |
| Project Name:     | REMUDA BASIN UNIT #1 BATTERY | Sampling Condition: | Cool & Intact |
| Project Number:   | NONE GIVEN                   | Sample Received By: | Jodi Henson   |
| Project Location: | EDDY COUNTY, NM              |                     |               |

## Sample ID: RO #1 (H401708-01)

| 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           | 06/06/2014 | ND           | 2.09 | 105        | 2.00          | 1.02  |           |
| Toluene*                             | <0.050 | 0.050           | 06/06/2014 | ND           | 2,24 | 112        | 2.00          | 0.546 |           |
| Ethylbenzene*                        | <0.050 | 0.050           | 06/06/2014 | ND           | 2.03 | 101        | 2.00          | 1.45  |           |
| Total Xylenes*                       | <0.150 | 0.150           | 06/06/2014 | ND           | 6.41 | 107        | 6.00          | 2.72  |           |
| Total BTEX                           | <0.300 | 0.300           | 06/06/2014 | ND           |      |            |               |       |           |
| Surrogate: 4-Bromofluorobenzene (PIL | 102 9  | 6 89.4-12       | 6          |              |      |            |               |       |           |
| Chloride, SM4500Cl-B                 | mg/    | kg              | Analyze    | d By: AP     |      |            |               |       |           |
| Analyte                              | Result | Reporting Limit | Analyzed   | Method Blank | BS   | % Recovery | True Value QC | RPD   | Qualifier |
| Chloride                             | 400    | 16.0            | 06/05/2014 | ND           | 400  | 100        | 400           | 0.00  |           |
| TPH 8015M                            | mg/    | kg              | Analyze    | d By: MS     |      |            | <u>_</u>      |       |           |
| Analyte                              | Result | Reporting Limit | Analyzed   | Method Blank | BS   | % Recovery | True Value QC | RPD   | Qualifier |
| GRO C6-C10                           | <10.0  | 10.0            | 06/10/2014 | ND           | 204  | 102        | 200           | 5.28  |           |
| DRO >C10-C28                         | 17.3   | 10.0            | 06/10/2014 | ND           | 215  | 107        | 200           | 7.85  |           |
| EXT DRO >C28-C35                     | <10.0  | 10.0            | 06/10/2014 | ND           |      |            |               |       |           |
| Surrogate: 1-Chlorooctane            | 90.1   | % 65.2-14       | (0         |              |      |            |               |       |           |

Surrogate: 1-Chlorooctadecane 93.4% 63.6-154

#### **Cardinal Laboratories**

#### \*=Accredited Analyte

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Celeg D. Kune

Celey D. Keene, Lab Director/Quality Manager



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

| Received:         | 06/04/2014                   | Sampling Date:      | 06/03/2014    |
|-------------------|------------------------------|---------------------|---------------|
| Reported:         | 06/10/2014                   | Sampling Type:      | Soil          |
| Project Name:     | REMUDA BASIN UNIT #1 BATTERY | Sampling Condition: | Cool & Intact |
| Project Number:   | NONE GIVEN                   | Sample Received By: | Jodi Henson   |
| Project Location: | EDDY COUNTY, NM              |                     |               |

## Sample ID: RO #2 (H401708-02)

| mg/     | kg                                             | Analyze                                                      | d By: MS/                                                        |                                                                                       |                                                                                                  |                                                                                                                     |                                                                                                                                           |                                                                                                                                                       |
|---------|------------------------------------------------|--------------------------------------------------------------|------------------------------------------------------------------|---------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------|
| Result  | Reporting Limit                                | Analyzed                                                     | Method Blank                                                     | BS                                                                                    | % Recovery                                                                                       | True Value QC                                                                                                       | RPD                                                                                                                                       | Qualifier                                                                                                                                             |
| <0.050  | 0.050                                          | 06/06/2014                                                   | ND                                                               | 2.09                                                                                  | 105                                                                                              | 2.00                                                                                                                | 1.02                                                                                                                                      |                                                                                                                                                       |
| <0.050  | 0.050                                          | 06/06/2014                                                   | ND                                                               | 2.24                                                                                  | 112                                                                                              | 2.00                                                                                                                | 0.546                                                                                                                                     |                                                                                                                                                       |
| <0.050  | 0.050                                          | 06/06/2014                                                   | ND                                                               | 2.03                                                                                  | 101                                                                                              | 2.00                                                                                                                | 1.45                                                                                                                                      |                                                                                                                                                       |
| <0.150  | 0.150                                          | 06/06/2014                                                   | ND                                                               | 6.41                                                                                  | 107                                                                                              | 6.00                                                                                                                | 2.72                                                                                                                                      |                                                                                                                                                       |
| < 0.300 | 0.300                                          | 06/06/2014                                                   | ND                                                               | •                                                                                     |                                                                                                  |                                                                                                                     |                                                                                                                                           |                                                                                                                                                       |
|         | Result<br><0.050<br><0.050<br><0.050<br><0.150 | <0.050 0.050<br><0.050 0.050<br><0.050 0.050<br><0.150 0.150 | Result         Reporting Limit         Analyzed           <0.050 | Result         Reporting Limit         Analyzed         Method Blank           <0.050 | Result         Reporting Limit         Analyzed         Method Blank         BS           <0.050 | Result         Reporting Limit         Analyzed         Method Blank         BS         % Recovery           <0.050 | Result         Reporting Limit         Analyzed         Method Blank         BS         % Recovery         True Value QC           <0.050 | Result         Reporting Limit         Analyzed         Method Blank         BS         % Recovery         True Value QC         RPD           <0.050 |

Surrogate: 4-Bromofluorobenzene (PIL 102 % 89.4-126

| Chloride, SM4500Cl-B          | mg/    | kg              | Analyze    | d By: AP     |     |            |               |      |           |
|-------------------------------|--------|-----------------|------------|--------------|-----|------------|---------------|------|-----------|
| Analyte                       | Result | Reporting Limit | Analyzed   | Method Blank | BS  | % Recovery | True Value QC | RPD  | Qualifier |
| Chloride                      | 416    | 16.0            | 06/05/2014 | 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            | 06/10/2014 | ND           | 204 | 102        | 200           | 5.28 |           |
| DRO >C10-C28                  | 10.7   | 10.0            | 06/10/2014 | ND           | 215 | 107        | 200           | 7.85 |           |
| EXT DRO >C28-C35              | <10.0  | 10.0            | 06/10/2014 | ND           |     |            |               |      |           |
| Surrogate: 1-Chlorooctane     | 90.5 9 | 65.2-14         | 0          |              |     |            |               |      |           |
| Surrogate: 1-Chlorooctadecane | 95.0 9 | 63.6-15         | 4          |              |     |            |               |      |           |

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\*=Accredited Analyte

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Celey D. Kune

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 SM4500CI-B does not require samples be received at or | below 6°C      |
| Samples reported on an as received basis (wet) unless otherwise ne  | oted on report |

#### Cardinal Laboratories

#### \*=Accredited Analyte

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Celez D. Kune

Celey D. Keene, Lab Director/Quality Manager



# CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

101 East Marland, Hobbs, NM 88240

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

|                                                                                                                 | (5/5) 393-2326 FAX (5/5) 393-2                                                                                                      |                  | _            |             |            |          |                        |                      |                 |            |            |          |                   |                      |              |                  |             |          |         |          |          |          |            | ·     |   |   |  |
|-----------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------|------------------|--------------|-------------|------------|----------|------------------------|----------------------|-----------------|------------|------------|----------|-------------------|----------------------|--------------|------------------|-------------|----------|---------|----------|----------|----------|------------|-------|---|---|--|
| Company Name:                                                                                                   |                                                                                                                                     |                  |              |             |            |          |                        |                      | BILL TO         |            |            |          |                   |                      |              | ANALYSIS REQUEST |             |          |         |          |          |          |            |       |   |   |  |
| Project Manager: Joel Lowry                                                                                     |                                                                                                                                     |                  |              |             |            |          |                        | F                    | P.O. #:         |            |            |          |                   |                      | 1            |                  |             |          |         |          |          |          | 1          |       |   | İ |  |
| Address: P.O. B                                                                                                 |                                                                                                                                     |                  |              |             |            |          |                        |                      | Company: BOPC   |            |            |          |                   | CO, LP               |              | l                | [           | · ·      |         | 1        |          | (        |            |       |   | ł |  |
| City: Lovington                                                                                                 |                                                                                                                                     |                  |              |             |            |          |                        | A                    | Attn: Tony Savo |            |            |          |                   | oie                  |              |                  |             |          |         |          |          |          |            |       |   | Ì |  |
| Phone #:         (575)396-2378         Fax #:         (575)396-1429           Project #:         Project Owner: |                                                                                                                                     |                  |              |             |            |          |                        | Address: 522 W. M    |                 |            |            |          | larland           |                      |              |                  |             |          |         |          |          |          |            |       |   |   |  |
|                                                                                                                 |                                                                                                                                     |                  |              |             |            |          |                        | lity                 | :               |            |            | Carlsba  | d                 |                      |              |                  | Ŧ           |          |         |          |          |          |            |       |   |   |  |
| Project Name: Remuda Basin Unit #1 Battery                                                                      |                                                                                                                                     |                  |              |             |            |          | s                      | State: NM Zip: 88220 |                 |            |            |          | Chloride          | TPH (8015M)          | BTEX (8021B) | FOR TPH          |             |          |         |          |          |          |            |       |   |   |  |
| Project Location: Eddy Co., NM                                                                                  |                                                                                                                                     |                  |              |             |            | P        | Phone #: (432)556-8730 |                      |                 |            |            |          |                   |                      |              |                  |             |          |         |          |          |          |            |       |   |   |  |
| Sampler Name:                                                                                                   |                                                                                                                                     |                  |              |             |            |          |                        | F                    | ax              | #:         |            |          |                   |                      | ਤਿ           | Ĭ                | EX          | ā        |         |          |          |          |            |       |   | Į |  |
| FOR LAB USE ONLY                                                                                                |                                                                                                                                     | Ι.               | Τ            |             | T          | MAT      | RIX                    |                      | PRESE           |            | SER        | <u>v</u> | SAMPLING          |                      | ]            | ⊭                | BT          | НОГР     |         |          |          |          |            |       |   | ļ |  |
| Lab I.D.<br>H4017DD                                                                                             | Sample I.D.                                                                                                                         | (G)RAB OR (C)OMP | # CONTAINERS | GROUNDWATER | WASTEWATER | SOIL     | OIL                    | SLUDGE<br>OTHEP ·    |                 | ACIU/BASE: | ICE / COOL |          | DATE              | TIME                 |              |                  |             |          |         |          |          |          |            |       |   |   |  |
| 1                                                                                                               | RO #1                                                                                                                               | g                | 1            |             |            | X        |                        |                      |                 |            |            |          | 6/3/14            | 1200                 | x            | x                | x           |          |         |          | <u> </u> |          |            |       |   |   |  |
| 2                                                                                                               | RO #2                                                                                                                               | g                | 1            | <u> </u>    | <u> </u>   | x        |                        |                      |                 |            |            | ₋┟       | 6/3/14            | 1205                 | ×            | x                | x           |          |         | L        | L        |          |            |       |   |   |  |
|                                                                                                                 |                                                                                                                                     |                  |              |             | <u> </u>   |          |                        |                      |                 |            |            | ┛        |                   |                      | ļ            |                  |             |          | ļ       | ļ        | ļ        | <b></b>  | ļ          |       |   |   |  |
|                                                                                                                 |                                                                                                                                     |                  |              |             | ļ          |          |                        |                      |                 | _          |            | _        |                   |                      | ļ            |                  |             |          | ļ       |          |          | <b></b>  | ļ'         |       |   |   |  |
|                                                                                                                 |                                                                                                                                     | .                |              | .           | <u> </u>   |          |                        |                      |                 |            |            | ╌┝       |                   |                      |              |                  |             | <u> </u> | ļ       | ļ        | ļ        | ļ        | L          |       |   |   |  |
|                                                                                                                 |                                                                                                                                     | · <b> </b>       | .            | .           | <u> </u>   |          |                        |                      |                 |            |            | _        |                   |                      |              |                  |             |          |         | ļ        | ļ        | ļ        | <b> </b> ' |       |   |   |  |
|                                                                                                                 |                                                                                                                                     |                  |              |             | _          |          |                        |                      |                 | +          |            | ₋┢       |                   |                      |              |                  |             |          |         | <b> </b> |          |          | <u> </u>   |       |   |   |  |
|                                                                                                                 |                                                                                                                                     | -                | .            |             |            | -        |                        |                      |                 |            |            | ╶┝       |                   |                      |              |                  |             |          | }       | <b> </b> | <b> </b> | <u> </u> | <u> </u>   | ┟───┨ |   |   |  |
|                                                                                                                 |                                                                                                                                     | .                | · <b> </b>   | ·           |            |          |                        |                      | - -             | +-         |            | ╶┝       |                   |                      |              |                  |             |          | ļ       | <u> </u> |          | ┣───     | <u> </u>   | ┝──┤  | + |   |  |
| LEASE NOTE: Liphity and Dr                                                                                      | amages, Cardinal's liability and client's exclusive remedy for any                                                                  |                  | Arisire      |             | her ba     | section  | montrac                | or tort              |                 |            | in sed t   |          | ve amount paid b  | w the client for the |              |                  |             | L        | L       |          | L        |          |            |       |   |   |  |
| nalyses. All claims including th                                                                                | nose for negligence and any other cause whatsoever shall be de<br>ral be lighte for incidental or consequental damages, including v | semed v          | waived       | d undes     | is mad     | te in wr | nting an               | d recei              | ived t          | у Сал      | rdinal w   | within   | n 30 days after c | ompletion of the a   | applicable   |                  |             |          |         |          |          |          |            |       |   |   |  |
|                                                                                                                 | ut of or related to the performance of services hereunder by Cau<br>I Date:                                                         | rdinal, r        | regard       |             | fwhet      | her suc  |                        |                      |                 |            |            |          |                   |                      |              | U Ye             | <u>,</u> (1 | No       | I Add'l | Phone    | #:       |          |            |       |   |   |  |
| <u>^</u>                                                                                                        | Duto:                                                                                                                               | 1                |              |             | - 1.       | -        |                        |                      |                 |            |            | -        | <b>,</b>          | Face Daniel          |              | <u><u> </u></u>  |             | 11.1     |         |          |          |          |            |       |   |   |  |

6-4-14 Fax Result: O Yes No Add'I Fax #: Time: laku **REMARKS:** 8:0U **Received By:** Relinguished By: Date HOLD FOR TPH :15 Time Please email results to pm@basinenv.com, TASavoie@BassPet.com & SJWalters@BassPet.com Sample Condition Delivered By: (Circle One) Cool Intact 4.6 Sampler - UPS - Bus - Other: FORM-006 † Cardinal cannot accept verbal changes. Please fax written changes to 575-393-2476 **Revision 1.0**