

Basin Environmental Service Technologies, LLC

3100 Plains Highway
P. O. Box 301
Lovington, New Mexico 88260

bjarguijo@basinenv.com

Office: (575) 396-2378 Fax: (575) 396-1429



REMEDIATION SUMMARY & RISK-BASED SITE CLOSURE REQUEST

**BOPCO, LP
BEU-DI-9 #34H FRAC SPILL at the JRU-29
API 30-015-27735
Eddy County, New Mexico
Unit Letter “K” (NE/SW), Section 36, Township 22 South, Range 30
East Latitude 32.346280° North, Longitude 103.835916° West
NMOCD Reference #2RP-2525**

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**

April 2015

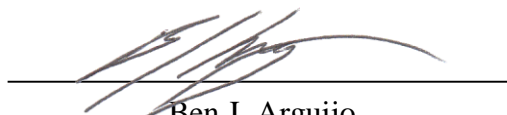

Ben J. Arguijo
Project Manager

TABLE OF CONTENTS

1.0 INTRODUCTION & BACKGROUND INFORMATION.....	1
2.0 NMOC SITE CLASSIFICATION.....	1
3.0 SUMMARY OF SOIL REMEDIATION ACTIVITIES.....	2
4.0 QUALITY ASSURANCE/QUALITY CONTROL (QA/QC) PROCEDURES.....	5
4.1 Soil Sampling.....	5
4.2 Decontamination of Equipment.....	5
4.3 Laboratory Protocol.....	5
5.0 SITE CLOSURE REQUEST.....	5
6.0 LIMITATIONS.....	6
7.0 DISTRIBUTION.....	7

FIGURES

Figure 1 – Site Location Map

Figure 2 – Site & Sample Location Map

TABLES

Table 1 – Concentrations of Benzene, BTEX, TPH & Chloride in Soil

APPENDICES

Appendix A – Release Notification and Corrective Action (Form C-141)

Appendix B – Photographs

Appendix C – Laboratory Analytical Reports

1.0 INTRODUCTION & BACKGROUND INFORMATION

Basin Environmental Service Technologies, LLC (Basin Environmental), on behalf of BOPCO, LP (BOPCO), has prepared this *Remediation Summary & Risk-Based Site Closure Request* for the release site known as BEU-DI-9 #34H Frac Spill. The legal description of the release site is Unit Letter "K" (NE/SW), Section 36, Township 22 South, Range 30 East, in Eddy County, New Mexico. The geographic coordinates of the release site are 32.346280° North latitude and 103.835916° 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 September 30, 2014, BOPCO discovered a release had occurred at the James Ranch Unit #29 (JRU #29) Salt Water Disposal (SWD) facility. The flange between a water transfer pump and a ten-inch (10") lay-flat frac hose from the JRU #29 SWD to the Big Eddy Unit (BEU) Drilling Island (DI) #9 failed, resulting in a release of approximately two hundred twenty barrels (220 bbls) of produced water. During initial response activities, the water transfer pump was shut down to facilitate repair of the flange, and a vacuum truck was utilized to recover free-standing liquid.

The release was immediately reported to the New Mexico Oil Conservation Division's (NMOCD) Artesia District Office. The "Release Notification and Corrective Action" (Form C-141) indicated approximately one hundred ninety-eight barrels (198 bbls) of the released fluid was recovered for a net loss of twenty-two barrels (22 bbls) of produced water. The release affected an area of pastureland adjacent to the JRU #29 SWD measuring approximately twelve thousand, four hundred seventy-six square feet (12,476 ft²) of pasture was affected by the release.

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

2.0 NMOCD SITE CLASSIFICATION

A search of the New Mexico Water Rights Reporting System (NMWRRS) database maintained by the New Mexico Office of the State Engineer (NMOSE) indicated information was unavailable for Section 36, Township 22 South, Range 30 East. A depth to groundwater reference map utilized by the NMOCD indicates groundwater should be encountered approximately two hundred feet (200') below ground surface (bgs). Based on the NMOCD ranking system, zero (0) points will be assigned to the site as a result of this criterion.

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

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

NMOCD guidelines indicate the BEU-DI-9 #34H release site has an initial ranking score of zero (0) points. The soil remediation levels for a site with a ranking score of zero (0) points are as follows:

- Benzene – 10 mg/kg
- Benzene, Toluene, Ethylbenzene, and Xylenes (BTEX) – 50 mg/kg
- Total Petroleum Hydrocarbons (TPH) – 5,000 mg/kg

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 October 22, 2014, Basin Environmental commenced delineation of the release site. A series of hand-augered soil borings (SP #1 through SP #6) were advanced in an effort to determine the vertical and horizontal extent of impacted soil. The soil borings were advanced in one-foot (1') intervals, and soil samples were field-screened with a chloride test kit. Thirteen (13) confirmation soil samples (SP #1 @ Surf., SP #1 @ 1', SP #2 @ Surf., SP #2 @ 1', SP #3 @ Surf., SP #3 @ 1', SP #4 @ Surf., SP #4 @ 1', SP #5 @ Surf., SP #5 @ 1', SP #6 @ Surf., SP #6 @ 1', and SP #6 @ 2') were submitted to Cardinal Laboratories in Hobbs, New Mexico, for analysis of chloride concentrations using the Environmental Protection Agency (EPA) analytical method listed in Section 4.1, "Soil Sampling", below. Laboratory analytical results indicated chloride concentrations ranged from 280 mg/kg in sample SP #5 @ 1' to 20,000 mg/kg in sample SP #3 @ Surf. A summary of "Concentrations of Benzene, BTEX, TPH & Chloride in Soil" is provided in Table 1. A "Site & Sample Location Map" is provided as Figure 2. Laboratory analytical reports are provided in Appendix C.

On November 26, 2014, excavation of impacted soil commenced. A chloride field-test was used to field-screen the horizontal extent of impacted soil and to guide the excavation. Excavated soil was stockpiled on-site, pending final disposition.

During the course of the excavation, it was determined that data collected during the initial site investigation was no longer representative of current site conditions, and additional delineation was required.

On December 4, 2014, three (3) delineation trenches were advanced at the release site to further investigate the extent of impacted soil. The trenches were advanced in one (1) to two-foot (2') vertical increments, and soil samples were field-screened with a chloride test kit. Confirmation samples were submitted to the laboratory for analysis of chloride concentrations. The locations of the delineation trenches are depicted in Figure 2.

Trench TT-1 was advanced within an inferred pooling area at the terminus of the release flow path, near the area represented by hand-augered soil boring SP #6. The trench was advanced to a total depth of approximately six feet (6') bgs. Two (2) confirmation samples (TT-1 @ 4' and TT-1 @ 6') were submitted to the laboratory for analysis of chloride concentrations. Laboratory analytical results indicated chloride concentrations ranged from 720 mg/kg in sample TT-1 @ 6' to 2,920 mg/kg in sample TT-1 @ 4'.

Trench TT-2 was advanced within the release flow path, in the area represented by soil boring SP #4. The trench was advanced to a total depth of approximately sixteen feet (16') bgs. Three (3)

confirmation samples (TT-2 @ 4', TT-2 @ 10', and TT-2 @ 16') were submitted to the laboratory for analysis of chloride concentrations. Laboratory analytical results indicated chloride concentrations ranged from 288 mg/kg in sample TT-2 @ 16' to 4,160 mg/kg in sample TT-2 @ 4'.

Trench TT-3 was advanced within the primary pooling area of the release, in the area represented by soil boring SP #2. The trench was advanced to a total depth of approximately sixteen feet (16') bgs. Three (3) confirmation samples (TT-3 @ 4', TT-3 @ 10', and TT-3 @ 16') were submitted to the laboratory for analysis of chloride concentrations. Laboratory analytical results indicated chloride concentrations ranged from 1,880 mg/kg in sample TT-3 @ 16' to 3,400 mg/kg in sample TT-3 @ 10'.

In addition, six (6) soil samples (NSW #1, NSW #2, SSW #1, SSW #2, WSW #1, and Floor #2) were collected from the floor and sidewalls of the excavation and submitted to the laboratory for analysis of chloride concentrations. Sample Floor #2 was also analyzed for concentrations of TPH and BTEX using the analytical methods described in Section 4.1 below. Laboratory analytical results indicated chloride concentrations ranged from less than the laboratory method detection limit (MDL) in sample Floor #2 to 736 mg/kg in sample Floor #2. TPH and BTEX constituent concentrations were less than the appropriate laboratory MDL.

Based on laboratory analytical results and field-screens, the excavation was advanced vertically to approximately six feet (6') bgs in the area represented by trench TT-1, to approximately five feet (5') bgs in the area represented by trench TT-2, and to approximately four feet (4') bgs in the area represented by trench TT-3. The excavation was also advanced horizontally to the north of trench TT-3.

On December 6, 2014, four (4) soil samples (NSW #3, SSW #3, ESW #1, and ESW #2) were collected from the sidewalls of the excavation and submitted to the laboratory for analysis of chloride concentrations. Laboratory analytical results indicated chloride concentrations ranged from 32.0 mg/kg in sample ESW #1 to 224 mg/kg in sample SSW #3.

On December 15, 2014, four (4) soil samples (NSW #4, ESW #3, WSW #2, and WSW #3) were collected from the sidewalls of the excavation and submitted to the laboratory for analysis of chloride concentrations. Laboratory analytical results indicated chloride concentrations ranged from less than the laboratory MDL in sample NSW #4 to 224 mg/kg in sample WSW #3.

On December 17, 2014, three (3) soil samples (NSW #3, NSW #5 and NSW #7) were collected from the sidewalls of the excavation and submitted to the laboratory for analysis of chloride concentrations. Laboratory analytical results indicated chloride concentrations ranged from 144 mg/kg in sample NSW #3 to 768 mg/kg in sample NSW #7.

Following sample collection, delineation trench TT-3 was re-excavated and advanced to approximately twenty-two feet (22') bgs. The trench was advanced in one (1) to two-foot (2') vertical increments, and soil samples were field-screened with a chloride test kit. Two (2) confirmation samples (TT-3 @ 20' and TT-3 @ 22') were submitted to the laboratory for analysis of chloride concentrations. Laboratory analytical results indicated chloride concentrations ranged from 1,520 mg/kg in sample TT-3 @ 20' to 2,400 mg/kg in sample TT-3 @ 22'.

Based on laboratory analytical results and field-screens, it was determined that a soil boring would be required to achieve vertical delineation of the release.

On December 18, 2014, representatives of BOPCO and the NMOCD Artesia District Office met to devise a strategy to advance the BEU-DI-9 #34H release site to an NMOCD-approved closure. Permission was requested to install an impermeable, twenty (20) mil, polyethylene liner in the floor of the main portion of the excavation to inhibit the vertical migration of contaminants left in-situ. An eight-inch (8") PVC conduit would be installed in the area represented by delineation trench TT-3 and hand-augered soil boring SP #2 to facilitate the advancement of an investigative soil boring through the liner at a later date. The requests were approved by the NMOCD representatives.

Three (3) soil samples (SOTB SP #1 @ Surface, SOTB SP #2 @ Surface, and SOTB SP #3 @ Surface) were also collected from the topsoil east of the excavation, in the disturbed area south of the JRU #29 SWD tank battery (SOTB). The samples were submitted to the laboratory for analysis of chloride concentrations to determine if the topsoil was suitable for revegetation or if additional excavation would be required. Laboratory analytical results indicated chloride concentrations ranged from 32.0 mg/kg in sample SOTB SP #2 @ Surface to 128 mg/kg in sample SOTB SP #3 @ Surface. Review of laboratory analytical results indicated the topsoil was suitable for revegetation.

On December 22, 2014, a twenty (20) mil polyethylene liner was installed on the floor of the excavation at approximately four feet (4') bgs. A cushion of sand was installed approximately one foot (1') both above and below the liner to maintain its integrity during installation and backfilling activities. An eight-inch (8") PVC conduit was installed in the area represented by delineation trench TT-3 and hand-augered soil boring SP #2. A seal of bentonite plug was installed at the base of the conduit to preserve the integrity and impermeability of the liner during advancement of the proposed soil boring.

Between December 11 and 22, 2014, approximately one thousand, eight hundred and 17 cubic yards (1,817 yd³) or 1890 tons of impacted material was transported to Lea Land, Inc. (NMOCD Permit #WM-01- 035), for disposal.

On January 8, 2014, three (3) soil samples (SSW #4, WSW #4, and ESW #4) were collected from the sidewalls of the excavation and submitted to the laboratory for analysis of chloride concentrations. Laboratory analytical results indicated chloride concentrations ranged from less than the laboratory MDL in sample SSW #4 to 688 mg/kg in sample ESW #4.

Based on laboratory analytical results, the excavation was backfilled with locally acquired, non-impacted material, compacted, and contoured to fit the surrounding topography. Prior to backfilling, the final dimensions of the excavation were approximately one hundred fifteen feet (115') in length, twenty-five (25) to fifty-five feet (55') in width, and four feet (4') in depth. Approximately one hundred eighty feet (180') of a narrow flow path was excavated to five (5) to six feet (6') bgs.

On March 11, 2015, an attempt was made to advance a soil boring through the previously installed PVC conduit in the backfilled excavation. Due to safety and environmental concerns based on the close proximity of overhead power lines and high-pressure pipelines to the excavation and the

proposed soil boring location, a small, trailer-mounted, hollow-stem auger drill equipped with a sample collection tube was utilized. At a depth of approximately fourteen feet (14') bgs, the drill bit attachment broke off in the borehole. Several attempts to retrieve the bit failed, and the borehole and PVC conduit were plugged with bentonite and abandoned.

The site will be seeded with an NMSLO-approved seed mixture at a time conducive to germination.

4.0 QUALITY ASSURANCE/QUALITY CONTROL (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

The BEU-DI-9 #34H Frac Spill release site was excavated to the extent practicable. Soil samples collected from the floors and sidewalls of the excavation were analyzed by an NMOCD-approved laboratory, and concentrations of benzene, BTEX, and TPH were below the recommended remediation action levels (RRAL's) established for the site by the NMOCD.

A twenty (20) mil, impermeable, polyethylene liner was installed on the floor of the main portion of the excavation prior to backfilling. This engineered control will help mitigate future releases and effectively inhibit vertical migration of contaminants both upward to the vegetative zone and downward to the underlying groundwater. In-situ soil exhibiting chloride concentrations above the RRAL established for the site will be remediated upon decommission and/or abandonment of the currently active SWD system, pipelines, and/or electrical utilities.

Basin Environmental recommends BOPCO provide the NMOCD Artesia District Office and the NMSLO a copy of this *Remediation Summary & Risk-Based Site Closure Request* and request the NMOCD grant site closure to the BEU-DI-9 #34H Frac Spill release site.

6.0 LIMITATIONS

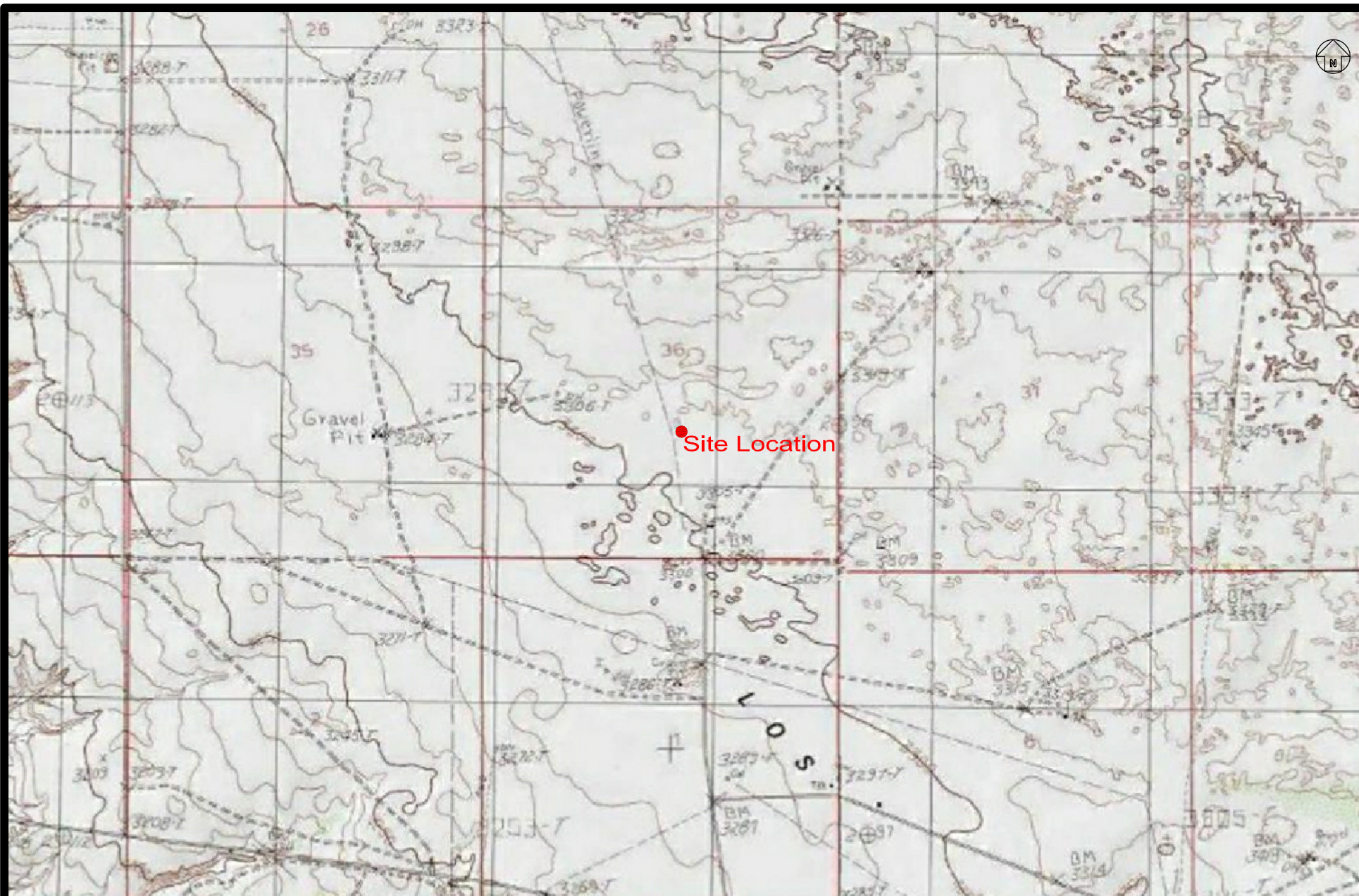
Basin Environmental Service Technologies, LLC, has prepared this *Remediation Summary & Risk-Based Site Closure Request* to the best of its ability. No other warranty, expressed or implied, is made or intended. Basin Environmental has examined and relied upon documents referenced in the report and on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

This report has been prepared for the benefit of 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: Ian Dolly
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



2000 1000 0 1000 2000
 Distance in Feet

Figure 1
 Site Location Map
 BOPCO, LP
 BEU-DI-9 #34H Frac Spill
 Eddy County, New Mexico
 NMOCD Reference #: 2RP-2525

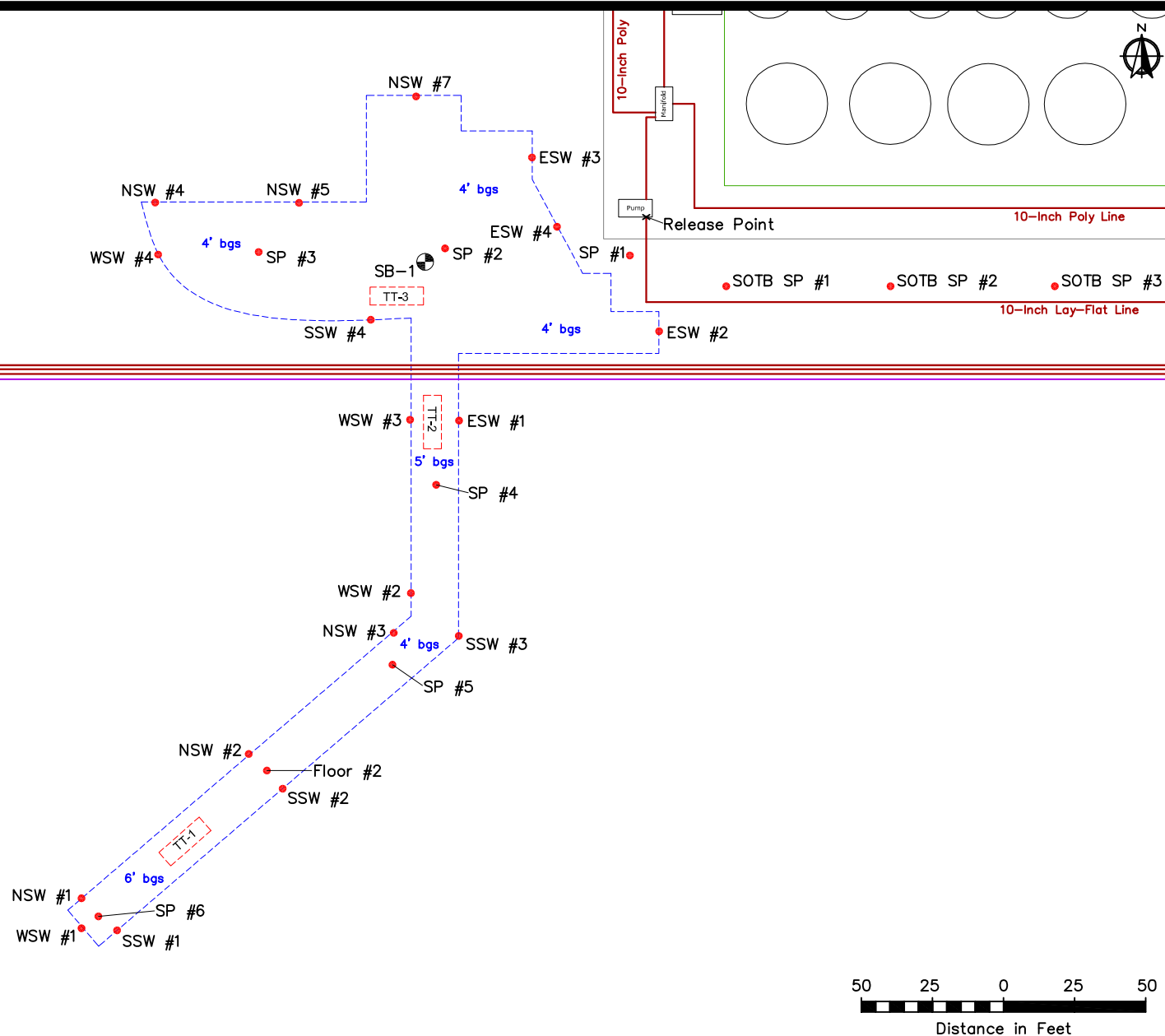
Basin Environmental Service Technologies, LLC

Revised By: BJA

April 13, 2015

Checked By: SJW

Scale 1" = 2,000'



Legend:

- Excavation Extent
- Delineation Trench
- Pipeline
- Caliche Pad
- Electrical Line
- Steel Containment

- Sample Location
- ⊙ Soil Boring

Figure 2
 Site & Sample Location Map
 BOPCO, LP
 BEU-DI-9 #34H Frac Spill
 Eddy County, New Mexico
 NMOC Reference #: 2RP-2525

Basin Environmental Service Technologies, LLC

Revised By: BJA	Checked By: SJW
April 13, 2015	Scale 1" = 50'

Tables

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

BOPCO, LP
BEU DI #9 34H FRAC RELEASE
EDDY COUNTY, NEW MEXICO
NMOCD REFERENCE #: 2RP-2525

SAMPLE LOCATION	SAMPLE DEPTH (BGS)	SAMPLE DATE	SOIL STATUS	METHOD: EPA SW 846-8021B, 5030					METHOD: 8015M			TOTAL TPH C ₆ -C ₃₅ (mg/Kg)	4500 CI-B CHLORIDE (mg/Kg)
				BENZENE (mg/Kg)	TOLUENE (mg/Kg)	ETHYL-BENZENE (mg/Kg)	TOTAL XYLENES (mg/Kg)	TOTAL BTEX (mg/Kg)	GRO C ₆ -C ₁₂ (mg/Kg)	DRO C ₁₂ -C ₂₈ (mg/Kg)	ORO C ₂₈ -C ₃₅ (mg/Kg)		
SP #1 @ Surface	Surface	10/22/2014	Excavated	-	-	-	-	-	-	-	-	-	6,000
SP #1 @ 1'	1'	10/22/2014	Excavated	-	-	-	-	-	-	-	-	-	576
SP #2 @ Surface	Surface	10/22/2014	Excavated	-	-	-	-	-	-	-	-	-	16,800
SP #2 @ 1'	1'	10/22/2014	Excavated	-	-	-	-	-	-	-	-	-	496
SP #3 @ Surface	Surface	10/22/2014	Excavated	-	-	-	-	-	-	-	-	-	20,000
SP #3 @ 1'	1'	10/22/2014	Excavated	-	-	-	-	-	-	-	-	-	304
SP #4 @ Surface	Surface	10/22/2014	Excavated	-	-	-	-	-	-	-	-	-	7,200
SP #4 @ 1'	1'	10/22/2014	Excavated	-	-	-	-	-	-	-	-	-	96.0
SP #5 @ Surface	Surface	10/22/2014	Excavated	-	-	-	-	-	-	-	-	-	7,120
SP #5 @ 1'	1'	10/22/2014	Excavated	-	-	-	-	-	-	-	-	-	208
SP #6 @ Surface	Surface	10/22/2014	Excavated	-	-	-	-	-	-	-	-	-	7,600
SP #6 @ 1'	1'	10/22/2014	Excavated	-	-	-	-	-	-	-	-	-	2,640
SP #6 @ 2'	2'	10/22/2014	Excavated	-	-	-	-	-	-	-	-	-	384
TT-1 @ 4'	4'	12/4/2014	Excavated	-	-	-	-	-	-	-	-	-	2,920
TT-1 @ 6'	6'	12/4/2014	In-Situ	-	-	-	-	-	-	-	-	-	720
TT-2 @ 4'	4'	12/4/2014	Excavated	-	-	-	-	-	-	-	-	-	4,160
TT-2 @ 10'	10'	12/4/2014	In-Situ	-	-	-	-	-	-	-	-	-	2,960
TT-2 @ 16'	16'	12/4/2014	In-Situ	-	-	-	-	-	-	-	-	-	288
TT-3 @ 4'	4'	12/4/2014	Excavated	-	-	-	-	-	-	-	-	-	2,880
TT-3 @ 10'	10'	12/4/2014	In-Situ	-	-	-	-	-	-	-	-	-	3,400
TT-3 @ 16'	16'	12/4/2014	In-Situ	-	-	-	-	-	-	-	-	-	1,880
NSW #1	2'	12/4/2014	In-Situ	-	-	-	-	-	-	-	-	-	672
NSW #2	3'	12/4/2014	In-Situ	-	-	-	-	-	-	-	-	-	32.0
SSW #1	2'	12/4/2014	In-Situ	-	-	-	-	-	-	-	-	-	416
SSW #2	3'	12/4/2014	In-Situ	-	-	-	-	-	-	-	-	-	720
WSW #1	2'	12/4/2014	In-Situ	-	-	-	-	-	-	-	-	-	<16.0
Floor #2	6'	12/4/2014	In-Situ	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<10.0	736
NSW #3	2'	12/6/2014	In-Situ	-	-	-	-	-	-	-	-	-	176
SSW #3	2'	12/6/2014	In-Situ	-	-	-	-	-	-	-	-	-	224
ESW #1	2'	12/6/2014	In-Situ	-	-	-	-	-	-	-	-	-	32.0
ESW #2	2'	12/6/2014	In-Situ	-	-	-	-	-	-	-	-	-	192

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

BOPCO, LP
BEU DI #9 34H FRAC RELEASE
EDDY COUNTY, NEW MEXICO
NMOCD REFERENCE #: 2RP-2525

SAMPLE LOCATION	SAMPLE DEPTH (BGS)	SAMPLE DATE	SOIL STATUS	METHOD: EPA SW 846-8021B, 5030					METHOD: 8015M			TOTAL TPH C ₆ -C ₃₅ (mg/Kg)	4500 CI-B CHLORIDE (mg/Kg)
				BENZENE (mg/Kg)	TOLUENE (mg/Kg)	ETHYL- BENZENE (mg/Kg)	TOTAL XYLENES (mg/Kg)	TOTAL BTEX (mg/Kg)	GRO C ₆ -C ₁₂ (mg/Kg)	DRO C ₁₂ -C ₂₈ (mg/Kg)	ORO C ₂₈ -C ₃₅ (mg/Kg)		
NSW #4	2'	12/15/2014	In-Situ	-	-	-	-	-	-	-	-	-	<16.0
ESW #3	2'	12/15/2014	In-Situ	-	-	-	-	-	-	-	-	-	64.0
WSW #2	2'	12/15/2014	In-Situ	-	-	-	-	-	-	-	-	-	48.0
WSW #3	2'	12/15/2014	In-Situ	-	-	-	-	-	-	-	-	-	224
NSW #3	2'	12/17/2014	In-Situ	-	-	-	-	-	-	-	-	-	144
NSW #5	2'	12/17/2014	In-Situ	-	-	-	-	-	-	-	-	-	288
NSW #7	2'	12/17/2014	In-Situ	-	-	-	-	-	-	-	-	-	768
TT-3 @ 20'	20'	12/17/2014	In-Situ	-	-	-	-	-	-	-	-	-	1,520
TT-3 @ 22'	22'	12/17/2014	In-Situ	-	-	-	-	-	-	-	-	-	2,400
SOTB SP #1 @ Surface	Surface	12/18/2014	In-Situ	-	-	-	-	-	-	-	-	-	48.0
SOTB SP #2 @ Surface	Surface	12/18/2014	In-Situ	-	-	-	-	-	-	-	-	-	32.0
SOTB SP #3 @ Surface	Surface	12/18/2014	In-Situ	-	-	-	-	-	-	-	-	-	128
SSW #4	2'	1/8/2014	In-Situ	-	-	-	-	-	-	-	-	-	<16.0
ESW #4	2'	1/8/2014	In-Situ	-	-	-	-	-	-	-	-	-	688
WSW #4	2'	1/8/2014	In-Situ	-	-	-	-	-	-	-	-	-	512
NMOCD Recommended Remediation Action Level				10				50				5,000	1,000

- = Not analyzed.

Appendices

Appendix A
Release Notification &
Corrective Action (Form C-141)

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

State of New Mexico
Energy Minerals and Natural Resources
Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, NM 87505

NM OIL CONSERVATION

ARTESIA DISTRICT

Form C-141

Revised August 8, 2011

OCT 08 2014

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

RECEIVED

Release Notification and Corrective Action

OPERATOR

☒ Initial Report ☐ Final Report

NAB1428130417
Name of Company: BOPCO, L.P. *200731* Contact: Tony Savoie
Address: 522 W. Mermod, Suite 704 Carlsbad, N.M. 88220 Telephone No. 575-887-7329
Facility Name: BEU-DI-9 #34H (Frac spill at the JRU-29 SWD) Facility Type: Exploration and Production

Surface Owner: State Mineral Owner: State API No. 30-015-27735

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
K	36	22S	30E	1980	South	2310	West	Eddy

Latitude N 32.346280 Longitude W 103.835916

NATURE OF RELEASE

Type of Release: Produced water	Volume of Release: 220 bbls	Volume Recovered: 198 bbls
Source of Release: 10" lay flat hose to pump connection from the JRU-29 SWD to the BEU-DI-9 #34H frac	Date and Hour of Occurrence: 9/30/14 at 7:45 p.m.	Date and Hour of Discovery: 9/30/14 at 7:45 p.m.
Was Immediate Notice Given? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Required	If YES, To Whom? Heather Patterson (voice mail)	
By Whom? Tony Savoie	Date and Hour: 10/1/14 at approximately 9:00 a.m.	
Was a Watercourse Reached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If YES, Volume Impacting the Watercourse.	

If a Watercourse was Impacted, Describe Fully.*

Describe Cause of Problem and Remedial Action Taken.*

A flange connection from the frac hose to the water transfer pump broke. The water transfer pump was shut down until the broken flange could be replaced.

Describe Area Affected and Cleanup Action Taken.* The release impacted approximately 12,476 sq. ft. of pasture. All of the free standing fluid was recovered with vacuum trucks. Basin Environmental collected soil samples throughout the pond area on 10/2/14 to help determine the amount of PW lost in the soil. BOPCO is in the process of obtaining permission from the State Land Office to access and remediate the area. The area will be cleaned up in accordance to the NMOCD remediation guidelines.

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: <i>Tony Savoie</i>	OIL CONSERVATION DIVISION	
Printed Name: Tony Savoie	Approved By: <i>[Signature]</i>	
Title: Waste Management and Remediation Specialist	Approval Date: <i>10/8/14</i>	Expiration Date: <i>N/A</i>
E-mail Address: <i>tasavoie@basspet.com</i>	Conditions of Approval: Remediation per O.C.D. Rules & Guidelines SUBMIT REMEDIATION PROPOSAL NO	Attached <input type="checkbox"/>
Date: <i>10/17/14</i>	Phone: 432-556-8730	

* Attach Additional Sheets If Necessary

LATER THAN: *11/8/14*

2 RP 2525

Appendix B

Photographs



BEU-DI-9 #34H Frac Spill – Point of Release



BEU-DI-9 #34H Frac Spill – Broken Flange at Point of Release



BEU-DI-9 #34H Frac Spill - Release Site



BEU-DI-9 #34H Frac Spill – Release Site



BEU-DI-9 #34H Frac Spill – Release Site



BEU-DI-9 #34H Frac Spill – Line Spotting in Excavation



BEU-DI-9 #34H Frac Spill – Excavation (Looking East)



BEU-DI-9 #34H Frac Spill – Excavation (Looking Northeast)



BEU-DI-9 #34H Frac Spill – Excavation (Looking Southwest)



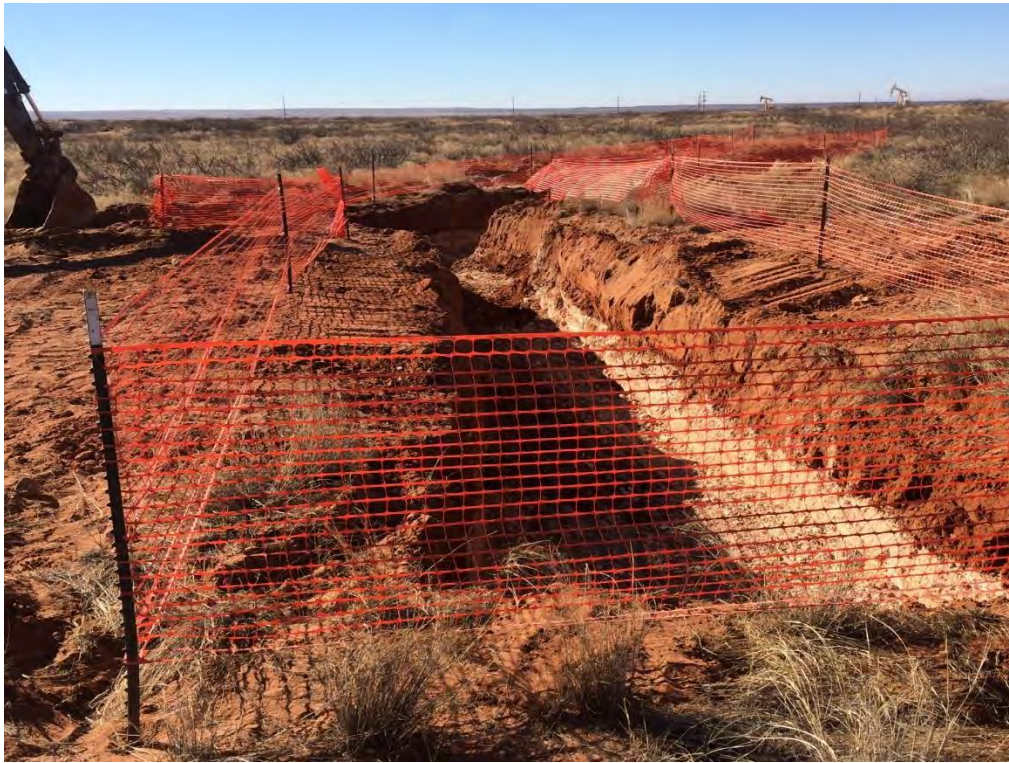
BEU-DI-9 #34H Frac Spill - Excavation (Looking Northwest)



BEU-DI-9 #34H Frac Spill – Excavation (Looking Southeast)



BEU-DI-9 #34H Frac Spill - Excavation (Looking Southeast)



BEU-DI-9 #34H Frac Spill – Excavation (Looking South)



BEU-DI-9 #34H Frac Spill – PVC Conduit for Soil Boring SB-1



BEU-DI-9 #34H Frac Spill – Excavation (During Backfill)



BEU-DI-9 #34H Frac Spill – Backfilled Excavation
(During Advancement of Soil Boring SB-1)

Appendix C

Laboratory Analytical Reports



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

October 27, 2014

JOEL LOWRY

Basin Environmental Service

P.O. Box 301

Lovington, NM 88260

RE: BEU DI 9 #34 FRAC SPILL

Enclosed are the results of analyses for samples received by the laboratory on 10/23/14 15:30.

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 www.tceq.texas.gov/field/qa/lab_accred_certif.html.

Cardinal Laboratories is accredited through the State of Colorado Department of Public Health and Environment for:

Method EPA 552.2	Haloacetic Acids (HAA-5)
Method EPA 524.2	Total Trihalomethanes (TTHM)
Method EPA 524.4	Regulated VOCs (V1, V2, V3)

Accreditation applies to public drinking water matrices.

This report meets NELAP requirements and is made up of a cover page, analytical results, and a copy of the original chain-of-custody. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Celey D. Keene

Lab Director/Quality Manager

Analytical Results For:

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

Received:	10/23/2014	Sampling Date:	10/22/2014
Reported:	10/27/2014	Sampling Type:	Soil
Project Name:	BEU DI 9 #34 FRAC SPILL	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	EDDY CO. NM		

Sample ID: SP #1 @ SURF. (H403278-01)

Chloride, SM4500CI-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	6000	16.0	10/24/2014	ND	400	100	400	0.00	

Sample ID: SP #1 @ 1' (H403278-02)

Chloride, SM4500CI-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	576	16.0	10/24/2014	ND	400	100	400	0.00	

Sample ID: SP #2 @ SURF. (H403278-03)

Chloride, SM4500CI-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	16800	16.0	10/24/2014	ND	400	100	400	0.00	

Sample ID: SP #2 @ 1' (H403278-04)

Chloride, SM4500CI-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	496	16.0	10/24/2014	ND	400	100	400	0.00	

Cardinal Laboratories

*=Accredited Analyte

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



Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

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

 Received: 10/23/2014
 Reported: 10/27/2014
 Project Name: BEU DI 9 #34 FRAC SPILL
 Project Number: NONE GIVEN
 Project Location: EDDY CO. NM

 Sampling Date: 10/22/2014
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Jodi Henson

Sample ID: SP #3 @ SURF. (H403278-05)

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	20000	16.0	10/24/2014	ND	400	100	400	0.00	

Sample ID: SP #3 @ 1' (H403278-06)

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	304	16.0	10/24/2014	ND	400	100	400	0.00	

Sample ID: SP #4 @ SURF. (H403278-07)

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	7200	16.0	10/24/2014	ND	400	100	400	0.00	

Sample ID: SP #4 @ 1' (H403278-08)

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	10/24/2014	ND	400	100	400	0.00	

Sample ID: SP #5 @ SURF. (H403278-09)

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	7120	16.0	10/24/2014	ND	400	100	400	0.00	

Cardinal Laboratories

*=Accredited Analyte

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



Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

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

Received: 10/23/2014
Reported: 10/27/2014
Project Name: BEU DI 9 #34 FRAC SPILL
Project Number: NONE GIVEN
Project Location: EDDY CO. NM

Sampling Date: 10/22/2014
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Jodi Henson

Sample ID: SP #5 @ 1' (H403278-10)

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	208	16.0	10/24/2014	ND	400	100	400	0.00	

Sample ID: SP #6 @ SURF. (H403278-11)

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	7600	16.0	10/24/2014	ND	400	100	400	0.00	

Sample ID: SP #6 @ 1' (H403278-12)

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	2640	16.0	10/24/2014	ND	400	100	400	0.00		

Sample ID: SP #6 @ 2' (H403278-13)

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	384	16.0	10/24/2014	ND	400	100	400	0.00	

Cardinal Laboratories

*=Accredited Analyte

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



Celey D. Keene, Lab Director/Quality Manager

Notes and Definitions

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

Cardinal Laboratories

*=Accredited Analyte

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



Celey D. Keene, Lab Director/Quality Manager

**CARDINAL LABORATORIES**

101 East Marland, Hobbs, NM 88240

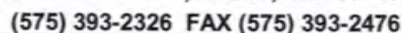
(575) 393-2326 FAX (575) 393-2476

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

Company Name: Project Manager: Joel Lowry Address: P.O. Box 301 City: Lovington State: NM Zip: 88260 Phone #: (575)396-2378 Fax #: (575)396-1429 Project #: Project Owner: Project Name: BEU DI 9 #34 Frac Spill Project Location: Eddy Co., NM Sampler Name: Joel Lowry				BILL TO				ANALYSIS REQUEST																															
				P.O. #: Company: BOPCO, LP Attn: Tony Savoie Address: City: State: NM Zip: Phone #: Fax #:				<div style="display: flex; justify-content: space-around;"> <div style="writing-mode: vertical-rl; transform: rotate(180deg);">Chloride</div> <div style="writing-mode: vertical-rl; transform: rotate(180deg);">TPH (8015M)</div> <div style="writing-mode: vertical-rl; transform: rotate(180deg);">BTEX (8021B)</div> <div style="writing-mode: vertical-rl; transform: rotate(180deg);">HOLD FOR TPH</div> </div>																															
FOR LAB USE ONLY				MATRIX																PRESERV.				SAMPLING															
Lab I.D.		Sample I.D.		# CONTAINERS		GROUNDWATER														WASTEWATER		SOIL		OIL		SLUDGE		OTHER :		ACID/BASE:		ICE / COOL		OTHER :		DATE		TIME	
H40324B																																							
1		SP #1 @ Surf.		g 1						x								x						10/22/14		905		x											
2		SP #1 @ 1'		g 1						x								x						10/22/14		935		x											
3		SP #2 @ Surf		g 1						x								x						10/22/14		910		x											
4		SP #2 @ 1'		g 1						x								x						10/22/14		940		x											
5		SP #3 @ Surf		g 1						x								x						10/22/14		915		x											
6		SP #3 @ 1'		g 1						x								x						10/22/14		945		x											
7		SP #4 @ Surf		g 1						x								x						10/22/14		920		x											
8		SP #4 @ 1'		g 1						x								x						10/22/14		950		x											
9		SP #5 @ Surf		g 1						x								x						10/22/14		925		x											
10		SP #5 @ 1'		g 1						x								x						10/22/14		955		x											

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 the client for the 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 limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise.

Relinquished By: Relinquished By: Delivered By: (Circle One) Sampler - UPS - Bus - Other:		Date: 10-23-14 Time: 14:02 Date: 10-23-14 Time: 3:30		Received By: Received By: Sample Condition Cool <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Intact <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No 0.4%		Checked By: Checked By: 		Phone Result: <input type="checkbox"/> Yes <input type="checkbox"/> No Add'l Phone #: Fax Result: <input type="checkbox"/> Yes <input type="checkbox"/> No Add'l Fax #: REMARKS: HOLD FOR TPH Please email results to pm@basinenv.com, TASavoie@BassPet.com, Acruth@basspet.com, Bblevins@basspet.com	
---	--	---	--	---	--	--	--	---	--



Page 7 of 7

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

#54



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

December 15, 2014

JOEL LOWRY

Basin Environmental Service

P.O. Box 301

Lovington, NM 88260

RE: BEU DI 9 #34H

Enclosed are the results of analyses for samples received by the laboratory on 12/09/14 14:20.

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 www.tceq.texas.gov/field/qa/lab_accred_certif.html.

Cardinal Laboratories is accredited through the State of Colorado Department of Public Health and Environment for:

Method EPA 552.2	Haloacetic Acids (HAA-5)
Method EPA 524.2	Total Trihalomethanes (TTHM)
Method EPA 524.4	Regulated VOCs (V1, V2, V3)

Accreditation applies to public drinking water matrices.

This report meets NELAP requirements and is made up of a cover page, analytical results, and a copy of the original chain-of-custody. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

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

Celey D. Keene

Lab Director/Quality Manager

Analytical Results For:

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

 Received: 12/09/2014
 Reported: 12/15/2014
 Project Name: BEU DI 9 #34H
 Project Number: NONE GIVEN
 Project Location: EDDY COUNTY, NM

 Sampling Date: 12/04/2014
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Kathy Perez

Sample ID: TT-1 @ 4' (H403759-01)

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	2920	16.0	12/10/2014	ND	400	100	400	3.92	

Sample ID: TT-1 @ 6' (H403759-02)

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	720	16.0	12/10/2014	ND	400	100	400	3.92	

Sample ID: TT-2 @ 4' (H403759-03)

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	4160	16.0	12/10/2014	ND	400	100	400	3.92	

Sample ID: TT-2 @ 10' (H403759-04)

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	2960	16.0	12/10/2014	ND	400	100	400	3.92	

Cardinal Laboratories

*=Accredited Analyte

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



Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

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

Received: 12/09/2014
Reported: 12/15/2014
Project Name: BEU DI 9 #34H
Project Number: NONE GIVEN
Project Location: EDDY COUNTY, NM

Sampling Date: 12/04/2014
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Kathy Perez

Sample ID: TT-2 @ 16' (H403759-05)

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	288	16.0	12/10/2014	ND	400	100	400	3.92		

Sample ID: TT-3 @ 4' (H403759-06)

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	2880	16.0	12/10/2014	ND	400	100	400	3.92	

Sample ID: TT-3 @ 10' (H403759-07)

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	3400	16.0	12/11/2014	ND	400	100	400	3.92		

Sample ID: TT-3 @ 16' (H403759-08)

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	1880	16.0	12/11/2014	ND	400	100	400	3.92	

Sample ID: NSW #1 (H403759-09)

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	672	16.0	12/11/2014	ND	400	100	400	3.92	

Cardinal Laboratories

*=Accredited Analyte

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



Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

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

Received: 12/09/2014
Reported: 12/15/2014
Project Name: BEU DI 9 #34H
Project Number: NONE GIVEN
Project Location: EDDY COUNTY, NM

Sampling Date: 12/04/2014
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Kathy Perez

Sample ID: SSW #1 (H403759-10)

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	416	16.0	12/11/2014	ND	400	100	400	3.92	

Sample ID: WSW #1 (H403759-11)

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	<16.0	16.0	12/11/2014	ND	400	100	400	3.92		

Sample ID: NSW #2 (H403759-12)

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	32.0	16.0	12/11/2014	ND	400	100	400	3.92	

Sample ID: SSW #2 (H403759-13)

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	720	16.0	12/11/2014	ND	400	100	400	3.92	

Cardinal Laboratories

*=Accredited Analyte

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



Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

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

Received: 12/09/2014
Reported: 12/15/2014
Project Name: BEU DI 9 #34H
Project Number: NONE GIVEN
Project Location: EDDY COUNTY, NM

Sampling Date: 12/04/2014
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Kathy Perez

Sample ID: FLOOR #2 (H403759-14)

BTEx 8021B		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	12/12/2014	ND	1.99	99.4	2.00	2.42		
Toluene*	<0.050	0.050	12/12/2014	ND	1.97	98.4	2.00	4.12		
Ethylbenzene*	<0.050	0.050	12/12/2014	ND	1.86	92.8	2.00	2.58		
Total Xylenes*	<0.150	0.150	12/12/2014	ND	5.55	92.5	6.00	1.84		
Total BTEx	<0.300	0.300	12/12/2014	ND						

Surrogate: 4-Bromofluorobenzene (PID) 98.2 % 61-154

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	736	16.0	12/11/2014	ND	400	100	400	3.92		

TPH 8015M		mg/kg		Analyzed By: CK					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	12/11/2014	ND	197	98.4	200	1.87	
DRO >C10-C28	<10.0	10.0	12/11/2014	ND	209	105	200	1.93	
EXT DRO >C28-C35	<10.0	10.0	12/11/2014	ND					

Surrogate: 1-Chlorooctane 89.7 % 47.2-157

Surrogate: 1-Chlorooctadecane 87.4 % 52.1-176

Cardinal Laboratories

*=Accredited Analyte

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



Celey D. Keene, Lab Director/Quality Manager

Notes and Definitions

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

Cardinal Laboratories

*=Accredited Analyte

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



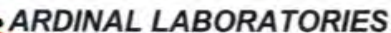
Celey D. Keene, Lab Director/Quality Manager



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

1012

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



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

2012

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 the client for the 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 limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise.

Relinquished By: <i>[Signature]</i> Date: <i>12-9-14</i> Time: <i>9:40</i>		Received By: <i>[Signature]</i> Date: <i>12-9-14</i> Time: <i>2:10</i>		Phone Result: <input type="checkbox"/> Yes <input type="checkbox"/> No Add'l Phone #: Fax Result: <input type="checkbox"/> Yes <input type="checkbox"/> No Add'l Fax #: REMARKS:	
Relinquished By: <i>[Signature]</i> Date: <i>12-9-14</i> Time: <i>2:10</i>		Received By: <i>[Signature]</i> Date: <i>12-9-14</i> Time: <i>2:10</i>		Please email results to pm@basinenv.com, TASavoie@BassPet.com, acruth@basspet.com	
Delivered By: (Circle One) Sampler - UPS - Bus - Other:		Sample Condition Cool Intact <input type="checkbox"/> Yes <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> No		CHECKED BY: (Initials) <i>[Initials]</i>	

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



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

December 15, 2014

JOEL LOWRY

Basin Environmental Service

P.O. Box 301

Lovington, NM 88260

RE: BEU DI 9 #34H

Enclosed are the results of analyses for samples received by the laboratory on 12/09/14 14:20.

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 www.tceq.texas.gov/field/qa/lab_accred_certif.html.

Cardinal Laboratories is accredited through the State of Colorado Department of Public Health and Environment for:

Method EPA 552.2	Haloacetic Acids (HAA-5)
Method EPA 524.2	Total Trihalomethanes (TTHM)
Method EPA 524.4	Regulated VOCs (V1, V2, V3)

Accreditation applies to public drinking water matrices.

This report meets NELAP requirements and is made up of a cover page, analytical results, and a copy of the original chain-of-custody. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

A handwritten signature in black ink that reads "Celey D. Keene". The signature is written in a cursive style with a large, stylized 'C' and 'K'.

Celey D. Keene

Lab Director/Quality Manager

Analytical Results For:

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

Received: 12/09/2014
Reported: 12/15/2014
Project Name: BEU DI 9 #34H
Project Number: NONE GIVEN
Project Location: EDDY COUNTY, NM

Sampling Date: 12/06/2014
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Kathy Perez

Sample ID: ESW #1 (H403760-01)

Chloride, SM4500CI-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	32.0	16.0	12/11/2014	ND	400	100	400	3.92	

Sample ID: ESW #2 (H403760-02)

Chloride, SM4500CI-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	192	16.0	12/11/2014	ND	400	100	400	3.92	

Sample ID: NSW #3 (H403760-03)

Chloride, SM4500CI-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	176	16.0	12/11/2014	ND	400	100	400	3.92	

Sample ID: SSW #3 (H403760-04)

Chloride, SM4500CI-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	224	16.0	12/11/2014	ND	400	100	400	3.92	

Cardinal Laboratories

*=Accredited Analyte

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



Celey D. Keene, Lab Director/Quality Manager

Notes and Definitions

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

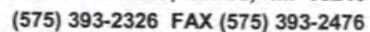
Cardinal Laboratories

*=Accredited Analyte

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



Celey D. Keene, Lab Director/Quality Manager



1041

[illegible]

#54

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



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

December 22, 2014

JOEL LOWRY

Basin Environmental Service

P.O. Box 301

Lovington, NM 88260

RE: BEU DI 9 #34H

Enclosed are the results of analyses for samples received by the laboratory on 12/16/14 13:35.

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 www.tceq.texas.gov/field/qa/lab_accred_certif.html.

Cardinal Laboratories is accredited through the State of Colorado Department of Public Health and Environment for:

Method EPA 552.2	Haloacetic Acids (HAA-5)
Method EPA 524.2	Total Trihalomethanes (TTHM)
Method EPA 524.4	Regulated VOCs (V1, V2, V3)

Accreditation applies to public drinking water matrices.

This report meets NELAP requirements and is made up of a cover page, analytical results, and a copy of the original chain-of-custody. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

A handwritten signature in black ink that reads "Celey D. Keene". The signature is written in a cursive style with a large, stylized 'C' and 'K'.

Celey D. Keene

Lab Director/Quality Manager

Analytical Results For:

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

 Received: 12/16/2014
 Reported: 12/22/2014
 Project Name: BEU DI 9 #34H
 Project Number: NONE GIVEN
 Project Location: EDDY COUNTY, NM

 Sampling Date: 12/15/2014
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Jodi Henson

Sample ID: WSW #2 (H403828-01)

Chloride, SM4500CI-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	48.0	16.0	12/18/2014	ND	400	100	400	0.00	

Sample ID: WSW #3 (H403828-02)

Chloride, SM4500CI-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	224	16.0	12/18/2014	ND	400	100	400	0.00	

Sample ID: ESW #3 (H403828-03)

Chloride, SM4500CI-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	64.0	16.0	12/18/2014	ND	400	100	400	0.00	

Sample ID: NSW #4 (H403828-04)

Chloride, SM4500CI-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	<16.0	16.0	12/18/2014	ND	400	100	400	0.00	

Cardinal Laboratories

*=Accredited Analyte

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



Celey D. Keene, Lab Director/Quality Manager

Notes and Definitions

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

Cardinal Laboratories

*=Accredited Analyte

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



Celey D. Keene, Lab Director/Quality Manager



CHAIN-OF-CUSTODY AND ANALYSIS REQUEST



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

December 23, 2014

JOEL LOWRY

Basin Environmental Service

P.O. Box 301

Lovington, NM 88260

RE: BEU DI 9 #34H

Enclosed are the results of analyses for samples received by the laboratory on 12/18/14 15:30.

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 www.tceq.texas.gov/field/qa/lab_accred_certif.html.

Cardinal Laboratories is accredited through the State of Colorado Department of Public Health and Environment for:

Method EPA 552.2	Haloacetic Acids (HAA-5)
Method EPA 524.2	Total Trihalomethanes (TTHM)
Method EPA 524.4	Regulated VOCs (V1, V2, V3)

Accreditation applies to public drinking water matrices.

This report meets NELAP requirements and is made up of a cover page, analytical results, and a copy of the original chain-of-custody. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

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

Celey D. Keene

Lab Director/Quality Manager

Analytical Results For:

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

Received: 12/18/2014
Reported: 12/23/2014
Project Name: BEU DI 9 #34H
Project Number: NONE GIVEN
Project Location: EDDY COUNTY, NM

Sampling Date: 12/17/2014
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Jodi Henson

Sample ID: NSW #3 (H403867-01)

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	144	16.0	12/19/2014	ND	432	108	400	3.77		

Sample ID: NSW #5 (H403867-02)

Chloride, SM4500CI-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	288	16.0	12/19/2014	ND	432	108	400	3.77	

Sample ID: NSW #7 (H403867-03)

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	768	16.0	12/19/2014	ND	432	108	400	3.77	

Sample ID: TT-3 @ 20' (H403867-04)

Chloride, SM4500CI-B		mg/kg		Analyzed By: AP						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	1520	16.0	12/19/2014	ND	432	108	400	3.77		

Cardinal Laboratories

*=Accredited Analyte

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



Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

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

Received: 12/18/2014
Reported: 12/23/2014
Project Name: BEU DI 9 #34H
Project Number: NONE GIVEN
Project Location: EDDY COUNTY, NM

Sampling Date: 12/17/2014
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Jodi Henson

Sample ID: TT-3 @ 22' (H403867-05)**Chloride, SM4500Cl-B****mg/kg****Analyzed By: AP**

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	2400	16.0	12/19/2014	ND	432	108	400	3.77	

Cardinal Laboratories

*=Accredited Analyte

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



Celey D. Keene, Lab Director/Quality Manager

Notes and Definitions

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

Cardinal Laboratories

*=Accredited Analyte

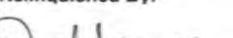

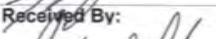
PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived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



Celey D. Keene, Lab Director/Quality Manager



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 the client for the services. 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 limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise.

Relinquished By:		Date:	Received By:	Phone Result:	<input type="checkbox"/> Yes <input type="checkbox"/> No	Add'l Phone #:
		12/18/14		Fax Result:	<input type="checkbox"/> Yes <input type="checkbox"/> No	Add'l Fax #:
Relinquished By:		Date:	Received By:	REMARKS:		
		12/18/14		Please email results to pm@basinenv.com, TASavoie@BassPet.com, acruh@basspet.com		
Delivered By: (Circle One)		Time:				
Sampler - UPS - Bus - Other:		1330	Sample Condition Cool Intact <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> No	CHECKED BY: (Initials) 		

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

Jodi Skenson
#54

December 23, 2014

JOEL LOWRY

Basin Environmental Service

P.O. Box 301

Lovington, NM 88260

RE: BEU DI 9 34 H FRAC RELEASE

Enclosed are the results of analyses for samples received by the laboratory on 12/19/14 11:15.

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 www.tceq.texas.gov/field/qa/lab_accred_certif.html.

Cardinal Laboratories is accredited through the State of Colorado Department of Public Health and Environment for:

Method EPA 552.2	Haloacetic Acids (HAA-5)
Method EPA 524.2	Total Trihalomethanes (TTHM)
Method EPA 524.4	Regulated VOCs (V1, V2, V3)

Accreditation applies to public drinking water matrices.

This report meets NELAP requirements and is made up of a cover page, analytical results, and a copy of the original chain-of-custody. If you have any questions concerning this report, please feel free to contact me.

Sincerely,



Celey D. Keene

Lab Director/Quality Manager

Analytical Results For:

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

Received: 12/19/2014
Reported: 12/23/2014
Project Name: BEU DI 9 34 H FRAC RELEASE
Project Number: NONE GIVEN
Project Location: EDDY CO NM

Sampling Date: 12/18/2014
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Celey D. Keene

Sample ID: SOTB SP #1 @ SURF (H403889-01)

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	48.0	16.0	12/22/2014	ND	400	100	400	0.00		

Sample ID: SOTB SP #2 @ SURF (H403889-02)

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	32.0	16.0	12/22/2014	ND	400	100	400	0.00	

Sample ID: SOTB SP #3 @ SURF (H403889-03)

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	128	16.0	12/22/2014	ND	400	100	400	0.00	

Cardinal Laboratories

*=Accredited Analyte

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



Celey D. Keene, Lab Director/Quality Manager

Notes and Definitions

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

Cardinal Laboratories

*=Accredited Analyte

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



Celey D. Keene, Lab Director/Quality Manager



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

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

[illegible]

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

FORM-006
Revision 1.0

January 14, 2015

JOEL LOWRY

Basin Environmental Service

P.O. Box 301

Lovington, NM 88260

RE: BEU DI 9 #34H

Enclosed are the results of analyses for samples received by the laboratory on 01/09/15 11:00.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-13-5. Accreditation applies to drinking water, non-potable water and solid and chemical materials. All accredited analytes are denoted by an asterisk (*). For a complete list of accredited analytes and matrices visit the TCEQ website at www.tceq.texas.gov/field/qa/lab_accred_certif.html.

Cardinal Laboratories is accredited through the State of Colorado Department of Public Health and Environment for:

Method EPA 552.2	Haloacetic Acids (HAA-5)
Method EPA 524.2	Total Trihalomethanes (TTHM)
Method EPA 524.4	Regulated VOCs (V1, V2, V3)

Accreditation applies to public drinking water matrices.

This report meets NELAP requirements and is made up of a cover page, analytical results, and a copy of the original chain-of-custody. If you have any questions concerning this report, please feel free to contact me.

Sincerely,



Celey D. Keene

Lab Director/Quality Manager

Analytical Results For:

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

Received: 01/09/2015
Reported: 01/14/2015
Project Name: BEU DI 9 #34H
Project Number: NONE GIVEN
Project Location: EDDY COUNTY, NM

Sampling Date: 01/08/2015
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Jodi Henson

Sample ID: WSW #4 (H500066-01)

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	512	16.0	01/13/2015	ND	416	104	400	0.00		

Sample ID: SSW #4 (H500066-02)

Chloride, SM4500CI-B		mg/kg		Analyzed By: AP						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	<16.0	16.0	01/13/2015	ND	416	104	400	0.00		

Sample ID: ESW #4 (H500066-03)

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	688	16.0	01/13/2015	ND	416	104	400	0.00	

Cardinal Laboratories

*=Accredited Analyte

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



Celey D. Keene, Lab Director/Quality Manager

Notes and Definitions

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

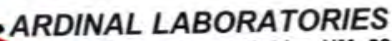
Cardinal Laboratories

*=Accredited Analyte

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



Celey D. Keene, Lab Director/Quality Manager



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

Page 4 of 4

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 the client for the 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 limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise.

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