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REMEDIATION SUMMARY & RISK-BASED SITE CLOSURE REQUEST

**BOPCO, LP
BIG EDDY UNIT DI-9 TANK BATTERY
API 30-015-42008
Eddy County, New Mexico
Unit Letter "P" (SE/SE), Section 21, Township 21 South, Range 30
East Latitude 32.456585° North, Longitude 103.879241° West
NMOCD Reference #: 2RP-2615 & 2RP-2810**

Prepared For:

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

Prepared By:

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May 2015

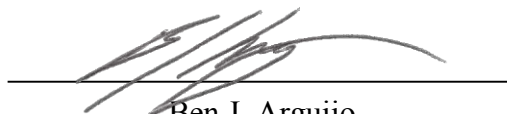

Ben J. Arguijo
Project Manager

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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 Big Eddy Unit DI-9 Tank Battery. The legal description of the release site is Unit Letter "P" (SE/SE), Section 21, Township 21 South, Range 30 East, in Eddy County, New Mexico. The geographic coordinates of the release site are 32.456585° North latitude and 103.879241° 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). Subsurface mineral rights are owned by the United States Department of the Interior - Bureau of Land Management (BLM). A "Site Location Map" is provided as Figure 1.

On November 7, 2014, BOPCO discovered a release had occurred at the Big Eddy Unit (BEU) Drilling Island (DI) #9 tank battery. A gasket on the man-way plate of a heater treater associated with the BEU-DI-9 #34H production well failed, resulting in the release of approximately forty-six barrels (46 bbls) of crude oil and eighteen barrels (18 bbls) of produced water. During initial response activities, the BEU-DI-9 #34H well was temporarily shut down, and the gasket was replaced. A vacuum truck was utilized to recover approximately twenty-six barrels (26 bbls) of crude oil and ten barrels (10 bbls) of produced water.

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 the release affected approximately six thousand, seven hundred fifty square feet (6,750 ft²) of the containment area surrounding the tank battery. A fine overspray affected an area of the adjacent pastureland measuring approximately three thousand, four hundred twenty-five square feet (3,425 ft²).

On February 9, 2015, following backfilling of the excavation associated with the November 7, 2014, release, a second release occurred at the site. The gasket on the man-way plate of a free-water knockout failed, resulting in the release of approximately forty barrels (40 bbls) of crude oil and thirty-seven barrels (37 bbls) of produced water. During initial response activities, the vessel was bypassed, and the gasket was replaced. A vacuum truck was utilized to recover approximately three barrels (3 bbls) of crude oil and three barrels (3 bbls) of produced water.

The release was immediately reported to the NMOCD's Artesia District Office. The Form C-141 indicated the release affected the same area impacted by the November 7, 2014, release, including the containment area surrounding the tank battery and the overspray area in the adjacent pastureland.

The releases were remediated consecutively. The Forms C-141 are provided as Appendix A. General photographs of the release site are provided as 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 21, Township 21 South, Range 30 East. A depth to groundwater reference map utilized by the NMOCD indicates groundwater should be encountered between one hundred thirty-five

feet (135') 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 Tank Battery release site has an initial ranking score of zero (0) points. The soil remediation levels for a site with a ranking score of zero (0) points are as follows:

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

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

3.0 SUMMARY OF SOIL REMEDIATION ACTIVITIES

On November 12, 2014, Basin Environmental commenced delineation of the November 7, 2014, release. Three (3) hand-augered soil borings (SP #1 through SP #3) were advanced in an effort to determine the effectiveness of the bionic solution that had been applied to the floor of the containment area during its construction to mitigate the impact of potential releases. The soil borings were advanced in six-inch (6") intervals to depths ranging from approximately two and one-half (2.5) to three feet (3') bgs. Soil samples were field-screened with a chloride test kit, and confirmation samples were submitted to Cardinal Laboratories, Inc., in Hobbs, New Mexico, for analysis of TPH and chloride concentrations using the Environmental Protection Agency (EPA) analytical methods listed in Section 4.1, "Soil Sampling", below. Laboratory analytical results are summarized in Table 1, "Concentrations of Benzene, BTEX, TPH & Chloride in Soil – 11/7/2014 Release". Sample locations are depicted in Figure 2, "Site & Sample Location Map". Laboratory analytical reports are provided in Appendix C.

Soil boring SP #1 was advanced near the release point to a total depth of approximately three feet (3') bgs. Eight (8) confirmation samples (SP #1 @ Surface, SP #1 @ 6", SP #1 @ 9", SP #1 @ 12", SP #1 @ 18", SP #1 @ 24", SP #1 @ 30", and SP #1 @ 36") were submitted to the laboratory for analysis of TPH and chloride concentrations. Laboratory analytical results indicated TPH concentrations ranged from less than the laboratory method detection limit (MDL) in samples SP #1 @ 12", SP #1 @ 18", SP #1 @ 24", SP #1 @ 30", and SP #1 @ 36" to 22,310 mg/kg in sample SP #1 @ Surface. Chloride concentrations ranged from less than the laboratory MDL in samples SP #1 @ 12", SP #1 @ 18", SP #1 @ 24", SP #1 @ 30", and SP #1 @ 36" to 3,520 mg/kg in sample SP #1 @ 6".

Soil boring SP #2 was advanced approximately fifty-six feet (56') east-northeast of the release point to a total depth of approximately two and one-half feet (2.5') bgs. Six (6) confirmation samples (SP #2 @ Surface, SP #2 @ 6", SP #2 @ 12", SP #2 @ 18", SP #2 @ 24", and SP #2 @ 30") were submitted to the laboratory for analysis of TPH and chloride concentrations. Laboratory analytical results indicated TPH concentrations ranged from less than the laboratory MDL in samples SP #2 @ 12", SP #2 @ 18", SP #2 @ 24", and SP #2 @ 30" to 25,587 mg/kg in sample SP #2 @ Surface. Chloride concentrations ranged from less than the laboratory MDL in samples SP #2 @ 6", SP #2 @ 12", SP #2 @ 18", SP #2 @ 24", and SP #2 @ 30" to 3,560 mg/kg in sample SP #2 @ Surface.

Soil boring SP #3 was advanced approximately fifty feet (50') north-northwest of the release point to a total depth of approximately three feet (3') bgs. Seven (7) confirmation samples (SP #3 @ Surface, SP #3 @ 6", SP #3 @ 12", SP #3 @ 18", SP #3 @ 24", SP #3 @ 30", and SP #3 @ 36") were submitted to the laboratory for analysis of TPH and chloride concentrations. Laboratory analytical results indicated TPH concentrations ranged from less than the laboratory MDL in samples SP #3 @ 18", SP #3 @ 24", SP #3 @ 30", and SP #3 @ 36" to 35,910 in sample SP #3 @ Surface. Chloride concentrations ranged from less than the laboratory MDL in samples SP #3 @ 18" and SP #3 @ 24" to 1,090 mg/kg in sample SP #3 @ Surface.

Review of laboratory analytical results indicated the bionic soil solution effectively limited the vertical migration of contaminants to one foot (1') bgs or less.

On November 14, 2014, three (3) hand-augered soil borings (SP #4 through SP #6) were advanced at the site to investigate the vertical and horizontal extent of impacted soil in the affected pastureland. The soil borings were advanced in one-foot (1') intervals to depths ranging from approximately two (2) to three feet (3') bgs. Soil samples were field-screened with a chloride test kit, and confirmation samples were submitted to the laboratory for analysis of chloride and/or TPH concentrations.

Soil boring SP #4 was advanced approximately one hundred five feet (105') north-northwest of the release point to a total depth of approximately two feet (2') bgs. Three (3) confirmation samples (SP #4 @ Surface, SP #4 @ 1', and SP #4 @ 2') were submitted to the laboratory for analysis of chloride concentrations. Sample SP #4 @ 1' was also analyzed for TPH concentrations. Laboratory analytical results indicated chloride concentrations ranged from 432 mg/kg in sample SP #4 @ 2' to 7,280 mg/kg in sample SP #4 @ Surface. The TPH concentration in sample SP #4 @ 1' was less than the laboratory MDL.

Soil boring SP #5 was advanced approximately sixty feet (60') northwest of the release point to a total depth of approximately three feet (3') bgs. Three (3) confirmation samples (SP #5 @ 1', SP #5 @ 2', and SP #5 @ 3') were submitted to the laboratory for analysis of chloride concentrations. Sample SP #5 @ 1' was also analyzed for TPH concentrations. Laboratory analytical results indicated chloride concentrations ranged from 160 mg/kg in sample SP #5 @ 3' to 1,260 mg/kg in sample SP #5 @ 2'. The TPH concentration in sample SP #5 @ 1' was less than the laboratory MDL.

Soil boring SP #6 was advanced approximately fifty-five feet (55') west-northwest of the release point to a total depth of approximately two feet (2') bgs. Three (3) confirmation samples (SP #6 @ Surface, SP #6 @ 1', and SP #6 @ 2') were submitted to the laboratory for analysis of chloride

concentrations. Sample SP #6 @ 1' was also analyzed for TPH concentrations. Laboratory analytical results indicated chloride concentrations ranged from 272 mg/kg in sample SP #6 @ 1' to 12,900 mg/kg in sample SP #6 @ Surface. The TPH concentration in sample SP #6 @ 1' was less than the laboratory MDL.

On January 19, 2015, excavation of impacted soil commenced. A chloride test kit was used to field-screen the horizontal extent of impacted soil and to guide the excavation. To facilitate remediation activities, the excavation was divided into three (3) sections: Pasture, Pad, and Tank Battery. Based on field-screen results from the delineation event, the vertical extents of the excavations were limited to a depth of one foot (1') bgs. From January 19 through February 6, 2015, excavated soil was stockpiled on-site, pending final disposition.

On January 21, 2015, fourteen (14) soil samples (WW-1, WW-2, WW-3, WW-4, EW-1, EW-2, EW-3, EW-4, NW-1, SW-1, Floor 1, Floor 2, Floor 3, and Floor 4) were collected from the floor and sidewalls of the Pasture 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 samples WW-2, WW-3, Floor 1, and Floor 2 to 176 mg/kg in samples WW-4 and EW-4.

On January 22, 2015, five (5) soil samples (NW #1, EW #1, SW #1, WW #1, and Floor @ 1') were collected from the floor and sidewalls of the Pad Excavation and submitted to the laboratory for analysis of chloride concentrations. Sample Floor @ 1' was also analyzed for concentrations of TPH and BTEX using the EPA analytical methods listed in Section 4.1, below. Laboratory analytical results indicated chloride concentrations ranged from 48.0 mg/kg in sample NW #1 to 112 mg/kg in sample Floor @ 1'. TPH and BTEX constituent concentrations in sample Floor @ 1' were less than the appropriate laboratory MDL.

Based on laboratory analytical results and field-screens, from January 22 through January 26, 2015, the Pasture and Pad Excavations were backfilled with locally acquired, non-impacted material, compacted, and contoured to fit the surrounding topography. Prior to backfilling, final dimensions of the Pasture Excavation were approximately one hundred twenty-eight feet (128') in length, approximately twenty-one feet (21') in width, and approximately one foot (1') in depth. Final dimensions of the Pad Excavation were fifty feet (50') in length, varying in width from approximately five feet (5') to approximately thirty-seven feet (37'), and approximately one foot (1') in depth.

The disturbed area in the pastureland will be seeded with a NMSLO-approved seed mix at a time conducive to germination.

On February 6, 2015, the Tank Battery Excavation was backfilled with locally acquired, non-impacted material, compacted, and contoured to fit the surrounding topography. Prior to backfilling, final dimensions of the Tank Battery Excavation were approximately one hundred fifty-three feet (153') in length, ranging in width from approximately twenty-six feet (26') to approximately one hundred three feet (103'), and approximately six inches (6") in depth.

From February 5 through February 9, 2015, approximately two hundred eighty cubic yards (280 yd³) of impacted soil was transported to Lea Land, Inc. (NMOCD Permit #WM-01-035), for disposal.

On February 9, 2015, excavation of the second release commenced. A chloride test kit was used to field-screen the vertical and horizontal extent of impacted soil and to guide the excavation. From February 9 through February 17, 2015, excavated soil was stockpiled on-site, pending final disposition.

On February 13, 2015, three (3) soil samples (Floor #1a, Floor #2b, and Floor #2c) were collected from the floor of the excavation and submitted to the laboratory for analysis of chloride, TPH, and BTEX concentrations. Laboratory analytical results indicated chloride concentrations ranged from 32.0 mg/kg in sample Floor #2c to 496 mg/kg in sample Floor #1a. TPH concentrations ranged from 33.5 mg/kg in sample Floor #2c to 21,340 mg/kg in sample Floor #2b. Benzene concentrations ranged from less than the laboratory MDL in samples Floor #1a and Floor #2c to 10.3 mg/kg in sample Floor #2b. Total BTEX concentrations ranged from less than the laboratory MDL in sample Floor #1a to 313 mg/kg in sample Floor #2b. Laboratory analytical results are summarized in Table 2, "Concentrations of Benzene, BTEX, TPH & Chloride in Soil – 2/9/2015 Release". Sample locations are depicted in Figure 2, "Site & Sample Location Map". Laboratory analytical reports are provided in Appendix C.

Review of laboratory analytical results indicated additional excavation was required in the area represented by sample Floor #2b.

Five (5) hand-augered soil borings (SP #1 through SP #5) were also advanced at the site to investigate the horizontal and vertical extent of impacted soil. The soil borings were advanced in six-inch (6") to one-foot (1') intervals to depths ranging from approximately six inches (6") to eleven feet (11') bgs. Soil samples were field-screened with a chloride test kit, and confirmation samples were submitted to the laboratory for analysis of chloride, TPH, and BTEX concentrations.

Soil boring SP #1 was advanced approximately thirty feet (30') south-southwest of the release point to a total depth of approximately six inches (6") bgs. One (1) confirmation sample (SP #1 @ 6") was submitted to the laboratory for analysis of chloride, TPH, and BTEX concentrations. Laboratory analytical results indicated the chloride concentration was 64.0 mg/kg. TPH and benzene concentrations were less than the appropriate laboratory MDL. The total BTEX concentration was 0.059 mg/kg.

Soil boring SP #2 was advanced approximately twenty feet (20') southwest of the release point to a total depth of approximately six inches (6") bgs. One (1) confirmation sample (SP #2 @ 6") was submitted to the laboratory for analysis of chloride, TPH, and BTEX concentrations. Laboratory analytical results indicated the chloride concentration was 576 mg/kg, the TPH concentration was 15,480 mg/kg, the benzene concentration was 8.62 mg/kg, and the total BTEX concentration was 246 mg/kg.

Soil boring SP #3 was advanced approximately sixteen feet (16') south-southwest of the release point to a total depth of approximately eleven feet (11') bgs. Three (3) confirmation samples (SP #3 @ 8', SP #3 @ 9', and SP #3 @ 11') were submitted to the laboratory for analysis of chloride, TPH, and BTEX concentrations. Laboratory analytical results indicated chloride concentrations ranged from 128 mg/kg in sample SP #3 @ 11' to 416 mg/kg in sample SP #3 @ 8'. TPH concentrations ranged from 42.8 mg/kg in sample SP #3 @ 8' to 246 mg/kg in sample SP #3 @ 9'. Benzene concentrations ranged from less than the laboratory MDL in samples SP #3 @ 8' and SP

#3 @ 9' to 0.263 mg/kg in sample SP #3 @ 8'. Total BTEX concentrations ranged from less than the laboratory MDL in sample SP #3 @ 11' to 1.97 mg/kg in sample SP #3 @ 8'.

Soil boring SP #4 was advanced approximately forty-three feet (43') south-southeast of the release point to a total depth of approximately one and one-half feet (1.5') bgs. One (1) confirmation sample (SP #4 @ 1.5') was submitted to the laboratory for analysis of chloride, TPH, and BTEX concentrations. Laboratory analytical results indicated chloride, TPH, and benzene concentrations were less than the appropriate laboratory MDL. The total BTEX concentration was 0.103mg/kg.

Soil boring SP #5 was advanced approximately thirty-three feet (33') south of the release point to a total depth of approximately four feet (4') bgs. One (1) confirmation sample (SP #4 @ 4') was submitted to the laboratory for analysis of chloride, TPH, and BTEX concentrations. Laboratory analytical results indicated the chloride concentration was 112 mg/kg, the TPH concentration was 712 mg/kg, the benzene concentration was 0.766 mg/kg, and the total BTEX concentration was 15.8 mg/kg.

Review of laboratory analytical results indicated additional excavation was required in the areas represented by samples Floor #2b and SP #2 @ 6".

On February 16, 2015, the excavation was advanced in the area represented by sample Floor #2b, and two (2) soil samples (Floor #2b @ 2' and Floor #3 @ 1') were collected from the floor of the excavation and submitted to the laboratory for analysis of chloride, TPH, and BTEX concentrations. Laboratory analytical results indicated chloride concentrations ranged from less than the laboratory MDL in sample Floor #3 @ 1' to 32.0 mg/kg in sample Floor #2b @ 2'. TPH and BTEX constituent concentrations were less than the appropriate laboratory MDL in both samples.

Hand-augered soil boring SP #3 was re-entered and advanced to approximately twelve and one-half feet (12.5') bgs. The soil boring was advanced in six-inch (6") to one-foot (1') intervals, and soil samples were field-screened with a chloride test kit. One (1) confirmation sample (SP #3 @ 12.5') was submitted to the laboratory for analysis of chloride, TPH, and BTEX concentrations. Laboratory analytical results indicated the chloride concentration was 112 mg/kg, and the TPH concentration was 76.7 mg/kg. BTEX constituent concentrations were less than the appropriate laboratory MDL.

On February 24, 2015, the excavation was advanced in the area represented by sample SP #2 @ 6", and hand-augered soil boring SP #2 was re-entered and advanced to approximately six feet (6') bgs. The soil boring was advanced in one-foot (1') intervals, and soil samples were field-screened with a chloride test kit. Three (3) confirmation samples (SP #2 @ 2' bgs, SP #2 @ 4' bgs, and SP #2 @ 6' bgs) were submitted to the laboratory for analysis of chloride and TPH concentrations. Laboratory analytical results indicated chloride concentrations ranged from less than the laboratory MDL in samples SP #2 @ 4' bgs and SP #2 @ 6' bgs to 112 mg/kg in sample SP #2 @ 2' bgs. TPH concentrations ranged from less than the laboratory MDL in samples SP #2 @ 4' bgs and SP #2 @ 6' bgs to 3,633 mg/kg in sample SP #2 @ 2' bgs.

On February 25, 2015, the stockpiled soil was aerated to facilitate natural attenuation and off-gassing of contaminants. One (1) composite soil sample (Stockpile) was collected from the stockpiled material and submitted to the laboratory for analysis of chloride and TPH

concentrations. Laboratory analytical results indicated the chloride concentration was 544 mg/kg, and the TPH concentration was 6,515 mg/kg.

Soil represented by sample Stockpile was deemed unsuitable for use as backfill material. From March 3 through March 4, 2015, approximately two hundred twenty cubic yards (220 yd³) of impacted soil was transported to Lea Land, Inc., for disposal. Total hauled to Lea Land, Inc. for the two consecutive spills was approximately 500 cubic yards or 465 tons.

Based on laboratory analytical results and field-screens, from March 3 through March 4, 2015, the excavation was backfilled with locally acquired, non-impacted material, compacted, and contoured to fit the surrounding topography. Prior to backfilling, a layer of clay was installed on the floor of the excavation to help mitigate potential releases. Final dimensions of the excavation were approximately one hundred one feet (101') in length, varying in width from approximately thirty feet (30') to approximately eighty-two feet (82'), and varying in width from approximately six inches (6") to approximately two feet (2') bgs.

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

Soil samples collected from the floors and sidewalls of the Pasture and Pad Excavations at the BEU-DI-9 Tank Battery remediation site were analyzed by an NMOCD-approved laboratory, and concentrations of chloride, TPH, and BTEX were below the recommended remediation action levels (RRALs) established for the site by the NMOCD.

The impacted areas inside the containment area were remediated to the extent practicable to preserve the structural integrity of the on-site tanks, pipes, and appurtenances. Laboratory

analytical results of soil samples collected from the floors of the excavations indicated concentrations of chloride, TPH, and BTEX were below the RRAIs established for the site. A layer of clay was installed on the floor of the February 9, 2015, release excavation to help mitigate potential releases. Impacted soil remaining in-situ will be remediated upon decommission and/or abandonment of the currently active tank battery.

Basin Environmental recommends BOPCO provide the NMOCD Artesia District Office, the NMSLO, and the BLM a copy of this *Remediation Summary & Risk-Based Site Closure Request* and request the NMOCD grant site closure to the BEU-DI-9 Tank Battery release sites.

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:

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Figures



3000 1500 0 1500 3000
 Distance in Feet

Figure 1
 Site Location Map
 BOPCO, LP
 Big Eddy Unit DI-9 Tank Battery
 Eddy County, New Mexico
 NMOCD Reference #: 2RP-2615 & 2810

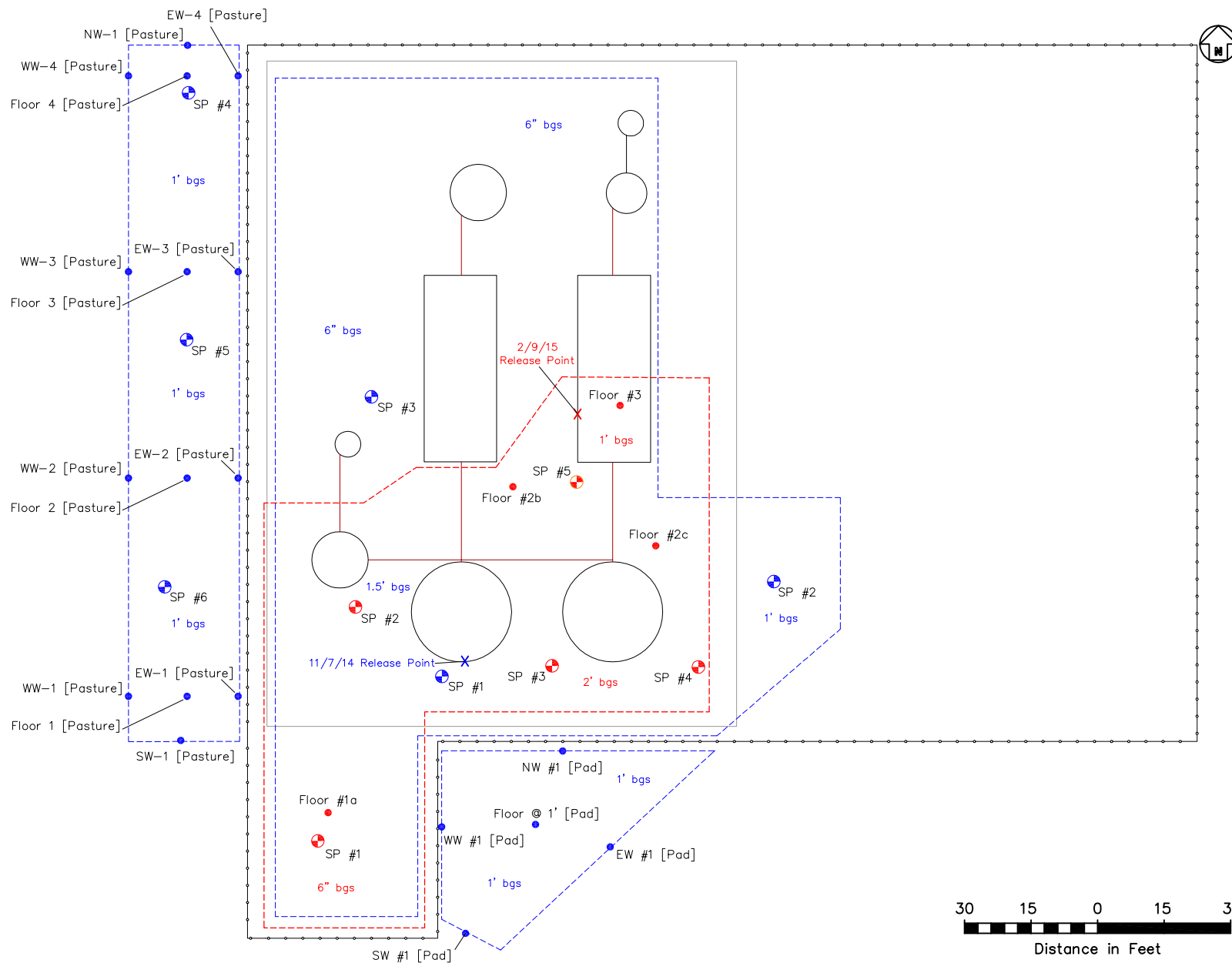
Basin Environmental Service Technologies

Revised By: BJA

April 30, 2015

Reviewed By: SJW

Scale 1" = 3,000'



Legend:

- Excavation (11/7/14 Release)
- Excavation (2/9/15 Release)
- Pipeline
- Caliche Pad
- Fence
- Sample Location (11/7/14 Release)
- Sample Location (2/9/15 Release)
- Hand-Augered Soil Boring (11/7/14 Release)
- Hand-Augered Soil Boring (2/9/15 Release)

Figure 2
Site & Sample Location Map
BOPCO, LP
Big Eddy Unit DI-9 Tank Battery
Eddy County, New Mexico
NMOCD Reference #: 2RP-2615 & 2810

Basin Environmental Service Technologies, LLC

Revised By: BJA	Reviewed By: SJW
May 1, 2015	Scale 1" = 30'

Tables

TABLE 1
CONCENTRATIONS OF BENZENE, BTEX, TPH & CHLORIDE IN SOIL - 11/7/2014 RELEASE

BOPCO, LP
BIG EDDY UNIT DI-9 TANK BATTERY
EDDY COUNTY, NEW MEXICO
NMOCD REFERENCE #: 2RP-2615

SAMPLE LOCATION	SAMPLE DEPTH (BGS)	SAMPLE DATE	SOIL STATUS	METHOD: EPA SW 846-8021B, 5030					METHOD: 8015M			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	11/12/2014	Excavated	-	-	-	-	-	3,210	16,600	2,500	22,310	992
SP #1 @ 6"	0.5'	11/12/2014	Excavated	-	-	-	-	-	4,300	13,600	1,990	19,890	3,520
SP #1 @ 9"	0.75'	11/12/2014	In-Situ	-	-	-	-	-	12.7	16.2	<10.0	28.9	416
SP #1 @ 12"	1'	11/12/2014	In-Situ	-	-	-	-	-	<10.0	<10.0	<10.0	<10.0	<16.0
SP #1 @ 18"	1.5'	11/12/2014	In-Situ	-	-	-	-	-	<10.0	<10.0	<10.0	<10.0	<16.0
SP #1 @ 24"	2'	11/12/2014	In-Situ	-	-	-	-	-	<10.0	<10.0	<10.0	<10.0	<16.0
SP #1 @ 30"	2.5'	11/12/2014	In-Situ	-	-	-	-	-	<10.0	<10.0	<10.0	<10.0	<16.0
SP #1 @ 36"	3'	11/12/2014	In-Situ	-	-	-	-	-	<10.0	<10.0	<10.0	<10.0	<16.0
SP #2 @ Surface	Surface	11/12/2014	Excavated	-	-	-	-	-	977	21,100	3,510	25,587	3,560
SP #2 @ 6"	0.5'	11/12/2014	Excavated	-	-	-	-	-	293	1060	139	1,492	<16.0
SP #2 @ 12"	1'	11/12/2014	In-Situ	-	-	-	-	-	<10.0	<10.0	<10.0	<10.0	<16.0
SP #2 @ 18"	1.5'	11/12/2014	In-Situ	-	-	-	-	-	<10.0	<10.0	<10.0	<10.0	<16.0
SP #2 @ 24"	2'	11/12/2014	In-Situ	-	-	-	-	-	<10.0	<10.0	<10.0	<10.0	<16.0
SP #2 @ 30"	2.5'	11/12/2014	In-Situ	-	-	-	-	-	<10.0	<10.0	<10.0	<10.0	<16.0
SP #3 @ Surface	Surface	11/12/2014	Excavated	-	-	-	-	-	2,600	29,000	4,310	35,910	1,090
SP #3 @ 6"	0.5'	11/12/2014	In-Situ	-	-	-	-	-	25.4	311	36.2	373	784
SP #3 @ 12"	1'	11/12/2014	In-Situ	-	-	-	-	-	<10.0	44.2	<10.0	44.2	80.0
SP #3 @ 18"	1.5'	11/12/2014	In-Situ	-	-	-	-	-	<10.0	<10.0	<10.0	<10.0	<16.0
SP #3 @ 24"	2'	11/12/2014	In-Situ	-	-	-	-	-	<10.0	<10.0	<10.0	<10.0	<16.0
SP #3 @ 30"	2.5'	11/12/2014	In-Situ	-	-	-	-	-	<10.0	<10.0	<10.0	<10.0	64.0
SP #3 @ 36"	3'	11/12/2014	In-Situ	-	-	-	-	-	<10.0	<10.0	<10.0	<10.0	96.0
SP #4 @ Surface	Surface	11/14/2014	Excavated	-	-	-	-	-	-	-	-	-	7,280
SP #4 @ 1'	1'	11/14/2014	In-Situ	-	-	-	-	-	<10.0	<10.0	<10.0	<10.0	560
SP #4 @ 2'	2'	11/14/2014	In-Situ	-	-	-	-	-	-	-	-	-	432
SP #5 @ 1'	1'	11/14/2014	In-Situ	-	-	-	-	-	<10.0	<10.0	<10.0	<10.0	800
SP #5 @ 2'	2'	11/14/2014	In-Situ	-	-	-	-	-	-	-	-	-	1,260
SP #5 @ 3'	3'	11/14/2014	In-Situ	-	-	-	-	-	-	-	-	-	160
SP #6 @ Surface	Surface	11/14/2014	Excavated	-	-	-	-	-	-	-	-	-	12,900
SP #6 @ 1'	1'	11/14/2014	In-Situ	-	-	-	-	-	<10.0	<10.0	<10.0	<10.0	272
SP #6 @ 2'	2'	11/14/2014	In-Situ	-	-	-	-	-	-	-	-	-	288
WW-1 [Pasture]	0.5'	1/21/2015	In-Situ	-	-	-	-	-	-	-	-	-	32.0
WW-2 [Pasture]	0.5'	1/21/2015	In-Situ	-	-	-	-	-	-	-	-	-	<16.0
WW-3 [Pasture]	0.5'	1/21/2015	In-Situ	-	-	-	-	-	-	-	-	-	<16.0
WW-4 [Pasture]	0.5'	1/21/2015	In-Situ	-	-	-	-	-	-	-	-	-	176
EW-1 [Pasture]	0.5'	1/21/2015	In-Situ	-	-	-	-	-	-	-	-	-	48.0
EW-2 [Pasture]	0.5'	1/21/2015	In-Situ	-	-	-	-	-	-	-	-	-	64.0
EW-3 [Pasture]	0.5'	1/21/2015	In-Situ	-	-	-	-	-	-	-	-	-	96.0

TABLE 1
CONCENTRATIONS OF BENZENE, BTEX, TPH & CHLORIDE IN SOIL - 11/7/2014 RELEASE

BOPCO, LP
BIG EDDY UNIT DI-9 TANK BATTERY
EDDY COUNTY, NEW MEXICO
NMOCD REFERENCE #: 2RP-2615

SAMPLE LOCATION	SAMPLE DEPTH (BGS)	SAMPLE DATE	SOIL STATUS	METHOD: EPA SW 846-8021B, 5030					METHOD: 8015M			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)		
EW-4 [Pasture]	0.5'	1/21/2015	In-Situ	-	-	-	-	-	-	-	-	-	176
NW-1 [Pasture]	0.5'	1/21/2015	In-Situ	-	-	-	-	-	-	-	-	-	32.0
SW-1 [Pasture]	0.5'	1/21/2015	In-Situ	-	-	-	-	-	-	-	-	-	32.0
Floor 1 [Pasture]	1'	1/21/2015	In-Situ	-	-	-	-	-	-	-	-	-	<16.0
Floor 2 [Pasture]	1'	1/21/2015	In-Situ	-	-	-	-	-	-	-	-	-	<16.0
Floor 3 [Pasture]	1'	1/21/2015	In-Situ	-	-	-	-	-	-	-	-	-	48.0
Floor 4 [Pasture]	1'	1/21/2015	In-Situ	-	-	-	-	-	-	-	-	-	64.0
NW #1 [Pad]	0.5'	1/22/2015	In-Situ	-	-	-	-	-	-	-	-	-	48.0
EW #1 [Pad]	0.5'	1/22/2015	In-Situ	-	-	-	-	-	-	-	-	-	96.0
SW #1 [Pad]	0.5'	1/22/2015	In-Situ	-	-	-	-	-	-	-	-	-	80.0
WW #1 [Pad]	0.5'	1/22/2015	In-Situ	-	-	-	-	-	-	-	-	-	80.0
Floor @ 1' [Pad]	1'	1/22/2015	In-Situ	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<10.0	112
NMOCD Recommended Remediation Action Level				10				50				5,000	1,000

- = Not analyzed.

TABLE 2
CONCENTRATIONS OF BENZENE, BTEX, TPH & CHLORIDE IN SOIL - 2/9/2015 RELEASE

BOPCO, LP
BIG EDDY UNIT DI-9 TANK BATTERY
EDDY COUNTY, NEW MEXICO
NMOCD REFERENCE #: 2RP-2810

SAMPLE LOCATION	SAMPLE DEPTH (BGS)	SAMPLE DATE	SOIL STATUS	METHOD: EPA SW 846-8021B, 5030					METHOD: 8015M			TPH C ₆ -C ₃₅ (mg/Kg)	4500 Cl-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)		
Floor #1a	0.5'	2/13/2015	In-Situ	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	40.4	11.9	52.3	496
Floor #2b	1'	2/13/2015	Excavated	10.3	103	18.0	181	313	4,930	14,400	2,010	21,340	240
Floor #2c	1.5'	2/13/2015	In-Situ	<0.050	0.161	<0.050	<0.150	0.161	11.4	22.1	<10.0	33.5	32.0
SP #1 @ 6"	0.5'	2/13/2015	In-Situ	<0.050	0.059	<0.050	<0.150	0.059	<10.0	<10.0	<10.0	<10.0	64.0
SP #2 @ 6"	0.5'	2/13/2015	Excavated	8.62	85.8	26.6	125	246	3,440	10,500	1,540	15,480	576
SP #3 @ 8'	8'	2/13/2015	In-Situ	0.263	1.02	0.135	0.549	1.97	16.1	26.7	<10.0	42.8	416
SP #3 @ 9'	9'	2/13/2015	In-Situ	<0.050	0.231	0.076	0.451	0.758	18.6	194	33.7	246	208
SP #3 @ 11'	11'	2/13/2015	In-Situ	<0.050	<0.050	<0.050	<0.150	<0.300	10.3	111	17.9	139	128
SP #4 @ 1.5'	1.5'	2/13/2015	In-Situ	<0.050	0.052	0.051	<0.150	0.103	<10.0	<10.0	<10.0	<10.0	<16.0
SP #5 @ 4'	4'	2/13/2015	In-Situ	0.766	6.53	1.59	6.95	15.8	121	515	76.0	712	112
SP #3 @ 12.5'	12.5'	2/16/2015	In-Situ	<0.050	<0.050	<0.050	<0.150	<0.300	11.0	65.7	<10.0	76.7	112
Floor #2b @ 2'	2'	2/16/2015	In-Situ	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<10.0	32.0
Floor #3 @ 1'	1'	2/16/2015	In-Situ	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<10.0	<16.0
SP #2 @ 2' bgs	2'	2/24/2015	In-Situ	-	-	-	-	-	603	2,660	370	3,633	112
SP #2 @ 4' bgs	4'	2/24/2015	In-Situ	-	-	-	-	-	<10.0	<10.0	<10.0	<10.0	<16.0
SP #2 @ 6' bgs	6'	2/24/2015	In-Situ	-	-	-	-	-	<10.0	<10.0	<10.0	<10.0	<16.0
Stockpile	N/A	2/26/2015	Stockpiled	-	-	-	-	-	857	4920	738	6,515	544
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

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

NAB1432355958

OPERATOR

☒ Initial Report ☐ Final Report

Name of Company: BOPCO, L.P. **2100737**
Address: 522 W. Mermod, Suite 704 Carlsbad, N.M. 88220
Facility Name: Big Eddy Unit DI-9 Tank Battery (Vessel for #34H)

Contact: Tony Savoie
Telephone No. 575-887-7329
Facility Type: Exploration and Production

Surface Owner: State

Mineral Owner: State and Federal

API No. 30-015-42008

LOCATION OF RELEASE

Unit Letter P	Section 21	Township 21S	Range 30E	Feet from the	North/South Line	Feet from the	East/West Line	County: Eddy
------------------	---------------	-----------------	--------------	---------------	------------------	---------------	----------------	-----------------

Latitude N 32.456585 Longitude W 103.879241

NATURE OF RELEASE

Type of Release: Crude oil and produced water	Volume of Release: 46 bbls crude oil and 18 bbls produced water	Volume Recovered: 26 bbls crude oil and 10 bbls produced water
Source of Release: Heater-treater	Date and Hour of Occurrence: 11/7/14 at approx. 8:00 p.m.	Date and Hour of Discovery: 11/7/14 at approx. 9:00 p.m.
Was Immediate Notice Given? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Required	If YES, To Whom? M. Bratcher and H. Patterson (via e-mail)	
By Whom? Tony Savoie	Date and Hour: 11/8/14 at 2:51 p.m.	
Was a Watercourse Reached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If YES, Volume Impacting the Watercourse:	

NM OIL CONSERVATION

ARTESIA DISTRICT

NOV 18 2014

RECEIVED

Describe Cause of Problem and Remedial Action Taken.*

A gasket failed on the heater-treater man-way plate. The well was shut in and the gasket was replaced. All free standing fluid was removed with a vacuum truck.

Describe Area Affected and Cleanup Action Taken.*

The spill impacted approximately 6,750 sq. ft. of process containment area that had the base soil treated with a bionic soil solution during construction, samples were collected at 6" intervals to a depth of 3 ft. to check for oil and water saturation. The spill misted and area of approximately 3,425, sq. ft in the pasture. Soil samples were collected and field tested for chloride saturation depth in the pasture area. The lab results and soil chemistry tables are attached. The impacted 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: <u>Tony Savoie</u>	OIL CONSERVATION DIVISION	
Printed Name: Tony Savoie	Signed By <u>Mike Scanlon</u> Approved by Environmental Specialist:	
Title: Waste Management and Remediation Specialist	Approval Date: <u>11/19/14</u>	Expiration Date: <u>N/A</u>
E-mail Address: <u>tasavoie@basspet.com</u>	Conditions of Approval:	Attached <input type="checkbox"/>
Date: <u>11/18/14</u> Phone: 432-556-8730	Remediation per O.C.D. Rules & Guidelines SUBMIT REMEDIATION PROPOSAL NO LATER THAN: <u>12/19/14</u>	

* Attach Additional Sheets If Necessary

2RP 2615

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

FEB 12 2015
Submit Copy to appropriate District Office in
accordance with 19.15.29 NMAC.

RECEIVED

Release Notification and Corrective Action

NAB1504152023		OPERATOR	<input checked="" type="checkbox"/> Initial Report	<input type="checkbox"/> 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: Big Eddy Unit DI-9 Tank Battery (Vessel for #34H) FWKO		Facility Type: Exploration and Production		
Surface Owner: State		Mineral Owner: State and Federal		API No. 30-015-42008

LOCATION OF RELEASE

Unit Letter P	Section 21	Township 21S	Range 30E	Feet from the	North/South Line	Feet from the	East/West Line	County: Eddy
------------------	---------------	-----------------	--------------	---------------	------------------	---------------	----------------	-----------------

Latitude N 32.456585 Longitude W 103.879241

NATURE OF RELEASE

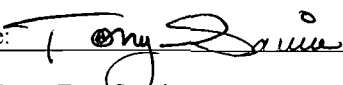

Type of Release: Crude oil and produced water	Volume of Release: 40 bbls crude oil and 37 bbls produced water	Volume Recovered: 3 bbls crude oil and 2 bbls produced water
Source of Release: Heater-treater	Date and Hour of Occurrence: 2/9/15 time unknown	Date and Hour of Discovery: 2/9/15 at approx. 8:29 a.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, in person.	
By Whom? Tony Savoie	Date and Hour: 2/9/15 at 10:20 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 gasket failed on the free water knock out man-way plate. The vessel was by-passed and the gasket was replaced. All free standing fluid was removed with a vacuum truck.

Describe Area Affected and Cleanup Action Taken.*
The spill impacted an area that had just been backfilled on a remediation for spill reference 2RP-2615. Basin Environmental and a roustabout crew started removing the impacted soil the day of discovery. The equipment has been washed-down; the misted pasture area will be washed and treated with micro-blaze. The remediation activity will continue until the site meets the NMOCD remediation requirements established in the original remediation plan.

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: 2/12/15	Expiration Date: N/A
E-mail Address: tasavoie@basspet.com		Conditions of Approval: Remediation per O.C.D. Rules & Guidelines	
Date: 2/12/15		SUBMIT REMEDIATION PROPOSAL NO LATER THAN: 3/12/15	
Phone: 432-556-8730		Attached <input type="checkbox"/>	

* Attach Additional Sheets If Necessary

2RP-2810

Appendix B

Photographs



Big Eddy Unit DI-9 Tank Battery – 11/7/2014 Release



Big Eddy Unit DI-9 Tank Battery - 11/7/2014 Release



Big Eddy Unit DI-9 Tank Battery – 11/7/2014 Release



Big Eddy Unit DI-9 Tank Battery – 11/7/2014 Release



Big Eddy Unit DI-9 Tank Battery – 11/7/2014 Release



Big Eddy Unit DI-9 Tank Battery – 11/7/2014 Release



Big Eddy Unit DI-9 Tank Battery - 11/7/2014 Release



Big Eddy Unit DI-9 Tank Battery - Tank Battery Excavation, 11/7/2014 Release



Big Eddy Unit DI-9 Tank Battery - Tank Battery Excavation, 11/7/2014 Release



Big Eddy Unit DI-9 Tank Battery - Tank Battery Excavation, 11/7/2014 Release



Big Eddy Unit DI-9 Tank Battery - Tank Battery Excavation, 11/7/2014 Release



Big Eddy Unit DI-9 Tank Battery - Tank Battery Excavation, 11/7/2014 Release



Big Eddy Unit DI-9 Tank Battery - Pasture Excavation, 11/7/2014 Release



Big Eddy Unit DI-9 Tank Battery - Pasture Excavation, 11/7/2014 Release



Big Eddy Unit DI-9 Tank Battery - Pad Excavation, 11/7/2014 Release



Big Eddy Unit DI-9 Tank Battery - Pad Excavation, 11/7/2014 Release



Big Eddy Unit DI-9 Tank Battery - Pasture Excavation, 11/7/2014 Release (During Backfill)



Big Eddy Unit DI-9 Tank Battery - Pasture Excavation, 11/7/2014 Release (Following Backfill)



Big Eddy Unit DI-9 Tank Battery - Tank Battery Excavation, 11/7/2014 Release
(2/6/2015, Following Backfill)



Big Eddy Unit DI-9 Tank Battery - Tank Battery Excavation, 11/7/2014 Release
(2/6/2015, Following Backfill)



Big Eddy Unit DI-9 Tank Battery – 2/9/2015 Release



Big Eddy Unit DI-9 Tank Battery – 2/9/2015 Release



Big Eddy Unit DI-9 Tank Battery – 2/9/2015 Release



Big Eddy Unit DI-9 Tank Battery – 2/9/2015 Release



Big Eddy Unit DI-9 Tank Battery – 2/9/2015 Release



Big Eddy Unit DI-9 Tank Battery – 2/9/2015 Release



Big Eddy Unit DI-9 Tank Battery – 2/9/2015 Release



Big Eddy Unit DI-9 Tank Battery – Excavation, 2/9/2015 Release



Big Eddy Unit DI-9 Tank Battery – Excavation, 2/9/2015 Release



Big Eddy Unit DI-9 Tank Battery – Excavation, 2/9/2015 Release



Big Eddy Unit DI-9 Tank Battery – Excavation, 2/9/2015 Release



Big Eddy Unit DI-9 Tank Battery – Installation of Clay Liner, 2/9/2015 Release



Big Eddy Unit DI-9 Tank Battery – Installation of Clay Liner, 2/9/2015 Release



Big Eddy Unit DI-9 Tank Battery – Installation of Clay Liner, 2/9/2015 Release



Big Eddy Unit DI-9 Tank Battery – Excavation, 2/9/2015 Release (During Backfill)



Big Eddy Unit DI-9 Tank Battery – Excavation, 2/9/2015 Release (Following Backfill)



Big Eddy Unit DI-9 Tank Battery – Excavation, 2/9/2015 Release (Following Backfill)



Big Eddy Unit DI-9 Tank Battery – Excavation, 2/9/2015 Release (Following Backfill)

Appendix C

Laboratory Analytical Reports



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

November 14, 2014

JOEL LOWRY

Basin Environmental Service

P.O. Box 301

Lovington, NM 88260

RE: BEU DI #9

Enclosed are the results of analyses for samples received by the laboratory on 11/13/14 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: 11/13/2014
Reported: 11/14/2014
Project Name: BEU DI #9
Project Number: NONE GIVEN
Project Location: EDDY COUNTY, NM

Sampling Date: 11/12/2014
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Celey D. Keene

Sample ID: SP #1 @ SURFACE (H403488-01)

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	992	16.0	11/14/2014	ND	416	104	400	0.00		
TPH 8015M		mg/kg		Analyzed By: ms						S-06
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10	3210	50.0	11/13/2014	ND	199	99.4	200	2.34		
DRO >C10-C28	16600	50.0	11/13/2014	ND	210	105	200	1.53		
EXT DRO >C28-C35	2500	50.0	11/13/2014	ND						
Surrogate: 1-Chlorooctane										
	349 %	47.2-157								
Surrogate: 1-Chlorooctadecane										
	390 %	52.1-176								

Sample ID: SP #1 @ 6" (H403488-02)

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	3520	16.0	11/14/2014	ND	416	104	400	0.00		
TPH 8015M		mg/kg		Analyzed By: ms						S-06
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10	4300	50.0	11/13/2014	ND	199	99.4	200	2.34		
DRO >C10-C28	13600	50.0	11/13/2014	ND	210	105	200	1.53		
EXT DRO >C28-C35	1990	50.0	11/13/2014	ND						
Surrogate: 1-Chlorooctane										
	228 %	47.2-157								
Surrogate: 1-Chlorooctadecane										
	345 %	52.1-176								

Cardinal Laboratories

*=Accredited Analyte

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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: 11/13/2014
Reported: 11/14/2014
Project Name: BEU DI #9
Project Number: NONE GIVEN
Project Location: EDDY COUNTY, NM

Sampling Date: 11/12/2014
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Celey D. Keene

Sample ID: SP #1 @ 9" (H403488-03)

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	11/14/2014	ND	416	104	400	0.00	
TPH 8015M		mg/kg		Analyzed By: ms					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	12.7	10.0	11/13/2014	ND	199	99.4	200	2.34	
DRO >C10-C28	16.2	10.0	11/13/2014	ND	210	105	200	1.53	
EXT DRO >C28-C35	<10.0	10.0	11/13/2014	ND					
Surrogate: 1-Chlorooctane	111 %	47.2-157							
Surrogate: 1-Chlorooctadecane	123 %	52.1-176							

Sample ID: SP #1 @ 12" (H403488-04)

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	11/14/2014	ND	416	104	400	0.00	
TPH 8015M		mg/kg		Analyzed By: ms					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	11/13/2014	ND	199	99.4	200	2.34	
DRO >C10-C28	<10.0	10.0	11/13/2014	ND	210	105	200	1.53	
EXT DRO >C28-C35	<10.0	10.0	11/13/2014	ND					
Surrogate: 1-Chlorooctane	110 %	47.2-157							
Surrogate: 1-Chlorooctadecane	118 %	52.1-176							

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Analytical Results For:

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Received: 11/13/2014
Reported: 11/14/2014
Project Name: BEU DI #9
Project Number: NONE GIVEN
Project Location: EDDY COUNTY, NM

Sampling Date: 11/12/2014
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Celey D. Keene

Sample ID: SP #1 @ 18" (H403488-05)

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	11/14/2014	ND	416	104	400	0.00		
TPH 8015M			mg/kg							
			Analyzed By: ms							
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10	<10.0	10.0	11/13/2014	ND	199	99.4	200	2.34		
DRO >C10-C28	<10.0	10.0	11/13/2014	ND	210	105	200	1.53		
EXT DRO >C28-C35	<10.0	10.0	11/13/2014	ND						
Surrogate: 1-Chlorooctane	113 %	47.2-157								
Surrogate: 1-Chlorooctadecane	123 %	52.1-176								

Sample ID: SP #1 @ 24" (H403488-06)

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	11/14/2014	ND	416	104	400	0.00		
TPH 8015M			mg/kg							
			Analyzed By: ms							
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10	<10.0	10.0	11/13/2014	ND	199	99.4	200	2.34		
DRO >C10-C28	<10.0	10.0	11/13/2014	ND	210	105	200	1.53		
EXT DRO >C28-C35	<10.0	10.0	11/13/2014	ND						
Surrogate: 1-Chlorooctane	114 %	47.2-157								
Surrogate: 1-Chlorooctadecane	125 %	52.1-176								

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Basin Environmental Service
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Received: 11/13/2014
Reported: 11/14/2014
Project Name: BEU DI #9
Project Number: NONE GIVEN
Project Location: EDDY COUNTY, NM

Sampling Date: 11/12/2014
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Celey D. Keene

Sample ID: SP #1 @ 30" (H403488-07)

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	11/14/2014	ND	416	104	400	0.00		
TPH 8015M			mg/kg							
			Analyzed By: ms							
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10	<10.0	10.0	11/13/2014	ND	199	99.4	200	2.34		
DRO >C10-C28	<10.0	10.0	11/13/2014	ND	210	105	200	1.53		
EXT DRO >C28-C35	<10.0	10.0	11/13/2014	ND						
<i>Surrogate: 1-Chlorooctane</i>										
	111 %	47.2-157								
<i>Surrogate: 1-Chlorooctadecane</i>										
	123 %	52.1-176								

Sample ID: SP #1 @ 36" (H403488-08)

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	11/14/2014	ND	416	104	400	0.00		
TPH 8015M			mg/kg							
			Analyzed By: ms							
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10	<10.0	10.0	11/13/2014	ND	199	99.4	200	2.34		
DRO >C10-C28	<10.0	10.0	11/13/2014	ND	210	105	200	1.53		
EXT DRO >C28-C35	<10.0	10.0	11/13/2014	ND						
<i>Surrogate: 1-Chlorooctane</i>										
	113 %	47.2-157								
<i>Surrogate: 1-Chlorooctadecane</i>										
	124 %	52.1-176								

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Received: 11/13/2014
Reported: 11/14/2014
Project Name: BEU DI #9
Project Number: NONE GIVEN
Project Location: EDDY COUNTY, NM

Sampling Date: 11/12/2014
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Celey D. Keene

Sample ID: SP #2 @ SURFACE (H403488-09)

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	3560	16.0	11/14/2014	ND	416	104	400	0.00		
TPH 8015M		mg/kg		Analyzed By: ms						S-06
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10	977	50.0	11/13/2014	ND	199	99.4	200	2.34		
DRO >C10-C28	21100	50.0	11/13/2014	ND	210	105	200	1.53		
EXT DRO >C28-C35	3510	50.0	11/13/2014	ND						
Surrogate: 1-Chlorooctane	245 %	47.2-157								
Surrogate: 1-Chlorooctadecane	675 %	52.1-176								

Sample ID: SP #2 @ 6" (H403488-10)

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	11/14/2014	ND	416	104	400	0.00	
TPH 8015M		mg/kg		Analyzed By: ms					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	293	10.0	11/13/2014	ND	199	99.4	200	2.34	
DRO >C10-C28	1060	10.0	11/13/2014	ND	210	105	200	1.53	
EXT DRO >C28-C35	139	10.0	11/13/2014	ND					
Surrogate: 1-Chlorooctane									
	137 %	47.2-157							
Surrogate: 1-Chlorooctadecane									
	139 %	52.1-176							

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Analytical Results For:

 Basin Environmental Service
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 Fax To: (575) 396-1429

 Received: 11/13/2014
 Reported: 11/14/2014
 Project Name: BEU DI #9
 Project Number: NONE GIVEN
 Project Location: EDDY COUNTY, NM

 Sampling Date: 11/12/2014
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Celey D. Keene

Sample ID: SP #2 @ 12" (H403488-11)

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	11/14/2014	ND	416	104	400	0.00	
TPH 8015M		mg/kg		Analyzed By: ms					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	11/13/2014	ND	199	99.4	200	2.34	
DRO >C10-C28	<10.0	10.0	11/13/2014	ND	210	105	200	1.53	
EXT DRO >C28-C35	<10.0	10.0	11/13/2014	ND					
Surrogate: 1-Chlorooctane	120 %	47.2-157							
Surrogate: 1-Chlorooctadecane	133 %	52.1-176							

Sample ID: SP #2 @ 18" (H403488-12)

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	11/14/2014	ND	416	104	400	0.00	
TPH 8015M		mg/kg		Analyzed By: ms					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	11/13/2014	ND	199	99.4	200	2.34	
DRO >C10-C28	<10.0	10.0	11/13/2014	ND	210	105	200	1.53	
EXT DRO >C28-C35	<10.0	10.0	11/13/2014	ND					
Surrogate: 1-Chlorooctane	115 %	47.2-157							
Surrogate: 1-Chlorooctadecane	125 %	52.1-176							

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Analytical Results For:

Basin Environmental Service
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Fax To: (575) 396-1429

Received: 11/13/2014
Reported: 11/14/2014
Project Name: BEU DI #9
Project Number: NONE GIVEN
Project Location: EDDY COUNTY, NM

Sampling Date: 11/12/2014
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Celey D. Keene

Sample ID: SP #2 @ 24" (H403488-13)

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	11/14/2014	ND	416	104	400	0.00	
TPH 8015M		mg/kg		Analyzed By: ms					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	11/13/2014	ND	199	99.4	200	2.34	
DRO >C10-C28	<10.0	10.0	11/13/2014	ND	210	105	200	1.53	
EXT DRO >C28-C35	<10.0	10.0	11/13/2014	ND					
Surrogate: 1-Chlorooctane	115 %	47.2-157							
Surrogate: 1-Chlorooctadecane	126 %	52.1-176							

Sample ID: SP #2 @ 30" (H403488-14)

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	11/14/2014	ND	416	104	400	0.00	
TPH 8015M		mg/kg		Analyzed By: ms					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	11/13/2014	ND	199	99.4	200	2.34	
DRO >C10-C28	<10.0	10.0	11/13/2014	ND	210	105	200	1.53	
EXT DRO >C28-C35	<10.0	10.0	11/13/2014	ND					
Surrogate: 1-Chlorooctane	112 %	47.2-157							
Surrogate: 1-Chlorooctadecane	124 %	52.1-176							

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Basin Environmental Service
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Fax To: (575) 396-1429

Received: 11/13/2014
Reported: 11/14/2014
Project Name: BEU DI #9
Project Number: NONE GIVEN
Project Location: EDDY COUNTY, NM

Sampling Date: 11/12/2014
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Celey D. Keene

Sample ID: SP #3 @ SURFACE (H403488-15)

Chloride, SM4500CI-B		mg/kg		Analyzed By: AP						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	1090	16.0	11/14/2014	ND	416	104	400	0.00		
TPH 8015M		mg/kg		Analyzed By: ms						S-06
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10	2600	50.0	11/13/2014	ND	199	99.4	200	2.34		
DRO >C10-C28	29000	50.0	11/13/2014	ND	210	105	200	1.53		
EXT DRO >C28-C35	4310	50.0	11/13/2014	ND						
Surrogate: 1-Chlorooctane	278 %	47.2-157								
Surrogate: 1-Chlorooctadecane	826 %	52.1-176								

Sample ID: SP #3 @ 6" (H403488-16)

Chloride, SM4500CI-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	784	16.0	11/14/2014	ND	416	104	400	0.00	
TPH 8015M		mg/kg		Analyzed By: ms					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	25.4	10.0	11/14/2014	ND	186	92.8	200	0.855	
DRO >C10-C28	311	10.0	11/14/2014	ND	188	94.1	200	1.14	
EXT DRO >C28-C35	36.2	10.0	11/14/2014	ND					
Surrogate: 1-Chlorooctane	113 %	47.2-157							
Surrogate: 1-Chlorooctadecane	119 %	52.1-176							

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Received: 11/13/2014
Reported: 11/14/2014
Project Name: BEU DI #9
Project Number: NONE GIVEN
Project Location: EDDY COUNTY, NM

Sampling Date: 11/12/2014
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Celey D. Keene

Sample ID: SP #3 @ 12" (H403488-17)

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	80.0	16.0	11/14/2014	ND	416	104	400	0.00	
TPH 8015M		mg/kg		Analyzed By: ms					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	11/14/2014	ND	186	92.8	200	0.855	
DRO >C10-C28	44.2	10.0	11/14/2014	ND	188	94.1	200	1.14	
EXT DRO >C28-C35	<10.0	10.0	11/14/2014	ND					
Surrogate: 1-Chlorooctane	112 %	47.2-157							
Surrogate: 1-Chlorooctadecane	123 %	52.1-176							

Sample ID: SP #3 @ 18" (H403488-18)

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	11/14/2014	ND	416	104	400	0.00	
TPH 8015M		mg/kg		Analyzed By: ms					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	11/14/2014	ND	186	92.8	200	0.855	
DRO >C10-C28	<10.0	10.0	11/14/2014	ND	188	94.1	200	1.14	
EXT DRO >C28-C35	<10.0	10.0	11/14/2014	ND					
Surrogate: 1-Chlorooctane		112 %	47.2-157						
Surrogate: 1-Chlorooctadecane		119 %	52.1-176						

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Received: 11/13/2014
Reported: 11/14/2014
Project Name: BEU DI #9
Project Number: NONE GIVEN
Project Location: EDDY COUNTY, NM

Sampling Date: 11/12/2014
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Celey D. Keene

Sample ID: SP #3 @ 24" (H403488-19)

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	11/14/2014	ND	416	104	400	0.00	
TPH 8015M		mg/kg		Analyzed By: ms					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	11/14/2014	ND	186	92.8	200	0.855	
DRO >C10-C28	<10.0	10.0	11/14/2014	ND	188	94.1	200	1.14	
EXT DRO >C28-C35	<10.0	10.0	11/14/2014	ND					
Surrogate: 1-Chlorooctane	108 %	47.2-157							
Surrogate: 1-Chlorooctadecane	119 %	52.1-176							

Sample ID: SP #3 @ 30" (H403488-20)

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	11/14/2014	ND	400	100	400	3.92	
TPH 8015M		mg/kg		Analyzed By: ms					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	11/14/2014	ND	186	92.8	200	0.855	
DRO >C10-C28	<10.0	10.0	11/14/2014	ND	188	94.1	200	1.14	
EXT DRO >C28-C35	<10.0	10.0	11/14/2014	ND					
Surrogate: 1-Chlorooctane	113 %	47.2-157							
Surrogate: 1-Chlorooctadecane	124 %	52.1-176							

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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: 11/13/2014
Reported: 11/14/2014
Project Name: BEU DI #9
Project Number: NONE GIVEN
Project Location: EDDY COUNTY, NM

Sampling Date: 11/12/2014
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Celey D. Keene

Sample ID: SP #3 @ 36" (H403488-21)

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	11/14/2014	ND	400	100	400	3.92		
TPH 8015M			mg/kg							
			Analyzed By: ms							
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10	<10.0	10.0	11/14/2014	ND	186	92.8	200	0.855		
DRO >C10-C28	<10.0	10.0	11/14/2014	ND	188	94.1	200	1.14		
EXT DRO >C28-C35	<10.0	10.0	11/14/2014	ND						
Surrogate: 1-Chlorooctane	112 %	47.2-157								
Surrogate: 1-Chlorooctadecane	124 %	52.1-176								

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Celey D. Keene, Lab Director/Quality Manager

Notes and Definitions

S-06	The recovery of this surrogate is outside control limits due to sample dilution required from high analyte concentration and/or matrix interference's.
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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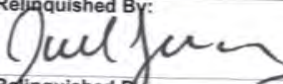
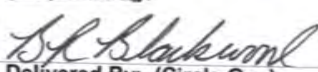
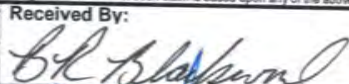



Celey D. Keene, Lab Director/Quality Manager



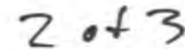
(575) 393-2326 FAX (575) 393-2476

1043

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 Project Location: Eddy Co., NM Sampler Name: _____				BILL TO				ANALYSIS REQUEST																															
				P.O. #: _____ Company: BOPCO, LP Attn: Tony Savoie Address: _____ City: _____ State: NM Zip: _____ Phone #: _____ Fax #: _____				Chloride TPH (8015M) BTEX (8021B) HOLD FOR TPH																															
FOR LAB USE ONLY				(G)RAB OR (C)OMP.		# CONTAINERS		MATRIX				PRESERV.		SAMPLING																									
Lab I.D.		Sample I.D.		GROUNDWATER		WASTEWATER		SOIL		OIL		SLUDGE		OTHER :		ACID/BASE:		ICE / COOL		OTHER :		DATE		TIME															
H403488																																							
01		SP #1 @ Surf.		g 1				x								x						11/12/14		900		x x													
02		SP #1 @ 6"		g 1				x								x						11/12/14		910		x x													
03		SP #1 @ 9"		g 1				x								x						11/12/14		920		x x													
04		SP #1 @ 12"		g 1				x								x						11/12/14		930		x x													
05		SP #1 @ 18"		g 1				x								x						11/12/14		940		x x													
06		SP #1 @ 24"		g 1				x								x						11/12/14		950		x x													
07		SP #1 @ 30"		g 1				x								x						11/12/14		1000		x x													
08		SP #1 @ 36"		g 1				x								x						11/12/14		1010		x x													
09		SP #2 @ Surf.		g 1				x								x						11/12/14		1020		x x													
10		SP #2 @ 6"		g 1				x								x						11/12/14		1030		x x													
<small>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.</small>																																							
Relinquished By:  Date: 11-13-14 Time: 10:00 Relinquished By:  Delivered By: (Circle One) Sampler - UPS - Bus - Other:				Received By:  Date: 11-13-14 Time: 11:15 Received By:  Sample Condition Cool <input checked="" type="checkbox"/> Intact <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> No <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> No <input type="checkbox"/>				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: _____ <div style="text-align: right;"> Run Highest TPH for BTEX Please email results to pm@basinenv.com, TASavoie@BassPet.com, acruith@basspet.com </div>																															

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

#54



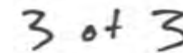
CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

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#54

November 21, 2014

JOEL LOWRY

Basin Environmental Service

P.O. Box 301

Lovington, NM 88260

RE: BEU DI #9

Enclosed are the results of analyses for samples received by the laboratory on 11/19/14 10:05.

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 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: 11/19/2014
Reported: 11/21/2014
Project Name: BEU DI #9
Project Number: NONE GIVEN
Project Location: EDDY COUNTY, NM

Sampling Date: 11/14/2014
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Jodi Henson

Sample ID: SP #4 @ SURFACE (H403555-01)

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	7280	16.0	11/20/2014	ND	416	104	400	3.92	

Sample ID: SP #4 @ 1' (H403555-02)

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	560	16.0	11/20/2014	ND	416	104	400	3.92	
TPH 8015M		mg/kg		Analyzed By: ms					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	11/20/2014	ND	182	90.8	200	3.28	
DRO >C10-C28	<10.0	10.0	11/20/2014	ND	182	90.8	200	3.21	
EXT DRO >C28-C35	<10.0	10.0	11/20/2014	ND					

Surrogate: 1-Chlorooctane 127 % 47.2-157

Surrogate: 1-Chlorooctadecane 142 % 52.1-176

Sample ID: SP #4 @ 2' (H403555-03)

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	432	16.0	11/20/2014	ND	416	104	400	3.92	

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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: 11/19/2014
Reported: 11/21/2014
Project Name: BEU DI #9
Project Number: NONE GIVEN
Project Location: EDDY COUNTY, NM

Sampling Date: 11/14/2014
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Jodi Henson

Sample ID: SP #5 @ 1' (H403555-04)

Chloride, SM4500CI-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	800	16.0	11/20/2014	ND	416	104	400	3.92	
TPH 8015M		mg/kg		Analyzed By: ms					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	11/20/2014	ND	182	90.8	200	3.28	
DRO >C10-C28	<10.0	10.0	11/20/2014	ND	182	90.8	200	3.21	
EXT DRO >C28-C35	<10.0	10.0	11/20/2014	ND					
Surrogate: 1-Chlorooctane	119 %	47.2-157							
Surrogate: 1-Chlorooctadecane	132 %	52.1-176							

Sample ID: SP #5 @ 2' (H403555-05)

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	1260	16.0	11/20/2014	ND	416	104	400	3.92		

Sample ID: SP #5 @ 3' (H403555-06)

Chloride, SM4500CI-B		mg/kg		Analyzed By: AP						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	160	16.0	11/20/2014	ND	416	104	400	3.92		

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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: 11/19/2014
Reported: 11/21/2014
Project Name: BEU DI #9
Project Number: NONE GIVEN
Project Location: EDDY COUNTY, NM

Sampling Date: 11/14/2014
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Jodi Henson

Sample ID: SP #6 @ SURFACE (H403555-07)

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	12900	16.0	11/20/2014	ND	416	104	400	3.92	

Sample ID: SP #6 @ 1' (H403555-08)

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	272	16.0	11/20/2014	ND	416	104	400	3.92	

TPH 8015M		mg/kg		Analyzed By: ms					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	11/20/2014	ND	182	90.8	200	3.28	
DRO >C10-C28	<10.0	10.0	11/20/2014	ND	182	90.8	200	3.21	
EXT DRO >C28-C35	<10.0	10.0	11/20/2014	ND					

Surrogate: 1-Chlorooctane 129 % 47.2-157

Surrogate: 1-Chlorooctadecane 139 % 52.1-176

Sample ID: SP #6 @ 2' (H403555-09)

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	11/20/2014	ND	416	104	400	3.92	

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Celey D. Keene, Lab Director/Quality Manager

Notes and Definitions

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

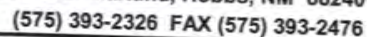
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Celey D. Keene, Lab Director/Quality Manager



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#54



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

January 27, 2015

JOEL LOWRY

Basin Environmental Service

P.O. Box 301

Lovington, NM 88260

RE: BEU DI-9 HEATER SPILL

Enclosed are the results of analyses for samples received by the laboratory on 01/23/15 14:05.

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 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:	01/23/2015	Sampling Date:	01/21/2015
Reported:	01/27/2015	Sampling Type:	Soil
Project Name:	BEU DI-9 HEATER SPILL	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Celey D. Keene
Project Location:	EDDY COUNTY, NM		

Sample ID: WW-1 PASTURE (H500231-01)

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	01/26/2015	ND	400	100	400	3.92	

Sample ID: WW-2 PASTURE (H500231-02)

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	<16.0	16.0	01/26/2015	ND	400	100	400	3.92	

Sample ID: WW-3 PASTURE (H500231-03)

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	01/26/2015	ND	400	100	400	3.92	

Sample ID: WW-4 PASTURE (H500231-04)

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	176	16.0	01/26/2015	ND	400	100	400	3.92	

Cardinal Laboratories

*=Accredited Analyte

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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:	01/23/2015	Sampling Date:	01/21/2015
Reported:	01/27/2015	Sampling Type:	Soil
Project Name:	BEU DI-9 HEATER SPILL	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Celey D. Keene
Project Location:	EDDY COUNTY, NM		

Sample ID: EW-1 PASTURE (H500231-05)

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	01/26/2015	ND	400	100	400	3.92		

Sample ID: EW-2 PASTURE (H500231-06)

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	64.0	16.0	01/26/2015	ND	400	100	400	3.92	

Sample ID: EW-3 PASTURE (H500231-07)

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	01/26/2015	ND	400	100	400	3.92	

Sample ID: EW-4 PASTURE (H500231-08)

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	176	16.0	01/26/2015	ND	400	100	400	3.92	

Sample ID: NW-1 PASTURE (H500231-09)

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	01/26/2015	ND	400	100	400	3.92	

Cardinal Laboratories

*=Accredited Analyte

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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:	01/23/2015	Sampling Date:	01/21/2015
Reported:	01/27/2015	Sampling Type:	Soil
Project Name:	BEU DI-9 HEATER SPILL	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Celey D. Keene
Project Location:	EDDY COUNTY, NM		

Sample ID: SW-1 PASTURE (H500231-10)

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	01/26/2015	ND	400	100	400	3.92		

Sample ID: FLOOR 1 PASTURE (H500231-11)

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	01/26/2015	ND	400	100	400	3.92		

Sample ID: FLOOR 2 PASTURE (H500231-12)

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	01/26/2015	ND	400	100	400	3.92		

Sample ID: FLOOR 3 PASTURE (H500231-13)

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	01/26/2015	ND	400	100	400	3.92	

Sample ID: FLOOR 4 PASTURE (H500231-14)

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	64.0	16.0	01/26/2015	ND	400	100	400	3.92	

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Celey D. Keene, Lab Director/Quality Manager

Notes and Definitions

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

Cardinal Laboratories

*=Accredited Analyte

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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

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Page 6 of 7

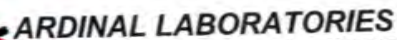
Company Name:		BILL TO		ANALYSIS REQUEST																		
Project Manager: Joel Lowry		P.O. #:		Chloride	TPH (8015M)	BTEX (8021B)	HOLD FOR TPH															
Address: P.O. Box 301		Company: BOPCO, LP																				
City: Lovington State: NM Zip: 88260		Attn: Tony Savoie																				
Phone #: (575)396-2378 Fax #: (575)396-1429		Address:																				
Project #: Project Owner:		City:																				
Project Name: BEU DI-9 Heater Spill		State: NM Zip:																				
Project Location: Eddy Co., NM		Phone #:																				
Sampler Name: Matt Taylor		Fax #:																				
Lab I.D.	Sample I.D.	(GRAB OR C)OMP.	# CONTAINERS										MATRIX	PRESERV.	SAMPLING	DATE	TIME					
													GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER	ACID/BASE	ICE / COOL	OTHER	
H500231-																						
01	WW-1 [Pasture]	g	1												x				x			1/21/15
02	WW-2 [Pasture]	g	1			x				x			1/21/15									
03	WW-3 [Pasture]	g	1			x				x			1/21/15									
04	WW-4 [Pasture]	g	1			x				x			1/21/15									
05	EW-1 [Pasture]	g	1			x				x			1/21/15									
06	EW-2 [Pasture]	g	1			x				x			1/21/15									
07	EW-3 [Pasture]	g	1			x				x			1/21/15									
08	EW-4 [Pasture]	g	1			x				x			1/21/15									
09	NW-1 [Pasture]	g	1			x				x			1/21/15									
10	SW-1-NW-2 [Pasture]	g	1			x				x			1/21/15									

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Relinquished By:	Date: 1/23/15	Received By:	Phone Result: <input type="checkbox"/> Yes <input type="checkbox"/> No	Add'l Phone #:
Relinquished By:	Time: 1310	Received By:	Fax Result: <input type="checkbox"/> Yes <input type="checkbox"/> No	Add'l Fax #:
Relinquished By:	Date: 1/23/15	Received By:	REMARKS:	
Relinquished By:	Time: 1405	Received By:	Please email results to pm@basinenv.com, TAsavoie@BassPet.com, acruth@basspet.com	
Delivered By: (Circle One)	Sample Condition	CHECKED BY:		
Sampler - UPS - Bus - Other:	Cool Intact	(Initials)		
	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No			
	<input type="checkbox"/> Yes <input type="checkbox"/> No			

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

#54



CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

Page 7 of 7

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Relinquished By: <i>Paul Savoy</i>		Date: <i>1/23/15</i>	Received By: <i>[Signature]</i>	Phone Result: <input type="checkbox"/> Yes <input type="checkbox"/> No	Add'l Phone #:
Time: <i>1310</i>				Fax Result: <input type="checkbox"/> Yes <input type="checkbox"/> No	Add'l Fax #:
Relinquished By: <i>[Signature]</i>		Date: <i>1/23/15</i>	Received By: <i>[Signature]</i>	REMARKS:	
Time: <i>1405</i>				Please email results to pm@basinenv.com, TASavoie@BassPet.com, acruth@basspet.com	
Delivered By: (Circle One)		Sample Condition	CHECKED BY:		
Sampler - UPS - Bus - Other:		Cool Intact	(Initials)		
<i>-6.6°C</i>		<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<i>ash</i>		
		<input type="checkbox"/> No <input type="checkbox"/> No			

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

#54

January 28, 2015

JOEL LOWRY

Basin Environmental Service

P.O. Box 301

Lovington, NM 88260

RE: BEU DI-9 HEATER SPILL

Enclosed are the results of analyses for samples received by the laboratory on 01/23/15 14:05.

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 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:	01/23/2015	Sampling Date:	01/22/2015
Reported:	01/28/2015	Sampling Type:	Soil
Project Name:	BEU DI-9 HEATER SPILL	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Celey D. Keene
Project Location:	EDDY COUNTY, NM		

Sample ID: NW #1 PAD (H500232-01)

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	01/26/2015	ND	400	100	400	3.92	

Sample ID: EW #1 PAD (H500232-02)

Chloride, SM4500CI-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	01/26/2015	ND	400	100	400	3.92	

Sample ID: SW #1 PAD (H500232-03)

Chloride, SM4500CI-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	80.0	16.0	01/26/2015	ND	400	100	400	3.92	

Sample ID: WW #1 PAD (H500232-04)

Chloride, SM4500CI-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	80.0	16.0	01/26/2015	ND	400	100	400	3.92	

Cardinal Laboratories

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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:	01/23/2015	Sampling Date:	01/22/2015
Reported:	01/28/2015	Sampling Type:	Soil
Project Name:	BEU DI-9 HEATER SPILL	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Celey D. Keene
Project Location:	EDDY COUNTY, NM		

Sample ID: FLOOR @ 1' PAD (H500232-05)

BTEx 8021B		mg/kg		Analyzed By: ms						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	01/27/2015	ND	1.71	85.4	2.00	7.10		
Toluene*	<0.050	0.050	01/27/2015	ND	1.66	82.8	2.00	6.42		
Ethylbenzene*	<0.050	0.050	01/27/2015	ND	1.58	78.9	2.00	8.23		
Total Xylenes*	<0.150	0.150	01/27/2015	ND	4.75	79.2	6.00	8.71		
Total BTEX	<0.300	0.300	01/27/2015	ND						

Surrogate: 4-Bromofluorobenzene (PID) 101 % 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	112	16.0	01/26/2015	ND	400	100	400	3.92	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	01/26/2015	ND	192	96.1	200	1.01	
DRO >C10-C28	<10.0	10.0	01/26/2015	ND	192	96.2	200	3.37	
EXT DRO >C28-C35	<10.0	10.0	01/26/2015	ND					

Surrogate: 1-Chlorooctane 107 % 47.2-157

Surrogate: 1-Chlorooctadecane 112 % 52.1-176

Cardinal Laboratories

*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager

Notes and Definitions

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

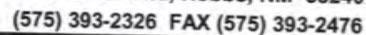
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Celey D. Keene, Lab Director/Quality Manager



10f1

February 20, 2015

JOEL LOWRY

Basin Environmental Service

P.O. Box 301

Lovington, NM 88260

RE: BEU DI 9 #34 WATER LEG

Enclosed are the results of analyses for samples received by the laboratory on 02/16/15 9:15.

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: 02/16/2015
Reported: 02/20/2015
Project Name: BEU DI 9 #34 WATER LEG
Project Number: NOT GIVEN
Project Location: EDDY COUNTY, NM

Sampling Date: 02/13/2015
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Jodi Henson

Sample ID: FLOOR #1A (H500446-01)

BTX 8021B		mg/kg		Analyzed By: ms					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	02/20/2015	ND	1.76	87.9	2.00	14.0	
Toluene*	<0.050	0.050	02/20/2015	ND	1.77	88.3	2.00	14.6	
Ethylbenzene*	<0.050	0.050	02/20/2015	ND	1.77	88.6	2.00	14.2	
Total Xylenes*	<0.150	0.150	02/20/2015	ND	5.20	86.7	6.00	14.8	
Total BTX	<0.300	0.300	02/20/2015	ND					

Surrogate: 4-Bromofluorobenzene (PID) 105 % 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	496	16.0	02/17/2015	ND	416	104	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	02/18/2015	ND	208	104	200	0.438	
DRO >C10-C28	40.4	10.0	02/18/2015	ND	196	98.0	200	0.534	
EXT DRO >C28-C35	11.9	10.0	02/18/2015	ND					

Surrogate: 1-Chlorooctane 92.1 % 47.2-157

Surrogate: 1-Chlorooctadecane 99.1 % 52.1-176

Cardinal Laboratories

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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: 02/16/2015
 Reported: 02/20/2015
 Project Name: BEU DI 9 #34 WATER LEG
 Project Number: NOT GIVEN
 Project Location: EDDY COUNTY, NM

 Sampling Date: 02/13/2015
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Jodi Henson

Sample ID: FLOOR #2B (H500446-02)

BTEx 8021B		mg/kg		Analyzed By: ms					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	10.3	5.00	02/20/2015	ND	1.79	89.6	2.00	10.4	
Toluene*	103	5.00	02/20/2015	ND	1.79	89.3	2.00	12.4	
Ethylbenzene*	18.0	5.00	02/20/2015	ND	1.80	89.9	2.00	12.6	
Total Xylenes*	181	15.0	02/20/2015	ND	5.32	88.7	6.00	13.2	
Total BTEX	313	30.0	02/20/2015	ND					

Surrogate: 4-Bromofluorobenzene (PID) 112 % 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	240	16.0	02/17/2015	ND	416	104	400	0.00	
TPH 8015M	mg/kg		Analyzed By: MS						S-06

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	4930	50.0	02/18/2015	ND	208	104	200	0.438	
DRO >C10-C28	14400	50.0	02/18/2015	ND	196	98.0	200	0.534	
EXT DRO >C28-C35	2010	50.0	02/18/2015	ND					

Surrogate: 1-Chlorooctane 178 % 47.2-157

Surrogate: 1-Chlorooctadecane 246 % 52.1-176

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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: 02/16/2015
Reported: 02/20/2015
Project Name: BEU DI 9 #34 WATER LEG
Project Number: NOT GIVEN
Project Location: EDDY COUNTY, NM

Sampling Date: 02/13/2015
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Jodi Henson

Sample ID: FLOOR #2C (H500446-03)

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	02/20/2015	ND	1.79	89.6	2.00	10.4	
Toluene*	0.161	0.050	02/20/2015	ND	1.79	89.3	2.00	12.4	
Ethylbenzene*	<0.050	0.050	02/20/2015	ND	1.80	89.9	2.00	12.6	
Total Xylenes*	<0.150	0.150	02/20/2015	ND	5.32	88.7	6.00	13.2	
Total BTEX	<0.300	0.300	02/20/2015	ND					

Surrogate: 4-Bromofluorobenzene (PID) 108 % 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	32.0	16.0	02/17/2015	ND	416	104	400	0.00	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	11.4	10.0	02/18/2015	ND	208	104	200	0.438	
DRO >C10-C28	22.1	10.0	02/18/2015	ND	196	98.0	200	0.534	
EXT DRO >C28-C35	<10.0	10.0	02/18/2015	ND					

Surrogate: 1-Chlorooctane 90.4 % 47.2-157

Surrogate: 1-Chlorooctadecane 90.2 % 52.1-176

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

Received: 02/16/2015
Reported: 02/20/2015
Project Name: BEU DI 9 #34 WATER LEG
Project Number: NOT GIVEN
Project Location: EDDY COUNTY, NM

Sampling Date: 02/13/2015
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Jodi Henson

Sample ID: SP #1 @ 6" (H500446-04)

BTX 8021B		mg/kg		Analyzed By: ms					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	02/20/2015	ND	1.79	89.6	2.00	10.4	
Toluene*	0.059	0.050	02/20/2015	ND	1.79	89.3	2.00	12.4	
Ethylbenzene*	<0.050	0.050	02/20/2015	ND	1.80	89.9	2.00	12.6	
Total Xylenes*	<0.150	0.150	02/20/2015	ND	5.32	88.7	6.00	13.2	
Total BTX	<0.300	0.300	02/20/2015	ND					

Surrogate: 4-Bromofluorobenzene (PID) 111 % 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	64.0	16.0	02/17/2015	ND	416	104	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	02/18/2015	ND	208	104	200	0.438	
DRO >C10-C28	<10.0	10.0	02/18/2015	ND	196	98.0	200	0.534	
EXT DRO >C28-C35	<10.0	10.0	02/18/2015	ND					

Surrogate: 1-Chlorooctane 95.3 % 47.2-157

Surrogate: 1-Chlorooctadecane 91.7 % 52.1-176

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Analytical Results For:

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

 Received: 02/16/2015
 Reported: 02/20/2015
 Project Name: BEU DI 9 #34 WATER LEG
 Project Number: NOT GIVEN
 Project Location: EDDY COUNTY, NM

 Sampling Date: 02/13/2015
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Jodi Henson

Sample ID: SP #2 @ 6" (H500446-05)

BTEx 8021B		mg/kg		Analyzed By: ms					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	8.62	2.00	02/20/2015	ND	1.79	89.6	2.00	10.4	
Toluene*	85.8	2.00	02/20/2015	ND	1.79	89.3	2.00	12.4	
Ethylbenzene*	26.6	2.00	02/20/2015	ND	1.80	89.9	2.00	12.6	
Total Xylenes*	125	6.00	02/20/2015	ND	5.32	88.7	6.00	13.2	
Total BTEX	246	12.0	02/20/2015	ND					

Surrogate: 4-Bromofluorobenzene (PID) 116 % 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	576	16.0	02/17/2015	ND	416	104	400	0.00	
TPH 8015M		mg/kg		Analyzed By: MS					
				S-06					

S-06

Surrogate: 1-Chlorooctane 216 % 47.2-157

Surrogate: 1-Chlorooctadecane 185 % 52.1-176

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

Received: 02/16/2015
Reported: 02/20/2015
Project Name: BEU DI 9 #34 WATER LEG
Project Number: NOT GIVEN
Project Location: EDDY COUNTY, NM

Sampling Date: 02/13/2015
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Jodi Henson

Sample ID: SP #3 @ 8' (H500446-06)

BTX 8021B		mg/kg		Analyzed By: ms					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	0.263	0.050	02/20/2015	ND	1.79	89.6	2.00	10.4	
Toluene*	1.02	0.050	02/20/2015	ND	1.79	89.3	2.00	12.4	
Ethylbenzene*	0.135	0.050	02/20/2015	ND	1.80	89.9	2.00	12.6	
Total Xylenes*	0.549	0.150	02/20/2015	ND	5.32	88.7	6.00	13.2	
Total BTX	1.97	0.300	02/20/2015	ND					

Surrogate: 4-Bromofluorobenzene (PID) 104 % 61-154

Chloride, SM4500CI-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	416	16.0	02/17/2015	ND	416	104	400	0.00	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	16.1	10.0	02/18/2015	ND	208	104	200	0.438	
DRO >C10-C28	26.7	10.0	02/18/2015	ND	196	98.0	200	0.534	
EXT DRO >C28-C35	<10.0	10.0	02/18/2015	ND					

Surrogate: 1-Chlorooctane 93.9 % 47.2-157

Surrogate: 1-Chlorooctadecane 98.6 % 52.1-176

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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: 02/16/2015
Reported: 02/20/2015
Project Name: BEU DI 9 #34 WATER LEG
Project Number: NOT GIVEN
Project Location: EDDY COUNTY, NM

Sampling Date: 02/13/2015
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Jodi Henson

Sample ID: SP #3 @ 9' (H500446-07)

BTX 8021B		mg/kg		Analyzed By: ms					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	02/20/2015	ND	1.79	89.6	2.00	10.4	
Toluene*	0.231	0.050	02/20/2015	ND	1.79	89.3	2.00	12.4	
Ethylbenzene*	0.076	0.050	02/20/2015	ND	1.80	89.9	2.00	12.6	
Total Xylenes*	0.451	0.150	02/20/2015	ND	5.32	88.7	6.00	13.2	
Total BTX	0.758	0.300	02/20/2015	ND					

Surrogate: 4-Bromofluorobenzene (PID) 107 % 61-154

Chloride, SM4500CI-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	208	16.0	02/17/2015	ND	416	104	400	0.00	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	18.6	10.0	02/18/2015	ND	208	104	200	0.438	
DRO >C10-C28	194	10.0	02/18/2015	ND	196	98.0	200	0.534	
EXT DRO >C28-C35	33.7	10.0	02/18/2015	ND					

Surrogate: 1-Chlorooctane 96.9 % 47.2-157

Surrogate: 1-Chlorooctadecane 97.1 % 52.1-176

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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: 02/16/2015
Reported: 02/20/2015
Project Name: BEU DI 9 #34 WATER LEG
Project Number: NOT GIVEN
Project Location: EDDY COUNTY, NM

Sampling Date: 02/13/2015
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Jodi Henson

Sample ID: SP #3 @ 11' (H500446-08)

BTX 8021B		mg/kg		Analyzed By: ms						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	02/20/2015	ND	1.79	89.6	2.00	10.4		
Toluene*	<0.050	0.050	02/20/2015	ND	1.79	89.3	2.00	12.4		
Ethylbenzene*	<0.050	0.050	02/20/2015	ND	1.80	89.9	2.00	12.6		
Total Xylenes*	<0.150	0.150	02/20/2015	ND	5.32	88.7	6.00	13.2		
Total BTX	<0.300	0.300	02/20/2015	ND						

Surrogate: 4-Bromofluorobenzene (PID) 109 % 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	128	16.0	02/17/2015	ND	416	104	400	0.00	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	10.3	10.0	02/18/2015	ND	208	104	200	0.438	
DRO >C10-C28	111	10.0	02/18/2015	ND	196	98.0	200	0.534	
EXT DRO >C28-C35	17.9	10.0	02/18/2015	ND					

Surrogate: 1-Chlorooctane 91.3 % 47.2-157

Surrogate: 1-Chlorooctadecane 96.9 % 52.1-176

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

Received: 02/16/2015
Reported: 02/20/2015
Project Name: BEU DI 9 #34 WATER LEG
Project Number: NOT GIVEN
Project Location: EDDY COUNTY, NM

Sampling Date: 02/13/2015
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Jodi Henson

Sample ID: SP #4 @ 1.5' (H500446-09)

BTX 8021B		mg/kg		Analyzed By: ms					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	02/20/2015	ND	1.79	89.6	2.00	10.4	
Toluene*	0.052	0.050	02/20/2015	ND	1.79	89.3	2.00	12.4	
Ethylbenzene*	0.051	0.050	02/20/2015	ND	1.80	89.9	2.00	12.6	
Total Xylenes*	<0.150	0.150	02/20/2015	ND	5.32	88.7	6.00	13.2	
Total BTX	<0.300	0.300	02/20/2015	ND					

Surrogate: 4-Bromofluorobenzene (PID) 108 % 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	<16.0	16.0	02/17/2015	ND	416	104	400	0.00	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	02/18/2015	ND	208	104	200	0.438	
DRO >C10-C28	<10.0	10.0	02/18/2015	ND	196	98.0	200	0.534	
EXT DRO >C28-C35	<10.0	10.0	02/18/2015	ND					

Surrogate: 1-Chlorooctane 95.4 % 47.2-157

Surrogate: 1-Chlorooctadecane 95.0 % 52.1-176

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Analytical Results For:

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

 Received: 02/16/2015
 Reported: 02/20/2015
 Project Name: BEU DI 9 #34 WATER LEG
 Project Number: NOT GIVEN
 Project Location: EDDY COUNTY, NM

 Sampling Date: 02/13/2015
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Jodi Henson

Sample ID: SP #5 @ 4' (H500446-10)

BTEx 8021B		mg/kg		Analyzed By: ms					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	0.766	0.050	02/20/2015	ND	1.79	89.6	2.00	10.4	
Toluene*	6.53	0.050	02/20/2015	ND	1.79	89.3	2.00	12.4	
Ethylbenzene*	1.59	0.050	02/20/2015	ND	1.80	89.9	2.00	12.6	
Total Xylenes*	6.95	0.150	02/20/2015	ND	5.32	88.7	6.00	13.2	
Total BTEX	15.8	0.300	02/20/2015	ND					

Surrogate: 4-Bromofluorobenzene (PID) 122 % 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	112	16.0	02/17/2015	ND	416	104	400	0.00	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	121	10.0	02/18/2015	ND	208	104	200	0.438	
DRO >C10-C28	515	10.0	02/18/2015	ND	196	98.0	200	0.534	
EXT DRO >C28-C35	76.0	10.0	02/18/2015	ND					

Surrogate: 1-Chlorooctane 99.6 % 47.2-157

Surrogate: 1-Chlorooctadecane 97.1 % 52.1-176

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Celey D. Keene, Lab Director/Quality Manager

Notes and Definitions

- S-06 The recovery of this surrogate is outside control limits due to sample dilution required from high analyte concentration and/or matrix interference's.
- ND Analyte NOT DETECTED at or above the reporting limit
- RPD Relative Percent Difference
- ** Samples not received at proper temperature of 6°C or below.
- *** Insufficient time to reach temperature.
- Chloride by SM4500Cl-B does not require samples be received at or below 6°C
Samples reported on an as received basis (wet) unless otherwise noted on report

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Celey D. Keene, Lab Director/Quality Manager

[illegible]

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

#54



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

February 18, 2015

JOEL LOWRY

Basin Environmental Service

P.O. Box 301

Lovington, NM 88260

RE: BEU DI 9 #34 WATER LEG

Enclosed are the results of analyses for samples received by the laboratory on 02/17/15 12:10.

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: 02/17/2015
Reported: 02/18/2015
Project Name: BEU DI 9 #34 WATER LEG
Project Number: EDDY COUNTY, NM
Project Location: EDDY COUNTY, NM

Sampling Date: 02/16/2015
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Jodi Henson

Sample ID: SP #3 @ 12.5' (H500463-01)

BTX 8021B		mg/kg		Analyzed By: ms					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	02/18/2015	ND	1.65	82.7	2.00	11.1	
Toluene*	<0.050	0.050	02/18/2015	ND	1.59	79.4	2.00	11.5	
Ethylbenzene*	<0.050	0.050	02/18/2015	ND	1.51	75.3	2.00	11.7	
Total Xylenes*	<0.150	0.150	02/18/2015	ND	4.37	72.9	6.00	11.6	
Total BTX	<0.300	0.300	02/18/2015	ND					

Surrogate: 4-Bromofluorobenzene (PID) 75.8 % 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	112	16.0	02/17/2015	ND	416	104	400	0.00	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	11.0	10.0	02/17/2015	ND	207	104	200	1.45	
DRO >C10-C28	65.7	10.0	02/17/2015	ND	187	93.6	200	1.95	
EXT DRO >C28-C35	<10.0	10.0	02/17/2015	ND					

Surrogate: 1-Chlorooctane 92.3 % 47.2-157

Surrogate: 1-Chlorooctadecane 97.1 % 52.1-176

Cardinal Laboratories

*=Accredited Analyte

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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:	02/17/2015	Sampling Date:	02/16/2015
Reported:	02/18/2015	Sampling Type:	Soil
Project Name:	BEU DI 9 #34 WATER LEG	Sampling Condition:	Cool & Intact
Project Number:	EDDY COUNTY, NM	Sample Received By:	Jodi Henson
Project Location:	EDDY COUNTY, NM		

Sample ID: FLOOR #2B @ 2' (H500463-02)

BTEx 8021B		mg/kg		Analyzed By: ms						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	02/18/2015	ND	1.65	82.7	2.00	11.1		
Toluene*	<0.050	0.050	02/18/2015	ND	1.59	79.4	2.00	11.5		
Ethylbenzene*	<0.050	0.050	02/18/2015	ND	1.51	75.3	2.00	11.7		
Total Xylenes*	<0.150	0.150	02/18/2015	ND	4.37	72.9	6.00	11.6		
Total BTEX	<0.300	0.300	02/18/2015	ND						

Surrogate: 4-Bromofluorobenzene (PID) 76.1 % 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	32.0	16.0	02/17/2015	ND	416	104	400	0.00	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	02/17/2015	ND	207	104	200	1.45	
DRO >C10-C28	<10.0	10.0	02/17/2015	ND	187	93.6	200	1.95	
EXT DRO >C28-C35	<10.0	10.0	02/17/2015	ND					

Surrogate: 1-Chlorooctane 84.3 % 47.2-157

Surrogate: 1-Chlorooctadecane 91.9 % 52.1-176

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*=Accredited Analyte

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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:	02/17/2015	Sampling Date:	02/16/2015
Reported:	02/18/2015	Sampling Type:	Soil
Project Name:	BEU DI 9 #34 WATER LEG	Sampling Condition:	Cool & Intact
Project Number:	EDDY COUNTY, NM	Sample Received By:	Jodi Henson
Project Location:	EDDY COUNTY, NM		

Sample ID: FLOOR #3 @ 1' (H500463-03)

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	02/18/2015	ND	1.65	82.7	2.00	11.1		
Toluene*	<0.050	0.050	02/18/2015	ND	1.59	79.4	2.00	11.5		
Ethylbenzene*	<0.050	0.050	02/18/2015	ND	1.51	75.3	2.00	11.7		
Total Xylenes*	<0.150	0.150	02/18/2015	ND	4.37	72.9	6.00	11.6		
Total BTEX	<0.300	0.300	02/18/2015	ND						

Surrogate: 4-Bromofluorobenzene (PID) 77.0 % 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	<16.0	16.0	02/17/2015	ND	416	104	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	02/17/2015	ND	207	104	200	1.45	
DRO >C10-C28	<10.0	10.0	02/17/2015	ND	187	93.6	200	1.95	
EXT DRO >C28-C35	<10.0	10.0	02/17/2015	ND					

Surrogate: 1-Chlorooctane 90.4 % 47.2-157

Surrogate: 1-Chlorooctadecane 91.6 % 52.1-176

Cardinal Laboratories

*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager

Notes and Definitions

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

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Celey D. Keene, Lab Director/Quality Manager



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

Phone #: (575)396-2378

Project #:

Project Name: BEU DI 9 #34 Water Leg

Project Location: Eddy Co., NM

Sampler Name: Bill Wooly

State: NM Zip: 88260

Fax #: (575)396-1429

Project Owner:

BILL TO

P.O. #:

Company: BOPCO, LP

Attn: Tony Savoie

Address:

City:

State: NM Zip:

Phone #:

Fax #:

ANALYSIS REQUEST

FOR LAB USE ONLY

Lab I.D.

Sample I.D.

(GRAB OR C/COMP.
CONTAINERS

GROUNDWATER

WASTEWATER

SOIL

OIL

SLUDGE

OTHER :

ACID/BASE:

ICE / COOL

OTHER :

PRESERV.

SAMPLING

DATE

TIME

Chloride

TPH (8015M)

BTEX (8021B)

HOLD FOR TPH

SP #3 @ 12.5'
Floor #2b @ 2'
Floor #3 @ 1'

1
1
1

x
x
x

x
x
x

2/16/12
2/16/15
2/16/15

x x x
x x x
x x x

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Relinquished By:

Joel Lowry

Relinquished By:

Delivered By: (Circle One)

Sampler - UPS - Bus - Other:

Date: 2/17/15
Time: 12:10
Date:
Time:

Received By:

Joel Lowry

Received By:

Sample Condition
Cool Intact
☒ Yes ☒ Yes
☐ No ☐ No

CHECKED BY:
(Initials)

Phone Result: ☐ Yes ☐ No

Fax Result: ☐ Yes ☐ No

REMARKS:

Add'l Phone #:

Add'l Fax #:

RUSH!!

Please email results to pm@basinenv.com,
TASavoie@BassPet.com, acru@basspet.com

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

#54

February 25, 2015

BEN J. ARGUIJO

Basin Environmental Service

P.O. Box 301

Lovington, NM 88260

RE: BEU DI 9 FWKO

Enclosed are the results of analyses for samples received by the laboratory on 02/24/15 13:55.

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

Received: 02/24/2015
Reported: 02/25/2015
Project Name: BEU DI 9 FWKO
Project Number: NONE GIVEN
Project Location: BOPCO

Sampling Date: 02/24/2015
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Jodi Henson

Sample ID: SP #2 @ 2' BGS (H500520-01)

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	112	16.0	02/25/2015	ND	400	100	400	3.92	
TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	603	10.0	02/24/2015	ND	205	103	200	0.704	
DRO >C10-C28	2660	10.0	02/24/2015	ND	200	99.9	200	0.351	
EXT DRO >C28-C35	370	10.0	02/24/2015	ND					
Surrogate: 1-Chlorooctane	119 %	47.2-157							
Surrogate: 1-Chlorooctadecane	104 %	52.1-176							

Sample ID: SP #2 @ 4' BGS (H500520-02)

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	<16.0	16.0	02/25/2015	ND	400	100	400	3.92	
TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	02/24/2015	ND	205	103	200	0.704	
DRO >C10-C28	<10.0	10.0	02/24/2015	ND	200	99.9	200	0.351	
EXT DRO >C28-C35	<10.0	10.0	02/24/2015	ND					
Surrogate: 1-Chlorooctane	82.8 %	47.2-157							
Surrogate: 1-Chlorooctadecane	80.6 %	52.1-176							

Cardinal Laboratories

*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

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

 Received: 02/24/2015
 Reported: 02/25/2015
 Project Name: BEU DI 9 FWKO
 Project Number: NONE GIVEN
 Project Location: BOPCO

 Sampling Date: 02/24/2015
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Jodi Henson

Sample ID: SP #2 @ 6' BGS (H500520-03)

Chloride, SM4500Cl-B			mg/kg							
			Analyzed By: AP							
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	<16.0	16.0	02/25/2015	ND	400	100	400	3.92		
TPH 8015M			mg/kg							
			Analyzed By: MS							
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10	<10.0	10.0	02/24/2015	ND	205	103	200	0.704		
DRO >C10-C28	<10.0	10.0	02/24/2015	ND	200	99.9	200	0.351		
EXT DRO >C28-C35	<10.0	10.0	02/24/2015	ND						
Surrogate: 1-Chlorooctane	89.7 %	47.2-157								
Surrogate: 1-Chlorooctadecane	87.0 %	52.1-176								

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Celey D. Keene, Lab Director/Quality Manager

Notes and Definitions

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

Cardinal Laboratories

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Celey D. Keene, Lab Director/Quality Manager



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

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Relinquished By: _____ **Date:** _____ **Received By:** _____

Relinquished By: <i>Joe Walter</i>		Date: <i>2-24-15</i>		Received By: <i>Wendi Henson</i>		Phone Result: <input type="checkbox"/> Yes <input type="checkbox"/> No Add'l Phone #:	
		Time: <i>1:55</i>				Fax Result: <input type="checkbox"/> Yes <input type="checkbox"/> No Add'l Fax #:	
Relinquished By:		Date:		Received By:		REMARKS:	
		Time:					
Delivered By: (Circle One)				Sample Condition		CHECKED BY:	
Sampler - UPS - Bus - Other:				Cool <input checked="" type="checkbox"/> Intact <input checked="" type="checkbox"/>		(Initials)	
<i>5.8%</i>				<input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> Yes		<i>GH</i>	
				<input type="checkbox"/> No <input type="checkbox"/> No			

Please email results to pm@basinenv.com
& [TASavoie@BassPet.com](mailto:TA Savoie@BassPet.com)

† Cardinal cannot accept verbal changes. Please fax written changes to 505-393-2476

#54

February 27, 2015

BEN J. ARGUIJO

Basin Environmental Service

P.O. Box 301

Lovington, NM 88260

RE: BEU DI 9 FWKO

Enclosed are the results of analyses for samples received by the laboratory on 02/26/15 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 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
 BEN J. ARGUIJO
 P.O. Box 301
 Lovington NM, 88260
 Fax To: (575) 396-1429

 Received: 02/26/2015
 Reported: 02/27/2015
 Project Name: BEU DI 9 FWKO
 Project Number: NONE GIVEN
 Project Location: EDDY, NM

 Sampling Date: 02/26/2015
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Jodi Henson

Sample ID: STOCK PILE (H500560-01)

Chloride, SM4500Cl-B			mg/kg		Analyzed By: AP				
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	544	16.0	02/27/2015	ND	400	100	400	0.00	
TPH 8015M			mg/kg		Analyzed By: MS				
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	857	50.0	02/27/2015	ND	201	101	200	2.21	
DRO >C10-C28	4920	50.0	02/27/2015	ND	186	92.8	200	4.05	
EXT DRO >C28-C35	738	50.0	02/27/2015	ND					
Surrogate: 1-Chlorooctane	114 %	47.2-157							
Surrogate: 1-Chlorooctadecane	109 %	52.1-176							

Cardinal Laboratories

*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager

Notes and Definitions

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

Cardinal Laboratories

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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

Page 4 of 4

Company Name: Basin Environmental Service Technologies, LLC				BILL TO				ANALYSIS REQUEST																				
Project Manager: Ben Arguijo				P.O. #:				<div style="display: flex; justify-content: space-around;"> <div>Chloride</div> <div>TPH (8015M)</div> <div>BTEX (8021B)</div> </div>																				
Address: P.O. Box 301				Company: BOPCO,LP																								
City: Lovington State: NM Zip: 88260				Attn: Tony Savoie																								
Phone #: (575)396-2378 Fax #: (575)396-1429				Address: 522 W. Mermod																								
Project #: AFE 26056 Project Owner:				City: Carlsbad																								
Project Name: BEU DI 9 FWKO				State: NM Zip: 88220																								
Project Location: Eddy, N.M.				Phone #: (423)556-8730																								
Sampler Name: Bill Wooley				Fax #:																								
FOR LAB USE ONLY						MATRIX		PRESERV.		SAMPLING																		
Lab I.D.	Sample I.D.	(G)RAB OR (C)OMP.	# CONTAINERS	GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER :	ACID/BASE:	ICE / COOL	OTHER :	DATE	TIME														
H500560		C	1			X					X		2/26/2015	15:45	X	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:	Date: 2-26-15	Received By:	Phone Result: <input type="checkbox"/> Yes <input type="checkbox"/> No	Add'l Phone #:
<i>Bill Wooley</i>	Time: 16:00	<i>Bill Wooley</i>	Fax Result: <input type="checkbox"/> Yes <input type="checkbox"/> No	Add'l Fax #:
Relinquished By:	Date: 2-26-15	Received By:	REMARKS: RUST!!!	
<i>Bill Wooley</i>	Time: 16:20	<i>Jodi Benson</i>	Please email results to pm@basinenv.com & Tasavoie@BassPet.com	
Delivered By: (Circle One)		Sample Condition	CHECKED BY: (Initials)	
Sampler - UPS - Bus - Other:	2.6°C	Cool - Intact	JH	
		<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		
		<input type="checkbox"/> Yes <input type="checkbox"/> No		