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REMEDIATION SUMMARY & RISK-BASED SITE CLOSURE REQUEST

**BOPCO, LP
BASS 3 FEDERAL WELL #4 SPILL SITE "B"
Eddy County, New Mexico
Unit Letter "O" (SW/SE), Section 3, Township 22 South, Range 28 East
Latitude 32.417420° North, Longitude 104.072281° West
NMOCD Reference #2RP-981**

Prepared For:

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

Prepared By:

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August 2013

**Ben J. Arguijo
Project Manager**

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1.0 INTRODUCTION & BACKGROUND INFORMATION

Basin Environmental Service Technologies, LLC (Basin), on behalf of BOPCO, LP (BOPCO), has prepared this *Remediation Summary & Risk-Based Site Closure Request* for the release site known as Bass 3 Federal Well #4 Spill Site "B" (Bass 3 "B"). The legal description of the release site is Unit Letter "O" (SW/SE), Section 3, Township 22 South, Range 28 East, in Eddy County, New Mexico. The geographic coordinates of the release site are 32.417420° North latitude and 104.072281° West longitude. The property affected by the release is owned by The United States Department of the Interior - Bureau of Land Management (BLM). Please reference Figure 1 for a "Site Location Map".

On December 13, 2011, BOPCO discovered a release had occurred near the Bass 3 Federal #1 tank battery. A two and seven-eighths-inch (2 7/8") steel flow line delivering produced fluid from Bass 3 Federal Well #4 to the tank battery developed a leak, resulting in a release of produced water and crude oil. During initial response activities, the well was shut in, and a temporary clamp was installed to mitigate the release.

The release was reported to the New Mexico Oil Conservation Division (NMOCD) Artesia District Office. The "Release Notification and Corrective Action" (Form C-141) indicated approximately forty-five barrels (45 bbls) of produced water and approximately five barrels (5 bbls) of crude oil were released, with no recovery. The release affected an area of pasture land measuring approximately five thousand square feet (5,000 ft²).

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

In conjunction with remediation activities, the steel flow line was replaced with polyurethane pipe.

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 3, Township 22 South, Range 28 East. A depth to groundwater reference map utilized by the NMOCD indicates groundwater should be encountered at approximately one hundred and fifteen feet (115') to one hundred and twenty feet (120') below ground surface (bgs). Gauging data collected from an on-site monitor well indicates the depth to groundwater is approximately one hundred and nine feet (109') 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 Bass 3 B 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 & total 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. The NMOCD-approved chloride remediation level for the Bass 3 B site is 1,000 mg/kg. Field-screen results from soil samples collected during the advancement of soil boring SB-3 (discussed in Section 3.1, “Summary of Soil Remediation Activities”, below), indicated the soil sample collected at one hundred feet (100’) bgs exhibited a chloride concentration of 1,696 mg/kg. Based on the NMOCD ranking system and the occurrence of soil impact at one hundred feet (100’) bgs, twenty (20) points will be assigned to the site as a result of this criterion.

NMOCD guidelines indicate the Bass 3 "B" release has a modified ranking score of twenty (20) points. The soil remediation levels for a site with a ranking score of twenty (20) points are as follows:

- Benzene – 10 mg/kg (ppm)
- BTEX – 50 mg/kg (ppm)
- TPH – 100 mg/kg (ppm)

3.0 DISTRIBUTION OF CONTAMINANTS IN THE UNSATURATED ZONE

3.1 Summary of Soil Remediation Activities

Following initial response activities, on December 19, 2011, delineation of the release site commenced. A series of four (4) delineation trenches (Trench 1 through Trench 4) were advanced at the site to investigate the vertical and horizontal extent of impacted soil. The delineation trenches were each advanced to a total depth of five feet (5') bgs. Soil samples from the delineation trenches were field-screened using a chloride test kit, and four (4) confirmation soil samples (Trench 1 @ 5', Trench 2 @ 5', Trench 3 @ 5', and Trench 4 @ 5') were submitted to Cardinal Laboratories in Hobbs, New Mexico, for analysis of TPH and chloride concentrations in accordance with Environmental Protection Agency (EPA) Methods SW-846 8015M and 4500 Cl-B, respectively. Laboratory analytical results indicated TPH concentrations were less than the laboratory method detection limit (MDL) in all submitted soil samples. Chloride concentrations ranged from less than the laboratory MDL in soil sample Trench 4 @ 5' to 416 mg/kg in soil sample Trench 2 @ 5'. Table 1 summarizes the “Concentrations of Benzene, BTEX, TPH & Chlorides in Soil”. A “Site & Sample Location Map” is provided as Figure 2. Laboratory analytical reports are provided in Appendix D.

On November 11, 2011, three (3) soil borings (SB-1 through SB-3), were advanced at the site to further delineate the vertical extent of hydrocarbon impact. Soil samples were collected at five-foot (5') drilling intervals and field-screened using a photo-ionization detector (PID) and/or

chloride test kit. Selected soil samples were submitted to the laboratory for analysis of BTEX in accordance with EPA Method SW-846 8021b, TPH, and/or chloride. The locations of the soil borings are depicted in Figure 2. Soil boring logs are provided as Appendix C.

Soil boring SB-1 was located at the northern end of the release site. The soil boring was advanced to a total depth of approximately forty feet (40') bgs. Soil samples collected at drilling depths of five feet (5'), ten feet (10'), thirty-five feet (35'), and forty feet (40') were submitted to the laboratory for analysis of TPH and/or chloride concentrations. Soil sample SB-1 @ 10' was also submitted for analysis of BTEX concentrations. Laboratory analytical results indicated TPH concentrations ranged from less than the laboratory MDL in soil sample SB-1 @ 10' to 230 mg/kg in soil sample SB-1 @ 5'. Chloride concentrations ranged from 32.0 mg/kg in soil sample SB-1 @ 40' to 14,200 mg/kg in soil sample SB-1 @ 5'. BTEX constituent concentrations in soil sample SB-1 @ 10' were less than the appropriate laboratory MDL.

Soil boring SB-2 was located near the release point. The soil boring was advanced to a total depth of approximately eighty feet (80'). Soil samples collected at drilling depths of five feet (5'), ten feet (10'), seventy-five feet (75'), and eighty feet (80') bgs were submitted to the laboratory for analysis of TPH and/or chloride concentrations. Soil sample SB-2 @ 10' was also analyzed for BTEX concentrations. Laboratory analytical results indicated TPH concentrations were less than the laboratory MDL in all submitted soil samples. Chloride concentrations ranged from 32.0 mg/kg in soil samples SB-2 @ 75' and SB-2 @ 80' to 12,400 mg/kg in soil sample SB-2 @ 5'. BTEX constituent concentrations in soil sample SB-2 @ 10' were less than the appropriate laboratory MDL.

Soil boring SB-3 was located at the terminus of the flow path of the release. The soil boring was advanced to a total depth of approximately one hundred and ten feet (110'). Soil samples collected at drilling depths of ten feet (10'), fifteen feet (15'), one hundred and five feet (105'), and one hundred and ten feet (110') bgs were submitted to the laboratory for analysis of TPH and/or chloride concentrations. Soil sample SB-3 @ 15' was also analyzed for BTEX concentrations. Laboratory analytical results indicated TPH concentrations ranged from less than the laboratory MDL in soil sample SB-3 @ 15' to 37.1 mg/kg in soil sample SB-3 @ 10'. Chloride concentrations ranged from 96.0 mg/kg in soil sample SB-3 @ 105' to 6,800 mg/kg in soil sample SB-3 @ 15'. BTEX constituent concentrations in soil sample SB-3 @ 15' were less than the appropriate laboratory MDL.

The soil-to-groundwater pathway in SB-3 was evaluated via analysis of soil sample SB-3 @ 15' in accordance with the Synthetic Precipitation Leaching Procedure (SPLP). Laboratory analytical results indicate the SPLP-leachable chloride concentration in soil sample SB-3 @ 15' was 312 mg/L.

On January 12, 2012, excavation of impacted soil commenced at the site. A chloride test kit was used to field-screen the horizontal extent of impacted soil and to guide the excavation. From January 12 through Excavated soil was stockpiled on-site, pending final disposition. A single soil sample (South Wall @ 5') was collected from the sidewall of the excavation and submitted to the laboratory for analysis of chloride concentrations. Laboratory analytical results indicated the chloride concentration in soil sample South Wall @ 5' was 64.0 mg/kg.

On January 24, 2012, an additional soil boring (SB-4) was advanced at the site to investigate the potential for groundwater contamination from the Bass 3 "B" release as well as two (2) additional releases approximately three hundred and forty feet (340') to five hundred and twenty-five feet (525') to the east-southeast (cross-gradient) of the site. The soil boring was advanced approximately two hundred and forty feet (240') to the south of soil boring SB-3, in an ephemeral wash which ultimately empties into the Pecos River, approximately four and one-half (4.5) miles southwest of the release site. The soil boring was advanced to a total depth of approximately one hundred and fifty feet (150') bgs. Groundwater was encountered at approximately one hundred and nine feet (109') bgs. Soil samples collected at fifty-five feet (55'), sixty feet (60'), and one hundred feet (100') bgs were submitted to the laboratory for analysis of chloride concentrations. Laboratory analytical results indicated chloride concentrations were less than the laboratory MDL in all submitted soil samples.

Soil boring SB-4 was fitted with two-inch (2") diameter, screened, PVC casing and converted into a temporary monitor well (TMW-1) to facilitate groundwater monitoring.

On January 25, 2012, eight (8) soil samples (East Wall 50', East Wall 100', East Wall 150', East Wall 200', West Wall 50', West Wall 100', West Wall 150', and West Wall 200') were collected from the sidewalls of at fifty-foot (50') horizontal intervals and submitted to the laboratory for analysis of TPH and chloride concentrations. Laboratory analytical results indicated TPH concentrations were less than the laboratory MDL in all submitted soil samples, with the exception of soil sample West Wall 50', which exhibited a TPH concentration of 219 mg/kg. Chloride concentrations ranged from 16.0 mg/kg in soil sample East Wall 200' to 304 mg/kg in soil sample East Wall 50'.

On January 26, 2012, a single soil sample (North Wall) was collected from the sidewall of the excavation and submitted to the laboratory for analysis of TPH and chloride concentrations. Laboratory analytical results indicated the TPH concentration in soil sample North Wall was 12.7 mg/kg, and the chloride concentration was 80.0 mg/kg.

Based on laboratory analytical results and field-screens, from January 25 through January 30, 2012, the excavation was backfilled in eighteen-inch (18") lifts with locally purchased, non-impacted material. Final dimensions of the excavation were approximately two hundred and ten feet (210') in length, ranging in width from approximately fourteen feet (14') to approximately forty-two feet (42'), and approximately five feet (5') in depth. Prior to backfilling, a twenty (20) mil polyurethane liner was installed in the floor of the excavation. A cushion of non-impacted pad sand was installed approximately one foot (1') both above and below the liner to protect the liner from damage during installation and backfilling activities. Following backfill, the excavation was water-packed and contoured to fit the surrounding topography.

On July 11, 2012, the disturbed area was seeded with a BLM-approved seed mixture.

3.2 Soil Closure Request

Soil samples collected from the sidewalls of the Bass 3 "B" excavation were analyzed by an NMOCD-approved laboratory, and concentrations of BTEX and TPH were below the regulatory remediation action levels established for the site by the NMOCD.

An impermeable, twenty (20) mil polyurethane liner was installed on the floor of the excavation prior to backfilling. This engineered control will inhibit vertical migration of contaminants from below the liner to the surface, protecting the vegetative zone. In addition, the polyurethane liner will shed moisture to the edge of the liner and beyond the maximum horizontal extent of underlying impacted soil, effectively inhibiting vertical migration of contaminants to groundwater.

Basin Environmental recommends BOPCO provide the NMOCD Artesia District Office and the BLM a copy of this *Remediation Summary & Risk-Based Site Closure Request* and request the NMOCD grant soil closure status to the Bass 3 "B" release site.

4.0 SUMMARY OF CONTAMINANTS IN THE SATURATED ZONE

4.1 Summary of Groundwater Monitoring Activities

On December 30, 2011, a groundwater sample (Water Well) was collected from a nearby livestock well in order to determine baseline concentrations of chloride and total dissolved solids (TDS) in the area. Laboratory analytical results indicated the chloride concentration was 336 mg/L, and the TDS concentration was 2,420 mg/L.

On January 24, 2012, following the installation of temporary monitor well TMW-1, the monitor well was purged using a disposable Teflon bailer of approximately nine (9) well volumes of water, per the EPA-recommended protocol for well development.

On January 25, 2012 (and during subsequent quarterly monitoring events), the static water level in the on-site monitor well was gauged, and approximately three (3) well volumes of water were purged using a disposable Teflon bailer. Groundwater was allowed to recharge, and samples were collected using a clean, disposable Teflon bailer. Samples were stored in clean glass and/or plastic containers provided by the laboratory and placed on ice in the field.

Groundwater samples were submitted to Cardinal Laboratories in Hobbs, New Mexico, for analysis of chloride, BTEX, and/or TDS concentrations in accordance with EPA Methods SM 4500 CL-B, SW846-8021b, and 160.1, respectively. Laboratory analytical results were compared to New Mexico Water Quality Control Commission (NMWQCC) and NMOCD regulatory limits based on the New Mexico groundwater standards found in Section 20.6.2.3103 NMAC. Table 2 summarizes the "Concentrations of Benzene, BTEX, Chloride & TDS in Groundwater". Laboratory analytical reports are provided in Appendix E.

Laboratory analytical results indicated the chloride concentration in TMW-1 was 24.0 mg/L, the TDS concentration was 2,020 mg/L, the benzene concentration was less than the laboratory MDL, and the total BTEX concentration was 0.001 mg/L.

On March 6, 2012, temporary monitor well TMW-1 was converted to a permanent monitor well (MW-1) and fitted with a locking, steel monument and a two-foot by two-foot (2' x 2') concrete pad.

On March 15, 2013, a groundwater monitoring event was conducted to assess the baseline concentrations of volatile organic compounds (VOC's), semi-volatile organic compounds

(SVOC's), inorganic chemicals (anions & cations), Resource Conservation and Recovery Act (RCRA) metals, and NMWQCC metals. Contaminant concentrations are summarized in Table 3 through Table 6.

Quarterly groundwater monitoring events to assess the levels and extent of dissolved-phase constituents in monitor well MW-1 were conducted on March 15, May 21, August 21, and October 11, 2012; and February 6 and April 11, 2013. Laboratory analytical results indicated chloride concentrations ranged from 16.0 mg/L on February 6, 2013, to 24.0 mg/L on March 15, 2012, and April 11, 2013. BTEX constituent concentrations were less than the appropriate laboratory MDL in all submitted groundwater samples, with the exception of the groundwater sample collected on October 11, 2012, which exhibited a total xylene concentration of 0.003 mg/L.

Review of laboratory analytical results indicated chloride, BTEX, and TDS concentrations were less than NMWQCC/NMOCD regulatory standards in all submitted groundwater samples from monitor wells TMW-1 and MW-1. In addition, chloride and TDS concentrations were less than baseline concentrations observed in the groundwater sample Water Well collected from the nearby livestock well.

No PSH was detected in the on-site monitor well during any of the quarterly monitoring events.

The location of monitor well MW-1 is depicted in Figure 2, "Site & Sample Location Map". An inferred groundwater gradient map cannot be constructed from the gauging data collected from the monitor well. An inferred groundwater gradient map requires a minimum of three (3) monitor wells to calculate an accurate groundwater gradient direction and magnitude. Review of New Mexico State Engineers Office (NMOSE) records indicate a general south-to-southwest groundwater gradient in this area of Eddy County, New Mexico.

4.2 Groundwater Closure Request

Groundwater samples collected from monitor wells TMW-1 and MW-1 at the Bass 3 "B" release site were analyzed by an NMOCD-approved laboratory, and concentrations of BTEX and chloride were both less than NMWQCC/NMOCD regulatory standards and less than baseline concentrations in the surrounding area. Since no evidence of groundwater contamination exists, BOPCO hereby requests permission to cease groundwater monitoring activities at the Bass 3 "B" release site and to plug and abandon (P&A) the on-site monitor well. Pending NMOCD approval, the monitor well will be P&A'd pursuant to NMOSE and NMOCD regulatory requirements.

5.0 QA/QC PROCEDURES

5.1 Soil Sampling

Soil Samples were submitted to Cardinal Laboratories in Hobbs, New Mexico, for analysis of BTEX, TPH, and/or chloride concentrations using the methods described below. Soil samples were analyzed for BTEX, TPH and/or chloride concentrations within fourteen (14) days following the collection date.

The soil samples were analyzed as follows:

- BTEX concentrations in accordance with EPA Method SW 846-8021b
- TPH concentrations in accordance with modified EPA Method SW 846-8015M
- Chloride concentrations in accordance with EPA Method 4500 Cl-B

5.2 Groundwater Sampling

Groundwater samples were submitted to Cardinal Laboratories of Hobbs, New Mexico, for analysis of chloride, volatile organic compounds (VOC's), semi-volatile organic compounds (SVOC's), metals, and/or TDS concentrations using the methods described below. All samples were analyzed within approved holding times following the collection date.

The groundwater samples were analyzed as follows:

- Chloride concentrations in accordance with EPA Method SM 4500-CL-B
- BTEX concentrations in accordance with EPA Method SW846-8021b
- Metal concentrations in accordance with EPA Methods SW846 6010B (TCLP metals) and SW7470A (TCLP mercury)
- TDS concentrations in accordance with EPA Method 160.1

5.3 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.

5.4 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.

6.0 SITE CLOSURE REQUEST

Soil remediation activities at the Bass 3 "B" release site met the objectives set forth by the NMOCD, and there is no evidence of groundwater contamination at the site. Basin recommends BOPCO provide the NMOCD Artesia District Office a copy of this *Remediation Summary & Risk-Based Site Closure Request* and request the NMOCD grant site closure status to the Bass 3 "B" release site.

7.0 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 Service Technologies, LLC, has examined and relied upon documents referenced in the report and has relied on oral statements made by certain individuals. Basin Environmental Service Technologies, LLC, has not conducted an independent examination of the facts contained in referenced materials and statements. We have presumed the genuineness of the documents and that the information provided in documents or statements is true and accurate. Basin Environmental Service Technologies, LLC, has prepared this report, in a professional manner, using the degree of skill and care exercised by similar environmental consultants. Basin Environmental Service Technologies, LLC, also 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 written consent of Basin Environmental Service Technologies, LLC, and/or BOPCO, LP.

7.0 DISTRIBUTION:

- Copy 1: Mike Bratcher
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1301 E. Grand Avenue
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Figures

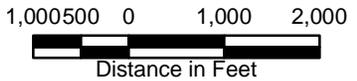
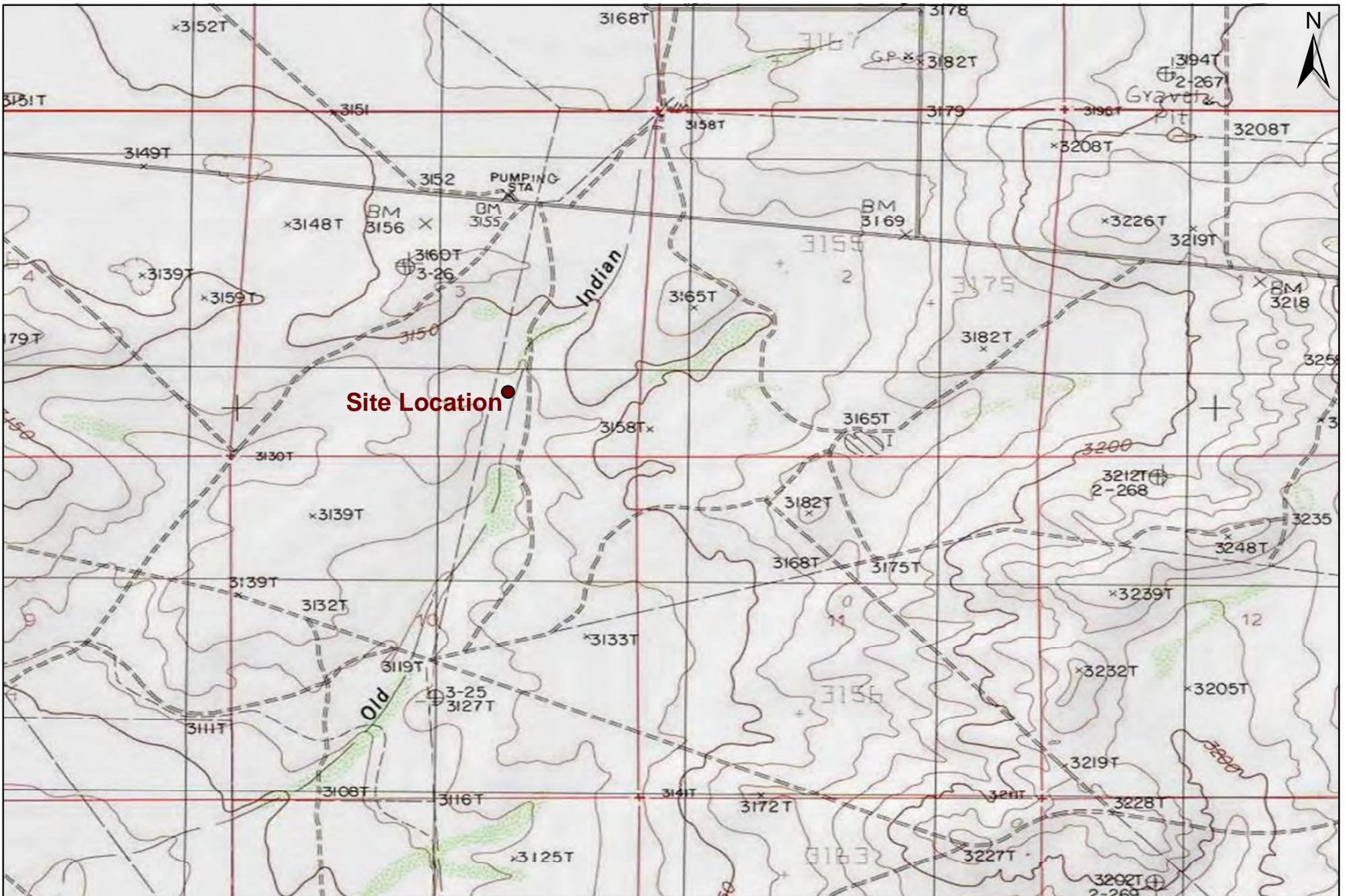
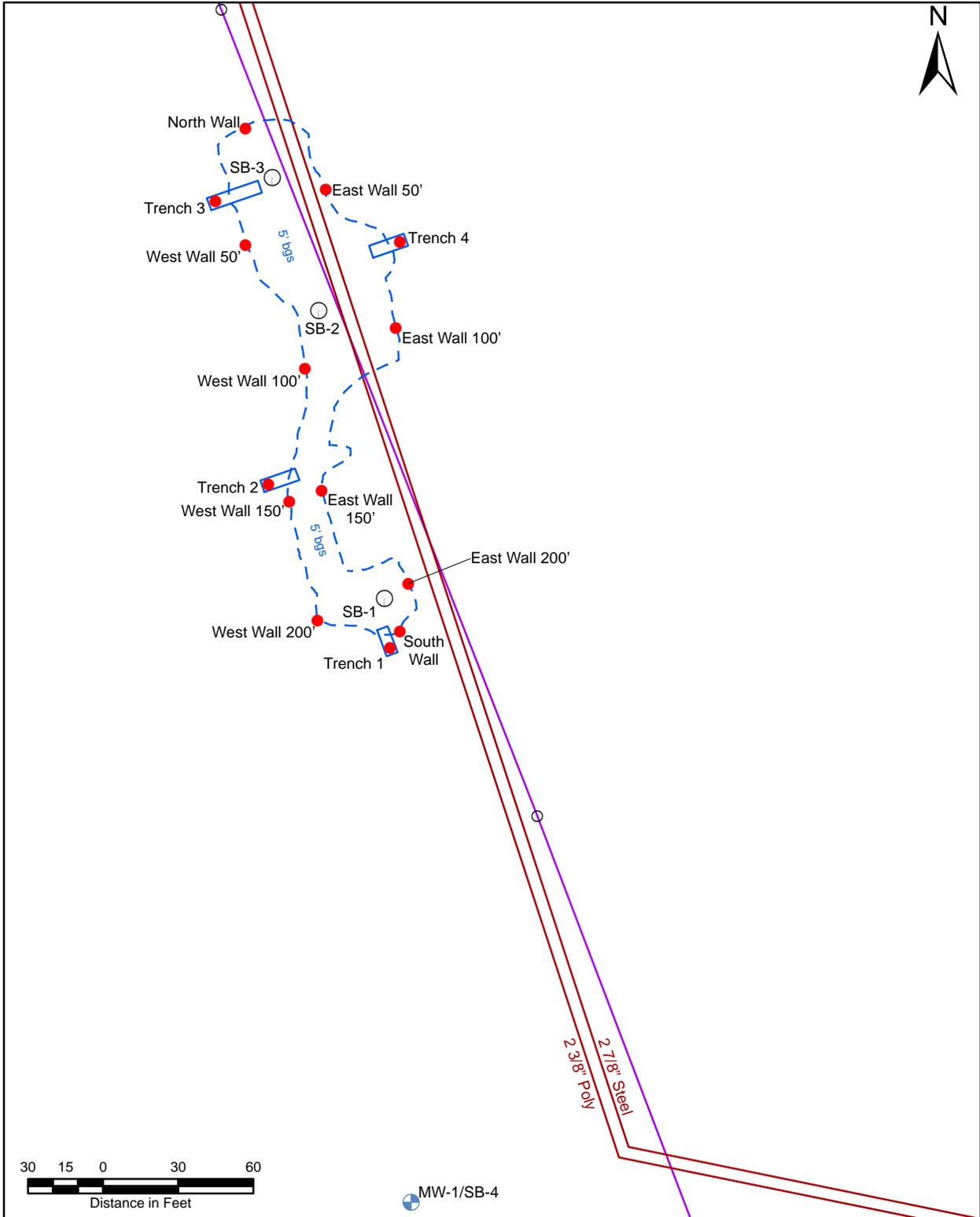


Figure 1
Site Location Map
 BOPCO, LP
 Bass 3 Federal Well #4 Spill Site "B"
 Eddy County, New Mexico
 NMOCD Reference #: 2RP-981



Basin Environmental Service Technologies, LLC
 3100 Plains Hwy.
 Lovington, NM 88260

Drawn By: BJA	Checked By: BRB
July 2, 2013	Scale: 1" = 2000'



Legend	
Electrical Line	Monitor Well
Excavation	Sample Location
Pipeline	Soil Boring

Figure 2
Site & Sample Location Map
BOPCO, LP
Bass 3 Federal Well #4 Spill Site "B"
Eddy County, New Mexico
NMOCD Ref.#: 2RP-981

	Basin Environmental Service Technologies 3100 Plains Hwy. Lovington, NM 88260	
	Drawn By: BJA July 30, 2013	Checked By: BRB Scale: 1" = 60'

Tables

TABLE 1

CONCENTRATIONS OF BENZENE, BTEX, TPH & CHLORIDE IN SOIL

BOPCO, LP
 BASS 3 FEDERAL WELL #4 SPILL SITE "B"
 EDDY COUNTY, NEW MEXICO

SAMPLE LOCATION	SAMPLE DEPTH (BGS)	SAMPLE DATE	SOIL STATUS	METHOD: EPA SW 846-8021B, 5030					METHOD: 8015M			TOTAL TPH C ₆ -C ₃₅ (mg/Kg)	4500 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)		
Trench 1 @ 5'	5'	12/19/2011	In-Situ	-	-	-	-	-	<10.0	<10.0	<10.0	<10.0	112
Trench 2 @ 5'	5'	12/19/2011	In-Situ	-	-	-	-	-	<10.0	<10.0	<10.0	<10.0	416
Trench 3 @ 5'	5'	12/19/2011	In-Situ	-	-	-	-	-	<10.0	<10.0	<10.0	<10.0	160
Trench 4 @ 5'	5'	12/19/2011	In-Situ	-	-	-	-	-	<10.0	<10.0	<10.0	<10.0	<16.0
SB-1 @ 5'	5'	1/11/2012	In-Situ	-	-	-	-	-	<10.0	209	20.9	230	14,200
SB-1 @ 10'	10'	1/11/2012	In-Situ	<0.050	<0.050	<0.050	<0.150	<0.150	<10.0	<10.0	<10.0	<10.0	4,320
SB-1 @ 35'	35'	1/11/2012	In-Situ	-	-	-	-	-	-	-	-	-	272
SB-1 @ 40'	40'	1/11/2012	In-Situ	-	-	-	-	-	-	-	-	-	32.0
SB-2 @ 5'	5'	1/11/2012	In-Situ	-	-	-	-	-	<10.0	<10.0	<10.0	<10.0	12,400
SB-2 @ 10'	10'	1/11/2012	In-Situ	<0.050	<0.050	<0.050	<0.150	<0.150	<10.0	<10.0	<10.0	<10.0	7,300
SB-2 @ 75'	75'	1/11/2012	In-Situ	-	-	-	-	-	-	-	-	-	32.0
SB-2 @ 80'	80'	1/11/2012	In-Situ	-	-	-	-	-	-	-	-	-	32.0
SB-3 @ 10'	10'	1/11/2012	In-Situ	-	-	-	-	-	<10.0	37.1	<10.0	37.1	4,900
SB-3 @ 15'	15'	1/11/2012	In-Situ	<0.050	<0.050	<0.050	<0.150	<0.150	<10.0	<10.0	<10.0	<10.0	6,800
SB-3 @ 105'	105'	1/11/2012	In-Situ	-	-	-	-	-	-	-	-	-	96.0
SB-3 @ 110'	110'	1/11/2012	In-Situ	-	-	-	-	-	-	-	-	-	112
South Wall @ 5'	5'	1/12/2012	In-Situ	-	-	-	-	-	-	-	-	-	64.0
SB-4/TMW-1 @ 55'	55'	1/24/2012	In-Situ	-	-	-	-	-	-	-	-	-	<16.0
SB-4/TMW-1 @ 60'	60'	1/24/2012	In-Situ	-	-	-	-	-	-	-	-	-	<16.0
SB-4/TMW-1 @ 100'	100'	1/24/2012	In-Situ	-	-	-	-	-	-	-	-	-	<16.0
East Wall 50'	5'	1/25/2012	In-Situ	-	-	-	-	-	<10.0	<10.0	<10.0	<10.0	304
East Wall 100'	5'	1/25/2012	In-Situ	-	-	-	-	-	<10.0	<10.0	<10.0	<10.0	32.0
East Wall 150'	5'	1/25/2012	In-Situ	-	-	-	-	-	<10.0	<10.0	<10.0	<10.0	32.0
East Wall 200'	5'	1/25/2012	In-Situ	-	-	-	-	-	<10.0	<10.0	<10.0	<10.0	16.0

TABLE 1

CONCENTRATIONS OF BENZENE, BTEX, TPH & CHLORIDE IN SOIL

BOPCO, LP
 BASS 3 FEDERAL WELL #4 SPILL SITE "B"
 EDDY COUNTY, NEW MEXICO

SAMPLE LOCATION	SAMPLE DEPTH (BGS)	SAMPLE DATE	SOIL STATUS	METHOD: EPA SW 846-8021B, 5030					METHOD: 8015M			TOTAL TPH C ₆ -C ₃₅ (mg/Kg)	4500 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)		
West Wall 50'	5'	1/25/2012	In-Situ	-	-	-	-	-	17.2	172	29.3	219	240
West Wall 100'	5'	1/25/2012	In-Situ	-	-	-	-	-	<10.0	<10.0	<10.0	<10.0	64.0
West Wall 150'	5'	1/25/2012	In-Situ	-	-	-	-	-	<10.0	<10.0	<10.0	<10.0	176
West Wall 200'	5'	1/25/2012	In-Situ	-	-	-	-	-	<10.0	<10.0	<10.0	<10.0	224
North Wall	5'	1/26/2012	In-Situ	-	-	-	-	-	<10.0	12.7	<10.0	12.7	80.0
NMOCD Criteria				10				50				5,000	1,000

- = Not analyzed.

TABLE 2

CONCENTRATIONS OF BENZENE, BTEX, CHLORIDE & TDS IN GROUNDWATER

BOPCO, LP
 BASS 3 FEDERAL WELL #4 SPILL SITE "B"
 EDDY COUNTY, NEW MEXICO
 NMOCD REFERENCE #: 2RP-981

SAMPLE LOCATION	SAMPLE DATE	METHODS: EPA SW 846-8021B, 5030					CHLORIDE (mg/L)	TDS (mg/L)
		BENZENE (mg/L)	TOLUENE (mg/L)	ETHYL-BENZENE (mg/L)	TOTAL XYLENES (mg/L)	TOTAL BTEX (mg/L)		
Water Well	12/30/2011	-	-	-	-	-	336	2,420
TMW-1	01/25/2012	<0.001	0.001	<0.001	<0.003	<0.003	24.0	2,020
MW-1	03/15/2012	<0.001	<0.001	<0.001	<0.003	<0.003	24.0	-
	05/21/2012	<0.001	<0.001	<0.001	<0.003	<0.003	20.0	-
	08/21/2012	<0.001	<0.001	<0.001	<0.003	<0.003	20.0	-
	10/11/2012	<0.001	<0.001	<0.001	0.003	0.003	20.0	-
	02/06/2013	<0.001	<0.001	<0.001	<0.003	<0.006	16.0	-
	04/11/2013	<0.001	<0.001	<0.001	<0.003	<0.006	24.0	-
NMOCD CRITERIA		0.01	0.75	0.75	0.62		250	10,000

TABLE 3

CONCENTRATIONS OF RCRA & NMWQCC METALS IN GROUNDWATER

**BOPCO, LP
 BASS 3 FEDERAL WELL #4 SPILL SITE "B"
 EDDY COUNTY, NEW MEXICO
 NMOCD REFERENCE #: 2RP-981**

SAMPLE LOCATION	SAMPLE DATE	EPA 200.7, EPA 200.8																
		Aluminum	Arsenic	Barium	Boron	Cadmium	Chromium	Cobalt	Copper	Iron	Lead	Manganese	Mercury	Molybdenum	Nickel	Selenium	Silver	Zinc
MW-1	3/15/2012	0.749	0.006	0.0342	<0.20	<0.0001	0.003	0.0011	0.0012	0.302	<0.0005	0.0118	<0.0002	0.0046	0.0206	0.004	<0.0001	0.007
Maximum Contaminant Levels from NMWQCC Drinking water standards Sections 1-101.UU and 3-103.A.		5.0 mg/L	0.1 mg/L	1.0 mg/L	0.75 mg/L	0.01 mg/L	0.05 mg/L	0.05 mg/L	1.0 mg/L	1.0 mg/L	0.05 mg/L	0.2 mg/L	0.002 mg/L	1.0 mg/L	0.2 mg/L	0.05 mg/L	0.05 mg/L	10 mg/L

All concentrations reported in mg/L

Table 4

CONCENTRATIONS OF VOLATILE ORGANIC COMPOUNDS IN GROUNDWATER

BOPCO, LP
 BASS 3 FEDERAL WELL #4 SPILL SITE "B"
 EDDY COUNTY, NEW MEXICO
 NMOCD REFERENCE #: 2RP-981

Date Sampled	Sample Location	Acetone	Acrylonitrile	Benzene	Bromobenzene	Bromochloromethane	Bromodichloromethane	Bromoform	Bromomethane	2-Butanone	MTBE	n-Butylbenzene	sec-Butylbenzene	tert-Butylbenzene	Carbon Disulfide	Carbon Tetrachloride	Chlorobenzene	Chloroethane	2-Chloroethyl vinyl ether
3/15/2012	MW-1	<0.005	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.005	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Maximum Contaminant Levels from NMWQCC Drinking water standards Sections 1-101.UU and 3-103.A.		.	.	0.01 mg/L	.	.	.	.	.	.	.	.	.	.	.	0.01 mg/L	.	.	.

All concentrations reported in mg/L

Table 4

CONCENTRATIONS OF VOLATILE ORGANIC COMPOUNDS IN GROUNDWATER

BOPCO, LP
 BASS 3 FEDERAL WELL #4 SPILL SITE "B"
 EDDY COUNTY, NEW MEXICO
 NMOCD REFERENCE #: 2RP-981

Date Sampled	Sample Location	Chloroform	Chloromethane	2-Chlorotoluene	4-Chlorotoluene	p-Cymene(p-Isopropyltoluene)	Dibromochloromethane	1,2-Dibromo-3-chloropropane	1,2-Dibromoethane (EDB)	Dibromomethane (methylene bromide)	1,2-Dichlorobenzene	1,3-Dichlorobenzene	1,4-Dichlorobenzene	Dichlorodifluoromethane	1,1-Dichloroethane	1,2-Dichloroethane	1,1-Dichloroethene	cis-1,2-Dichloroethene	trans-1,2-Dichloroethene	
3/15/2012	MW-1	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Maximum Contaminant Levels from NMWQCC Drinking water standards Sections 1-101.UU and 3-103.A.		0.1mg/L	-	-	-	-	-	-	0.0001 mg/L	-	-	-	-	-	0.005 mg/L	0.01 mg/L	0.005 mg/L	0.1mg/L	-	

All concentrations reported in mg/L

Table 4

CONCENTRATIONS OF VOLATILE ORGANIC COMPOUNDS IN GROUNDWATER

BOPCO, LP
 BASS 3 FEDERAL WELL #4 SPILL SITE "B"
 EDDY COUNTY, NEW MEXICO
 NMOCD REFERENCE #: 2RP-981

Date Sampled	Sample Location	1,2-Dichloropropane	1,3-Dichloropropane	2,2-Dichloropropane	1,1-Dichloropropane	cis-1,3-Dichloropropene	trans-1,3-Dichloropropene	Ethylbenzene	Hexachlorobutadiene	2-Hexanone	Isopropylbenzene	Methylene chloride	4-Methyl-2-pentanone (MIBK)	Naphthalene	n-Propylbenzene	Styrene	1,1,1,2-Tetrachloroethane	1,1,2,2-Tetrachloroethane	Tetrachloroethene (PCE)
3/15/2012	MW-1	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.005	<0.001	<0.001	<0.005	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Maximum Contaminant Levels from NMWQCC Drinking water standards Sections 1-101.UU and 3-103.A.		-	-	-	-	-	-	0.75 mg/L	-	-	-	0.1 mg/L	-	0.03 mg/L	-	-	-	0.02 mg/L	-

All concentrations reported in mg/L

Table 4

CONCENTRATIONS OF VOLATILE ORGANIC COMPOUNDS IN GROUNDWATER

BOPCO, LP
 BASS 3 FEDERAL WELL #4 SPILL SITE "B"
 EDDY COUNTY, NEW MEXICO
 NMOCD REFERENCE #: 2RP-981

Date Sampled	Sample Location	Toluene	1,2,3-Trichlorobenzene	1,2,4-Trichlorobenzene	1,1,1-Trichloroethane	1,1,2-Trichloroethane	Trichloroethene (TCE)	Trichlorofluoromethane	1,2,3-Trichloropropane	1,2,4-Trimethylbenzene	1,3,5-Trimethylbenzene	o-Xylene	m,p-Xylene	Vinyl Chloride
3/15/2012	MW-1	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.002	<0.001
Maximum Contaminant Levels from NMWQCC Drinking water standards Sections 1-101.UU and 3-103.A.		0.75 mg/L	-	-	0.06 mg/L	-	0.01 mg/L	-	-	-	-	Total Xylene 0.62 mg/L		0.001 mg/L

All concentrations reported in mg/L

TABLE 5

CONCENTRATIONS OF SEMI-VOLATILE COMPOUNDS IN GROUNDWATER

BOPCO, LP
 BASS 3 FEDERAL WELL #4 SPILL SITE "B"
 EDDY COUNTY, NEW MEXICO
 NMOCD REFERENCE #: 2RP-981

SAMPLE LOCATION	SAMPLE DATE	EPA SW846-8270C, 3510															
		Acenaphthene	Acenaphthylene	Anthracene	Benzo[a]anthracene	Benzo[a]pyrene	Benzo[b]fluoranthene	Benzo[g,h,i]perylene	Benzo[k]fluoranthene	Chrysene	Dibenz[a,h]anthracene	Fluoranthene	Fluorene	Indeno[1,2,3-cd]pyrene	Naphthalene	Phenanthrene	Pyrene
MW-1	3/15/2012	<0.001	<0.001	<0.001	<0.001	<0.0002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	0.001	<0.001

All concentrations reported in mg/L

TABLE 6

CONCENTRATIONS OF ANIONS & CATIONS IN GROUNDWATER

BOPCO, LP
 BASS 3 FEDERAL WELL #4 SPILL SITE "B"
 EDDY COUNTY, NEW MEXICO
 NMOCD REFERENCE #: 2RP-981

SAMPLE DATE	SAMPLE LOCATION	EPA SW375.4, 325,3, 310, 160.1 SW846 6010B										
		Bicarbonate	Calcium	Carbonate	Chloride	Flouride	Magnesium	Nitrate	Phosphate	Potassium	Sodium	Sulfate
3/15/2012	MW-1	83.0	445	<0.00	24.0	4.48	29.8	2.35	0.10	2.95	9.30	1,170
Maximum Contaminant Levels from NMWQCC Drinking water standards Sections 1-101.UU and 3-103.A.		.	.	.	250 mg/L	1.6 mg/L	.	10 mg/L	.	.	.	600 mg/L

All concentrations reported in mg/L

Appendices

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

District I
1625 N. French Dr., Hobbs, NM 88240
District II
1301 W. Grand Avenue, 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 October 10, 2003

Submit 2 Copies to appropriate
District Office in accordance
with Rule 116 on back
side of form

30-015-28736

Release Notification and Corrective Action

NMLB/1354487D

OPERATOR

Initial Report Final Report

Name of Company BOPCO, L.P. <u>260737</u>	Contact Tony Savoie
Address 522 W. Mermod, Suite 704 Carlsbad, N.M. 88220	Telephone No. 432-556-8730
Facility Name Bass 3 Federal Well #4 Spill site "B"	Facility Type E&P

Surface Owner Federal	Mineral Owner Federal	Lease No.
-----------------------	-----------------------	-----------

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
O	3	22S	28E					Eddy

Latitude N 32.417420 Longitude W 104.072281

NATURE OF RELEASE

Type of Release: Produced water and crude oil	Volume of Release: 45 Bbbls of Produced water and 5 Bbbls of Crude oil	Volume Recovered: none
Source of Release: Above ground 2 7/8" flow line	Date and Hour of Occurrence Unknown	Date and Hour of Discovery 12/13/11 11:46 a.m.
Was Immediate Notice Given? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Required	If YES, To Whom? Mike Bratcher NMOCD and Jim Amos BLM	
By Whom? Tony Savoie	Date and Hour 12/13/11 12:12 p.m.	
Was a Watercourse Reached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If YES, Volume Impacting the Watercourse.	

RECEIVED
 DEC 15 2011
 NMOCD ARTESIA

If a Watercourse was Impacted, Describe Fully.*

Describe Cause of Problem and Remedial Action Taken.* The flow line delivering produced fluid from the well to the tank battery developed a leak, the well was shut in and a temporary repair clamp was placed on the affected area. The well will remain shut in until the entire flow line can be replaced with poly pipe.

Describe Area Affected and Cleanup Action Taken.* The released fluid affected an area of approximately 5000 sq. ft of pasture land. All of the fluid had soaked into the ground. An air rotary rig has been scheduled for 12/19/11 to determine the vertical and horizontal extent of the release sites. The Site remediation for the produced water and crude oil spill will follow the NMOCD guidelines for leaks and spills.

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	Approved by District Supervisor: Signed By: <u>Mike Bratcher</u>	
Title: Waste Mgmt. & Remediation Specialist	Approval Date: <u>DEC 20 2011</u>	Expiration Date:
E-mail Address: TASavoie@BassPet.com	Conditions of Approval: Remediation per OCD Rules & Guidelines. SUBMIT REMEDIATION PROPOSAL NOT LATER THAN:	
Date: 12/15/11 Phone: 432-556-8730	Attached <input type="checkbox"/>	

* Attach Additional Sheets If Necessary

PROPOSAL NOT LATER THAN:
1/20/2012

2RP-981

Appendix D
Photographs



Bass 3 Federal Well #4 Spill Site "B" - Release Site



Bass 3 Federal Well #4 Spill Site "B" - Release Site



Bass 3 Federal Well #4 Spill Site "B" - Delineation Trench



Bass 3 Federal Well #4 Spill Site "B" - Advancement of Soil Boring SB-2



Bass 3 Federal Well #4 Spill Site "B" - Excavation



Bass 3 Federal Well #4 Spill Site "B" - Excavation



Bass 3 Federal Well #4 Spill Site "B" - Excavation



Bass 3 Federal Well #4 Spill Site "B" - Liner Installation



Bass 3 Federal Well #4 Spill Site "B" - Liner Installation



Bass 3 Federal Well #4 Spill Site "B" - Monitor Well MW-1

Appendix E
Soil Boring & Monitor Well Logs

Soil Boring SB-1

Depth Below Ground Surface	Soil Column	Chloride Field Test	PID Reading	Petroleum Odor	Petroleum Stain	Soil Description	Boring SB-1
0		>26,752	31.7	Moderate	Heavy	0' - 4' - Tan fine sand with clay	Date Drilled <u>January 11, 2012</u>
5		(11.8)	Slight	None			Thickness of Bentonite Seal <u>40 Ft</u>
10		(2.0)	Slight	None	4' - 17' - Tan fine sand - sandstone		Depth of Exploratory Boring <u>40 Ft bgs</u>
15		5,232	1.1	None	None		Depth to Groundwater _____
20				None	None		Ground Water Elevation _____
25		1,476		Slight	None	17' - 40' - Red fine sand - sandstone	
30			None	None			
35	(<120)		None	None			
40	(<120)		None	None			

- ▼ Indicates the PSH level measured on _____
- ▼ Indicates the groundwater level measured on _____
- Indicates samples selected for Laboratory Analysis.
- PID Head-space reading in ppm obtained with a photo-ionization detector.

Completion Notes

- 1.) The soil boring was advanced on date using air rotary drilling techniques.
- 2.) The lines between material types shown on the profile log represent approximate boundaries. Actual transitions may be gradual.

Soil Boring SB-1

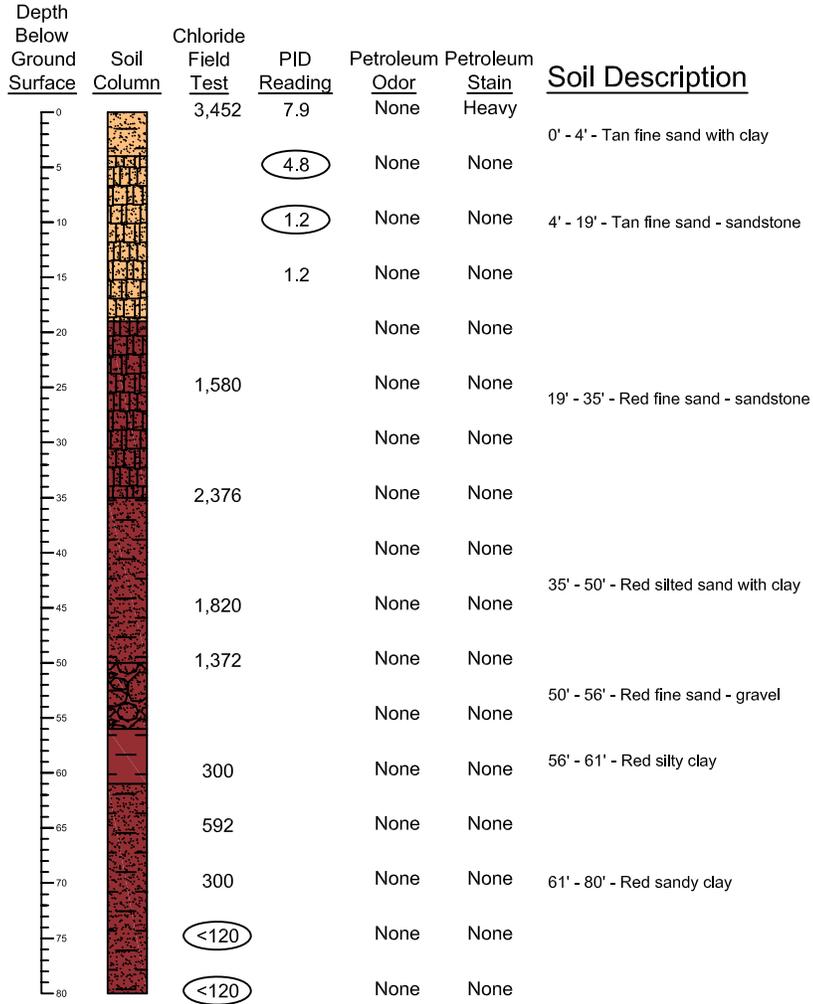
BOPCO, LP
Bass 3 Federal Well #4 Spill Site "B"
Eddy County, New Mexico
NMOCD Reference #2RP-981



Basin Environmental Service Technologies, LLC
 3100 Plains Hwy.
 Lovington, NM 88260

Prep By: BJA	Checked By: BRB
July 2, 2013	

Soil Boring SB-2



Boring SB-2

Date Drilled January 11, 2012
 Thickness of Bentonite Seal 80 Ft
 Depth of Exploratory Boring 80 Ft bgs
 Depth to Groundwater _____
 Ground Water Elevation _____

- Indicates the PSH level measured on _____
- Indicates the groundwater level measured on _____
- Indicates samples selected for Laboratory Analysis.
- PID Head-space reading in ppm obtained with a photo-ionization detector.

Completion Notes

- 1.) The soil boring was advanced on date using air rotary drilling techniques.
- 2.) The lines between material types shown on the profile log represent approximate boundaries. Actual transitions may be gradual.

Soil Boring SB-2

BOPCO, LP
 Bass 3 Federal Well #4 Spill Site "B"
 Eddy County, New Mexico
 NMOCD Reference #2RP-981



Basin Environmental Service Technologies, LLC
 3100 Plains Hwy.
 Lovington, NM 88260

Prep By: BJA	Checked By: BRB
July 2, 2013	

Soil Boring SB-3

Depth Below Ground Surface	Soil Column	Chloride Field Test	PID Reading	Petroleum Odor	Petroleum Stain	Soil Description
0		10,040		Moderate	Heavy	0' - 3' - Tan fine sand with clay
5			204	Moderate	None	3' - 16' - Tan fine sand - sandstone
10			28.6	None	None	
15			1.0	None	None	
20			1.0	None	None	
25			1.8	None	None	16' - 51' - Red fine sand - sandstone
30				None	None	
35		9,232		Heavy	None	
40				None	None	
45				None	None	51' - 56' - Red fine sand - gravel
50		>2,428		None	None	
55				None	None	
60				None	None	
65				None	None	60' - 67' - Red fine sand
70		9,232		None	None	67' - 70' - Red fine sand - gravel
75				None	None	70' - 110' - Red find sand - sandstone - clay layers
80		9,232		None	None	
85				None	None	
90				None	None	
95				None	None	100' - 110' - Red find sand - sandstone - clay layers
100		1,696		None	None	
105		<120		None	None	
110		<120		None	None	

Boring SB-3

Date Drilled January 11, 2012
 Thickness of Bentonite Seal 110 Ft
 Depth of Exploratory Boring 110 Ft bgs
 Depth to Groundwater _____
 Ground Water Elevation _____

- Indicates the PSH level measured on _____
- Indicates the groundwater level measured on _____
- Indicates samples selected for Laboratory Analysis.
- PID Head-space reading in ppm obtained with a photo-ionization detector.

Completion Notes

- 1.) The soil boring was advanced on date using air rotary drilling techniques.
- 2.) The lines between material types shown on the profile log represent approximate boundaries. Actual transitions may be gradual.

Soil Boring SB-3

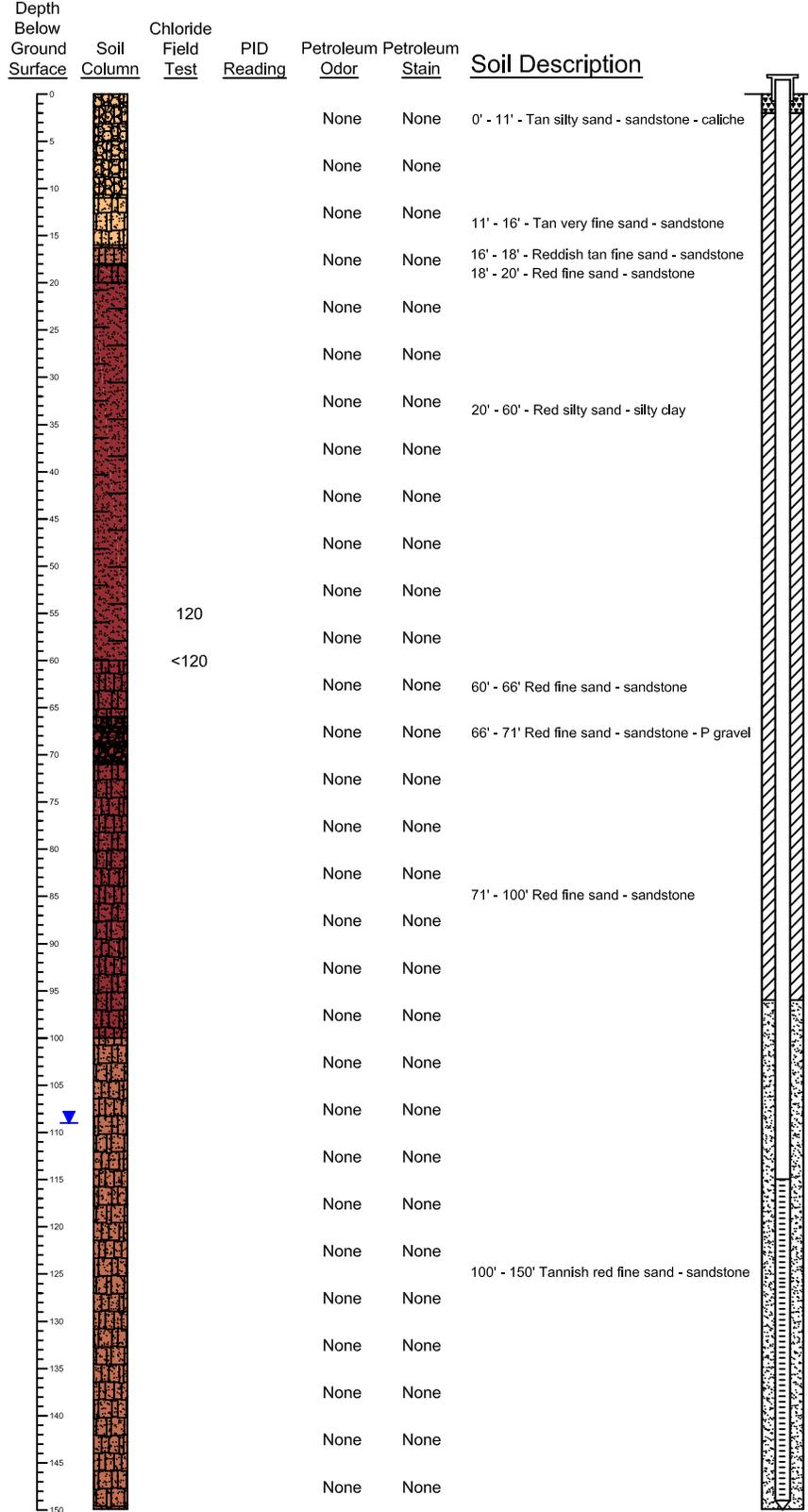
BOPCO, LP
 Bass 3 Federal Well #4 Spill Site "B"
 Eddy County, New Mexico
 NMOCD Reference #2RP-981



Basin Environmental Service Technologies, LLC
 3100 Plains Hwy.
 Lovington, NM 88260

Prep By: BJA	Checked By: BRB
July 2, 2013	

Soil Boring SB-4/Monitor Well MW-1



Date Drilled January 23, 2012
 Thickness of Bentonite Seal 94 Ft
 Depth of Exploratory Boring 150 Ft bgs
 Depth to Groundwater 109 Ft bgs
 Ground Water Elevation _____

Indicates the PSH level measured on _____
 Indicates the groundwater level measured on January 24, 2012
 Indicates samples selected for Laboratory Analysis.
 PID Head-space reading in ppm obtained with a photo-ionization detector.

Grout Surface Seal
 Bentonite Pellet Seal
 Sand Pack
 Screen

Completion Notes

- 1.) The monitor well was advanced on date using air rotary drilling techniques.
- 2.) The well was constructed with 2" ID, 0.10 inch factory slotted, threaded joint, schedule 40 PVC pipe.
- 3.) The well is protected with a locked stick-up steel cover and compression cap.
- 4.) The lines between material types shown on the profile log represent approximate boundaries. Actual transitions may be gradual.
- 5.) The depths indicated are referenced from ground surface.

**Soil Boring SB-4/
Monitor Well MW-1**

BOPCO, LP
 Bass 3 Federal Well #4 Spill Site "B"
 Eddy County, New Mexico
 NMOCD Reference #2RP-981



Basin Environmental Service Technologies, LLC
 3100 Plains Hwy.
 Lovington, NM 88260

Prep By: BJA	Checked By: BRB
July 2, 2013	

Appendix D
Laboratory Analytical Reports (Soil)

December 22, 2011

BEN J. ARGUIJO

Basin Environmental Service

P.O. Box 301

Lovington, NM 88260

RE: BASS 3 FEDERAL WELL #4 SPILL SITE 'B'

Enclosed are the results of analyses for samples received by the laboratory on 12/20/11 8:00.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-11-3. 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:	12/20/2011	Sampling Date:	12/19/2011
Reported:	12/22/2011	Sampling Type:	Soil
Project Name:	BASS 3 FEDERAL WELL #4 SPILL SITE 'E	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	EDDY COUNTY, NM		

Sample ID: TRENCH 1 @ 5' (H102740-01)

Chloride, SM4500CI-B		mg/kg		Analyzed By: AP						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	112	16.0	12/21/2011	ND	448	112	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	12/21/2011	ND	216	108	200	1.74		
DRO >C10-C28	<10.0	10.0	12/21/2011	ND	197	98.7	200	12.2		
EXT DRO >C28-C35	<10.0	10.0	12/21/2011	ND						
<i>Surrogate: 1-Chlorooctane</i>	<i>84.0 %</i>	<i>55.5-154</i>								
<i>Surrogate: 1-Chlorooctadecane</i>	<i>85.4 %</i>	<i>57.6-158</i>								

Sample ID: TRENCH 2 @ 5' (H102740-02)

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	12/21/2011	ND	448	112	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	12/22/2011	ND	216	108	200	1.74		
DRO >C10-C28	<10.0	10.0	12/22/2011	ND	197	98.7	200	12.2		
EXT DRO >C28-C35	<10.0	10.0	12/22/2011	ND						
<i>Surrogate: 1-Chlorooctane</i>	<i>94.2 %</i>	<i>55.5-154</i>								
<i>Surrogate: 1-Chlorooctadecane</i>	<i>86.3 %</i>	<i>57.6-158</i>								

Cardinal Laboratories

*=Accredited Analyte

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



Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

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

Received:	12/20/2011	Sampling Date:	12/19/2011
Reported:	12/22/2011	Sampling Type:	Soil
Project Name:	BASS 3 FEDERAL WELL #4 SPILL SITE 'E	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	EDDY COUNTY, NM		

Sample ID: TRENCH 3 @ 5' (H102740-03)

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	12/21/2011	ND	448	112	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	12/22/2011	ND	216	108	200	1.74	
DRO >C10-C28	<10.0	10.0	12/22/2011	ND	197	98.7	200	12.2	
EXT DRO >C28-C35	<10.0	10.0	12/22/2011	ND					
<i>Surrogate: 1-Chlorooctane</i>	87.4 %	55.5-154							
<i>Surrogate: 1-Chlorooctadecane</i>	97.9 %	57.6-158							

Sample ID: TRENCH 4 @ 5' (H102740-04)

Chloride, SM4500CI-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	<16.0	16.0	12/21/2011	ND	448	112	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	12/22/2011	ND	216	108	200	1.74	
DRO >C10-C28	<10.0	10.0	12/22/2011	ND	197	98.7	200	12.2	
EXT DRO >C28-C35	<10.0	10.0	12/22/2011	ND					
<i>Surrogate: 1-Chlorooctane</i>	95.3 %	55.5-154							
<i>Surrogate: 1-Chlorooctadecane</i>	101 %	57.6-158							

Cardinal Laboratories

*=Accredited Analyte

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



Celey D. Keene, Lab Director/Quality Manager

Notes and Definitions

QM-4X	The spike recovery was outside of QC acceptance limits for the MS and/or MSD due to analyte concentration at 4 times or greater the spike concentration. The QC batch was accepted based on LCS and/or LCSD recoveries within the acceptance limits.
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

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

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

Company Name: Basin Environmental Service Technologies, LLC Project Manager: Ben J. Arguijo Address: P.O. Box 301 City: Lovington State: NM Zip: 88260 Phone #: (575) 396-2378 Fax #: (575) 396-1429 Project #: Project Owner: BOPCO, LP Project Name: Bass 3 Federal Well #4 Spill Site "B" Project Location: Eddy Co., NM Sampler Name: Bobby Blackwood		BILL TO P.O. #: Company: BOPCO, LP Attn: Tony Savoie Address: 522 W. Mermod City: Carlsbad State: NM Zip: 88220 Phone #: (432) 556-8730 Fax #:		ANALYSIS REQUEST																						
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												
H102140																										
1	Trench 1 @ 5'	X				X							12/19/11	0945	X	X										
2	Trench 2 @ 5'					X								1030												
3	Trench 3 @ 5'					X								1115												
4	Trench 4 @ 5'					X								1200												

TPH (70/150)
 Ch. b. des
 Hold for BTEX

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising whether based in contract or tort, shall be limited to the amount paid by the client for the analyses. All claims including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within 30 days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise.

Relinquished By: <i>[Signature]</i> Date: 12/20/11 Time: 0700	Received By: <i>[Signature]</i> Date: 12/21/11 Time: 0800	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: Run TPH; Hold for BTEX. Please email results to pm@basinenv.com & TSavoie@BassPet.com
Relinquished By: <i>[Signature]</i> Date: 12/21/11 Time: 0800	Received By: <i>[Signature]</i>	
Delivered By: (Circle One) Sampler - UPS - Bus - Other: <i>[Signature]</i>	Sample Condition Cool Intact <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	CHECKED BY: (Initials) <i>[Initials]</i>

#26

January 19, 2012

BEN J. ARGUIJO

Basin Environmental Service

P.O. Box 301

Lovington, NM 88260

RE: BASS 3 FEDERAL WELL #4 SPILL SITE 'B'

Enclosed are the results of analyses for samples received by the laboratory on 01/16/12 8:15.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-11-3. 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:	01/16/2012	Sampling Date:	01/11/2012
Reported:	01/19/2012	Sampling Type:	Soil
Project Name:	BASS 3 FEDERAL WELL #4 SPILL SITE 'E	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	EDDY COUNTY, NM		

Sample ID: SB-1 @ 5' (H200085-01)

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	14200	16.0	01/16/2012	ND	432	108	400	0.00	
TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	01/16/2012	ND	219	109	200	6.11	
DRO >C10-C28	209	10.0	01/16/2012	ND	203	101	200	10.3	
EXT DRO >C28-C35	20.9	10.0	01/16/2012	ND					

<i>Surrogate: 1-Chlorooctane</i>	<i>124 %</i>	<i>55.5-154</i>
<i>Surrogate: 1-Chlorooctadecane</i>	<i>152 %</i>	<i>57.6-158</i>

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:	01/16/2012	Sampling Date:	01/11/2012
Reported:	01/19/2012	Sampling Type:	Soil
Project Name:	BASS 3 FEDERAL WELL #4 SPILL SITE 'E	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	EDDY COUNTY, NM		

Sample ID: SB-1 @ 10' (H200085-02)

BTEX 8021B		mg/kg		Analyzed By: AP						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	01/17/2012	ND	1.93	96.5	2.00	3.48		
Toluene*	<0.050	0.050	01/17/2012	ND	2.05	102	2.00	2.56		
Ethylbenzene*	<0.050	0.050	01/17/2012	ND	2.05	103	2.00	2.92		
Total Xylenes*	<0.150	0.150	01/17/2012	ND	6.38	106	6.00	2.08		

Surrogate: 4-Bromofluorobenzene (PIL) 103 % 64.4-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: AP						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	4320	16.0	01/16/2012	ND	432	108	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10	<10.0	10.0	01/16/2012	ND	219	109	200	6.11		
DRO >C10-C28	<10.0	10.0	01/16/2012	ND	203	101	200	10.3		
EXT DRO >C28-C35	<10.0	10.0	01/16/2012	ND						

Surrogate: 1-Chlorooctane 130 % 55.5-154
Surrogate: 1-Chlorooctadecane 150 % 57.6-158
Sample ID: SB-1 @ 35' (H200085-03)

Chloride, SM4500CI-B		mg/kg		Analyzed By: AP						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	272	16.0	01/16/2012	ND	432	108	400	0.00		

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:	01/16/2012	Sampling Date:	01/11/2012
Reported:	01/19/2012	Sampling Type:	Soil
Project Name:	BASS 3 FEDERAL WELL #4 SPILL SITE 'B	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	EDDY COUNTY, NM		

Sample ID: SB-1 @ 40' (H200085-04)

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	01/16/2012	ND	432	108	400	0.00	

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



Celey D. Keene, Lab Director/Quality Manager

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

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

Company Name: Basin Environmental Service Technologies, LLC				BILL TO				ANALYSIS REQUEST																				
Project Manager: Ben J. Arguijo				P.O. #:				<div style="display: flex; justify-content: space-around; align-items: center;"> <div style="writing-mode: vertical-rl; transform: rotate(180deg);">Chloride</div> <div style="writing-mode: vertical-rl; transform: rotate(180deg);">TPH (80/150)</div> <div style="writing-mode: vertical-rl; transform: rotate(180deg);">BTEX</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 #:		Project Owner: BOPCO, LP		City: Carlsbad																								
Project Name: <i>Bass 3 Federal Well #4 Spill Site "B"</i>				State: NM Zip: 88220																								
Project Location: Eddy Co., NM				Phone #: (432) 556-8730																								
Sampler Name: <i>Ben J. Arguijo</i>				Fax #:																								
FOR LAB USE ONLY																												
Lab I.D.	Sample I.D.	(GRAB OR (COMP. # CONTAINERS	MATRIX																	PRESERV.			SAMPLING					
			GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER:	ACID/BASE:	ICE / COOL	OTHER:	DATE	TIME															
<i>H202085</i>																												
<i>1</i>	<i>SB-1 @ 5'</i>	<i>G</i>			<i>X</i>					<i>X</i>		<i>11/1/12</i>	<i>1230</i>	<i>X</i>	<i>X</i>													
<i>2</i>	<i>SB-1 @ 10'</i>												<i>1235</i>		<i>X</i>	<i>X</i>												
<i>3</i>	<i>SB-1 @ 35'</i>												<i>1300</i>															
<i>4</i>	<i>SB-1 @ 40'</i>												<i>1325</i>															

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Relinquished By: <i>[Signature]</i>	Date: <i>11/6/12</i>	Received By: <i>[Signature]</i>	Phone Result: <input type="checkbox"/> Yes <input type="checkbox"/> No	Add'l Phone #:
	Time: <i>0845</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:	Please email results to pm@basinenv.com & TASavoie@BassPet.com	
Sampler - UPS - Bus - Other:	Cool <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Intact <input type="checkbox"/> Yes <input type="checkbox"/> No	(Initials)		

#26

January 19, 2012

BEN J. ARGUIJO

Basin Environmental Service

P.O. Box 301

Lovington, NM 88260

RE: BASS 3 FEDERAL WELL #4 SPILL SITE 'B'

Enclosed are the results of analyses for samples received by the laboratory on 01/16/12 8:15.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-11-3. 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:	01/16/2012	Sampling Date:	01/11/2012
Reported:	01/19/2012	Sampling Type:	Soil
Project Name:	BASS 3 FEDERAL WELL #4 SPILL SITE 'E	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	EDDY COUNTY, NM		

Sample ID: SB-2 @ 5' (H200086-01)

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	12400	16.0	01/16/2012	ND	432	108	400	0.00	
TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	01/16/2012	ND	219	109	200	6.11	
DRO >C10-C28	<10.0	10.0	01/16/2012	ND	203	101	200	10.3	
EXT DRO >C28-C35	<10.0	10.0	01/16/2012	ND					
<i>Surrogate: 1-Chlorooctane</i>	<i>99.8 %</i>	<i>55.5-154</i>							
<i>Surrogate: 1-Chlorooctadecane</i>	<i>112 %</i>	<i>57.6-158</i>							

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:	01/16/2012	Sampling Date:	01/11/2012
Reported:	01/19/2012	Sampling Type:	Soil
Project Name:	BASS 3 FEDERAL WELL #4 SPILL SITE 'E	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	EDDY COUNTY, NM		

Sample ID: SB-2 @ 10' (H200086-02)

BTEX 8021B		mg/kg		Analyzed By: AP						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	01/17/2012	ND	1.93	96.5	2.00	3.48		
Toluene*	<0.050	0.050	01/17/2012	ND	2.05	102	2.00	2.56		
Ethylbenzene*	<0.050	0.050	01/17/2012	ND	2.05	103	2.00	2.92		
Total Xylenes*	<0.150	0.150	01/17/2012	ND	6.38	106	6.00	2.08		

Surrogate: 4-Bromofluorobenzene (PIL) 107 % 64.4-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: AP						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	7300	16.0	01/16/2012	ND	432	108	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10	<10.0	10.0	01/16/2012	ND	219	109	200	6.11		
DRO >C10-C28	<10.0	10.0	01/16/2012	ND	203	101	200	10.3		
EXT DRO >C28-C35	<10.0	10.0	01/16/2012	ND						

Surrogate: 1-Chlorooctane 111 % 55.5-154
Surrogate: 1-Chlorooctadecane 127 % 57.6-158
Sample ID: SB-2 @ 75' (H200086-03)

Chloride, SM4500CI-B		mg/kg		Analyzed By: AP						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	32.0	16.0	01/16/2012	ND	432	108	400	0.00		

Cardinal Laboratories

*=Accredited Analyte

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



Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

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

Received:	01/16/2012	Sampling Date:	01/11/2012
Reported:	01/19/2012	Sampling Type:	Soil
Project Name:	BASS 3 FEDERAL WELL #4 SPILL SITE 'B	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	EDDY COUNTY, NM		

Sample ID: SB-2 @ 80' (H200086-04)

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	01/16/2012	ND	432	108	400	0.00		

Cardinal Laboratories

*=Accredited Analyte

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



Celey D. Keene, Lab Director/Quality Manager

Notes and Definitions

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

Cardinal Laboratories

*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

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

Company Name: Basin Environmental Service Technologies, LLC		BILL TO				ANALYSIS REQUEST																							
Project Manager: Ben J. Arguijo		P.O. #:																											
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 #: Project Owner: BOPCO, LP		City: Carlsbad																											
Project Name: Bass 3 Federal Well #4 Spill Site "B"		State: NM Zip: 88220																											
Project Location: Eddy Co., NM		Phone #: (432) 556-8730																											
Sampler Name: Ben J. Arguijo		Fax #:																											
FOR LAB USE ONLY																													
Lab I.D.		Sample I.D.		(G)RAB OR (COMP. #) CONTAINERS	MATRIX					PRESERV.			SAMPLING																
					GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER:	ACID/BASE:	ICE / COOL	OTHER:	DATE	TIME														
H2000586				G 1				X				X		11/18/12	1400	Chloride TPH (80/15 M) BTEX													
1		SB-2 @ 5'		↓																						X	X	X	
2		SB-2 @ 10'		↓																							X	X	X
3		SB-2 @ 75'		↓																									
4		SB-2 @ 80'		↓																									

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: 1/18/12 Time: 0805	Received By: Jodi Benson	Phone Result: <input type="checkbox"/> Yes <input type="checkbox"/> No	Add'l Phone #:
Relinquished By:	Date:	Received By:	Fax Result: <input type="checkbox"/> Yes <input type="checkbox"/> No	Add'l Fax #:
Delivered By: (Circle One) Sampler - UPS - Bus - Other:		Sample Condition Cool <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Intact <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	CHECKED BY: (Initials) JSA	
Please email results to pm@basinenv.com & TASavoie@BassPet.com				

#26

January 19, 2012

BEN J. ARGUIJO

Basin Environmental Service

P.O. Box 301

Lovington, NM 88260

RE: BASS 3 FEDERAL WELL #4 SPILL SITE 'B'

Enclosed are the results of analyses for samples received by the laboratory on 01/16/12 8:15.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-11-3. 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:	01/16/2012	Sampling Date:	01/12/2012
Reported:	01/19/2012	Sampling Type:	Soil
Project Name:	BASS 3 FEDERAL WELL #4 SPILL SITE 'E	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	EDDY COUNTY, NM		

Sample ID: SB-3 @ 10' (H200087-01)

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	4900	16.0	01/16/2012	ND	432	108	400	0.00	
TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	01/16/2012	ND	219	109	200	6.11	
DRO >C10-C28	37.1	10.0	01/16/2012	ND	203	101	200	10.3	
EXT DRO >C28-C35	<10.0	10.0	01/16/2012	ND					
<i>Surrogate: 1-Chlorooctane</i>	<i>135 %</i>	<i>55.5-154</i>							
<i>Surrogate: 1-Chlorooctadecane</i>	<i>155 %</i>	<i>57.6-158</i>							

Cardinal Laboratories

*=Accredited Analyte

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



Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

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

Received:	01/16/2012	Sampling Date:	01/12/2012
Reported:	01/19/2012	Sampling Type:	Soil
Project Name:	BASS 3 FEDERAL WELL #4 SPILL SITE 'E	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	EDDY COUNTY, NM		

Sample ID: SB-3 @ 15' (H200087-02)

BTEX 8021B		mg/kg		Analyzed By: AP						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	01/17/2012	ND	1.93	96.5	2.00	3.48		
Toluene*	<0.050	0.050	01/17/2012	ND	2.05	102	2.00	2.56		
Ethylbenzene*	<0.050	0.050	01/17/2012	ND	2.05	103	2.00	2.92		
Total Xylenes*	<0.150	0.150	01/17/2012	ND	6.38	106	6.00	2.08		

Surrogate: 4-Bromofluorobenzene (PIL) 106 % 64.4-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: AP						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	6800	16.0	01/16/2012	ND	432	108	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS							S-04
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier		
GRO C6-C10	<10.0	10.0	01/16/2012	ND	219	109	200	6.11			
DRO >C10-C28	<10.0	10.0	01/16/2012	ND	203	101	200	10.3			
EXT DRO >C28-C35	<10.0	10.0	01/16/2012	ND							

Surrogate: 1-Chlorooctane 143 % 55.5-154
Surrogate: 1-Chlorooctadecane 160 % 57.6-158
Sample ID: SB-3 @ 105' (H200087-03)

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	01/16/2012	ND	432	108	400	0.00		

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*=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:	01/16/2012	Sampling Date:	01/12/2012
Reported:	01/19/2012	Sampling Type:	Soil
Project Name:	BASS 3 FEDERAL WELL #4 SPILL SITE 'B	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	EDDY COUNTY, NM		

Sample ID: SB-3 @ 110' (H200087-04)
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	01/16/2012	ND	432	108	400	0.00	

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Celey D. Keene, Lab Director/Quality Manager

Notes and Definitions

- S-04 The surrogate recovery for this sample is outside of established control limits due to a sample matrix effect.
- 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

February 02, 2012

BEN J. ARGUIJO

Basin Environmental Service

P.O. Box 301

Lovington, NM 88260

RE: BASS 3 FEDERAL WELL #4 SPILL SITE 'B'

Enclosed are the results of analyses for samples received by the laboratory on 01/16/12 8:15.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-11-3. 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:	01/16/2012	Sampling Date:	01/12/2012
Reported:	02/02/2012	Sampling Type:	Soil
Project Name:	BASS 3 FEDERAL WELL #4 SPILL SITE 'E	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	EDDY COUNTY, NM		

Sample ID: SB-3 @ 15' (H200087-02)

SPLP Chloride		mg/L		Analyzed By: HM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	312	4.00	02/02/2012	ND	107	107	100	4.57	

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



Celey D. Keene, Lab Director/Quality Manager

January 17, 2012

BEN J. ARGUIJO

Basin Environmental Service

P.O. Box 301

Lovington, NM 88260

RE: BASS 3 FEDERAL WELL #4 SPILL SITE 'B'

Enclosed are the results of analyses for samples received by the laboratory on 01/16/12 8:15.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-11-3. 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.

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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:	01/16/2012	Sampling Date:	01/12/2012
Reported:	01/17/2012	Sampling Type:	Soil
Project Name:	BASS 3 FEDERAL WELL #4 SPILL SITE 'E	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	EDDY COUNTY, NM		

Sample ID: SOUTH WALL @ 5' (H200083-01)

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	01/16/2012	ND	432	108	400	0.00	

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

*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager

January 30, 2012

BEN J. ARGUIJO

Basin Environmental Service

P.O. Box 301

Lovington, NM 88260

RE: BASS 3 FEDERAL WELL #4 SPILL SITE 'B'

Enclosed are the results of analyses for samples received by the laboratory on 01/27/12 10:40.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-11-3. 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:	01/27/2012	Sampling Date:	01/24/2012
Reported:	01/30/2012	Sampling Type:	Soil
Project Name:	BASS 3 FEDERAL WELL #4 SPILL SITE 'E	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	EDDY COUNTY, NM		

Sample ID: SB-4 / TMW-1 @ 55' (H200211-01)

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	01/30/2012	ND	384	96.0	400	8.00	

Sample ID: SB-4 / TMW-1 @ 60' (H200211-02)

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	01/30/2012	ND	384	96.0	400	8.00	

Sample ID: SB-4 / TMW-1 @ 100' (H200211-03)

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	01/30/2012	ND	384	96.0	400	8.00	

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



Celey D. Keene, Lab Director/Quality Manager



CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

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

Company Name: Basin Environmental Service Technologies, LLC		BILL TO			ANALYSIS REQUEST										
Project Manager: Ben J. Arquiño		P.O. #:													
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 #: Project Owner: BOPCO, LP		City: Carlsbad													
Project Name: Bass 3 Federal Well #4 Spill Site "B"		State: NM Zip: 88220													
Project Location: Eddy Co., NM		Phone #: (432) 556-8730													
Sampler Name: Ben Arquiño		Fax #:													
FOR LAB USE ONLY															
Lab I.D.	Sample I.D.	(G/RAB OR C/COMP. # CONTAINERS)	MATRIX				PRESERV.		SAMPLING						
			GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER:	ACID/BASE:	ICE / COOL	OTHER:	DATE	TIME		
H200211															
1	SB-4/TMW-1 @ 55'	6			X					X		1/24/12	1030	X	
2	SB-4/TMW-1 @ 60'	↓			↓					↓		↓	1040	↓	
3	SB-4/TMW-1 @ 100'	↓			↓					↓		↓	1200	↓	

chloride

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: 1/27/12	Received By:	Phone Result: <input type="checkbox"/> Yes <input type="checkbox"/> No	Add'l Phone #:
	Time: 0915		Fax Result: <input type="checkbox"/> Yes <input type="checkbox"/> No	Add'l Fax #:
Relinquished By:	Date: 1/27/12	Received By:	REMARKS:	
	Time: 10:40			
Delivered By: (Circle One)	Sample Condition	CHECKED BY:	Please email results to pm@basinenv.com	
Sampler - UPS - Bus - Other:	Cool <input type="checkbox"/> Intact <input type="checkbox"/>	(Initials)	• & TSavoie@BassPet.com	
	<input type="checkbox"/> Yes <input type="checkbox"/> No			

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

#26

January 26, 2012

BEN J. ARGUIJO

Basin Environmental Service

P.O. Box 301

Lovington, NM 88260

RE: BASS 3 FEDERAL WELL #4 SPILL SITE 'B'

Enclosed are the results of analyses for samples received by the laboratory on 01/20/12 14:00.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-11-3. 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:	01/20/2012	Sampling Date:	01/19/2012
Reported:	01/26/2012	Sampling Type:	Soil
Project Name:	BASS 3 FEDERAL WELL #4 SPILL SITE 'E	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	EDDY COUNTY, NM		

Sample ID: WEST WALL 50' (H200148-01)

Chloride, SM4500CI-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	240	16.0	01/23/2012	ND	432	108	400	7.69	
TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	17.2	10.0	01/25/2012	ND	196	97.8	200	12.1	
DRO >C10-C28	172	10.0	01/25/2012	ND	238	119	200	10.1	
EXT DRO >C28-C35	29.3	10.0	01/25/2012	ND					

Surrogate: 1-Chlorooctane 90.9 % 55.5-154
 Surrogate: 1-Chlorooctadecane 119 % 57.6-158

Sample ID: EAST WALL 50' (H200148-02)

Chloride, SM4500CI-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	304	16.0	01/23/2012	ND	432	108	400	7.69	
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	01/25/2012	ND	196	97.8	200	12.1	
DRO >C10-C28	<10.0	10.0	01/25/2012	ND	238	119	200	10.1	
EXT DRO >C28-C35	<10.0	10.0	01/25/2012	ND					

Surrogate: 1-Chlorooctane 107 % 55.5-154
 Surrogate: 1-Chlorooctadecane 151 % 57.6-158

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:	01/20/2012	Sampling Date:	01/19/2012
Reported:	01/26/2012	Sampling Type:	Soil
Project Name:	BASS 3 FEDERAL WELL #4 SPILL SITE 'B	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	EDDY COUNTY, NM		

Sample ID: EAST WALL 100' (H200148-03)

Chloride, SM4500CI-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	32.0	16.0	01/23/2012	ND	432	108	400	7.69	
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	01/25/2012	ND	196	97.8	200	12.1	
DRO >C10-C28	<10.0	10.0	01/25/2012	ND	238	119	200	10.1	
EXT DRO >C28-C35	<10.0	10.0	01/25/2012	ND					
<i>Surrogate: 1-Chlorooctane</i>	<i>95.4 %</i>	<i>55.5-154</i>							
<i>Surrogate: 1-Chlorooctadecane</i>	<i>123 %</i>	<i>57.6-158</i>							

Sample ID: WEST WALL 100' (H200148-04)

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	01/23/2012	ND	432	108	400	7.69	
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	01/25/2012	ND	196	97.8	200	12.1	
DRO >C10-C28	<10.0	10.0	01/25/2012	ND	238	119	200	10.1	
EXT DRO >C28-C35	<10.0	10.0	01/25/2012	ND					
<i>Surrogate: 1-Chlorooctane</i>	<i>85.6 %</i>	<i>55.5-154</i>							
<i>Surrogate: 1-Chlorooctadecane</i>	<i>118 %</i>	<i>57.6-158</i>							

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:	01/20/2012	Sampling Date:	01/19/2012
Reported:	01/26/2012	Sampling Type:	Soil
Project Name:	BASS 3 FEDERAL WELL #4 SPILL SITE 'E	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	EDDY COUNTY, NM		

Sample ID: WEST WALL 150' (H200148-05)

Chloride, SM4500CI-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	176	16.0	01/23/2012	ND	432	108	400	7.69	
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	01/25/2012	ND	196	97.8	200	12.1	
DRO >C10-C28	<10.0	10.0	01/25/2012	ND	238	119	200	10.1	
EXT DRO >C28-C35	<10.0	10.0	01/25/2012	ND					
<i>Surrogate: 1-Chlorooctane</i>	<i>92.3 %</i>	<i>55.5-154</i>							
<i>Surrogate: 1-Chlorooctadecane</i>	<i>127 %</i>	<i>57.6-158</i>							

Sample ID: EAST WALL 150' (H200148-06)

Chloride, SM4500CI-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	32.0	16.0	01/23/2012	ND	432	108	400	3.77	
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	01/25/2012	ND	196	97.8	200	12.1	
DRO >C10-C28	<10.0	10.0	01/25/2012	ND	238	119	200	10.1	
EXT DRO >C28-C35	<10.0	10.0	01/25/2012	ND					
<i>Surrogate: 1-Chlorooctane</i>	<i>91.2 %</i>	<i>55.5-154</i>							
<i>Surrogate: 1-Chlorooctadecane</i>	<i>127 %</i>	<i>57.6-158</i>							

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:	01/20/2012	Sampling Date:	01/19/2012
Reported:	01/26/2012	Sampling Type:	Soil
Project Name:	BASS 3 FEDERAL WELL #4 SPILL SITE 'E	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	EDDY COUNTY, NM		

Sample ID: EAST WALL 200' (H200148-07)

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	01/24/2012	ND	432	108	400	3.77	
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	01/25/2012	ND	196	97.8	200	12.1	
DRO >C10-C28	<10.0	10.0	01/25/2012	ND	238	119	200	10.1	
EXT DRO >C28-C35	<10.0	10.0	01/25/2012	ND					
<i>Surrogate: 1-Chlorooctane</i>	<i>81.6 %</i>	<i>55.5-154</i>							
<i>Surrogate: 1-Chlorooctadecane</i>	<i>110 %</i>	<i>57.6-158</i>							

Sample ID: WEST WALL 200' (H200148-08)

Chloride, SM4500CI-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	224	16.0	01/24/2012	ND	432	108	400	3.77	
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	01/25/2012	ND	196	97.8	200	12.1	
DRO >C10-C28	<10.0	10.0	01/25/2012	ND	238	119	200	10.1	
EXT DRO >C28-C35	<10.0	10.0	01/25/2012	ND					
<i>Surrogate: 1-Chlorooctane</i>	<i>105 %</i>	<i>55.5-154</i>							
<i>Surrogate: 1-Chlorooctadecane</i>	<i>140 %</i>	<i>57.6-158</i>							

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*=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

*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager

January 27, 2012

BEN J. ARGUIJO

Basin Environmental Service

P.O. Box 301

Lovington, NM 88260

RE: BASS 3 FEDERAL WELL #4 SPILL SITE 'B'

Enclosed are the results of analyses for samples received by the laboratory on 01/25/12 12:20.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-11-3. 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:	01/25/2012	Sampling Date:	01/24/2012
Reported:	01/27/2012	Sampling Type:	Soil
Project Name:	BASS 3 FEDERAL WELL #4 SPILL SITE 'E	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	EDDY COUNTY, NM		

Sample ID: NORTH WALL (H200180-01)

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	01/26/2012	ND	432	108	400	0.00	
TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	01/26/2012	ND	174	86.8	200	0.0835	
DRO >C10-C28	12.7	10.0	01/26/2012	ND	225	113	200	6.70	
EXT DRO >C28-C35	<10.0	10.0	01/26/2012	ND					
<i>Surrogate: 1-Chlorooctane</i>	<i>93.2 %</i>	<i>55.5-154</i>							
<i>Surrogate: 1-Chlorooctadecane</i>	<i>123 %</i>	<i>57.6-158</i>							

Cardinal Laboratories

*=Accredited Analyte

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



Celey D. Keene, Lab Director/Quality Manager

Notes and Definitions

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

Cardinal Laboratories

*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager

Appendix E
Laboratory Analytical Reports
(Groundwater)

January 04, 2012

BEN J. ARGUIJO

Basin Environmental Service

P.O. Box 301

Lovington, NM 88260

RE: BASS 3 FEDERAL 4 'C'

Enclosed are the results of analyses for samples received by the laboratory on 12/30/11 15:50.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-11-3. 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:	12/30/2011	Sampling Date:	12/30/2011
Reported:	01/04/2012	Sampling Type:	Soil
Project Name:	BASS 3 FEDERAL 4 'C'	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	EDDY COUNTY, NM		

Sample ID: WEST WALL (H102799-01)

Chloride, SM4500CI-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	176	16.0	01/03/2012	ND	416	104	400	0.00	
TPH 8015M		mg/kg		Analyzed By: CK					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	01/04/2012	ND	206	103	200	4.54	
DRO >C10-C28	<10.0	10.0	01/04/2012	ND	177	88.4	200	3.61	
EXT DRO >C28-C35	<10.0	10.0	01/04/2012	ND					
<i>Surrogate: 1-Chlorooctane</i>	<i>108 %</i>	<i>55.5-154</i>							
<i>Surrogate: 1-Chlorooctadecane</i>	<i>128 %</i>	<i>57.6-158</i>							

Sample ID: SOUTH WALL (H102799-02)

Chloride, SM4500CI-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	592	16.0	01/03/2012	ND	416	104	400	0.00	
TPH 8015M		mg/kg		Analyzed By: CK					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	01/04/2012	ND	206	103	200	4.54	
DRO >C10-C28	<10.0	10.0	01/04/2012	ND	177	88.4	200	3.61	
EXT DRO >C28-C35	<10.0	10.0	01/04/2012	ND					
<i>Surrogate: 1-Chlorooctane</i>	<i>100 %</i>	<i>55.5-154</i>							
<i>Surrogate: 1-Chlorooctadecane</i>	<i>123 %</i>	<i>57.6-158</i>							

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: 12/30/2011
 Reported: 01/04/2012
 Project Name: BASS 3 FEDERAL 4 'C'
 Project Number: NONE GIVEN
 Project Location: EDDY COUNTY, NM

 Sampling Date: 12/30/2011
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Jodi Henson

Sample ID: EAST WALL (H102799-03)

Chloride, SM4500CI-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	144	16.0	01/03/2012	ND	416	104	400	0.00	
TPH 8015M		mg/kg		Analyzed By: CK					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	01/04/2012	ND	206	103	200	4.54	
DRO >C10-C28	<10.0	10.0	01/04/2012	ND	177	88.4	200	3.61	
EXT DRO >C28-C35	<10.0	10.0	01/04/2012	ND					
<i>Surrogate: 1-Chlorooctane</i>	<i>99.1 %</i>	<i>55.5-154</i>							
<i>Surrogate: 1-Chlorooctadecane</i>	<i>122 %</i>	<i>57.6-158</i>							

Sample ID: WATER WELL (H102799-04)

Chloride, SM4500CI-B		mg/L		Analyzed By: HM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride*	336	4.00	01/03/2012	ND	100	100	100	3.92	
TDS 160.1		mg/L		Analyzed By: HM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
TDS*	2420	5.00	01/03/2012	ND	243	101	240	0.260	

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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



Celey D. Keene, Lab Director/Quality Manager

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

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

Company Name: Basin Environmental Service Technologies, LLC		BILL TO				ANALYSIS REQUEST																		
Project Manager: Ben J. Arguijo		P.O. #:				<div style="display: flex; flex-direction: column; align-items: center; justify-content: center;"> <div style="writing-mode: vertical-rl; transform: rotate(180deg); font-size: 2em; font-weight: bold;">TPH (8015m)</div> <div style="writing-mode: vertical-rl; transform: rotate(180deg); font-size: 2em; font-weight: bold;">Chlorides</div> <div style="writing-mode: vertical-rl; transform: rotate(180deg); font-size: 2em; font-weight: bold;">Hold for BTEX</div> <div style="writing-mode: vertical-rl; transform: rotate(180deg); font-size: 2em; font-weight: bold;">TDS</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 #: Project Owner: BOPCO, LP		City: Carlsbad																						
Project Name: <i>Bass 3 Federal 4 "C"</i>		State: NM Zip: 88220																						
Project Location: <i>Eddy County</i>		Phone #: (432) 556-8730																						
Sampler Name: <i>Troy Hahn</i>		Fax #:																						
FOR LAB USE ONLY	Lab I.D.	Sample I.D.	(G)RAB OR (C)OMP.	# CONTAINERS	MATRIX											PRESERV.			SAMPLING					
					GROUNDWATER											WASTEWATER	SOIL	OIL	SLUDGE	OTHER:	ACID/BASE:	ICE/COOL	OTHER:	DATE	TIME
	H102799																							
	1	West Wall	G	1			✓					✓		12/30/11	1012									
	2	South Wall	G	1			✓					✓		12/30/11	1030									
	3	East Wall	G	1			✓					✓		12/30/11	1105									
	4	Water Well	C	1								✓		12/30/11	1430									

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising whether based in contract or tort, shall be limited to the amount paid by the client for the analyses. All claims including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within 30 days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise.

Relinquished By: <i>Troy Hahn</i>	Date: <i>12/30/11</i>	Received By: <i>Jodi Newson</i>	Phone Result: <input type="checkbox"/> Yes <input type="checkbox"/> No	Add'l Phone #:
	Time: <i>1350</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: <i>JDN</i>	Please email results to pm@basinenv.com & TAsavoie@BassPet.com	
Sampler - UPS - Bus - Other:	Cool Intact <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Yes <input type="checkbox"/> No			

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

#26

January 31, 2012

BEN J. ARGUIJO

Basin Environmental Service

P.O. Box 301

Lovington, NM 88260

RE: BASS 3 FEDERAL WELL #4 SPILL SITE 'B'

Enclosed are the results of analyses for samples received by the laboratory on 01/25/12 16:15.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-11-3. 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:	01/25/2012	Sampling Date:	01/25/2012
Reported:	01/31/2012	Sampling Type:	Water
Project Name:	BASS 3 FEDERAL WELL #4 SPILL SITE 'E	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	EDDY COUNTY, NM		

Sample ID: TMW-1 (H200188-01)

BTEX 8260B		mg/L		Analyzed By: CMS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.001	0.001	01/25/2012	ND	0.022	110	0.0200	10.1		
Toluene*	0.001	0.001	01/25/2012	ND	0.019	97.0	0.0200	10.4		
Ethylbenzene*	<0.001	0.001	01/25/2012	ND	0.020	100	0.0200	10.1		
Total Xylenes*	<0.003	0.003	01/25/2012	ND	0.060	100	0.0600	10.7		

Surrogate: Dibromofluoromethane 125 % 59.8-161

Surrogate: Toluene-d8 91.4 % 75.2-115

Surrogate: 4-Bromofluorobenzene 88.3 % 53.7-120

Chloride, SM4500Cl-B		mg/L		Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride*	24.0	4.00	01/27/2012	ND	104	104	100	0.00		

TDS 160.1		mg/L		Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
TDS*	2020	5.00	01/27/2012	ND	238	99.2	240	1.50		

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



Celey D. Keene, Lab Director/Quality Manager

July 10, 2013

BEN J. ARGUIJO

Basin Environmental Service

P.O. Box 301

Lovington, NM 88260

RE: BASS 3 FEDERAL WELL #4 SPILL SITE 'B'

Enclosed are the results of analyses for samples received by the laboratory on 03/15/12 14:15.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-11-3. 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 P.O. Box 301 Lovington NM, 88260	Project: BASS 3 FEDERAL WELL #4 SPILL S Project Number: NONE GIVEN Project Manager: BEN J. ARGUIJO Fax To: (575) 396-1429	Reported: 10-Jul-13 15:08
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Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
MW-1	H200653-01	Water	15-Mar-12 11:45	15-Mar-12 14:15

Cardinal Laboratories

*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

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

 Project: BASS 3 FEDERAL WELL #4 SPILL S
 Project Number: NONE GIVEN
 Project Manager: BEN J. ARGUIJO
 Fax To: (575) 396-1429

 Reported:
 10-Jul-13 15:08

MW-1
H200653-01 (Water)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
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Cardinal Laboratories
Inorganic Compounds

Alkalinity, Bicarbonate	83.0	5.00	mg/L	1	2030908	HM	16-Mar-12	310.1	
Alkalinity, Carbonate	ND	0.00	mg/L	1	2030908	HM	16-Mar-12	310.1	
Chloride*	24.0	4.00	mg/L	1	2031404	HM	16-Mar-12	4500-Cl-B	
Fluoride	4.48	0.200	mg/L	1	2032704	HM	27-Mar-12	4500F C	
Nitrate as N	2.35	0.100	mg/L	1	2040413	HM	16-Mar-12	353.3	
Phosphorus, Total	0.10	0.10	mg/L	1	2040414	HM	27-Mar-12	365.3	
Sulfate*	1170	125	mg/L	12.5	2031906	CK	19-Mar-12	375.4	

Dissolved Metals

Aluminum	0.749	0.0500	mg/L	1	2040405	CK	23-Mar-12	200.7	GAL
Arsenic	0.0060	0.0005	mg/L	1	2040406	CK	21-Mar-12	200.8	GAL
Barium	0.0342	0.000500	mg/L	1	2040406	CK	21-Mar-12	200.8	GAL
Boron	ND	0.200	mg/L	1	2040405	CK	23-Mar-12	200.7	GAL
Cadmium	ND	0.00010	mg/L	1	2040406	CK	21-Mar-12	200.8	GAL
Calcium	445	1.00	mg/L	1	2040405	CK	23-Mar-12	200.7	GAL
Chromium	0.003	0.001	mg/L	1	2040406	CK	21-Mar-12	200.8	GAL
Cobalt	0.00110	0.00010	mg/L	1	2040406	CK	21-Mar-12	200.8	GAL
Copper	0.0012	0.0001	mg/L	1	2040406	CK	21-Mar-12	200.8	GAL
Iron	0.302	0.050	mg/L	1	2040405	CK	23-Mar-12	200.7	GAL
Lead	ND	0.0005	mg/L	1	2040406	CK	21-Mar-12	200.8	GAL
Magnesium	29.8	1.00	mg/L	1	2040405	CK	23-Mar-12	200.7	GAL
Manganese	0.0118	0.0005	mg/L	1	2040406	CK	21-Mar-12	200.8	GAL
Mercury	ND	0.0002	mg/L	1	2040407	CK	21-Mar-12	245.1	GAL
Molybdenum	0.0046	0.0005	mg/L	1	2040406	CK	21-Mar-12	200.8	GAL
Nickel	0.0206	0.0005	mg/L	1	2040406	CK	21-Mar-12	200.8	GAL
Potassium	2.95	1.00	mg/L	1	2040405	CK	23-Mar-12	200.7	GAL
Selenium	0.004	0.001	mg/L	1	2040406	CK	21-Mar-12	200.8	GAL
Silver	ND	0.00010	mg/L	1	2040406	CK	21-Mar-12	200.8	GAL
Sodium	9.30	1.00	mg/L	1	2040405	CK	23-Mar-12	200.7	GAL

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Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

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

 Project: BASS 3 FEDERAL WELL #4 SPILL S
 Project Number: NONE GIVEN
 Project Manager: BEN J. ARGUIJO
 Fax To: (575) 396-1429

 Reported:
 10-Jul-13 15:08

MW-1
H200653-01 (Water)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
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Cardinal Laboratories
Dissolved Metals

Zinc	0.007	0.001	mg/L	1	2040406	CK	21-Mar-12	200.8	GAL
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Volatile Organic Compounds by EPA Method 8260B

Dichlorodifluoromethane*	ND	0.001	mg/L	1	2031604	CMS	16-Mar-12	8260B	
Chloromethane*	ND	0.001	mg/L	1	2031604	CMS	16-Mar-12	8260B	
Vinyl chloride*	ND	0.001	mg/L	1	2031604	CMS	16-Mar-12	8260B	
Bromomethane*	ND	0.001	mg/L	1	2031604	CMS	16-Mar-12	8260B	
Chloroethane*	ND	0.001	mg/L	1	2031604	CMS	16-Mar-12	8260B	
Trichlorofluoromethane*	ND	0.001	mg/L	1	2031604	CMS	16-Mar-12	8260B	
1,1-Dichloroethene*	ND	0.001	mg/L	1	2031604	CMS	16-Mar-12	8260B	
Carbon disulfide*	ND	0.001	mg/L	1	2031604	CMS	16-Mar-12	8260B	
Iodomethane	ND	0.001	mg/L	1	2031604	CMS	16-Mar-12	8260B	
Acrolein*	ND	0.005	mg/L	1	2031604	CMS	16-Mar-12	8260B	
Methylene chloride*	ND	0.001	mg/L	1	2031604	CMS	16-Mar-12	8260B	
Acetone*	ND	0.005	mg/L	1	2031604	CMS	16-Mar-12	8260B	
trans-1,2-Dichloroethene*	ND	0.001	mg/L	1	2031604	CMS	16-Mar-12	8260B	
Methyl t-Butyl Ether*	ND	0.001	mg/L	1	2031604	CMS	16-Mar-12	8260B	
1,1-Dichloroethane*	ND	0.001	mg/L	1	2031604	CMS	16-Mar-12	8260B	
Acrylonitrile*	ND	0.001	mg/L	1	2031604	CMS	16-Mar-12	8260B	
Vinyl acetate*	ND	0.005	mg/L	1	2031604	CMS	16-Mar-12	8260B	
cis-1,2-Dichloroethene*	ND	0.001	mg/L	1	2031604	CMS	16-Mar-12	8260B	
2,2-Dichloropropane*	ND	0.001	mg/L	1	2031604	CMS	16-Mar-12	8260B	
Bromochloromethane*	ND	0.001	mg/L	1	2031604	CMS	16-Mar-12	8260B	
Chloroform*	ND	0.001	mg/L	1	2031604	CMS	16-Mar-12	8260B	
Carbon tetrachloride*	ND	0.001	mg/L	1	2031604	CMS	16-Mar-12	8260B	
1,1,1-Trichloroethane*	ND	0.001	mg/L	1	2031604	CMS	16-Mar-12	8260B	
1,1-Dichloropropene*	ND	0.001	mg/L	1	2031604	CMS	16-Mar-12	8260B	
2-Butanone*	ND	0.005	mg/L	1	2031604	CMS	16-Mar-12	8260B	
Benzene*	ND	0.001	mg/L	1	2031604	CMS	16-Mar-12	8260B	

Cardinal Laboratories

*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

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

 Project: BASS 3 FEDERAL WELL #4 SPILL S
 Project Number: NONE GIVEN
 Project Manager: BEN J. ARGUIJO
 Fax To: (575) 396-1429

 Reported:
 10-Jul-13 15:08

MW-1
H200653-01 (Water)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
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Cardinal Laboratories
Volatile Organic Compounds by EPA Method 8260B

1,2-Dichloroethane*	ND	0.001	mg/L	1	2031604	CMS	16-Mar-12	8260B	
Trichloroethene*	ND	0.001	mg/L	1	2031604	CMS	16-Mar-12	8260B	
Dibromomethane*	ND	0.001	mg/L	1	2031604	CMS	16-Mar-12	8260B	
1,2-Dichloropropane*	ND	0.001	mg/L	1	2031604	CMS	16-Mar-12	8260B	
Bromodichloromethane*	ND	0.001	mg/L	1	2031604	CMS	16-Mar-12	8260B	
cis-1,3-Dichloropropene*	ND	0.001	mg/L	1	2031604	CMS	16-Mar-12	8260B	
Toluene*	ND	0.001	mg/L	1	2031604	CMS	16-Mar-12	8260B	
4-Methyl-2-pentanone*	ND	0.005	mg/L	1	2031604	CMS	16-Mar-12	8260B	
Tetrachloroethene*	ND	0.001	mg/L	1	2031604	CMS	16-Mar-12	8260B	
trans-1,3-Dichloropropene*	ND	0.001	mg/L	1	2031604	CMS	16-Mar-12	8260B	
1,1,2-Trichloroethane*	ND	0.001	mg/L	1	2031604	CMS	16-Mar-12	8260B	
Dibromochloromethane*	ND	0.001	mg/L	1	2031604	CMS	16-Mar-12	8260B	
1,3-Dichloropropane*	ND	0.001	mg/L	1	2031604	CMS	16-Mar-12	8260B	
1,2-Dibromoethane*	ND	0.001	mg/L	1	2031604	CMS	16-Mar-12	8260B	
2-Hexanone*	ND	0.005	mg/L	1	2031604	CMS	16-Mar-12	8260B	
Chlorobenzene*	ND	0.001	mg/L	1	2031604	CMS	16-Mar-12	8260B	
Ethylbenzene*	ND	0.001	mg/L	1	2031604	CMS	16-Mar-12	8260B	
1,1,1,2-Tetrachloroethane*	ND	0.001	mg/L	1	2031604	CMS	16-Mar-12	8260B	
m+p - Xylene*	ND	0.002	mg/L	1	2031604	CMS	16-Mar-12	8260B	
o-Xylene*	ND	0.001	mg/L	1	2031604	CMS	16-Mar-12	8260B	
Total Xylenes*	ND	0.003	mg/L	1	2031604	CMS	16-Mar-12	8260B	
Bromoform*	ND	0.001	mg/L	1	2031604	CMS	16-Mar-12	8260B	
Styrene*	ND	0.001	mg/L	1	2031604	CMS	16-Mar-12	8260B	
Isopropylbenzene*	ND	0.001	mg/L	1	2031604	CMS	16-Mar-12	8260B	
Bromobenzene*	ND	0.001	mg/L	1	2031604	CMS	16-Mar-12	8260B	
n-Propylbenzene*	ND	0.001	mg/L	1	2031604	CMS	16-Mar-12	8260B	
1,1,2,2-Tetrachloroethane*	ND	0.001	mg/L	1	2031604	CMS	16-Mar-12	8260B	
2-Chlorotoluene*	ND	0.001	mg/L	1	2031604	CMS	16-Mar-12	8260B	
1,2,3-trichloropropane*	ND	0.001	mg/L	1	2031604	CMS	16-Mar-12	8260B	

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Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

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

 Project: BASS 3 FEDERAL WELL #4 SPILL S
 Project Number: NONE GIVEN
 Project Manager: BEN J. ARGUIJO
 Fax To: (575) 396-1429

 Reported:
 10-Jul-13 15:08

MW-1
H200653-01 (Water)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
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Cardinal Laboratories
Volatile Organic Compounds by EPA Method 8260B

1,3,5-Trimethylbenzene*	ND	0.001	mg/L	1	2031604	CMS	16-Mar-12	8260B	
trans-1,4-Dichloro-2-butene	ND	0.001	mg/L	1	2031604	CMS	16-Mar-12	8260B	
4-Chlorotoluene*	ND	0.001	mg/L	1	2031604	CMS	16-Mar-12	8260B	
tert-Butylbenzene*	ND	0.001	mg/L	1	2031604	CMS	16-Mar-12	8260B	
1,2,4-Trimethylbenzene*	ND	0.001	mg/L	1	2031604	CMS	16-Mar-12	8260B	
sec-Butylbenzene*	ND	0.001	mg/L	1	2031604	CMS	16-Mar-12	8260B	
p-Isopropyltoluene*	ND	0.001	mg/L	1	2031604	CMS	16-Mar-12	8260B	
1,3-Dichlorobenzene*	ND	0.001	mg/L	1	2031604	CMS	16-Mar-12	8260B	
1,4 Dichlorobenzene*	ND	0.001	mg/L	1	2031604	CMS	16-Mar-12	8260B	
n-Butylbenzene*	ND	0.001	mg/L	1	2031604	CMS	16-Mar-12	8260B	
1,2-Dichlorobenzene*	ND	0.001	mg/L	1	2031604	CMS	16-Mar-12	8260B	
1,2-Dibromo-3-chloropropane*	ND	0.001	mg/L	1	2031604	CMS	16-Mar-12	8260B	
Hexachlorobutadiene*	ND	0.001	mg/L	1	2031604	CMS	16-Mar-12	8260B	
1,2,4-Trichlorobenzene*	ND	0.001	mg/L	1	2031604	CMS	16-Mar-12	8260B	
Naphthalene*	ND	0.001	mg/L	1	2031604	CMS	16-Mar-12	8260B	
1,2,3-Trichlorobenzene*	ND	0.001	mg/L	1	2031604	CMS	16-Mar-12	8260B	
Surrogate: Dibromofluoromethane		114 %	70.2-143		2031604	CMS	16-Mar-12	8260B	
Surrogate: Toluene-d8		101 %	73.8-118		2031604	CMS	16-Mar-12	8260B	
Surrogate: 4-Bromofluorobenzene		88.8 %	48-134		2031604	CMS	16-Mar-12	8260B	

Semivolatile Organic Compounds by GCMS

Pyridine	ND	0.005	mg/L	1.02	2040408	CK	28-Mar-12	8270C	
N-Nitrosodimethylamine	ND	0.005	mg/L	1.02	2040408	CK	28-Mar-12	8270C	
2-Picoline	ND	0.005	mg/L	1.02	2040408	CK	28-Mar-12	8270C	
Methyl methanesulfonate	ND	0.005	mg/L	1.02	2040408	CK	28-Mar-12	8270C	
Ethyl methanesulfonate	ND	0.005	mg/L	1.02	2040408	CK	28-Mar-12	8270C	
Pentachloroethane	ND	0.005	mg/L	1.02	2040408	CK	28-Mar-12	8270C	
Aniline	ND	0.005	mg/L	1.02	2040408	CK	28-Mar-12	8270C	
Phenol	ND	0.005	mg/L	1.02	2040408	CK	28-Mar-12	8270C	

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Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

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

 Project: BASS 3 FEDERAL WELL #4 SPILL S
 Project Number: NONE GIVEN
 Project Manager: BEN J. ARGUIJO
 Fax To: (575) 396-1429

 Reported:
 10-Jul-13 15:08

MW-1
H200653-01 (Water)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
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Cardinal Laboratories
Semivolatile Organic Compounds by GCMS

2-Chlorophenol	ND	0.005	mg/L	1.02	2040408	CK	28-Mar-12	8270C	
bis(2-Chloroethyl)ether	ND	0.005	mg/L	1.02	2040408	CK	28-Mar-12	8270C	
1,4-Dichlorobenzene	ND	0.005	mg/L	1.02	2040408	CK	28-Mar-12	8270C	
1,3-Dichlorobenzene	ND	0.001	mg/L	1.02	2040408	CK	28-Mar-12	8270C	
Benzyl alcohol	ND	0.001	mg/L	1.02	2040408	CK	28-Mar-12	8270C	
1,2-Dichlorobenzene	ND	0.001	mg/L	1.02	2040408	CK	28-Mar-12	8270C	
bis(2-Chloroisopropyl)ether	ND	0.001	mg/L	1.02	2040408	CK	28-Mar-12	8270C	
Acetophenone	ND	0.001	mg/L	1.02	2040408	CK	28-Mar-12	8270C	
2-Methylphenol	ND	0.001	mg/L	1.02	2040408	CK	28-Mar-12	8270C	
4-Methylphenol	ND	0.001	mg/L	1.02	2040408	CK	28-Mar-12	8270C	
Hexachloroethane	ND	0.001	mg/L	1.02	2040408	CK	28-Mar-12	8270C	
N-Nitrosodi-n-propylamine	ND	0.001	mg/L	1.02	2040408	CK	28-Mar-12	8270C	
Nitrobenzene	ND	0.001	mg/L	1.02	2040408	CK	28-Mar-12	8270C	
N-Nitrosopiperidine	ND	0.001	mg/L	1.02	2040408	CK	28-Mar-12	8270C	
Isophorone	ND	0.001	mg/L	1.02	2040408	CK	28-Mar-12	8270C	
2-Nitrophenol	ND	0.001	mg/L	1.02	2040408	CK	28-Mar-12	8270C	
2,4-Dimethylphenol	ND	0.005	mg/L	1.02	2040408	CK	28-Mar-12	8270C	
bis(2-Chloroethoxy)methane	ND	0.001	mg/L	1.02	2040408	CK	28-Mar-12	8270C	
2,6-Dichlorophenol	ND	0.001	mg/L	1.02	2040408	CK	28-Mar-12	8270C	
1,2,4-Trichlorobenzene	ND	0.005	mg/L	1.02	2040408	CK	28-Mar-12	8270C	
Naphthalene	ND	0.001	mg/L	1.02	2040408	CK	28-Mar-12	8270C	
2,4-Dichlorophenol	ND	0.001	mg/L	1.02	2040408	CK	28-Mar-12	8270C	
4-Chloroaniline	ND	0.001	mg/L	1.02	2040408	CK	28-Mar-12	8270C	
Hexachloropropene	ND	0.001	mg/L	1.02	2040408	CK	28-Mar-12	8270C	
Hexachlorobutadiene	ND	0.001	mg/L	1.02	2040408	CK	28-Mar-12	8270C	
N-Nitroso-di-n-butylamine	ND	0.001	mg/L	1.02	2040408	CK	28-Mar-12	8270C	
4-Chloro-3-methylphenol	ND	0.001	mg/L	1.02	2040408	CK	28-Mar-12	8270C	
Safrole	ND	0.001	mg/L	1.02	2040408	CK	28-Mar-12	8270C	
2-Methylnaphthalene	ND	0.001	mg/L	1.02	2040408	CK	28-Mar-12	8270C	

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Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

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

 Project: BASS 3 FEDERAL WELL #4 SPILL S
 Project Number: NONE GIVEN
 Project Manager: BEN J. ARGUIJO
 Fax To: (575) 396-1429

 Reported:
 10-Jul-13 15:08

MW-1
H200653-01 (Water)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
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Cardinal Laboratories
Semivolatile Organic Compounds by GCMS

1,2,4,5-Tetrachlorobenzene	ND	0.001	mg/L	1.02	2040408	CK	28-Mar-12	8270C	
Hexachlorocyclopentadiene	ND	0.001	mg/L	1.02	2040408	CK	28-Mar-12	8270C	
2,4,6-Trichlorophenol	ND	0.001	mg/L	1.02	2040408	CK	28-Mar-12	8270C	
2,4,5-Trichlorophenol	ND	0.001	mg/L	1.02	2040408	CK	28-Mar-12	8270C	
Isosafrole	ND	0.001	mg/L	1.02	2040408	CK	28-Mar-12	8270C	
2-Chloronaphthalene	ND	0.001	mg/L	1.02	2040408	CK	28-Mar-12	8270C	
2-Nitroaniline	ND	0.001	mg/L	1.02	2040408	CK	28-Mar-12	8270C	
Dimethylphthalate	ND	0.005	mg/L	1.02	2040408	CK	28-Mar-12	8270C	
Acenaphthylene	ND	0.001	mg/L	1.02	2040408	CK	28-Mar-12	8270C	
2,6-Dinitrotoluene	ND	0.001	mg/L	1.02	2040408	CK	28-Mar-12	8270C	
3-Nitroaniline	ND	0.001	mg/L	1.02	2040408	CK	28-Mar-12	8270C	
Acenaphthene	ND	0.001	mg/L	1.02	2040408	CK	28-Mar-12	8270C	
2,4-Dinitrophenol*	ND	0.001	mg/L	1.02	2040408	CK	28-Mar-12	8270C	
Dibenzofuran	ND	0.001	mg/L	1.02	2040408	CK	28-Mar-12	8270C	
4-Nitrophenol	ND	0.001	mg/L	1.02	2040408	CK	28-Mar-12	8270C	
Pentachlorobenzene	ND	0.001	mg/L	1.02	2040408	CK	28-Mar-12	8270C	
2,4-Dinitrotoluene	ND	0.001	mg/L	1.02	2040408	CK	28-Mar-12	8270C	
2-Naphthylamine	ND	0.001	mg/L	1.02	2040408	CK	28-Mar-12	8270C	
1-Naphthylamine	ND	0.001	mg/L	1.02	2040408	CK	28-Mar-12	8270C	
2,3,4,6-Tetrachlorophenol	ND	0.001	mg/L	1.02	2040408	CK	28-Mar-12	8270C	
Fluorene	ND	0.001	mg/L	1.02	2040408	CK	28-Mar-12	8270C	
Diethylphthalate	ND	0.001	mg/L	1.02	2040408	CK	28-Mar-12	8270C	
4-Chlorophenyl-phenyl ether	ND	0.001	mg/L	1.02	2040408	CK	28-Mar-12	8270C	
5-Nitro-o-toluidine	ND	0.001	mg/L	1.02	2040408	CK	28-Mar-12	8270C	
4-Nitroaniline	ND	0.001	mg/L	1.02	2040408	CK	28-Mar-12	8270C	
4,6-Dinitro-2-methylphenol	ND	0.001	mg/L	1.02	2040408	CK	28-Mar-12	8270C	
Diphenylamine	ND	0.001	mg/L	1.02	2040408	CK	28-Mar-12	8270C	
Azobenzene	ND	0.001	mg/L	1.02	2040408	CK	28-Mar-12	8270C	
1,3,5-Trinitrobenzene	ND	0.001	mg/L	1.02	2040408	CK	28-Mar-12	8270C	

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Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

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

 Project: BASS 3 FEDERAL WELL #4 SPILL S
 Project Number: NONE GIVEN
 Project Manager: BEN J. ARGUIJO
 Fax To: (575) 396-1429

 Reported:
 10-Jul-13 15:08

MW-1
H200653-01 (Water)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
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Cardinal Laboratories
Semivolatile Organic Compounds by GCMS

4-Bromophenyl-phenyl ether	ND	0.005	mg/L	1.02	2040408	CK	28-Mar-12	8270C	
Phenacetin	ND	0.001	mg/L	1.02	2040408	CK	28-Mar-12	8270C	
Diallate	ND	0.005	mg/L	1.02	2040408	CK	28-Mar-12	8270C	
Hexachlorobenzene	ND	0.005	mg/L	1.02	2040408	CK	28-Mar-12	8270C	
4-Aminobiphenyl	ND	0.001	mg/L	1.02	2040408	CK	28-Mar-12	8270C	
Pentachlorophenol	ND	0.001	mg/L	1.02	2040408	CK	28-Mar-12	8270C	
Pentachloronitrobenzene	ND	0.001	mg/L	1.02	2040408	CK	28-Mar-12	8270C	
Pronamide	ND	0.001	mg/L	1.02	2040408	CK	28-Mar-12	8270C	
Phenanthrene	0.001	0.001	mg/L	1.02	2040408	CK	28-Mar-12	8270C	
Anthracene	ND	0.001	mg/L	1.02	2040408	CK	28-Mar-12	8270C	
Dinoseb	ND	0.005	mg/L	1.02	2040408	CK	28-Mar-12	8270C	
Carbazole	ND	0.001	mg/L	1.02	2040408	CK	28-Mar-12	8270C	
Di-n-butylphthalate	ND	0.010	mg/L	1.02	2040408	CK	28-Mar-12	8270C	
Isodrin	ND	0.001	mg/L	1.02	2040408	CK	28-Mar-12	8270C	
Fluoranthene	ND	0.001	mg/L	1.02	2040408	CK	28-Mar-12	8270C	
Benzidine	ND	0.005	mg/L	1.02	2040408	CK	28-Mar-12	8270C	
Pyrene	ND	0.001	mg/L	1.02	2040408	CK	28-Mar-12	8270C	
Dimethylaminoazobenzene	ND	0.001	mg/L	1.02	2040408	CK	28-Mar-12	8270C	
Chlorobenzilate	ND	0.001	mg/L	1.02	2040408	CK	28-Mar-12	8270C	
Butylbenzylphthalate	ND	0.005	mg/L	1.02	2040408	CK	28-Mar-12	8270C	
Benzo[a]anthracene	ND	0.001	mg/L	1.02	2040408	CK	28-Mar-12	8270C	
3,3'-Dichlorobenzidine	ND	0.005	mg/L	1.02	2040408	CK	28-Mar-12	8270C	
Chrysene	ND	0.001	mg/L	1.02	2040408	CK	28-Mar-12	8270C	
bis(2-Ethylhexyl)phthalate	0.013	0.010	mg/L	1.02	2040408	CK	28-Mar-12	8270C	
Di-n-octylphthalate	ND	0.005	mg/L	1.02	2040408	CK	28-Mar-12	8270C	
Benzo[b]fluoranthene	ND	0.001	mg/L	1.02	2040408	CK	28-Mar-12	8270C	
Benzo[k]fluoranthene	ND	0.001	mg/L	1.02	2040408	CK	28-Mar-12	8270C	
Benzo[a]pyrene	ND	0.0002	mg/L	1.02	2040408	CK	28-Mar-12	8270C	
3-Methylcholanthrene	ND	0.001	mg/L	1.02	2040408	CK	28-Mar-12	8270C	

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Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

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

 Project: BASS 3 FEDERAL WELL #4 SPILL S
 Project Number: NONE GIVEN
 Project Manager: BEN J. ARGUIJO
 Fax To: (575) 396-1429

 Reported:
 10-Jul-13 15:08

MW-1
H200653-01 (Water)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
---------	--------	-----------------	-------	----------	-------	---------	----------	--------	-------

Cardinal Laboratories
Semivolatile Organic Compounds by GCMS

Indeno[1,2,3-cd]pyrene	ND	0.001	mg/L	1.02	2040408	CK	28-Mar-12	8270C	
Dibenz[a,h]anthracene	ND	0.001	mg/L	1.02	2040408	CK	28-Mar-12	8270C	
Benzo[g,h,i]perylene	ND	0.001	mg/L	1.02	2040408	CK	28-Mar-12	8270C	
<i>Surrogate: 2-Fluorophenol</i>		41.4 %		21-100	2040408	CK	28-Mar-12	8270C	
<i>Surrogate: Phenol-d5</i>		27.6 %		10-94	2040408	CK	28-Mar-12	8270C	
<i>Surrogate: Nitrobenzene-d5</i>		87.8 %		35-114	2040408	CK	28-Mar-12	8270C	
<i>Surrogate: 2-Fluorobiphenyl</i>		125 %		43-116	2040408	CK	28-Mar-12	8270C	S-04
<i>Surrogate: 2,4,6-Tribromophenol</i>		171 %		10-123	2040408	CK	28-Mar-12	8270C	S-04
<i>Surrogate: Terphenyl-d14</i>		154 %		33-141	2040408	CK	28-Mar-12	8270C	S-04

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Analytical Results For:

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

 Project: BASS 3 FEDERAL WELL #4 SPILL S
 Project Number: NONE GIVEN
 Project Manager: BEN J. ARGUIJO
 Fax To: (575) 396-1429

 Reported:
 10-Jul-13 15:08

Inorganic Compounds - Quality Control
Cardinal Laboratories

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 2030908 - General Prep - Wet Chem										
Blank (2030908-BLK1)										
Prepared & Analyzed: 09-Mar-12										
Alkalinity, Carbonate	ND	0.00	mg/L							
Alkalinity, Bicarbonate	ND	5.00	mg/L							
LCS (2030908-BS1)										
Prepared & Analyzed: 09-Mar-12										
Alkalinity, Carbonate	ND	0.00	mg/L				80-120			
Alkalinity, Bicarbonate	127	5.00	mg/L				80-120			
LCS Dup (2030908-BSD1)										
Prepared & Analyzed: 09-Mar-12										
Alkalinity, Carbonate	ND	0.00	mg/L				80-120		20	
Alkalinity, Bicarbonate	127	5.00	mg/L				80-120	0.00	20	
Duplicate (2030908-DUP1)										
Source: H200513-02 Prepared & Analyzed: 09-Mar-12										
Alkalinity, Carbonate	ND	0.00	mg/L		0.00				20	
Alkalinity, Bicarbonate	1880	5.00	mg/L		1930			2.62	20	
Batch 2031404 - General Prep - Wet Chem										
Blank (2031404-BLK1)										
Prepared & Analyzed: 14-Mar-12										
Chloride	ND	4.00	mg/L							
LCS (2031404-BS1)										
Prepared & Analyzed: 14-Mar-12										
Chloride	104	4.00	mg/L	100		104	80-120			
LCS Dup (2031404-BSD1)										
Prepared & Analyzed: 14-Mar-12										
Chloride	100	4.00	mg/L	100		100	80-120	3.92	20	
Duplicate (2031404-DUP1)										
Source: H200626-02 Prepared & Analyzed: 14-Mar-12										
Chloride	272	4.00	mg/L		280			2.90	20	

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Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

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

 Project: BASS 3 FEDERAL WELL #4 SPILL S
 Project Number: NONE GIVEN
 Project Manager: BEN J. ARGUIJO
 Fax To: (575) 396-1429

 Reported:
 10-Jul-13 15:08

Inorganic Compounds - Quality Control
Cardinal Laboratories

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 2031906 - General Prep - Wet Chem
Blank (2031906-BLK1)

Prepared & Analyzed: 19-Mar-12

Sulfate ND 10.0 mg/L

LCS (2031906-BS1)

Prepared & Analyzed: 19-Mar-12

Sulfate 19.8 10.0 mg/L 20.0 99.1 80-120

LCS Dup (2031906-BSD1)

Prepared & Analyzed: 19-Mar-12

Sulfate 21.6 10.0 mg/L 20.0 108 80-120 8.41 20

Duplicate (2031906-DUP1)

Source: H200667-01

Prepared & Analyzed: 19-Mar-12

Sulfate 543 10.0 mg/L 529 2.61 20

Batch 2032704 - General Prep - Wet Chem
Blank (2032704-BLK1)

Prepared & Analyzed: 27-Mar-12

Fluoride ND 0.200 mg/L

LCS (2032704-BS1)

Prepared & Analyzed: 27-Mar-12

Fluoride 0.400 0.200 mg/L 0.400 100 80-120

Duplicate (2032704-DUP1)

Source: H200612-01

Prepared & Analyzed: 27-Mar-12

Fluoride 1.64 0.200 mg/L 1.59 3.10 20

Batch 2040413 - General Prep - Wet Chem
Blank (2040413-BLK1)

Prepared & Analyzed: 16-Mar-12

Nitrate as N ND 0.100 mg/L

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 Project: BASS 3 FEDERAL WELL #4 SPILL S
 Project Number: NONE GIVEN
 Project Manager: BEN J. ARGUIJO
 Fax To: (575) 396-1429

 Reported:
 10-Jul-13 15:08

Inorganic Compounds - Quality Control
Cardinal Laboratories

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
---------	--------	-----------------	-------	-------------	---------------	------	-------------	-----	-----------	-------

Batch 2040413 - General Prep - Wet Chem
LCS (2040413-BS1)

Prepared & Analyzed: 16-Mar-12

Nitrate as N	5.10	0.100	mg/L	5.00		102	80-120			
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Duplicate (2040413-DUP1)

Source: H200653-01

Prepared & Analyzed: 16-Mar-12

Nitrate as N	2.34	0.100	mg/L		2.35			0.426	20	
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Batch 2040414 - General Prep - Wet Chem
Blank (2040414-BLK1)

Prepared & Analyzed: 27-Mar-12

Phosphorus, Total	ND	0.10	mg/L							
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LCS (2040414-BS1)

Prepared & Analyzed: 27-Mar-12

Phosphorus, Total	0.79	0.10	mg/L	0.800		98.8	80-120			
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Duplicate (2040414-DUP1)

Source: H200653-01

Prepared & Analyzed: 27-Mar-12

Phosphorus, Total	0.09	0.10	mg/L		0.10			10.5	20	
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 P.O. Box 301
 Lovington NM, 88260

 Project: BASS 3 FEDERAL WELL #4 SPILL S
 Project Number: NONE GIVEN
 Project Manager: BEN J. ARGUIJO
 Fax To: (575) 396-1429

 Reported:
 10-Jul-13 15:08

Dissolved Metals - Quality Control
Cardinal Laboratories

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 2040405 - Dissolved/Potentially Dissolved Metals
Blank (2040405-BLK1)

Prepared: 22-Mar-12 Analyzed: 23-Mar-12

Boron	ND	0.200	mg/L							
Sodium	ND	1.00	mg/L							
Potassium	ND	1.00	mg/L							
Calcium	ND	1.00	mg/L							
Iron	ND	0.050	mg/L							
Magnesium	ND	1.00	mg/L							
Aluminum	ND	0.0500	mg/L							

LCS (2040405-BS1)

Prepared: 22-Mar-12 Analyzed: 23-Mar-12

Calcium	5.05		mg/L	5.00		101	85-115			
Magnesium	26.5		mg/L	25.0		106	85-115			
Sodium	7.84		mg/L	8.10		96.8	85-115			
Iron	4.92		mg/L	5.00		98.4	85-115			
Aluminum	4.94		mg/L	5.00		98.8	85-115			
Boron	4.79		mg/L	5.00		95.8	85-115			
Potassium	9.87		mg/L	10.0		98.7	85-115			

LCS Dup (2040405-BSD1)

Prepared: 22-Mar-12 Analyzed: 23-Mar-12

Aluminum	4.93		mg/L	5.00		98.6	85-115	0.203	20	
Sodium	7.83		mg/L	8.10		96.7	85-115	0.128	20	
Boron	4.82		mg/L	5.00		96.4	85-115	0.624	20	
Iron	4.91		mg/L	5.00		98.2	85-115	0.203	20	
Potassium	9.75		mg/L	10.0		97.5	85-115	1.22	20	
Calcium	5.05		mg/L	5.00		101	85-115	0.00	20	
Magnesium	26.4		mg/L	25.0		106	85-115	0.378	20	

Batch 2040406 - Dissolved/Potentially Dissolved Metals
Blank (2040406-BLK1)

Prepared: 19-Mar-12 Analyzed: 21-Mar-12

Nickel	ND	0.0005	mg/L							
Copper	ND	0.0001	mg/L							
Chromium	ND	0.001	mg/L							
Zinc	ND	0.001	mg/L							

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Analytical Results For:

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

 Project: BASS 3 FEDERAL WELL #4 SPILL S
 Project Number: NONE GIVEN
 Project Manager: BEN J. ARGUIJO
 Fax To: (575) 396-1429

 Reported:
 10-Jul-13 15:08

Total Metals by ICPMS - Quality Control
Cardinal Laboratories

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 2040406 - Dissolved/Potentially Dissolved Metals
Blank (2040406-BLK1)

Prepared: 19-Mar-12 Analyzed: 21-Mar-12

Cadmium	ND	0.00010	mg/L							
Barium	ND	0.000500	mg/L							
Cobalt	ND	0.00010	mg/L							
Manganese	ND	0.0005	mg/L							
Silver	ND	0.00010	mg/L							
Lead	ND	0.0005	mg/L							
Arsenic	ND	0.0005	mg/L							
Selenium	ND	0.001	mg/L							
Molybdenum	ND	0.0005	mg/L							

LCS (2040406-BS1)

Prepared: 19-Mar-12 Analyzed: 21-Mar-12

Copper	0.0489		mg/L	0.0500		97.8	85-115			
Selenium	0.238		mg/L	0.250		95.2	85-115			
Nickel	0.0533		mg/L	0.0500		107	85-115			
Arsenic	0.0458		mg/L	0.0500		91.6	85-115			
Silver	0.0490		mg/L	0.0500		98.0	85-115			
Manganese	0.0484		mg/L	0.0500		96.8	85-115			
Lead	0.0468		mg/L	0.0500		93.6	85-115			
Chromium	0.051		mg/L	0.0500		103	85-115			
Zinc	0.050		mg/L	0.0500		100	85-115			
Cobalt	0.0517		mg/L	0.0500		103	85-115			
Molybdenum	0.0533		mg/L	0.0500		107	85-115			
Cadmium	0.0479		mg/L	0.0500		95.8	85-115			
Barium	0.0476		mg/L	0.0500		95.2	85-115			

LCS Dup (2040406-BSD1)

Prepared: 19-Mar-12 Analyzed: 21-Mar-12

Cobalt	0.0463		mg/L	0.0500		92.6	85-115	11.0	20	
Arsenic	0.0489		mg/L	0.0500		97.8	85-115	6.55	20	
Zinc	0.048		mg/L	0.0500		96.8	85-115	3.65	20	
Chromium	0.046		mg/L	0.0500		92.8	85-115	10.2	20	
Molybdenum	0.0482		mg/L	0.0500		96.4	85-115	10.0	20	
Copper	0.0468		mg/L	0.0500		93.6	85-115	4.39	20	
Silver	0.0462		mg/L	0.0500		92.4	85-115	5.88	20	

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Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

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

 Project: BASS 3 FEDERAL WELL #4 SPILL S
 Project Number: NONE GIVEN
 Project Manager: BEN J. ARGUIJO
 Fax To: (575) 396-1429

 Reported:
 10-Jul-13 15:08

Total Metals by ICPMS - Quality Control
Cardinal Laboratories

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 2040406 - Dissolved/Potentially Dissolved Metals
LCS Dup (2040406-BSD1)

Prepared: 19-Mar-12 Analyzed: 21-Mar-12

Barium	0.0483		mg/L	0.0500		96.6	85-115	1.46	20	
Manganese	0.0469		mg/L	0.0500		93.8	85-115	3.15	20	
Lead	0.0475		mg/L	0.0500		95.0	85-115	1.48	20	
Cadmium	0.0482		mg/L	0.0500		96.4	85-115	0.624	20	
Nickel	0.0482		mg/L	0.0500		96.4	85-115	10.0	20	
Selenium	0.239		mg/L	0.250		95.6	85-115	0.419	20	

Batch 2040407 - Dissolved/Potentially Dissolved Metals
Blank (2040407-BLK1)

Prepared: 20-Mar-12 Analyzed: 21-Mar-12

Mercury	ND	0.0002	mg/L							
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LCS (2040407-BS1)

Prepared: 20-Mar-12 Analyzed: 21-Mar-12

Mercury	0.0022		mg/L	0.00200		110	85-115			
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LCS Dup (2040407-BSD1)

Prepared: 20-Mar-12 Analyzed: 21-Mar-12

Mercury	0.0022		mg/L	0.00200		110	85-115	0.00	20	
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 Project: BASS 3 FEDERAL WELL #4 SPILL S
 Project Number: NONE GIVEN
 Project Manager: BEN J. ARGUIJO
 Fax To: (575) 396-1429

 Reported:
 10-Jul-13 15:08

Volatile Organic Compounds by EPA Method 8260B - Quality Control
Cardinal Laboratories

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 2031604 - Volatiles
Blank (2031604-BLK1)

Prepared & Analyzed: 16-Mar-12

Dichlorodifluoromethane	ND	0.001	mg/L							
Chloromethane	ND	0.001	mg/L							
Vinyl chloride	ND	0.001	mg/L							
Bromomethane	ND	0.001	mg/L							
Chloroethane	ND	0.001	mg/L							
Trichlorofluoromethane	ND	0.001	mg/L							
1,1-Dichloroethene	ND	0.001	mg/L							
Carbon disulfide	ND	0.001	mg/L							
Iodomethane	ND	0.001	mg/L							
Acrolein	ND	0.005	mg/L							
Methylene chloride	ND	0.001	mg/L							
Acetone	0.006	0.005	mg/L							
trans-1,2-Dichloroethene	ND	0.001	mg/L							
Methyl t-Butyl Ether	ND	0.001	mg/L							
1,1-Dichloroethane	ND	0.001	mg/L							
Acrylonitrile	ND	0.001	mg/L							
Vinyl acetate	ND	0.005	mg/L							
cis-1,2-Dichloroethene	ND	0.001	mg/L							
2,2-Dichloropropane	ND	0.001	mg/L							
Bromochloromethane	ND	0.001	mg/L							
Chloroform	ND	0.001	mg/L							
Carbon tetrachloride	ND	0.001	mg/L							
1,1,1-Trichloroethane	ND	0.001	mg/L							
1,1-Dichloropropene	ND	0.001	mg/L							
2-Butanone	ND	0.005	mg/L							
Benzene	ND	0.001	mg/L							
1,2-Dichloroethane	ND	0.001	mg/L							
Trichloroethene	ND	0.001	mg/L							
Dibromomethane	ND	0.001	mg/L							
1,2-Dichloropropane	ND	0.001	mg/L							
Bromodichloromethane	ND	0.001	mg/L							
cis-1,3-Dichloropropene	ND	0.001	mg/L							

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 Project: BASS 3 FEDERAL WELL #4 SPILL S
 Project Number: NONE GIVEN
 Project Manager: BEN J. ARGUIJO
 Fax To: (575) 396-1429

 Reported:
 10-Jul-13 15:08

Volatile Organic Compounds by EPA Method 8260B - Quality Control
Cardinal Laboratories

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 2031604 - Volatiles
Blank (2031604-BLK1)

Prepared & Analyzed: 16-Mar-12

Toluene	ND	0.001	mg/L							
4-Methyl-2-pentanone	ND	0.005	mg/L							
Tetrachloroethene	ND	0.001	mg/L							
trans-1,3-Dichloropropene	ND	0.001	mg/L							
1,1,2-Trichloroethane	ND	0.001	mg/L							
Dibromochloromethane	ND	0.001	mg/L							
1,3-Dichloropropane	ND	0.001	mg/L							
1,2-Dibromoethane	ND	0.001	mg/L							
2-Hexanone	ND	0.005	mg/L							
Chlorobenzene	ND	0.001	mg/L							
Ethylbenzene	ND	0.001	mg/L							
1,1,1,2-Tetrachloroethane	ND	0.001	mg/L							
m+p - Xylene	ND	0.002	mg/L							
o-Xylene	ND	0.001	mg/L							
Total Xylenes	ND	0.003	mg/L							
Bromoform	ND	0.001	mg/L							
Styrene	ND	0.001	mg/L							
Isopropylbenzene	ND	0.001	mg/L							
Bromobenzene	ND	0.001	mg/L							
n-Propylbenzene	ND	0.001	mg/L							
1,1,2,2-Tetrachloroethane	ND	0.001	mg/L							
2-Chlorotoluene	ND	0.001	mg/L							
1,2,3-trichloropropane	ND	0.001	mg/L							
1,3,5-Trimethylbenzene	ND	0.001	mg/L							
trans-1,4-Dichloro-2-butene	ND	0.001	mg/L							
4-Chlorotoluene	ND	0.001	mg/L							
tert-Butylbenzene	ND	0.001	mg/L							
1,2,4-Trimethylbenzene	ND	0.001	mg/L							
sec-Butylbenzene	ND	0.001	mg/L							
p-Isopropyltoluene	ND	0.001	mg/L							
1,3-Dichlorobenzene	ND	0.001	mg/L							
1,4 Dichlorobenzene	ND	0.001	mg/L							

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 Project Number: NONE GIVEN
 Project Manager: BEN J. ARGUIJO
 Fax To: (575) 396-1429

 Reported:
 10-Jul-13 15:08

Volatile Organic Compounds by EPA Method 8260B - Quality Control
Cardinal Laboratories

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 2031604 - Volatiles
Blank (2031604-BLK1)

Prepared & Analyzed: 16-Mar-12

n-Butylbenzene	ND	0.001	mg/L							
1,2-Dichlorobenzene	ND	0.001	mg/L							
1,2-Dibromo-3-chloropropane	ND	0.001	mg/L							
Hexachlorobutadiene	ND	0.001	mg/L							
1,2,4-Trichlorobenzene	ND	0.001	mg/L							
Naphthalene	ND	0.001	mg/L							
1,2,3-Trichlorobenzene	ND	0.001	mg/L							
Surrogate: Dibromofluoromethane	0.0101		mg/L	0.0100		101	70.2-143			
Surrogate: Toluene-d8	0.0103		mg/L	0.0100		103	73.8-118			
Surrogate: 4-Bromofluorobenzene	0.00929		mg/L	0.0100		92.9	48-134			

LCS (2031604-BS1)

Prepared & Analyzed: 16-Mar-12

Dichlorodifluoromethane	0.022	0.001	mg/L	0.0200		111	48.1-138			
Chloromethane	0.021	0.001	mg/L	0.0200		104	68.4-125			
Vinyl chloride	0.021	0.001	mg/L	0.0200		106	63.4-131			
Bromomethane	0.020	0.001	mg/L	0.0200		102	62-142			
Chloroethane	0.021	0.001	mg/L	0.0200		104	61-149			
Trichlorofluoromethane	0.022	0.001	mg/L	0.0200		111	60.1-147			
1,1-Dichloroethene	0.023	0.001	mg/L	0.0200		113	68.7-131			
Carbon disulfide	0.022	0.001	mg/L	0.0200		109	55.2-147			
Iodomethane	0.021	0.001	mg/L	0.0200		106	68.4-130			
Acrolein	0.098	0.005	mg/L	0.100		98.4	17.1-165			
Methylene chloride	0.019	0.001	mg/L	0.0200		96.6	63.1-134			
Acetone	0.029	0.005	mg/L	0.0200		146	37-148			
trans-1,2-Dichloroethene	0.021	0.001	mg/L	0.0200		105	74.5-120			
Methyl t-Butyl Ether	0.021	0.001	mg/L	0.0200		105	75.7-119			
1,1-Dichloroethane	0.021	0.001	mg/L	0.0200		103	74.5-121			
Acrylonitrile	0.021	0.001	mg/L	0.0200		104	58.1-136			
Vinyl acetate	0.017	0.005	mg/L	0.0200		82.8	35.4-148			
cis-1,2-Dichloroethene	0.021	0.001	mg/L	0.0200		105	80.4-117			
2,2-Dichloropropane	0.021	0.001	mg/L	0.0200		105	49.7-152			
Bromochloromethane	0.021	0.001	mg/L	0.0200		103	76.8-121			

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Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

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

 Project: BASS 3 FEDERAL WELL #4 SPILL S
 Project Number: NONE GIVEN
 Project Manager: BEN J. ARGUIJO
 Fax To: (575) 396-1429

 Reported:
 10-Jul-13 15:08

Volatile Organic Compounds by EPA Method 8260B - Quality Control
Cardinal Laboratories

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 2031604 - Volatiles
LCS (2031604-BS1)

Prepared & Analyzed: 16-Mar-12

Chloroform	0.020	0.001	mg/L	0.0200		101	76-115			
Carbon tetrachloride	0.021	0.001	mg/L	0.0200		106	66.6-128			
1,1,1-Trichloroethane	0.021	0.001	mg/L	0.0200		105	71.1-127			
1,1-Dichloropropene	0.021	0.001	mg/L	0.0200		107	76-125			
2-Butanone	0.021	0.005	mg/L	0.0200		103	60.6-129			
Benzene	0.021	0.001	mg/L	0.0200		105	76.5-120			
1,2-Dichloroethane	0.021	0.001	mg/L	0.0200		103	75.5-117			
Trichloroethene	0.021	0.001	mg/L	0.0200		104	76.3-118			
Dibromomethane	0.021	0.001	mg/L	0.0200		104	77.2-118			
1,2-Dichloropropane	0.021	0.001	mg/L	0.0200		104	76.7-122			
Bromodichloromethane	0.021	0.001	mg/L	0.0200		103	72.4-124			
cis-1,3-Dichloropropene	0.021	0.001	mg/L	0.0200		106	66-121			
Toluene	0.021	0.001	mg/L	0.0200		106	74.8-121			
4-Methyl-2-pentanone	0.021	0.005	mg/L	0.0200		107	59.1-136			
Tetrachloroethene	0.022	0.001	mg/L	0.0200		110	52.4-136			
trans-1,3-Dichloropropene	0.021	0.001	mg/L	0.0200		107	62.2-125			
1,1,2-Trichloroethane	0.021	0.001	mg/L	0.0200		103	76.6-118			
Dibromochloromethane	0.021	0.001	mg/L	0.0200		106	69.2-121			
1,3-Dichloropropane	0.021	0.001	mg/L	0.0200		105	78.7-115			
1,2-Dibromoethane	0.021	0.001	mg/L	0.0200		107	77.8-119			
2-Hexanone	0.022	0.005	mg/L	0.0200		111	50.2-139			
Chlorobenzene	0.021	0.001	mg/L	0.0200		106	76.5-115			
Ethylbenzene	0.021	0.001	mg/L	0.0200		107	78.4-121			
1,1,1,2-Tetrachloroethane	0.021	0.001	mg/L	0.0200		104	75.9-120			
m+p - Xylene	0.043	0.002	mg/L	0.0400		108	72.5-128			
o-Xylene	0.022	0.001	mg/L	0.0200		109	71-126			
Total Xylenes	0.065	0.003	mg/L	0.0600		108	73.6-126			
Bromoform	0.021	0.001	mg/L	0.0200		105	57.9-126			
Styrene	0.022	0.001	mg/L	0.0200		111	70.8-122			
Isopropylbenzene	0.023	0.001	mg/L	0.0200		113	69.8-129			
Bromobenzene	0.021	0.001	mg/L	0.0200		104	77.6-119			
n-Propylbenzene	0.021	0.001	mg/L	0.0200		107	73.5-126			

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Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

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

 Project: BASS 3 FEDERAL WELL #4 SPILL S
 Project Number: NONE GIVEN
 Project Manager: BEN J. ARGUIJO
 Fax To: (575) 396-1429

 Reported:
 10-Jul-13 15:08

Volatile Organic Compounds by EPA Method 8260B - Quality Control
Cardinal Laboratories

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 2031604 - Volatiles
LCS (2031604-BS1)

Prepared & Analyzed: 16-Mar-12

1,1,2,2-Tetrachloroethane	0.020	0.001	mg/L	0.0200		101	74.2-122			
2-Chlorotoluene	0.021	0.001	mg/L	0.0200		105	72.9-125			
1,2,3-trichloropropane	0.020	0.001	mg/L	0.0200		102	71.9-121			
1,3,5-Trimethylbenzene	0.022	0.001	mg/L	0.0200		108	68.6-132			
trans-1,4-Dichloro-2-butene	0.018	0.001	mg/L	0.0200		89.8	55.4-130			
4-Chlorotoluene	0.020	0.001	mg/L	0.0200		102	76.5-117			
tert-Butylbenzene	0.021	0.001	mg/L	0.0200		107	56.5-145			
1,2,4-Trimethylbenzene	0.021	0.001	mg/L	0.0200		107	69.7-129			
sec-Butylbenzene	0.022	0.001	mg/L	0.0200		109	69.6-129			
p-Isopropyltoluene	0.022	0.001	mg/L	0.0200		110	68.1-132			
1,3-Dichlorobenzene	0.020	0.001	mg/L	0.0200		102	76.2-116			
1,4 Dichlorobenzene	0.021	0.001	mg/L	0.0200		105	75.2-116			
n-Butylbenzene	0.022	0.001	mg/L	0.0200		109	65.3-131			
1,2-Dichlorobenzene	0.021	0.001	mg/L	0.0200		104	79.2-114			
1,2-Dibromo-3-chloropropane	0.020	0.001	mg/L	0.0200		98.8	62.6-118			
Hexachlorobutadiene	0.021	0.001	mg/L	0.0200		104	63-129			
1,2,4-Trichlorobenzene	0.021	0.001	mg/L	0.0200		104	77.2-118			
Naphthalene	0.021	0.001	mg/L	0.0200		107	68.4-126			
1,2,3-Trichlorobenzene	0.021	0.001	mg/L	0.0200		104	78-117			
Surrogate: Dibromofluoromethane	0.00998		mg/L	0.0100		99.8	70.2-143			
Surrogate: Toluene-d8	0.0103		mg/L	0.0100		103	73.8-118			
Surrogate: 4-Bromofluorobenzene	0.00993		mg/L	0.0100		99.3	48-134			

LCS Dup (2031604-BSD1)

Prepared & Analyzed: 16-Mar-12

Dichlorodifluoromethane	0.020	0.001	mg/L	0.0200		102	48.1-138	9.34	14	
Chloromethane	0.018	0.001	mg/L	0.0200		88.6	68.4-125	15.6	10.5	
Vinyl chloride	0.019	0.001	mg/L	0.0200		93.3	63.4-131	12.8	12.3	
Bromomethane	0.018	0.001	mg/L	0.0200		90.4	62-142	11.7	12.3	
Chloroethane	0.018	0.001	mg/L	0.0200		89.8	61-149	14.2	9.87	
Trichlorofluoromethane	0.020	0.001	mg/L	0.0200		99.8	60.1-147	11.0	11	
1,1-Dichloroethene	0.020	0.001	mg/L	0.0200		102	68.7-131	10.2	18.3	
Carbon disulfide	0.019	0.001	mg/L	0.0200		96.8	55.2-147	11.7	15.4	

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Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

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

 Project: BASS 3 FEDERAL WELL #4 SPILL S
 Project Number: NONE GIVEN
 Project Manager: BEN J. ARGUIJO
 Fax To: (575) 396-1429

 Reported:
 10-Jul-13 15:08

Volatile Organic Compounds by EPA Method 8260B - Quality Control
Cardinal Laboratories

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 2031604 - Volatiles
LCS Dup (2031604-BSD1)

Prepared & Analyzed: 16-Mar-12

Iodomethane	0.019	0.001	mg/L	0.0200		94.4	68.4-130	11.9	12.5	
Acrolein	0.091	0.005	mg/L	0.100		91.1	17.1-165	7.69	72.4	
Methylene chloride	0.017	0.001	mg/L	0.0200		86.4	63.1-134	11.1	19.8	
Acetone	0.030	0.005	mg/L	0.0200		148	37-148	0.885	19.4	
trans-1,2-Dichloroethene	0.018	0.001	mg/L	0.0200		92.2	74.5-120	13.2	19.4	
Methyl t-Butyl Ether	0.019	0.001	mg/L	0.0200		96.0	75.7-119	9.39	13.9	
1,1-Dichloroethane	0.018	0.001	mg/L	0.0200		91.8	74.5-121	11.2	9.91	
Acrylonitrile	0.020	0.001	mg/L	0.0200		101	58.1-136	3.61	17.2	
Vinyl acetate	0.013	0.005	mg/L	0.0200		62.9	35.4-148	27.3	61.1	
cis-1,2-Dichloroethene	0.019	0.001	mg/L	0.0200		93.2	80.4-117	11.6	10.9	
2,2-Dichloropropane	0.019	0.001	mg/L	0.0200		94.6	49.7-152	10.5	52.3	
Bromochloromethane	0.019	0.001	mg/L	0.0200		93.6	76.8-121	9.23	8.76	
Chloroform	0.018	0.001	mg/L	0.0200		92.2	76-115	9.55	9.44	
Carbon tetrachloride	0.019	0.001	mg/L	0.0200		95.9	66.6-128	9.82	16	
1,1,1-Trichloroethane	0.019	0.001	mg/L	0.0200		94.1	71.1-127	10.8	12.2	
1,1-Dichloropropene	0.019	0.001	mg/L	0.0200		97.1	76-125	9.89	12.8	
2-Butanone	0.019	0.005	mg/L	0.0200		96.8	60.6-129	6.01	13.3	
Benzene	0.019	0.001	mg/L	0.0200		93.1	76.5-120	12.3	9.89	
1,2-Dichloroethane	0.019	0.001	mg/L	0.0200		94.2	75.5-117	8.54	9.07	
Trichloroethene	0.019	0.001	mg/L	0.0200		92.7	76.3-118	11.1	12	
Dibromomethane	0.019	0.001	mg/L	0.0200		94.6	77.2-118	9.18	9.82	
1,2-Dichloropropane	0.019	0.001	mg/L	0.0200		94.8	76.7-122	9.15	11	
Bromodichloromethane	0.019	0.001	mg/L	0.0200		92.8	72.4-124	10.3	10.5	
cis-1,3-Dichloropropene	0.019	0.001	mg/L	0.0200		96.6	66-121	9.66	12.8	
Toluene	0.019	0.001	mg/L	0.0200		95.6	74.8-121	10.7	12.3	
4-Methyl-2-pentanone	0.021	0.005	mg/L	0.0200		103	59.1-136	3.29	11.1	
Tetrachloroethene	0.021	0.001	mg/L	0.0200		105	52.4-136	5.02	43.6	
trans-1,3-Dichloropropene	0.020	0.001	mg/L	0.0200		98.1	62.2-125	8.26	13.1	
1,1,2-Trichloroethane	0.019	0.001	mg/L	0.0200		96.6	76.6-118	6.08	11.1	
Dibromochloromethane	0.019	0.001	mg/L	0.0200		96.6	69.2-121	9.24	11.1	
1,3-Dichloropropane	0.019	0.001	mg/L	0.0200		96.6	78.7-115	8.04	10.8	
1,2-Dibromoethane	0.020	0.001	mg/L	0.0200		98.0	77.8-119	9.06	11.3	

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Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

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

 Project: BASS 3 FEDERAL WELL #4 SPILL S
 Project Number: NONE GIVEN
 Project Manager: BEN J. ARGUIJO
 Fax To: (575) 396-1429

 Reported:
 10-Jul-13 15:08

Volatile Organic Compounds by EPA Method 8260B - Quality Control
Cardinal Laboratories

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 2031604 - Volatiles
LCS Dup (2031604-BSD1)

Prepared & Analyzed: 16-Mar-12

2-Hexanone	0.021	0.005	mg/L	0.0200		106	50.2-139	4.29	13.9	
Chlorobenzene	0.019	0.001	mg/L	0.0200		94.7	76.5-115	11.0	11.8	
Ethylbenzene	0.019	0.001	mg/L	0.0200		96.6	78.4-121	9.88	13.2	
1,1,1,2-Tetrachloroethane	0.019	0.001	mg/L	0.0200		94.5	75.9-120	9.28	9.73	
m+p - Xylene	0.039	0.002	mg/L	0.0400		96.4	72.5-128	10.9	13.7	
o-Xylene	0.020	0.001	mg/L	0.0200		98.2	71-126	10.6	11.7	
Total Xylenes	0.058	0.003	mg/L	0.0600		97.0	73.6-126	10.8	13.1	
Bromoform	0.019	0.001	mg/L	0.0200		96.4	57.9-126	8.78	10.5	
Styrene	0.020	0.001	mg/L	0.0200		100	70.8-122	10.4	12.8	
Isopropylbenzene	0.020	0.001	mg/L	0.0200		99.9	69.8-129	12.2	14.2	
Bromobenzene	0.019	0.001	mg/L	0.0200		95.6	77.6-119	8.56	12.4	
n-Propylbenzene	0.020	0.001	mg/L	0.0200		97.7	73.5-126	8.71	16.7	
1,1,2,2-Tetrachloroethane	0.020	0.001	mg/L	0.0200		97.5	74.2-122	3.72	10.6	
2-Chlorotoluene	0.019	0.001	mg/L	0.0200		97.1	72.9-125	7.68	14	
1,2,3-trichloropropane	0.020	0.001	mg/L	0.0200		99.4	71.9-121	2.39	9.43	
1,3,5-Trimethylbenzene	0.020	0.001	mg/L	0.0200		99.9	68.6-132	8.16	16.1	
trans-1,4-Dichloro-2-butene	0.018	0.001	mg/L	0.0200		88.2	55.4-130	1.80	14.3	
4-Chlorotoluene	0.019	0.001	mg/L	0.0200		92.8	76.5-117	9.54	15.5	
tert-Butylbenzene	0.019	0.001	mg/L	0.0200		97.2	56.5-145	9.22	33.4	
1,2,4-Trimethylbenzene	0.020	0.001	mg/L	0.0200		98.6	69.7-129	8.59	15.6	
sec-Butylbenzene	0.020	0.001	mg/L	0.0200		99.4	69.6-129	8.90	18.7	
p-Isopropyltoluene	0.020	0.001	mg/L	0.0200		100	68.1-132	9.19	17.8	
1,3-Dichlorobenzene	0.019	0.001	mg/L	0.0200		94.5	76.2-116	8.17	14.4	
1,4 Dichlorobenzene	0.019	0.001	mg/L	0.0200		97.2	75.2-116	7.34	14.4	
n-Butylbenzene	0.020	0.001	mg/L	0.0200		99.4	65.3-131	9.26	18.5	
1,2-Dichlorobenzene	0.019	0.001	mg/L	0.0200		95.7	79.2-114	7.98	13.1	
1,2-Dibromo-3-chloropropane	0.020	0.001	mg/L	0.0200		97.6	62.6-118	1.22	12.6	
Hexachlorobutadiene	0.019	0.001	mg/L	0.0200		93.2	63-129	11.4	14.9	
1,2,4-Trichlorobenzene	0.019	0.001	mg/L	0.0200		94.6	77.2-118	9.08	15.3	
Naphthalene	0.020	0.001	mg/L	0.0200		101	68.4-126	5.71	10.5	
1,2,3-Trichlorobenzene	0.019	0.001	mg/L	0.0200		94.8	78-117	9.35	13.2	
Surrogate: Dibromofluoromethane	0.0100		mg/L	0.0100		100	70.2-143			

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Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

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

 Project: BASS 3 FEDERAL WELL #4 SPILL S
 Project Number: NONE GIVEN
 Project Manager: BEN J. ARGUIJO
 Fax To: (575) 396-1429

 Reported:
 10-Jul-13 15:08

Volatile Organic Compounds by EPA Method 8260B - Quality Control
Cardinal Laboratories

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 2031604 - Volatiles
LCS Dup (2031604-BSD1)

Prepared & Analyzed: 16-Mar-12

Surrogate: Toluene-d8	0.0101		mg/L	0.0100		101	73.8-118			
Surrogate: 4-Bromofluorobenzene	0.0100		mg/L	0.0100		100	48-134			

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Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

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

 Project: BASS 3 FEDERAL WELL #4 SPILL S
 Project Number: NONE GIVEN
 Project Manager: BEN J. ARGUIJO
 Fax To: (575) 396-1429

 Reported:
 10-Jul-13 15:08

Semivolatile Organic Compounds by GCMS - Quality Control
Cardinal Laboratories

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 2040408 - EPA 3510
Blank (2040408-BLK1)

Prepared: 22-Mar-12 Analyzed: 03-Apr-12

Pyridine	ND	0.005	mg/L							
N-Nitrosodimethylamine	ND	0.005	mg/L							
2-Picoline	ND	0.005	mg/L							
Methyl methanesulfonate	ND	0.005	mg/L							
Ethyl methanesulfonate	ND	0.005	mg/L							
Pentachloroethane	ND	0.005	mg/L							
Aniline	ND	0.005	mg/L							
Phenol	ND	0.005	mg/L							
2-Chlorophenol	ND	0.005	mg/L							
bis(2-Chloroethyl)ether	ND	0.005	mg/L							
1,4-Dichlorobenzene	ND	0.005	mg/L							
1,3-Dichlorobenzene	ND	0.001	mg/L							
Benzyl alcohol	ND	0.001	mg/L							
1,2-Dichlorobenzene	ND	0.001	mg/L							
bis(2-Chloroisopropyl)ether	ND	0.001	mg/L							
Acetophenone	ND	0.001	mg/L							
2-Methylphenol	ND	0.001	mg/L							
4-Methylphenol	ND	0.001	mg/L							
Hexachloroethane	ND	0.001	mg/L							
N-Nitrosodi-n-propylamine	ND	0.001	mg/L							
Nitrobenzene	ND	0.001	mg/L							
N-Nitrosopiperidine	ND	0.001	mg/L							
Isophorone	ND	0.001	mg/L							
2-Nitrophenol	ND	0.001	mg/L							
2,4-Dimethylphenol	ND	0.005	mg/L							
bis(2-Chloroethoxy)methane	ND	0.001	mg/L							
2,6-Dichlorophenol	ND	0.001	mg/L							
1,2,4-Trichlorobenzene	ND	0.005	mg/L							
Naphthalene	ND	0.001	mg/L							
2,4-Dichlorophenol	ND	0.001	mg/L							
4-Chloroaniline	ND	0.001	mg/L							
Hexachloropropene	ND	0.001	mg/L							

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Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

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

 Project: BASS 3 FEDERAL WELL #4 SPILL S
 Project Number: NONE GIVEN
 Project Manager: BEN J. ARGUIJO
 Fax To: (575) 396-1429

 Reported:
 10-Jul-13 15:08

Semivolatile Organic Compounds by GCMS - Quality Control
Cardinal Laboratories

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 2040408 - EPA 3510
Blank (2040408-BLK1)

Prepared: 22-Mar-12 Analyzed: 03-Apr-12

Hexachlorobutadiene	ND	0.001	mg/L							
N-Nitroso-di-n-butylamine	ND	0.001	mg/L							
4-Chloro-3-methylphenol	ND	0.001	mg/L							
Safrole	ND	0.001	mg/L							
2-Methylnaphthalene	ND	0.001	mg/L							
1,2,4,5-Tetrachlorobenzene	ND	0.001	mg/L							
Hexachlorocyclopentadiene	ND	0.001	mg/L							
2,4,6-Trichlorophenol	ND	0.001	mg/L							
2,4,5-Trichlorophenol	ND	0.001	mg/L							
Isosafrole	ND	0.001	mg/L							
2-Chloronaphthalene	ND	0.001	mg/L							
2-Nitroaniline	ND	0.001	mg/L							
Dimethylphthalate	ND	0.005	mg/L							
Acenaphthylene	ND	0.001	mg/L							
2,6-Dinitrotoluene	ND	0.001	mg/L							
3-Nitroaniline	ND	0.001	mg/L							
Acenaphthene	ND	0.001	mg/L							
2,4-Dinitrophenol*	ND	0.001	mg/L							
Dibenzofuran	ND	0.001	mg/L							
4-Nitrophenol	ND	0.001	mg/L							
Pentachlorobenzene	ND	0.001	mg/L							
2,4-Dinitrotoluene	ND	0.001	mg/L							
2-Naphthylamine	ND	0.001	mg/L							
1-Naphthylamine	ND	0.001	mg/L							
2,3,4,6-Tetrachlorophenol	ND	0.001	mg/L							
Fluorene	ND	0.001	mg/L							
Diethylphthalate	ND	0.001	mg/L							
4-Chlorophenyl-phenyl ether	ND	0.001	mg/L							
5-Nitro-o-toluidine	ND	0.001	mg/L							
4-Nitroaniline	ND	0.001	mg/L							
4,6-Dinitro-2-methylphenol	ND	0.001	mg/L							
Diphenylamine	ND	0.001	mg/L							

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Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

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

 Project: BASS 3 FEDERAL WELL #4 SPILL S
 Project Number: NONE GIVEN
 Project Manager: BEN J. ARGUIJO
 Fax To: (575) 396-1429

 Reported:
 10-Jul-13 15:08

Semivolatile Organic Compounds by GCMS - Quality Control
Cardinal Laboratories

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
---------	--------	-----------------	-------	-------------	---------------	------	-------------	-----	-----------	-------

Batch 2040408 - EPA 3510
Blank (2040408-BLK1)

Prepared: 22-Mar-12 Analyzed: 03-Apr-12

Azobenzene	ND	0.001	mg/L							
1,3,5-Trinitrobenzene	ND	0.001	mg/L							
4-Bromophenyl-phenyl ether	ND	0.005	mg/L							
Phenacetin	ND	0.001	mg/L							
Diallate	ND	0.005	mg/L							
Hexachlorobenzene	ND	0.005	mg/L							
4-Aminobiphenyl	ND	0.001	mg/L							
Pentachlorophenol	ND	0.001	mg/L							
Pentachloronitrobenzene	ND	0.001	mg/L							
Pronamide	ND	0.001	mg/L							
Phenanthrene	ND	0.005	mg/L							
Anthracene	ND	0.001	mg/L							
Dinoseb	ND	0.005	mg/L							
Carbazole	ND	0.001	mg/L							
Di-n-butylphthalate	ND	0.010	mg/L							
Isodrin	ND	0.001	mg/L							
Fluoranthene	ND	0.001	mg/L							
Benzidine	ND	0.005	mg/L							
Pyrene	ND	0.001	mg/L							
Dimethylaminoazobenzene	ND	0.001	mg/L							
Chlorobenzilate	ND	0.001	mg/L							
Butylbenzylphthalate	ND	0.005	mg/L							
Benzo[a]anthracene	ND	0.001	mg/L							
3,3'-Dichlorobenzidine	ND	0.005	mg/L							
Chrysene	ND	0.001	mg/L							
bis(2-Ethylhexyl)phthalate	ND	0.010	mg/L							
Di-n-octylphthalate	ND	0.005	mg/L							
Benzo[b]flouranthene	ND	0.001	mg/L							
Benzo[k]flouranthene	ND	0.001	mg/L							
Benzo[a]pyrene	ND	0.0002	mg/L							
3-Methylcholanthrene	ND	0.001	mg/L							
Indeno[1,2,3-cd]pyrene	ND	0.001	mg/L							

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Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

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

 Project: BASS 3 FEDERAL WELL #4 SPILL S
 Project Number: NONE GIVEN
 Project Manager: BEN J. ARGUIJO
 Fax To: (575) 396-1429

 Reported:
 10-Jul-13 15:08

Semivolatile Organic Compounds by GCMS - Quality Control
Cardinal Laboratories

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 2040408 - EPA 3510
Blank (2040408-BLK1)

Prepared: 22-Mar-12 Analyzed: 03-Apr-12

Dibenz[a,h]anthracene	ND	0.001	mg/L							
Benzo[g,h,i]perylene	ND	0.001	mg/L							
<i>Surrogate: 2-Fluorophenol</i>	<i>0.0180</i>		mg/L	<i>0.0500</i>		<i>36.1</i>	<i>21-100</i>			
<i>Surrogate: Phenol-d5</i>	<i>0.0100</i>		mg/L	<i>0.0500</i>		<i>20.0</i>	<i>10-94</i>			
<i>Surrogate: Nitrobenzene-d5</i>	<i>0.0308</i>		mg/L	<i>0.0500</i>		<i>61.5</i>	<i>35-114</i>			
<i>Surrogate: 2-Fluorobiphenyl</i>	<i>0.0398</i>		mg/L	<i>0.0500</i>		<i>79.5</i>	<i>43-116</i>			
<i>Surrogate: 2,4,6-Tribromophenol</i>	<i>0.0425</i>		mg/L	<i>0.0500</i>		<i>84.9</i>	<i>10-123</i>			
<i>Surrogate: Terphenyl-d14</i>	<i>0.0396</i>		mg/L	<i>0.0500</i>		<i>79.2</i>	<i>33-141</i>			

LCS (2040408-BS1)

Prepared: 22-Mar-12 Analyzed: 02-Apr-12

Pyridine	0.009	0.005	mg/L	0.0100		93.7	70-130			
N-Nitrosodimethylamine	0.011	0.005	mg/L	0.0100		112	70-130			
2-Picoline	0.012	0.005	mg/L	0.0100		121	70-130			
Methyl methanesulfonate	0.010	0.005	mg/L	0.0100		102	70-130			
Ethyl methanesulfonate	0.012	0.005	mg/L	0.0100		120	70-130			
Pentachloroethane	0.012	0.005	mg/L	0.0100		125	70-130			
Aniline	0.011	0.005	mg/L	0.0100		106	70-130			
Phenol	0.011	0.005	mg/L	0.0100		114	70-130			
2-Chlorophenol	0.012	0.005	mg/L	0.0100		121	70-130			
bis(2-Chloroethyl)ether	0.013	0.005	mg/L	0.0100		135	70-130			BS1
1,4-Dichlorobenzene	0.012	0.005	mg/L	0.0100		123	70-130			
1,3-Dichlorobenzene	0.010	0.001	mg/L	0.0100		98.8	70-130			
Benzyl alcohol	0.009	0.001	mg/L	0.0100		86.3	70-130			
1,2-Dichlorobenzene	0.010	0.001	mg/L	0.0100		98.2	70-130			
bis(2-Chloroisopropyl)ether	0.010	0.001	mg/L	0.0100		96.3	70-130			
Acetophenone	0.009	0.001	mg/L	0.0100		91.2	70-130			
2-Methylphenol	0.009	0.001	mg/L	0.0100		90.5	70-130			
4-Methylphenol	0.011	0.001	mg/L	0.0100		110	70-130			
Hexachloroethane	0.009	0.001	mg/L	0.0100		92.0	70-130			
N-Nitrosodi-n-propylamine	0.008	0.001	mg/L	0.0100		82.6	70-130			
Nitrobenzene	0.009	0.001	mg/L	0.0100		87.9	70-130			
N-Nitrosopiperidine	0.008	0.001	mg/L	0.0100		79.6	70-130			

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Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

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

 Project: BASS 3 FEDERAL WELL #4 SPILL S
 Project Number: NONE GIVEN
 Project Manager: BEN J. ARGUIJO
 Fax To: (575) 396-1429

 Reported:
 10-Jul-13 15:08

Semivolatile Organic Compounds by GCMS - Quality Control
Cardinal Laboratories

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 2040408 - EPA 3510
LCS (2040408-BS1)

Prepared: 22-Mar-12 Analyzed: 02-Apr-12

Isophorone	0.009	0.001	mg/L	0.0100		91.3	70-130			
2-Nitrophenol	0.009	0.001	mg/L	0.0100		87.8	70-130			
2,4-Dimethylphenol	0.009	0.005	mg/L	0.0100		86.5	70-130			
bis(2-Chloroethoxy)methane	0.010	0.001	mg/L	0.0100		95.6	70-130			
2,6-Dichlorophenol	0.009	0.001	mg/L	0.0100		91.2	70-130			
1,2,4-Trichlorobenzene	0.010	0.005	mg/L	0.0100		96.4	70-130			
Naphthalene	0.010	0.001	mg/L	0.0100		95.7	70-130			
2,4-Dichlorophenol	0.009	0.001	mg/L	0.0100		93.3	70-130			
4-Chloroaniline	0.009	0.001	mg/L	0.0100		87.6	70-130			
Hexachloropropene	0.004	0.001	mg/L	0.0100		36.3	60-140			BS2
Hexachlorobutadiene	0.010	0.001	mg/L	0.0100		99.1	70-130			
N-Nitroso-di-n-butylamine	0.009	0.001	mg/L	0.0100		88.8	70-130			
4-Chloro-3-methylphenol	0.008	0.001	mg/L	0.0100		84.4	70-130			
Safrole	0.010	0.001	mg/L	0.0100		97.7	70-130			
2-Methylnaphthalene	0.009	0.001	mg/L	0.0100		94.9	70-130			
1,2,4,5-Tetrachlorobenzene	0.010	0.001	mg/L	0.0100		96.5	70-130			
Hexachlorocyclopentadiene	0.006	0.001	mg/L	0.0100		60.1	60-140			
2,4,6-Trichlorophenol	0.008	0.001	mg/L	0.0100		82.8	70-130			
2,4,5-Trichlorophenol	0.008	0.001	mg/L	0.0100		81.4	70-130			
Isosafrole	0.009	0.001	mg/L	0.0100		93.4	70-130			
2-Chloronaphthalene	0.009	0.001	mg/L	0.0100		93.6	70-130			
2-Nitroaniline	0.008	0.001	mg/L	0.0100		83.9	70-130			
Dimethylphthalate	0.009	0.001	mg/L	0.0100		93.1	70-130			
Acenaphthylene	0.009	0.001	mg/L	0.0100		90.7	70-130			
2,6-Dinitrotoluene	0.009	0.001	mg/L	0.0100		93.2	70-130			
3-Nitroaniline	0.007	0.001	mg/L	0.0100		69.1	70-130			BS2
Acenaphthene	0.009	0.001	mg/L	0.0100		93.5	70-130			
2,4-Dinitrophenol*	0.005	0.001	mg/L	0.0100		49.5	60-140			BS2
Dibenzofuran	0.009	0.001	mg/L	0.0100		89.6	70-130			
4-Nitrophenol	0.005	0.001	mg/L	0.0100		51.7	60-140			BS2
Pentachlorobenzene	0.010	0.001	mg/L	0.0100		97.1	70-130			
2,4-Dinitrotoluene	0.009	0.001	mg/L	0.0100		93.2	70-130			

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Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

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

 Project: BASS 3 FEDERAL WELL #4 SPILL S
 Project Number: NONE GIVEN
 Project Manager: BEN J. ARGUIJO
 Fax To: (575) 396-1429

 Reported:
 10-Jul-13 15:08

Semivolatile Organic Compounds by GCMS - Quality Control
Cardinal Laboratories

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
---------	--------	-----------------	-------	-------------	---------------	------	-------------	-----	-----------	-------

Batch 2040408 - EPA 3510
LCS (2040408-BS1)

Prepared: 22-Mar-12 Analyzed: 02-Apr-12

2-Naphthylamine	0.007	0.001	mg/L	0.0100		72.0	70-130			
1-Naphthylamine	0.006	0.001	mg/L	0.0100		59.1	60-140			BS2
2,3,4,6-Tetrachlorophenol	0.008	0.001	mg/L	0.0100		76.6	70-130			
Fluorene	0.009	0.001	mg/L	0.0100		89.8	70-130			
Diethylphthalate	0.009	0.001	mg/L	0.0100		89.4	70-130			
4-Chlorophenyl-phenyl ether	0.009	0.001	mg/L	0.0100		89.7	70-130			
5-Nitro-o-toluidine	0.008	0.001	mg/L	0.0100		82.0	70-130			
4-Nitroaniline	0.007	0.001	mg/L	0.0100		73.2	70-130			
4,6-Dinitro-2-methylphenol	0.006	0.001	mg/L	0.0100		65.0	70-130			BS2
Diphenylamine	0.009	0.001	mg/L	0.0100		87.1	70-130			
Azobenzene	0.008	0.001	mg/L	0.0100		79.3	70-130			
1,3,5-Trinitrobenzene	0.006	0.001	mg/L	0.0100		62.2	60-140			
4-Bromophenyl-phenyl ether	0.009	0.005	mg/L	0.0100		92.8	70-130			
Phenacetin	0.007	0.001	mg/L	0.0100		72.6	70-130			
Diallylate	0.009	0.005	mg/L	0.0100		89.1	70-130			
Hexachlorobenzene	0.009	0.005	mg/L	0.0100		93.8	70-130			
4-Aminobiphenyl	0.007	0.001	mg/L	0.0100		65.7	70-130			BS2
Pentachlorophenol	0.009	0.001	mg/L	0.0100		93.9	70-130			
Pentachloronitrobenzene	0.009	0.001	mg/L	0.0100		85.9	70-130			
Pronamide	0.008	0.001	mg/L	0.0100		84.5	70-130			
Phenanthrene	0.009	0.001	mg/L	0.0100		94.2	70-130			
Anthracene	0.009	0.001	mg/L	0.0100		94.4	70-130			
Dinoseb	0.006	0.005	mg/L	0.0100		60.2	60-140			
Carbazole	0.009	0.001	mg/L	0.0100		85.1	70-130			
Di-n-butylphthalate	0.009	0.001	mg/L	0.0100		89.5	70-130			
Isodrin	0.009	0.001	mg/L	0.0100		87.0	70-130			
Fluoranthene	0.009	0.001	mg/L	0.0100		85.1	70-130			
Benzidine	0.006	0.005	mg/L	0.0100		56.3	60-140			BS2
Pyrene	0.008	0.001	mg/L	0.0100		83.7	70-130			
Dimethylaminoazobenzene	0.008	0.001	mg/L	0.0100		78.3	70-130			
Chlorobenzilate	0.008	0.001	mg/L	0.0100		76.3	70-130			
Butylbenzylphthalate	0.008	0.001	mg/L	0.0100		84.2	70-130			

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Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

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

 Project: BASS 3 FEDERAL WELL #4 SPILL S
 Project Number: NONE GIVEN
 Project Manager: BEN J. ARGUIJO
 Fax To: (575) 396-1429

 Reported:
 10-Jul-13 15:08

Semivolatile Organic Compounds by GCMS - Quality Control
Cardinal Laboratories

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
---------	--------	-----------------	-------	-------------	---------------	------	-------------	-----	-----------	-------

Batch 2040408 - EPA 3510
LCS (2040408-BS1)

Prepared: 22-Mar-12 Analyzed: 02-Apr-12

Benzo[a]anthracene	0.008	0.001	mg/L	0.0100		84.4	70-130			
3,3'-Dichlorobenzidine	0.010	0.005	mg/L	0.0100		101	70-130			
Chrysene	0.009	0.001	mg/L	0.0100		91.0	70-130			
bis(2-Ethylhexyl)phthalate	0.010	0.001	mg/L	0.0100		97.0	70-130			
Di-n-octylphthalate	0.011	0.005	mg/L	0.0100		108	70-130			
Benzo[b]flouranthene	0.010	0.001	mg/L	0.0100		96.4	70-130			
Benzo[k]flouranthene	0.012	0.001	mg/L	0.0100		118	70-130			
Benzo[a]pyrene	0.011	0.0002	mg/L	0.0100		110	70-130			
3-Methylcholanthrene	0.010	0.001	mg/L	0.0100		100	70-130			
Indeno[1,2,3-cd]pyrene	0.011	0.001	mg/L	0.0100		107	70-130			
Dibenz[a,h]anthracene	0.011	0.001	mg/L	0.0100		107	70-130			
Benzo[g,h,i]perylene	0.011	0.001	mg/L	0.0100		105	70-130			

LCS Dup (2040408-BS1)

Prepared: 22-Mar-12 Analyzed: 02-Apr-12

Pyridine	0.009	0.005	mg/L	0.0100		89.3	70-130	4.81	20	
N-Nitrosodimethylamine	0.011	0.005	mg/L	0.0100		108	70-130	3.54	20	
2-Picoline	0.011	0.005	mg/L	0.0100		115	70-130	5.26	20	
Methyl methanesulfonate	0.010	0.005	mg/L	0.0100		98.4	70-130	3.89	20	
Ethyl methanesulfonate	0.012	0.005	mg/L	0.0100		117	70-130	3.12	20	
Pentachloroethane	0.012	0.005	mg/L	0.0100		123	70-130	1.54	20	
Aniline	0.011	0.005	mg/L	0.0100		111	70-130	4.51	20	
Phenol	0.012	0.005	mg/L	0.0100		123	70-130	7.78	20	
2-Chlorophenol	0.012	0.005	mg/L	0.0100		117	70-130	3.11	20	
bis(2-Chloroethyl)ether	0.014	0.005	mg/L	0.0100		141	70-130	4.50	20	BS1
1,4-Dichlorobenzene	0.012	0.005	mg/L	0.0100		122	70-130	0.734	20	
1,3-Dichlorobenzene	0.010	0.001	mg/L	0.0100		99.7	70-130	0.907	20	
Benzyl alcohol	0.008	0.001	mg/L	0.0100		84.2	70-130	2.46	20	
1,2-Dichlorobenzene	0.010	0.001	mg/L	0.0100		99.5	70-130	1.32	20	
bis(2-Chloroisopropyl)ether	0.010	0.001	mg/L	0.0100		95.0	70-130	1.36	20	
Acetophenone	0.009	0.001	mg/L	0.0100		88.4	70-130	3.12	20	
2-Methylphenol	0.009	0.001	mg/L	0.0100		90.8	70-130	0.331	20	
4-Methylphenol	0.011	0.001	mg/L	0.0100		108	70-130	2.11	20	

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Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

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

 Project: BASS 3 FEDERAL WELL #4 SPILL S
 Project Number: NONE GIVEN
 Project Manager: BEN J. ARGUIJO
 Fax To: (575) 396-1429

 Reported:
 10-Jul-13 15:08

Semivolatile Organic Compounds by GCMS - Quality Control
Cardinal Laboratories

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 2040408 - EPA 3510
LCS Dup (2040408-BSD1)

Prepared: 22-Mar-12 Analyzed: 02-Apr-12

Hexachloroethane	0.009	0.001	mg/L	0.0100		90.2	70-130	1.98	20	
N-Nitrosodi-n-propylamine	0.008	0.001	mg/L	0.0100		80.3	70-130	2.82	20	
Nitrobenzene	0.009	0.001	mg/L	0.0100		87.6	70-130	0.342	20	
N-Nitrosopiperidine	0.008	0.001	mg/L	0.0100		79.2	70-130	0.504	20	
Isophorone	0.009	0.001	mg/L	0.0100		90.0	70-130	1.43	20	
2-Nitrophenol	0.009	0.001	mg/L	0.0100		86.6	70-130	1.38	20	
2,4-Dimethylphenol	0.009	0.005	mg/L	0.0100		86.2	70-130	0.347	20	
bis(2-Chloroethoxy)methane	0.009	0.001	mg/L	0.0100		93.4	70-130	2.33	20	
2,6-Dichlorophenol	0.009	0.001	mg/L	0.0100		92.6	70-130	1.52	20	
1,2,4-Trichlorobenzene	0.010	0.005	mg/L	0.0100		98.4	70-130	2.05	20	
Naphthalene	0.010	0.001	mg/L	0.0100		95.7	70-130	0.00	20	
2,4-Dichlorophenol	0.009	0.001	mg/L	0.0100		92.6	70-130	0.753	20	
4-Chloroaniline	0.009	0.001	mg/L	0.0100		87.6	70-130	0.00	20	
Hexachloropropene	0.006	0.001	mg/L	0.0100		60.2	60-140	49.5	20	
Hexachlorobutadiene	0.010	0.001	mg/L	0.0100		102	70-130	2.59	20	
N-Nitroso-di-n-butylamine	0.009	0.001	mg/L	0.0100		88.9	70-130	0.113	20	
4-Chloro-3-methylphenol	0.009	0.001	mg/L	0.0100		88.3	70-130	4.52	20	
Safrole	0.010	0.001	mg/L	0.0100		96.7	70-130	1.03	20	
2-Methylnaphthalene	0.010	0.001	mg/L	0.0100		95.3	70-130	0.421	20	
1,2,4,5-Tetrachlorobenzene	0.010	0.001	mg/L	0.0100		97.0	70-130	0.517	20	
Hexachlorocyclopentadiene	0.007	0.001	mg/L	0.0100		69.1	60-140	13.9	20	
2,4,6-Trichlorophenol	0.008	0.001	mg/L	0.0100		83.3	70-130	0.602	20	
2,4,5-Trichlorophenol	0.009	0.001	mg/L	0.0100		87.1	70-130	6.77	20	
Isosafrole	0.009	0.001	mg/L	0.0100		92.1	70-130	1.40	20	
2-Chloronaphthalene	0.009	0.001	mg/L	0.0100		94.2	70-130	0.639	20	
2-Nitroaniline	0.009	0.001	mg/L	0.0100		89.4	70-130	6.35	20	
Dimethylphthalate	0.010	0.001	mg/L	0.0100		95.7	70-130	2.75	20	
Acenaphthylene	0.009	0.001	mg/L	0.0100		93.4	70-130	2.93	20	
2,6-Dinitrotoluene	0.010	0.001	mg/L	0.0100		95.4	70-130	2.33	20	
3-Nitroaniline	0.007	0.001	mg/L	0.0100		72.2	70-130	4.39	20	
Acenaphthene	0.009	0.001	mg/L	0.0100		94.5	70-130	1.06	20	
2,4-Dinitrophenol*	0.006	0.001	mg/L	0.0100		55.5	60-140	11.4	20	BS2

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Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

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

 Project: BASS 3 FEDERAL WELL #4 SPILL S
 Project Number: NONE GIVEN
 Project Manager: BEN J. ARGUIJO
 Fax To: (575) 396-1429

 Reported:
 10-Jul-13 15:08

Semivolatile Organic Compounds by GCMS - Quality Control
Cardinal Laboratories

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 2040408 - EPA 3510
LCS Dup (2040408-BSD1)

Prepared: 22-Mar-12 Analyzed: 02-Apr-12

Dibenzofuran	0.009	0.001	mg/L	0.0100		93.4	70-130	4.15	20	
4-Nitrophenol	0.005	0.001	mg/L	0.0100		48.9	60-140	5.57	20	BS2
Pentachlorobenzene	0.010	0.001	mg/L	0.0100		101	70-130	3.54	20	
2,4-Dinitrotoluene	0.009	0.001	mg/L	0.0100		93.4	70-130	0.214	20	
2-Naphthylamine	0.008	0.001	mg/L	0.0100		75.2	70-130	4.35	20	
1-Naphthylamine	0.006	0.001	mg/L	0.0100		61.0	60-140	3.16	20	
2,3,4,6-Tetrachlorophenol	0.008	0.001	mg/L	0.0100		83.3	70-130	8.38	20	
Fluorene	0.009	0.001	mg/L	0.0100		92.9	70-130	3.39	20	
Diethylphthalate	0.009	0.001	mg/L	0.0100		93.0	70-130	3.95	20	
4-Chlorophenyl-phenyl ether	0.010	0.001	mg/L	0.0100		96.1	70-130	6.89	20	
5-Nitro-o-toluidine	0.009	0.001	mg/L	0.0100		89.3	70-130	8.52	20	
4-Nitroaniline	0.008	0.001	mg/L	0.0100		81.9	70-130	11.2	20	
4,6-Dinitro-2-methylphenol	0.007	0.001	mg/L	0.0100		74.7	70-130	13.9	20	
Diphenylamine	0.009	0.001	mg/L	0.0100		91.4	70-130	4.82	20	
Azobenzene	0.008	0.001	mg/L	0.0100		80.6	70-130	1.63	20	
1,3,5-Trinitrobenzene	0.007	0.001	mg/L	0.0100		68.7	60-140	9.93	20	
4-Bromophenyl-phenyl ether	0.010	0.005	mg/L	0.0100		97.5	70-130	4.94	20	
Phenacetin	0.008	0.001	mg/L	0.0100		81.5	70-130	11.6	20	
Diallate	0.009	0.005	mg/L	0.0100		89.1	70-130	0.00	20	
Hexachlorobenzene	0.010	0.005	mg/L	0.0100		96.5	70-130	2.84	20	
4-Aminobiphenyl	0.007	0.001	mg/L	0.0100		72.0	70-130	9.15	20	
Pentachlorophenol	0.010	0.001	mg/L	0.0100		98.8	70-130	5.09	20	
Pentachloronitrobenzene	0.009	0.001	mg/L	0.0100		93.1	70-130	8.04	20	
Pronamide	0.009	0.001	mg/L	0.0100		93.7	70-130	10.3	20	
Phenanthrene	0.009	0.001	mg/L	0.0100		94.3	70-130	0.106	20	
Anthracene	0.009	0.001	mg/L	0.0100		93.7	70-130	0.744	20	
Dinoseb	0.007	0.005	mg/L	0.0100		68.8	60-140	13.3	20	
Carbazole	0.009	0.001	mg/L	0.0100		89.9	70-130	5.49	20	
Di-n-butylphthalate	0.009	0.001	mg/L	0.0100		93.4	70-130	4.26	20	
Isodrin	0.009	0.001	mg/L	0.0100		90.4	70-130	3.83	20	
Fluoranthene	0.009	0.001	mg/L	0.0100		91.5	70-130	7.25	20	
Benzidine	0.006	0.005	mg/L	0.0100		57.4	60-140	1.93	20	BS2

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Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

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

 Project: BASS 3 FEDERAL WELL #4 SPILL S
 Project Number: NONE GIVEN
 Project Manager: BEN J. ARGUIJO
 Fax To: (575) 396-1429

 Reported:
 10-Jul-13 15:08

Semivolatile Organic Compounds by GCMS - Quality Control
Cardinal Laboratories

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 2040408 - EPA 3510
LCS Dup (2040408-BSD1)

Prepared: 22-Mar-12 Analyzed: 02-Apr-12

Pyrene	0.009	0.001	mg/L	0.0100		91.5	70-130	8.90	20	
Dimethylaminoazobenzene	0.009	0.001	mg/L	0.0100		87.5	70-130	11.1	20	
Chlorobenzilate	0.008	0.001	mg/L	0.0100		84.0	70-130	9.61	20	
Butylbenzylphthalate	0.009	0.001	mg/L	0.0100		94.6	70-130	11.6	20	
Benzo[a]anthracene	0.010	0.001	mg/L	0.0100		99.7	70-130	16.6	20	
3,3'-Dichlorobenzidine	0.010	0.005	mg/L	0.0100		101	70-130	0.0991	20	
Chrysene	0.009	0.001	mg/L	0.0100		91.1	70-130	0.110	20	
bis(2-Ethylhexyl)phthalate	0.010	0.001	mg/L	0.0100		98.7	70-130	1.74	20	
Di-n-octylphthalate	0.011	0.005	mg/L	0.0100		113	70-130	4.43	20	
Benzo[b]fluoranthene	0.011	0.001	mg/L	0.0100		106	70-130	9.86	20	
Benzo[k]fluoranthene	0.012	0.001	mg/L	0.0100		117	70-130	1.02	20	
Benzo[a]pyrene	0.011	0.0002	mg/L	0.0100		113	70-130	3.05	20	
3-Methylcholanthrene	0.010	0.001	mg/L	0.0100		99.5	70-130	0.601	20	
Indeno[1,2,3-cd]pyrene	0.010	0.001	mg/L	0.0100		97.3	70-130	9.59	20	
Dibenz[a,h]anthracene	0.010	0.001	mg/L	0.0100		98.0	70-130	8.69	20	
Benzo[g,h,i]perylene	0.009	0.001	mg/L	0.0100		91.8	70-130	13.6	20	

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Celey D. Keene, Lab Director/Quality Manager

Notes and Definitions

- S-04 The surrogate recovery for this sample is outside of established control limits due to a sample matrix effect.
- GAL Analysis subcontracted to Green Analytical Laboratories, a subsidiary of Cardinal Laboratories.
- BS2 Blank spike recovery below laboratory acceptance criteria. Results for analyte potentially biased low.
- BS1 Blank spike recovery above laboratory acceptance criteria. Results for analyte potentially biased high.
- 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



Celey D. Keene, Lab Director/Quality Manager

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

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

Company Name: <i>Basin Environmental</i>		BILL TO				ANALYSIS REQUEST																										
Project Manager: <i>Ben J. Arguajo</i>		P.O. #:				<i>General Chemistry (see attached)</i> <i>SO₂'s (see attached)</i> <i>VOC's (see attached)</i> <i>RCRA Metals (see attached)</i> <i>Metals NMWACC (see attached)</i>																										
Address: <i>PO BOX 301</i>		Company:																														
City: <i>Lovington</i> State: <i>NM</i> Zip: <i>88260</i>		Attn:																														
Phone #: <i>575-396-2378</i> Fax #: <i>575-396-1429</i>		Address:																														
Project #:		City:																														
Project Name: <i>Basin 3 FederalTM 4 Spill Site "B"</i>		State:		Zip:																												
Project Location: <i>Eddy County, NM</i>		Phone #:																														
Sampler Name: <i>Miguel Rumierez</i>		Fax #:																														
FOR LAB USE ONLY																																
Lab I.D.	Sample I.D.	(G)RAB OR (C)OMP.	# CONTAINERS	MATRIX												PRESERV.		SAMPLING														
				GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER:	ACID/BASE:	ICE / COOL	OTHER:	DATE	TIME																		
	<i>MW-1</i>	<i>G</i>	<i>7</i>	<input checked="" type="checkbox"/>						<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<i>3-15-12</i>	<i>11:45</i>	<i>1</i>	<i>1</i>	<i>1</i>	<i>1</i>	<i>1</i>														

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Relinquished By: <i>Miguel Rumierez</i>		Date:	Received By:		Phone Result: <input type="checkbox"/> Yes <input type="checkbox"/> No		Add'l Phone #:
Time:					Fax Result: <input type="checkbox"/> Yes <input type="checkbox"/> No		Add'l Fax #:
Relinquished By:		Date:	Received By:		REMARKS:		
Time:							
Delivered By: (Circle One) Sampler - UPS - Bus - Other:			Sample Condition Cool Intact <input type="checkbox"/> Yes <input type="checkbox"/> No		CHECKED BY: (Initials)		

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

May 30, 2012

BEN J. ARGUIJO

Basin Environmental Service

P.O. Box 301

Lovington, NM 88260

RE: BASS 3 FEDERAL WELL #4 SPILL SITE 'B'

Enclosed are the results of analyses for samples received by the laboratory on 05/23/12 8:20.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-11-3. 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:	05/23/2012	Sampling Date:	05/21/2012
Reported:	05/30/2012	Sampling Type:	Water
Project Name:	BASS 3 FEDERAL WELL #4 SPILL SITE 'E	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	EDDY COUNTY, NM		

Sample ID: MW-1 (H201165-01)

BTEX 8021B		mg/L		Analyzed By: ZZZ					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.001	0.001	05/30/2012	ND	0.044	88.9	0.0500	5.30	
Toluene*	<0.001	0.001	05/30/2012	ND	0.047	93.1	0.0500	4.13	
Ethylbenzene*	<0.001	0.001	05/30/2012	ND	0.047	93.4	0.0500	4.78	
Total Xylenes*	<0.003	0.003	05/30/2012	ND	0.141	93.7	0.150	4.32	

Surrogate: 4-Bromofluorobenzene (PID) 98.3 % 89.5-126

Chloride, SM4500Cl-B		mg/L		Analyzed By: HM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride*	20.0	4.00	05/24/2012	ND	100	100	100	0.00	

TPH 8015M		mg/L		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<1.00	1.00	05/24/2012	ND	50.2	100	50.0	3.45	
DRO >C10-C28	<1.00	1.00	05/24/2012	ND	50.7	101	50.0	4.26	
EXT DRO >C28-C35	<1.00	1.00	05/24/2012	ND	ND		0.00		

Surrogate: 1-Chlorooctane 96.8 % 48.7-164
Surrogate: 1-Chlorooctadecane 112 % 54.8-165

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

*=Accredited Analyte

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



Celey D. Keene, Lab Director/Quality Manager

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

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

Company Name: Basin Environmental Service Technologies, LLC		BILL TO				ANALYSIS REQUEST											
Project Manager: Ben J. Arquiyo		P.O. #:															
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 #: Project Owner: BOPCO, LP		City: Carlsbad															
Project Name: Bass 3 Federal Well #4 Spill Site "B"		State: NM Zip: 88220															
Project Location: Eddy Co., NM		Phone #: (432) 556-8730															
Sampler Name: <i>Mary Kay</i>		Fax #:															
FOR LAB USE ONLY																	
Lab I.D.	Sample I.D.	(GIRAB OR (C)OMP. # CONTAINERS	MATRIX	PRESERV.	SAMPLING												
			GROUNDWATER WASTEWATER SOIL OIL SLUDGE OTHER:	ACID/BASE: ICE / COOL OTHER:	DATE	TIME											
H201165																	
-1	MW-1	6	X	X	5-23-12	1020	<i>Chlorides</i> <i>TPH</i> <i>BTEX</i>										

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising whether based in contract or tort, shall be limited to the amount paid by the client for the analyses. All claims including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within 30 days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise.

Relinquished By: <i>Mary Kay</i>	Date: 5-23-12	Received By: <i>Jodi Benson</i>	Phone Result: <input type="checkbox"/> Yes <input type="checkbox"/> No	Add'l Phone #:
	Time: 0820		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: (Initials)	Please email results to pm@basinenv.com & TSavoie@BassPet.com	
Sampler - UPS - Bus - Other:	Cool Intact <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> No <input type="checkbox"/> No	<i>JK</i>		

August 28, 2012

BEN J. ARGUIJO

Basin Environmental Service

P.O. Box 301

Lovington, NM 88260

RE: BASS 3 FEDERAL WELL #4 SPILL SITE 'B'

Enclosed are the results of analyses for samples received by the laboratory on 08/21/12 15:20.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-11-3. 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:	08/21/2012	Sampling Date:	08/21/2012
Reported:	08/28/2012	Sampling Type:	Water
Project Name:	BASS 3 FEDERAL WELL #4 SPILL SITE 'E	Sampling Condition:	** (See Notes)
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	EDDY COUNTY, NM		

Sample ID: MW - 1 (H201981-01)

BTEX 8021B		mg/L		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.001	0.001	08/28/2012	ND	0.047	94.5	0.0500	1.81	
Toluene*	<0.001	0.001	08/28/2012	ND	0.049	97.6	0.0500	2.63	
Ethylbenzene*	<0.001	0.001	08/28/2012	ND	0.051	101	0.0500	3.06	
Total Xylenes*	<0.003	0.003	08/28/2012	ND	0.164	109	0.150	2.68	

Surrogate: 4-Bromofluorobenzene (PID) 97.3 % 89.5-126

Chloride, SM4500CI-B		mg/L		Analyzed By: HM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride*	20.0	4.00	08/22/2012	ND	100	100	100	7.69	

Cardinal Laboratories

*=Accredited Analyte

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



Celey D. Keene, Lab Director/Quality Manager

Notes and Definitions

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

Cardinal Laboratories

*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager

October 19, 2012

BEN J. ARGUIJO

Basin Environmental Service

P.O. Box 301

Lovington, NM 88260

RE: BASS 3 FEDERAL WELL #4 SPILL SITE 'B'

Enclosed are the results of analyses for samples received by the laboratory on 10/11/12 15:35.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-11-3. 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:	10/11/2012	Sampling Date:	10/11/2012
Reported:	10/19/2012	Sampling Type:	Water
Project Name:	BASS 3 FEDERAL WELL #4 SPILL SITE 'E	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	EDDY COUNTY, NM		

Sample ID: MW - 1 (H202479-01)

BTEX 8021B		mg/L		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.001	0.001	10/17/2012	ND	0.053	106	0.0500	0.836	
Toluene*	<0.001	0.001	10/17/2012	ND	0.046	92.1	0.0500	1.31	
Ethylbenzene*	<0.001	0.001	10/17/2012	ND	0.045	90.5	0.0500	1.72	
Total Xylenes*	0.003	0.003	10/17/2012	ND	0.130	86.9	0.150	1.45	

Surrogate: 4-Bromofluorobenzene (PID) 108 % 89.5-126

Chloride, SM4500CI-B		mg/L		Analyzed By: HM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride*	20.0	4.00	10/15/2012	ND	104	104	100	0.00	

Cardinal Laboratories

*=Accredited Analyte

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



Celey D. Keene, Lab Director/Quality Manager

Notes and Definitions

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

Cardinal Laboratories

*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager



CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

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

Company Name: Basin Environmental Service Technologies, LLC		BILL TO				ANALYSIS REQUEST																									
Project Manager: Ben J. Arquiyo		P.O. #:																													
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 #: Project Owner: BOPCO, LP		City: Carlsbad																													
Project Name: <i>Basin 3 Fed 4 Soil site "B"</i>		State: NM Zip: 88220																													
Project Location: <i>Esque Co. NM</i>		Phone #: (432) 556-8730																													
Sampler Name: <i>[Signature]</i>		Fax #:																													
FOR LAB USE ONLY		MATRIX		PRESERV.														SAMPLING													
Lab I.D.	Sample I.D.	(GRAB OR C/OMP.	# CONTAINERS	GROUNDWATER	WASTEWATER													SOIL	OIL	SLUDGE	OTHER :	ACID/BASE:	ICE / COOL	OTHER :	DATE	TIME	<i>Chloride</i> <i>137E</i>				
<i>H202479</i>	<i>1 MW-1</i>	<i>9</i>	<i>1</i>										<i>10/11/12</i>	<i>13:15</i>																	

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising whether based in contract or tort, shall be limited to the amount paid by the client for the analyses. All claims including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within 30 days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise.

Relinquished By: <i>[Signature]</i>	Date: <i>10/11/12</i>	Received By: <i>[Signature]</i>	Phone Result: <input type="checkbox"/> Yes <input type="checkbox"/> No	Add'l Phone #:
	Time: <i>15:35</i>		Fax Result: <input type="checkbox"/> Yes <input type="checkbox"/> No	Add'l Fax #:
Relinquished By:	Date:	Received By:	REMARKS:	
	Time:		Please email results to pm@basinenv.com & TSavoie@BassPet.com	
Delivered By: (Circle One)	Sample Condition	CHECKED BY: <i>[Signature]</i>		
Sampler - UPS - Bus - Other:	<i>20</i> Cool <input checked="" type="checkbox"/> Intact <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> No <input type="checkbox"/>			

February 13, 2013

BEN J. ARGUIJO

Basin Environmental Service

P.O. Box 301

Lovington, NM 88260

RE: BASS 3 FEDERAL WELL #4 SPILL SITE 'B'

Enclosed are the results of analyses for samples received by the laboratory on 02/06/13 16:15.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-11-3. 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:	02/06/2013	Sampling Date:	02/06/2013
Reported:	02/13/2013	Sampling Type:	Water
Project Name:	BASS 3 FEDERAL WELL #4 SPILL SITE 'E	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	EDDY COUNTY, NM		

Sample ID: MW - 1 (H300346-01)

BTEX 8021B		mg/L		Analyzed By: AP						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.001	0.001	02/13/2013	ND	0.048	96.4	0.0500	3.00		
Toluene*	<0.001	0.001	02/13/2013	ND	0.049	98.2	0.0500	2.17		
Ethylbenzene*	<0.001	0.001	02/13/2013	ND	0.048	96.7	0.0500	1.89		
Total Xylenes*	<0.003	0.003	02/13/2013	ND	0.148	98.5	0.150	1.74		
Total BTEX	<0.006	0.006	02/13/2013	ND						

Surrogate: 4-Bromofluorobenzene (PID) 109 % 89.5-126

Chloride, SM4500Cl-B		mg/L		Analyzed By: DW						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride*	16.0	4.00	02/07/2013	ND	108	108	100	0.00		

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

*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager



CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

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

Company Name: Basin Environmental Service Technologies, LLC		BILL TO		ANALYSIS REQUEST											
Project Manager: Ben J. Arguijo		P.O. #:													
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 #:	Project Owner: BOPCO, LP		City: Carlsbad												
Project Name: Bass 3 Federal Well #4 Spill Site "B"	State: NM		Zip: 88220												
Project Location: Eddy Co., NM	Phone #: (432) 556-8730		Fax #:												
Sampler Name: <i>[Signature]</i>															
FOR LAB USE ONLY															
Lab I.D.	Sample I.D.	(GRAB OR (C)OMP.	# CONTAINERS	MATRIX			PRESERV.	SAMPLING		<i>MATER</i> <i>Calender</i>					
H300346	1 M-1	4	4	GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER:				ACID/BASE:	ICE / COOL	OTHER:
				X									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: <i>[Signature]</i>	Date: 3/10/05	Received By: <i>[Signature]</i>	Phone Result: <input type="checkbox"/> Yes <input type="checkbox"/> No	Add'l Phone #:
Relinquished By:	Date:	Received By:	Fax Result: <input type="checkbox"/> Yes <input type="checkbox"/> No	Add'l Fax #:
Delivered By: (Circle One)	Time: 10:55	Time:	REMARKS:	
Sampler - UPS - Bus - Other:	Time:	Time:	Please email results to pm@basinenv.com & TASavoie@BassPet.com	
		Sample Condition	CHECKED BY: <i>[Signature]</i>	
		Cool / Intact	(Initials)	
		<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		
		<input type="checkbox"/> No <input type="checkbox"/> No		

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



April 19, 2013

BEN J. ARGUIJO

Basin Environmental Service

P.O. Box 301

Lovington, NM 88260

RE: BASS 3 FEDERAL WELL #4 SPILL SITE 'B'

Enclosed are the results of analyses for samples received by the laboratory on 04/12/13 9:27.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-11-3. 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 cursive script that reads "Celey D. Keene".

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:	04/12/2013	Sampling Date:	04/11/2013
Reported:	04/19/2013	Sampling Type:	Water
Project Name:	BASS 3 FEDERAL WELL #4 SPILL SITE 'E	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	EDDY COUNTY, NM		

Sample ID: MW - 1 (H300880-01)

BTEX 8021B		mg/L		Analyzed By: AP						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.001	0.001	04/19/2013	ND	0.051	103	0.0500	1.43		
Toluene*	<0.001	0.001	04/19/2013	ND	0.052	105	0.0500	0.738		
Ethylbenzene*	<0.001	0.001	04/19/2013	ND	0.051	102	0.0500	0.827		
Total Xylenes*	<0.003	0.003	04/19/2013	ND	0.153	102	0.150	0.961		
Total BTEX	<0.006	0.006	04/19/2013	ND						

Surrogate: 4-Bromofluorobenzene (PID) 104 % 89.5-126

Chloride, SM4500Cl-B		mg/L		Analyzed By: DW						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride*	24.0	4.00	04/15/2013	ND	104	104	100	0.00		

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



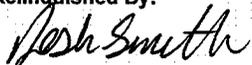
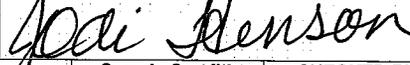
Celey D. Keene, Lab Director/Quality Manager

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

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

Company Name: Basin Environmental Service Technologies, LLC				BILL TO				ANALYSIS REQUEST															
Project Manager: Ben J. Arguijo				P.O. #:																			
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 #:		Project Owner: BOPCO, LP		City: Carlsbad																			
Project Name: Bass 3 Federal Well #4 Spill Site "B"				State: NM																Zip: 88220			
Project Location: Eddy Co., NM				Phone #: (432) 556-8730																			
Sampler Name:				Fax #:																			
FOR LAB USE ONLY																							
Lab I.D.		Sample I.D.				(G)RAB OR (C)OMP.	# CONTAINERS	MATRIX				PRESERV.		SAMPLING									
								GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER:	ACID/BASE:	ICE / COOL	OTHER:	DATE	TIME					
H3000880		1 MW-1				9	4	X						X	X		4-11-13	11:45	X BTEX X Chlorides				

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: 4-12-13 Time: 7:00 am		Received By: 		Phone Result: <input type="checkbox"/> Yes <input type="checkbox"/> No		Add'l Phone #:	
Relinquished By: 		Date: 4-12 Time: 9:30		Received By: 		Fax Result: <input type="checkbox"/> Yes <input type="checkbox"/> No		Add'l Fax #:	
Delivered By: (Circle One) Sampler - UPS - Bus - Other:		Sample Condition Cool Intact <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		CHECKED BY: 		REMARKS: Please email results to pm@basinenv.com & TASavoie@BassPet.com			
		4.7°C							

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