Basin Environmental Service Technologies, LLC

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

Effective Solutions

REMEDIATION SUMMARY &

RISK-BASED SITE CLOSURE REQUEST

BOPCO, LP
BASS 3 FEDERAL WELL #4 SPILL SITE "A"
Eddy County, New Mexico
Unit Letter "O" (SW/SE), Section 3, Township 22 South, Range 28 East
Latitude 32.416059° North, Longitude 104.070738° West
NMOCD Reference #: 2RP-980

Prepared For:

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

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

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 "A". 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 32.416059° North latitude and 104.070738° 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, during site assessments associated with nearby releases, BOPCO discovered a release had occurred near the Bass 3 Federal Well #4 site. The two and seven-eighths inch (2 7/8") steel flow line delivering produced fluid from the well to the nearby Bass Federal #1 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 steel flow line was replaced with polyurethane pipe during the course of remediation activities.

The release was immediately reported to the New Mexico Oil Conservation Division (NMOCD) Artesia District Office. The "Release Notification and Corrective Action" (Form C-141) indicated approximately twenty-five barrels (25 bbls) of produced water and approximately five barrels (5 bbls) of crude oil were released, with no recovery. The release affected an area of pastureland measuring approximately two thousand, seven hundred square feet (2,700 ft^2). The Form C-141 is provided as Appendix A. General photographs of the release site are provided as Appendix B.

2.0 NMOCD SITE CLASSIFICATION

A search of the New Mexico Water Rights Reporting System (NMWRRS) database maintained by the New Mexico Office of the State Engineer (NMOSE) indicated information was unavailable for Section 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 a nearby 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') feet of the release. Based on the NMOCD ranking system, zero (0) points will be assigned to the site as a result of this criterion.

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 Federal Well #4 Spill Site "A" release site has an initial ranking score of zero (0) points. The soil remediation levels for a site with a ranking score of zero (0) points are as follows:

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

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

3.0 SUMMARY OF SOIL REMEDIATION ACTIVITIES

Following initial response activities, on December 16, 2011, delineation of the release site commenced. A series of three (3) delineation trenches (Trench 1, Trench 2, and Trench 3) were advanced at the site to investigate the vertical and horizontal extent of impacted soil. Trench 1 was advanced to a total depth of approximately twelve feet (12') bgs. Trench 2 was advanced to a total depth of approximately four feet (4') bgs. Trench 3 was advanced to a total depth of approximately four and one-half feet (4.5') bgs. Soil samples from the delineation trenches were field-screened using a chloride test kit and/or Photo-Ionization Detector (PID), and three (3) confirmation soil samples (Trench 1 @ 12', Trench 2 @ 4', and Trench 3 @ 4.5') were submitted to Cardinal Laboratories in Hobbs, New Mexico, for analysis of TPH and chloride concentrations using Environmental Protection Agency (EPA) Methods SW-846 8015M and 4500 Cl-B, respectively. Table 1 summarizes the "Concentrations of Benzene, BTEX, TPH & Chloride in Soil". A "Site & Sample Location Map" is provided as Figure 2. Laboratory analytical reports are provided as Appendix D.

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 3 @ 4.5' to 6,530 mg/kg in soil sample Trench 1 @ 12'.

On January 23, 2012, excavation of impacted soil commenced at the site. A chloride field test kit was used to field-screen the horizontal extent of impacted soil and to guide the excavation. From January 23 through January 25, 2012, excavated soil was stockpiled on-site, pending final disposition.

On January 12, 2012, one (1) soil boring (SB-1) was advanced at the site to further investigate the vertical extent of impacted soil. The soil boring was located near the release point and was advanced to a total depth of approximately fifty-five feet (55') bgs. Soil samples were collected at five-foot (5') drilling intervals and field-screened with a chloride test kit. Confirmation soil samples collected at drilling depths of five feet (5'), ten feet (10'), and fifty-five feet (55') bgs were submitted to the laboratory for analysis of TPH and/or chloride concentrations. Soil sample SB-1 @ 10' was also analyzed for concentrations of BTEX using EPA Method SW-846 8021b. During advancement of the soil boring, moisture was encountered at approximately forty-eight feet (48') bgs, and the soil boring was allowed to remain undisturbed overnight to determine whether or not groundwater had been reached. The location of the soil boring is depicted in Figure 2. Soil boring logs are provided as Appendix C.

Laboratory analytical results indicated TPH concentrations were less than the laboratory MDL in all submitted soil samples. Chloride concentrations ranged from less than the laboratory MDL in soil sample SB-1 @ 55' to 5,120 mg/kg in soil sample SB-1 @ 10'. BTEX constituent concentrations in soil sample SB-1 @ 25' were less than the appropriate laboratory MDL.

On January 13, 2012, soil boring SB-1 was gauged, and water was encountered at approximately forty-eight feet (48') bgs. A water sample was collected from the soil boring and submitted to the laboratory for analysis of chloride concentrations. Laboratory analytical results indicated the chloride concentration was 81,000 mg/L. Soil boring SB-1 was fitted with a two-inch (2") diameter, screened PVC riser and converted into Temporary Monitor Well #1 (TMW-1). Table 2 summarizes the "Concentrations of Benzene, BTEX & Chloride in Groundwater". Laboratory analytical reports are provided in Appendix E.

Gauging data from a monitor well approximately five hundred feet (500') to the west-northwest of TMW-1 indicates groundwater at the site should be encountered at approximately one hundred and nine feet (109') bgs. Based on this gauging data, it was determined that the water encountered in TMW-1 was most likely one of the many naturally occurring salt water deposits in the area. From January 17 through January 20, 2012, a series of seven (7) soil borings were advanced at the site to investigate the boundaries of the salt water deposit.

Soil boring SB-2 was located up-gradient of temporary monitor well TMW-1, approximately sixty-five feet (65') to the northwest. The soil boring was advanced to a total depth of approximately sixty feet (60') bgs and was allowed to remain undisturbed for several hours to determine whether or not groundwater had been reached. The soil boring was then gauged, determined to be dry, plugged, and abandoned pursuant to NMOCD and NMOSE standards.

Soil boring SB-3 was located cross-gradient of temporary monitor well TMW-1, approximately sixty-five feet (65') to the west. The soil boring was advanced to a total depth of approximately fifty-five feet (55') bgs and was allowed to remain undisturbed for several hours to determine whether or not groundwater had been reached. The soil boring was then gauged, and water was encountered at approximately forty-nine feet (49') bgs. Soil boring SB-3 was fitted with a two-inch (2") diameter, screened PVC riser and converted into Temporary Monitor Well #2 (TMW-2). A water sample was collected from TMW-2 and submitted to the laboratory for analysis of chloride concentrations. Laboratory analytical results indicated the chloride concentration was 74,000 mg/L.

Soil boring SB-4 was located down-gradient of temporary monitor well TMW-1, approximately one hundred and fifty feet (150') to the south-southwest. The soil boring was advanced to a total depth of approximately fifty-five feet (55') bgs and was allowed to remain undisturbed for several hours to determine whether or not groundwater had been reached. The soil boring was then gauged, and water was encountered at approximately forty-eight feet (48') bgs. Soil boring SB-4 was fitted with a two-inch (2") diameter, screened PVC riser and converted into Temporary Monitor Well #3 (TMW-3). A water sample was collected from TMW-3 and submitted to the laboratory for analysis of chloride concentrations. Laboratory analytical results indicated the chloride concentration was 70,000 mg/L.

Soil boring SB-5 was located down-gradient of temporary monitor well TMW-3, approximately seventy feet (70') to the south-southwest. The soil boring was advanced to a total depth of

approximately fifty-five feet (55') bgs. Soil boring SB-4 was fitted with a two-inch (2") diameter, screened PVC riser, converted into Temporary Monitor Well #4 (TMW-4), and allowed to remain undisturbed overnight to determine whether or not groundwater had been reached. The following day, temporary monitor well TMW-4 was gauged, determined to be dry, plugged, and abandoned pursuant to NMOCD and NMOSE standards.

Soil boring SB-6 was located cross-gradient of temporary monitor well TMW-1, approximately one hundred and twenty-five feet (125') to the west-southwest. The soil boring was advanced to a total depth of approximately fifty-five feet (55') bgs and was allowed to remain undisturbed for several hours to determine whether or not groundwater had been reached. The soil boring was then gauged, determined to be dry, plugged, and abandoned pursuant to NMOCD and NMOSE standards.

Soil boring SB-7 was located down-gradient of temporary monitor well TMW-4, approximately forty-five feet (45') to the south-southwest. The soil boring was advanced to a total depth of approximately fifty-five feet (55') bgs. The soil boring was allowed to remain undisturbed for several hours to determine whether or not groundwater had been reached. The soil boring was then gauged, determined to be dry, plugged, and abandoned pursuant to NMOCD and NMOSE standards.

Soil boring SB-8 was located down-gradient of temporary monitor well TMW-1, approximately two hundred feet (200') to the southwest. The soil boring was advanced to a total depth of approximately fifty-five feet (55') bgs and was allowed to remain undisturbed for several hours to determine whether or not groundwater had been reached. The soil boring was then gauged, and water was encountered at approximately fifty-three feet (53') bgs. Soil boring SB-8 was fitted with a two-inch (2") diameter, screened PVC riser and converted into Temporary Monitor Well #5 (TMW-5). A water sample was collected from TMW-5 and submitted to the laboratory for analysis of chloride concentrations. Laboratory analytical results indicated the chloride concentration was 316 mg/L.

From January 18 through February 2, 2012, the water in temporary monitor wells TMW-1, TMW-2, TMW-3, and TMW-5 was gauged and purged on a semi-weekly basis. Gauging data from this time period indicated that the water level in the temporary monitor wells diminished by an average of approximately two feet (2').

On January 25, 2012, one (1) water sample was collected from temporary monitor well TMW-1 and submitted to the laboratory for analysis of chloride and BTEX concentrations. Laboratory analytical results indicated benzene, ethylbenzene, and total xylene concentrations were less than the appropriate laboratory MDL. The toluene concentration was 0.001 mg/L, and the chloride concentration was 72,000 mg/L.

From January 31 through February 14, 2012, approximately one thousand, two hundred and forty cubic yards (1,240 yd^3) of impacted soil was transported to Lea Land, Inc. (NMOCD Permit # WM-01-035), for disposal.

On February 1, 2012, three (3) soil samples (Sample #1, Sample #2, and Sample #3) were collected from the sidewalls of the excavation and submitted to the laboratory for analysis of TPH and chloride concentrations. Laboratory analytical results indicated TPH concentrations

ranged from less than the laboratory MDL in Sample #3 to 35.2 mg/kg in Sample #1. Chloride concentrations were less than the laboratory MDL in all submitted soil samples.

On February 8, 2012, a representative of Basin Environmental contacted a representative of the NMOCD Artesia District Office via telephone to discuss the laboratory analytical results from the water samples and the findings from the semi-weekly gauging events at temporary monitor wells TMW-1, TMW-2, TMW-3, and TMW-5. Based on the gauging data and the absence of significant BTEX concentrations in TMW-1, which was adjacent to the release point, the NMOCD representative agreed with the assessment that the water in the temporary monitor wells was most likely one of the many naturally occurring salt water deposits in the area. Permission was requested to plug and abandon the four (4) temporary monitor wells. The request was approved by the NMOCD representative.

On February 8, 2012, a twenty (20) mil polyurethane liner was installed on 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.

Based on laboratory analytical results and field-screens, on February 14, 2012, the excavation was backfilled in eighteen-inch (18") lifts with locally purchased, non-impacted material. Final dimensions of the excavation were approximately eighty-eight feet (88') in length, approximately sixty-five feet (65') in width, and approximately five feet (5') in depth. Following backfill, the excavation was water-packed and contoured to fit the surrounding topography.

On March 6, 2012, with NMOCD approval, temporary monitor wells TMW-1, TMW-2, TMW-3, and TMW-5 were plugged and abandoned pursuant to NMOCD and NMOSE standards.

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

4.0 QA/QC PROCEDURES

4.1 Soil Sampling

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

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

4.2 Decontamination of Equipment

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

4.3 Laboratory Protocol

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

5.0 SITE CLOSURE REQUEST

Soil samples collected from the sidewalls of the Bass 3 Federal Well #4 Spill Site "A" 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 Federal Well #4 Spill Site "A" release site.

6.0 LIMITATIONS

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

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

7.0 DISTRIBUTION:

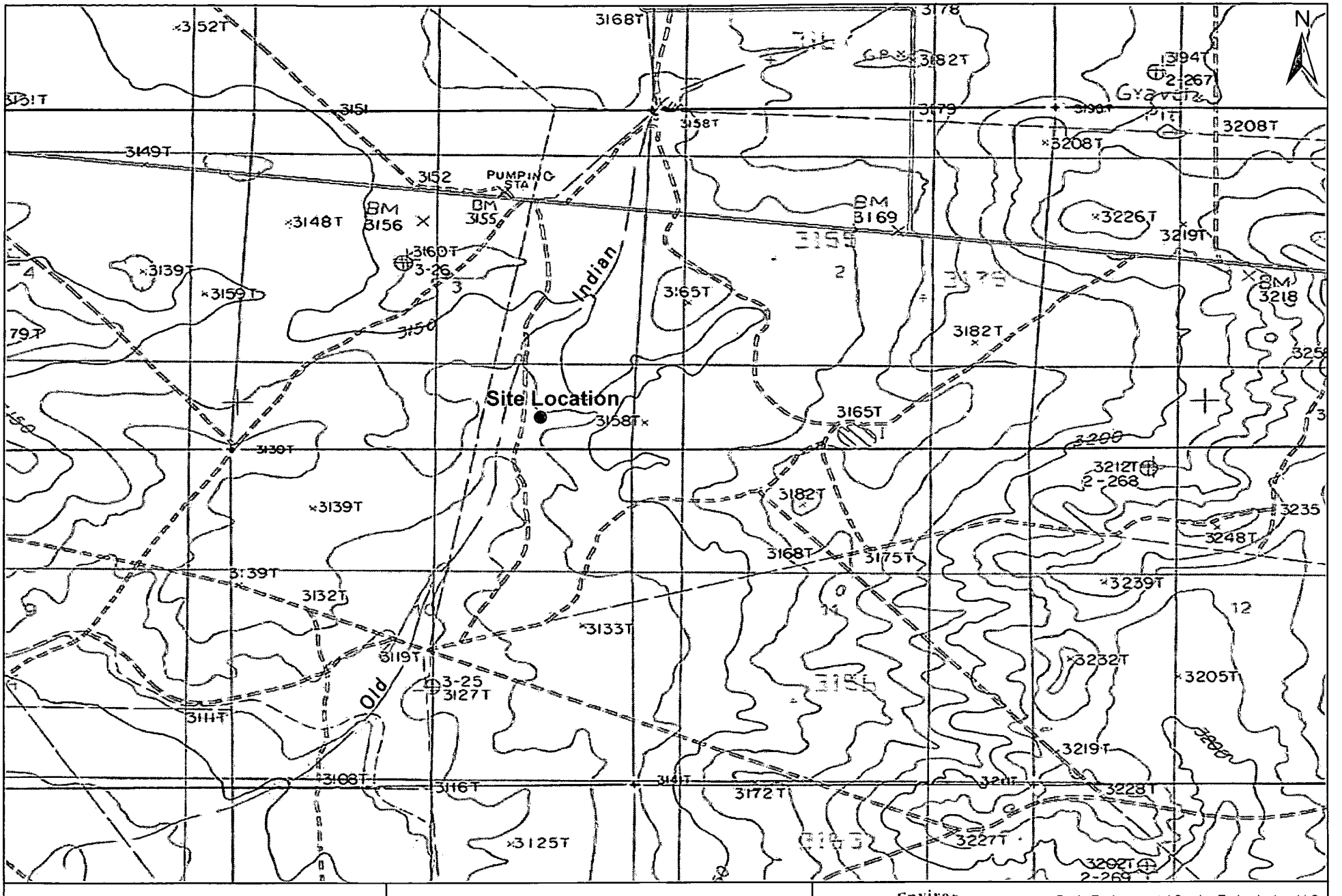
Copy 1: Mike Bratcher
New Mexico Energy, Minerals and Natural Resources Department
Oil Conservation Division (District 2)
1301 E. Grand Avenue
Artesia, NM 88210

Copy 2: James Amos
Bureau of Land Management
602 E. Greene Street
Carlsbad, NM 88220

Copy 3: Tony Savoie
BOPCO, LP
522 W. Mermod, Suite 704
Carlsbad, NM 88220

Copy 4: Basin Environmental Service Technologies, LLC
P.O. Box 301
Lovington, NM 88260

Figures



1,000500 0 1,000 2,000

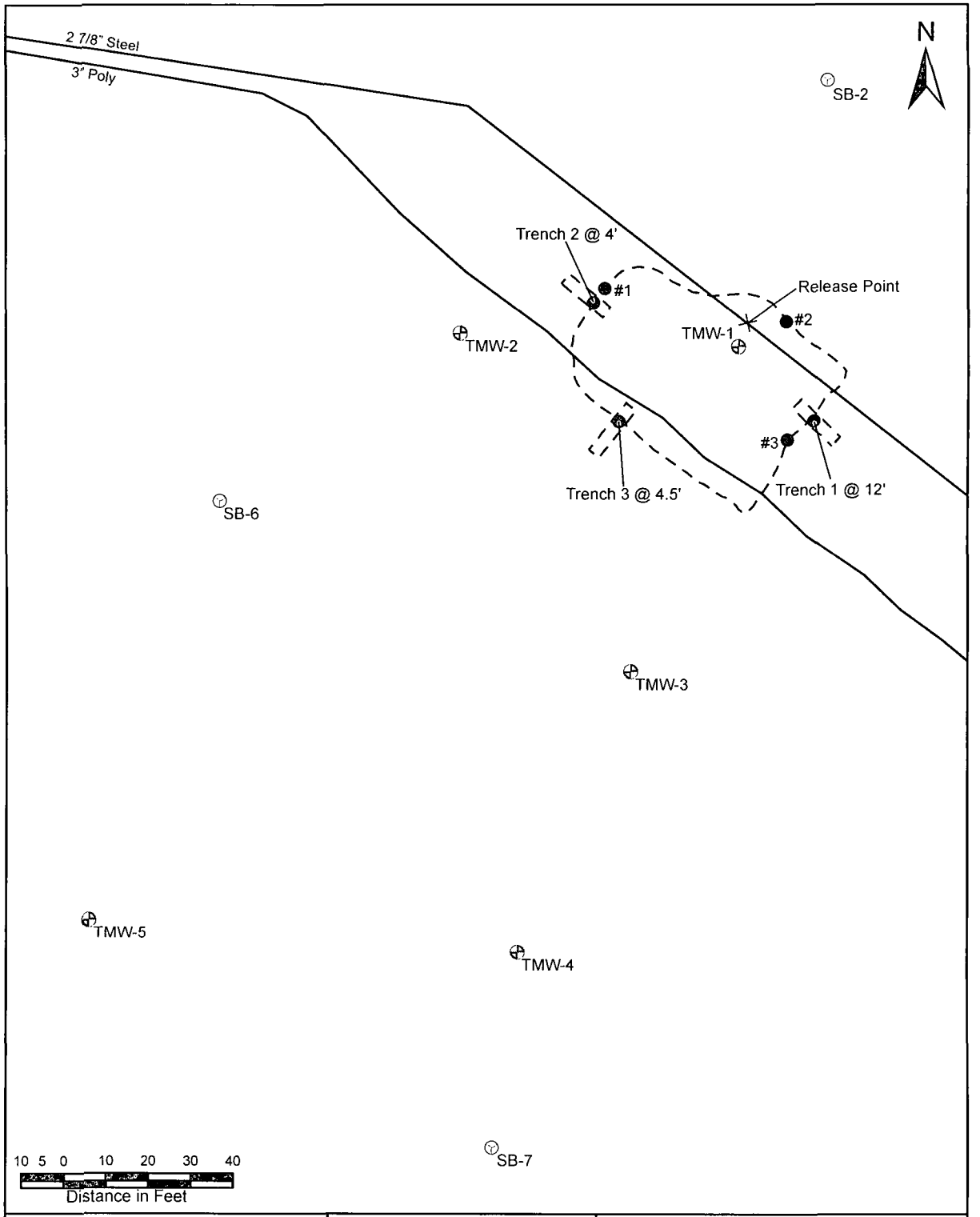
Distance in Feet

Figure 1
Site Location Map
BOPCO, LP
Bass 3 Federal Well #4 Spill Site "A"
Eddy County, New Mexico

Basin Environmental Service Technologies
Effective Solutions

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

Drawn By: BJA	Checked By: BRB
December 22, 2011	Scale: 1" = 2000'



Legend:

- Excavation
- Pipeline
- Sample Location
- Soil Boring
- Monitor Well (Temporary)

Figure 2
Site & Sample Location Map
BOPCO, LP
Bass 3 Federal Well #4 Spill Site "A"
Eddy County, New Mexico
NMOCD Ref.#: 2RP-980

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

Drawn By: BJA	Checked By: BRB
July 30, 2012	Scale: 1" = 35'

Tables

TABLE 1

CONCENTRATIONS OF BENZENE, BTEX, TPH & CHLORIDE IN SOIL

BOPCO, LP
BASS 3 FEDERAL WELL #4 SPILL SITE "A"
EDDY COUNTY, NEW MEXICO
NMOCD REFERENCE #: 2RP-980

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
				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)		CHLORIDE (mg/Kg)
Trench 1 @ 12'	12'	12/16/2011	In-Situ	-	-	-	-	-	<10.0	<10.0	<10.0	<10.0	**6,530**
Trench 2 @ 4'	4'	12/16/2011	In-Situ	-	-	-	-	-	<10.0	<10.0	<10.0	<10.0	48.0
Trench 3 @ 4.5'	4.5'	12/16/2011	In-Situ	-	-	-	-	-	<10.0	<10.0	<10.0	<10.0	<16.0
SB-1 @ 5'	5'	1/12/2012	In-Situ	-	-	-	-	-	<10.0	<10.0	<10.0	<10.0	**2,800**
SB-1 @ 10'	10'	1/12/2012	In-Situ	<0.050	<0.050	<0.050	<0.150	<0.150	<10.0	<10.0	<10.0	<10.0	**5,120**
SB-1 @ 55'	55'	1/12/2012	In-Situ	-	-	-	-	-	-	-	-	-	<16.0
Sample #1	N/A	2/1/2012	In-Situ	-	-	-	-	-	<10.0	14.5	20.7	35.2	<16.0
Sample #2	N/A	2/1/2012	In-Situ	-	-	-	-	-	<10.0	<10.0	12.3	12.3	<16.0
Sample #3	N/A	2/1/2012	In-Situ	-	-	-	-	-	<10.0	<10.0	<10.0	<10.0	<16.0
NMOCD Criteria				**10**				**50**				**5,000**	**1,000**

- = Not analyzed.

TABLE 2

CONCENTRATIONS OF BENZENE, BTEX & CHLORIDE IN GROUNDWATER

BOPCO, LP
BASS 3 FEDERAL WELL #4 SPILL SITE "A"
EDDY COUNTY, NEW MEXICO
NMOCD REFERENCE #: 2RP-980

SAMPLE LOCATION	SAMPLE DATE	METHODS: EPA SW 846-8021B, 5030					CHLORIDE (mg/L)
		BENZENE (mg/L)	TOLUENE (mg/L)	ETHYL-BENZENE (mg/L)	TOTAL XYLENES (mg/L)	TOTAL BTEX (mg/L)	
SB-1	01/13/2012	-	-	-	-	-	81,000
Heater Treater	01/17/2012	-	-	-	-	-	79,000
TMW-2	01/17/2012	-	-	-	-	-	74,000
TMW-3	01/17/2012	-	-	-	-	-	70,000
TMW-5	01/23/2012	-	-	-	-	-	316
TMW-1	01/25/2012	<0.001	0.001	<0.001	<0.003	0.001	72,000
NMOCD CRITERIA		**0.01**	**0.75**	**0.75**	**0.62**		**250**

Appendices

Appendix A

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

nMLB1135446814

OPERATOR

☒ Initial Report ☐ Final Report

Name of Company BOPCO, L.P. 260737	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 "A"	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 32.416059___ Longitude W 104.070738_

NATURE OF RELEASE

Type of Release: Produced water and crude oil	Volume of Release: 25 Bbls of Produced water and 5 Bbls 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 11:36 a.m.
Was Immediate Notice Given? ☒ Yes ☐ No ☐ 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? ☐ Yes ☒ No	If YES, Volume Impacting the Watercourse.	

If a Watercourse was Impacted, Describe Fully.*

RECEIVED
DEC 15 2011
NMOCD ARTESIA

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 2700 sq. ft of pasture land. All of the fluid had soaked into the ground. The spill is in area previously impacted with produced water and crude oil spills. 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: Tony Savoie

Printed Name: Tony Savoie

Title: Waste Mgmt.& Remediation Specialist

E-mail Address: TASavoie@BassPet.com

Date: 12/15/11 Phone:432-556-8730

OIL CONSERVATION DIVISION

Approved by District Supervisor: Signed By Bratcher

Approval Date: DEC 20 2011 Expiration Date:

Conditions of Approval:
Remediation per OCD Rules & Guidelines. **SUBMIT REMEDIATION PROPOSAL NOT LATER THAN:** 1/20/2012

Attached ☐

2RP-980

* Attach Additional Sheets If Necessary

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

RECEIVED
JAN 23 2014
NMOCD ARTESIA

Form C-141
Revised October 10, 2003

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

Release Notification and Corrective Action

OPERATOR

Initial Report X Final Report

Name of Company BOPCO, LP 260737	Contact Tony Savoie
Address 522 W. Mermod, Suite 704, Carlsbad, NM 88220	Telephone No. (432)556-8730
Facility Name Bass 3 Federal Well #4 Spill Site "A"	Facility Type E&P

Surface Owner Federal	Mineral Owner Federal	API - ~~Lease No.~~ 30-015-28736

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 32.416059° North **Longitude** 104.070738° West

NATURE OF RELEASE

Type of Release Produced water and crude oil	Volume of Release 25 bbls of produced water and 5 bbls 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 11:36 a.m.
Was Immediate Notice Given? X Yes No 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? ☐ Yes X No	If YES, Volume Impacting the Watercourse.	

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 remained shut-in until the entire flow line was replaced with poly pipe.

Describe Area Affected and Cleanup Action Taken.* The released fluid affected an area of approximately 2,700 ft^2 of pasture land. All of the fluid had soaked into the ground. The spill was in an area previously impacted with produced water and crude oil spills. Following initial response activities, the releases were remediated as per NMOCD recommended guidelines. Please reference the attached *Remediation Summary & Risk-Based Site Closure Request* for remediation details.

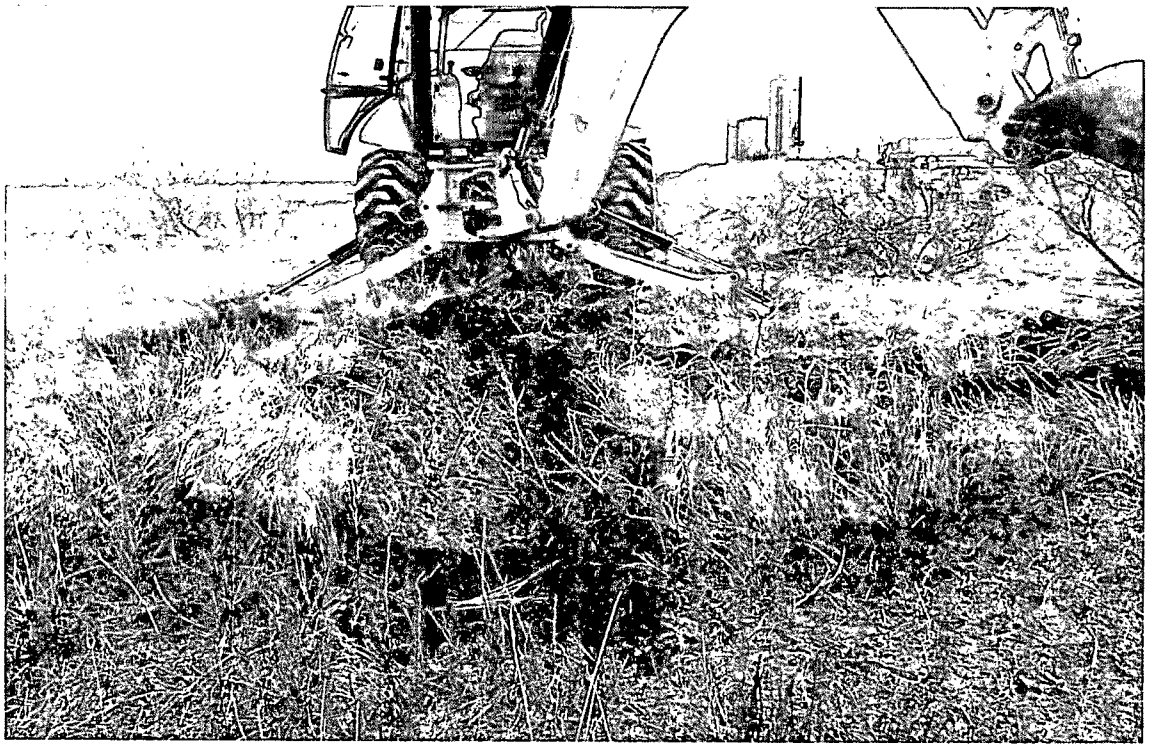
I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to NMOCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases, which may endanger 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: Tony Savoie	OIL CONSERVATION DIVISION	
Printed Name: Tony Savoie	Approved by District Supervisor:	
Title: Waste Mgmt. & Remediation Specialist	Approval Date:	Expiration Date:
E-mail Address: TASavoie@BassPet.com	Conditions of Approval:	
Date: 1/22/14 Phone: 432-556-8730		

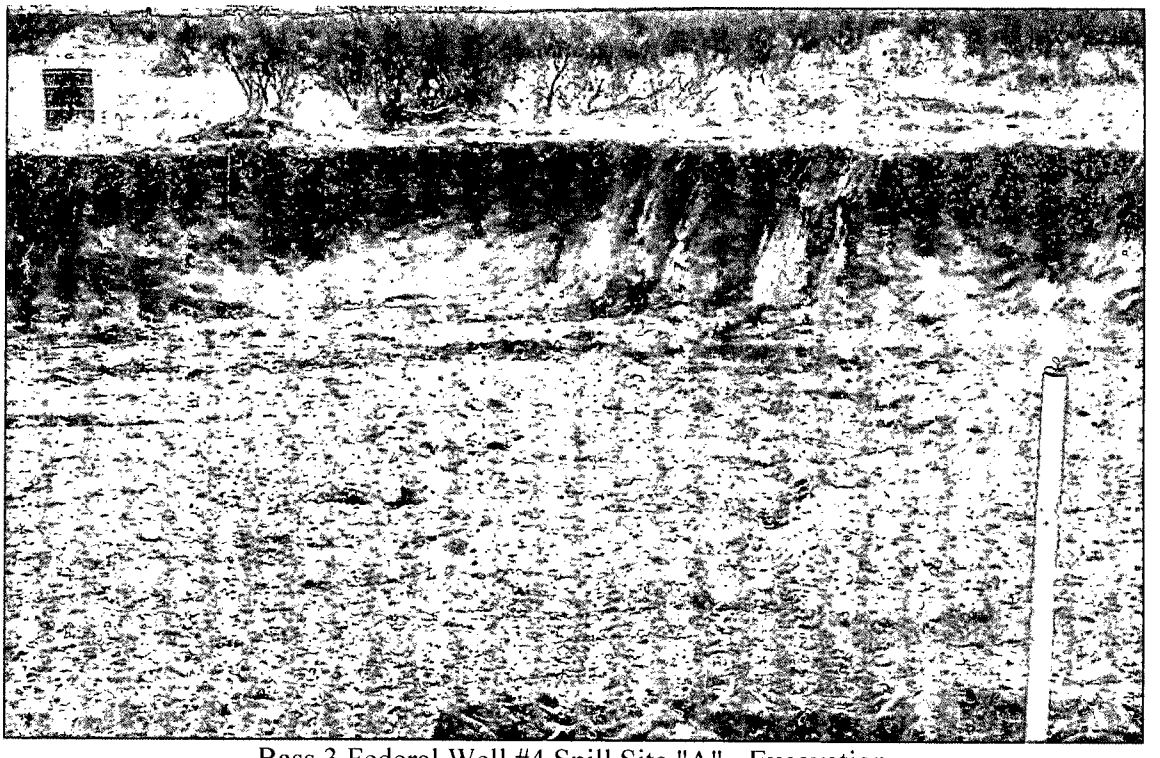
2RP-980

Appendix B

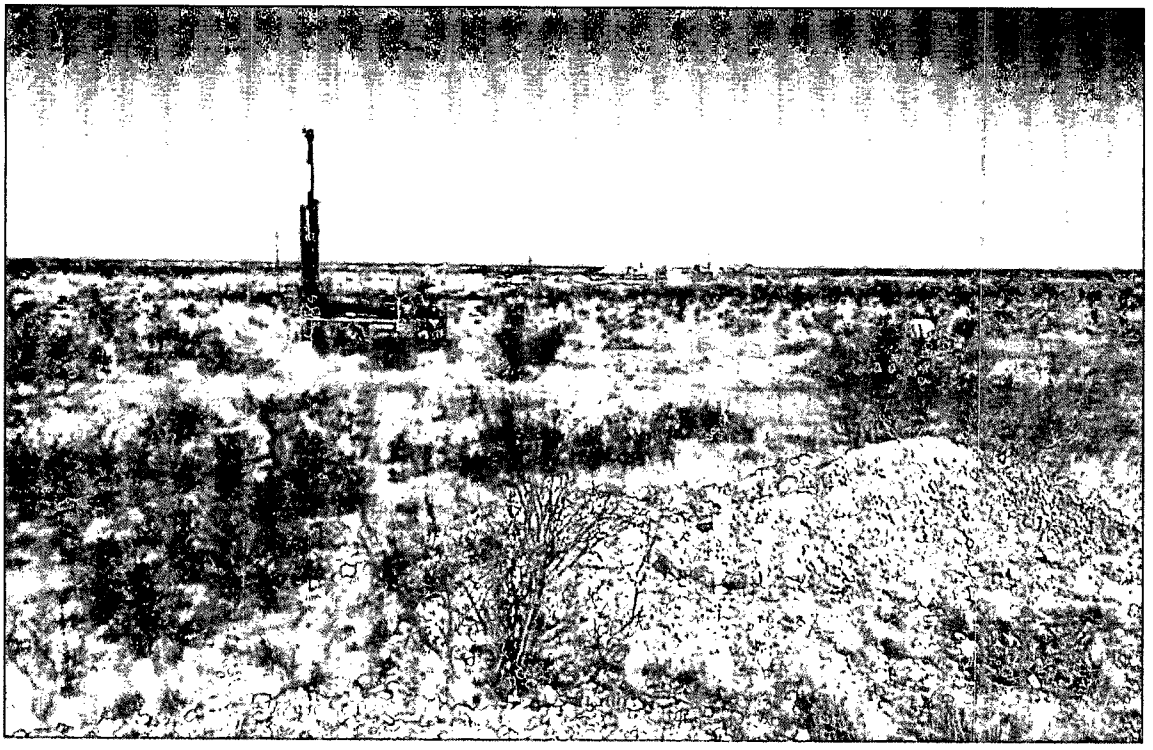
Photographs



Bass 3 Federal Well #4 Spill Site "A" - Release Site & Delineation Trench



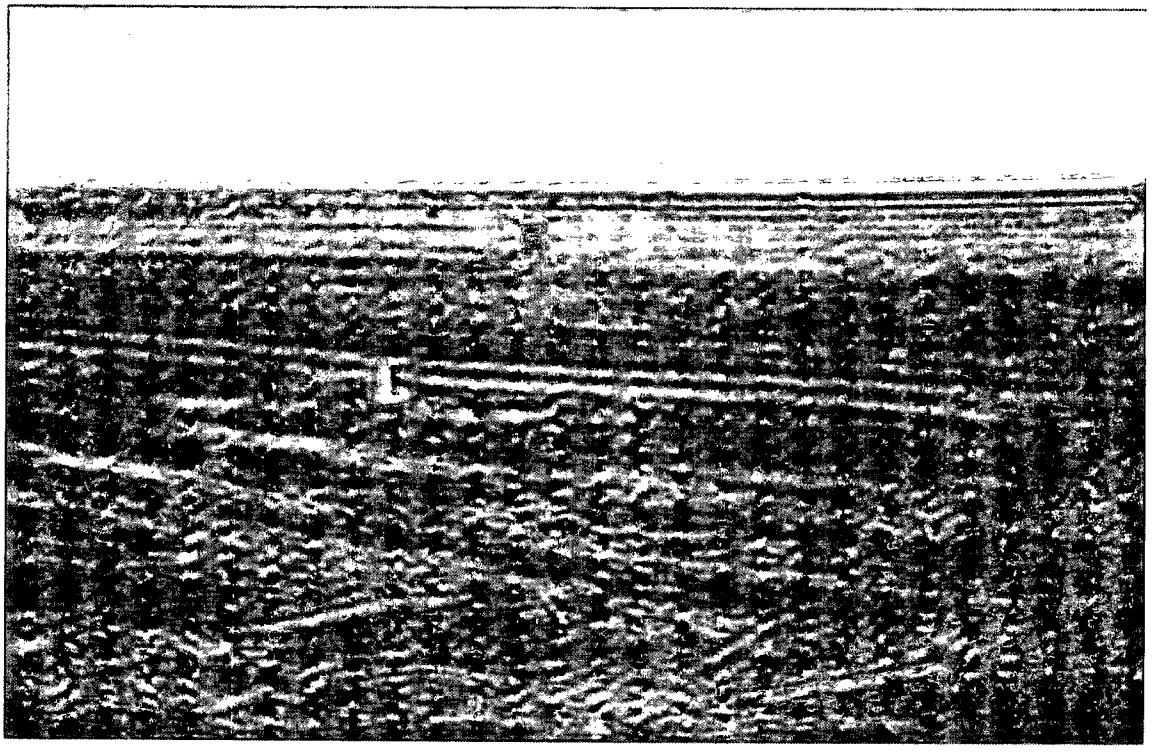
Bass 3 Federal Well #4 Spill Site "A" - Excavation
(Temporary Monitor Well TMW-1 Visible in Foreground)



Bass 3 Federal Well #4 Spill Site "A" - Advancement of Temporary Monitor Wells

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

Bass 3 Federal Well #4 Spill Site "A" - Liner Installation
(Temporary Monitor Well Visible in Background)



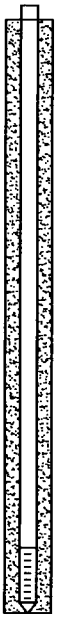
Bass 3 Federal Well #4 Spill Site "A" - Excavation
(Following Backfilling; Temporary Monitor Well Visible in Middle-Ground)

Appendix C

Soil Boring & Monitor Well Logs

Soil Boring SB-1/Temporary Monitor Well TMW-1

Depth Below Ground Surface	Chloride Field Test	PID Reading	Petroleum Odor	Petroleum Stain	Soil Description
0	3,614		None	Moderate	0' - 6' - Tan very fine sand with clay
5		(14.7)	None	None	6' - 9' - Tan fine sand - sandstone
10		(1.3)	None	None	
15		1.7	None	None	9' - 26' - Red fine sand - sandstone
20	7,224	7.0	None	None	
25			None	None	26' - 30' - Tan fine sand - sandstone
30			None	None	
35			None	None	
40	3,164		None	None	30' - 55' Red fine sand - sandstone
45			None	None	
50			None	None	
55	(5,232)				



Date Drilled January 12, 2012
Thickness of Bentonite Seal 55 Ft
Depth of Exploratory Boring 55 Ft bgs
Depth to Groundwater 48 Ft bgs
Ground Water Elevation

▼ Indicates the PSH level measured on
▼ Indicates the groundwater level measured on January 19, 2012
⬭ Indicates samples selected for Laboratory Analysis.
PID Head-space reading in ppm obtained with a photo-ionization detector.

Sand Pack

Completion Notes

1.) The temporary monitor well was advanced on date using air rotary drilling techniques.
2.) The well was constructed with 2" ID, 0.020 inch factory slotted, threaded joint, schedule 40 PVC pipe.
3.) The well is protected with a compresson 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-1/ Temporary Monitor Well TMW-1

BOPCO, LP
Bass 3 Federal Well #4 Spill Site "A"
Eddy County, New Mexico

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

Prep By: BJA	Checked By: BRB
May 10, 2012	

Soil Boring SB-2

Depth Below Ground Surface	Soil Column	Chloride Field Test	PID Reading	Petroleum Odor	Petroleum Stain	Soil Description
0				None	None	0' - 1' - Tan fine sand with clay
5				None	None	1' - 8' - Tan fine sand - sandstone - caliche
10				None	None	
15				None	None	
20				None	None	
25				None	None	8' - 43' - Tan fine sand - sandstone
30				None	None	
35				None	None	
40				None	None	
45				None	None	43' - 49' - Red fine to very fine sand - sandstone
50				None	None	
55				None	None	49' - 60' Red silty sand with clay
60				None	None	

Boring SB-2

Date Drilled January 17, 2012
Thickness of Bentonite Seal 60 Ft
Depth of Exploratory Boring 60 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-lonization 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

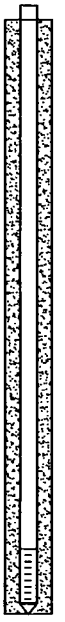
BOPCO, LP
Bass 3 Federal Well #4 Spill Site "A"
Eddy County, New Mexico

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

Prep By: BJA	Checked By: BRB
May 11, 2012	

Soil Boring SB-3/Temporary Monitor Well TMW-2

Depth Below Ground Surface	Soil Column	Chloride Field Test	PID Reading	Petroleum Odor	Petroleum Stain	Soil Description
0				None	None	0' - 2' - Tan silty sand with clay
5				None	None	2' - 11' - Tan fine sand; sandstone; caliche
10				None	None	
15				None	None	11' - 20' - Tan fine sand - sandstone
20				None	None	20' - 23' - Red fine sand
25				None	None	
30				None	None	23' - 48' - Red silty sand
35				None	None	
40				None	None	
45				None	None	
50				None	None	48' - 55' Red silty sand - silty clay
55		>2,428		None	None	



Date Drilled January 17, 2012
Thickness of Bentonite Seal 55 Ft
Depth of Exploratory Boring 55 Ft bgs
Depth to Groundwater 49 Ft bgs
Ground Water Elevation

▼ Indicates the PSH level measured on _____
▼ Indicates the groundwater level measured on January 19, 2012
⬭ Indicates samples selected for Laboratory Analysis.
PID Head-space reading in ppm obtained with a photo-ionization detector.

Sand Pack

Completion Notes

1.) The temporary monitor well was advanced on date using air rotary drilling techniques.
2.) The well was constructed with 2" ID, 0.020 inch factory slotted, threaded joint, schedule 40 PVC pipe.
3.) The well is protected with a compresson 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-3/ Temporary Monitor Well TMW-2

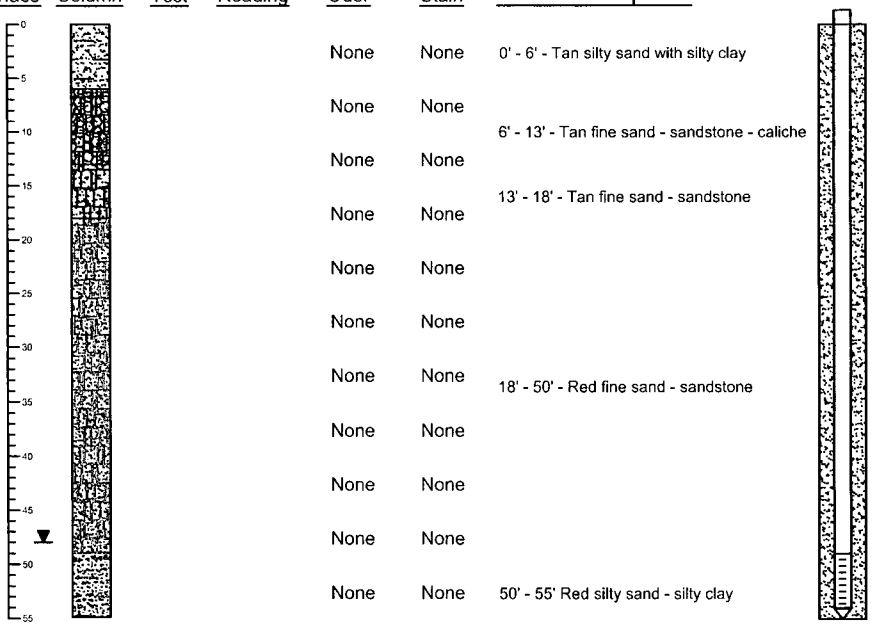
BOPCO, LP
Bass 3 Federal Well #4 Spill Site "A"
Eddy County, New Mexico

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

Prep By: BJA	Checked By: BRB
May 10, 2012	

Soil Boring SB-4/Temporary Monitor Well TMW-3

Depth Below Ground Surface	Soil Column	Chloride Field Test	PID Reading	Petroleum Odor	Petroleum Stain	Soil Description
0				None	None	0' - 6' - Tan silty sand with silty clay
5				None	None	
10				None	None	6' - 13' - Tan fine sand - sandstone - caliche
15				None	None	
20				None	None	13' - 18' - Tan fine sand - sandstone
25				None	None	
30				None	None	
35				None	None	18' - 50' - Red fine sand - sandstone
40				None	None	
45				None	None	
50				None	None	
55				None	None	50' - 55' Red silty sand - silty clay



Date Drilled January 17, 2012
Thickness of Bentonite Seal 55 Ft
Depth of Exploratory Boring 55 Ft bgs
Depth to Groundwater 48 Ft bgs
Ground Water Elevation

▼ Indicates the PSH level measured on
▼ Indicates the groundwater level measured on January 19, 2012
⬭ Indicates samples selected for Laboratory Analysis.
PID Head-space reading in ppm obtained with a photo-ionization detector.

Sand Pack

Completion Notes

1.) The temporary monitor well was advanced on date using air rotary drilling techniques.
2.) The well was constructed with 2" ID, 0.020 inch factory slotted, threaded joint, schedule 40 PVC pipe.
3.) The well is protected with a compresson 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/ Temporary Monitor Well TMW-3

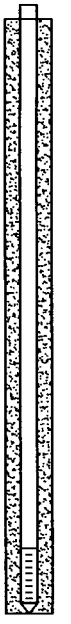
BOPCO, LP
Bass 3 Federal Well #4 Spill Site "A"
Eddy County, New Mexico

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

Prep By: BJA	Checked By: BRB
May 11, 2012	

Soil Boring SB-5/Temporary Monitor Well TMW-4

Depth Below Ground Surface	Soil Column	Chloride Field Test	PID Reading	Petroleum Odor	Petroleum Stain	Soil Description
0				None	None	0' - 3' - Tan fine sand with clay
5				None	None	3' - 11' - Tan fine sand - sandstone
10				None	None	
15				None	None	
20				None	None	
25				None	None	
30				None	None	11' - 47' - Red fine sand - sandstone
35				None	None	
40				None	None	
45				None	None	
50				None	None	47' - 50' - Red silty sand - silty clay
55				None	None	50' - 55' Red silty sand - sandstone



Date Drilled January 19, 2012
Thickness of Bentonite Seal 55 Ft
Depth of Exploratory Boring 55 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.

Sand Pack

Completion Notes

1.) The temporary monitor well was advanced on date using air rotary drilling techniques.
2.) The well was constructed with 2" ID, 0.020 inch factory slotted, threaded joint, schedule 40 PVC pipe.
3.) The well is protected with a compresson 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.

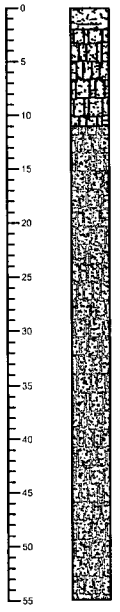
Soil Boring SB-5/ Temporary Monitor Well TMW-4

BOPCO, LP
Bass 3 Federal Well #4 Spill Site "A"
Eddy County, New Mexico

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

Prep By: BJA	Checked By: BRB
May 11, 2012	

Soil Boring SB-6

Depth Below Ground Surface	Soil Column	Chloride Field Test	PID Reading	Petroleum Odor	Petroleum Stain	Soil Description
0				None	None	0' - 2' - Tan fine sand with clay
5				None	None	2' - 11' - Tan fine sand - sandstone
10				None	None	
15				None	None	
20				None	None	
25				None	None	
30				None	None	11' - 55' - Red fine sand - sandstone
35				None	None	
40				None	None	
45				None	None	
50				None	None	
55				None	None	

Boring SB-6

Date Drilled January 19, 2012
Thickness of Bentonite Seal 55 Ft
Depth of Exploratory Boring 55 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-6

BOPCO, LP
Bass 3 Federal Well #4 Spill Site "A"
Eddy County, New Mexico

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

Prep By: BJA	Checked By: BRB
May 11, 2012	

Soil Boring SB-7

Depth Below Ground Surface	Soil Column	Chloride Field Test	PID Reading	Petroleum Odor	Petroleum Stain	Soil Description
0				None	None	0' - 1' - Tan silty sand with clay
5				None	None	1' - 17' - Tan fine sand - sandstone
10				None	None	
15				None	None	
20				None	None	
25				None	None	
30				None	None	
35				None	None	17' - 55' - Red fine sand - sandstone
40				None	None	
45				None	None	
50				None	None	
55						

Boring SB-7

Date Drilled: January 19, 2012
Thickness of Bentonite Seal: 55 Ft
Depth of Exploratory Boring: 55 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-7

BOPCO, LP
Bass 3 Federal Well #4 Spill Site "A"
Eddy County, New Mexico

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

Prep By: BJA	Checked By: BRB
May 11, 2012	

Soil Boring SB-8/Temporary Monitor Well TMW-5

Depth Below Ground Surface	Soil Column	Chloride Field Test	PID Reading	Petroleum Odor	Petroleum Stain	Soil Description
0				None	None	0' - 1' - Tan silty sand with silty clay
5				None	None	
10				None	None	1' - 19' - Tan fine sand - sandstone
15				None	None	
20				None	None	
25				None	None	
30				None	None	19' - 49' - Red fine sand - sandstone
35				None	None	
40				None	None	
45				None	None	
50				None	None	49' - 55' Red silty sand - silty clay
55						

Date Drilled January 20, 2012
Thickness of Bentonite Seal 55 Ft
Depth of Exploratory Boring 55 Ft bgs
Depth to Groundwater 53 Ft bgs
Ground Water Elevation

▼ Indicates the PSH level measured on
▼ Indicates the groundwater level measured on January 20, 2012
⬭ Indicates samples selected for Laboratory Analysis.
PID Head-space reading in ppm obtained with a photo-ionization detector.

Sand Pack

Completion Notes

1.) The temporary monitor well was advanced on date using air rotary drilling techniques.
2.) The well was constructed with 2" ID, 0.020 inch factory slotted, threaded joint, schedule 40 PVC pipe.
3.) The well is protected with a compresson 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-8/ Temporary Monitor Well TMW-5

BOPCO, LP
Bass 3 Federal Well #4 Spill Site "A"
Eddy County, New Mexico

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

Prep By: BJA	Checked By: BRB
May 11, 2012	

Appendix D

Laboratory Analytical Reports (Soil)

CARDINAL Laboratories

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

December 22, 2011

BEN J. ARGUIJO

Basin Environmental Service

P.O. Box 301

Lovington, NM 88260

RE: BASS 3 FEDERAL WELL #4 SPILL A

Enclosed are the results of analyses for samples received by the laboratory on 12/19/11 8:10.

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 accreditated through the State of Colorado Department of Public Health and Environment for:

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

Accreditation applies to public drinking water matrices.

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

Sincerely,

Celey D. Keene

Celey D. Keene

Lab Director/Quality Manager

CARDINAL Laboratories

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

Analytical Results For:

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

Received:	12/19/2011	Sampling Date:	12/16/2011
Reported:	12/22/2011	Sampling Type:	Soil
Project Name:	BASS 3 FEDERAL WELL #4 SPILL A	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	EDDY COUNTY, NM		

Sample ID: TRENCH 1 @ 12' (H102725-01)

Chloride, SM4500Cl-B mg/kg **Analyzed By: AP**

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**6530**	16.0	12/20/2011	ND	416	104	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	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					

Surrogate: 1-Chlorooctane	*109 %*	*55.5-154*
Surrogate: 1-Chlorooctadecane	*103 %*	*57.6-158*

Sample ID: TRENCH 2 @ 4' (H102725-02)

Chloride, SM4500Cl-B mg/kg **Analyzed By: AP**

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**48.0**	16.0	12/20/2011	ND	416	104	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	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					

Surrogate: 1-Chlorooctane	*109 %*	*55.5-154*
Surrogate: 1-Chlorooctadecane	*108 %*	*57.6-158*

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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

Analytical Results For:

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

Received:	12/19/2011	Sampling Date:	12/16/2011
Reported:	12/22/2011	Sampling Type:	Soil
Project Name:	BASS 3 FEDERAL WELL #4 SPILL A	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	EDDY COUNTY, NM		

Sample ID: TRENCH 3 @ 4.5' (H102725-03)

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	12/20/2011	ND	416	104	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	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					

Surrogate: 1-Chlorooctane	*107 %*	*55.5-154*
Surrogate: 1-Chlorooctadecane	*117 %*	*57.6-158*

Sample ID: TRENCH 4 @ 4' (H102725-04)

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	12/20/2011	ND	416	104	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	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					

Surrogate: 1-Chlorooctane	*116 %*	*55.5-154*
Surrogate: 1-Chlorooctadecane	*116 %*	*57.6-158*

Cardinal Laboratories

*=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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

Analytical Results For:

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

Received:	12/19/2011	Sampling Date:	12/16/2011
Reported:	12/22/2011	Sampling Type:	Soil
Project Name:	BASS 3 FEDERAL WELL #4 SPILL A	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	EDDY COUNTY, NM		

Sample ID: TRENCH 5 @ 4' (H102725-05)

Chloride, SM4500Cl-B **mg/kg** **Analyzed By: HM**

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**64.0**	16.0	12/21/2011	ND	432	108	400	3.64	

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					

Surrogate: 1-Chlorooctane	*99.4 %*	*55.5-154*
Surrogate: 1-Chlorooctadecane	*106 %*	*57.6-158*

Sample ID: TRENCH 6 @ 4.5' (H102725-06)

Chloride, SM4500Cl-B **mg/kg** **Analyzed By: HM**

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**80.0**	16.0	12/21/2011	ND	432	108	400	3.64	

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					

Surrogate: 1-Chlorooctane	*110 %*	*55.5-154*
Surrogate: 1-Chlorooctadecane	*108 %*	*57.6-158*

Cardinal Laboratories

*=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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

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

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

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

Company Name: Basin Environmental Service Technologies, LLC	**BILL TO**
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 A	State: NM Zip: 88220
Project Location: Eddy Co., NM	Phone #: (432)556-8730
Sampler Name: Bobby Blackwood	Fax #:

FOR LAB USE ONLY				MATRIX						PRESERV.		SAMPLING		ANALYSIS REQUEST			
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	TPH (8015M)	Chloride	Hold for BTEX
H102212.5																	
1	Trench 1 @ 12'	X				X					X		12/16/11	1110	X	X	
2	Trench 2 @ 4'													1200			
3	Trench 3 @ 4.5'													1245			
4	Trench 4 @ 4'													1330			
5	Trench 5 @ 4'													1415			
6	Trench 6 @ 4.5'													1500			

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: 12/16/11 Time: 1500	Received By:	
Relinquished By:	Date: 12/19/11 Time: 0700	Received By:	12/19/11 6:70
Delivered By: (Circle One) Sampler - UPS - Bus - Other	12/19/11 8:16	Sample Condition Cool - Intact: Yes / Yes; No / No	CHECKED BY: (Initials)

Phone Result: ☐ Yes ☐ No Add'l Phone #:
Fax Result: ☐ Yes ☐ No Add'l Fax #:

REMARKS:

Run TPH, Hold for BTEX

Please email results to pm@basinenv.com
& & TAsavoie@BassPet.com

accept verbal changes. Please fax written changes to 505-393-2476

CARDINAL Laboratories

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

January 19, 2012

BEN J. ARGUIJO

Basin Environmental Service

P.O. Box 301

Lovington, NM 88260

RE: BASS 3 FEDERAL WELL #4 SPILL A

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 accreditated through the State of Colorado Department of Public Health and Environment for:

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

Accreditation applies to public drinking water matrices.

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

Sincerely,

Celey D. Keene

Celey D. Keene

Lab Director/Quality Manager

CARDINAL Laboratories

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

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 A	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	EDDY COUNTY, NM		

Sample ID: SB-1 @ 5' (H200090-01)

Chloride, SM4500Cl-B mg/kg **Analyzed By: AP**

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**2800**	16.0	01/17/2012	ND	432	108	400	3.64	

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	01/17/2012	ND	219	109	200	6.11	
DRO >C10-C28	<10.0	10.0	01/17/2012	ND	203	101	200	10.3	
EXT DRO >C28-C35	<10.0	10.0	01/17/2012	ND					

Surrogate: 1-Chlorooctane	*115 %*	*55.5-154*
Surrogate: 1-Chlorooctadecane	*132 %*	*57.6-158*

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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

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 A	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	EDDY COUNTY, NM		

Sample ID: SB-1 @ 10' (H200090-02)

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, SM4500Cl-B mg/kg **Analyzed By: AP**

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**5120**	16.0	01/17/2012	ND	432	108	400	3.64	

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 *139 %* *55.5-154*

Surrogate: 1-Chlorooctadecane *161 %* *57.6-158*

Sample ID: SB-1 @ 55' (H200090-03)

Chloride, SM4500Cl-B mg/kg **Analyzed By: AP**

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**11300**	16.0	01/17/2012	ND	432	108	400	3.64	

Cardinal Laboratories

*=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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

Notes and Definitions

A-01	1 Surrogate failed QC limits (high). No target compounds detected.
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

CARDINAL Laboratories

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

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

Company Name:	Basin Environmental Service Technologies, LLC	BILL TO	
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 "A"	State: NM	Zip: 88220
Project Location:	Eddy Co., NM	Phone #:	(432)556-8730
Sampler Name:	Ben J. Arguijo	Fax #:	

FOR LAB USE ONLY				MATRIX							PRESERV.			SAMPLING		ANALYSIS REQUEST											
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	Chloride	TPH (8015M)	BTEX										
H2.000990																											
1	SB-1 @ 5'	G	1			X					X		11/12/12	1415	X	X											
2	SB-1 @ 10'													1420		X	X										
3	SB-1 @ 55'													1600													

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: 11/13/12	Received By:	Phone Result:	☐ Yes	☐ No Add'l Phone #:
	Time: 0815	Jodi Henson	Fax Result:	☐ Yes	☐ No Add'l Fax #:
Relinquished By:	Date:	Received By:	REMARKS:		
	Time:				
Delivered By: (Circle One)	Sample Condition: Cool ☑ Yes ☐ No, Intact ☑ Yes ☐ No	CHECKED BY: (Initials)	Please email results to pm@basinenv.com & TAsavoie@BassPet.com		
Sampler - UPS - Bus - Other: 6° C					

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

#26

CARDINAL Laboratories

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

February 03, 2012

BEN J. ARGUIJO

Basin Environmental Service

P.O. Box 301

Lovington, NM 88260

RE: BASS 3 FEDERAL WELL #4 SPILL A

Enclosed are the results of analyses for samples received by the laboratory on 02/01/12 16:20.

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 accreditated through the State of Colorado Department of Public Health and Environment for:

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

Accreditation applies to public drinking water matrices.

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

Sincerely,

Celey D. Keene

Celey D. Keene

Lab Director/Quality Manager

CARDINAL Laboratories

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

Analytical Results For:

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

Received:	02/01/2012	Sampling Date:	02/01/2012
Reported:	02/03/2012	Sampling Type:	Soil
Project Name:	BASS 3 FEDERAL WELL #4 SPILL A	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	EDDY COUNTY, NM		

Sample ID: SAMPLE #1 (H200251-01)

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	02/02/2012	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	02/02/2012	ND	192	96.0	200	5.21	
DRO >C10-C28	**14.5**	10.0	02/02/2012	ND	221	111	200	5.39	
EXT DRO >C28-C35	**20.7**	10.0	02/02/2012	ND					

Surrogate: 1-Chlorooctane	*96.5 %*	*55.5-154*
Surrogate: 1-Chlorooctadecane	*121 %*	*57.6-158*

Sample ID: SAMPLE #2 (H200251-02)

Chloride, SM4500Cl-B mg/kg **Analyzed By: AP**

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	<16.0	16.0	02/02/2012	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	02/03/2012	ND	192	96.0	200	5.21	
DRO >C10-C28	<10.0	10.0	02/03/2012	ND	221	111	200	5.39	
EXT DRO >C28-C35	**12.3**	10.0	02/03/2012	ND					

Surrogate: 1-Chlorooctane	*101 %*	*55.5-154*
Surrogate: 1-Chlorooctadecane	*114 %*	*57.6-158*

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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

Analytical Results For:

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

Received:	02/01/2012	Sampling Date:	02/01/2012
Reported:	02/03/2012	Sampling Type:	Soil
Project Name:	BASS 3 FEDERAL WELL #4 SPILL A	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	EDDY COUNTY, NM		

Sample ID: SAMPLE #3 (H200251-03)

Chloride, SM4500Cl-B mg/kg **Analyzed By: AP**

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	<16.0	16.0	02/02/2012	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	02/03/2012	ND	192	96.0	200	5.21	
DRO >C10-C28	<10.0	10.0	02/03/2012	ND	221	111	200	5.39	
EXT DRO >C28-C35	<10.0	10.0	02/03/2012	ND					

Surrogate: 1-Chlorooctane	*104 %*	*55.5-154*
Surrogate: 1-Chlorooctadecane	*129 %*	*57.6-158*

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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

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

CARDINAL Laboratories

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

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

Company Name:	Basin Environmental Service Technologies, LLC	**BILL TO**	
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 FED 4 Site A	State:	NM Zip: 88220
Project Location:	EDDY NM	Phone #:	(432)556-8730
Sampler Name:	Jody Walters	Fax #:	

FOR LAB USE ONLY				MATRIX						PRESERV.		SAMPLING		ANALYSIS REQUEST											
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	BDISM	Chlorides	Hold for BTEX								
H12003-1																									
1	Sample #1	G	1			X					X		2-1-12	9:00	X	X	X								
2	Sample #2	G	1			X					X		2-1-12	9:10	X	X	X								
3	Sample #3	G	1			X					X		2-1-12	9:20	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:	Date: 2-1-12	Received By:	Phone Result: ☐ Yes ☐ No	Add'l Phone #:
	Time: 3:20		Fax Result: ☐ Yes ☐ No	Add'l Fax #:
Relinquished By:	Date: 2-1-12	Received By:	REMARKS:	
	Time: 4:20		Please email results to pm@basinenv.com & TAsavoie@BassPet.com	
Delivered By: (Circle One)	Sample Condition: Cool: Yes / No; Intact: Yes / No	CHECKED BY: (Initials)		
Sampler - UPS - Bus - Other:	5°C			

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

#2-6

Appendix E

Laboratory Analytical Reports (Groundwater)

CARDINAL Laboratories

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

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 accreditated through the State of Colorado Department of Public Health and Environment for:

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

Accreditation applies to public drinking water matrices.

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

Sincerely,

Celey D. Keene

Celey D. Keene

Lab Director/Quality Manager

CARDINAL Laboratories

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

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: EAST WALL (H102799-03)

Chloride, SM4500Cl-B mg/kg **Analyzed By: AP**

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**144**	16.0	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					

Surrogate: 1-Chlorooctane	*99.1 %*	*55.5-154*
Surrogate: 1-Chlorooctadecane	*122 %*	*57.6-158*

Sample ID: WATER WELL (H102799-04)

Chloride, SM4500Cl-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	

Cardinal Laboratories

*=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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

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

Laboratories

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

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

Company Name: Basin Environmental Service Technologies, LLC	BILL TO
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 4 "C"	State: NM Zip: 88220
Project Location: Eddy County	Phone #: (432) 556-8730
Sampler Name: Troy Hahn	Fax #:

FOR LAB USE ONLY				MATRIX						PRESERV.			SAMPLING		ANALYSIS REQUEST										
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	TPH (8015m)	Chlorides	Hold for BTEX	TDS							
H102199																									
1	West Wall	C	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	G	1	-							✓		12/30/11	1450		✓		✓							

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: 12/30/11	Received By:	Phone Result: ☐ Yes ☐ No	Add'l Phone #:
	Time: 1530		Fax Result: ☐ Yes ☐ No	Add'l Fax #:
Relinquished By:	Date:	Received By:	REMARKS:	
	Time:			

Please email results to pm@basinenv.com
& TAsavoie@BassPet.com

Delivered By: (Circle One)
Sampler - UPS - Bus - Other: 4°C

Sample Condition: Cool ✓ Yes ☐ No; Intact ✓ Yes ☐ No

CHECKED BY: (Initials) CHK

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

#26

CARDINAL Laboratories

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

January 17, 2012

BEN J. ARGUIJO

Basin Environmental Service

P.O. Box 301

Lovington, NM 88260

RE: BASS 3 FEDERAL WELL #4 SPILL A

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 accreditated through the State of Colorado Department of Public Health and Environment for:

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

Accreditation applies to public drinking water matrices.

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

Sincerely,

Celey D. Keene

Celey D. Keene

Lab Director/Quality Manager

CARDINAL Laboratories

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

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:	01/13/2012
Reported:	01/17/2012	Sampling Type:	Water
Project Name:	BASS 3 FEDERAL WELL #4 SPILL A	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	EDDY COUNTY, NM		

Sample ID: SB-1 (H200084-01)

Chloride, SM4500Cl-B **mg/L** **Analyzed By: HM**

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride*	**81000**	4.00	01/16/2012	ND	104	104	100	3.77	

Cardinal Laboratories

*=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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

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

CARDINAL Laboratories

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

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

Company Name:	Basin Environmental Service Technologies, LLC	BILL TO	
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 "A"	State: NM	Zip: 88220
Project Location:	Eddy Co., NM	Phone #:	(432) 556-8730
Sampler Name:	Ben J. Arguijo	Fax #:	

FOR LAB USE ONLY				MATRIX						PRESERV.			SAMPLING		ANALYSIS REQUEST
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	Chloride
H200064															
1	SB-1	G	1	X							X		1/13/12	0825	X

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

Relinquished By:	Date: 1/16/12	Received By:	Phone Result: ☐ Yes ☐ No	Add'l Phone #:
	Time: 0825	Jodi Henson	Fax Result: ☐ Yes ☐ No	Add'l Fax #:
Relinquished By:	Date:	Received By:	REMARKS:	
	Time:		Please email results to pm@basinenv.com & & TAsavoie@BassPet.com	

Delivered By: (Circle One)
Sampler - UPS - Bus - Other:

Sample Condition: Cool: Yes / No; Intact: Yes / No

CHECKED BY: (Initials)

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

#26

CARDINAL Laboratories

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

January 20, 2012

BEN J. ARGUIJO

Basin Environmental Service

P.O. Box 301

Lovington, NM 88260

RE: BASS 3 FEDERAL WELL #4 SPILL A

Enclosed are the results of analyses for samples received by the laboratory on 01/19/12 11:45.

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 accreditated through the State of Colorado Department of Public Health and Environment for:

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

Accreditation applies to public drinking water matrices.

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

Sincerely,

Celey D. Keene

Celey D. Keene

Lab Director/Quality Manager

CARDINAL Laboratories

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

Analytical Results For:

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

Received:	01/19/2012	Sampling Date:	01/17/2012
Reported:	01/20/2012	Sampling Type:	Water
Project Name:	BASS 3 FEDERAL WELL #4 SPILL A	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	EDDY COUNTY, NM		

Sample ID: HEATER TREATER (H200128-01)

Chloride, SM4500Cl-B **mg/L** **Analyzed By: HM**

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride*	**79000**	4.00	01/19/2012	ND	104	104	100	3.77	

Sample ID: TMW - 2 (H200128-02)

Chloride, SM4500Cl-B **mg/L** **Analyzed By: HM**

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride*	**74000**	4.00	01/19/2012	ND	104	104	100	3.77	

Sample ID: TMW - 3 (H200128-03)

Chloride, SM4500Cl-B **mg/L** **Analyzed By: HM**

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride*	**70000**	4.00	01/19/2012	ND	104	104	100	3.77	

Cardinal Laboratories

*=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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

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

CARDINAL Laboratories

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

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

Company Name: Basin Environmental Service Technologies, LLC	BILL TO
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 "A"	State: NM Zip: 88220
Project Location: Eddy Co., NM	Phone #: (432)556-8730
Sampler Name: Troy Hahn	Fax #:

FOR LAB USE ONLY Lab I.D.	Sample I.D.	(G)RAB OR (C)OMP.	# CONTAINERS:	MATRIX: GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER:	PRESERV.: ACID/BASE:	ICE / COOL	OTHER:	SAMPLING: DATE	TIME	ANALYSIS REQUEST: Chlor. de
H10012 9															
1	Heater Treater	G	1	X							X		1/17/12	1300	X
2	TMW-2	↓	↓	↓							↓		1/18/12	0815	↓
3	TMW-3	↓	↓	↓							↓		1/18/12	1100	↓

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: Troy Hahn	Date: 1/18/12 Time: 1730	Received By:	Phone Result: ☐ Yes ☐ No Add'l Phone #:
Relinquished By:	Date: 1/19/12 Time: 0645	Received By: Dakotah Lunn	Fax Result: ☐ Yes ☐ No Add'l Fax #:
Delivered By: (Circle One) Sampler - UPS - Bus - Other: 4°c	Sample Condition Cool: ☐ Yes ☐ No Intact: ☐ Yes ☐ No	CHECKED BY: (Initials) CHT	REMARKS: Please email results to pm@basinenv.com & TAsavoie@BassPet.com

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

Dakotah Lunn 1/19/12 11:45 Joel Henson 11:45 11/19/12 #26

CARDINAL Laboratories

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

January 25, 2012

BEN J. ARGUIJO

Basin Environmental Service

P.O. Box 301

Lovington, NM 88260

RE: BASS 3 FEDERAL WELL #4 SPILL A

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 accreditated through the State of Colorado Department of Public Health and Environment for:

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

Accreditation applies to public drinking water matrices.

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

Sincerely,

Celey D. Keene

Celey D. Keene

Lab Director/Quality Manager

CARDINAL Laboratories

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

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:	01/23/2012
Reported:	01/25/2012	Sampling Type:	Water
Project Name:	BASS 3 FEDERAL WELL #4 SPILL A	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	EDDY COUNTY, NM		

Sample ID: TMW-5 (H200181-01)

Chloride, SM4500Cl-B **mg/L** **Analyzed By: AP**

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride*	**316**	4.00	01/25/2012	ND	104	104	100	7.41	

Cardinal Laboratories

*=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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

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

CARDINAL Laboratories

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

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

Company Name:	Basin Environmental Service Technologies, LLC	BILL TO	
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 "A"	State: NM	Zip: 88220
Project Location:	Eddy Co., NM	Phone #:	(432) 556-8730
Sampler Name:	M. Ramirez	Fax #:	

FOR LAB USE ONLY				MATRIX						PRESERV.			SAMPLING		ANALYSIS REQUEST
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	Chloride
H200181-1	TMW-5	G	1	X							X		1-23-12	11:15	X

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

Relinquished By:	Date: 1-25-12	Received By:		Phone Result: ☐ Yes ☐ No	Add'l Phone #:
	Time: 0645			Fax Result: ☐ Yes ☐ No	Add'l Fax #:
Relinquished By:	Date: 1-25-12	Received By:		REMARKS:	
	Time: 1173/12			Please email results to pm@basinenv.com & TAsavoie@BassPet.com	
Delivered By: (Circle One)		Sample Condition	CHECKED BY:		
Sampler - UPS - Bus - Other:	-1.5° C	Cool: ☑ Yes ☐ No Intact: ☑ Yes ☐ No	(Initials)		

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

#20

CARDINAL Laboratories

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

January 31, 2012

BEN J. ARGUIJO

Basin Environmental Service

P.O. Box 301

Lovington, NM 88260

RE: BASS 3 FEDERAL WELL #4 SPILL A

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.

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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

Celey D. Keene

Lab Director/Quality Manager

CARDINAL Laboratories

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

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 A	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	EDDY COUNTY, NM		

Sample ID: TMW-1 (H200189-01)

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	*124 %*	*59.8-161*
Surrogate: Toluene-d8	*88.8 %*	*75.2-115*
Surrogate: 4-Bromofluorobenzene	*101 %*	*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*	**72000**	4.00	01/27/2012	ND	104	104	100	0.00	

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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

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

Celey D. Keene, Lab Director/Quality Manager

CARDINAL LABORATORIES

101 East Marland, Hobbs, NM 88240
(505) 393-2326 FAX (505) 393-2476

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

Company Name: Basin Environmental	BILL TO		ANALYSIS REQUEST
Project Manager: Ben 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 "A"	State: NM Zip: 88220		
Project Location: Eddy County, NM	Phone #: 432-556-8730		
Sampler Name: Miguel Ramirez	Fax #:		

FOR LAB USE ONLY				MATRIX						PRESERV.			SAMPLING			
Lab I.D.	Sample I.D.	(G)RAB OR (C)OMP.	# CONTAINERS	GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER :	ACID/BASE:	ICE / COOL	OTHER :	DATE	TIME	Chloride	BTEX
H200189-1	TMW-1	G	4	X							X		1-25-12	1400	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: Miguel Ramirez	Date: 1/25/12 Time: 1515	Received By: Jodi Henson	Phone Result: ☐ Yes ☐ No Add'l Phone #:
Relinquished By:	Date: Time:	Received By:	Fax Result: ☐ Yes ☐ No Add'l Fax #:
Delivered By: (Circle One) Sampler - UPS - Bus - Other: 5°C	Sample Condition Cool: ☑ Yes ☐ No Intact: ☑ Yes ☐ No	CHECKED BY: (Initials)	REMARKS: Please e-mail results to PM@basinenv.com and TASAVOIE@BASSPET.COM

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

#26