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## **REMEDIATION SUMMARY & RISK-BASED SITE CLOSURE REQUEST**

**BOPCO, LP  
POKER LAKE UNIT #158 FLOWLINE  
Eddy County, New Mexico  
UNIT LTR "A" (NE/NE), Section 7, Township 24 South, Range 30 East  
Latitude 32.237274° North, Longitude 103.914835° West**

Prepared For:

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



Prepared By:

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

**June 2011**

  
Ben J. Arguijo  
Project Manager

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## **1.0 INTRODUCTION AND 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 Poker Lake Unit #158 Flowline. The legal description of the release site is Unit Letter "A" (NE/NE), Section 7, Township 24 South, Range 30 East, in Eddy County, New Mexico. The geographic coordinates of the release site are 32.237274° North latitude and 103.914835° 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 May 8, 2010, BOPCO discovered a release had occurred at the Poker Lake Unit #158 site. Failure of a two and three-eighths inch (2 3/8") flowline resulted in a release of crude oil and produced water. During initial response activities, a temporary line clamp was installed on the flowline to mitigate the release. The release was reported to the New Mexico Oil Conservation Division (NMOCD) Artesia District Office on May 8, 2010. The Release Notification and Corrective Action (Form C-141) indicated approximately ten (10) barrels of crude oil and approximately five (5) barrels of produced water were released, with no recovery. The release impacted an area of pasture land measuring approximately one hundred and twenty-five feet (125') in length and approximately two feet (2') in width. The release also impacted approximately eight hundred square feet (800 ft<sup>2</sup>) of the caliche access road. Heavily impacted soil was removed and stockpiled on-site, pending final disposition.

On July 5, 2010, BOPCO discovered an additional release had occurred at the Poker Lake Unit #158 site. Failure of a two and three-eighths inch (2 3/8") flow line resulted in a release of crude oil and produced water. During initial response activities, a temporary line clamp was installed on the flowline to mitigate the release. The release was reported to the NMOCD Artesia District Office on July 5, 2010. The Form C-141 indicated approximately ten (10) barrels of crude oil and ten (10) barrels of produced water was released, with no recovery. The release impacted an area of pasture land measuring approximately three hundred feet (300') in length and approximately two feet (2') in width. The release also impacted approximately two hundred square feet (200 ft<sup>2</sup>) of the caliche access road. The release followed the same pathway as the May 8, 2010, release. Heavily impacted soil was removed and stockpiled on-site, pending final disposition.

The Form C-141 for both the May 8, 2010, and July 5, 2010, releases are provided as Appendix A. Remediation activities for both releases were conducted simultaneously.

## **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 7, Township 24 South, Range 30 East. A depth-to-groundwater reference map utilized by the NMOCD indicates groundwater should be encountered at approximately one hundred and fifty feet (150') to one hundred and seventy-five feet (175') below ground surface (bgs). Based on the NMOCD ranking system, zero (0) points will be assigned to the site as a result of this criterion.

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

NMOCD guidelines indicate the Poker Lake Unit #158 Flowline 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)
- BTEX – 50 mg/Kg (ppm)
- 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, from July 14 through 16, 2010, twenty-nine (29) soil samples (Sample 1 @ Surface, Sample 1 @ 1', Sample 2 @ 6", Sample 2 @ 4', Sample 2 @ 8', Sample 3 @ 1', Sample 4 @ 1', Sample 5 @ 1', Sample 6 @ 1', Sample 8 @ 6", Sample 8 @ 4', Sample 8 @ 8', Sample 9 @ 1', Sample 9 @ 3', Sample 9 @ 5', Sample 12 @ 1', Sample 18 @ 1', Sample 18 @ 3', Sample 22 @ 6", Sample 22 @ 4', Sample 22 @ 8', Sample 24 @ 6", Sample 24 @ 4', Sample 24 @ 8', Sample 25 @ 1', Sample 27 @ 1', Sample 30 @ 1', Sample 32 @ 1', and Sample 33 @ 1') were collected to delineate the vertical and horizontal extent of contamination at the site. The soil samples were submitted to Cardinal Laboratories in Hobbs, New Mexico, for analysis of chloride concentrations using EPA Method 4500 Cl-B. Selected soil samples (Sample 2 @ 6", Sample 2 @ 8', Sample 8 @ 6", Sample 8 @ 4', Sample 8 @ 8', Sample 18 @ 1', Sample 24 @ 6") were also analyzed for total petroleum hydrocarbon (TPH) concentrations using EPA Method SW-846 8015M. Table 1 summarizes the "Concentrations of TPH & Chlorides in Soil". A "Site & Sample Location Map" is provided as Figure 2. Laboratory analytical reports are provided as Appendix C.

Laboratory analytical results indicated chloride concentrations ranged from less than the laboratory method detection limit (MDL) soil samples Sample 5 @ 1', Sample 6 @ 1', Sample 25 @ 1', Sample 27 @ 1', Sample 30 @ 1', and Sample 32 @ 1' to 28,400 mg/Kg in soil sample Sample 8 @ 8'. TPH concentrations ranged from less than the laboratory MDL in Sample 18 @ 1' to 9,227 mg/Kg in soil sample Sample 8 @ 6".

Based on laboratory analytical results, further delineation was required in the areas defined by soil samples Sample 2, Sample 8, Sample 9, Sample 22, and Sample 24, as documented in the *Remediation Summary and Risk-Based Closure Strategy* dated August 2010.

On February 14, 2011, delineation of the areas defined by soil samples Sample 2, Sample 8, Sample 9, Sample 22, and Sample 24 commenced at the site. Hach Quantab Chloride Titrators and a Photo-Ionization Detector (PID) were used to field-screen the horizontal and vertical extent of impacted soil at the site. Results of field-testing are summarized in Table 2, "Field-Test Results".

Based on results of field-tests, the release site was divided into two sections: North Excavation and South Excavation. The North Excavation (N Exc) was advanced in the area defined by soil samples Sample 8, Sample 9, and Sample 10. The South Excavation (S Exc) was advanced in the area defined by soil samples Sample 24 and Sample 32. In an effort to mitigate damage to surface topography and vegetation, the South Excavation was further divided into three subsections: Section 1, Section 2, and Section 3. Field tests indicated no further remediation would be required in the area defined by soil sample Sample 22.

Impacted soil in the area defined by soil sample Sample 2 was removed during excavation of the road-crossing(s) of four (4) of the on-site flowlines.

From February 23 through February 28, 2011, approximately one hundred (100) cy of impacted material was excavated from the North Excavation and transported to Lea Land, Inc. (NMOCD Permit #WM-01-035), for disposal. Approximately three hundred (300) cubic yards (cy) of impacted material was excavated and stockpiled on-site, pending final disposition. Final dimensions of the North Excavation were approximately eighty-five feet (85') in length, approximately thirty feet (30') in width, and approximately five feet (5') in depth.

On February 25, 2011, excavation commenced in Section 1 of the South Excavation (S Exc Sec 1). Excavated soil was stockpiled on-site, pending final disposition.

Four (4) soil samples (Stockpile 'A', N Exc Floor, N Exc N Wall, and N Exc W Wall) were also submitted to Cardinal Laboratories for analysis of chloride and TPH concentrations. Chloride concentrations ranged from 240 mg/Kg in soil sample N Exc W Wall to 2,320 mg/Kg in soil sample N Exc Floor. TPH concentrations ranged from less than the laboratory MDL in soil samples N Exc N Wall and N Exc W Wall to 178 mg/Kg in soil sample Stockpile 'A'. Soil represented by soil sample Stockpile 'A' was deemed suitable for use as backfill.

On February 28, 2011, seven (7) soil samples (S Exc Sec 1 Stockpile 'C', N Exc E Wall, N Exc S Wall, S Exc Sec 1 Floor, S Exc Sec 1 N Wall, S Exc Sec 1 S Wall, and S Exc Sec 1 E Wall) were submitted to Cardinal Laboratories for analysis of chloride and TPH concentrations. Chloride concentrations ranged from 32.0 mg/Kg in soil samples S Exc Sec 1 S Wall and S Exc Sec 1 E Wall to 288 mg/Kg in soil sample S Exc Sec 1 Stockpile 'C'. TPH concentrations ranged from less than the laboratory MDL for soil samples N Exc E Wall, N Exc S Wall, S Exc Sec 1 Floor, S Exc Sec 1 N Wall, S Exc Sec 1 S Wall, and S Exc Sec 1 E Wall to 148.1 mg/Kg in soil sample S Exc Sec 1 Stockpile 'C'. Soil represented by soil sample S Exc Sec 1 Stockpile 'C' was deemed suitable for use as backfill.

On March 1, 2011, based on results of laboratory analyses and field-screens, Section 1 of the South Excavation was backfilled in eighteen-inch (18") lifts, and excavation of Section 2 (S Exc Sec 2) commenced. Excavated soil was stockpiled on-site, pending final disposition.

On March 2, 2011, four (4) soil samples (S Exc Sec Stockpile D, S Exc Sec 2 Floor, S Exc Sec 2 N Wall, and S Exc Sec 2 S Wall) were submitted to Cardinal Laboratories for analysis of chloride and TPH concentrations. Chloride concentrations ranged from 16.0 mg/Kg in soil sample S Exc Sec 2 N Wall to 272 mg/Kg in soil sample S Exc Sec 2 Floor. TPH concentrations ranged from less than the laboratory MDL in soil samples S Exc Sec 2 N Wall and S Exc Sec 2 S Wall to 435.6 mg/Kg in soil sample S Exc Sec Stockpile D. Soil represented by soil sample S Exc Sec Stockpile D was deemed suitable for use as backfill.

On March 3, 2011, based on results of laboratory analyses and field-screens, Section 2 of the South Excavation was backfilled in eighteen-inch (18") lifts, and excavation of Section 3 (S Exc Sec 3) commenced. Excavated soil was stockpiled on-site, pending final disposition.

On March 4, 2011, two (2) soil samples (S Exc Sec 3 Stockpile and S Exc Sec 3 West Wall) were submitted to Cardinal Laboratories for analysis of chloride and TPH concentrations. Chloride concentrations ranged from 80.0 mg/Kg in soil sample S Exc Sec 3 West Wall to 112 mg/Kg in soil sample S Exc Sec 3 Stockpile. TPH concentrations ranged from less than the laboratory MDL in soil sample S Exc Sec 3 West Wall to 396.1 mg/Kg in soil sample S Exc Sec 3 Stockpile. Soil represented by soil sample S Exc Sec 3 Stockpile was deemed suitable for use as backfill.

From March 4 through March 7, 2011, based on results of laboratory analyses and field screens, the North Excavation and Section 3 of the South Excavation were backfilled in eighteen-inch (18") lifts, compacted, and contoured to fit the surrounding topography. Prior to backfilling, a 20 mil polyurethane liner was installed in the floor of the North Excavation at approximately five feet (5') bgs. Approximately six inches (6") of non-impacted pad sand was installed both above and below the liner to protect the liner from damage during installation and backfilling activities.

Reseeding of the Poker Lake Unit #158 Flowline release site with vegetation acceptable to the BLM will occur prior to the close of the 2011 calendar year.

#### **4.0 QA/QC PROCEDURES**

##### **4.1 Soil Sampling**

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

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

##### **4.2 Decontamination of Equipment**

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

### **4.3 Laboratory Protocol**

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

### **5.0 SITE CLOSURE REQUEST**

Remediation activities conducted at the Poker Lake Unit #158 Flowline release site met the objectives set forth in the *Remediation Summary and Risk-Based Closure Strategy* dated August 2010. Soil samples collected from the floors and sidewalls of the North and South Excavations were analyzed by an NMOCD-approved laboratory, and concentrations of TPH and chloride were below the remediation action levels established for the site. Based on these analytical results, Basin 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 site closure to the Poker Lake Unit #158 Flowline 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:**

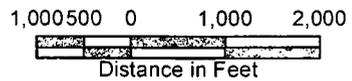
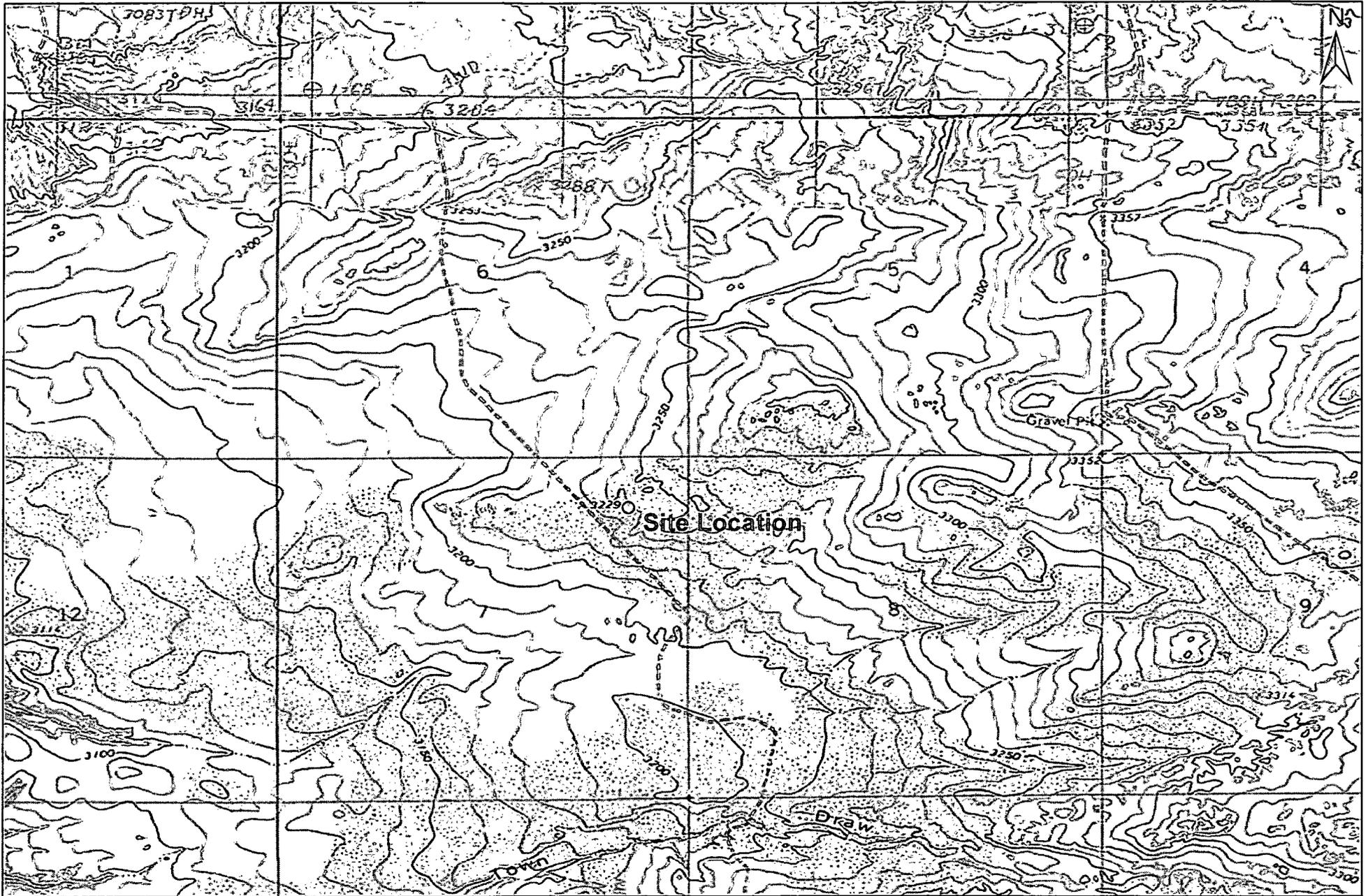
Copy 1: Mike Bratcher  
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Lovington, NM 88260

# Figures

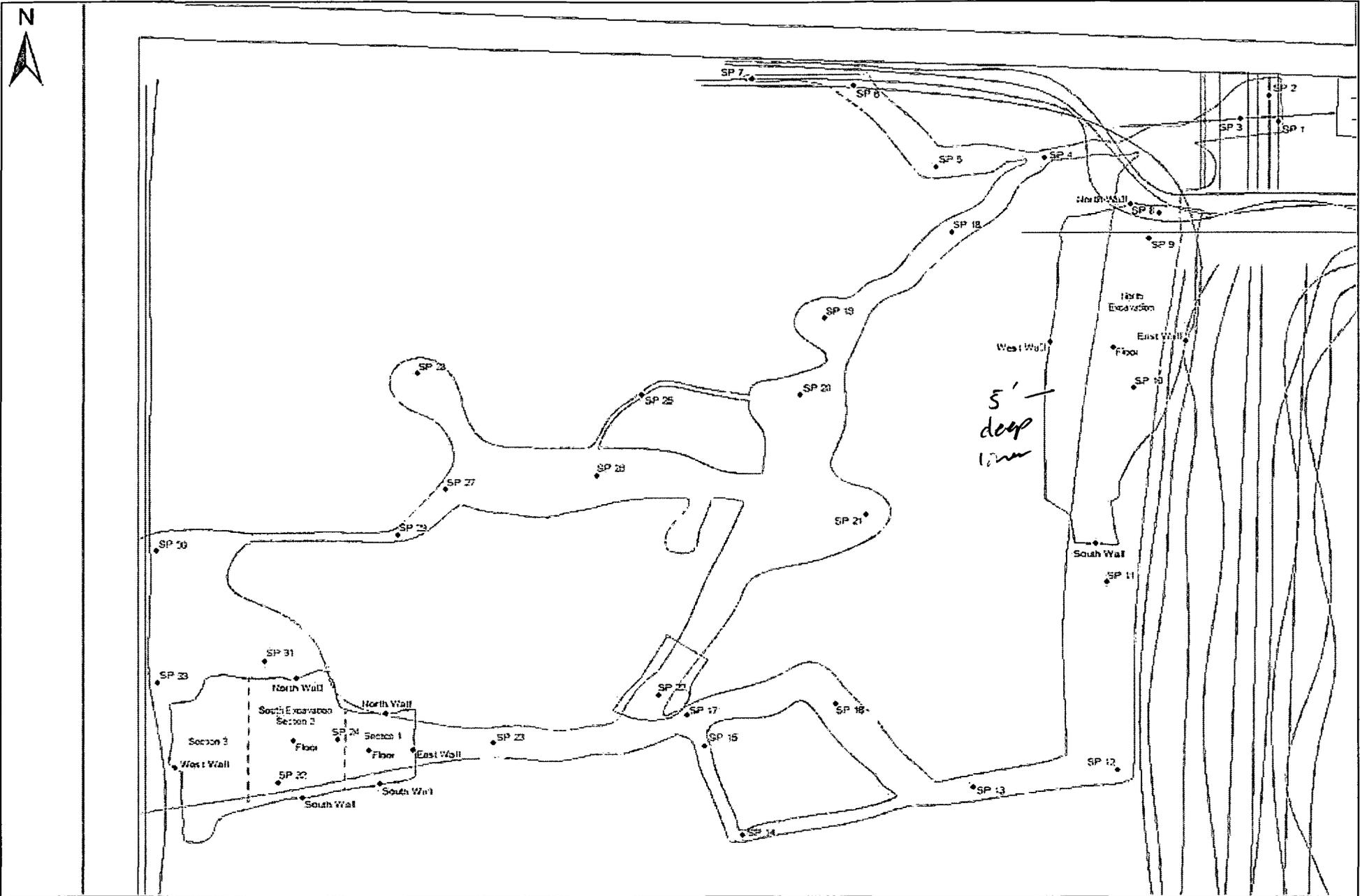


**Figure 1**  
**Site Location Map**  
**BOPCO, LP**  
**Poker Lake Unit #158 Flowline**  
**Eddy County, New Mexico**



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

Drawn By: BJA	Checked By: BRB
June 8, 2011	Scale: 1" = 2000'



**Legend:**

——— Excavation Extent	● Sample Location
——— Pipeline	
——— Run-off Area	

**Figure 2**  
**Site & Sample Location Map**  
**BOPCO, LP**  
**Poker Lake Unit #158 Flowline**  
**Eddy County, New Mexico**



Basin Environmental Service Technologies, LLC 3100 Plains Hwy Lovington, NM 88250	
Drawn By: BJA June 9, 2011	Checked By: BRE Scale: 1" = 45'

# Tables

**TABLE 1  
CONCENTRATIONS OF TPH & CHLORIDES IN SOIL**

**BOPCO, LP  
POKER LAKE UNIT #158 FLOWLINE  
EDDY COUNTY, NEW MEXICO**

SAMPLE LOCATION	SAMPLE DEPTH (BGS)	SAMPLE DATE	SOIL STATUS	METHOD: 8015M			TOTAL TPH C <sub>6</sub> -C <sub>35</sub> (mg/Kg)	4500 CI-B CHLORIDE (mg/Kg)
				GRO C <sub>6</sub> -C <sub>12</sub> (mg/Kg)	DRO C <sub>12</sub> -C <sub>28</sub> (mg/Kg)	ORO C <sub>28</sub> -C <sub>35</sub> (mg/Kg)		
Sample 1 @ Surface	Surface	07/14/10	In-Situ	-	-	-	-	48
Sample 1 @ 1'	1 Foot	07/14/10	In-Situ	-	-	-	-	80
Sample 2 @ 6"	6 Inches	07/14/10	In-Situ	1650	4280	18.2	<b>5,948</b>	80
Sample 2 @ 4'	4 Feet	07/15/10	In-Situ	-	-	-	-	912
Sample 2 @ 8'	8 Feet	07/15/10	In-Situ	<10.0	85.1	27.3	112	<b>5,040</b>
Sample 3 @ 1'	1 Foot	07/14/10	In-Situ	-	-	-	-	64
Sample 4 @ 1'	1 Foot	07/14/10	In-Situ	-	-	-	-	48
Sample 5 @ 1'	1 Foot	07/14/10	In-Situ	-	-	-	-	<16
Sample 6 @ 1'	1 Foot	07/14/10	In-Situ	-	-	-	-	<16
Sample 8 @ 6"	6 Inches	07/14/10	In-Situ	1660	7500	67	<b>9,227</b>	208
Sample 8 @ 4'	4 Feet	07/16/10	In-Situ	69.6	491	<10.0	561	<b>4,960</b>
Sample 8 @ 8'	8 Feet	07/16/10	In-Situ	25.6	282	<10.0	308	<b>28,400</b>
Sample 9 @ 1'	1 Foot	07/14/10	In-Situ	-	-	-	-	<b>1,070</b>
Sample 9 @ 3'	3 Feet	07/15/10	In-Situ	-	-	-	-	<b>10,500</b>
Sample 9 @ 5'	5 Feet	07/16/10	In-Situ	-	-	-	-	<b>5,360</b>
Sample 12 @ 1'	1 Foot	07/14/10	In-Situ	-	-	-	-	32
Sample 18 @ 1'	1 Foot	07/14/10	In-Situ	<10.0	<10.0	<10.0	<10.0	32
Sample 18 @ 3'	3 Feet	07/16/10	In-Situ	-	-	-	-	32
Sample 22 @ 6"	6 Inches	07/14/10	In-Situ	-	-	-	-	416
Sample 22 @ 4'	4 Feet	07/16/10	In-Situ	-	-	-	-	528
Sample 22 @ 8'	8 Feet	07/16/10	In-Situ	-	-	-	-	<b>1,060</b>
Sample 24 @ 6"	6 Inches	07/15/10	In-Situ	<50.0	4270	<50.0	4,270	496
Sample 24 @ 4'	4 Feet	07/16/10	In-Situ	-	-	-	-	576
Sample 24 @ 8'	8 Feet	07/16/10	In-Situ	-	-	-	-	<b>3,200</b>
Sample 25 @ 1'	1 Foot	07/15/10	In-Situ	-	-	-	-	<16
Sample 27 @ 1'	1 Foot	07/15/10	In-Situ	-	-	-	-	<16
Sample 30 @ 1'	1 Foot	07/15/10	In-Situ	-	-	-	-	<16
Sample 32 @ 1'	1 Foot	07/15/10	In-Situ	-	-	-	-	<16
Sample 33 @ 1'	1 Foot	07/15/10	In-Situ	-	-	-	-	32

**TABLE 1  
CONCENTRATIONS OF TPH & CHLORIDES IN SOIL**

**BOPCO, LP  
POKER LAKE UNIT #158 FLOWLINE  
EDDY COUNTY, NEW MEXICO**

SAMPLE LOCATION	SAMPLE DEPTH (BGS)	SAMPLE DATE	SOIL STATUS	METHOD: 8015M			TOTAL TPH C <sub>6</sub> -C <sub>35</sub> (mg/Kg)	4500 CI-B CHLORIDE (mg/Kg)
				GRO C <sub>6</sub> -C <sub>12</sub> (mg/Kg)	DRO C <sub>12</sub> -C <sub>28</sub> (mg/Kg)	ORO C <sub>28</sub> -C <sub>35</sub> (mg/Kg)		
Stockpile 'A'	N/A	2/25/2011	In-situ	<10	151	27.0	178	512
N Exc Floor	5'	2/25/2011	In-situ	<10	14.0	<10	14.0	<b>2,320</b>
N Exc N Wall	5'	2/25/2011	In-situ	<10	<10	<10	<10	304
N Exc W Wall	5'	2/25/2011	In-situ	<10	<10	<10	<10	240
N Exc E Wall	5'	2/28/2011	In-situ	<10	<10	<10	<10	240
N Exc S Wall	5'	2/28/2011	In-situ	<10	<10	<10	<10	192
S Exc Sec 1 Stockpile 'C'	N/A	2/28/2011	In-situ	<10	128	20.1	148.1	288
S Exc Sec 1 Floor	5'	2/28/2011	In-situ	<10	<10	<10	<10	160
S Exc Sec 1 N Wall	5'	2/28/2011	In-situ	<10	<10	<10	<10	48.0
S Exc Sec 1 S Wall	5'	2/28/2011	In-situ	<10	<10	<10	<10	32.0
S Exc Sec 1 E Wall	4'	2/28/2011	In-situ	<10	<10	<10	<10	32.0
S Exc Sec Stockpile D	N/A	3/2/2011	In-situ	<10	367	68.6	435.6	96.0
S Exc Sec 2 Floor	5'	3/2/2011	In-situ	<10	304	50.7	354.7	272
S Exc Sec 2 N Wall	5'	3/2/2011	In-situ	<10	<10	<10	<10	16.0
S Exc Sec 2 S Wall	5'	3/2/2011	In-situ	<10	<10	<10	<10	32.0
S Exc Sec 3 Stockpile	N/A	3/4/2011	In-situ	22.0	320	54.1	396.1	112
S Exc Sec 3 West Wall	5'	3/4/2011	In-situ	<10	<10	<10	<10	80.0

**TABLE 2  
FIELD-TEST RESULTS**

**BOPCO, LP  
POKER LAKE UNIT #158 FLOWLINE  
EDDY COUNTY, NEW MEXICO**

<b>SAMPLE LOCATION</b>	<b>SAMPLE DEPTH (Below Ground Surface)</b>	<b>SAMPLE DATE</b>	<b>CHLORIDE (mg/Kg)</b>	<b>PID (mg/Kg)</b>
<i>Sample 1 @ Surface</i>	Surface	7/14/2010	<128	37.9
Sample 1 @ 6"	6"	7/14/2010	<128	22.5
<i>Sample 1 @ 1'</i>	1'	7/14/2010	<128	42.1
Sample 2 @ Surface	Surface	7/14/2010	<128	82.0
<i>Sample 2 @ 6"</i>	6"	7/14/2010	<128	117.0
Sample 2 @ 1'	1'	7/15/2010	1,082	32.0
Sample 2 @ 2'	2'	7/15/2010	>2468	34.8
Sample 2 @ 3'	3'	7/15/2010	880	6.9
<i>Sample 2 @ 4'</i>	4'	7/15/2010	356	22.4
Sample 2 @ 5'	5'	7/16/2010	1,664	25.9
Sample 2 @ 6'	6'	7/16/2010	924	42.5
Sample 2 @ 7'	7'	7/16/2010	2,244	79.0
<i>Sample 2 @ 8'</i>	8'	7/18/2010	>2535	236.0
Sample 3 @ 6"	6"	7/14/2010	<128	9.8
<i>Sample 3 @ 1'</i>	1'	7/14/2010	<112	21.0
Sample 4 @ 6"	6"	7/14/2010	<128	68.1
<i>Sample 4 @ 1'</i>	1'	7/14/2010	<112	16.0
Sample 5 @ 6"	6"	7/14/2010	<112	29.1
<i>Sample 5 @ 1'</i>	1'	7/14/2010	<112	8.4
Sample 6 @ 6"	6"	7/14/2010	<112	19.8
<i>Sample 6 @ 1'</i>	1'	7/14/2010	<112	3.9
Sample 7 @ 6"	6"	7/14/2010	<112	13.8
<i>Sample 7 @ 1'</i>	1'	7/14/2010	<112	29.1
<i>Sample 8 @ 6"</i>	6"	7/14/2010	152	948.0
Sample 8 @ 1'	1'	7/14/2010	180	1,200.0
Sample 8 @ 2'	2'	7/16/2010	320	156.0
Sample 8 @ 3'	3'	7/16/2010	>2532	74.7
<i>Sample 8 @ 4'</i>	4'	7/16/2010	>2532	255.0
Sample 8 @ 5'	5'	7/16/2010	>2532	102.0
Sample 8 @ 6'	6'	7/16/2010	>2532	40.1
Sample 8 @ 7'	7'	7/16/2010	>2532	215.0
<i>Sample 8 @ 8'</i>	8'	7/16/2010	>2532	219.0
Sample 9 @ 6"	6"	7/14/2010	<112	30.0
<i>Sample 9 @ 1'</i>	1'	7/14/2010	1,256	36.3
Sample 9 @ 2'	2'	7/15/2010	>2468	43.1
<i>Sample 9 @ 3'</i>	3'	7/15/2010	>2468	4.7
Sample 9 @ 4'	4'	7/15/2010	>2468	10.3
<i>Sample 9 @ 5'</i>	5'	7/16/2010	>2532	59.8

**TABLE 2  
FIELD-TEST RESULTS**

**BOPCO, LP  
POKER LAKE UNIT #158 FLOWLINE  
EDDY COUNTY, NEW MEXICO**

<b>SAMPLE LOCATION</b>	<b>SAMPLE DEPTH (Below Ground Surface)</b>	<b>SAMPLE DATE</b>	<b>CHLORIDE (mg/Kg)</b>	<b>PID (mg/Kg)</b>
Sample 10 @ 6"	6"	7/14/2010	<128	27.0
Sample 10 @ 1'	1'	7/14/2010	<128	96.0
Sample 11 @ 6"	6"	7/14/2010	<128	117.0
Sample 11 @ 1'	1'	7/14/2010	188	26.5
Sample 12 @ 6"	6"	7/14/2010	<128	6.5
Sample 12 @ 1'	1'	7/14/2010	<128	6.9
Sample 13 @ 6"	6"	7/14/2010	<128	62.0
Sample 13 @ 1'	1'	7/14/2010	<128	13.2
Sample 14 @ 6"	6"	7/14/2010	<128	52.6
Sample 14 @ 1'	1'	7/14/2010	<128	1.7
Sample 15 @ 6"	6"	7/14/2010	<128	6.3
Sample 15 @ 1'	1'	7/14/2010	<128	3.9
Sample 16 @ 6"	6"	7/14/2010	<128	22.5
Sample 16 @ 1'	1'	7/14/2010	<128	8.4
Sample 17 @ 6"	6"	7/14/2010	<128	67.0
Sample 17 @ 1'	1'	7/14/2010	<128	7.9
Sample 18 @ 6"	6"	7/14/2010	<128	10.5
Sample 18 @ 1'	1'	7/14/2010	<128	185.0
Sample 18 @ 2'	2'	7/16/2010	<128	23.3
Sample 18 @ 3'	3'	7/16/2010	<128	71.3
Sample 19 @ 6"	6"	7/14/2010	<128	34.8
Sample 19 @ 1'	1'	7/14/2010	<128	46.0
Sample 20 @ 6"	6"	7/14/2010	1,636	101.0
Sample 20 @ 1'	1'	7/14/2010	<128	54.8
Sample 21 @ 6"	6"	7/14/2010	<128	3.4
Sample 21 @ 1'	1'	7/14/2010	<128	25.8
Sample 22 @ 6"	6"	7/14/2010	248	63.0
Sample 22 @ 1'	1'	7/14/2010	440	53.9
Sample 22 @ 2'	2'	7/16/2010	520	12.0
Sample 22 @ 3'	3'	7/16/2010	<128	133.0
Sample 22 @ 4'	4'	7/16/2010	324	77.8
Sample 22 @ 5'	5'	7/16/2010	324	45.1
Sample 22 @ 6'	6'	7/16/2010	368	17.0
Sample 22 @ 7'	7'	7/16/2010	1,556	24.8
Sample 22 @ 8'	8'	7/16/2010	1,084	35.8
Sample 23 @ 6"	6"	7/15/2010	<112	9.6
Sample 23 @ 1'	1'	7/15/2010	<112	4.7

**TABLE 2  
FIELD-TEST RESULTS**

**BOPCO, LP  
POKER LAKE UNIT #158 FLOWLINE  
EDDY COUNTY, NEW MEXICO**

<b>SAMPLE LOCATION</b>	<b>SAMPLE DEPTH (Below Ground Surface)</b>	<b>SAMPLE DATE</b>	<b>CHLORIDE (mg/Kg)</b>	<b>PID (mg/Kg)</b>
Sample 24 @ 6"	6"	7/15/2010	440	97.0
Sample 24 @ 1'	1'	7/15/2010	536	33.7
Sample 24 @ 2'	2'	7/16/2010	368	20.9
Sample 24 @ 3'	3'	7/16/2010	212	52.3
Sample 24 @ 4'	4'	7/16/2010	468	25.0
Sample 24 @ 5'	5'	7/16/2010	1,556	8.0
Sample 24 @ 6'	6'	7/16/2010	1,668	7.7
Sample 24 @ 7'	7'	7/16/2010	2,052	48.9
Sample 24 @ 8'	8'	7/16/2010	>2532	8.3
Sample 25 @ 6"	6"	7/15/2010	<112	38.6
Sample 25 @ 1'	1'	7/15/2010	<112	23.0
Sample 26 @ 6"	6"	7/15/2010	<112	9.8
Sample 26 @ 1'	1'	7/15/2010	<112	35.3
Sample 27 @ 6"	6"	7/15/2010	<112	16.0
Sample 27 @ 1'	1'	7/15/2010	<112	5.2
Sample 28 @ 6"	6"	7/15/2010	<112	27.0
Sample 28 @ 1'	1'	7/15/2010	<112	36.0
Sample 29 @ 6"	6"	7/15/2010	<112	5.8
Sample 29 @ 1'	1'	7/15/2010	<112	8.2
Sample 30 @ 6"	6"	7/15/2010	<112	5.2
Sample 30 @ 1'	1'	7/15/2010	<112	19.0
Sample 31 @ 6"	6"	7/15/2010	<112	15.1
Sample 31 @ 1'	1'	7/15/2010	<112	31.5
Sample 32 @ 6"	6"	7/15/2010	<112	42.6
Sample 32 @ 1'	1'	7/15/2010	<112	31.0
Sample 33 @ 6"	6"	7/15/2010	<112	6.2
Sample 33 @ 1'	1'	7/15/2010	<112	14.3
Sample #24 Floor	6'	2/15/2011	2,288	-
Sample #24 North Wall	6'	2/15/2011	1,476	-
Sample #24 South Wall	6'	2/15/2011	748	-
Sample #24 East Wall	6'	2/15/2011	688	-
Sample #2 (Road Crossing)	4'	2/17/2011	256	-
Sample #9	6'	2/17/2011	4,444	-

**TABLE 2  
FIELD-TEST RESULTS**

**BOPCO, LP  
POKER LAKE UNIT #158 FLOWLINE  
EDDY COUNTY, NEW MEXICO**

<b>SAMPLE LOCATION</b>	<b>SAMPLE DEPTH (Below Ground Surface)</b>	<b>SAMPLE DATE</b>	<b>CHLORIDE (mg/Kg)</b>	<b>PID (mg/Kg)</b>
Sample #22 @ 10'	10'	2/21/2011	1,836	-
Sample #22 @ 12'	12'	2/21/2011	808	-
Sample #22 @ 14'	14'	2/21/2011	532	-
Sample #24 @ 8'	8'	2/21/2011	1,392	-
Sample #24 @ 10'	10'	2/21/2011	3,164	-
Sample #24 @ 12'	12'	2/21/2011	5,232	-
Sample #24 @ 14'	14'	2/21/2011	3,452	-

# **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

**RECEIVED**  
MAY 13 2010  
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

30-015-31690  
NKMW 1035747007

**Release Notification and Corrective Action**

**OPERATOR**

Initial Report  Final Report

Name of Company BOPCO, L.P. <i>260137</i>	Contact Tony Savoie
Address 522 W. Mermod, Suite 704 Carlsbad, N.M. 88220	Telephone No. 432-556-8730
Facility Name Poker Lake Unit 158 Tank Battery	Facility Type E&P

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

**LOCATION OF RELEASE**

Unit Letter A	Section 7	Township 24S	Range 30E	Feet from the	North/South Line	Feet from the	East/West Line	County Eddy
------------------	--------------	-----------------	--------------	---------------	------------------	---------------	----------------	----------------

Latitude N 32.237274 Longitude W 103.914835

**NATURE OF RELEASE**

Type of Release: Produced water and crude oil	Volume of Release: 5 Bbls of Produced water and 10 Bbls of Crude oil	Volume Recovered: none
Source of Release: a 2 3/8" flow line under the facility entrance road	Date and Hour of Occurrence Unknown	Date and Hour of Discovery 5/8/10 10:43 a.m.
Was Immediate Notice Given? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Required	If YES, To Whom? Randy with the NMOCD	
By Whom? Tony Savoie	Date and Hour 5/8/10 12:24 p.m.	
Was a Watercourse Reached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If YES, Volume Impacting the Watercourse.	

If a Watercourse was Impacted, Describe Fully.\*

Describe Cause of Problem and Remedial Action Taken.\* The flow line delivering produced fluid from the well to the tank battery developed a leak; the temporary repair clamp was placed on the affected area.

Describe Area Affected and Cleanup Action Taken.\*The released fluid affected approximately 250 sq. ft of pasture land and approximately 800 sq.ft. of caliche entrance road. The oil saturated soil in the pasture measured approximately 125 ft. long by 2 ft. wide, approximately 6 cubic yards of the saturated soil was removed with shovels and a backhoe and stockpiled on the well pad location  
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: <i>Tony Savoie</i>	<b>OIL CONSERVATION DIVISION</b>	
Printed Name: Tony Savoie	Approved by District Supervisor:	Signed By <i>Mike Brannon</i>
Title: Waste Mgmt. & Remediation Specialist	Approval Date: <i>3/3/11</i>	Expiration Date:
E-mail Address: TASavoie@BassPet.com	Conditions of Approval:	Attached <input type="checkbox"/>
Date: 5/13/10 Phone: 432-556-8730	Remediation per OCD Rules & Guidelines. <b>SUBMIT REMEDIATION PROPOSAL NOT LATER THAN:</b>	

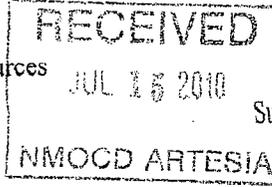
\* Attach Additional Sheets If Necessary

**PROPOSAL NOT LATER THAN:**  
4/3/11 *2 RP-539*

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

**Release Notification and Corrective Action**

**OPERATOR**

Initial Report  Final Report

Name of Company BOPCO, L.P.	Contact Tony Savoie
Address 522 W. Mermod, Suite 704 Carlsbad, N.M. 88220	Telephone No. 432-556-8730
Facility Name Poker Lake Unit 158 Tank Battery	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
A	7	24S	30E					Eddy

Latitude N 32.237274 Longitude W 103.914835

**NATURE OF RELEASE**

Type of Release: Produced water and crude oil	Volume of Release: 10 Bbls of Produced water and 10 Bbls of Crude oil	Volume Recovered: none
Source of Release: a 2 3/8" flow line under the facility entrance road	Date and Hour of Occurrence: Unknown	Date and Hour of Discovery: 7/5/10 8:00 a.m.
Was Immediate Notice Given? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Required	If YES, To Whom? Left message on NMOCD emergency number.	
By Whom? Tony Savoie	Date and Hour 7/5/10 10:30 a.m.	
Was a Watercourse Reached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If YES, Volume Impacting the Watercourse.	

If a Watercourse was Impacted, Describe Fully.\*

Describe Cause of Problem and Remedial Action Taken.\* The flow line delivering produced fluid from the well to the tank battery developed a leak; the temporary repair clamp was placed on the affected area.

Describe Area Affected and Cleanup Action Taken.\* The released fluid affected approximately 600 sq. ft of pasture land and approximately 200 sq. ft. of caliche entrance road. The affected area in the pasture measured approximately 300 ft. long by 2 ft. wide. This spill traveled along the same pathway as a spill reported on 5/8/10, it also connected to an apparent historical spill area. The area was mapped out and samples were collected on 7/14/10 to determine total vertical and horizontal extent.

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.

<b>OIL CONSERVATION DIVISION</b>	
Signature: <i>Tony Savoie</i>	Approved by District Supervisor:
Printed Name: Tony Savoie	
Title: Waste Mgmt. & Remediation Specialist	Approval Date: _____ Expiration Date: _____
E-mail Address: TASavoie@BassPet.com	Conditions of Approval: _____ Attached <input type="checkbox"/>
Date: 7/14/10 Phone: 432-556-8730	

\* 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

Form C-141  
Revised October 10, 2003

Oil Conservation Division  
1220 South St. Francis Dr.  
Santa Fe, NM 87505

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

**RECEIVED**  
FEB 14 2013  
NMOCD ARTESIA  
Initial Report  Final Report

**Release Notification and Corrective Action**

**OPERATOR**

Name of Company	BOPCO, LP	Contact	Tony Savoie
Address	522 W. Mermod, Suite 704, Carlsbad, NM 88220	Telephone No.	(432)556-8730
Facility Name	Poker Lake Unit #158 Tank Battery	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
A	7	24S	30E					Eddy

Latitude 32.237274° North      Longitude 103.914835° West

**NATURE OF RELEASE**

Type of Release	Produced water and crude oil	Volume of Release	10 bbls of produced water and 10 bbls of crude oil	Volume Recovered	None
Source of Release	A 2 3/8" flow line under the facility entrance road	Date and Hour of Occurrence	Unknown	Date and Hour of Discovery	7/5/2010, 8:00 AM
Was Immediate Notice Given?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Required	If YES, To Whom?	Left message on NMOCD emergency number		
By Whom?	Tony Savoie	Date and Hour	7/5/10, 10:30 AM		
Was a Watercourse Reached?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If YES, Volume Impacting the Watercourse.			

If a Watercourse was Impacted, Describe Fully.\*

Describe Cause of Problem and Remedial Action Taken:\* The flow line delivering produced fluid from the well to the tank battery developed a leak. A temporary repair clamp was placed on the affected area.

Describe Area Affected and Cleanup Action Taken.\* The released fluid affected approximately 600 sq. ft of pasture land and approximately 200 sq.ft. of caliche entrance road. The affected area in the pasture measured approximately 300 ft. long by 2 ft. wide. This spill traveled along the same pathway as a spill reported on 5/8/10 and also connected to an apparent historical spill area. The area was mapped out, and samples were collected on 7/14/10 to determine total vertical and horizontal extent. Following initial response activities, the release was remediated as per NMOCD approval. Please reference the attached *Remediation Summary & Risk-Based Site Closure Request* for details of remediation activities and laboratory analytical results from confirmation soil samples.

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.

**OIL CONSERVATION DIVISION**

Signature:		Approved by District Supervisor:	
Printed Name:	Ben J. Arguizo (Agent of BOPCO, LP)	Approval Date:	
Title:	Project Manager, Basin Environmental	Expiration Date:	
E-mail Address:	TASavoie@BassPet.com <i>bjarguizo@basspet.com</i>	Conditions of Approval:	
Date:	2/14/13	Phone: (432)556-8730	

(806) 549-9597

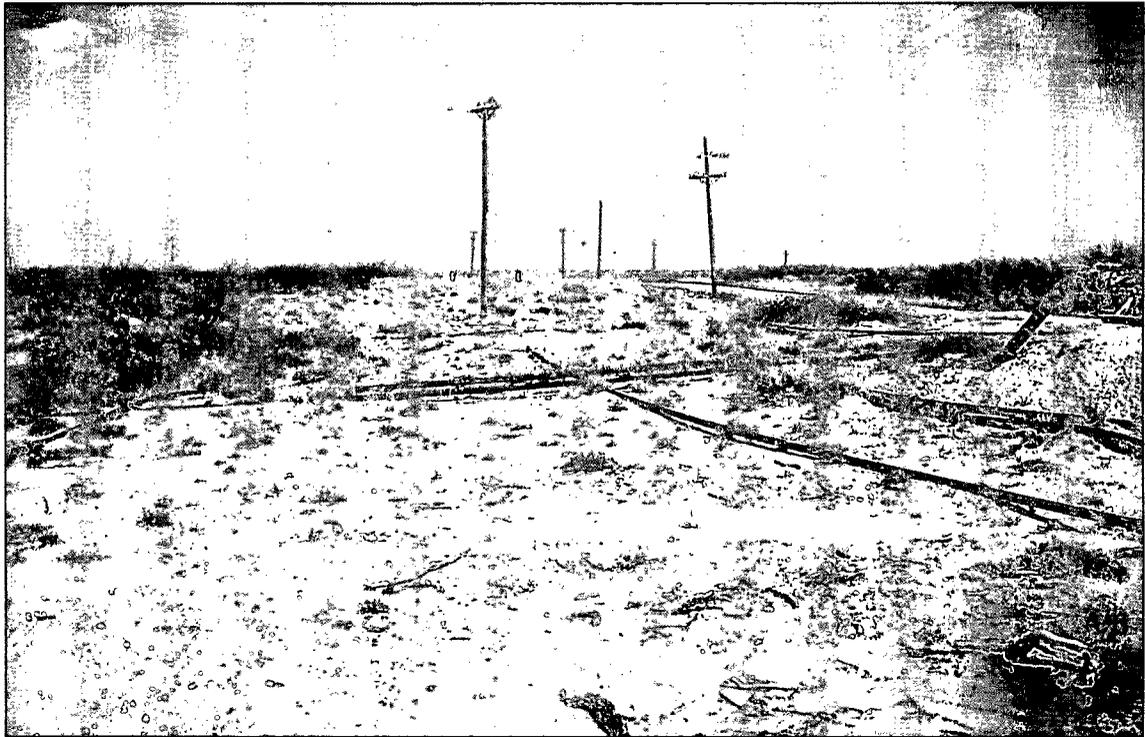
**Appendix B**  
**Photographs**



Poker Lake Unit #158 Flowline - Release Point



Poker Lake Unit #158 Flowline - Release Site (Facing East)



Poker Lake Unit #158 Flowline - Release Site (Facing West)



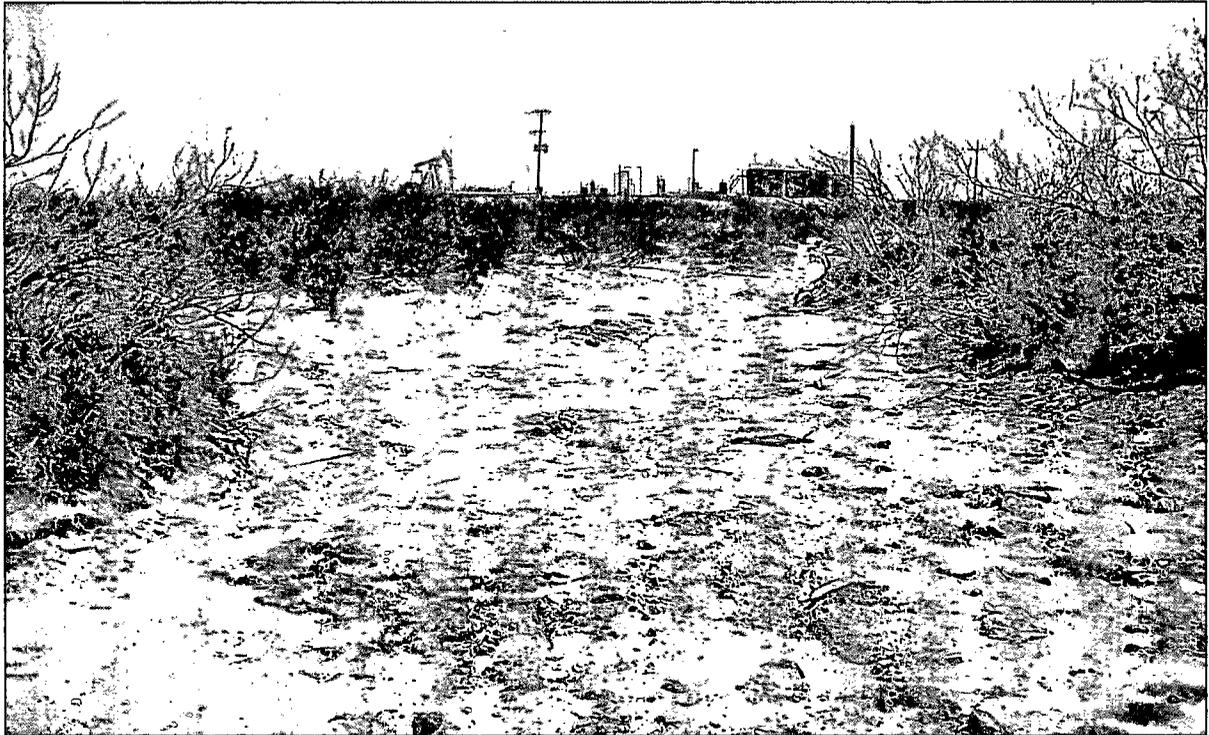
Poker Lake Unit #158 Flowline - Release Site (Facing South)



Poker Lake Unit #158 Flowline - Release Site (Run-Off Area)



Poker Lake Unit #158 Flowline - Release Site (Run-Off Area)



Poker Lake Unit #158 Flowline - Release Site (Run-Off Area)



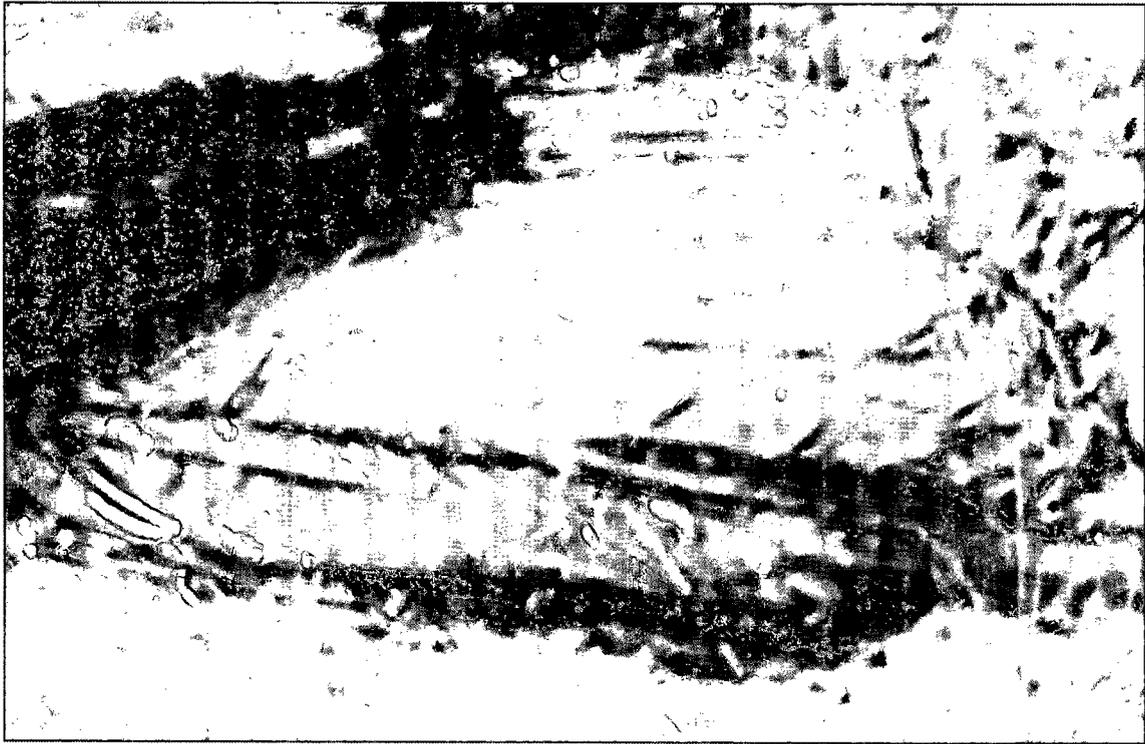
Poker Lake Unit #158 Flowline - North Excavation



Poker Lake Unit #158 Flowline - North Excavation



Poker Lake Unit #158 Flowline - North Excavation



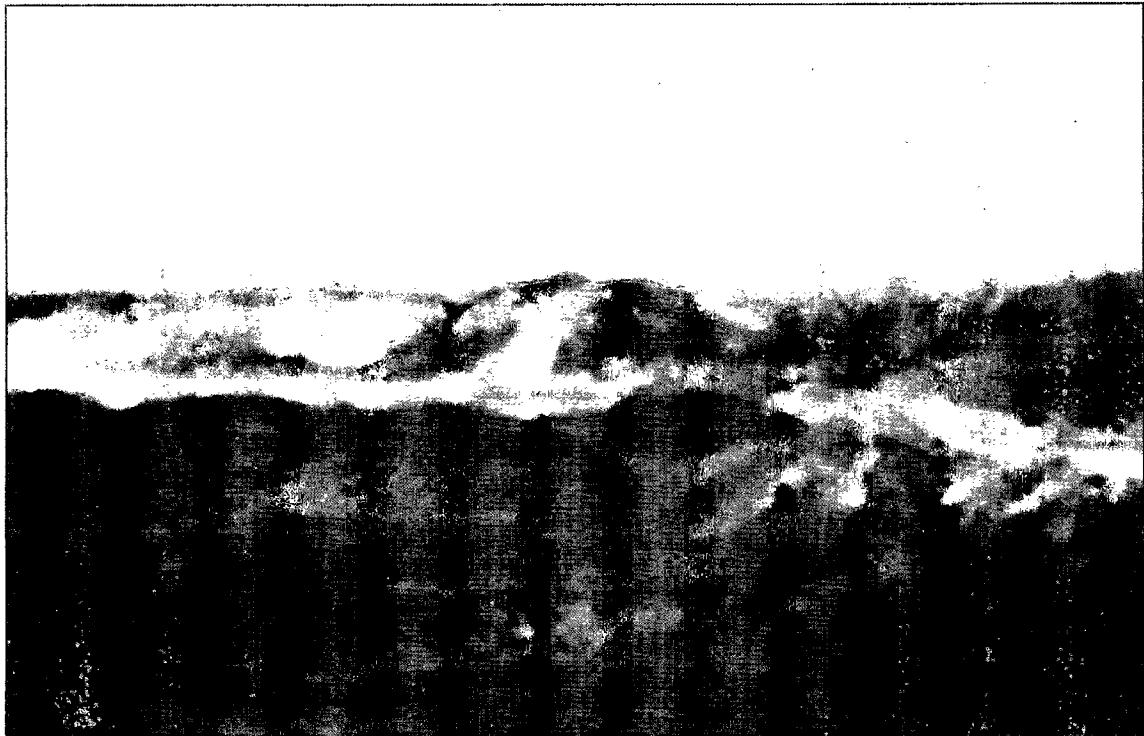
Poker Lake Unit #158 Flowline - North Excavation (Liner Installation)



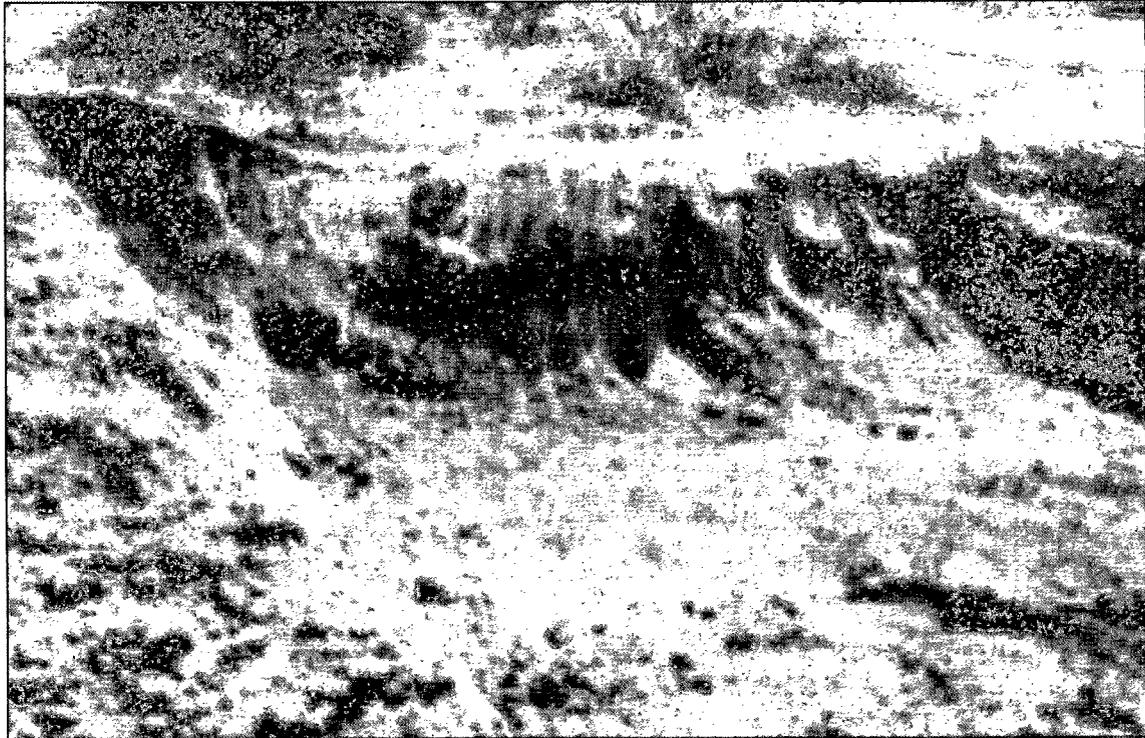
Poker Lake Unit #158 Flowline - North Excavation (During Backfilling)



Poker Lake Unit #158 Flowline - North Excavation (Following Backfilling)



Poker Lake Unit #158 Flowline - South Excavation



Poker Lake Unit #158 Flowline - South Excavation



Poker Lake Unit #158 Flowline - South Excavation (During Backfilling)



Poker Lake Unit #158 Flowline - South Excavation (Following Backfilling)

**Appendix C**  
**Laboratory Analytical Reports**



# ARDINAL LABORATORIES

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

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July 28, 2010

Camille Bryant  
Basin Environmental Consulting, LLC.  
P.O. Box 381  
Lovington, NM 88260

Re: PLU 158 Flowline (BOPCO)

Enclosed are the results of analyses for sample number H20383, received by the laboratory on 07/20/10 at 3:50 pm.

Cardinal Laboratories is accredited through Texas NELAP for:

Method SW-846 8021	Benzene, Toluene, Ethyl Benzene, and Total Xylenes
Method SW-846 8260	Benzene, Toluene, Ethyl Benzene, and Total Xylenes
Method TX 1005	Total Petroleum Hydrocarbons

Certificate number T104704398-08-TX. Accreditation applies to solid and chemical materials and non-potable water matrices.

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

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

Accreditation applies to public drinking water matrices.

Total Number of Pages of Report: 7 (includes Chain of Custody)

Sincerely,

Celey D. Keene  
Laboratory Director

ANALYTICAL RESULTS FOR  
BASIN ENVIRONMENTAL CONSULTING, LLC  
ATTN: CAMILLE BRYANT  
P.O. BOX 381  
LOVINGTON, NM 88260  
FAX TO: (575) 396-1429

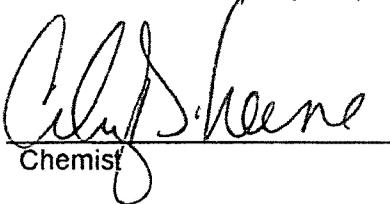
Receiving Date: 07/20/10  
Reporting Date: 07/24/10  
Project Owner: BOPCO  
Project Name: PLU 158 FLOWLINE  
Project Location: EDDY CO., NM

Analysis Date: 07/23/10  
Sampling Date: 07/14/10 THRU 07/16/10  
Sample Type: SOIL  
Sample Condition: COOL & INTACT @ 2.5°C  
Sample Received By: JH  
Analyzed By: HM/CK

LAB NUMBER	SAMPLE ID	Cl <sup>-</sup> (mg/kg)
H20383-1	SAMPLE 1 @ SURFACE	48
H20383-2	SAMPLE 1 @ 1'	80
H20383-3	SAMPLE 2 @ 6"	80
H20383-4	SAMPLE 2 @ 4'	912
H20383-5	SAMPLE 2 @ 8'	5,040
H20383-6	SAMPLE 3 @ 1'	64
H20383-7	SAMPLE 4 @ 1'	48
H20383-8	SAMPLE 5 @ 1'	< 16
H20383-9	SAMPLE 6 @ 1'	< 16
H20383-10	SAMPLE 8 @ 6"	208
H20383-11	SAMPLE 8 @ 4'	4,960
H20383-12	SAMPLE 8 @ 8'	28,400
H20383-13	SAMPLE 9 @ 1'	1,070
H20383-14	SAMPLE 9 @ 3'	10,500
H20383-15	SAMPLE 9 @ 5'	5,360
Quality Control		510
True Value QC		500
% Recovery		102
Relative Percent Difference		< 0.1

METHOD: Standard Methods	4500-Cl <sup>-</sup> B
--------------------------	------------------------

Note: Analyses performed on 1:4 w:v aqueous extracts.

  
Chemist

07/28/10  
Date

H20383 Basin



ANALYTICAL RESULTS FOR  
BASIN ENVIRONMENTAL CONSULTING  
ATTN: CAMILLE BRYANT  
P.O. BOX 381  
LOVINGTON, NM 88260  
FAX TO: (575) 396-1429

Receiving Date: 07/20/10  
Reporting Date: 07/28/10  
Project Owner: BOPCO  
Project Name: PLU 158 FLOWLINE  
Project Location: EDDY COUNTY, NM

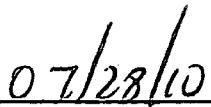
Sampling Date: 07/14/10 - 07/16/10  
Sample Type: SOIL  
Sample Condition: COOL & INTACT @ 2.5°C  
Sample Received By: JH  
Analyzed By: AB

LAB NUMBER	SAMPLE ID	GRO (C <sub>6</sub> -C <sub>10</sub> ) (mg/kg)	DRO (>C <sub>10</sub> -C <sub>28</sub> ) (mg/kg)	DRO ext. (>C <sub>28</sub> -C <sub>35</sub> ) (mg/kg)
ANALYSIS DATE		07/24/10	07/24/10	07/24/10
H20383-3*	SAMPLE 2 @ 6"	1,650	4,280	18.2
H20383-5	SAMPLE 2 @ 8"	<10.0	85.1	27.3
H20383-10	SAMPLE 8 @ 6"	1,660	7,500	67.0
H20383-11	SAMPLE 8 @ 4"	69.6	491	<10.0
H20383-12	SAMPLE 8 @ 8"	25.6	282	<10.0
H20383-17	SAMPLE 18 @ 1'	<10.0	<10.0	<10.0
H20383-22	SAMPLE 24 @ 6"	<50.0	4,270	<50.0
Quality Control		438	429	-
True Value QC		500	500	-
% Recovery		87.6	85.8	-
Relative Percent Difference		1.1	1.1	-

METHODS: TPH GRO & DRO: EPA SW-846 8015 M extended  
Reported on wet weight. Not accredited for GRO/DRO/DRO Ext.

\*One or more TPH surrogates outside historical limits due to matrix interference.

  
\_\_\_\_\_  
Lab Director

  
\_\_\_\_\_  
Date

H20383 TPHEXT BASIN







March 01, 2011

BEN J. ARGUIJO

Basin Environmental Service

P.O. Box 301

Lovington, NM 88260

RE: POKER LAKE UNIT 158 FLOWLINE

Enclosed are the results of analyses for samples received by the laboratory on 02/25/11 16:14.

Cardinal Laboratories is accredited through Texas NELAP for:

Method SW-846 8021	Benzene, Toluene, Ethyl Benzene, and Total Xylenes
Method SW-846 8260	Benzene, Toluene, Ethyl Benzene, and Total Xylenes
Method TX 1005	Total Petroleum Hydrocarbons

Certificate number T104704398-08-TX. Accreditation applies to solid and chemical materials and non-potable water matrices.

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

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

Accreditation applies to public drinking water matrices.

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

Sincerely,



Celey D. Keene

Lab Director/Quality Manager

**Analytical Results For:**

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

Received:	02/25/2011	Sampling Date:	02/25/2011
Reported:	03/01/2011	Sampling Type:	Soil
Project Name:	POKER LAKE UNIT 158 FLOWLINE	Sampling Condition:	Cool & Intact
Project Number:	AFE #24753	Sample Received By:	Jodi Henson
Project Location:	EDDY COUNTY, NEW MEXICO		

**Sample ID: STOCK PILE 'A' (H100388-01)**

Chloride, SM4500Cl-B		mg/kg		Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
<b>Chloride</b>	<b>512</b>	16.0	02/28/2011	ND	416	104	400	0.00		
TPH 8015M		mg/kg		Analyzed By: AB						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10	<10.0	10.0	03/01/2011	ND	198	98.8	200	3.49		
<b>DRO &gt;C10-C28</b>	<b>151</b>	10.0	03/01/2011	ND	202	101	200	3.04		
<b>EXT DRO &gt;C28-C35</b>	<b>27.0</b>	10.0	03/01/2011	ND						

Surrogate: 1-Chlorooctane 100 % 70-130

Surrogate: 1-Chlorooctadecane 101 % 70-130

**Sample ID: N EXC FLOOR 5' BGS (H100388-02)**

Chloride, SM4500Cl-B		mg/kg		Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
<b>Chloride</b>	<b>2320</b>	16.0	02/28/2011	ND	416	104	400	0.00		
TPH 8015M		mg/kg		Analyzed By: AB						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10	<10.0	10.0	03/01/2011	ND	198	98.8	200	3.49		
<b>DRO &gt;C10-C28</b>	<b>14.0</b>	10.0	03/01/2011	ND	202	101	200	3.04		
<b>EXT DRO &gt;C28-C35</b>	<b>&lt;10.0</b>	10.0	03/01/2011	ND						

Surrogate: 1-Chlorooctane 103 % 70-130

Surrogate: 1-Chlorooctadecane 104 % 70-130

Cardinal Laboratories

\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager

**Analytical Results For:**

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

Received:	02/25/2011	Sampling Date:	02/25/2011
Reported:	03/01/2011	Sampling Type:	Soil
Project Name:	POKER LAKE UNIT 158 FLOWLINE	Sampling Condition:	Cool & Intact
Project Number:	AFE #24753	Sample Received By:	Jodi Henson
Project Location:	EDDY COUNTY, NEW MEXICO		

**Sample ID: N EXC W WALL 5' BGS (H100388-03)**

Chloride, SM4500CI-B		mg/kg		Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
<b>Chloride</b>	<b>240</b>	16.0	02/28/2011	ND	416	104	400	0.00		
TPH 8015M		mg/kg		Analyzed By: AB						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10	<10.0	10.0	03/01/2011	ND	198	98.8	200	3.49		
DRO >C10-C28	<10.0	10.0	03/01/2011	ND	202	101	200	3.04		
EXT DRO >C28-C35	<10.0	10.0	03/01/2011	ND						

Surrogate: 1-Chlorooctane 106 % 70-130  
 Surrogate: 1-Chlorooctadecane 103 % 70-130

**Sample ID: N EXC N WALL 5' BGS (H100388-04)**

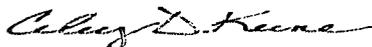
Chloride, SM4500CI-B		mg/kg		Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
<b>Chloride</b>	<b>304</b>	16.0	02/28/2011	ND	416	104	400	0.00		
TPH 8015M		mg/kg		Analyzed By: AB						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10	<10.0	10.0	03/01/2011	ND	198	98.8	200	3.49		
DRO >C10-C28	<10.0	10.0	03/01/2011	ND	202	101	200	3.04		
EXT DRO >C28-C35	<10.0	10.0	03/01/2011	ND						

Surrogate: 1-Chlorooctane 102 % 70-130  
 Surrogate: 1-Chlorooctadecane 99.6 % 70-130

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\* = Accredited Analyte

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Celestine D. Keene, Lab Director/Quality Manager

**Notes and Definitions**

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

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\*=Accredited Analyte

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---

Celest D. Keene, Lab Director/Quality Manager



March 03, 2011

BEN J. ARGUIJO

Basin Environmental Service

P.O. Box 301

Lovington, NM 88260

RE: POKER LAKE UNIT 158 FLOWLINE

Enclosed are the results of analyses for samples received by the laboratory on 03/01/11 15:50.

Cardinal Laboratories is accredited through Texas NELAP for:

Method SW-846 8021	Benzene, Toluene, Ethyl Benzene, and Total Xylenes
Method SW-846 8260	Benzene, Toluene, Ethyl Benzene, and Total Xylenes
Method TX 1005	Total Petroleum Hydrocarbons

Certificate number T104704398-08-TX. Accreditation applies to solid and chemical materials and non-potable water matrices.

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

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

Accreditation applies to public drinking water matrices.

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

Sincerely,



Celey D. Keene

Lab Director/Quality Manager

**Analytical Results For:**

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

Received:	03/01/2011	Sampling Date:	02/28/2011
Reported:	03/03/2011	Sampling Type:	Soil
Project Name:	POKER LAKE UNIT 158 FLOWLINE	Sampling Condition:	Cool & Intact
Project Number:	AFE #24753	Sample Received By:	Jodi Henson
Project Location:	EDDY COUNTY, NEW MEXICO		

**Sample ID: N EXC E WALL 5' (H100401-01)**

Chloride, SM4500CI-B		mg/kg		Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
<b>Chloride</b>	<b>240</b>	16.0	03/02/2011	ND	432	108	400	0.00		
TPH 8015M		mg/kg		Analyzed By: AB						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10	<10.0	10.0	03/02/2011	ND	212	106	200	2.38		
DRO >C10-C28	<10.0	10.0	03/02/2011	ND	213	107	200	1.53		
EXT DRO >C28-C35	<10.0	10.0	03/02/2011	ND						
<i>Surrogate: 1-Chlorooctane</i>		<i>117 %</i>	<i>70-130</i>							
<i>Surrogate: 1-Chlorooctadecane</i>		<i>114 %</i>	<i>70-130</i>							

**Sample ID: N EXC S WALL 5' (H100401-02)**

Chloride, SM4500CI-B		mg/kg		Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
<b>Chloride</b>	<b>192</b>	16.0	03/02/2011	ND	416	104	400	3.77		
TPH 8015M		mg/kg		Analyzed By: AB						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10	<10.0	10.0	03/02/2011	ND	212	106	200	2.38		
DRO >C10-C28	<10.0	10.0	03/02/2011	ND	213	107	200	1.53		
EXT DRO >C28-C35	<10.0	10.0	03/02/2011	ND						
<i>Surrogate: 1-Chlorooctane</i>		<i>113 %</i>	<i>70-130</i>							
<i>Surrogate: 1-Chlorooctadecane</i>		<i>111 %</i>	<i>70-130</i>							

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\* = Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager

**Analytical Results For:**

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

Received:	03/01/2011	Sampling Date:	02/28/2011
Reported:	03/03/2011	Sampling Type:	Soil
Project Name:	POKER LAKE UNIT 158 FLOWLINE	Sampling Condition:	Cool & Intact
Project Number:	AFE #24753	Sample Received By:	Jodi Henson
Project Location:	EDDY COUNTY, NEW MEXICO		

**Sample ID: S EXC SEC 1 FLOOR 5' (H100401-03)**

Chloride, SM4500CI-B		mg/kg		Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
<b>Chloride</b>	<b>160</b>	16.0	03/02/2011	ND	416	104	400	3.77		
TPH 8015M		mg/kg		Analyzed By: AB						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10	<10.0	10.0	03/02/2011	ND	212	106	200	2.38		
DRO >C10-C28	<10.0	10.0	03/02/2011	ND	213	107	200	1.53		
EXT DRO >C28-C35	<10.0	10.0	03/02/2011	ND						

Surrogate: 1-Chlorooctane	113 %	70-130
Surrogate: 1-Chlorooctadecane	111 %	70-130

**Sample ID: S EXC SEC 1 N WALL 5' (H100401-04)**

Chloride, SM4500CI-B		mg/kg		Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
<b>Chloride</b>	<b>48.0</b>	16.0	03/02/2011	ND	416	104	400	3.77		
TPH 8015M		mg/kg		Analyzed By: AB						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10	<10.0	10.0	03/02/2011	ND	212	106	200	2.38		
DRO >C10-C28	<10.0	10.0	03/02/2011	ND	213	107	200	1.53		
EXT DRO >C28-C35	<10.0	10.0	03/02/2011	ND						

Surrogate: 1-Chlorooctane	108 %	70-130
Surrogate: 1-Chlorooctadecane	106 %	70-130

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Celey D. Keene, Lab Director/Quality Manager

**Analytical Results For:**

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

Received:	03/01/2011	Sampling Date:	02/28/2011
Reported:	03/03/2011	Sampling Type:	Soil
Project Name:	POKER LAKE UNIT 158 FLOWLINE	Sampling Condition:	Cool & Intact
Project Number:	AFE #24753	Sample Received By:	Jodi Henson
Project Location:	EDDY COUNTY, NEW MEXICO		

**Sample ID: S EXC SEC 1 S WALL 5' (H100401-05)**

Chloride, SM4500CI-B		mg/kg		Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
<b>Chloride</b>	<b>32.0</b>	16.0	03/02/2011	ND	416	104	400	3.77		
TPH 8015M		mg/kg		Analyzed By: AB						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10	<10.0	10.0	03/02/2011	ND	212	106	200	2.38		
DRO >C10-C28	<10.0	10.0	03/02/2011	ND	213	107	200	1.53		
EXT DRO >C28-C35	<10.0	10.0	03/02/2011	ND						
<i>Surrogate: 1-Chlorooctane</i>		<i>112 %</i>	<i>70-130</i>							
<i>Surrogate: 1-Chlorooctadecane</i>		<i>110 %</i>	<i>70-130</i>							

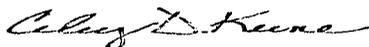
**Sample ID: S EXC SEC 1 STOCKPILE 'C' (H100401-06)**

Chloride, SM4500CI-B		mg/kg		Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
<b>Chloride</b>	<b>288</b>	16.0	03/02/2011	ND	416	104	400	3.77		
TPH 8015M		mg/kg		Analyzed By: AB						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10	<10.0	10.0	03/02/2011	ND	212	106	200	2.38		
<b>DRO &gt;C10-C28</b>	<b>128</b>	10.0	03/02/2011	ND	213	107	200	1.53		
<b>EXT DRO &gt;C28-C35</b>	<b>20.1</b>	10.0	03/02/2011	ND						
<i>Surrogate: 1-Chlorooctane</i>		<i>108 %</i>	<i>70-130</i>							
<i>Surrogate: 1-Chlorooctadecane</i>		<i>105 %</i>	<i>70-130</i>							

Cardinal Laboratories

\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager

**Analytical Results For:**

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

Received:	03/01/2011	Sampling Date:	02/28/2011
Reported:	03/03/2011	Sampling Type:	Soil
Project Name:	POKER LAKE UNIT 158 FLOWLINE	Sampling Condition:	Cool & Intact
Project Number:	AFE #24753	Sample Received By:	Jodi Henson
Project Location:	EDDY COUNTY, NEW MEXICO		

**Sample ID: S EXC SEC 1 E WALL 4' (H100401-07)**

Chloride, SM4500Cl-B		mg/kg		Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
<b>Chloride</b>	<b>32.0</b>	16.0	03/02/2011	ND	416	104	400	3.77		
TPH 8015M		mg/kg		Analyzed By: AB						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10	<10.0	10.0	03/02/2011	ND	212	106	200	2.38		
DRO >C10-C28	<10.0	10.0	03/02/2011	ND	213	107	200	1.53		
EXT DRO >C28-C35	<10.0	10.0	03/02/2011	ND						
<i>Surrogate: 1-Chlorooctane</i>	<i>114 %</i>	<i>70-130</i>								
<i>Surrogate: 1-Chlorooctadecane</i>	<i>111 %</i>	<i>70-130</i>								

Cardinal Laboratories

\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager

**Notes and Definitions**

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

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Cardinal Laboratories

\*=Accredited Analyte

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---

Celey D. Keene, Lab Director/Quality Manager



March 08, 2011

BEN J. ARGUIJO

Basin Environmental Service

P.O. Box 301

Lovington, NM 88260

RE: POKER LAKE UNIT 158 FLOWLINE

Enclosed are the results of analyses for samples received by the laboratory on 03/02/11 15:34.

Cardinal Laboratories is accredited through Texas NELAP for:

Method SW-846 8021	Benzene, Toluene, Ethyl Benzene, and Total Xylenes
Method SW-846 8260	Benzene, Toluene, Ethyl Benzene, and Total Xylenes
Method TX 1005	Total Petroleum Hydrocarbons

Certificate number T104704398-08-TX. Accreditation applies to solid and chemical materials and non-potable water matrices.

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

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

Accreditation applies to public drinking water matrices.

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

Sincerely,



Celey D. Keene

Lab Director/Quality Manager

**Analytical Results For:**

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

Received:	03/02/2011	Sampling Date:	03/02/2011
Reported:	03/08/2011	Sampling Type:	Soil
Project Name:	POKER LAKE UNIT 158 FLOWLINE	Sampling Condition:	Cool & Intact
Project Number:	AFE #24753	Sample Received By:	Jodi Henson
Project Location:	EDDY COUNTY, NEW MEXICO		

**Sample ID: S EXC SEC 2 N WALL 5' (H100420-01)**

Chloride, SM4500CI-B		mg/kg		Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
<b>Chloride</b>	<b>16.0</b>	16.0	03/04/2011	ND	432	108	400	3.77		
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	03/04/2011	ND	192	96.0	200	1.89		
DRO >C10-C28	<10.0	10.0	03/04/2011	ND	189	94.5	200	4.31		
EXT DRO >C28-C35	<10.0	10.0	03/04/2011	ND						

Surrogate: 1-Chlorooctane 105 % 70-130

Surrogate: 1-Chlorooctadecane 99.8 % 70-130

**Sample ID: S EXC SEC 2 S WALL 5' (H100420-02)**

Chloride, SM4500CI-B		mg/kg		Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
<b>Chloride</b>	<b>32.0</b>	16.0	03/04/2011	ND	432	108	400	3.77		
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	03/04/2011	ND	192	96.0	200	1.89		
DRO >C10-C28	<10.0	10.0	03/04/2011	ND	189	94.5	200	4.31		
EXT DRO >C28-C35	<10.0	10.0	03/04/2011	ND						

Surrogate: 1-Chlorooctane 108 % 70-130

Surrogate: 1-Chlorooctadecane 106 % 70-130

Cardinal Laboratories

\*=Accredited Analyte

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



Celey D. Keene, Lab Director/Quality Manager

**Analytical Results For:**

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

Received:	03/02/2011	Sampling Date:	03/02/2011
Reported:	03/08/2011	Sampling Type:	Soil
Project Name:	POKER LAKE UNIT 158 FLOWLINE	Sampling Condition:	Cool & Intact
Project Number:	AFE #24753	Sample Received By:	Jodi Henson
Project Location:	EDDY COUNTY, NEW MEXICO		

**Sample ID: S EXC SEC 2 FLOOR 5' (H100420-03)**

Chloride, SM4500CI-B		mg/kg		Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
<b>Chloride</b>	<b>272</b>	16.0	03/04/2011	ND	432	108	400	3.77		
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	03/04/2011	ND	192	96.0	200	1.89		
<b>DRO &gt;C10-C28</b>	<b>304</b>	10.0	03/04/2011	ND	189	94.5	200	4.31		
<b>EXT DRO &gt;C28-C35</b>	<b>50.7</b>	10.0	03/04/2011	ND						

Surrogate: 1-Chlorooctane 112 % 70-130  
 Surrogate: 1-Chlorooctadecane 107 % 70-130

**Sample ID: S EXC SEC STOCKPILE D (H100420-04)**

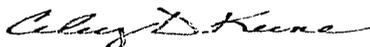
Chloride, SM4500CI-B		mg/kg		Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
<b>Chloride</b>	<b>96.0</b>	16.0	03/04/2011	ND	432	108	400	3.77		
TPH 8015M		mg/kg		Analyzed By: CK						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10	<10.0	10.0	03/04/2011	ND	192	96.0	200	1.89		
<b>DRO &gt;C10-C28</b>	<b>367</b>	10.0	03/04/2011	ND	189	94.5	200	4.31		
<b>EXT DRO &gt;C28-C35</b>	<b>68.6</b>	10.0	03/04/2011	ND						

Surrogate: 1-Chlorooctane 112 % 70-130  
 Surrogate: 1-Chlorooctadecane 107 % 70-130

Cardinal Laboratories

\* = Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager

**Notes and Definitions**

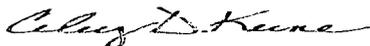
- ND Analyte NOT DETECTED at or above the reporting limit
- RPD Relative Percent Difference
- \*\* Samples not received at proper temperature of 6°C or below.
- \*\*\* Insufficient time to reach temperature.
- Chloride by SM4500Cl-B does not require samples be received at or below 6°C  
Samples reported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

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Cardinal Laboratories

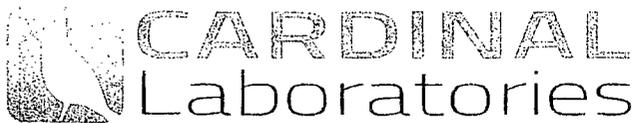
\*=Accredited Analyte

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---

Celey D. Keene, Lab Director/Quality Manager



**CHAIN-OF-CUSTODY AND ANALYSIS REQUEST**

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

<b>Company Name:</b> Basin Environmental Services Technologies LLC <b>Project Manager:</b> Ben J. Arguajo <b>Address:</b> P.O. BOX 501 <b>City:</b> Lovington <b>State:</b> NM <b>Zip:</b> 88260 <b>Phone #:</b> (575) 396-2378 <b>Fax #:</b> (575) 396-1429 <b>Project #:</b> AFE 24753 <b>Project Owner:</b> BOPCO, LP <b>Project Name:</b> Poker Lake Unit 158 Flowline <b>Project Location:</b> EDDY NM <b>Sampler Name:</b> Jody Walters		<b>BILL TO</b> <b>P.O. #:</b> <b>Company:</b> BOPCO, LP <b>Attn:</b> Tony Savoie <b>Address:</b> 522 W. Mermod <b>City:</b> Carlsbad <b>State:</b> NM <b>Zip:</b> 88220 <b>Phone #:</b> (432) 556-8730 <b>Fax #:</b>		<b>ANALYSIS REQUEST</b>									
---	--	--	--	-------------------------	--	--	--	--	--	--	--	--	--

FOR LAB USE ONLY	Lab I.D.	Sample I.D.	IRABOR (COMP.)	# CONTAINERS	MATRIX						PRESERV		SAMPLING		DATE	TIME	BOSM	Chlorides
					GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER	ACID/BASE	ICE / COOL	OTHER					
	H1DD4720-1	South Excavation Sec 2 North Wall 5'	P	1			X				X			3-2-11	10:00AM	X	X	
		2 South Excavation Sec 2 South Wall 5'	P	1			X				X			3-2-11	10:10 AM	X	X	
		3 South Excavation Sec 2 Flood 5'	P	1			X				X			3-2-11	10:20AM	X	X	
		4 South Excavation Sec Stockpile D	P	1			X				X			3-2-11	10:30AM	X	X	

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<b>Relinquished By:</b> <b>Date:</b> 3/2/11 <b>Time:</b> 3:34	<b>Received By:</b> Jodi Benson <b>Date:</b> <b>Time:</b>	<b>Phone Result:</b> <input type="checkbox"/> Yes <input type="checkbox"/> No <b>Add'l Phone #:</b> <b>Fax Result:</b> <input type="checkbox"/> Yes <input type="checkbox"/> No <b>Add'l Fax #:</b> <b>REMARKS:</b> Please e mail Results to pm@basinemu.com & TAsavoie@BassPet.com
<b>Delivered By: (Circle One)</b> Sampler - UPS - Bus - Other:	<b>Sample Condition</b> Cool <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Intact <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<b>CHECKED BY:</b>

† Cardinal cannot accept verbal changes. Please fax written changes to 505-393-2476 #26

March 09, 2011

BEN J. ARGUIJO

Basin Environmental Service

P.O. Box 301

Lovington, NM 88260

RE: POKER LAKE UNIT 158 FLOWLINE

Enclosed are the results of analyses for samples received by the laboratory on 03/04/11 16:20.

Cardinal Laboratories is accredited through Texas NELAP for:

Method SW-846 8021	Benzene, Toluene, Ethyl Benzene, and Total Xylenes
Method SW-846 8260	Benzene, Toluene, Ethyl Benzene, and Total Xylenes
Method TX 1005	Total Petroleum Hydrocarbons

Certificate number T104704398-08-TX. Accreditation applies to solid and chemical materials and non-potable water matrices.

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

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

Accreditation applies to public drinking water matrices.

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

Sincerely,



Celey D. Keene

Lab Director/Quality Manager

**Analytical Results For:**

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

Received:	03/04/2011	Sampling Date:	03/04/2011
Reported:	03/09/2011	Sampling Type:	Soil
Project Name:	POKER LAKE UNIT 158 FLOWLINE	Sampling Condition:	Cool & Intact
Project Number:	AFE #24753	Sample Received By:	Jodi Henson
Project Location:	EDDY COUNTY, NEW MEXICO		

**Sample ID: S EXC SEC 3 STOCKPILE (H100436-01)**

Chloride, SM4500Cl-B		mg/kg		Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
<b>Chloride</b>	<b>112</b>	16.0	03/07/2011	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	
<b>GRO C6-C10</b>	<b>22.0</b>	10.0	03/08/2011	ND	195	97.4	200	0.218		
<b>DRO &gt;C10-C28</b>	<b>320</b>	10.0	03/08/2011	ND	196	98.2	200	2.31		
<b>EXT DRO &gt;C28-C35</b>	<b>54.1</b>	10.0	03/08/2011	ND						

Surrogate: 1-Chlorooctane	113 %	70-130
Surrogate: 1-Chlorooctadecane	90.6 %	70-130

**Sample ID: S EXC SEC 3 WEST WALL 5' (H100436-02)**

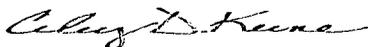
Chloride, SM4500Cl-B		mg/kg		Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
<b>Chloride</b>	<b>80.0</b>	16.0	03/07/2011	ND	416	104	400	0.00		
TPH 8015M		mg/kg		Analyzed By: CK						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10	<10.0	10.0	03/08/2011	ND	195	97.4	200	0.218		
DRO >C10-C28	<10.0	10.0	03/08/2011	ND	196	98.2	200	2.31		
EXT DRO >C28-C35	<10.0	10.0	03/08/2011	ND						

Surrogate: 1-Chlorooctane	106 %	70-130
Surrogate: 1-Chlorooctadecane	102 %	70-130

Cardinal Laboratories

\* = Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager

**Notes and Definitions**

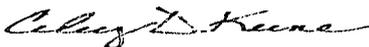
- ND Analyte NOT DETECTED at or above the reporting limit
- RPD Relative Percent Difference
- \*\* Samples not received at proper temperature of 6°C or below.
- \*\*\* Insufficient time to reach temperature.
- Chloride by SM4500Cl-B does not require samples be received at or below 6°C  
Samples reported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

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Cardinal Laboratories

\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager



**CHAIN-OF-CUSTODY AND ANALYSIS REQUEST**

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

Company Name: Basin Environmental Service Technologies, LLC		<b>BILL TO</b>				<b>ANALYSIS REQUEST</b>																						
Project Manager: Ben J. Arquiio		P.O. #:																										
Address: P.O. Box 301		Company: EOPCO, LP																										
City: Lovington State: NM Zip: 88260		Attn: Tony Savoie																										
Phone #: (575) 396-2378 Fax #: (575) 396-1429		Address: 522 W. Mermod																										
Project #: AFE # 24753 Project Owner: BOPCO, LP		City: Carlsbad																										
Project Name: Parker Lake Unit 158 Flowline		State: NM Zip: 88220																										
Project Location: EDDY, NM.		Phone #: (432) 556-3730																										
Sampler Name: Jody Walters		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														
HID431	South Excavation Sec 3 Stock Pile	G	1			X				X			3-4-11	10:00AM	X	Y												
	South Excavation Sec 3 West wall 5'	G	1		X					X			3-4-11	10:20AM	X	Y												

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: 3/4/11 Time: 4:40	Received By:	Phone Result: <input type="checkbox"/> Yes <input type="checkbox"/> No Add'l Phone #:
Relinquished By:	Date:	Received By:	Fax Result: <input type="checkbox"/> Yes <input type="checkbox"/> No Add'l Fax #:
Delivered By: (Circle One) Sampler - UPS - Bus - Other:	Sample Condition: Cool <input type="checkbox"/> Intact <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/>	CHECKED BY:	REMARKS:  Please email results to pm@basinenv.com & TSavoie@BassPer.com

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

March 01, 2011

BEN J. ARGUIJO

Basin Environmental Service

P.O. Box 301

Lovington, NM 88260

RE: POKER LAKE UNIT 158 FLOWLINE

Enclosed are the results of analyses for samples received by the laboratory on 02/25/11 16:14.

Cardinal Laboratories is accredited through Texas NELAP for:

Method SW-846 8021	Benzene, Toluene, Ethyl Benzene, and Total Xylenes
Method SW-846 8260	Benzene, Toluene, Ethyl Benzene, and Total Xylenes
Method TX 1005	Total Petroleum Hydrocarbons

Certificate number T104704398-08-TX. Accreditation applies to solid and chemical materials and non-potable water matrices.

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

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

Accreditation applies to public drinking water matrices.

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

Sincerely,



Celey D. Keene

Lab Director/Quality Manager

**Analytical Results For:**

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

Received:	02/25/2011	Sampling Date:	02/25/2011
Reported:	03/01/2011	Sampling Type:	Soil
Project Name:	POKER LAKE UNIT 158 FLOWLINE	Sampling Condition:	Cool & Intact
Project Number:	AFE #24753	Sample Received By:	Jodi Henson
Project Location:	EDDY COUNTY, NEW MEXICO		

**Sample ID: STOCK PILE 'A' (H100388-01)**

Chloride, SM4500Cl-B	mg/kg	Analyzed By: HM							
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
<b>Chloride</b>	<b>512</b>	16.0	02/28/2011	ND	416	104	400	0.00	
TPH 8015M	mg/kg	Analyzed By: AB							
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	03/01/2011	ND	198	98.8	200	3.49	
<b>DRO &gt;C10-C28</b>	<b>151</b>	10.0	03/01/2011	ND	202	101	200	3.04	
<b>EXT DRO &gt;C28-C35</b>	<b>27.0</b>	10.0	03/01/2011	ND					

Surrogate: 1-Chlorooctane 100 % 70-130  
 Surrogate: 1-Chlorooctadecane 101 % 70-130

**Sample ID: N EXC FLOOR 5' BGS (H100388-02)**

Chloride, SM4500Cl-B	mg/kg	Analyzed By: HM							
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
<b>Chloride</b>	<b>2320</b>	16.0	02/28/2011	ND	416	104	400	0.00	
TPH 8015M	mg/kg	Analyzed By: AB							
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	03/01/2011	ND	198	98.8	200	3.49	
<b>DRO &gt;C10-C28</b>	<b>14.0</b>	10.0	03/01/2011	ND	202	101	200	3.04	
EXT DRO >C28-C35	<10.0	10.0	03/01/2011	ND					

Surrogate: 1-Chlorooctane 103 % 70-130  
 Surrogate: 1-Chlorooctadecane 104 % 70-130

Cardinal Laboratories

\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager

**Analytical Results For:**

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

Received:	02/25/2011	Sampling Date:	02/25/2011
Reported:	03/01/2011	Sampling Type:	Soil
Project Name:	POKER LAKE UNIT 158 FLOWLINE	Sampling Condition:	Cool & Intact
Project Number:	AFE #24753	Sample Received By:	Jodi Henson
Project Location:	EDDY COUNTY, NEW MEXICO		

**Sample ID: N EXC W WALL 5' BGS (H100388-03)**

Chloride, SM4500CI-B		mg/kg		Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
<b>Chloride</b>	<b>240</b>	16.0	02/28/2011	ND	416	104	400	0.00		
TPH 8015M		mg/kg		Analyzed By: AB						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10	<10.0	10.0	03/01/2011	ND	198	98.8	200	3.49		
DRO >C10-C28	<10.0	10.0	03/01/2011	ND	202	101	200	3.04		
EXT DRO >C28-C35	<10.0	10.0	03/01/2011	ND						
<i>Surrogate: 1-Chlorooctane</i>	<i>106 %</i>	<i>70-130</i>								
<i>Surrogate: 1-Chlorooctadecane</i>	<i>103 %</i>	<i>70-130</i>								

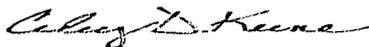
**Sample ID: N EXC N WALL 5' BGS (H100388-04)**

Chloride, SM4500CI-B		mg/kg		Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
<b>Chloride</b>	<b>304</b>	16.0	02/28/2011	ND	416	104	400	0.00		
TPH 8015M		mg/kg		Analyzed By: AB						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10	<10.0	10.0	03/01/2011	ND	198	98.8	200	3.49		
DRO >C10-C28	<10.0	10.0	03/01/2011	ND	202	101	200	3.04		
EXT DRO >C28-C35	<10.0	10.0	03/01/2011	ND						
<i>Surrogate: 1-Chlorooctane</i>	<i>102 %</i>	<i>70-130</i>								
<i>Surrogate: 1-Chlorooctadecane</i>	<i>99.6 %</i>	<i>70-130</i>								

Cardinal Laboratories

\* = Accredited Analyte

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Celest D. Keene, Lab Director/Quality Manager

### Notes and Definitions

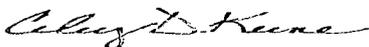
- ND Analyte NOT DETECTED at or above the reporting limit
- RPD Relative Percent Difference
- \*\* Samples not received at proper temperature of 6°C or below.
- \*\*\* Insufficient time to reach temperature.
- Chloride by SM4500Cl-B does not require samples be received at or below 6°C  
Samples reported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

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\*=Accredited Analyte

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---

Celey D. Keene, Lab Director/Quality Manager



March 03, 2011

BEN J. ARGUIJO

Basin Environmental Service

P.O. Box 301

Lovington, NM 88260

RE: POKER LAKE UNIT 158 FLOWLINE

Enclosed are the results of analyses for samples received by the laboratory on 03/01/11 15:50.

Cardinal Laboratories is accredited through Texas NELAP for:

Method SW-846 8021	Benzene, Toluene, Ethyl Benzene, and Total Xylenes
Method SW-846 8260	Benzene, Toluene, Ethyl Benzene, and Total Xylenes
Method TX 1005	Total Petroleum Hydrocarbons

Certificate number T104704398-08-TX. Accreditation applies to solid and chemical materials and non-potable water matrices.

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

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

Accreditation applies to public drinking water matrices.

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

Sincerely,



Celey D. Keene

Lab Director/Quality Manager

**Analytical Results For:**

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

Received:	03/01/2011	Sampling Date:	02/28/2011
Reported:	03/03/2011	Sampling Type:	Soil
Project Name:	POKER LAKE UNIT 158 FLOWLINE	Sampling Condition:	Cool & Intact
Project Number:	AFE #24753	Sample Received By:	Jodi Henson
Project Location:	EDDY COUNTY, NEW MEXICO		

**Sample ID: N EXC E WALL 5' (H100401-01)**

Chloride, SM4500Cl-B		mg/kg		Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
<b>Chloride</b>	<b>240</b>	16.0	03/02/2011	ND	432	108	400	0.00		
TPH 8015M		mg/kg		Analyzed By: AB						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10	<10.0	10.0	03/02/2011	ND	212	106	200	2.38		
DRO >C10-C28	<10.0	10.0	03/02/2011	ND	213	107	200	1.53		
EXT DRO >C28-C35	<10.0	10.0	03/02/2011	ND						

Surrogate: 1-Chlorooctane 117% 70-130  
 Surrogate: 1-Chlorooctadecane 114% 70-130

**Sample ID: N EXC S WALL 5' (H100401-02)**

Chloride, SM4500Cl-B		mg/kg		Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
<b>Chloride</b>	<b>192</b>	16.0	03/02/2011	ND	416	104	400	3.77		
TPH 8015M		mg/kg		Analyzed By: AB						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10	<10.0	10.0	03/02/2011	ND	212	106	200	2.38		
DRO >C10-C28	<10.0	10.0	03/02/2011	ND	213	107	200	1.53		
EXT DRO >C28-C35	<10.0	10.0	03/02/2011	ND						

Surrogate: 1-Chlorooctane 113% 70-130  
 Surrogate: 1-Chlorooctadecane 111% 70-130

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\* = Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager

**Analytical Results For:**

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

 Received: 03/01/2011  
 Reported: 03/03/2011  
 Project Name: POKER LAKE UNIT 158 FLOWLINE  
 Project Number: AFE #24753  
 Project Location: EDDY COUNTY, NEW MEXICO

 Sampling Date: 02/28/2011  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Jodi Henson

**Sample ID: S EXC SEC 1 FLOOR 5' (H100401-03)**

Chloride, SM4500Cl-B		mg/kg		Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
<b>Chloride</b>	<b>160</b>	16.0	03/02/2011	ND	416	104	400	3.77		
TPH 8015M		mg/kg		Analyzed By: AB						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10	<10.0	10.0	03/02/2011	ND	212	106	200	2.38		
DRO >C10-C28	<10.0	10.0	03/02/2011	ND	213	107	200	1.53		
EXT DRO >C28-C35	<10.0	10.0	03/02/2011	ND						
<i>Surrogate: 1-Chlorooctane</i>		<i>113 %</i>	<i>70-130</i>							
<i>Surrogate: 1-Chlorooctadecane</i>		<i>111 %</i>	<i>70-130</i>							

**Sample ID: S EXC SEC 1 N WALL 5' (H100401-04)**

Chloride, SM4500Cl-B		mg/kg		Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
<b>Chloride</b>	<b>48.0</b>	16.0	03/02/2011	ND	416	104	400	3.77		
TPH 8015M		mg/kg		Analyzed By: AB						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10	<10.0	10.0	03/02/2011	ND	212	106	200	2.38		
DRO >C10-C28	<10.0	10.0	03/02/2011	ND	213	107	200	1.53		
EXT DRO >C28-C35	<10.0	10.0	03/02/2011	ND						
<i>Surrogate: 1-Chlorooctane</i>		<i>108 %</i>	<i>70-130</i>							
<i>Surrogate: 1-Chlorooctadecane</i>		<i>106 %</i>	<i>70-130</i>							

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Celey D. Keene, Lab Director/Quality Manager

**Analytical Results For:**

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

Received:	03/01/2011	Sampling Date:	02/28/2011
Reported:	03/03/2011	Sampling Type:	Soil
Project Name:	POKER LAKE UNIT 158 FLOWLINE	Sampling Condition:	Cool & Intact
Project Number:	AFE #24753	Sample Received By:	Jodi Henson
Project Location:	EDDY COUNTY, NEW MEXICO		

**Sample ID: S EXC SEC 1 S WALL 5' (H100401-05)**

Chloride, SM4500CI-B		mg/kg		Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
<b>Chloride</b>	<b>32.0</b>	16.0	03/02/2011	ND	416	104	400	3.77		
TPH 8015M		mg/kg		Analyzed By: AB						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10	<10.0	10.0	03/02/2011	ND	212	106	200	2.38		
DRO >C10-C28	<10.0	10.0	03/02/2011	ND	213	107	200	1.53		
EXT DRO >C28-C35	<10.0	10.0	03/02/2011	ND						

Surrogate: 1-Chlorooctane 112 % 70-130

Surrogate: 1-Chlorooctadecane 110 % 70-130

**Sample ID: S EXC SEC 1 STOCKPILE 'C' (H100401-06)**

Chloride, SM4500CI-B		mg/kg		Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
<b>Chloride</b>	<b>288</b>	16.0	03/02/2011	ND	416	104	400	3.77		
TPH 8015M		mg/kg		Analyzed By: AB						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10	<10.0	10.0	03/02/2011	ND	212	106	200	2.38		
<b>DRO &gt;C10-C28</b>	<b>128</b>	10.0	03/02/2011	ND	213	107	200	1.53		
<b>EXT DRO &gt;C28-C35</b>	<b>20.1</b>	10.0	03/02/2011	ND						

Surrogate: 1-Chlorooctane 108 % 70-130

Surrogate: 1-Chlorooctadecane 105 % 70-130

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\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager

**Analytical Results For:**

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

Received:	03/01/2011	Sampling Date:	02/28/2011
Reported:	03/03/2011	Sampling Type:	Soil
Project Name:	POKER LAKE UNIT 158 FLOWLINE	Sampling Condition:	Cool & Intact
Project Number:	AFE #24753	Sample Received By:	Jodi Henson
Project Location:	EDDY COUNTY, NEW MEXICO		

**Sample ID: S EXC SEC 1 E WALL 4' (H100401-07)**

Chloride, SM4500Cl-B		mg/kg		Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
<b>Chloride</b>	<b>32.0</b>	16.0	03/02/2011	ND	416	104	400	3.77		
TPH 8015M		mg/kg		Analyzed By: AB						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10	<10.0	10.0	03/02/2011	ND	212	106	200	2.38		
DRO >C10-C28	<10.0	10.0	03/02/2011	ND	213	107	200	1.53		
EXT DRO >C28-C35	<10.0	10.0	03/02/2011	ND						
<i>Surrogate: 1-Chlorooctane</i>	<i>114 %</i>	<i>70-130</i>								
<i>Surrogate: 1-Chlorooctadecane</i>	<i>111 %</i>	<i>70-130</i>								

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Celest D. Keene, Lab Director/Quality Manager

**Notes and Definitions**

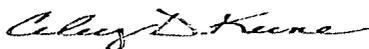
ND	Analyte NOT DETECTED at or above the reporting limit
RPD	Relative Percent Difference
**	Samples not received at proper temperature of 6°C or below.
***	Insufficient time to reach temperature.
-	Chloride by SM4500Cl-B does not require samples be received at or below 6°C Samples reported on an as received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

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---

Celey D. Keene, Lab Director/Quality Manager



March 08, 2011

BEN J. ARGUIJO

Basin Environmental Service

P.O. Box 301

Lovington, NM 88260

RE: POKER LAKE UNIT 158 FLOWLINE

Enclosed are the results of analyses for samples received by the laboratory on 03/02/11 15:34.

Cardinal Laboratories is accredited through Texas NELAP for:

Method SW-846 8021	Benzene, Toluene, Ethyl Benzene, and Total Xylenes
Method SW-846 8260	Benzene, Toluene, Ethyl Benzene, and Total Xylenes
Method TX 1005	Total Petroleum Hydrocarbons

Certificate number T104704398-08-TX. Accreditation applies to solid and chemical materials and non-potable water matrices.

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

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

Accreditation applies to public drinking water matrices.

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

Sincerely,



Celey D. Keene

Lab Director/Quality Manager

**Analytical Results For:**

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

Received:	03/02/2011	Sampling Date:	03/02/2011
Reported:	03/08/2011	Sampling Type:	Soil
Project Name:	POKER LAKE UNIT 158 FLOWLINE	Sampling Condition:	Cool & Intact
Project Number:	AFE #24753	Sample Received By:	Jodi Henson
Project Location:	EDDY COUNTY, NEW MEXICO		

**Sample ID: S EXC SEC 2 N WALL 5' (H100420-01)**

Chloride, SM4500Cl-B		mg/kg		Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
<b>Chloride</b>	<b>16.0</b>	16.0	03/04/2011	ND	432	108	400	3.77		
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	03/04/2011	ND	192	96.0	200	1.89		
DRO >C10-C28	<10.0	10.0	03/04/2011	ND	189	94.5	200	4.31		
EXT DRO >C28-C35	<10.0	10.0	03/04/2011	ND						
<i>Surrogate: 1-Chlorooctane</i>		<i>105 %</i>	<i>70-130</i>							
<i>Surrogate: 1-Chlorooctadecane</i>		<i>99.8 %</i>	<i>70-130</i>							

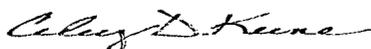
**Sample ID: S EXC SEC 2 S WALL 5' (H100420-02)**

Chloride, SM4500Cl-B		mg/kg		Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
<b>Chloride</b>	<b>32.0</b>	16.0	03/04/2011	ND	432	108	400	3.77		
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	03/04/2011	ND	192	96.0	200	1.89		
DRO >C10-C28	<10.0	10.0	03/04/2011	ND	189	94.5	200	4.31		
EXT DRO >C28-C35	<10.0	10.0	03/04/2011	ND						
<i>Surrogate: 1-Chlorooctane</i>		<i>108 %</i>	<i>70-130</i>							
<i>Surrogate: 1-Chlorooctadecane</i>		<i>106 %</i>	<i>70-130</i>							

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Celey D. Keene, Lab Director/Quality Manager

**Analytical Results For:**

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

Received:	03/02/2011	Sampling Date:	03/02/2011
Reported:	03/08/2011	Sampling Type:	Soil
Project Name:	POKER LAKE UNIT 158 FLOWLINE	Sampling Condition:	Cool & Intact
Project Number:	AFE #24753	Sample Received By:	Jodi Henson
Project Location:	EDDY COUNTY, NEW MEXICO		

**Sample ID: S EXC SEC 2 FLOOR 5' (H100420-03)**

Chloride, SM4500CI-B		mg/kg		Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
<b>Chloride</b>	<b>272</b>	16.0	03/04/2011	ND	432	108	400	3.77		
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	03/04/2011	ND	192	96.0	200	1.89		
<b>DRO &gt;C10-C28</b>	<b>304</b>	10.0	03/04/2011	ND	189	94.5	200	4.31		
<b>EXT DRO &gt;C28-C35</b>	<b>50.7</b>	10.0	03/04/2011	ND						

Surrogate: 1-Chlorooctane 112 % 70-130  
 Surrogate: 1-Chlorooctadecane 107 % 70-130

**Sample ID: S EXC SEC STOCKPILE D (H100420-04)**

Chloride, SM4500CI-B		mg/kg		Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
<b>Chloride</b>	<b>96.0</b>	16.0	03/04/2011	ND	432	108	400	3.77		
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	03/04/2011	ND	192	96.0	200	1.89		
<b>DRO &gt;C10-C28</b>	<b>367</b>	10.0	03/04/2011	ND	189	94.5	200	4.31		
<b>EXT DRO &gt;C28-C35</b>	<b>68.6</b>	10.0	03/04/2011	ND						

Surrogate: 1-Chlorooctane 112 % 70-130  
 Surrogate: 1-Chlorooctadecane 107 % 70-130

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Celey D. Keene, Lab Director/Quality Manager

**Notes and Definitions**

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

---

Cardinal Laboratories

\*=Accredited Analyte

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Celest D. Keene, Lab Director/Quality Manager



**CHAIN-OF-CUSTODY AND ANALYSIS REQUEST**

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

<b>Company Name:</b> Basin Environmental Services Technologies LLC <b>Project Manager:</b> Ben J. Argujo <b>Address:</b> P.O. Box 301 <b>City:</b> Lovington <b>State:</b> NM <b>Zip:</b> 88260 <b>Phone #:</b> (575) 396-2378 <b>Fax #:</b> (575) 396-1429 <b>Project #:</b> AFE 24753 <b>Project Owner:</b> BOPCO, LP <b>Project Name:</b> Poker Lake Unit 158 Flowline <b>Project Location:</b> EDDY NM <b>Sampler Name:</b> Jody Walters		<b>BILL TO</b> <b>P.O. #:</b> <b>Company:</b> BOPCO, LP <b>Attn:</b> Tony Savoie <b>Address:</b> 522 W. Mermod <b>City:</b> Carlsbad <b>State:</b> NM <b>Zip:</b> 88220 <b>Phone #:</b> (432) 556-8730 <b>Fax #:</b>		<b>ANALYSIS REQUEST</b>									
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FOR LAB USE ONLY		# CONTAINERS	MATRIX					PRESERV.		SAMPLING		BOISM	Chlorides											
Lab I.D.	Sample I.D.		GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER	ACID/BASE	ICE/COOL	OTHER			DATE	TIME									
HIDD4ZD1	South Excavation Sec 2 North Wall 5'	1			X				X		3-2-11	10:00am	X	X										
2	South Excavation Sec 2 South Wall 5'	1			X				X		3-2-11	10:10 AM	X	X										
3	South Excavation Sec 2 Flood 5'	1			X				X		3-2-11	10:12 AM	X	X										
4	South Excavation Sec Stockpile D	1			X				X		3-2-11	10:30 AM	X	X										

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<b>Relinquished By:</b> <b>Date:</b> 3/2/11 <b>Time:</b> 3:34	<b>Received By:</b> Jodi Henson <b>Date:</b> <b>Time:</b>	<b>Phone Result:</b> <input type="checkbox"/> Yes <input type="checkbox"/> No <b>Add'l Phone #:</b> <b>Fax Result:</b> <input type="checkbox"/> Yes <input type="checkbox"/> No <b>Add'l Fax #:</b> <b>REMARKS:</b> Please e mail Results to pm@basinemu.com & TAsavoie@BassPet.com
<b>Delivered By: (Circle One)</b> Sampler - UPS - Bus - Other:	<b>Sample Condition</b> Cool <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Intact <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<b>CHECKED BY:</b> (Initials)

† Cardinal cannot accept verbal changes. Please fax written changes to 505-393-2476 #26

March 09, 2011

BEN J. ARGUIJO

Basin Environmental Service

P.O. Box 301

Lovington, NM 88260

RE: POKER LAKE UNIT 158 FLOWLINE

Enclosed are the results of analyses for samples received by the laboratory on 03/04/11 16:20.

Cardinal Laboratories is accredited through Texas NELAP for:

Method SW-846 8021	Benzene, Toluene, Ethyl Benzene, and Total Xylenes
Method SW-846 8260	Benzene, Toluene, Ethyl Benzene, and Total Xylenes
Method TX 1005	Total Petroleum Hydrocarbons

Certificate number T104704398-08-TX. Accreditation applies to solid and chemical materials and non-potable water matrices.

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

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

Accreditation applies to public drinking water matrices.

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

Sincerely,



Celey D. Keene

Lab Director/Quality Manager

**Analytical Results For:**

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

Received:	03/04/2011	Sampling Date:	03/04/2011
Reported:	03/09/2011	Sampling Type:	Soil
Project Name:	POKER LAKE UNIT 158 FLOWLINE	Sampling Condition:	Cool & Intact
Project Number:	AFE #24753	Sample Received By:	Jodi Henson
Project Location:	EDDY COUNTY, NEW MEXICO		

**Sample ID: S EXC SEC 3 STOCKPILE (H100436-01)**

Chloride, SM4500CI-B		mg/kg		Analyzed By: HM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
<b>Chloride</b>	<b>112</b>	16.0	03/07/2011	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
<b>GRO C6-C10</b>	<b>22.0</b>	10.0	03/08/2011	ND	195	97.4	200	0.218	
<b>DRO &gt;C10-C28</b>	<b>320</b>	10.0	03/08/2011	ND	196	98.2	200	2.31	
<b>EXT DRO &gt;C28-C35</b>	<b>54.1</b>	10.0	03/08/2011	ND					

Surrogate: 1-Chlorooctane 113 % 70-130

Surrogate: 1-Chlorooctadecane 90.6 % 70-130

**Sample ID: S EXC SEC 3 WEST WALL 5' (H100436-02)**

Chloride, SM4500CI-B		mg/kg		Analyzed By: HM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
<b>Chloride</b>	<b>80.0</b>	16.0	03/07/2011	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	03/08/2011	ND	195	97.4	200	0.218	
DRO >C10-C28	<10.0	10.0	03/08/2011	ND	196	98.2	200	2.31	
EXT DRO >C28-C35	<10.0	10.0	03/08/2011	ND					

Surrogate: 1-Chlorooctane 106 % 70-130

Surrogate: 1-Chlorooctadecane 102 % 70-130

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Celey D. Keene, Lab Director/Quality Manager

**Notes and Definitions**

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

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Celey D. Keene, Lab Director/Quality Manager



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

Company Name: Basin Environmental Service Technologies, LLC		<b>BILL TO</b>				<b>ANALYSIS REQUEST</b>																							
Project Manager: Ben J. Arquijo		P.O. #:																											
Address: P.O. Box 301		Company: BOPCO, LP																											
City: Lovington State: NM Zip: 89260		Attn: Tony Savoie																											
Phone #: (575) 396-2378 Fax #: (575) 396-1429		Address: 522 W. Mermod																											
Project #: AFE # 24753 Project Owner: BOPCO, LP		City: Carlsbad																											
Project Name: Parker Lake Unit 158 Flowline		State: NM Zip: 88220																											
Project Location: EDDY, NM.		Phone #: (432) 556-8730																											
Sampler Name: Jody Walters		Fax #:																											
FOR LAB USE ONLY																													
Lab I.D.	Sample I.D.	(GRAB OR (COMP. # CONTAINERS	MATRIX															PRESERV.	SAMPLING		DATE	TIME	Y	Y					
			GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER:	ACID/BASE:	ICE / COOL	OTHER:																		
H100431	South Excavation Sec 3 Stockpile	G	1			Y				X	3-4-11	10:00AM	X	Y															
	South Excavation Sec 3 West wall 5'	G	1			Y				X	3-4-11	10:20AM	X	Y															

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Relinquished By:	Date: 3/4/11 Time: 4:40	Received By:	Phone Result: <input type="checkbox"/> Yes <input type="checkbox"/> No	Add'l Phone #:
Relinquished By:	Date:	Received By:	Fax Result: <input type="checkbox"/> Yes <input type="checkbox"/> No	Add'l Fax #:
Delivered By: (Circle One) Sampler - UPS - Bus - Other:		Sample Condition: Cool <input type="checkbox"/> Intact <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	CHECKED BY: (Initials) 	
REMARKS:				
Please email results to pm@basinenv.com & TSavoie@BasinPer.com				

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