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## **REMEDIATION SUMMARY AND SITE CLOSURE REQUEST**

**BOPCO, LP  
POKER LAKE UNIT #68  
Eddy County, New Mexico  
Unit Letter "A" (NE/NE), Section 20, Township 24 South, Range 31 East  
Latitude 32.207618° North, Longitude 103.797917° West  
NMOCD Reference #2RP-\_\_\_\_\_**

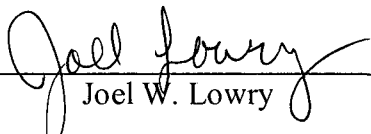
Prepared For:

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Prepared By:

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3100 Plains Highway  
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**June 2012**

  
\_\_\_\_\_  
Joel W. Lowry  
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 and Site Closure Request* for the release site known as Poker Lake Unit #68 (PLU #68). The legal description of the release site is Unit Letter "A" (NE/NE), Section 20, Township 24 South, Range 31 East, in Eddy County, New Mexico. The geographic coordinates of the release site are 32.207618° North latitude and 103.797917° 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" and Figures 2a and 2b for "Site & Sample Location" maps.

On May 2, 2011, BOPCO discovered a release had occurred at the Poker Lake Unit #68 tank battery. A temporary tank used to vent produced gas had overflowed, resulting in a release of crude oil and produced water. The release was reported to the New Mexico Oil Conservation Division (NMOCD) Artesia District Office on May 2, 2011. The "Release Notification and Corrective Action" (Form C-141) indicated approximately one hundred and thirty-nine (139) barrels of crude oil and approximately sixteen (16) barrels of produced water were released, with approximately forty-five (45) barrels of crude oil recovered. During initial response activities a vacuum truck was utilized to recover free-standing fluids and the visibly stained surface was excavated to approximately two feet (2') below ground surface (bgs). Approximately one hundred and sixty cubic yards (160 yd<sup>3</sup>) of saturated soil was excavated and stockpiled on-site atop an impermeable liner pending final disposition. The release affected approximately one thousand, two hundred square feet (1,200 ft<sup>2</sup>) of caliche pad and four thousand square feet (4,000 ft<sup>2</sup>) of pasture. A Form C-141, dated May 2, 2011, is provided as Appendix A. General Photographs of the release site are provided as Appendix D.

On May 15, 2011, BOPCO discovered a second release had occurred at the Poker Lake Unit #68 tank battery. A temporary tank had overflowed, resulting in a release of crude oil and produced water. The release was reported to the NMOCD Artesia District Office on May 15, 2011. The Form C-141, dated May 15, 2011, indicated approximately eighty (80) barrels of crude oil and approximately thirty (30) barrels of produced water were released, with approximately fifty (50) barrels of crude oil recovered. During initial response activities a vacuum truck was utilized to recover free-standing fluids. The oil and produced water traveled in the same path as the May 2, 2011, release and pooled in two (2) areas that had previously been excavated during the initial response to that release. Approximately three hundred and forty cubic yards (340 yd<sup>3</sup>) of saturated soil was excavated and stockpiled on-site atop an impermeable liner pending final disposition. The release affected approximately one thousand, two hundred square feet (1,200 ft<sup>2</sup>) of caliche pad and two thousand square feet (2,000 ft<sup>2</sup>) of pasture. A Form C-141 dated May 15, 2011, is provided as Appendix B.

On May 16, 2011, an archeological survey was conducted by Boone Archeological Services of Carlsbad, New Mexico. The report indicated that Basin had sufficient space to remediate the area without disturbing any cultural resources. A copy of the Archeological Survey (NMCRIIS Investigation Abstract Form) is provided as Appendix C.

## **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 20, Township 24 South, Range 31 East. A depth to groundwater reference map utilized by the NMOCD indicates groundwater should be encountered at approximately three hundred and seventy-five feet (375') 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 PLU #68 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**

On May 6, 2011, following initial response activities, excavation of impacted soil commenced at the release site. A Photo-Ionization Detector (PID) and chloride field kit were used to field screen the horizontal and vertical extent of impacted soil and to guide the excavation. Confirmation soil samples were collected and submitted to Cardinal Laboratories in Hobbs, New Mexico, for analysis of benzene, ethylbenzene, toluene, and xylene (BTEX) using EPA SW-846-8021b, total petroleum hydrocarbon (TPH) using EPA SW-846 8015M, and/or chloride concentrations using EPA method 4500 Cl-B. The excavated soil was stockpiled on-site atop a 6-mil plastic liner pending final disposition.

On May 6, 2011, two (2) soil samples (Pooling Area 6 @ 4' and Pooling Area 6 @ 9') were collected in an effort to delineate the vertical and horizontal impact of the release. Soil samples were submitted to the laboratory for analysis of TPH and chloride concentrations. Table 1 summarizes the "Concentrations of Benzene, BTEX, TPH & Chloride in Soil". A "Site & Sample Location Map" is provided as Figure 2a. Laboratory analytical reports are provided as Appendix D.

Laboratory analytical results indicated chloride concentrations ranged from 288 mg/Kg for soil sample Pooling Area 6 @ 9' to 13,400 mg/Kg for soil sample Pooling Area 6 @ 4'. TPH concentrations ranged from less than the laboratory method detection limit (MDL) for soil samples Pooling Area 6 @ 9' to 73.5 mg/Kg for soil sample Pooling Area 6 @ 4'.

On May 9, 2011, a hand auger was utilized to collect twelve (12) soil samples (Pooling Area #1 @ 2', Pooling Area #1 @ 4', Pooling Area #2 @ 4', Pooling Area #2 @ 5', Pooling Area #3 @ Surface, Pooling Area #3 @ 4', Pooling Area #3 @ 6', Pooling Area #4 @ Surface, Pooling Area #4 @ 5', Pooling Area #5 @ Surface and Pooling Area #5 @ 5') to further delineate the vertical and horizontal impact of the release. Each of the soil samples were submitted to the laboratory for analysis of TPH concentrations, with the exception of soil sample Pooling Area #3 @ 4'. Soil samples Pooling Area #1 @ 2', Pooling Area #2 @ 4', Pooling Area #3 @ Surface, Pooling Area #3 @ 4', Pooling Area #4 @ Surface and Pooling Area #5 @ Surface were also analyzed for chloride concentrations.

Laboratory analytical results indicated TPH concentrations ranged from less than the laboratory MDL for soil samples Pooling Area #2 @ 5' to 13,451 mg/Kg for soil sample Pooling Area #5 @ Surface. Chloride concentrations ranged from less than the laboratory MDL for soil samples Pooling Area #1 @ 2', Pooling Area #2 @ 4' and Pooling Area #5 @ Surface to 2,600 mg/Kg for soil sample Pooling Area #3 @ Surface.

On May 9, 2011, one (1) five-point composite soil sample (Stockpile) was collected to characterize the stockpiled material. The soil sample was submitted to the laboratory for analysis of TPH and chloride concentrations. Laboratory analytical results indicated the chloride concentration for soil sample Stockpile was 864 mg/Kg and the THP concentration was 17,786 mg/Kg.

On May 20, 2011, two (2) soil samples (Pooling Area 4A @ 8' and Pooling Area 5A @ 8') were collected to help characterize the nature of the release. Soil samples were submitted to the laboratory for analysis of TPH, chloride and BTEX constituent concentrations. Laboratory analytical results indicated TPH concentrations ranged from 102 mg/Kg for soil sample Pooling Area 4A @ 8' to 526 mg/Kg for soil sample Pooling Area 5A @ 8'. Laboratory analytical results indicated chloride concentrations ranged from 112 mg/Kg for soil sample Pooling Area 5A @ 8' to 144 mg/Kg for soil sample Pooling Area 4A @ 8'. BTEX concentrations were less than the appropriate laboratory MDL for each of the submitted soil samples. TPH, chloride and BTEX constituent concentrations were below NMOCD regulatory standards for each of the soil samples submitted.

On May 26, 2011, one (1) soil sample (Floor #3) was collected and submitted to the laboratory for analysis of TPH and chloride concentrations. Laboratory analytical results indicated the concentrations of TPH and chloride were 26,020 mg/Kg and 800 mg/Kg, respectively. The excavation was advanced in the area represented by soil sample Floor #3.

On May 27, 2011, fourteen (14) confirmation soil samples (SE Corner Floor, SW Corner Floor, Center Floor, NE Corner Floor, NW Corner Floor, N Wall W End, N Wall E End, N Wall Middle, E Wall N End, E Wall Middle, W Wall S End, S Wall Middle, W Wall Middle and W Wall N End) were collected from the excavation floor and sidewalls and submitted to the laboratory for analysis of TPH and chloride concentrations. Laboratory analytical results

indicated TPH concentrations were less than the laboratory MDL for each of the submitted soil samples, with the exception of W Wall Middle, which exhibited a concentration of 11.7 mg/Kg. Laboratory analytical results indicated chloride concentrations ranged from less than the laboratory MDL for soil samples SW Corner Floor, NE Corner Floor, NW Corner Floor, N Wall E End, N Wall Middle, E Wall N End, E Wall Middle, W Wall S End, S Wall Middle, W Wall Middle and W Wall N End to 32.0 mg/Kg for soil sample Center Floor. Each of the soil samples exhibited TPH and chloride concentrations below NMOCD regulatory standards. Soil sample Center Floor was also analyzed for constituent concentrations of BTEX, which were determined to be less than the appropriate laboratory MDL and NMOCD regulatory standards.

On May 31, 2011, four (4) confirmation soil samples (Sec 6B Floor, Sec 6B W Wall, Sec 6B E Wall and Sec 6B N Wall) were collected from the excavation floor and sidewalls in Pooling Area 6. Soil samples were submitted to the laboratory for analysis of TPH and chloride concentrations. Laboratory analytical results indicated TPH concentrations ranged from less than the laboratory MDL for soil samples Sec 6B W Wall and Sec 6B E Wall to 133 mg/Kg for soil sample Sec 6B Floor. Laboratory analytical results indicated chloride concentrations were less than the laboratory MDL for each of the submitted soil samples, with the exception of Sec 6B E Wall, which exhibited a concentration of 32.0 mg/Kg. Each of the soil samples exhibited TPH and chloride concentrations below NMOCD regulatory standards. Soil sample Sec 6B Floor was also analyzed for constituent concentrations of BTEX, which were determined to be less than the appropriate laboratory MDL and NMOCD regulatory standards.

On June 1, 2011, six (6) confirmation soil samples (Sec 4B Floor, Sec 4B South Wall, Sec 4B N Wall, Sec 2 & 3B Floor, Sec 2 & 3B S Wall and Sec 2 & 3B E Wall) were collected from the excavation floor and sidewalls in Pooling Areas 2 & 3 and 4. Soil samples were submitted to the laboratory for analysis of TPH and chloride concentrations. Laboratory analytical results indicated TPH concentrations ranged from less than the laboratory MDL for soil samples Sec 4B N Wall and Sec 2 & 3B E Wall to 2,723 mg/Kg for soil sample Sec 4B South Wall. Laboratory analytical results indicated chloride concentrations ranged from less than the laboratory MDL for soil samples Sec 2 & 3B E Wall to 128 mg/Kg for soil sample Sec 2 & 3B S Wall. Each of the soil samples exhibited TPH and chloride concentrations below NMOCD regulatory standards. Soil samples Sec 4B Floor and Sec 2 & 3B Floor were also analyzed for constituent concentrations of BTEX. Benzene concentrations were less than the appropriate laboratory MDL. Total BTEX concentrations ranged from less than the appropriate laboratory MDL for soil sample Sec 4B Floor to 1.37 mg/Kg for soil sample Sec 2 & 3B Floor. Each of the soil samples exhibited benzene and total BTEX concentrations below NMOCD regulatory standards.

On June 6, 2011, five (5) confirmation soil samples (Area #7 Floor, Area #7 North Wall, Area #7 South Wall, Area #7 West Wall and Area #7 East Wall) were collected from the excavation floor and sidewalls in Pooling Area 7. Soil samples were submitted to the laboratory for analysis of TPH and chloride concentrations. Laboratory analytical results indicated TPH concentrations were less than the laboratory MDL for each of the soil samples submitted. Laboratory analytical results indicated chloride concentrations ranged from 32.0 mg/Kg for soil samples Area #7 West Wall and Area #7 East Wall to 19,200 mg/Kg for soil sample Area #7 North Wall. Each of the soil samples exhibited TPH and chloride concentrations below NMOCD regulatory standards, with the exception of soil sample Area #7 North Wall. The excavation could not be advanced at that time in the area represented by soil sample Area #7 North Wall due to the presence of two (2) five hundred (500) barrel temporary "frac" tanks. Soil sample Area #7 Floor was also

analyzed for constituent concentrations of BTEX, which were determined to be less than the appropriate laboratory MDL and NMOCD regulatory standards.

During May and June, 2011, approximately two thousand, nine hundred and twenty cubic yards (2,920 yd<sup>3</sup>) of impacted material was transported to Lea Land, LLC (NMOCD Permit #WM-01-035), for disposal. The final dimensions of the excavation were approximately one hundred and fifteen feet (115') in width, one hundred fifty-six feet (156') in length and four (4') to twelve feet (12') in depth. Upon receiving verbal approval from a BLM representative, the excavated area was backfilled with locally purchased, non-impacted material. Following the backfilling of the excavation, areas affected by the remediation activities were contoured to fit the surrounding topography. The area was reseeded with BLM approved seed mixture during August 2011. Pictures of seeding activities are included in Appendix D.

On April 11, 2012, Basin began remediation activities on the area formerly occupied by the two (2) five hundred (500) barrel temporary "frac" tanks. A PID and chloride field kit were used to field screen the horizontal and vertical extent of impacted soil and to guide the excavation. Confirmation soil samples were collected and submitted to the laboratory for analysis. The excavated soil was stockpiled on-site pending final disposition. A "Site & Sample Location Map" of the "frac" tank area is provided as Figure 2b.

On April 11, 2012, five (5) confirmation soil samples (F.T.A. North Wall, F.T.A. South Wall, F.T.A. East Wall, F.T.A. West Wall and F.T.A. Floor) were collected from the excavation floor and sidewalls in the "frac" tank area. Soil samples were submitted to the laboratory for analysis of chloride concentrations. Soil sample F.T.A South Wall was also analyzed for concentrations of BTEX and TPH. Laboratory analytical results indicated chloride concentrations ranged from less than the laboratory MDL for soil samples F.T.A East Wall and F.T.A. Floor to 96.0 mg/Kg for soil sample F.T.A. South Wall. Soil sample F.T.A South Wall exhibited a TPH concentration of 42.0 mg/Kg and BTEX constituent concentrations less than the appropriate laboratory MDL. Each of the soil samples exhibited chloride, TPH and BTEX concentrations below NMOCD regulatory standards.

On April 12 and 13, 2012, approximately two hundred and eighty cubic yards (280 yd<sup>3</sup>) of impacted material was transported to Lea Land, LLC, for disposal. The final dimensions of the excavation were approximately fifty-three feet (53') in width, seventy-five feet (75') in length and one (1) to thirteen feet (13') in depth. Upon receiving verbal approval from a BLM representative, the excavated area was backfilled with locally purchased, non-impacted material. Following the backfilling of the excavation, areas affected by the remediation activities were compacted and contoured to fit the needs of the well pad.

## **4.0 QA/QC PROCEDURES**

### **4.1 Soil Sampling**

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

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

## **4.2 Decontamination of Equipment**

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

## **4.3 Laboratory Protocol**

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

## **5.0 SITE CLOSURE REQUEST**

Soil samples collected from the floor and sidewalls of the excavation were analyzed by an NMOCD-approved laboratory, and concentrations of BTEX, TPH, and chloride were below the regulatory 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 & Site Closure Request* and request the NMOCD grant site closure to the Poker Lake Unit #68 release site.

## **6.0 LIMITATIONS**

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

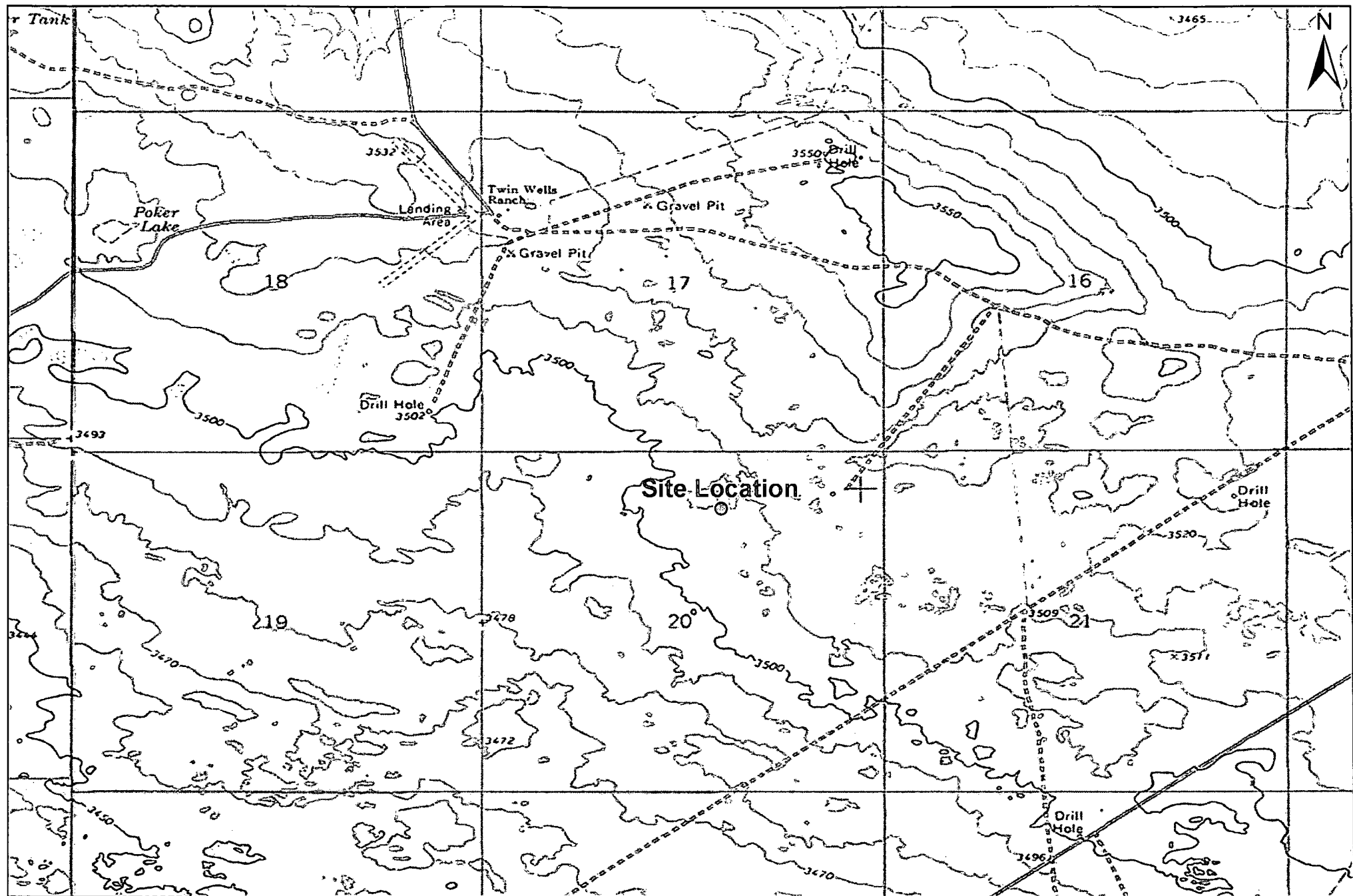
This report has been prepared for the benefit of BOPCO, LP. The information contained in this report, including all exhibits and attachments, may not be used by any other party without the express consent of Basin Environmental Service Technologies, LLC, and/or BOPCO, LP.



## **7.0 DISTRIBUTION:**

- Copy 1: Mike Bratcher  
New Mexico Energy, Minerals and Natural Resources Department  
Oil Conservation Division (District 2)  
1301 E. Grand Avenue  
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- Copy 2: James Amos  
Bureau of Land Management  
602 E. Greene Street  
Carlsbad, NM 88220
- Copy 3: Tony Savoie  
BOPCO, LP  
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Carlsbad, NM 88220
- Copy 4: Basin Environmental Service Technologies, LLC  
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## **Figures**

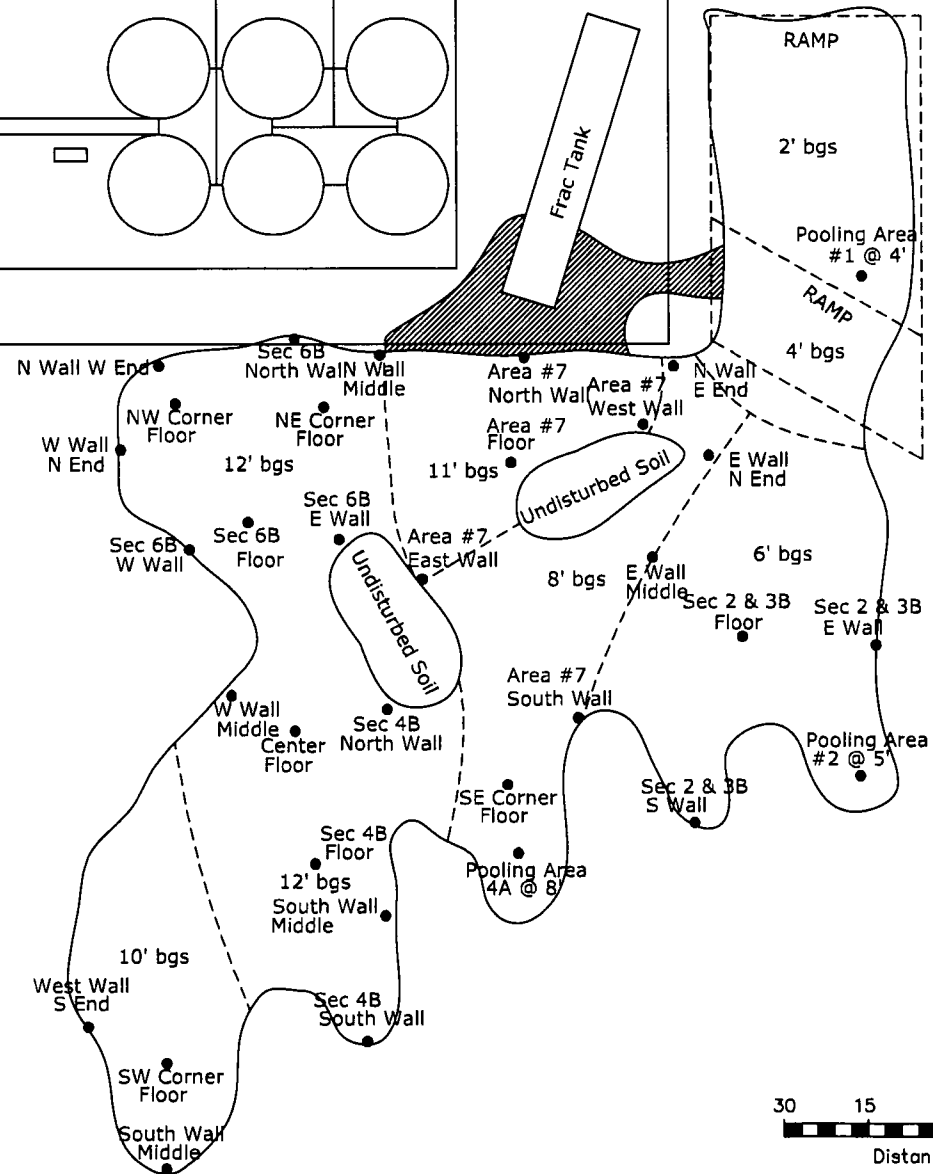
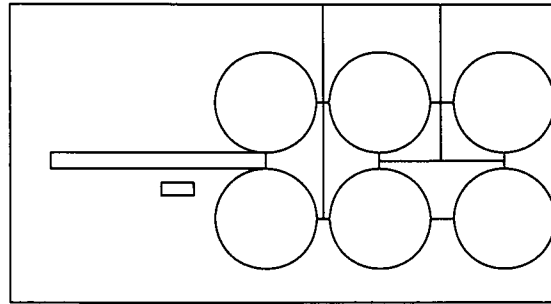


**Figure 1**  
**Site Location Map**  
**BOPCO, LP**  
**Poker Lake Unit #68**  
**Eddy County, New Mexico**



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

Drawn By: BJA	Checked By: BRB
May 12, 2011	Scale: 1" = 2000'



#### Legend:

- Excavation Extent
- Pipeline
- Sample Location
- Initial Release

Figure 2a  
Site Map  
BOPCO, L.P.  
Poker Lake Unit #68  
Eddy County, New Mexico

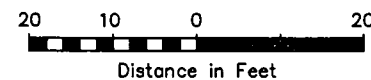
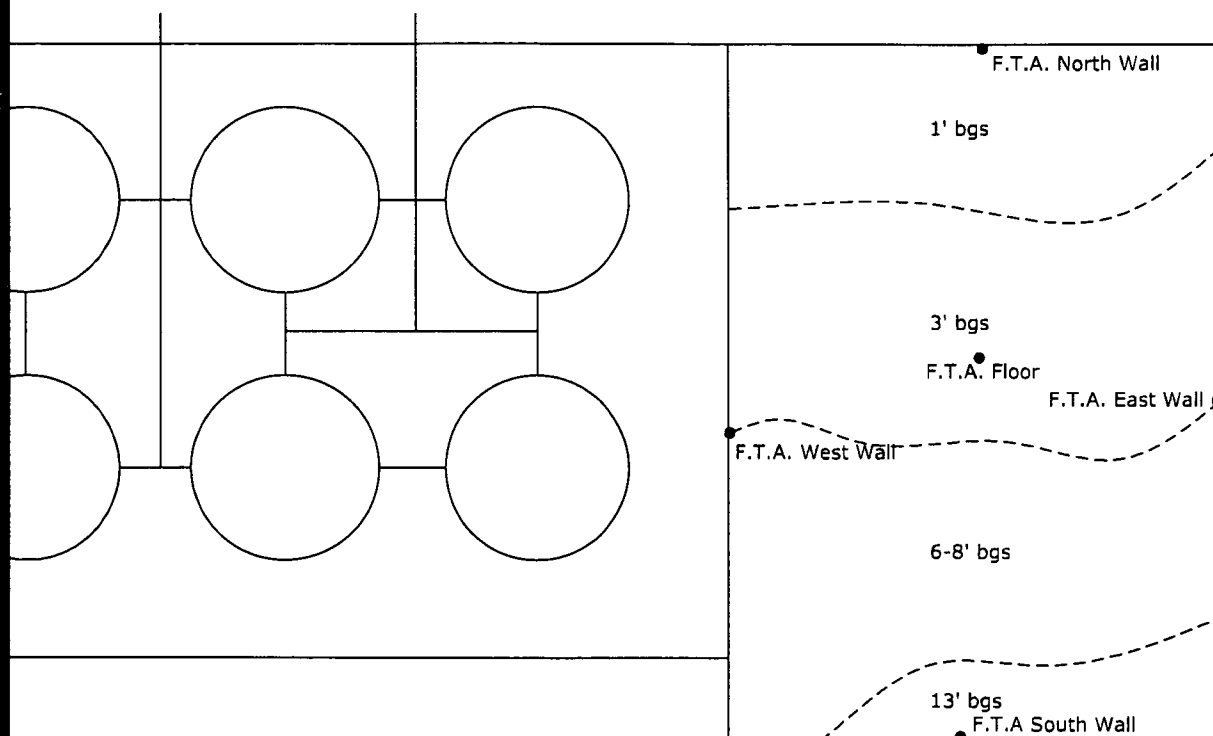
Basin Environmental Services

Prep By: JWL

Checked By: BJA

May 15, 2011

Scale 1"=30'



**Legend:**

- Excavation Extent
- Pipeline
- Sample Location

Figure 2b  
Site Map (Frac Tank Area)  
BOPCO, L.P.  
Poker Lake Unit #68  
Eddy County, New Mexico

**Basin Environmental Services**

Prep By: JWL

Checked By: BJA

May 15, 2011

Scale 1"=20'

# Tables

TABLE 1

## CONCENTRATIONS OF BENZENE, BTEX, TPH &amp; CHLORIDE IN SOIL

BOPCO, LP  
POKER LAKE UNIT #68  
EDDY COUNTY, NEW MEXICO

SAMPLE LOCATION	SAMPLE DEPTH (BGS)	SAMPLE DATE	SOIL STATUS	METHOD: EPA SW 846-8021B, 5030					METHOD: 8015M			TOTAL TPH C <sub>6</sub> -C <sub>35</sub> (mg/Kg)	E 300 CHLORIDE (mg/Kg)
				BENZENE (mg/Kg)	TOLUENE (mg/Kg)	ETHYL-BENZENE (mg/Kg)	TOTAL XYLENES (mg/Kg)	TOTAL BTEX (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)		
Pooling Area 6 @ 4'	4'	5/6/2011	Excavated	-	-	-	-	-	<10.0	73.5	-	73.5	13,400
Pooling Area 6 @ 9'	9'	5/6/2011	In-Situ	-	-	-	-	-	<10.0	<10.0	-	<10.0	288
Pooling Area #1 @ 2'	2'	5/9/2011	Excavated	-	-	-	-	-	2,490	7,380	397	10,267	<16.0
Pooling Area #1 @ 4'	4'	5/9/2011	In-Situ	-	-	-	-	-	<10.0	18.6	<10.0	18.6	-
Pooling Area #2 @ 4'	4'	5/9/2011	Excavated	-	-	-	-	-	630	3,510	164	4,304	<16.0
Pooling Area #2 @ 5'	5'	5/9/2011	In-Situ	-	-	-	-	-	<10.0	<10.0	<10.0	<10.0	-
Pooling Area #3 @ Surface	Surface	5/9/2011	Excavated	-	-	-	-	-	1,160	11,000	648	12,808	2,600
Pooling Area #3 @ 4'	4'	5/9/2011	Excavated	-	-	-	-	-	-	-	-	-	2,320
Pooling Area #3 @ 6'	6'	5/9/2011	In-Situ	-	-	-	-	-	39.2	487	28.9	555	-
Pooling Area #4 @ Surface	Surface	5/9/2011	Excavated	-	-	-	-	-	1,340	10,300	754	12,394	16.0
Pooling Area #4 @ 5'	5'	5/9/2011	In-Situ	-	-	-	-	-	<10.0	78.4	<10.0	78.4	-
Pooling Area #5 @ Surface	Surface	5/9/2011	Excavated	-	-	-	-	-	1,250	11,400	801	13,451	<16.0
Pooling Area #5 @ 5'	5'	5/9/2011	In-Situ	-	-	-	-	-	<10.0	119	<10.0	119	-
Stockpile	N/A	5/9/2011	Excavated	-	-	-	-	-	4,570	12,500	716	17,786	864
Pooling Area 4A @ 8'	8'	5/20/2011	In-Situ	<0.050	<0.050	<0.050	<0.150	<0.150	<10.0	102	<10.0	102	144
Pooling Area 5A @ 8'	8'	5/20/2011	In-Situ	<0.050	<0.050	<0.050	<0.150	<0.150	10.7	484	30.9	526	112
Floor #3	4'	5/26/2011	Excavated	-	-	-	-	-	10,600	14,200	1,220	26,020	800
SE Corner Floor	8'	5/27/2011	In-Situ	-	-	-	-	-	<10.0	<10.0	<10.0	<10.0	16.0
SW Corner Floor	10'	5/27/2011	In-Situ	-	-	-	-	-	<10.0	<10.0	<10.0	<10.0	<16.0
Center Floor	12'	5/27/2011	In-Situ	<0.050	<0.050	<0.050	<0.150	<0.150	<10.0	<10.0	<10.0	<10.0	32.0
NE Corner Floor	12'	5/27/2011	In-Situ	-	-	-	-	-	<10.0	<10.0	<10.0	<10.0	<16.0
NW Corner Floor	12'	5/27/2011	In-Situ	-	-	-	-	-	<10.0	<10.0	<10.0	<10.0	<16.0
N Wall W End	12'	5/27/2011	In-Situ	-	-	-	-	-	<10.0	<10.0	<10.0	<10.0	16.0
N Wall E End	8'	5/27/2011	In-Situ	-	-	-	-	-	<10.0	<10.0	<10.0	<10.0	<16.0
N Wall Middle	11'	5/27/2011	In-Situ	-	-	-	-	-	<10.0	<10.0	<10.0	<10.0	<16.0
E Wall N End	8'	5/27/2011	In-Situ	-	-	-	-	-	<10.0	<10.0	<10.0	<10.0	<16.0
E Wall Middle	8'	5/27/2011	In-Situ	-	-	-	-	-	<10.0	<10.0	<10.0	<10.0	<16.0
W Wall S End	10'	5/27/2011	In-Situ	-	-	-	-	-	<10.0	<10.0	<10.0	<10.0	<16.0
S Wall Middle	12'	5/27/2011	In-Situ	-	-	-	-	-	<10.0	<10.0	<10.0	<10.0	<16.0
W Wall Middle	12'	5/27/2011	In-Situ	-	-	-	-	-	<10.0	11.7	<10.0	11.7	<16.0
W Wall N End	12'	5/27/2011	In-Situ	-	-	-	-	-	<10.0	<10.0	<10.0	<10.0	<16.0
Sec 6B Floor	9'	5/31/2011	In-Situ	<0.050	<0.050	<0.050	<0.150	<0.150	<10.0	133	<10.0	133	<16.0
Sec 6B W Wall	8'	5/31/2011	In-Situ	-	-	-	-	-	<10.0	<10.0	<10.0	<10.0	<16.0
Sec 6B E Wall	8'	5/31/2011	In-Situ	-	-	-	-	-	<10.0	<10.0	<10.0	<10.0	32.0

TABLE 1

## CONCENTRATIONS OF BENZENE, BTEX, TPH &amp; CHLORIDE IN SOIL

BOPCO, LP  
POKER LAKE UNIT #68  
EDDY COUNTY, NEW MEXICO

SAMPLE LOCATION	SAMPLE DEPTH (BGS)	SAMPLE DATE	SOIL STATUS	METHOD: EPA SW 846-8021B, 5030					METHOD: 8015M			TOTAL TPH C <sub>6</sub> -C <sub>35</sub> (mg/Kg)	E 300 CHLORIDE (mg/Kg)
				BENZENE (mg/Kg)	TOLUENE (mg/Kg)	ETHYL- BENZENE (mg/Kg)	TOTAL XYLENES (mg/Kg)	TOTAL BTEX (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)		
Sec 6B N Wall	8'	5/31/2011	In-Situ	-	-	-	-	-	<10.0	97.5	<10.0	97.5	<16.0
Sec 4B Floor	10'	6/1/2011	In-Situ	<0.050	<0.050	<0.050	<0.150	<0.150	<10.0	39.2	<10.0	39.2	64.0
Sec 4B South Wall	9'	6/1/2011	In-Situ	-	-	-	-	-	816	1,810	97.4	2,723	32.0
Sec 4B N Wall	9'	6/1/2011	In-Situ	-	-	-	-	-	<10.0	<10.0	<10.0	<10.0	32.0
Sec 2 & 3B Floor	6'	6/1/2011	In-Situ	<0.050	0.171	0.181	1.02	1.37	61.0	666	37.3	764	32.0
Sec 2 & 3B S Wall	5'	6/1/2011	In-Situ	-	-	-	-	-	<10.0	58.6	<10.0	58.6	128
Sec 2 & 3B E Wall	3'	6/1/2011	In-Situ	-	-	-	-	-	<10.0	<10.0	<10.0	<10.0	<16.0
Area #7 Floor	12'	6/6/2011	In-Situ	<0.050	<0.050	<0.050	<0.150	<0.150	<10.0	<10.0	<10.0	<10.0	48.0
Area #7 North Wall	11'	6/6/2011	Excavated	-	-	-	-	-	<10.0	<10.0	<10.0	<10.0	19,200
Area #7 South Wall	6'	6/6/2011	In-Situ	-	-	-	-	-	<10.0	<10.0	<10.0	<10.0	48.0
Area #7 West Wall	11'	6/6/2011	In-Situ	-	-	-	-	-	<10.0	<10.0	<10.0	<10.0	32.0
Area #7 East Wall	11'	6/6/2011	In-Situ	-	-	-	-	-	<10.0	<10.0	<10.0	<10.0	32.0
F.T.A. North Wall	1'	4/11/2012	In-Situ	-	-	-	-	-	-	-	-	-	32.0
F.T.A. South Wall	13'	4/11/2012	In-Situ	<0.050	<0.050	<0.050	<0.150	<0.150	<10.0	24.6	17.4	42.0	96.0
F.T.A. East Wall	7'	4/11/2012	In-Situ	-	-	-	-	-	-	-	-	-	<16.0
F.T.A. West Wall	7'	4/11/2012	In-Situ	-	-	-	-	-	-	-	-	-	32.0
F.T.A. Floor	3'	4/11/2012	In-Situ	-	-	-	-	-	-	-	-	-	<16.0
NMOC Criteria				10				50				5,000	1,000

- = Not analyzed.



# **Appendices**

**Appendix A**  
**Release Notification &**  
**Corrective Action**  
**May 2, 2011**  
**(Form C-141)**

District I  
1625 N. French Dr., Hobbs, NM 88240  
District II  
1301 W. Grand Avenue, Artesia, NM 88210  
District III  
1000 Rio Brazos Road, Aztec, NM 87410  
District IV  
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico  
Energy Minerals and Natural Resources

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

Form C-141  
Revised October 10, 2003

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

**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 #68	Facility Type E&P	
Surface Owner Federal	Mineral Owner Federal	Lease No

**LOCATION OF RELEASE**

Unit Letter A	Section 20	Township 24S	Range 31E	Feet from the	North/South Line	Feet from the	East/West Line	County Eddy
------------------	---------------	-----------------	--------------	---------------	------------------	---------------	----------------	----------------

Latitude\_N 32.207618 Longitude W 103.797917

**NATURE OF RELEASE**

Type of Release: Produced water and crude oil	Volume of Release: 139 bbls crude oil and 16 bbls produced water.	Volume Recovered: 45 bbls crude oil, 0 bbls produced water
Source of Release: Temporary tank overflow	Date and Hour of Occurrence 5/2/11, Hour unknown	Date and Hour of Discovery 5/2/11 10:00 a.m.
Was Immediate Notice Given? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Required	If YES, To Whom? Mike Bratcher	
By Whom? Tony Savoie	Date and Hour 5/2/11 10:51 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.*		

**RECEIVED**  
MAY 12 2011  
NMOCD ARTESIA

Describe Cause of Problem and Remedial Action Taken.\* A temporary tank that was set to vent produced gas into in the event of high line pressure on the sales line overflowed due to the process vessels were overloaded with fluid causing the production to release into the vent tank for a period of approximately 12 hours. The problem was corrected.

Describe Area Affected and Cleanup Action Taken.\* Approximately 1200 sq. ft. of caliche pad around the temporary tank was affected by the release, and approximately 4,000 sq. ft. of pasture. All of the free standing fluid was removed with a vacuum truck. The BLM granted permission to get off our easement and remove the heavily saturated soil in the pasture. Approximately 160 cubic yards of saturated soil was excavated and placed on plastic on the caliche well pad near the release site. On Monday 5/9/11 samples were collected to determine the vertical extent in the areas where the fluid had pooled. The soil samples will be analyzed for TPH and Chloride. A remediation plan will be developed in accordance with the NMOCD and BLM remediation guidelines. Note: The release volumes were based on well potential and time. Soil saturation calculations were also used to verify the release volumes.

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:	
Title: Waste Mgmt. & Remediation Specialist		Approval Date:	Expiration Date:
E-mail Address: TASavoie@BassPet.com		Conditions of Approval:	
Date: 5/11/11		Attached <input type="checkbox"/>	
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

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, LP	Contact	Tony Savoie
Address	522 W. Mermod, Suite 704 Carlsbad, NM 88220	Telephone No.	(432) 556-8730
Facility Name	Poker Lake Unit #68	Facility Type	E & P
Surface Owner Federal	Mineral Owner	Lease No.	

**LOCATION OF RELEASE**

Unit Letter A	Section 20	Township 24S	Range 31E	Feet from the	North/South Line	Feet from the	East/West Line	County Eddy
------------------	---------------	-----------------	--------------	---------------	------------------	---------------	----------------	----------------

Latitude N. 32.207618      Longitude W 103.797917

**NATURE OF RELEASE**

Type of Release	Produced Water and crude oil	Volume of Release	139 bbls of crude oil and 16 bbls produced water.	Volume Recovered:	45 bbls crude oil, 0 bbls produced water
Source of Release	Temporary tank overflow	Date and Hour of Occurrence	5/2/11 Hour unknown	Date and Hour of Discovery	5/2/11 10:00 a.m.
Was Immediate Notice Given?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Required	If YES, To Whom?	Mike Bratcher		
By Whom?	Tony Savoie	Date and Hour:	5/2/11 10:51a.m.		
Was a Watercourse Reached?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If YES, Volume Impacting the Watercourse.			
If a Watercourse was Impacted, Describe Fully.*					
Describe Cause of Problem and Remedial Action Taken.* A temporary tank that was set to vent produced gas into in the event of a high line pressure on the sales line overflowed due to the process vessels were overloaded with fluid causing the production to release into the vent tank for a period of approximately 12 hours. The problem was corrected.					
Describe Area Affected and Cleanup Action Taken.* The release affected approximately 1,200 sq. ft. of caliche pad and 4,000 sq. ft. of pasture. The release site was remediated to NMOCD and BLM standards. Please see the attached Remediation Summary and Site Closure Request, dated June 2012, for details of remediation activities.					
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:		<b>OIL CONSERVATION DIVISION</b>			
Printed Name: Tony Savoie		Approved by District Supervisor:			
Title: Waste Mgmt. & Remediation Specialist		Approval Date:		Expiration Date:	
E-mail Address: tasavoie@basspet.com		Conditions of Approval:			Attached <input type="checkbox"/>
Date:		Phone: (432) 556-8730			

**Appendix B**  
**Release Notification &**  
**Corrective Action**  
**May 15, 2011**  
**(Form C-141)**

District I  
1625 N. French Dr., Hobbs, NM 88240  
District II  
1301 W. Grand Avenue, Artesia, NM 88210  
District III  
1000 Rio Brazos Road, Aztec, NM 87410  
District IV  
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico  
Energy Minerals and Natural Resources

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

Form C-141  
Revised October 10, 2003

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

**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 #68	Facility Type E&P

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

**LOCATION OF RELEASE**

Unit Letter A	Section 20	Township 24S	Range 31E	Feet from the	North/South Line	Feet from the	East/West Line	County Eddy
------------------	---------------	-----------------	--------------	---------------	------------------	---------------	----------------	----------------

Latitude N 32.207618 Longitude W 103.797917

**NATURE OF RELEASE**

Type of Release: Produced water and crude oil	Volume of Release: 80 bbls crude oil and 30 bbls produced water.	Volume Recovered: 50 bbls crude oil, 0 bbls produced water
Source of Release: Temporary tank overflow	Date and Hour of Occurrence 5/15/11, Hour unknown	Date and Hour of Discovery 5/15/11 10:00 a.m.
Was Immediate Notice Given? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Required	If YES, To Whom? Mike Bratcher	
By Whom? Tony Savoie	Date and Hour 5/16/11 8:00 a.m.	
Was a Watercourse Reached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If YES, Volume Impacting the Watercourse.	

If a Watercourse was Impacted, Describe Fully.\*

RECEIVED  
MAY 26 2011  
NMOCD-ARTESIA

Describe Cause of Problem and Remedial Action Taken.\* A temporary tank that was set to vent produced gas into in the event of high line pressure on the sales line overflowed due to the process vessels were overloaded with fluid causing the production to release into the vent tank. A second temporary tank was set inside an earthen containment area and overflow lines were installed on the tanks to overflow into the production containment area which is lined.

Describe Area Affected and Cleanup Action Taken.\* Approximately 1200 sq. ft. of caliche pad around the temporary tank was affected by the release, and approximately 2,000 sq. ft. of pasture. All of the free standing fluid was removed with a vacuum truck. The oil traveled in the same path as the previous release and ponded up in 2 of the areas that been excavated to a depth of approximately 2 ft. As of 5/24/11 approximately 340 cubic yards of the heavily saturated soil was excavated and hauled to Lea Lands. Samples were collected at approximately 8 ft. below ground surface, this appears to be the vertical extent of the release.

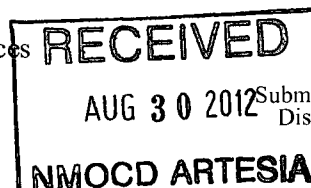
I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to NMOCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the NMOCD marked as "Final Report" does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to ground water, surface water, human health or the environment. In addition, NMOCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.

Signature: <i>Tony Savoie</i>		OIL CONSERVATION DIVISION	
Printed Name: Tony Savoie		Approved by District Supervisor:	
Title: Waste Mgmt. & Remediation Specialist		Approval Date:	Expiration Date:
E-mail Address: TASavoie@BassPet.com		Conditions of Approval:	
Date: 5/25/11 Phone: 432-556-8730		Attached <input type="checkbox"/>	

\* Attach Additional Sheets If Necessary

District I  
1625 N. French Dr., Hobbs, NM 88240  
District II  
1301 W. Grand Avenue, Artesia, NM 88210  
District III  
1000 Rio Brazos Road, Aztec, NM 87410  
District IV  
1220 S. St. Francis Dr., Santa Fe, NM 87505

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



Form C-141  
Revised October 10, 2003

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, LP	Contact	Tony Savoie
Address	522 W. Mermod, Suite 704 Carlsbad, NM 88220	Telephone No.	(432) 556-8730
Facility Name	Poker Lake Unit #68	Facility Type	E & P

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

**LOCATION OF RELEASE**

Unit Letter A	Section 20	Township 24S	Range 31E	Feet from the	North/South Line	Feet from the	East/West Line	County Eddy
------------------	---------------	-----------------	--------------	---------------	------------------	---------------	----------------	----------------

Latitude N. 32.207618 Longitude W 103.797917

**NATURE OF RELEASE**

Type of Release	Produced Water and crude oil	Volume of Release	80 bbls crude oil and 30 bbls produced water	Volume Recovered:	50 bbls crude oil, 0 bbls produced water
Source of Release	Temporary tank overflow	Date and Hour of Occurrence	5/15/11 Hour unknown	Date and Hour of Discovery	5/15/11 10:00 a.m.
Was Immediate Notice Given?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Required	If YES, To Whom?	Mike Bratcher		
By Whom?	Tony Savoie	Date and Hour:	5/16/11 8:00 a.m.		
Was a Watercourse Reached?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If YES, Volume Impacting the Watercourse.			

If a Watercourse was Impacted, Describe Fully.\*

Describe Cause of Problem and Remedial Action Taken.\* A temporary tank that was set to vent produced gas into in the event of a high line pressure on the sales line overflowed due to the process vessels were overloaded with fluid causing the production to release into the vent tank. A second temporary tank was set inside an earthen containment area and overflow lines were installed on the tanks to overflow into the production containment area which is lined.

Describe Area Affected and Cleanup Action Taken.\* The release affected approximately 1,200 sq. ft. of caliche pad and 2,000 sq. ft. of pasture. Oil traveled in the same path as the 5/2/11 release and ponded up in 2 of the areas that had been excavated to a depth of approximately 2 ft. The release site was remediated to NMOCD and BLM standards. Please see the attached Remediation Summary and Site Closure Request, dated June 2012, for details of remediation activities.

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:		<b>OIL CONSERVATION DIVISION</b>	
Printed Name: Tony Savoie		Approved by District Supervisor:	
Title: Waste Mgmt. & Remediation Specialist		Approval Date:	Expiration Date:
E-mail Address: tasavoie@basspet.com		Conditions of Approval:	Attached <input type="checkbox"/>
Date: 8/30/12 Phone: (432) 556-8730			

**Appendix C**  
**Archaeological Survey**  
**(NMCRIS Investigation**  
**Abstract Form)**



**NMCRIS INVESTIGATION ABSTRACT FORM (NIAF)**

<b>1. NMCRIS Activity No.:</b> 120659	<b>2a. Lead Agency:</b> US Bureau of Land Management Carlsbad Field Office	<b>2b. Other Agency(ies):</b>	<b>3. Lead Agency Report No.:</b>
<b>4. Title of Report:</b> A Class III Archaeological Survey for the Poker Lake #68 Oil Spill.  <b>Author(s)</b> Rebecca L. Hill, Christine Mavrick			<b>5. Type of Report</b> <input checked="" type="checkbox"/> Negative <input type="checkbox"/> Positive
<b>6. Investigation Type</b> Research Design <input checked="" type="checkbox"/> Archaeological Survey/Inventory <input type="checkbox"/> Architectural Survey/Inventory <input type="checkbox"/> Test Excavation <input type="checkbox"/> Excavation Collections/Non-Field Study <input type="checkbox"/> Compliance Decision Based on Previous Inventory <input type="checkbox"/> Overview/Lit Review <input type="checkbox"/> Monitoring Ethnographic Study <input type="checkbox"/> Site/Property Specific Visit <input type="checkbox"/> Historic Structures Report <input type="checkbox"/> Other			
<b>7. Description of Undertaking (what does the project entail?):</b> A pedestrian cultural survey was conducted on 16 May 2011 for the Poker Lake # 68 oil spill clean-up. Basin Environmental proposes to clean-up an oil spill from the Poker Lake #68 location as such Basin Environmental requested that Boone Arch Services of NM conduct a Class III Archaeological Survey within the immediate area of the spill. A 2.48 acre block was culturally surveyed in T24S R31E Section 20 by conducting 15m transects through the spill area and immediately around the spill allowing sufficient space for equipment to maneuver. Several previous surveys are located within the project area ARMS #s, 19183, 57608, 92163 and 55312. Although four previous surveys are located within the project area, the entire project was not covered by previous work.			
[ ] Continuation			
<b>8. Dates of Investigation:</b> from: 16-May-2011 to: 16-May-2011		<b>9. Report Date:</b> 17-May-2011	
<b>10. Performing Agency/Consultant:</b> Boone Arch Svcs of NM <b>Principal Investigator:</b> Rebecca L. Hill <b>Field Supervisor:</b> Rebecca L. Hill  <b>Field Personnel Names:</b> Rebecca L. Hill Christine Mavrick  <b>Historian / Other:</b>			
<b>11. Performing Agency/Consultant Report No.:</b> BASNM 05-11-10			
<b>12. Applicable Cultural Resource Permit No(s):</b> BLM: #190-2920-11-N			

NMCRIS No.: 120659

13. Client/Customer (project proponent):

Basin Environmental

Contact: Ben Arguijo

Address: 3100 Plains Hwy, P. O. Box 301, Lovington, NM 88260

Phone: (575) 396-2378

14. Client/Customer Project No.:

15. Land Ownership Status (must be indicated on project map):

Land Owner (By Agency)

Acres Surveyed Acres in APE

US Bureau of Land Management Carlsbad Field Office	2.48	2.48
TOTALS	2.48	2.48

16. Records Search(es):

Date(s) of HPD/ARMS File Review: 13May2011	Name of Reviewer(s): Rebecca L. Hill	
Date(s) of Other Agency File Review: 13May2011	Name of Reviewer(s): Rebecca Hill	Agency: BLM-CFO

17. Survey Data:

a. Source Graphics [ ] NAD 27 [ x ] NAD 83 Note: NAD 83 is the NMCRIS standard.

☒ USGS 7.5' (1:24,000) topo map ☐ Other topo map, Scale:

☒ GPS Unit Accuracy ☒ <1.0m ☐ 1-10m ☐ 10-100m ☐ >100m Aerial Photo(s)

Other Source Graphic(s):

b. USGS 7.5' Topographic Map Name

USGS Quad Code

Big Sinks, NM	32103-B7
---------------	----------

c. County(ies): EDDY

d. Nearest City or Town: Jal, NM

e. Legal Description:

Township (N/S)

Range (E/W)

Section

24S	31E	20
-----	-----	----

Projected legal description? [ ] Yes [ x ] No [ ] Unplatted

f. Other Description (e.g. well pad footages, mile markers, plats, land grant name, etc.):

[ ] Continuation

18. Survey Field Methods:

Intensity: ☒ 100% coverage ☐ <100% coverage

Configuration: ☒ block survey units ☐ linear survey units (l x w):

NMCRIS No.: 120659

other survey units (specify):

Scope: ☒ non-selective (all sites/properties recorded) ☐ selective/thematic (selected sites/properties recorded)

Coverage Method: ☒ systematic pedestrian coverage

other method (describe):

Survey Interval (m): 15 Crew Size: 2 Fieldwork Dates: from: 16-May-2011 to: 16-May-2011

Survey Person Hours: 0.50 Recording Person Hours: Total Hours: 0.50

**Additional Narrative:**

LA 105160 and LA 106760 are located within ¼ of a mile of the project area, but are a sufficient distance from the project area as not be affected by the clean-up.

[ ] Continuation

**19. Environmental Setting (NRCS soil designation; vegetative community; elevation; etc.):**

Soil designation is Kermit-Berino – KM fine sands with a 0 – 3 percent slope located within a basin. The historic plant community is a uniformly distributed grassland dominated by black grama, dropseeds, and bluestems. Today the plant community consists of shimmering oak, mesquite, tobosa, yucca, winterfat, snakeweed, and sand sage. No permanent water source is close to the project area, the Pecos River is located approximately 40 miles west.

[ ] Continuation

**20.a. Percent Ground Visibility:** 70%

**b. Condition of Survey Area (grazed, bladed, undistributed, etc.):**

Grazing and oil and gas development.

[ ] Continuation

**21. CULTURAL RESOURCE FINDINGS**

Yes, see next report section

☒ No, discuss why:

Because the landform is a basin type, it is possible that during prehistoric times water was located in the basin.

[ ] Continuation

**22. Attachments (check all appropriate boxes):**

[ x ] USGS 7.5 Topographic Map with sites, isolates, and survey area clearly drawn (required)

[ x ] Copy of NMCRIS Map Check (required)

[ ] LA Site Forms - new sites (with sketch map & topographic map) if applicable

[ ] LA Site Forms (update) - previously recorded & un-relocated sites (first 2 pages minimum)

[ ] Historic Cultural Property Inventory Forms, if applicable

[ ] List and Description of Isolates, if applicable

[ ] List and Description of Collections, if applicable

**23. Other Attachments:**

[ ] Photographs and Log

[ ] Other Attachments  
(Describe):

NMCRIS No.: 120659

24. I certify the information provided above is correct and accurate and meets all applicable agency standards.

Principal Investigator/Qualified Supervisor: Printed Name: Rebecca L. Hill

Signature: *Rebecca Hill* Date: *11 May 2011* Title: *PI*

25. Reviewing Agency

Reviewer's Name/Date:

Accepted [ ]

Rejected [ ]

26. SHPO

Reviewer's Name/Date:

HPD Log #:

Date sent to ARMS:

**CULTURAL RESOURCE FINDINGS**

*[fill in appropriate section(s)]*

**SURVEY RESULTS:**

No cultural resources were discovered during this survey.

Archaeological Sites discovered and registered: 0

Archaeological Sites discovered and NOT registered: 0

Previously recorded archaeological sites revisited (site update form required): 0

Previously recorded archaeological sites not relocated (site update form required): 0

TOTAL ARCHAEOLOGICAL SITES (visited & recorded): 0

Total isolates recorded: 0

☐ Non-selective isolate recording?

HCPI properties discovered and registered: 0

HCPI properties discovered and NOT registered: 0

Previously recorded HCPI properties revisited: 0

Previously recorded HCPI properties not relocated: 0

TOTAL HCPI PROPERTIES (visited & recorded, including acequias): 0

**MANAGEMENT SUMMARY:**

No cultural resources were discovered during this survey therefore; it is recommended the project be approved. Should cultural resources be discovered during clean-up the clean-up should cease and BLM-Carlsbad notified immediately.

[ ] Continuation

IF REPORT IS NEGATIVE, YOU ARE DONE AT THIS POINT.

**SURVEY LA/HCPI NUMBER LOG**

Sites/Properties Discovered:

LA/HCPI No. Field/Agency No.

Eligible? (Y/N/U, applicable criteria)

NMCRIS No.: 120659

Previously recorded revisited sites/HCPI properties:

LA/HCPI No.      Field/Agency No.

Eligible? (Y/N/U, applicable criteria)

---

**MONITORING LA NUMBER LOG (site form required)**

Sites Discovered (site form required):

Previously recorded sites (site update form required):

LA No.      Field/Agency No.

LA No.      Field/Agency No.

Areas outside known nearby site boundaries monitored?      [      ] Yes

[      ] No, Explain  
why

---

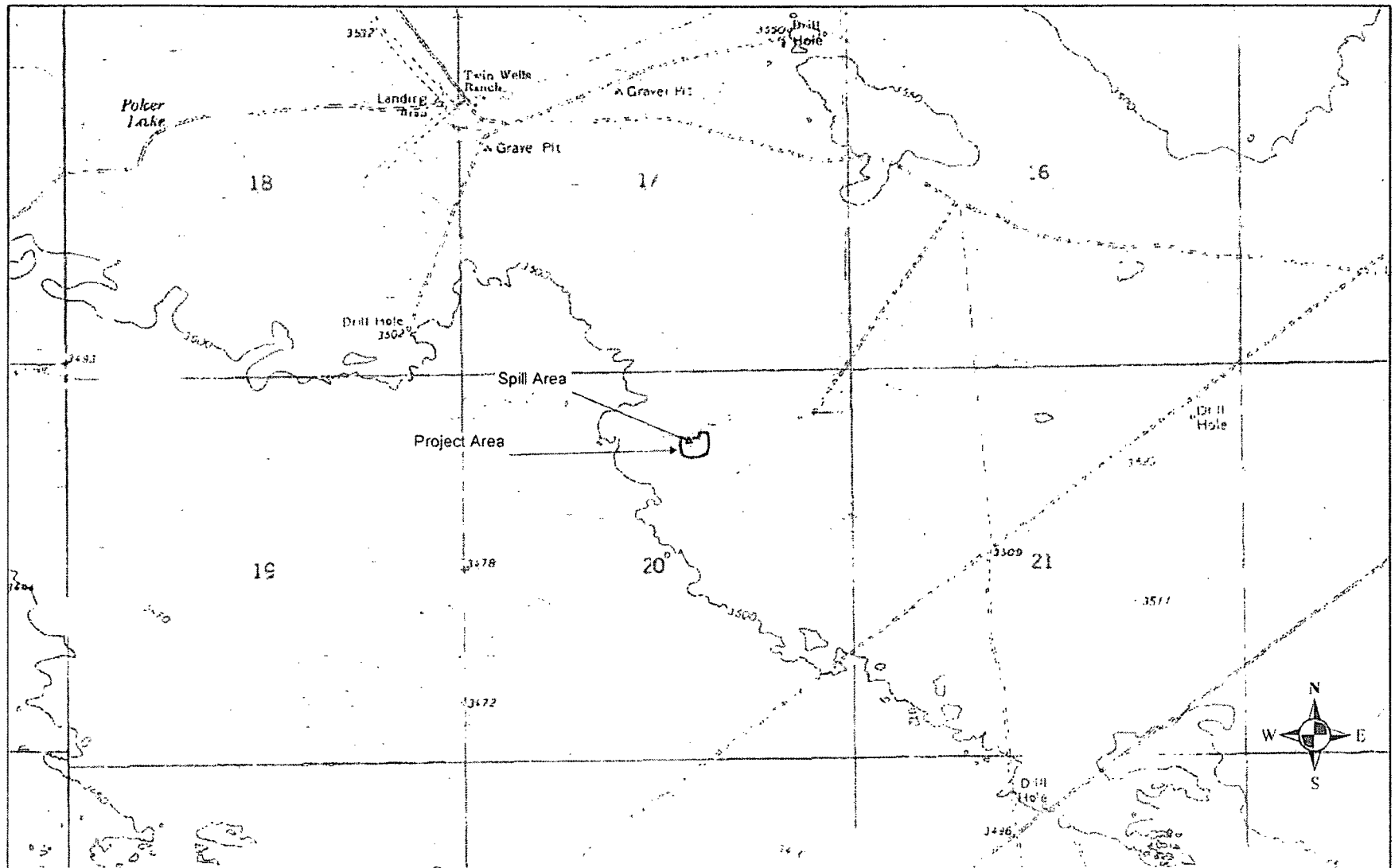
**TESTING & EXCAVATION LA NUMBER LOG (site form required)**

Tested LA number(s)

Excavated LA number(s)

---

# Poker Lake #68 Oil Spill



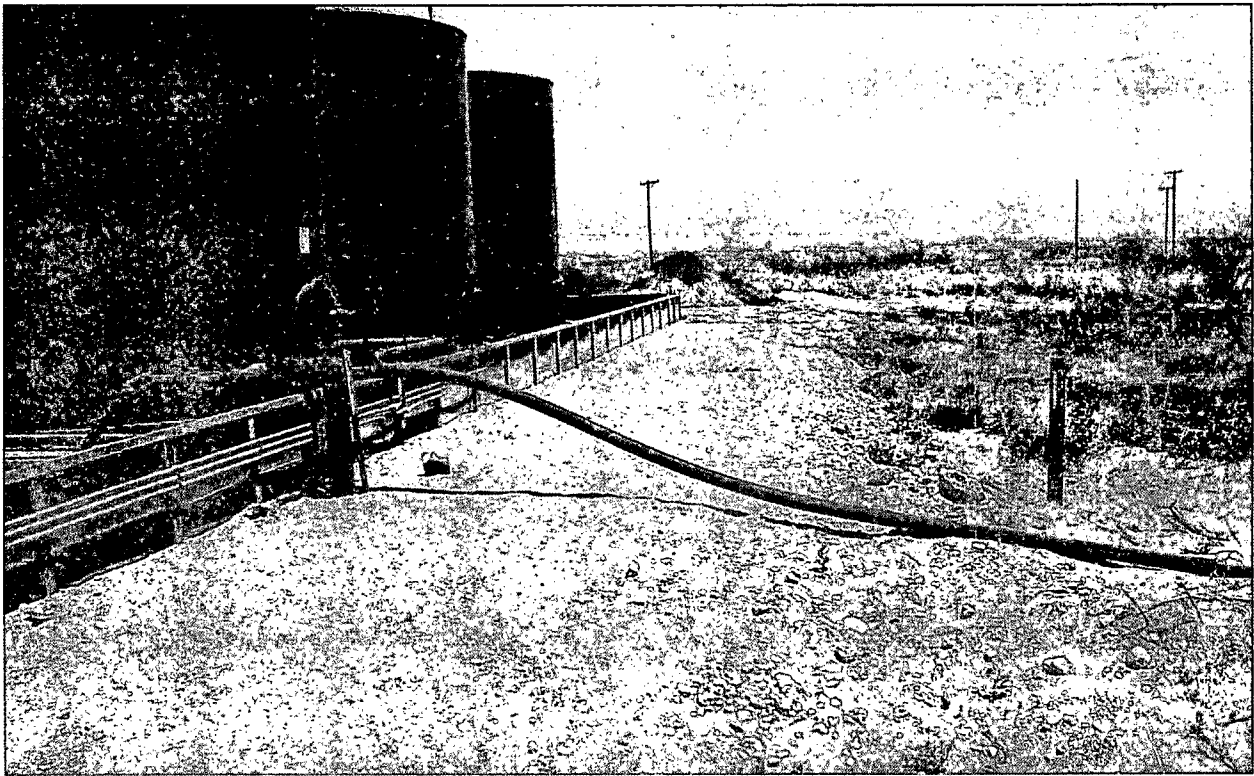
Legend		
BLM		National Park Service
BOR		OFA
DOE		Private
Forest Service		State
		State Game and Fish
		State Park

1:24,000

Big Sinks  
32103-B7  
T24S R31E Sec 20  
Eddy County

# **Appendix D**

## **Photographs**



Photograph of the initial release at PLU #68. (Looking East)



Photograph of initial response activities at PLU #68. (Looking Northwest)





Photograph of May 15, 2012, release at PLU #68.



Photograph of May 15, 2011, release at PLU #68.



Photograph of Excavation and Sample Locations at PLU #68.



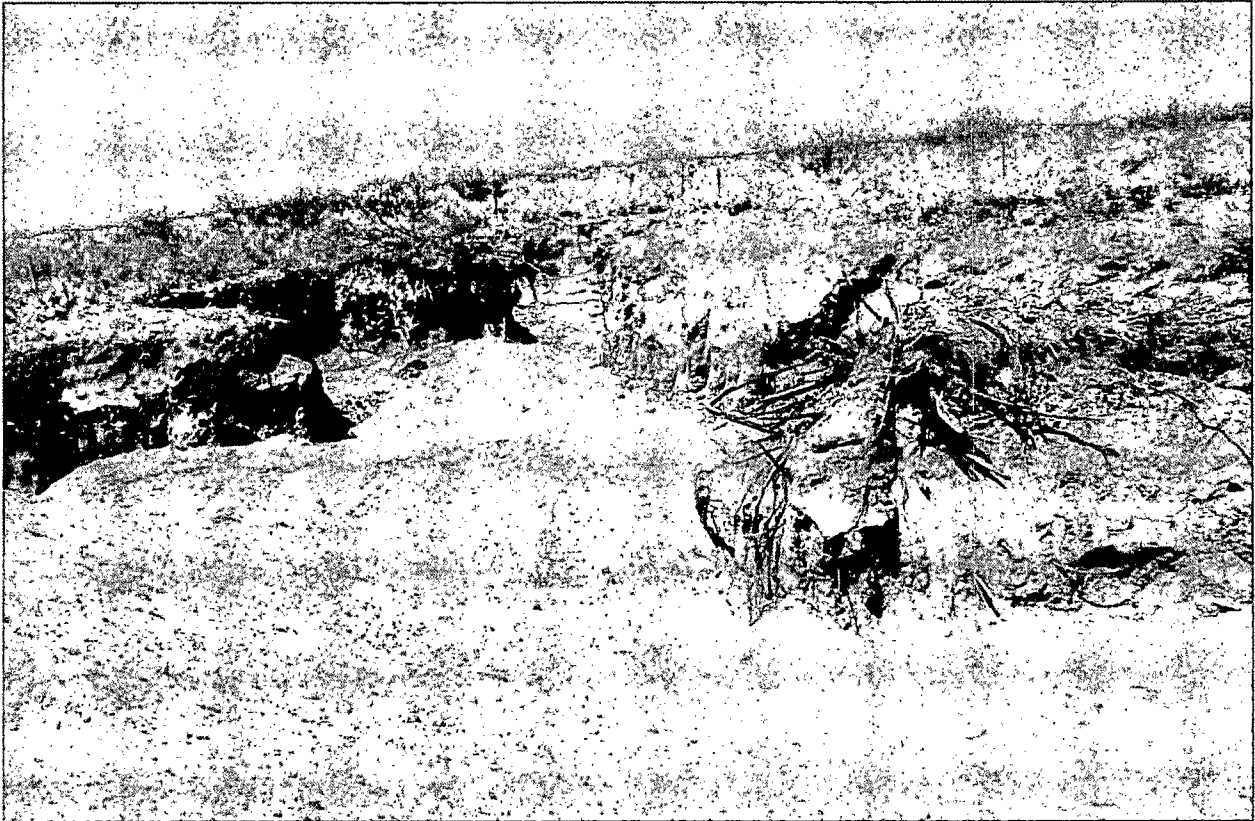
Photograph of Excavation and Sample Locations at PLU #68.



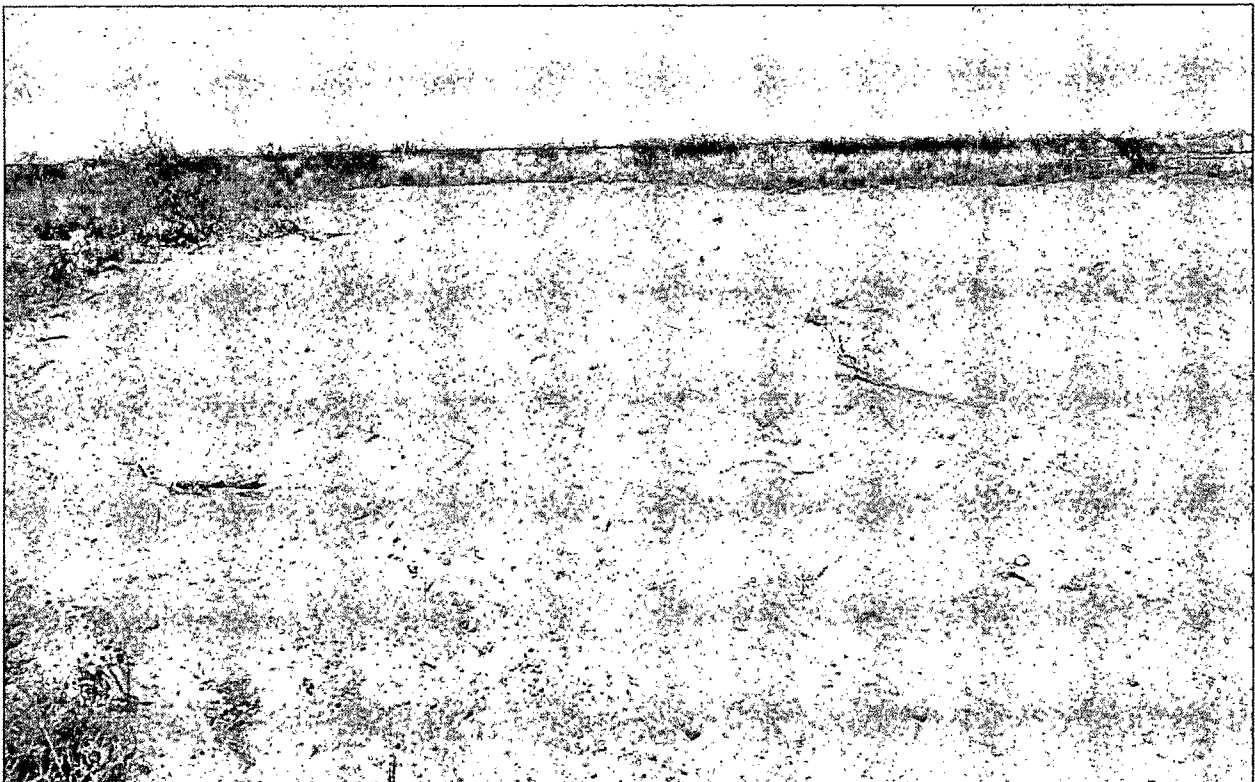
Photograph of Excavation and Sample Locations at PLU #68. (Looking Southwest)



Photograph of Excavation and Sample Locations at PLU #68 release site. (Looking West)

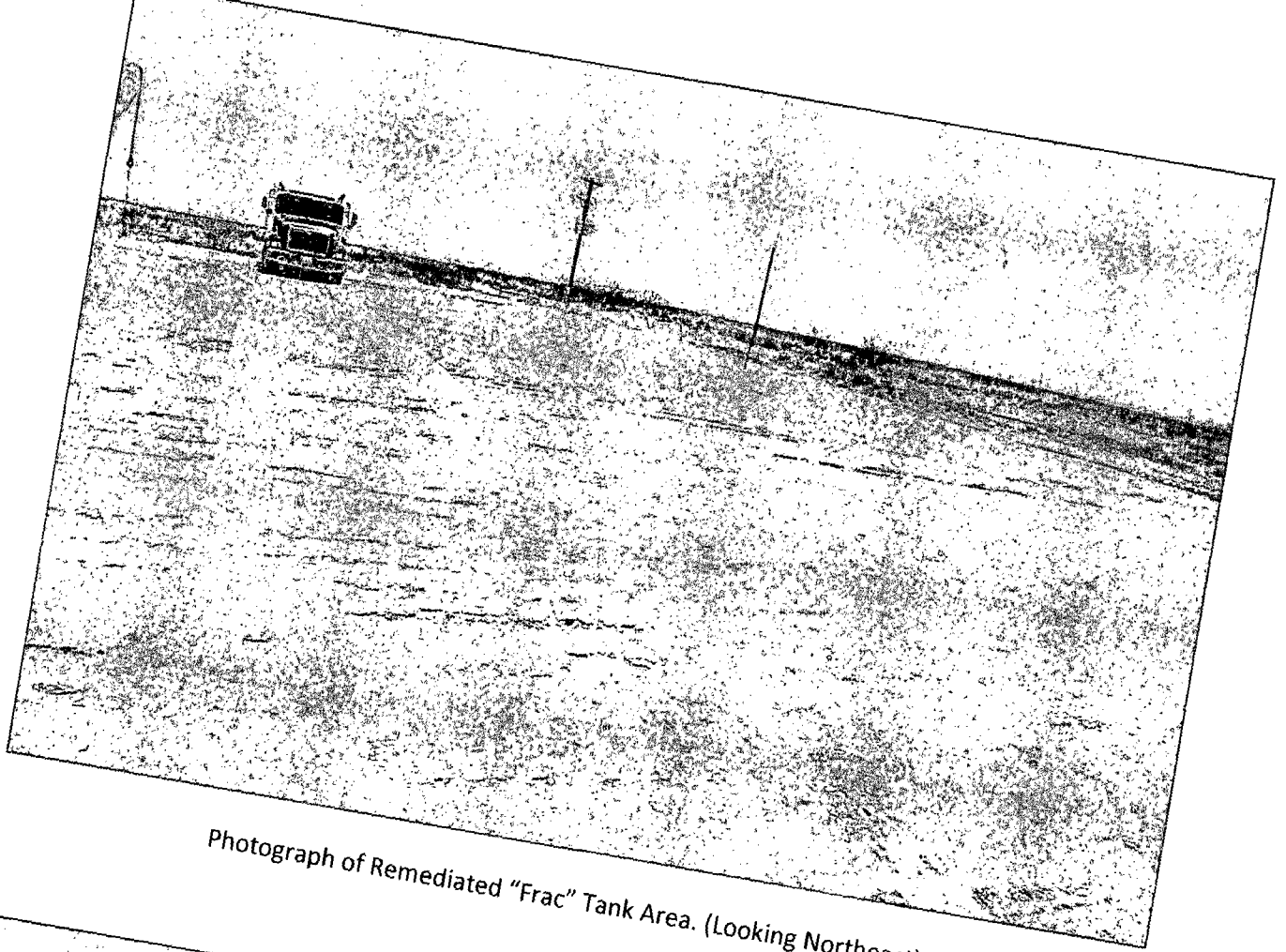


Photograph of Backfilling activities at PLU #68. (Looking Southwest)

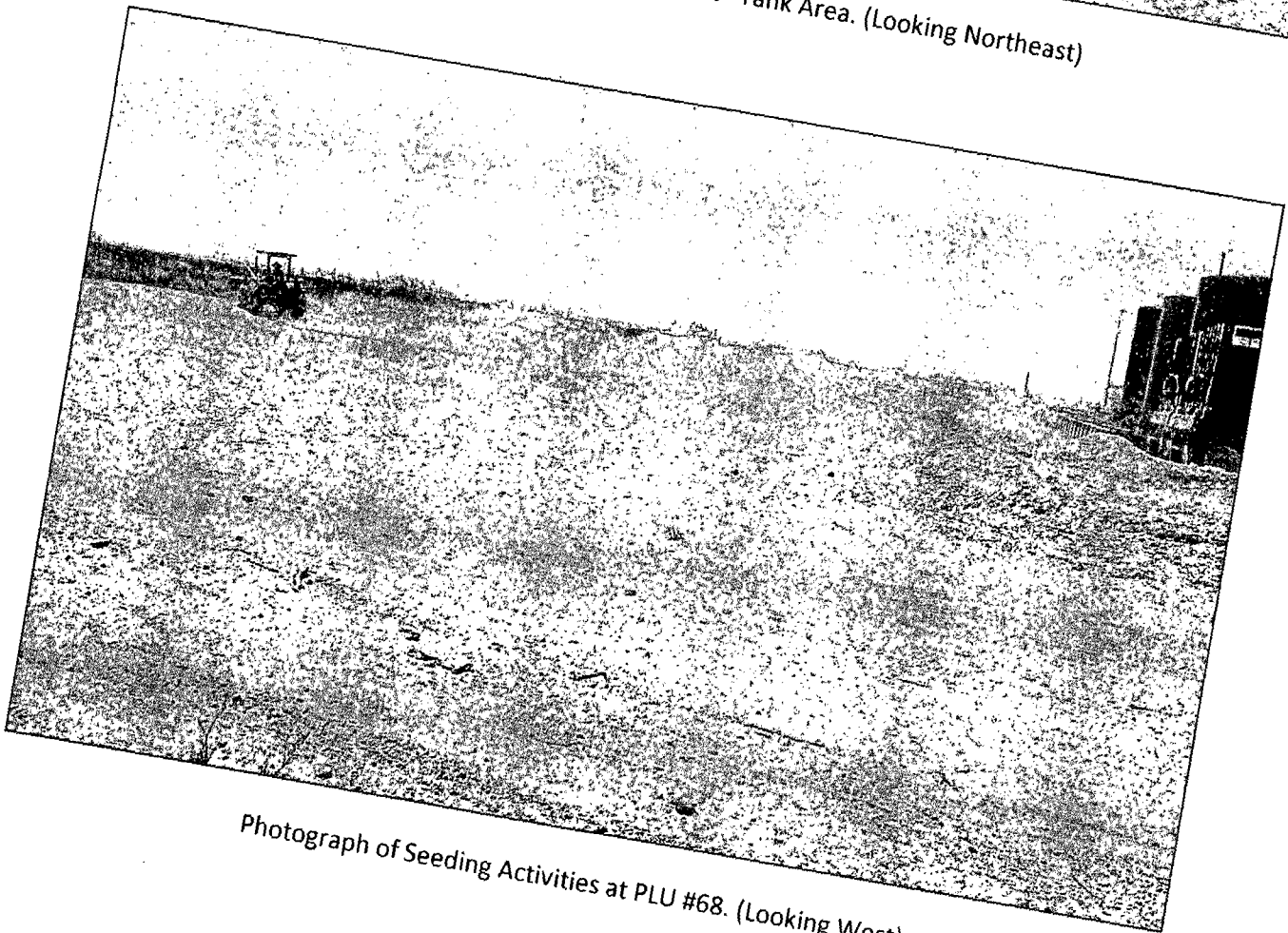


Photograph of Backfilled excavation at PLU #68. (Looking South)





Photograph of Remediated "Frac" Tank Area. (Looking Northeast)



Photograph of Seeding Activities at PLU #68. (Looking West)

# **Appendix E**

## **Laboratory Analytical Reports**



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

---

May 16, 2011

BEN J. ARGUIJO

Basin Environmental Service

P.O. Box 301

Lovington, NM 88260

RE: POKER LAKE UNIT #68

Enclosed are the results of analyses for samples received by the laboratory on 05/11/11 13:05.

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:	05/11/2011	Sampling Date:	05/09/2011
Reported:	05/16/2011	Sampling Type:	Soil
Project Name:	POKER LAKE UNIT #68	Sampling Condition:	Cool & Intact
Project Number:	PLU - 68 TEMPORARY TANK SPILL	Sample Received By:	Jodi Henson
Project Location:	EDDY COUNTY, NM		

**Sample ID: POOLING AREA #1 @ 2' (H100950-01)**

Chloride, SM4500CI-B		mg/kg		Analyzed By: HM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	<16.0	16.0	05/11/2011	ND	432	108	400	3.64	
TPH 8015M		mg/kg		Analyzed By: AB					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	2490	50.0	05/12/2011	ND	170	85.0	200	1.60	
DRO >C10-C28	7380	50.0	05/12/2011	ND	156	77.9	200	1.45	
EXT DRO >C28-C35	397	50.0	05/12/2011	ND					
<hr/>									
Surrogate: 1-Chlorooctane	115 %	70-130							
Surrogate: 1-Chlorooctadecane	83.4 %	70-130							

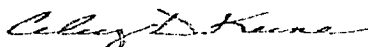
**Sample ID: POOLING AREA #1 @ 4' (H100950-02)**

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	05/12/2011	ND	170	85.0	200	1.60	
DRO >C10-C28	18.6	10.0	05/12/2011	ND	156	77.9	200	1.45	
EXT DRO >C28-C35	<10.0	10.0	05/12/2011	ND					
<hr/>									
Surrogate: 1-Chlorooctane	104 %	70-130							
Surrogate: 1-Chlorooctadecane	99.8 %	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. ARGUJO  
 P.O. Box 301  
 Lovington NM, 88260  
 Fax To: (575) 396-1429

Received:	05/11/2011	Sampling Date:	05/09/2011
Reported:	05/16/2011	Sampling Type:	Soil
Project Name:	POKER LAKE UNIT #68	Sampling Condition:	Cool & Intact
Project Number:	PLU - 68 TEMPORARY TANK SPILL	Sample Received By:	Jodi Henson
Project Location:	EDDY COUNTY, NM		

**Sample ID: POOLING AREA #2 @ 4' (H100950-03)**

Chloride, SM4500Cl-B		mg/kg	Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	<16.0	16.0	05/11/2011	ND	432	108	400	3.64	
TPH 8015M		mg/kg	Analyzed By: AB						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	630	50.0	05/12/2011	ND	170	85.0	200	1.60	
DRO >C10-C28	3510	50.0	05/12/2011	ND	156	77.9	200	1.45	
EXT DRO >C28-C35	164	50.0	05/12/2011	ND					
Surrogate: 1-Chlorooctane	126 %	70-130							
Surrogate: 1-Chlorooctadecane	90.7 %	70-130							

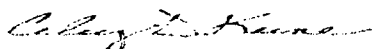
**Sample ID: POOLING AREA #2 @ 5' (H100950-04)**

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	05/12/2011	ND	170	85.0	200	1.60	
DRO >C10-C28	<10.0	10.0	05/12/2011	ND	156	77.9	200	1.45	
EXT DRO >C28-C35	<10.0	10.0	05/12/2011	ND					
Surrogate: 1-Chlorooctane	91.5 %	70-130							
Surrogate: 1-Chlorooctadecane	91.6 %	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:	05/11/2011	Sampling Date:	05/09/2011
Reported:	05/16/2011	Sampling Type:	Soil
Project Name:	POKER LAKE UNIT #68	Sampling Condition:	Cool & Intact
Project Number:	PLU - 68 TEMPORARY TANK SPILL	Sample Received By:	Jodi Henson
Project Location:	EDDY COUNTY, NM		

**Sample ID: POOLING AREA #3 @ SURFACE (H100950-05)**

Chloride, SM4500Cl-B		mg/kg	Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	2600	16.0	05/11/2011	ND	432	108	400	3.64	
TPH 8015M		mg/kg	Analyzed By: AB						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	1160	10.0	05/12/2011	ND	170	85.0	200	1.60	
DRO >C10-C28	11000	50.0	05/12/2011	ND	156	77.9	200	1.45	
EXT DRO >C28-C35	648	10.0	05/12/2011	ND					

Surrogate: 1-Chlorooctane 99.6 % 70-130

Surrogate: 1-Chlorooctadecane 74.0 % 70-130

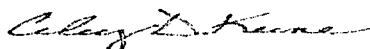
**Sample ID: POOLING AREA #3 @ 4' (H100950-06)**

Chloride, SM4500Cl-B		mg/kg	Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	2320	16.0	05/11/2011	ND	432	108	400	3.64	

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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: 05/11/2011  
Reported: 05/16/2011  
Project Name: POKER LAKE UNIT #68  
Project Number: PLU - 68 TEMPORARY TANK SPILL  
Project Location: EDDY COUNTY, NM

Sampling Date: 05/09/2011  
Sampling Type: Soil  
Sampling Condition: Cool & Intact  
Sample Received By: Jodi Henson

**Sample ID: POOLING AREA #3 @ 6' (H100950-07)**

TPH 8015M		mg/kg		Analyzed By: AB					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	39.2	10.0	05/12/2011	ND	170	85.0	200	1.60	
DRO >C10-C28	487	10.0	05/12/2011	ND	156	77.9	200	1.45	
EXT DRO >C28-C35	28.9	10.0	05/12/2011	ND					
Surrogate: 1-Chlorooctane	97.4 %	70-130							
Surrogate: 1-Chlorooctadecane	90.6 %	70-130							

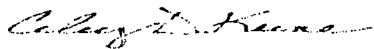
**Sample ID: POOLING AREA #4 @ SURFACE (H100950-08)**

Chloride, SM4500Cl-B		mg/kg		Analyzed By: HM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	16.0	16.0	05/11/2011	ND	432	108	400	3.64	
TPH 8015M		mg/kg		Analyzed By: AB					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	1340	10.0	05/12/2011	ND	170	85.0	200	1.60	
DRO >C10-C28	10300	50.0	05/12/2011	ND	156	77.9	200	1.45	
EXT DRO >C28-C35	754	10.0	05/12/2011	ND					
Surrogate: 1-Chlorooctane	102 %	70-130							
Surrogate: 1-Chlorooctadecane	85.3 %	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:	05/11/2011	Sampling Date:	05/09/2011
Reported:	05/16/2011	Sampling Type:	Soil
Project Name:	POKER LAKE UNIT #68	Sampling Condition:	Cool & Intact
Project Number:	PLU - 68 TEMPORARY TANK SPILL	Sample Received By:	Jodi Henson
Project Location:	EDDY COUNTY, NM		

**Sample ID: POOLING AREA #4 @ 5' (H100950-09)**

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	05/12/2011	ND	170	85.0	200	1.60	
<b>DRO &gt;C10-C28</b>	<b>78.4</b>	10.0	05/12/2011	ND	156	77.9	200	1.45	
EXT DRO >C28-C35	<10.0	10.0	05/12/2011	ND					
<hr/>									
Surrogate: 1-Chlorooctane	98.0 %	70-130							
Surrogate: 1-Chlorooctadecane	97.7 %	70-130							


**Sample ID: POOLING AREA #5 @ SURFACE (H100950-10)**

Chloride, SM4500CI-B		mg/kg		Analyzed By: HM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	<16.0	16.0	05/11/2011	ND	432	108	400	3.64	
<hr/>									
TPH 8015M		mg/kg		Analyzed By: AB					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	1250	10.0	05/13/2011	ND	170	85.0	200	1.60	
<b>DRO &gt;C10-C28</b>	<b>11400</b>	50.0	05/13/2011	ND	156	77.9	200	1.45	
EXT DRO >C28-C35	801	10.0	05/13/2011	ND					
<hr/>									
Surrogate: 1-Chlorooctane	107 %	70-130							
Surrogate: 1-Chlorooctadecane	78.1 %	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:	05/11/2011	Sampling Date:	05/09/2011
Reported:	05/16/2011	Sampling Type:	Soil
Project Name:	POKER LAKE UNIT #68	Sampling Condition:	Cool & Intact
Project Number:	PLU - 68 TEMPORARY TANK SPILL	Sample Received By:	Jodi Henson
Project Location:	EDDY COUNTY, NM		

**Sample ID: POOLING AREA #5 @ 5' (H100950-11)**

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	05/13/2011	ND	170	85.0	200	1.60	
DRO >C10-C28	119	10.0	05/13/2011	ND	156	77.9	200	1.45	
EXT DRO >C28-C35	<10.0	10.0	05/13/2011	ND					
<hr/>									
Surrogate: 1-Chlorooctane	93.1 %	70-130							
Surrogate: 1-Chlorooctadecane	93.4 %	70-130							

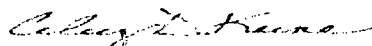
**Sample ID: STOCKPILE (H100950-12)**

Chloride, SM4500Cl-B		mg/kg	Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	864	16.0	05/11/2011	ND	432	108	400	3.64	
TPH 8015M		mg/kg	Analyzed By: AB						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	4570	50.0	05/13/2011	ND	170	85.0	200	1.60	
DRO >C10-C28	12500	50.0	05/13/2011	ND	156	77.9	200	1.45	
EXT DRO >C28-C35	716	50.0	05/13/2011	ND					
<hr/>									
Surrogate: 1-Chlorooctane	143 %	70-130							
Surrogate: 1-Chlorooctadecane	89.4 %	70-130							

Cardinal Laboratories

\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager

### Notes and Definitions


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

---

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

[illegible]

[illegible]





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

---

May 23, 2011

BEN J. ARGUIJO

Basin Environmental Service

P.O. Box 301

Lovington, NM 88260

RE: POKER LAKE UNIT #68

Enclosed are the results of analyses for samples received by the laboratory on 05/18/11 11:25.

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,

A handwritten signature in black ink, appearing to read "Celey D. Keene", written in a cursive style.

Celey D. Keene

Lab Director/Quality Manager

**Analytical Results For:**

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

Received:	05/18/2011	Sampling Date:	05/06/2011
Reported:	05/23/2011	Sampling Type:	Soil
Project Name:	POKER LAKE UNIT #68	Sampling Condition:	Cool & Intact
Project Number:	PLU - 68 TEMPORARY TANK SPILL	Sample Received By:	Jodi Henson
Project Location:	EDDY COUNTY, NM		

**Sample ID: POOLING AREA 6 @ 4' (H101014-01)**

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>13400</b>	16.0	05/18/2011	ND	448	112	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	05/20/2011	ND	185	92.3	200	2.44	
<b>DRO &gt;C10-C28</b>	<b>73.5</b>	10.0	05/20/2011	ND	160	80.1	200	8.23	

Surrogate: 1-Chlorooctane 109 % 70-130

Surrogate: 1-Chlorooctadecane 109 % 70-130

**Sample ID: POOLING AREA 6 @ 9' (H101014-02)**

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>288</b>	16.0	05/18/2011	ND	448	112	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	05/20/2011	ND	185	92.3	200	2.44	
<b>DRO &gt;C10-C28</b>	<b>&lt;10.0</b>	10.0	05/20/2011	ND	160	80.1	200	8.23	

Surrogate: 1-Chlorooctane 104 % 70-130

Surrogate: 1-Chlorooctadecane 108 % 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

**Notes and Definitions**

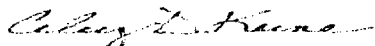
ND	Analyte NOT DETECTED at or above the reporting limit
RPD	Relative Percent Difference
**	Samples not received at proper temperature of 6°C or below.
***	Insufficient time to reach temperature.
-	Chloride by SM4500Cl-B does not require samples be received at or below 6°C Samples reported on an as received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

---

Cardinal Laboratories

\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager



## CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

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

Company Name: Basin Environmental Service Technologies, LLC		<b>BILL TO</b>		<b>ANALYSIS REQUEST</b>																									
Project Manager: Ben J. Arquijo		P.O. #:		<div style="display: flex; align-items: center;"> <div style="writing-mode: vertical-rl; transform: rotate(180deg);">Chlorides</div> <div style="writing-mode: vertical-rl; transform: rotate(180deg);">8015 M</div> </div>																									
Address: P.O. Box 301		Company: BOPCO, LP																											
City: Lovington State: NM Zip: 88260		Attn: Tony Savoie																											
Phone #: (575) 396-2378 Fax #: (575) 396-1429		Address: 522 W. Mermod																											
Project #: <i>PLU 68 - Trap tank leak</i> Project Owner: BOPCO, LP		City: Carlsbad																											
Project Name: <i>Poker Lake Unit # 68</i>		State: NM Zip: 88220																											
Project Location: <i>Eddy Co., NM</i>		Phone #: (432) 556-8730																											
Sampler Name: <i>B. Blackwood</i>		Fax #:																											
FOR LAB USE ONLY	Lab I.D.	Sample I.D.	(GIRAB OR C) JUMP	# CONTAINERS	MATRIX				PRESERV.		SAMPLING																		
					GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER:	ACID/BASE:	ICE / COOL	OTHER:	DATE	TIME														
	<i>H1D1D14</i>																												
		<i>Pooling Area 6 @ 4'</i>	<i>X</i>	<i>1</i>								<i>X</i>		<i>5/6/11</i>	<i>1400</i>	<i>X</i>	<i>X</i>												
		<i>Pooling Area 6 @ 9'</i>	<i>↓</i>	<i>↓</i>								<i>X</i>		<i>5/6/11</i>	<i>1430</i>	<i>X</i>	<i>X</i>												

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

Relinquished By: <i>B. Blackwood</i>	Date: <i>5-6-11</i> Time: <i>11:00</i>	Received By: <i>[Signature]</i>	Phone Result: <input type="checkbox"/> Yes <input type="checkbox"/> No Add'l Phone #:
Relinquished By: <i>[Signature]</i>	Date: <i>5/6/11</i> Time: <i>11:05</i>	Received By: <i>Joeli Newson</i>	Fax Result: <input type="checkbox"/> Yes <input type="checkbox"/> No Add'l Fax #:
Delivered By: (Circle One) Sampler - UPS - Bus - Other: <i>50</i>		Sample Condition Cool Intact <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Yes <input type="checkbox"/> No	CHECKED BY: (Initials) <i>[Initials]</i>
REMARKS: <i>Only Run TPH if hold time has not expired.</i> Please email results to pm@basinenv.com & TSavoie@BassPet.com			

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



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

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May 25, 2011

BEN J. ARGUIJO

Basin Environmental Service

P.O. Box 301

Lovington, NM 88260

RE: POKER LAKE UNIT #68

Enclosed are the results of analyses for samples received by the laboratory on 05/23/11 16:15.

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,

A handwritten signature in black ink, appearing to read "C. D. Keene", written in a cursive style.

Celey D. Keene

Lab Director/Quality Manager

**Analytical Results For:**

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

Received:	05/23/2011	Sampling Date:	05/20/2011
Reported:	05/25/2011	Sampling Type:	Soil
Project Name:	POKER LAKE UNIT #68	Sampling Condition:	Cool & Intact
Project Number:	PLU - 68 TEMPORARY TANK SPILL	Sample Received By:	Jodi Henson
Project Location:	EDDY COUNTY, NM		

**Sample ID: POOLING AREA 4A @ 8' (H101051-01)**

BTX 8021B		mg/kg		Analyzed By: CMS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	05/24/2011	ND	2.16	108	2.00	1.14	
Toluene*	<0.050	0.050	05/24/2011	ND	2.06	103	2.00	1.29	
Ethylbenzene*	<0.050	0.050	05/24/2011	ND	2.11	106	2.00	0.484	
Total Xylenes*	<0.150	0.150	05/24/2011	ND	6.27	105	6.00	1.62	

Surrogate: 4-Bromofluorobenzene (PIE) 93.3 % 70-130

Chloride, SM4500Cl-B		mg/kg		Analyzed By: HM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	144	16.0	05/24/2011	ND	448	112	400	3.51	

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	05/25/2011	ND	216	108	200	0.355	
DRO >C10-C28	102	10.0	05/25/2011	ND	188	93.8	200	1.10	
EXT DRO >C28-C35	<10.0	10.0	05/25/2011	ND					

Surrogate: 1-Chlorooctane 105 % 70-130

Surrogate: 1-Chlorooctadecane 93.4 % 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. ARGUJO  
P.O. Box 301  
Lovington NM, 88260  
Fax To: (575) 396-1429

Received: 05/23/2011  
Reported: 05/25/2011  
Project Name: POKER LAKE UNIT #68  
Project Number: PLU - 68 TEMPORARY TANK SPILL  
Project Location: EDDY COUNTY, NM

Sampling Date: 05/20/2011  
Sampling Type: Soil  
Sampling Condition: Cool & Intact  
Sample Received By: Jodi Henson

**Sample ID: POOLING AREA 5A @ 8' (H101051-02)**

BTX 8021B		mg/kg		Analyzed By: CMS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	05/24/2011	ND	2.16	108	2.00	1.14	
Toluene*	<0.050	0.050	05/24/2011	ND	2.06	103	2.00	1.29	
Ethylbenzene*	<0.050	0.050	05/24/2011	ND	2.11	106	2.00	0.484	
Total Xylenes*	<0.150	0.150	05/24/2011	ND	6.27	105	6.00	1.62	

Surrogate: 4-Bromofluorobenzene (PIL) 93.8 % 70-130

Chloride, SM4500Cl-B		mg/kg		Analyzed By: HM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	112	16.0	05/24/2011	ND	448	112	400	3.51	

TPH 8015M		mg/kg		Analyzed By: AB					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	10.7	10.0	05/25/2011	ND	216	108	200	0.355	
DRO >C10-C28	484	10.0	05/25/2011	ND	188	93.8	200	1.10	
EXT DRO >C28-C35	30.9	10.0	05/25/2011	ND					

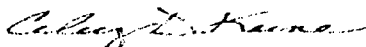
Surrogate: 1-Chlorooctane 103 % 70-130

Surrogate: 1-Chlorooctadecane 93.2 % 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

**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


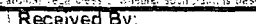



## CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

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

Company Name: Basin Environmental Service Technologies, LLC				BILL TO				ANALYSIS REQUEST															
Project Manager: Ben J. Arquijs				P.O. #:																			
Address: P.O. Box 331				Company: BOPCO, LP																			
City: Livingston		State: NM		Zip: 88120		Attn: Tony Savoie																	
Phone #: (575) 396-2378		Fax #: (575) 396-1429		Address: 522 W. Menrod																			
Project #: PLH 65-1491211		Project Owner: BOPCO, LP		City: Carlsbad																			
Project Name: Pajar Lake Unit #68				State: NM				Zip: 88220															
Project Location: Edley Co, NM				Phone #: (432) 556-8733																			
Sampler Name: B. Arquijs				Fax #:																			
FOR LAB USE ONLY																							
Lab I.D.		Sample I.D.		KIRAB OR (COMP. # CONTAINERS		MATRIX		PRESERV.		SAMPLING													
						GROUNDWATER WASTEWATER SOIL OIL SLUDGE OTHER		ACID/BASE ICE / COOL OTHER		DATE TIME													
H101051																							
1		Polar Area 4A @ 8'		X		X		X		5/20/11 1200		X											
2		Polar Area 5A @ 8'		X		X		X		5/20/11 1100		X											

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Relinquished By: 		Date: 8/28/11	Received By: 	Phone Result: <input type="checkbox"/> Yes <input type="checkbox"/> No	Add'l Phone #:
		Time: 1615		Fax Result: <input type="checkbox"/> Yes <input type="checkbox"/> No	Add'l Fax #:
Relinquished By:		Date:	Received By:	REMARKS:	
		Time:			
Delivered By: (Circle One)		Sample Condition		CHECKED BY:	
Sampler - UPS - Bus - Other:		Cool Intact		(Initials)	
		<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Yes <input type="checkbox"/> No			

0.02

Please email results to [pmc@basinenv.com](mailto:pmc@basinenv.com)  
 A TAsaveforBassPet.com

May 27, 2011

BEN J. ARGUIJO

Basin Environmental Service

P.O. Box 301

Lovington, NM 88260

RE: POKER LAKE UNIT #68

Enclosed are the results of analyses for samples received by the laboratory on 05/26/11 16:12.

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.

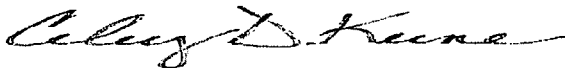
Cardinal Laboratories is accredited through the State of Colorado Department of Public Health and Environment for:

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

Received:	05/26/2011	Sampling Date:	05/26/2011
Reported:	05/27/2011	Sampling Type:	Soil
Project Name:	POKER LAKE UNIT #68	Sampling Condition:	Cool & Intact
Project Number:	PLU - 68 TEMPORARY TANK SPILL	Sample Received By:	Jodi Henson
Project Location:	EDDY COUNTY, NM		

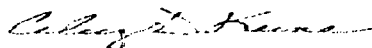
**Sample ID: FLOOR #3 (H101095-01)**

Chloride, SM4500Cl-B		mg/kg	Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	800	16.0	05/27/2011	ND	448	112	400	3.64	
TPH 8015M		mg/kg	Analyzed By: AB						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	10600	50.0	05/27/2011	ND	197	98.4	200	0.816	
DRO >C10-C28	14200	50.0	05/27/2011	ND	160	80.2	200	5.79	
EXT DRO >C28-C35	1220	50.0	05/27/2011						
Surrogate: 1-Chlorooctane									
	141 %	70-130							
Surrogate: 1-Chlorooctadecane									
	92.1 %	70-130							

Cardinal Laboratories

\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager

### Notes and Definitions

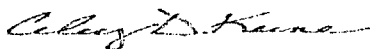
S-06	The recovery of this surrogate is outside control limits due to sample dilution required from high analyte concentration and/or matrix interference's.
ND	Analyte NOT DETECTED at or above the reporting limit
RPD	Relative Percent Difference
**	Samples not received at proper temperature of 6°C or below.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

---

Cardinal Laboratories

\*=Accredited Analyte

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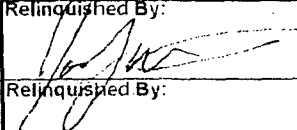
Celey D. Keene, Lab Director/Quality Manager

## 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. Arguico				P.O. #:				<div style="display: flex; flex-direction: column; align-items: center;"> <div style="writing-mode: vertical-rl; transform: rotate(180deg);">BODISM</div> <div style="writing-mode: vertical-rl; transform: rotate(180deg);">Chlorides</div> <div style="writing-mode: vertical-rl; transform: rotate(180deg);">Rush</div> </div>																	
Address: P.O. Box 301				Company: BOPCO, LP																					
City: Lovington State: NM Zip: 88260				Attn: Tony Savoie																					
Phone #: (575) 393-2378 Fax #: (575) 393-1429				Address: 522 W. Hermod																					
Project #: Project Owner: BOPCO, LP				City: Carlsbad																					
Project Name: <u>PLU #68</u>				State: NM Zip: 88220																					
Project Location: <u>Poker Lake unit #68 EDDY NM</u>				Phone #: (432) 556-6730																					
Sampler Name: <u>Joey Walters</u>				Fax #:																					
FOR LAB USE ONLY		Lab I.D.		Sample I.D.		IGRAB OR (COMP. # CONTAINERS)		MATRIX		PRESERV		SAMPLING													
								GROUNDWATER WASTEWATER SOIL OIL SLUDGE OTHER		ACID/BASE ICE / COOL OTHER		DATE TIME													
H101095		Floor #3		G		1		Y		X		5-26-11 1:22PM		X X X											

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Relinquished By: 	Date: <u>5/26/11</u> Time: <u>4:12</u>	Received By: <u>Jodi Benson</u>	Phone Result: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Add'l Phone #: <u>575-441-3307</u>
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: <u>3.5C</u>			REMARKS: <u>Verbal</u>	
Sample Condition Cool: <input checked="" type="checkbox"/> Intact: <input checked="" type="checkbox"/> <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Yes <input type="checkbox"/> No			CHECKED BY: <u>JA</u>	

Please email results to pm@basinenr.com  
& TAAvoice@basenet.com

May 31, 2011

BEN J. ARGUIJO

Basin Environmental Service

P.O. Box 301

Lovington, NM 88260

RE: POKER LAKE UNIT #68

Enclosed are the results of analyses for samples received by the laboratory on 05/27/11 17:28.

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.

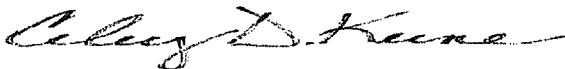
Cardinal Laboratories is accredited through the State of Colorado Department of Public Health and Environment for:

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: 05/27/2011  
 Reported: 05/31/2011  
 Project Name: POKER LAKE UNIT #68  
 Project Number: PLU - 68 TEMPORARY TANK SPILL  
 Project Location: EDDY COUNTY, NM

 Sampling Date: 05/27/2011  
 Sampling Type: Soil  
 Sampling Condition: \*\* (See Notes)  
 Sample Received By: Celey D. Keene

**Sample ID: SE CORNER FLOOR (H101104-01)**

Chloride, SM4500Cl-B		mg/kg	Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	16.0	16.0	05/31/2011	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	05/31/2011	ND	203	101	200	1.89	
DRO >C10-C28	<10.0	10.0	05/31/2011	ND	163	81.7	200	0.0275	
EXT DRO >C28-C35	<10.0	10.0	05/31/2011	ND					
Surrogate: 1-Chlorooctane 106 % 70-130									
Surrogate: 1-Chlorooctadecane 91.8 % 70-130									

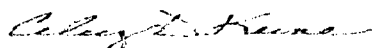
**Sample ID: SW CORNER FLOOR (H101104-02)**

Chloride, SM4500Cl-B		mg/kg	Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	<16.0	16.0	05/31/2011	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	05/31/2011	ND	203	101	200	1.89	
DRO >C10-C28	<10.0	10.0	05/31/2011	ND	163	81.7	200	0.0275	
EXT DRO >C28-C35	<10.0	10.0	05/31/2011	ND					
Surrogate: 1-Chlorooctane 98.9 % 70-130									
Surrogate: 1-Chlorooctadecane 84.8 % 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:	05/27/2011	Sampling Date:	05/27/2011
Reported:	05/31/2011	Sampling Type:	Soil
Project Name:	POKER LAKE UNIT #68	Sampling Condition:	** (See Notes)
Project Number:	PLU - 68 TEMPORARY TANK SPILL	Sample Received By:	Celey D. Keene
Project Location:	EDDY COUNTY, NM		

**Sample ID: CENTER FLOOR (H101104-03)**

BTX 8021B		mg/kg		Analyzed By: CMS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	05/31/2011	ND	2.01	100	2.00	3.65	
Toluene*	<0.050	0.050	05/31/2011	ND	1.95	97.7	2.00	4.21	
Ethylbenzene*	<0.050	0.050	05/31/2011	ND	1.98	99.0	2.00	3.69	
Total Xylenes*	<0.150	0.150	05/31/2011	ND	5.86	97.7	6.00	3.97	

Surrogate: 4-Bromofluorobenzene (PIE) 92.8 % 70-130

Chloride, SM4500CI-B		mg/kg		Analyzed By: HM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	32.0	16.0	05/31/2011	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	05/31/2011	ND	203	101	200	1.89	
DRO >C10-C28	<10.0	10.0	05/31/2011	ND	163	81.7	200	0.0275	
EXT DRO >C28-C35	<10.0	10.0	05/31/2011	ND					

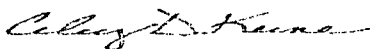
Surrogate: 1-Chlorooctane 109 % 70-130

Surrogate: 1-Chlorooctadecane 93.0 % 70-130

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Celey D. Keene, Lab Director/Quality Manager



**Analytical Results For:**

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

Received:	05/27/2011	Sampling Date:	05/27/2011
Reported:	05/31/2011	Sampling Type:	Soil
Project Name:	POKER LAKE UNIT #68	Sampling Condition:	** (See Notes)
Project Number:	PLU - 68 TEMPORARY TANK SPILL	Sample Received By:	Celey D. Keene
Project Location:	EDDY COUNTY, NM		

**Sample ID: NE CORNER FLOOR (H101104-04)**

Chloride, SM4500Cl-B		mg/kg	Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	<16.0	16.0	05/31/2011	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	05/31/2011	ND	203	101	200	1.89	
DRO >C10-C28	<10.0	10.0	05/31/2011	ND	163	81.7	200	0.0275	
EXT DRO >C28-C35	<10.0	10.0	05/31/2011	ND					
<i>Surrogate: 1-Chlorooctane</i>									
	122 %	70-130							
<i>Surrogate: 1-Chlorooctadecane</i>									
	105 %	70-130							

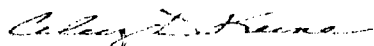
**Sample ID: NW CORNER FLOOR (H101104-05)**

Chloride, SM4500Cl-B		mg/kg	Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	<16.0	16.0	05/31/2011	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	05/31/2011	ND	203	101	200	1.89	
DRO >C10-C28	<10.0	10.0	05/31/2011	ND	163	81.7	200	0.0275	
EXT DRO >C28-C35	<10.0	10.0	05/31/2011	ND					
<i>Surrogate: 1-Chlorooctane</i>									
	119 %	70-130							
<i>Surrogate: 1-Chlorooctadecane</i>									
	109 %	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:	05/27/2011	Sampling Date:	05/27/2011
Reported:	05/31/2011	Sampling Type:	Soil
Project Name:	POKER LAKE UNIT #68	Sampling Condition:	** (See Notes)
Project Number:	PLU - 68 TEMPORARY TANK SPILL	Sample Received By:	Celey D. Keene
Project Location:	EDDY COUNTY, NM		

**Sample ID: N WALL W END (H101104-06)**

Chloride, SM4500CI-B		mg/kg		Analyzed By: HM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	16.0	16.0	05/31/2011	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	05/31/2011	ND	203	101	200	1.89	
DRO >C10-C28	<10.0	10.0	05/31/2011	ND	163	81.7	200	0.0275	
EXT DRO >C28-C35	<10.0	10.0	05/31/2011	ND					
<hr/>									
Surrogate: 1-Chlorooctane	116 %	70-130							
Surrogate: 1-Chlorooctadecane	106 %	70-130							


**Sample ID: N WALL E END (H101104-07)**

Chloride, SM4500CI-B		mg/kg		Analyzed By: HM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	<16.0	16.0	05/31/2011	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	05/31/2011	ND	203	101	200	1.89	
DRO >C10-C28	<10.0	10.0	05/31/2011	ND	163	81.7	200	0.0275	
EXT DRO >C28-C35	<10.0	10.0	05/31/2011	ND					
<hr/>									
Surrogate: 1-Chlorooctane	117 %	70-130							
Surrogate: 1-Chlorooctadecane	99.5 %	70-130							

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Celey D. Keene, Lab Director/Quality Manager

**Analytical Results For:**

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

Received:	05/27/2011	Sampling Date:	05/27/2011
Reported:	05/31/2011	Sampling Type:	Soil
Project Name:	POKER LAKE UNIT #68	Sampling Condition:	** (See Notes)
Project Number:	PLU - 68 TEMPORARY TANK SPILL	Sample Received By:	Celey D. Keene
Project Location:	EDDY COUNTY, NM		

**Sample ID: N WALL MIDDLE (H101104-08)**

Chloride, SM4500Cl-B			mg/kg		Analyzed By: HM				
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	<16.0	16.0	05/31/2011	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	05/31/2011	ND	203	101	200	1.89	
DRO >C10-C28	<10.0	10.0	05/31/2011	ND	163	81.7	200	0.0275	
EXT DRO >C28-C35	<10.0	10.0	05/31/2011	ND					
Surrogate: 1-Chlorooctane	115 %	70-130							
Surrogate: 1-Chlorooctadecane	102 %	70-130							

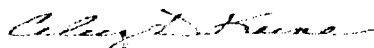
**Sample ID: E WALL N END (H101104-09)**

Chloride, SM4500Cl-B			mg/kg		Analyzed By: HM				
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	<16.0	16.0	05/31/2011	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	05/31/2011	ND	203	101	200	1.89	
DRO >C10-C28	<10.0	10.0	05/31/2011	ND	163	81.7	200	0.0275	
EXT DRO >C28-C35	<10.0	10.0	05/31/2011	ND					
Surrogate: 1-Chlorooctane	120 %	70-130							
Surrogate: 1-Chlorooctadecane	103 %	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:	05/27/2011	Sampling Date:	05/27/2011
Reported:	05/31/2011	Sampling Type:	Soil
Project Name:	POKER LAKE UNIT #68	Sampling Condition:	** (See Notes)
Project Number:	PLU - 68 TEMPORARY TANK SPILL	Sample Received By:	Celey D. Keene
Project Location:	EDDY COUNTY, NM		

**Sample ID: E WALL MIDDLE (H101104-10)**

Chloride, SM4500Cl-B		mg/kg		Analyzed By: HM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	<16.0	16.0	05/31/2011	ND	448	112	400	3.51	
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	05/31/2011	ND	203	101	200	1.89	
DRO >C10-C28	<10.0	10.0	05/31/2011	ND	163	81.7	200	0.0275	
EXT DRO >C28-C35	<10.0	10.0	05/31/2011	ND					

Surrogate: 1-Chlorooctane 118 % 70-130

Surrogate: 1-Chlorooctadecane 106 % 70-130

**Sample ID: W WALL S END (H101104-11)**

Chloride, SM4500Cl-B		mg/kg		Analyzed By: HM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	<16.0	16.0	05/31/2011	ND	448	112	400	3.51	
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	05/31/2011	ND	203	101	200	1.89	
DRO >C10-C28	<10.0	10.0	05/31/2011	ND	163	81.7	200	0.0275	
EXT DRO >C28-C35	<10.0	10.0	05/31/2011	ND					

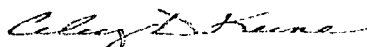
Surrogate: 1-Chlorooctane 112 % 70-130

Surrogate: 1-Chlorooctadecane 96.8 % 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. ARGUJO  
 P.O. Box 301  
 Lovington NM, 88260  
 Fax To: (575) 396-1429

Received:	05/27/2011	Sampling Date:	05/27/2011
Reported:	05/31/2011	Sampling Type:	Soil
Project Name:	POKER LAKE UNIT #68	Sampling Condition:	** (See Notes)
Project Number:	PLU - 68 TEMPORARY TANK SPILL	Sample Received By:	Celey D. Keene
Project Location:	EDDY COUNTY, NM		

**Sample ID: S WALL MIDDLE (H101104-12)**

Chloride, SM4500Cl-B		mg/kg		Analyzed By: HM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	<16.0	16.0	05/31/2011	ND	448	112	400	3.51	
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	05/31/2011	ND	203	101	200	1.89	
DRO >C10-C28	<10.0	10.0	05/31/2011	ND	163	81.7	200	0.0275	
EXT DRO >C28-C35	<10.0	10.0	05/31/2011	ND					
Surrogate: 1-Chlorooctane 118 % 70-130									
Surrogate: 1-Chlorooctadecane 108 % 70-130									

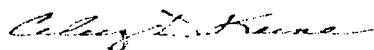
**Sample ID: W WALL MIDDLE (H101104-13)**

Chloride, SM4500Cl-B		mg/kg		Analyzed By: HM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	<16.0	16.0	05/31/2011	ND	448	112	400	3.51	
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	05/31/2011	ND	203	101	200	1.89	
DRO >C10-C28	11.7	10.0	05/31/2011	ND	163	81.7	200	0.0275	
EXT DRO >C28-C35	<10.0	10.0	05/31/2011	ND					
Surrogate: 1-Chlorooctane 113 % 70-130									
Surrogate: 1-Chlorooctadecane 103 % 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:	05/27/2011	Sampling Date:	05/27/2011
Reported:	05/31/2011	Sampling Type:	Soil
Project Name:	POKER LAKE UNIT #68	Sampling Condition:	** (See Notes)
Project Number:	PLU - 68 TEMPORARY TANK SPILL	Sample Received By:	Celey D. Keene
Project Location:	EDDY COUNTY, NM		

**Sample ID: W WALL N END (H101104-14)**

Chloride, SM4500Cl-B			mg/kg							Analyzed By: HM
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	<16.0	16.0	05/31/2011	ND	448	112	400	3.51		
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	05/31/2011	ND	203	101	200	1.89		
DRO >C10-C28	<10.0	10.0	05/31/2011	ND	163	81.7	200	0.0275		
EXT DRO >C28-C35	<10.0	10.0	05/31/2011	ND						
<hr/>										
Surrogate: 1-Chlorooctane	113 %	70-130								
Surrogate: 1-Chlorooctadecane	104 %	70-130								

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Celey D. Keene, Lab Director/Quality Manager

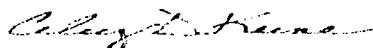
**Notes and Definitions**

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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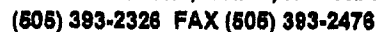
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---

Celey D. Keene, Lab Director/Quality Manager



## Page 11 of 12

Company Name:						BILL TO	ANALYSIS REQUEST											
<b>Project Manager:</b> Ben J. Arguijo						P.O.#:												
<b>Address:</b> P.O. Box 301						<b>Company:</b> BOPCO, LP												
<b>City:</b> Lovington		<b>State:</b> NM		<b>Zip:</b> 88260		<b>Attn:</b> Tony Savoie												
<b>Phone #:</b> (575) 396-2378		<b>Fax #:</b> (575) 396-1429		<b>Address:</b> 522 W. Mermod														
<b>Project #:</b>		<b>Project Owner:</b> LP				<b>City:</b> Carlsbad												
<b>Project Name:</b> PLU#68						<b>State:</b> NM	<b>Zip:</b> 88220											
<b>Project Location:</b> Poker Lake unit #68 Eddy, NM						<b>Phone #:</b> (432) 556-8730												
<b>Sampler Name:</b> Troy Hahn						<b>Fax #:</b>												
FOR LAB USE ONLY		(G RAB OR (C OMP.	# CONTAINERS	MATRIX	PRESERV.	SAMPLING												
Lab I.D.	Sample I.D.			GROUNDWATER WASTEWATER SOIL OIL SLUDGE OTHER: ACID/BASE ICE / COOL OTHER:		DATE TIME	8015M TPH	Chlorides	Rush	Btex								
H101104-																		
01	SE Corner Floor	I				✓	5-27-11 1340	X	X	X								
02	SW Corner Floor						5-27-11 1320	X	X	X								
03	Center Floor						5-27-11 1300	X	X	X	X							
04	NE Corner Floor						5-27-11 1400	X	X	X								
05	NW Corner Floor						5-27-11 1410	X	X	X								
06	N Wall West end						5-27-11 1415	X	X	X								
07	N Wall East end						5-27-11 1420	X	X	X								
08	N Wall middle						5-27-11 1425	X	X	X								
09	E Wall North end						5-27-11 1430	X	X	X								
10	E Wall middle						5-27-11 1435	X	X	X								
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<b>Relinquished By:</b>		Date:	<b>Received By:</b>	<b>Phone Result:</b>		<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Add'l Phone #:	(575) 441 - 3307										
		Time:		<b>Fax Result:</b>		<input type="checkbox"/> Yes <input type="checkbox"/> No	Add'l Fax #:											
<b>Delivered By:</b>		Date:	<b>Received By:</b>	<b>REMARKS:</b>														
<b>Deliivered By:</b> (Circle One)		Time:		Please email results to pm@basinenr.com + TSavoie@BassPet.com Samples just taken & brought in onsite. ch														
Sampler - UPS - Bus - Other:		Sample Condition Cool Intact <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Yes <input type="checkbox"/> No		CHECKED BY: (Initial) 														

† Cardinal cannot accept verbal changes. Please fax written changes to 505-393-2478

#26



## CARDINAL LABORATORIES

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

## CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

Page 2

Page 12 of 12

[illegible]

**PLEASE NOTE:** Liability and Damages. Cardinal's liability and its exclusive remedy for any claim arising whether based in contract or tort, shall be limited to the amount paid by the client for the services. All claims including those for negligence and any other causes 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 claims, or otherwise.

Relinquished By: <i>Troy Nahn</i>		Date: <i>08/27/11</i>		Received By: <i>[Signature]</i>		Phone Result: <input type="checkbox"/> Yes <input type="checkbox"/> No		Add'l Phone #:	
		Time: <i>1728</i>				Fax Result: <input type="checkbox"/> Yes <input type="checkbox"/> No		Add'l Fax #:	
Relinquished By:		Date:		Received By:		REMARKS:			
		Time:							
Delivered By: (Circle One) Sampler - <input checked="" type="checkbox"/> UPS - <input type="checkbox"/> Bus - <input type="checkbox"/> Other:				Sample Condition Cool <input checked="" type="checkbox"/> Intact <input checked="" type="checkbox"/> <i>11°C</i>		CHECKED BY: (Initials) <i>CSH</i>			

† Cardinal cannot accept verbal changes. Please fax written changes to 605-393-2476

#26

June 08, 2011

BEN J. ARGUIJO

Basin Environmental Service

P.O. Box 301

Lovington, NM 88260

RE: POKER LAKE UNIT #68

Enclosed are the results of analyses for samples received by the laboratory on 06/01/11 16:28.

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.

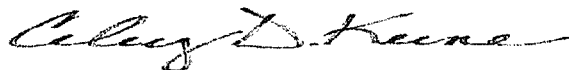
Cardinal Laboratories is accredited through the State of Colorado Department of Public Health and Environment for:

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: 06/01/2011  
 Reported: 06/08/2011  
 Project Name: POKER LAKE UNIT #68  
 Project Number: PLU - 68 TEMPORARY TANK SPILL  
 Project Location: EDDY COUNTY, NM

 Sampling Date: 06/01/2011  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Jodi Henson

**Sample ID: SEC 4 B FLOOR 10' BGS (H101127-01)**

BTEX 8021B		mg/kg		Analyzed By: CMS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	06/03/2011	ND	1.94	96.8	2.00	4.92	
Toluene*	<0.050	0.050	06/03/2011	ND	1.92	96.1	2.00	5.37	
Ethylbenzene*	<0.050	0.050	06/03/2011	ND	1.90	95.0	2.00	8.08	
Total Xylenes*	<0.150	0.150	06/03/2011	ND	5.60	93.3	6.00	8.04	

Surrogate: 4-Bromofluorobenzene (PIL) 92.1 % 70-130

Chloride, SM4500Cl-B		mg/kg		Analyzed By: HM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	64.0	16.0	06/02/2011	ND	400	100	400	7.69	

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	06/03/2011	ND	185	92.4	200	6.70	
DRO >C10-C28	39.2	10.0	06/03/2011	ND	156	77.9	200	12.7	
EXT DRO >C28-C35	<10.0	10.0	06/03/2011	ND					

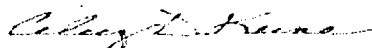
Surrogate: 1-Chlorooctane 126 % 70-130

Surrogate: 1-Chlorooctadecane 124 % 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:	06/01/2011	Sampling Date:	06/01/2011
Reported:	06/08/2011	Sampling Type:	Soil
Project Name:	POKER LAKE UNIT #68	Sampling Condition:	Cool & Intact
Project Number:	PLU - 68 TEMPORARY TANK SPILL	Sample Received By:	Jodi Henson
Project Location:	EDDY COUNTY, NM		

**Sample ID: SEC 4 B SOUTH WALL 9' BGS (H101127-02)**

Chloride, SM4500Cl-B		mg/kg		Analyzed By: HM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	32.0	16.0	06/02/2011	ND	400	100	400	7.69	
TPH 8015M		mg/kg		Analyzed By: AB					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	816	10.0	06/03/2011	ND	185	92.4	200	6.70	
DRO >C10-C28	1810	10.0	06/03/2011	ND	156	77.9	200	12.7	
EXT DRO >C28-C35	97.4	10.0	06/03/2011	ND					
Surrogate: 1-Chlorooctane	102 %	70-130							
Surrogate: 1-Chlorooctadecane	72.3 %	70-130							

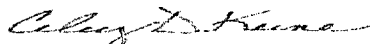
**Sample ID: SEC 4 B N WALL 9' BGS (H101127-03)**

Chloride, SM4500Cl-B		mg / kg		Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	32.0	16.0	06/02/2011	ND	400	100	400	7.69		
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	06/03/2011	ND	185	92.4	200	6.70		
DRO >C10-C28	<10.0	10.0	06/03/2011	ND	156	77.9	200	12.7		
EXT DRO >C28-C35	<10.0	10.0	06/03/2011	ND						
Surrogate: 1-Chlorooctane	105 %	70-130								
Surrogate: 1-Chlorooctadecane	110 %	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:	06/01/2011	Sampling Date:	06/01/2011
Reported:	06/08/2011	Sampling Type:	Soil
Project Name:	POKER LAKE UNIT #68	Sampling Condition:	Cool & Intact
Project Number:	PLU - 68 TEMPORARY TANK SPILL	Sample Received By:	Jodi Henson
Project Location:	EDDY COUNTY, NM		

**Sample ID: SEC 2 & 3B FLOOR 6' BGS (H101127-04)**

BTEX 8021B		mg/kg		Analyzed By: CMS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	06/03/2011	ND	1.94	96.8	2.00	4.92	
Toluene*	0.171	0.050	06/03/2011	ND	1.92	96.1	2.00	5.37	
Ethylbenzene*	0.181	0.050	06/03/2011	ND	1.90	95.0	2.00	8.08	
Total Xylenes*	1.02	0.150	06/03/2011	ND	5.60	93.3	6.00	8.04	

Surrogate: 4-Bromofluorobenzene (PIE) 92.3 % 70-130

Chloride, SM4500Cl-B		mg/kg		Analyzed By: HM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	32.0	16.0	06/02/2011	ND	400	100	400	7.69	

TPH 8015M		mg/kg		Analyzed By: AB					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	61.0	10.0	06/03/2011	ND	190	94.8	200	4.55	
DRO >C10-C28	666	10.0	06/03/2011	ND	153	76.3	200	8.70	
EXT DRO >C28-C35	37.3	10.0	06/03/2011	ND					

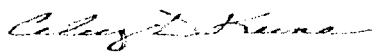
Surrogate: 1-Chlorooctane 131 % 70-130

Surrogate: 1-Chlorooctadecane 116 % 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:	06/01/2011	Sampling Date:	06/01/2011
Reported:	06/08/2011	Sampling Type:	Soil
Project Name:	POKER LAKE UNIT #68	Sampling Condition:	Cool & Intact
Project Number:	PLU - 68 TEMPORARY TANK SPILL	Sample Received By:	Jodi Henson
Project Location:	EDDY COUNTY, NM		

**Sample ID: SEC 2 & 3B S WALL 5' BGS (H101127-05)**

Chloride, SM4500Cl-B		mg/kg		Analyzed By: HM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	128	16.0	06/02/2011	ND	400	100	400	7.69	
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	06/03/2011	ND	190	94.8	200	4.55	
DRO >C10-C28	58.6	10.0	06/03/2011	ND	153	76.3	200	8.70	
EXT DRO >C28-C35	<10.0	10.0	06/03/2011	ND					
<i>Surrogate: 1-Chlorooctane</i>									
	100 %	70-130							
<i>Surrogate: 1-Chlorooctadecane</i>									
	85.8 %	70-130							

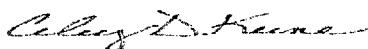
**Sample ID: SEC 2 & 3B E WALL 3' BGS (H101127-06)**

Chloride, SM4500Cl-B		mg/kg		Analyzed By: HM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	<16.0	16.0	06/02/2011	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	06/03/2011	ND	190	94.8	200	4.55	
DRO >C10-C28	<10.0	10.0	06/03/2011	ND	153	76.3	200	8.70	
EXT DRO >C28-C35	<10.0	10.0	06/03/2011	ND					
<i>Surrogate: 1-Chlorooctane</i>									
	119 %	70-130							
<i>Surrogate: 1-Chlorooctadecane</i>									
	122 %	70-130							

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Celey D. Keene, Lab Director/Quality Manager

**Notes and Definitions**

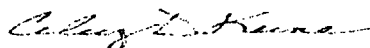
Z-01	One or more surrogates above historical limits.
ND	Analyte NOT DETECTED at or above the reporting limit
RPD	Relative Percent Difference
**	Samples not received at proper temperature of 6°C or below.
***	Insufficient time to reach temperature.
-	Chloride by SM4500Cl-B does not require samples be received at or below 6°C Samples reported on an as received basis (wet) unless otherwise noted on report

---

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\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager

[illegible]

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Relinquished By: 		Date: 6/11/11	Received By: 	Phone Result: <input type="checkbox"/> Yes <input type="checkbox"/> No Add'l Phone #:
Time: 4:28				Fax Result: <input type="checkbox"/> Yes <input type="checkbox"/> No Add'l Fax #:
Relinquished By:		Date:	Received By:	REMARKS:
Time:				
Delivered By: (Circle One)		Sample Condition	CHECKED BY: (Initials)	Please email results to <a href="mailto:pm@basinenv.com">pm@basinenv.com</a> & <a href="mailto:TASavioie@BassPat.com">TASavioie@BassPat.com</a>
Sampler - UPS - Bus - Other:		Cool <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Intact <input type="checkbox"/> Yes <input type="checkbox"/> No		





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

June 08, 2011

BEN J. ARGUIJO

Basin Environmental Service

P.O. Box 301

Lovington, NM 88260

RE: POKER LAKE UNIT #68

Enclosed are the results of analyses for samples received by the laboratory on 06/01/11 16:28.

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,

A handwritten signature in black ink, appearing to read "Celey D. Keene", written in a cursive style.

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:	06/01/2011	Sampling Date:	05/31/2011
Reported:	06/08/2011	Sampling Type:	Soil
Project Name:	POKER LAKE UNIT #68	Sampling Condition:	Cool & Intact
Project Number:	PLU - 68 TEMPORARY TANK SPILL	Sample Received By:	Jodi Henson
Project Location:	EDDY COUNTY, NM		

**Sample ID: SEC 6B FLOOR 9' BGS (H101128-01)**

BTEX 8021B		mg/kg		Analyzed By: CMS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	06/03/2011	ND	1.94	96.8	2.00	4.92	
Toluene*	<0.050	0.050	06/03/2011	ND	1.92	96.1	2.00	5.37	
Ethylbenzene*	<0.050	0.050	06/03/2011	ND	1.90	95.0	2.00	8.08	
Total Xylenes*	<0.150	0.150	06/03/2011	ND	5.60	93.3	6.00	8.04	

Surrogate: 4-Bromofluorobenzene (PIL) 92.8 % 70-130

Chloride, SM4500CI-B		mg/kg		Analyzed By: HM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	<16.0	16.0	06/03/2011	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	06/07/2011	ND	190	94.8	200	4.55	
DRO >C10-C28	133	10.0	06/07/2011	ND	153	76.3	200	8.70	
EXT DRO >C28-C35	<10.0	10.0	06/07/2011	ND					

Surrogate: 1-Chlorooctane 112 % 70-130

Surrogate: 1-Chlorooctadecane 114 % 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: 06/01/2011  
 Reported: 06/08/2011  
 Project Name: POKER LAKE UNIT #68  
 Project Number: PLU - 68 TEMPORARY TANK SPILL  
 Project Location: EDDY COUNTY, NM

 Sampling Date: 05/31/2011  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Jodi Henson

**Sample ID: SEC 6B W WALL 8' BGS (H101128-02)**

Chloride, SM4500Cl-B		mg/kg	Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	<16.0	16.0	06/02/2011	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	06/07/2011	ND	190	94.8	200	4.55	
DRO >C10-C28	<10.0	10.0	06/07/2011	ND	153	76.3	200	8.70	
EXT DRO >C28-C35	<10.0	10.0	06/07/2011	ND					
Surrogate: 1-Chlorooctane	98.4 %	70-130							
Surrogate: 1-Chlorooctadecane	104 %	70-130							

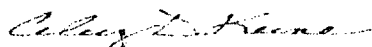
**Sample ID: SEC 6B E WALL 8' BGS (H101128-03)**

Chloride, SM4500Cl-B		mg/kg	Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	32.0	16.0	06/02/2011	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	06/07/2011	ND	190	94.8	200	4.55	
DRO >C10-C28	<10.0	10.0	06/07/2011	ND	153	76.3	200	8.70	
EXT DRO >C28-C35	<10.0	10.0	06/07/2011	ND					
Surrogate: 1-Chlorooctane	102 %	70-130							
Surrogate: 1-Chlorooctadecane	109 %	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:	06/01/2011	Sampling Date:	05/31/2011
Reported:	06/08/2011	Sampling Type:	Soil
Project Name:	POKER LAKE UNIT #68	Sampling Condition:	Cool & Intact
Project Number:	PLU - 68 TEMPORARY TANK SPILL	Sample Received By:	Jodi Henson
Project Location:	EDDY COUNTY, NM		

**Sample ID: SEC 6B N WALL 8' BGS (H101128-04)**

Chloride, SM4500Cl-B		mg/kg		Analyzed By: HM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	<16.0	16.0	06/02/2011	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	06/03/2011	ND	190	94.8	200	4.55	
DRO >C10-C28	97.5	10.0	06/03/2011	ND	153	76.3	200	8.70	
EXT DRO >C28-C35	<10.0	10.0	06/03/2011	ND					

Surrogate: 1-Chlorooctane	142 %	70-130
Surrogate: 1-Chlorooctadecane	134 %	70-130

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Celey D. Keene, Lab Director/Quality Manager

**Notes and Definitions**

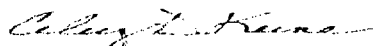
Z-01	One or more surrogates above historical limits.
ND	Analyte NOT DETECTED at or above the reporting limit
RPD	Relative Percent Difference
**	Samples not received at proper temperature of 6°C or below.
***	Insufficient time to reach temperature.
-	Chloride by SM4500Cl-B does not require samples be received at or below 6°C
	Samples reported on an as received basis (wet) unless otherwise noted on report

---

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\* = Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager

[illegible]



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

---

June 13, 2011

BEN J. ARGUIJO

Basin Environmental Service

P.O. Box 301

Lovington, NM 88260

RE: POKER LAKE UNIT #68

Enclosed are the results of analyses for samples received by the laboratory on 06/06/11 16:35.

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,

A handwritten signature in black ink, appearing to read "Celey D. Keene", written in a cursive style.

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:	06/06/2011	Sampling Date:	06/06/2011
Reported:	06/13/2011	Sampling Type:	Soil
Project Name:	POKER LAKE UNIT #68	Sampling Condition:	Cool & Intact
Project Number:	PLU - 68 TEMPORARY TANK SPILL	Sample Received By:	Jodi Henson
Project Location:	EDDY COUNTY, NM		

**Sample ID: AREA #7 FLOOR 12' BGS (H101169-01)**

BTEx 8021B		mg/kg		Analyzed By: CMS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	06/08/2011	ND	2.07	104	2.00	2.80	
Toluene*	<0.050	0.050	06/08/2011	ND	2.02	101	2.00	3.31	
Ethylbenzene*	<0.050	0.050	06/08/2011	ND	2.11	106	2.00	2.37	
Total Xylenes*	<0.150	0.150	06/08/2011	ND	6.14	102	6.00	3.01	

Surrogate: 4-Bromofluorobenzene (PIL) 95.8 % 70-130

Chloride, SM4500Cl-B		mg/kg		Analyzed By: HM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	48.0	16.0	06/07/2011	ND	464	116	400	3.51	

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	06/11/2011	ND	209	105	200	1.94	
DRO >C10-C28	<10.0	10.0	06/11/2011	ND	189	94.5	200	2.13	
EXT DRO >C28-C35	<10.0	10.0	06/11/2011	ND					

Surrogate: 1-Chlorooctane 118 % 70-130

Surrogate: 1-Chlorooctadecane 127 % 70-130

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Celey D. Keene, Lab Director/Quality Manager



**Analytical Results For:**

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

Received:	06/06/2011	Sampling Date:	06/06/2011
Reported:	06/13/2011	Sampling Type:	Soil
Project Name:	POKER LAKE UNIT #68	Sampling Condition:	Cool & Intact
Project Number:	PLU - 68 TEMPORARY TANK SPILL	Sample Received By:	Jodi Henson
Project Location:	EDDY COUNTY, NM		

**Sample ID: AREA #7 NORTH WALL 11' BGS (H101169-02)**

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>19200</b>	16.0	06/07/2011	ND	464	116	400	3.51	
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	06/11/2011	ND	209	105	200	1.94	
DRO >C10-C28	<10.0	10.0	06/11/2011	ND	189	94.5	200	2.13	
EXT DRO >C28-C35	<10.0	10.0	06/11/2011	ND					
<i>Surrogate: 1-Chlorooctane</i>									
	139 %	70-130							
<i>Surrogate: 1-Chlorooctadecane</i>									
	152 %	70-130							

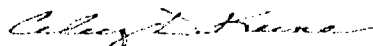
**Sample ID: AREA #7 SOUTH WALL 6' BGS (H101169-03)**

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>48.0</b>	16.0	06/07/2011	ND	464	116	400	3.51	
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	06/11/2011	ND	209	105	200	1.94	
DRO >C10-C28	<10.0	10.0	06/11/2011	ND	189	94.5	200	2.13	
EXT DRO >C28-C35	<10.0	10.0	06/11/2011	ND					
<i>Surrogate: 1-Chlorooctane</i>									
	130 %	70-130							
<i>Surrogate: 1-Chlorooctadecane</i>									
	138 %	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:	06/06/2011	Sampling Date:	06/06/2011
Reported:	06/13/2011	Sampling Type:	Soil
Project Name:	POKER LAKE UNIT #68	Sampling Condition:	Cool & Intact
Project Number:	PLU - 68 TEMPORARY TANK SPILL	Sample Received By:	Jodi Henson
Project Location:	EDDY COUNTY, NM		

**Sample ID: AREA #7 WEST WALL 11' BGS (H101169-04)**

Chloride, SM4500Cl-B		mg/kg		Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	32.0	16.0	06/07/2011	ND	464	116	400	3.51		
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	06/11/2011	ND	209	105	200	1.94		
DRO >C10-C28	<10.0	10.0	06/11/2011	ND	189	94.5	200	2.13		
EXT DRO >C28-C35	<10.0	10.0	06/11/2011	ND						
<hr/>										
Surrogate: 1-Chlorooctane	117 %	70-130								
Surrogate: 1-Chlorooctadecane	127 %	70-130								

**Sample ID: AREA #7 EAST WALL 11' BGS (H101169-05)**

Chloride, SM4500Cl-B		mg/kg		Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	32.0	16.0	06/07/2011	ND	464	116	400	3.51		
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	06/11/2011	ND	209	105	200	1.94		
DRO >C10-C28	<10.0	10.0	06/11/2011	ND	189	94.5	200	2.13		
EXT DRO >C28-C35	<10.0	10.0	06/11/2011	ND						
Surrogate: 1-Chlorooctane	173 %	70-130								
Surrogate: 1-Chlorooctadecane	187 %	70-130								

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\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager

**Notes and Definitions**

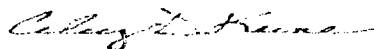
Z-01	One or more surrogates above historical limits.
S-06	The recovery of this surrogate is outside control limits due to sample dilution required from high analyte concentration and/or matrix interference's.
ND	Analyte NOT DETECTED at or above the reporting limit
RPD	Relative Percent Difference
**	Samples not received at proper temperature of 6°C or below.
***	Insufficient time to reach temperature.
-	Chloride by SM4500Cl-B does not require samples be received at or below 6°C Samples reported on an as received basis (wet) unless otherwise noted on report

---

Cardinal Laboratories

\*=Accredited Analyte

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---

Celey D. Keene, Lab Director/Quality Manager

[illegible]



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

April 17, 2012

BEN J. ARGUIJO

Basin Environmental Service

P.O. Box 301

Lovington, NM 88260

RE: PLU 68

Enclosed are the results of analyses for samples received by the laboratory on 04/12/12 9:10.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-11-3. Accreditation applies to drinking water, non-potable water and solid and chemical materials. All accredited analytes are denoted by an asterisk (\*). For a complete list of accredited analytes and matrices visit the TCEQ website at [www.tceq.texas.gov/field/qa/lab\\_accred\\_certif.html](http://www.tceq.texas.gov/field/qa/lab_accred_certif.html).

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

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

Accreditation applies to public drinking water matrices.

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

Sincerely,

Celey D. Keene

Lab Director/Quality Manager

**Analytical Results For:**

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

 Received: 04/12/2012  
 Reported: 04/17/2012  
 Project Name: PLU 68  
 Project Number: NONE GIVEN  
 Project Location: EDDY COUNTY, NM

 Sampling Date: 04/11/2012  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Jodi Henson

**Sample ID: F.T.A. SOUTH WALL (H200841-01)**

BTEx 8021B		mg/kg	Analyzed By: AP						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	04/16/2012	ND	2.08	104	2.00	2.80	
Toluene*	<0.050	0.050	04/16/2012	ND	2.15	108	2.00	2.84	
Ethylbenzene*	<0.050	0.050	04/16/2012	ND	2.14	107	2.00	2.99	
Total Xylenes*	<0.150	0.150	04/16/2012	ND	6.61	110	6.00	2.53	

Surrogate: 4-Bromofluorobenzene (PIL) 104 % 64.4-134

Chloride, SM4500Cl-B		mg/kg	Analyzed By: AP						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	96.0	16.0	04/16/2012	ND	400	100	400	11.3	

TPH 8015M		mg/kg	Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	04/14/2012	ND	191	95.6	200	6.82	
DRO >C10-C28	24.6	10.0	04/14/2012	ND	208	104	200	3.99	
EXT DRO >C28-C35	17.4	10.0	04/14/2012	ND					

Surrogate: 1-Chlorooctane 102 % 55.5-154

Surrogate: 1-Chlorooctadecane 108 % 57.6-158

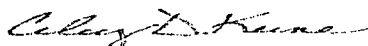
**Sample ID: F.T.A. EAST WALL (H200841-02)**

Chloride, SM4500Cl-B		mg/kg	Analyzed By: AP						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	<16.0	16.0	04/16/2012	ND	400	100	400	11.3	

Cardinal Laboratories

\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager

**Analytical Results For:**

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

 Received: 04/12/2012  
 Reported: 04/17/2012  
 Project Name: PLU 68  
 Project Number: NONE GIVEN  
 Project Location: EDDY COUNTY, NM

 Sampling Date: 04/11/2012  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Jodi Henson

**Sample ID: F.T.A. WEST WALL (H200841-03)**

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	32.0	16.0	04/16/2012	ND	400	100	400	11.3	

**Sample ID: F.T.A. FLOOR (H200841-04)**

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	<16.0	16.0	04/16/2012	ND	400	100	400	11.3	

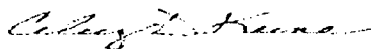
**Sample ID: F.T.A. NORTH WALL (H200841-05)**

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	32.0	16.0	04/16/2012	ND	400	100	400	11.3	

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\* = Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager

**Notes and Definitions**

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

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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 Service Technologies, LLC <b>Project Manager:</b> Ben J. Arcujo <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) 396-1439 <b>Project #:</b> <b>Project Owner:</b> BOPCO, LP <b>Project Name:</b> PLU 68 <b>Project Location:</b> EDDY NM <b>Sampler Name:</b> Joey Walters				<b>BILL TO</b>				<b>ANALYSIS REQUEST</b>																	
				<b>P.O. #:</b> <b>Company:</b> BOPCO, LP <b>Attn:</b> Tony Savoie <b>Address:</b> 522 w. Marmod <b>City:</b> Carlsbad <b>State:</b> NM <b>Zip:</b> 88220 <b>Phone #:</b> (432) 556-8730 <b>Fax #:</b>																					
FOR LAB USE ONLY				MATRIX				PRESERV		SAMPLING															
Lab I.D.	Sample I.D.	# CONTAINERS	GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER	ACID/BASE	ICE / COOL	OTHER	DATE	TIME												
H260841	ETA	G	1		Y				X			4-11-12	1:30	X	X	X									
1	South wall	G	1		X				X			4-11-12	1:40	X											
2	ETA EAST wall	G	1		X				X			4-11-12	1:50	X											
3	ETA WEST wall	G	1		X				X			4-11-12	2:00	X											
4	ETA FLOOR	G	1		X				X			4-11-12	2:10	X											
5	ETA North Wall	G	1		Y				X					X											

PLEASE NOTE: Liability and Damages. Cardinal's liability and extent's exclusive remedy for any data arising whether based in contract or tort, shall be limited to the amount paid by the client for the analysis. 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.

<b>Relinquished By:</b>  <b>Date:</b> 4/11/12 <b>Time:</b> 1:30	<b>Received By:</b>  <b>Date:</b> 4/11/12 <b>Time:</b> 0700	<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 email results to pm@basinenr.com & TASavoie@BasenPer.com
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<b>Relinquished By:</b>  <b>Date:</b> 4/12/12 <b>Time:</b> 0700	<b>Received By:</b>  <b>Date:</b> 4/12/12 <b>Time:</b> 0700	<b>Delivered By: (Circle One)</b> Sampler - UPS - Bus - Other: <span style="margin-left: 50px;">10</span>
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<b>Sample Condition</b> Cool <input type="checkbox"/> Yes <input type="checkbox"/> No    Intact <input type="checkbox"/> Yes <input type="checkbox"/> No	<b>CHECKED BY:</b> (Initials) 
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† Cardinal cannot accept verbal changes. Please fax written changes to 505/393-2476