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# **REMEDIATION SUMMARY &**

# **RISK-BASED SITE CLOSURE REQUEST**

BOPCO, LP

INDIAN FLATS BASS FEDERAL #1 SWD Eddy County, New Mexico Unit Letter "J" (NW/SE), Section 35, Township 21 South, Range 28 East Latitude 32.433905° North, Longitude 104.055425° West NMOCD Reference #'s: <u>2RP-1037, 2RP-1208</u>, <u>2RP-1209, 2RP-1207 & 2RP-1457</u>  $\stackrel{<}{\leftarrow} 2 & 2 & 2 & -1656$ 

Prepared For:

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

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

August 2013

Ben J. Arguijo Project Manager

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### **1.0 INTRODUCTION & BACKGROUND INFORMATION**

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289-1209

289-1207

Basin Environmental Service Technologies, LLC (Basin Environmental), on behalf of BOPCO, LP (BOPCO), has prepared this *Remediation Summary & Risk-Based Site Closure Request* for the release site known as Indian Flats Bass Federal #1 SWD (Indian Flats SWD). The legal description of the release site is Unit Letter "J" (NW/SE), Section 35, Township 21 South, Range 28 East, in Eddy County, New Mexico. The geographic coordinates of the release site are 32.433905° North latitude and 104.055425° West longitude. The property affected by the release is owned by the United States Department of the Interior - Bureau of Land Management (BLM). Please reference Figure 1 for a "Site Location Map".

On February 8, 2012, BOPCO discovered a release had occurred at the Indian Flats Salt Water Disposal (SWD). A half-inch (1/2") fitting on the discharge line of a salt water disposal pump failed, resulting in a release of produced water. The release was immediately reported to the New Mexico Oil Conservation Division (NMOCD) Artesia District Office. The "Release Notification and Corrective Action" (Form C-141) indicated approximately two hundred barrels (200 bbls) of produced water were released. During initial response activities, the fitting was replaced, and a vacuum truck was utilized to recover approximately one hundred and sixty barrels (160 bbls) of produced water. Heavily impacted soil was scraped up and stockpiled on-site, pending final disposition. The release affected an area measuring approximately ten thousand, eight hundred and seventy-five square feet (10,875 ft<sup>2</sup>), which included the area around the pump, the caliche pad surrounding the Indian Flats SWD, and a nearby lease road.

On May 23, 2012, BOPCO discovered a second release had occurred at the Indian Flats SWD. A one-inch (1") valve on a salt water disposal pump was inadvertently left open, causing the sump to overflow. The release was immediately reported to the NMOCD Artesia District Office. The Form C-141 indicated approximately fifty barrels (50 bbls) of produced water were released. During initial response activities, a vacuum truck was utilized to recover approximately ten barrels (10 bbls) of produced water. Heavily impacted soil was scraped up and stockpiled on-site, pending final disposition. The release affected an area measuring approximately eight thousand square feet (8,000 ft<sup>2</sup>) and commingled with the areas impacted by the February 8, 2012, release.

On May 25, 2012, BOPCO discovered a third release had occurred at the Indian Flats SWD. A gauge on a salt water disposal pump failed, resulting in a release of produced water. The release was immediately reported to the NMOCD Artesia District Office. The Form C-141 indicated approximately eighty barrels (80 bbls) of produced water were released. During initial response activities, the faulty gauge was replaced, and a vacuum truck was utilized to recover approximately twenty barrels (20 bbls) of produced water. The release affected an area measuring approximately five thousand square feet (5,000 ft<sup>2</sup>) and commingled with the areas impacted by the February 8 and May 23, 2012, releases.

On June 21, 2012, BOPCO discovered a fourth release had occurred at the Indian Flats SWD. During installation of a new heater treater at the site, a three-inch (3") line from the flow line header to the on-site storage tanks broke, resulting in a release of crude oil. The release was immediately reported to the NMOCD Artesia District Office. The Form C-141 indicated approximately fifteen barrels (15 bbls) of produced water were released. During initial response activities, a vacuum truck was utilized to recover approximately five barrels (5 bbls) of crude oil.

The release affected an area measuring approximately one thousand, five hundred square feet  $(1,500 \text{ ft}^2)$  and was confined to the earthen containment surrounding the tank battery.

On November 27, 2012, BOPCO discovered a fifth release had occurred at the Indian Flats SWD. A back-pressure valve on an SWD pump failed, resulting in a release of produced water. The release was immediately reported to the NMOCD Artesia District Office. The Form C-141 indicated approximately eighty barrels (80 bbls) of produced water were released. During initial response activities, the faulty back-pressure valve was replaced, and a vacuum truck was utilized to recover approximately seventy barrels (70 bbls) of produced water. The release affected an area measuring approximately four thousand, five hundred square feet (4,500 ft<sup>2</sup>) and commingled with the areas impacted by the February 8, May 23, and May 25, 2012, releases.

On April 25, 2013, BOPCO discovered a sixth release had occurred at the Indian Flats SWD. The strainer on the suction to the SWD clogged, causing the pump to discharge at a rate that was insufficient to keep up with the incoming produced water. The alarm system failed to report both high tank levels and high discharge pressure, resulting in an overflow of produced water. The release was immediately reported to the NMOCD Artesia District Office. The Form C-141 indicated approximately three hundred and seventy-five barrels (375 bbls) of produced water were released. During initial response activities, the strainer was removed and cleaned, and a vacuum truck was utilized to recover approximately ten barrels (10 bbls) of produced water. The release commingled with the areas impacted by the February 8, May 23, May 25, June 21, and November 27, 2012, releases.

The six (6) releases were remediated concurrently. The Forms C-141 are provided as Appendix A. General photographs of the release site(s) are provided as Appendix B.

### 2.0 NMOCD SITE CLASSIFICATION

A search of the New Mexico Water Rights Reporting System (NMWRRS) database maintained by the New Mexico Office of the State Engineer (NMOSE) indicated information was unavailable for Section 35, Township 21 South, Range 28 East. A depth-to-groundwater reference map utilized by the NMOCD indicates groundwater should be encountered approximately one hundred and forty feet (140') below ground surface (bgs). Based on the NMOCD ranking system, zero (0) points will be assigned to the site as a result of this criterion.

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

There are no surface water bodies within one thousand feet (1,000') of the release. Based on the NMOCD ranking system, zero (0) points will be assigned to the site as a result of this criterion.

NMOCD guidelines indicate the Indian Flats SWD 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:

2289-1457



- Benzene 10 mg/kg (ppm)
- Benzene, ethylbenzene, toluene, and xylenes (BTEX) 50 mg/kg (ppm)
- Total petroleum hydrocarbons (TPH) 5,000 mg/kg (ppm)

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

### **3.0 SUMMARY OF SOIL REMEDIATION ACTIVITIES**

On February 23, 2012, delineation of the February 8, 2012, release commenced. A series of delineation trenches were advanced at the site to investigate the horizontal and vertical extent of impacted soil. The delineation trenches were advanced to total depths of approximately five feet (5') bgs. Soil samples collected from the floors of the delineation trenches were field-screened with a chloride test kit. Field-screen test results indicated further vertical delineation of the release site would be required.

On March 6, 2012, two (2) soil borings were advanced at the site to further delineate the vertical extent of soil impacted by the February 8, 2012, release. Soil samples were collected at five-foot (5') drilling intervals and field-screened using a Photo-Ionization Detector (PID) and/or chloride test kit. Selected soil samples were submitted to Cardinal Laboratories in Hobbs, New Mexico, for analysis of BTEX, TPH, and/or chloride concentrations in accordance with Environmental Protection Agency (EPA) Methods SW-846 8021b, SW-846 8015M, and 4500 Cl-B; respectively. Table I summarizes the "Concentrations of Benzene, BTEX, TPH & Chloride in Soil". A "Site & Sample Location Map" is provided as Figure 2. Soil boring logs are provided as Appendix C. Laboratory analytical reports are provided as Appendix E.

Soil boring SB-1 was advanced at the terminus of the flow path of the release. The soil boring was advanced to a total depth of approximately thirty feet (30') bgs. Soil samples collected at drilling depths of five feet (5'), ten feet (10'), twenty-five feet (25'), and thirty feet (30') bgs were submitted to the laboratory for analysis of BTEX, TPH, and/or chloride concentrations. Laboratory analytical results indicated BTEX constituent concentrations were less than the appropriate laboratory method detection limit (MDL) in all submitted soil samples. TPH concentrations ranged from less than the laboratory MDL in soil sample SB-1 @ 30' to 68.2 mg/kg in soil sample SB-1 @ 5'. Chloride concentrations ranged from 320 mg/kg in soil sample SB-1 @ 10'.

Soil boring SB-2 was advanced near the release point, approximately one hundred and eightyfour feet (184') to the east-northeast of soil boring SB-1. The soil boring was advanced to a total depth of approximately thirty-five feet (35') bgs. Soil samples collected at drilling depths of five feet (5'), ten feet (10'), twenty feet (20'), thirty feet (30'), and thirty-five feet (35') bgs were submitted to the laboratory for analysis of BTEX, TPH, and/or chloride concentrations. Laboratory analytical results indicated BTEX and TPH constituent concentrations were less than the appropriate laboratory MDL in all submitted soil samples. Chloride concentrations ranged from 336 mg/kg in soil sample SB-1 @ 35' to 3,880 mg/kg in soil sample SB-1 @ 5'. On December 12, 2012, after having procured both permission from the landowner (BLM) and the proper permit from the NMOSE (File #CP-01118), five (5) soil borings (SB-3 through SB-7) were advanced at the site to further delineate the vertical extent of soil impacted by the May 23, May 25, June 21, and November 27, 2012, releases. Soil samples were collected at five-foot (5') drilling intervals and field-screened using a PID and/or chloride test kit. Selected soil samples were submitted to the laboratory for analysis of BTEX, TPH, and/or chloride concentrations. BLM and NMOSE permits (which had not been required for the March 6, 2012, drilling event) are provided in Appendix D.

Soil boring SB-3 (Background) was advanced to the southeast of the release site(s), in order to establish the baseline concentration of chlorides in the area. The soil boring was advanced to a total depth of approximately twenty-five feet (25') bgs. Soil samples collected at the ground surface and at drilling depths of five feet (5'), ten feet (10'), fifteen feet (15'), twenty feet (20'), and twenty-five feet (25') bgs were submitted to the laboratory for analysis of chloride and/or TPH concentrations. Soil sample SB-3 (Background) @ 10' was also analyzed for concentrations of BTEX. Laboratory analytical results indicated chloride concentrations ranged from 32.0 mg/kg in soil sample SB-3 (Background) @ 25' to 64.0 mg/kg in soil sample SB-3 (Background) @ 25' to 64.0 mg/kg in soil sample SB-3 (Background) @ 5'. TPH and BTEX constituent concentrations were less than the appropriate laboratory MDL in all submitted soil samples.

Soil boring SB-4 was advanced inside the earthen containment area surrounding the Indian Flats SWD, to the west of the two (2) on-site production tanks. The soil boring was advanced to a total depth of approximately fifty-six feet (56') bgs. Soil samples collected at the ground surface and at drilling depths of five feet (5'), ten feet (10'), twenty feet (20'), thirty feet (30'), forty feet (40'), fifty feet (50'), and fifty-five feet (55') bgs were submitted to the laboratory for analysis of BTEX, TPH, and/or chloride concentrations. Laboratory analytical results indicated BTEX constituent concentrations were less than the appropriate laboratory MDL in all submitted soil samples. TPH concentrations ranged from less than the laboratory MDL in soil sample SB-4 @ 30' Chloride concentrations ranged from 848 mg/kg in soil sample SB-4 @ 50' to 3,520 mg/kg in soil sample SB-4 @ Surface.

Soil boring SB-5 was advanced in the approximate center of the earthen containment area surrounding the Indian Flats SWD, between the two (2) on-site production tanks and the gun barrel tank. The soil boring was advanced to a total depth of approximately fifty feet (50') bgs. Soil samples collected at the ground surface and at drilling depths of five feet (5'), ten feet (10'), fifteen feet (15'), twenty feet (20'), thirty feet (30'), forty-five feet (45'), and fifty feet (50') bgs were submitted to the laboratory for analysis of BTEX, TPH, and/or chloride concentrations. Laboratory analytical results indicated BTEX constituent concentrations were less than the appropriate laboratory MDL in all submitted soil samples. TPH concentrations ranged from less than the laboratory MDL in soil samples SB-5 @ 10', SB-5 @ 45', and SB-5 @ 50' to 116 mg/kg in soil sample SB-5 @ 30'. Chloride concentrations ranged from 688 mg/kg in soil sample SB-5 @ 50' to 2,440 mg/kg in soil sample SB-5 @ 20'.

Soil boring SB-6 was advanced at the terminus of the comingled flow paths of the February 8, May 23, May 25, and November 27, 2012, releases, approximately fifteen feet (15') to the east of soil boring SB-1. The soil boring was advanced to a total depth of approximately forty-feet (40') bgs. Soil samples collected at the ground surface and at drilling depths of five feet (5'), ten feet

(10'), fifteen feet (15'), twenty-five feet (25'), thirty-five feet (35'), and forty feet (40') bgs were submitted to the laboratory for analysis of BTEX, TPH, and/or chloride concentrations. Laboratory analytical results indicated BTEX and TPH constituent concentrations were less than the appropriate laboratory MDL in all submitted soil samples. Chloride concentrations ranged from 112 mg/kg in soil sample SB-6 @ 40' to 3,680 mg/kg in soil sample SB-6 @ Surface.

Soil boring SB-7 was advanced along the comingled flow paths of the February 8, May 23, May 25, and November 27, 2012, releases, approximately seventy feet (70') to the west-southwest of soil boring SB-2. The soil boring was advanced to a total depth of approximately sixty-five feet (65') bgs. Soil samples collected at the ground surface and at drilling depths of five feet (5'), ten feet (10'), twenty feet (20'), thirty feet (30'), forty feet (40'), fifty feet (50'), sixty feet (60'), and sixty-five feet (65') bgs were submitted to the laboratory for analysis of BTEX, TPH, and/or chloride concentrations. Laboratory analytical results indicated BTEX and TPH constituent concentrations were less than the appropriate laboratory MDL in all submitted soil samples. Chloride concentrations ranged from 288 mg/kg in soil sample SB-7 @ 30' to 13,200 mg/kg in soil sample SB-7 @ Surface.

On May 31 and June 3, 2013, after having procured both permission from the landowner (BLM) and the proper permit from the NMOSE (File #CP-01171), three (3) soil borings (SB-8 through SB-10) were advanced at the site to further delineate the vertical extent of impacted soil from the April 25, 2013 release. Soil samples were collected at five-foot (5') drilling intervals and field-screened using a PID and/or chloride test kit. Selected soil samples were submitted to the laboratory for analysis of BTEX, TPH, and/or chloride concentrations. BLM and NMOSE permits are provided in Appendix D.

Soil boring SB-8 was advanced at the terminus of the flow path of the release, approximately forty feet (40') to the east of soil boring SB-6 and approximately fifty-five feet (55') to the east of soil boring SB-1. The soil boring was advanced to a total depth of approximately seventy feet (70') bgs. Soil samples collected at drilling depths of five feet (5'), ten feet (10'), twenty-five feet (25'), forty feet (40'), fifty-five feet (55'), sixty-five feet (65'), and seventy feet (70') bgs were submitted to the laboratory for analysis of BTEX, TPH, and/or chloride concentrations. No surface sample was collected, as the in-situ soil had been disturbed by construction activities at the site. Laboratory analytical results indicated BTEX constituent concentrations were less than the appropriate laboratory MDL in all submitted soil samples. TPH concentrations ranged from less than the laboratory MDL in soil samples SB-8 @ 10', SB-8 @ 40', SB-8 @ 55', and SB-8 @ 65' to 32.9 mg/kg in soil sample SB-8 @ 5'. Chloride concentrations ranged from 256 mg/kg in soil sample SB-8 @ 65' to 2,400 mg/kg in soil sample SB-8 @ 10'.

Soil boring SB-9 was advanced inside the earthen containment area surrounding the Indian Flats SWD, to the east of the on-site produced water storage tanks. The soil boring was advanced to a total depth of one hundred and ten feet (110') bgs. Soil samples collected at drilling depths of five feet (5'), ten feet (10'), twenty-five feet (25'), forty-five feet (45'), sixty feet (60'), seventy-five feet (75'), eighty-five feet (85'), ninety-five feet (95'), one hundred feet (100'), one hundred and five feet (105'), and one hundred and ten feet (110') bgs were submitted to the laboratory for analysis of BTEX, TPH, and/or chloride concentrations. No surface sample was collected, as the in-situ soil had been disturbed by construction activities at the site. Laboratory analytical results indicated BTEX and TPH constituent concentrations were less than the appropriate laboratory

MDL in all submitted soil samples. Chloride concentrations ranged from 336 mg/kg in soil sample SB-9 @ 105' to 3,680 mg/kg in soil sample SB-9 @ 5'.

Soil boring SB-10 was advanced inside the earthen containment area surrounding the Indian Flats SWD, to the east of the on-site produced water storage tanks, and approximately fifteen feet (15') to the north of soil boring SB-9. The soil boring was advanced to a total depth of approximately one hundred and fifteen feet (115') bgs. Soil samples collected at drilling depths of five feet (5'), ten feet (10'), twenty-five feet (25'), forty feet (40'), fifty feet (50'), seventy feet (70'), eighty feet (80'), ninety feet (90'), one hundred feet (100'), one hundred and ten feet (110'), and one hundred and fifteen feet (115') bgs were submitted to the laboratory for analysis of BTEX, TPH, and/or chloride concentrations. No surface sample was collected, as the in-situ soil had been disturbed by construction activities at the site. Laboratory analytical results indicated BTEX and TPH constituent concentrations were less than the appropriate laboratory MDL in all submitted soil samples. Chloride concentrations ranged from 608 mg/kg in soil sample SB-10 @ 100' to 7,440 mg/kg in soil sample SB-10 @ 10'.

On June 5, 2013, approximately one hundred and twenty cubic yards (120 yd<sup>3</sup>) of stockpiled material on-site was transported to Lea Land, Inc. (NMOCD Permit # WM-01-035), for disposal.

On June 6, 2013, excavation of impacted soil commenced at the site. A chloride test kit was used to field-screen the horizontal extent of impacted soil and to guide the excavation. From June 6 through July 11, 2013, approximately three thousand, two hundred and sixty cubic yards (3,260 yd<sup>3</sup>) of impacted soil was excavated and transported to Lea Land, Inc., for disposal.

On June 14, 2013, two (2) soil samples (North Wall #1 and South Wall #1) were collected from the sidewalls of the excavation and submitted to the laboratory for analysis of TPH and chloride concentrations. Laboratory analytical results indicated TPH concentrations were less than the laboratory MDL in all submitted soil samples. Chloride concentrations ranged from 864 mg/kg in soil sample South Wall #1 to 960 mg/kg in soil sample North Wall #1.

On June 24, 2013, four (4) soil samples (North Wall #2, South Wall #2, East Wall #1, and West Wall #1) were collected from the sidewalls of the excavation and submitted to the laboratory for analysis of TPH and chloride concentrations. Laboratory analytical results indicated TPH concentrations were less than the laboratory MDL in all submitted soil samples. Chloride concentrations ranged from 304 mg/kg in soil sample South Wall #2 to 640 mg/kg in soil sample West Wall #1.

On July 3, 2013, two (2) soil samples (South Wall #3 and South Wall #4) were collected from the sidewalls of the excavation and submitted to the laboratory for analysis of TPH and chloride concentrations. Laboratory analytical results indicated TPH concentrations were less than the laboratory MDL in all submitted soil samples. Chloride concentrations ranged from 512 mg/kg in soil sample South Wall #3 to 576 mg/kg in soil sample South Wall #4.

On July 10, 2013, two (2) soil samples (North Wall #3 and North Wall #4) were collected from the sidewalls of the excavation and submitted to the laboratory for analysis of TPH and chloride concentrations. Laboratory analytical results indicated TPH concentrations were less than the laboratory MDL in all submitted soil samples. Chloride concentrations ranged from 2,800 mg/kg in soil sample North Wall #3 to 3,680 mg/kg in soil sample North Wall #4.

Further excavation in the areas represented by soil samples North Wall #3 and North Wall #4 was deemed impracticable due to the presence of an active truck lane and load line adjacent to the excavation. The truck lane represents the only thoroughfare to two (2) active production wells to the west of the Indian Flats SWD. Limiting access to both the production wells and the Indian Flats SWD would have placed an undue financial burden on BOPCO and introduced an environmental hazard due to the increased risk for subsequent releases.

On the morning of July 16, 2013, a representative of BOPCO met with a representative of the NMOCD Artesia District Office to request permission to leave soil represented by soil samples North Wall #3 and North Wall #4 in-situ. Permission was also requested to install a twenty (20) mil polyurethane liner on the floor of the excavation. The requests were approved by the NMOCD representative.

On the afternoon of July 16, 2013, a twenty (20) mil polyurethane liner was installed on the floor excavation at approximately four feet (4') bgs. A cushion of sand was installed approximately one foot (1') both above and below the liner to protect the liner from damage during installation and backfilling activities.

Based on laboratory analytical results, and with NMOCD approval, from July 19 through July 24, 2013, the excavation was backfilled in eighteen-inch (18") lifts, compacted, and contoured to fit the surrounding topography. Prior to backfilling, the final dimensions of the excavation were approximately two hundred and sixty feet (260') in length, varying in width from approximately forty feet (40') to approximately eighty feet (80'), and approximately five feet (5') in depth.

To mitigate future releases, a new, steel-walled containment area has been constructed around the Indian Flats SWD. A felt liner has been installed in the floor of the new containment area, and the floor and perimeter walls have been coated with an impermeable, spray-on polyurethane liner. The steel perimeter walls extend approximately two feet (2') above ground surface.

## 4.0 QA/QC PROCEDURES

## 4.1 Soil Sampling

Soil samples were delivered to Cardinal Laboratories 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 Methods 4500 Cl-B

## 4.2 **Decontamination of Equipment**

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

# 4.3 Laboratory Protocol

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

# 5.0 SITE CLOSURE REQUEST

Soil samples collected from the sidewalls of the Indian Flats SWD excavation were analyzed by an NMOCD-approved laboratory, and concentrations of benzene, BTEX, and TPH were below the regulatory remediation action levels established for the site by the NMOCD.

The release site was excavated to the extent practicable. A twenty (20) mil polyurethane liner was installed on the floor of the excavation, and the floor and perimeter walls of the new steel containment area surrounding the Indian Flats SWD were coated with a spray-on polyurethane liner. These engineered controls will help mitigate future releases and effectively inhibit vertical migration of contaminants to groundwater. In-situ soil exhibiting chloride contamination above the regulatory remediation action levels established for the site will be remediated upon decommission and/or abandonment of the currently salt water disposal system.

Basin Environmental recommends BOPCO provide the NMOCD Artesia District Office and BLM a copy of this *Remediation Summary & Risk-Based Site Closure Request* and request the NMOCD grant site closure to the Indian Flats SWD release site.

## 6.0 LIMITATIONS

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

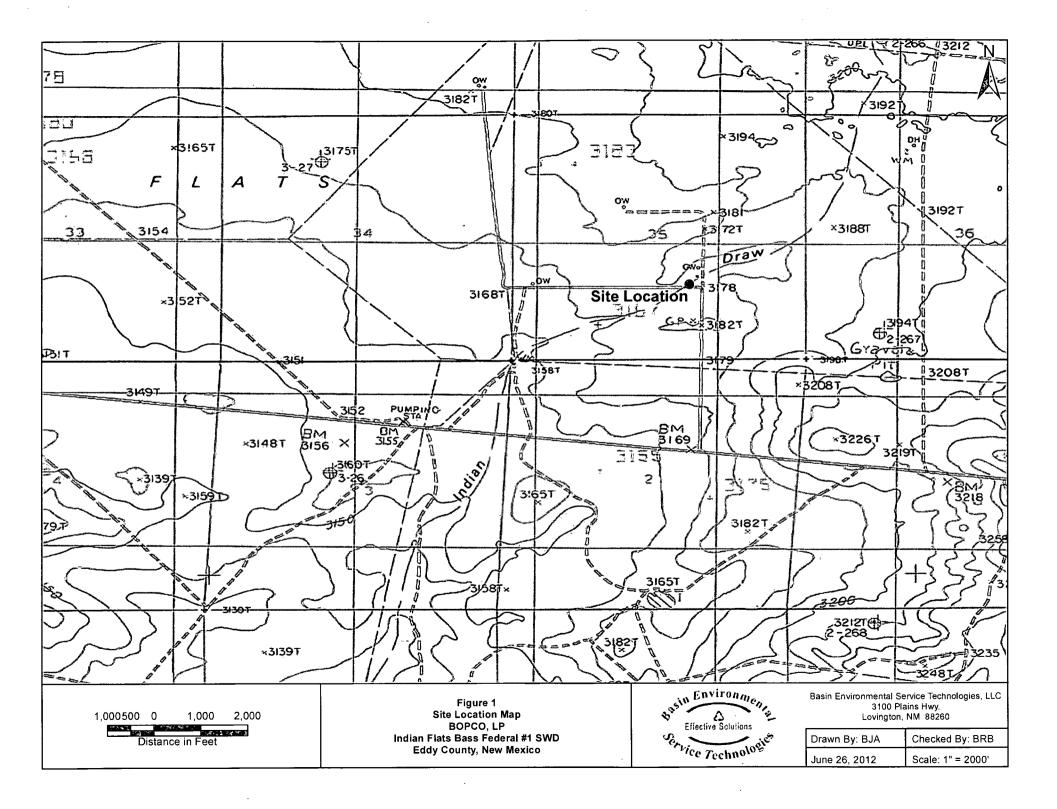
This report has been prepared for the benefit of BOPCO, LP. The information contained in this report, including all exhibits and attachments, may not be used by any other party without the express consent of Basin Environmental Service Technologies, LLC, and/or BOPCO, LP.

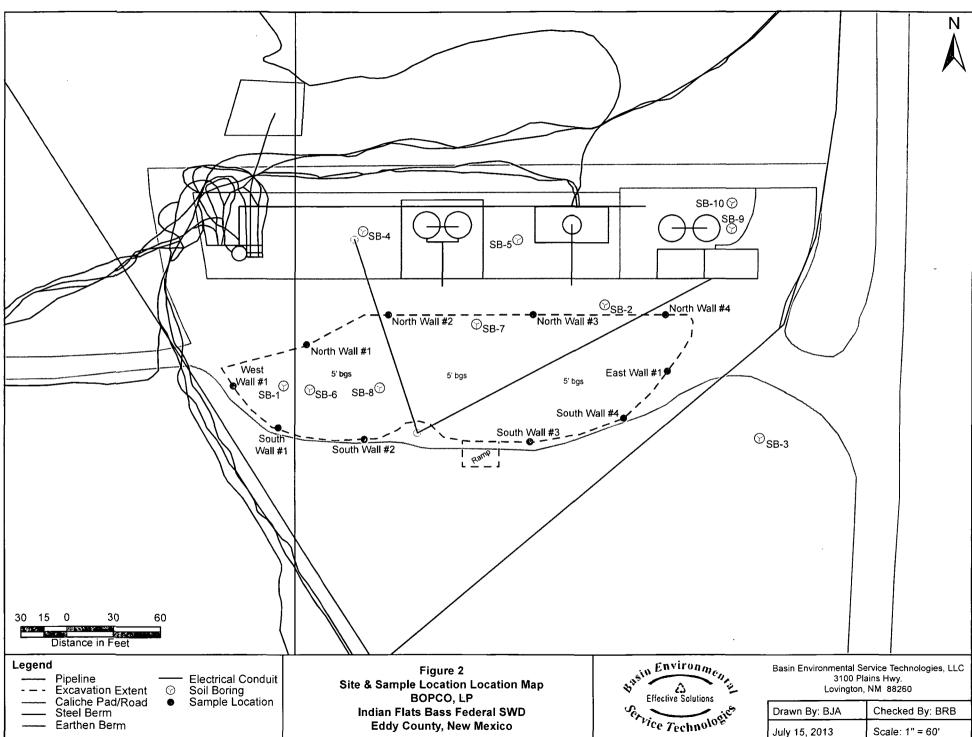
# 7.0 DISTRIBUTION:

- Copy 1: Mike Bratcher New Mexico Energy, Minerals and Natural Resources Department Oil Conservation Division (District 2) 1301 E. Grand Avenue Artesia, NM 88210
- Copy 2: James Amos Bureau of Land Management 602 E. Greene Street Carlsbad, NM 88220
- Copy 3: Tony Savoie BOPCO, LP 522 W. Mermod, Suite 704 Carlsbad, NM 88220
- Copy 4: Basin Environmental Service Technologies, LLC P.O. Box 301 Lovington, NM 88260

# Figures

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July 15, 2013

Scale: 1" = 60'

# Tables

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#### TABLE 1

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

#### BOPCO, LP INDIAN FLATS BASS FEDERAL SWD EDDY COUNTY, NEW MEXICO

					METHOD: E	PA SW 846-80	21B, 5030		ME	THOD: 801	5M	TOTAL	4500 CI-B
SAMPLE LOCATION	SAMPLE DEPTH (BGS)	SAMPLE DATE	SOIL STATUS	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)	TPH C <sub>6</sub> -C <sub>35</sub> (mg/Kg)	CHLORIDE (mg/Kg)
SB-1 @ 5'	5'	3/6/2012	Excavated	-	-	-	-	-	<50.0	68.2	<50.0	68.2	2,440
SB-1@10'	10'	3/6/2012	In-Situ	<0.050	< 0.050	<0.050	< 0.150	-	<10.0	15.4	10.1	25.5	3,320
SB-1@25'	25'	3/6/2012	In-Situ	-	-	-	-	-	-	-	-	-	512
SB-1 @ 30'	30'	3/6/2012	In-Situ	<0.050	< 0.050	< 0.050	<0.150	•	<10.0	<10.0	<10.0	<10.0	320
SB-2@5'	5'	3/6/2012	In-Situ	-	-	-	-	•	<10.0	<10.0	<10.0	<10.0	3,880
SB-2@10	10'	3/6/2012	In-Situ	<0.050	<0.050	< 0.050	<0.150	<0.150	<10.0	<10.0	<10.0	<10.0	2,760
SB-2 @ 20'	20'	3/6/2012	In-Situ	-	-	-	-	-	-	-	-	-	3,720
SB-2 @ 30	30'	3/6/2012	In-Situ	-	-	-	-	-	-	-	-	-	768
SB-2@35	35'	3/6/2012	In-Situ	<0.050	< 0.050	<0.050	<0.150	<0.150	<10.0	<10.0	<10.0	<10.0	336
	•												
SB-3 (Background) @ Surface	Surface	12/12/2012	In-Situ	-	-	-	-	-	-	. 1	-	-	32.0
SB-3 (Background) @ 5'	5'	12/12/2012	In-Situ	-	-	-	-	-	<10.0	<10.0	<10.0	<10.0	64.0
SB-3 (Background) @ 10'	10'	12/12/2012	In-Situ_	< 0.050	< 0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<10.0	48.0
SB-3 (Background) @ 15'	15'	12/12/2012	In-Situ	-	-	-	-		-	-	-	-	32.0
SB-3 (Background) @ 20'	20'	12/12/2012	In-Situ	-	-	-	-	-	-	-	-	-	32.0
SB-3 (Background) @ 25'	25'	12/12/2012	In-Situ	-	-	-	-	-	-	-	-	-	32.0
SB-4 @ Surface	Surface	12/12/2012	In-Situ	-	-	-	-	-	-	-	-	-	3,520
SB-4 @ 5'	5'	12/12/2012	In-Situ	-	-	-	-	-	<10.0	123	34.9	158	928
SB-4 @ 10'	10'	12/12/2012	In-Situ	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	63.1	18.2	81.3	1,620
SB-4 @ 20'	20'	12/12/2012	In-Situ	-	-	-	-	-	-	•	-	-	1,950
SB-4 @ 30'	30'	12/12/2012	In-Situ	<0.050	< 0.050	<0.050	<0.150	<0.300	<10.0	256	60.4	316	2,880
SB-4 @ 40'	40'	12/12/2012	In-Situ	-	-	-	-		-	-	-		1,620
SB-4 @ 50'	50'	12/12/2012	In-Situ	-	-	-	-		<10.0	<10.0	<10.0	<10.0	848
SB-4 @ 55'	55'	12/12/2012	In-Situ	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	33.2	<10.0	33.2	896
SB-5 @ Surface	Surface	12/12/2012	In-Situ	-	-	-	-	-	-	-		-	976
SB-5@5'	5'	12/12/2012	In-Situ	-	-	-	-	-	-	-	-	-	736
SB-5@10'	10'	12/12/2012	In-Situ	-	-	-	-	-	<10.0	<10.0	<10.0	<10.0	1,230
SB-5@15'	15'	12/12/2012	In-Situ	<0.050	< 0.050	<0.050	<0.150	<0.300	<10.0	20.9	<10.0	20.9	2,000
SB-5@20'	20'	12/12/2012	In-Situ	-	-	-	-		-	-	-	-	2,440
SB-5@30'	30'	12/12/2012	In-Situ	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	104	12.4	116	1,040
SB-5@45'	45'	12/12/2012	In-Situ	-	-	-	-	-	<10.0	<10.0	<10.0	<10.0	992
SB-5@50'	50'	12/12/2012	In-Situ	<0.050	<0.050	< 0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<10.0	688
						•'							

#### TABLE 1

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

#### BOPCO, LP INDIAN FLATS BASS FEDERAL SWD EDDY COUNTY, NEW MEXICO

					METHOD: EI	PA SW 846-80	21B, 5030		ME	THOD: 801	5M	TOTAL	4500 CI-B
SAMPLE LOCATION	SAMPLE DEPTH (BGS)	SAMPLE DATE	SOIL STATUS	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)	TPH C <sub>6</sub> -C <sub>35</sub> (mg/Kg)	CHLORIDE (mg/Kg)
SB-6 @ Surface	Surface	12/12/2012	Excavated	-	-	-	-	-	-	-	-	-	3,680
SB-6 @ 5'	5'	12/12/2012	Excavated	-	-	-	-	-	•	-	-	-	192
SB-6@10'	10'	12/12/2012	In-Situ	-	-	-	-	-	<10.0	<10.0	<10.0	<10.0	1,520
SB-6@15'	15'	12/12/2012	In-Situ	<0.050	<0.050	<0.050	<0.150	< 0.300	<10.0	<10.0	<10.0	<10.0	2,000
SB-6 @ 25'	25'	12/12/2012	In-Situ	-	-	-	-	-	-	-	-	-	304
SB-6 @ 35'	35'	12/12/2012	In-Situ	-	-	-	-	-	<10.0	<10.0	<10.0	<10.0	144
SB-6 @ 40'	40'	12/12/2012	In-Situ	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<10.0	112
SB-7 @ Surface	Surface	12/12/2012	Excavated	-	-	-	-	-	-	-	-	-	13,200
SB-7@5	5'	12/12/2012	Excavated	-	-	-	-	-	<10.0	<10.0	<10.0	<10.0	384
SB-7@10	10'	12/12/2012	In-Situ	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<10.0	784
SB-7 @ 20'	20'	12/12/2012	In-Situ	-	-	-	-	-	-	-		-	304
SB-7@30'	30'	12/12/2012	In-Situ	<0.050	< 0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<10.0	288
SB-7 @ 40'	40'	12/12/2012	In-Situ	-	-	-	-	-	-	-		-	368
SB-7@50'	50'	12/12/2012	In-Situ	-	-	-	-	-	-	-	-	-	704
SB-7 @ 60'	60'	12/12/2012	In-Situ	-	-	-	-	-	<10.0	<10.0	<10.0	<10.0	576
SB-7@65'	65'	12/12/2012	In-Situ	<0.050	<0.050	< 0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<10.0	496
SB-8@5'	5'	5/31/2013	Excavated	< 0.050	<0.050	<0.050	<0.150	<0.300	<10.0	17.4	15.5	32.9	928
SB-8@10'	10'	5/31/2013	In-Situ	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<10.0	2,400
SB-8 @ 25'	25'	5/31/2013	In-Situ	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	11.7	10.2	21.9	1,570
SB-8 @ 40'	40'	5/31/2013	In-Situ	-	-	-	-	-	-	-	-	<10.0	672
SB-8 @ 55'	55'	5/31/2013	In-Situ	-	-	-	-	-	-	-	-	<10.0	512
SB-8@65'	65'	5/31/2013	In-Situ	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<10.0	256
SB-8@70'	70'	5/31/2013	In-Situ	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	13.2	<10.0	13.2	352
SB-9@5	5'	5/31/2013	In-Situ	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<10.0	3,680
SB-9@10'	10'	5/31/2013	In-Situ	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<10.0	3,600
SB-9@25	25'	5/31/2013	In-Situ	-		-	-	-	-	-	-	-	3,320
SB-9@45	45'	5/31/2013	In-Situ	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<10.0	1,090
SB-9@60'	60'	5/31/2013	In-Situ	<0.050	<0.050	<0.050	<0.150	< 0.300	<10.0	<10.0	<10.0	<10.0	2,100
SB-9@75'	75'	5/31/2013	In-Situ	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<10.0	1,680
SB-9@85	85'	5/31/2013	In-Situ	-	-	-	-	•	-	-		-	800
SB-9@95'	95'	5/31/2013	In-Situ	-	-	-	-	-	-	-	-	-	512
SB-9@100	100'	5/31/2013	In-Situ	-	-	-	-	-	-	-	-		512
SB-9@105	105'	5/31/2013	In-Situ	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<10.0	336
SB-9@110'	110'	5/31/2013	In-Situ	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<10.0	688
										L			

#### TABLE 1

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

#### BOPCO, LP INDIAN FLATS BASS FEDERAL SWD EDDY COUNTY, NEW MEXICO

					METHOD: EI	PA SW 846-80	21B, 5030		ME	THOD: 801	5M	TOTAL	4500 CI-B
SAMPLE LOCATION	SAMPLE DEPTH (BGS)	SAMPLE DATE	SOIL STATUS	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)	TPH C₅-C <sub>35</sub> (mg/Kg)	CHLORIDE (mg/Kg)
SB-10@5'	5'	6/3/2013	In-Situ	< 0.050	< 0.050	< 0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<10.0	5,120
SB-10 @ 10'	10'	6/3/2013	In-Situ	< 0.050	< 0.050	< 0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<10.0	7,440
SB-10@25'	25'	6/3/2013	In-Situ	-	-	-	-	-	-	-	-	-	704
SB-10 @ 40'	40'	6/3/2013	In-Situ	-	-	-	-	-	-	-	-	-	1,090
SB-10 @ 50'	50'	6/3/2013	In-Situ	< 0.050	<0.050	<0.050	< 0.150	<0.300	<10.0	<10.0	<10.0	<10.0	3,520
SB-10 @ 70'	70'	6/3/2013	In-Situ	< 0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<10.0	2,180
SB-10 @ 80'	80'	6/3/2013	In-Situ	-	-	-	-	-	-	-	-	-	768
SB-10 @ 90'	90'	6/3/2013	In-Situ	< 0.050	< 0.050	<0.050	< 0.150	< 0.300	<10.0	<10.0	<10.0	<10.0	1,170
SB-10 @ 100'	100'	6/3/2013	In-Situ	-	-	-	-	-	-	-	-	-	608
SB-10 @ 110'	110'	6/3/2013	In-Situ	< 0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<10.0	672
SB-10@115'	115'	6/3/2013	In-Situ	< 0.050	<0.050	<0.050	< 0.150	<0.300	<10.0	<10.0	<10.0	<10.0	1,060
South Wall #1	3.5'	6/14/2013	In-Situ	-	-	-	-	-	<10.0	<10.0	<10.0	<10.0	864
North Wall #1	3.5'	6/14/2013	In-Situ	-	-	-	-		<10.0	<10.0	<10.0	<10.0	960
North Wall #2	3.5'	6/24/2013	 In-Situ	-	-	-		-	<10.0	<10.0	<10.0	<10.0	368
East Wall #1	3.5'	6/24/2013	In-Situ	-		-		-	<10.0	<10.0	<10.0	<10.0	416
South Wall #2	3.5'	6/24/2013	In-Situ	-	-	-	-		<10.0	<10.0	<10.0	<10.0	304
West Wall #1	3.5'	6/24/2013	In-Situ	-	-	-	-		<10.0	<10.0	<10.0	<10.0	640
South Wall #3	3.5'	7/3/2013	In-Situ	-	-	-	-	-	<10.0	<10.0	<10.0	<10.0	512
South Wall #4	3.5'	7/3/2013	In-Situ	-	-	-		-	<10.0	<10.0	<10.0	<10.0	576
North Wall #3	3.5'	7/10/2013	In-Situ	-	-	-	-		<10.0	<10.0	<10.0	<10.0	2,800
North Wall #4	3.5'	7/10/2013	In-Situ		~	-			<10.0	<10.0	<10.0	<10.0	3,680
NMOCD Criteria			·	10					50			5,000	1.000

= Not analyzed.

# Appendices

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

Oil Conservation Division 1220 South St. Francis Dr. Santa Fe. NM 87505 Submit 2 Copies to appropriate District Office in accordance with Rule 116 on back side of form

	and a state of the second s			UU U	1104 1	$\mathbf{c}, \mathbf{n} \mathbf{v} \mathbf{i} \mathbf{o} \mathbf{i} \mathbf{j}$	<b>V</b> J					
			Rele	ase Notific	atio	n and Co	orrective A	ctio	n			
n MLB 120	524239	7				<b>OPERA</b>	ГOR		🛛 Initia	al Report		Final Report
Name of Co	mpany BC	PCO, L.P.		260737		Contact Tor	iy Savoie			·		
			4 Carlsb	ad, N.M. 88220		Telephone 1	No. 432-556-87	30		•		
Facility Nar	ne: Indian	Flats Bass F	ederal #1	SWD		Facility Typ	e: E&P			0-015	5 - 2	4968
Surface Ow	ner Federa	1		Mineral O	wner	Federal			Lease N	lo. LC-067	7144	
<u>,</u>				LOCA	สาก	N OF RE	FASE					
Unit Letter	Section	Township	Range	Feet from the		Nouth Line	Feet from the	East/	West Line	County		
J	35	215	28E							Eddy		
	L			atituda N 23 A	2005		J. W 104 0554	ـــــــــــــــــــــــــــــــــــــ				······································
			Li	atitude_N 32.43 NAT	-	Longitu		25_				
Type of Rele	ase: Produc	ed water				the second s	Release: 200 bbl	s	Volume F	Recovered:	160 bbl	s
Source of Re	lease: 1/2' fit	tting on the pu	imp discha	arge line.			lour of Occurrence the unknown	ce	Date and 2/8/12 9:0	Hour of Dis	scovery	
Was Immedi	ate Notice (		Yes [	] No 📋 Not Re	equired	If YES, To	Whom?					
By Whom? T	ony Savoie	;				Date and I	Hour 2/8/12 11:44	a.m.				
Was a Water		hed?		-			olume Impacting					
(			Yes 🛛	No		RECEIVED						
Describe Cat	ise of Probl	em and Reme	dial Actio	n Taken.* a ½' fit	ting or	the discharge	of the salt water	dispos		FEB MOCD	ART	ESIA
well pad. Th The Site rem I hereby cert regulations a public health should their or the enviro	e free stand ediation for ify that the ll operators or the envi operations h nment. In a	ing fluid was the produced information g are required t ronment. The ave failed to	picked up water will iven above o report an acceptance adequately OCD accept	cen. *The released with a vacuum tru l follow the NMO is true and comp nd/or file certain r ce of a C-141 report investigate and r phance of a C-141	ick and CD gu lete to elease ort by t emedia	the saturated idelines for le the best of my notifications a he NMOCD m ate contaminat	soil was scraped aks and spills. knowledge and u nd perform corre- narked as "Final R ion that pose a the	up and underst ctive ac Report" reat to	stockpiled o and that purs ctions for rel does not rel ground wate	suant to NM eases which ieve the ope r, surface w	IOCD r may entror of ater, hu	ules and ndanger f liability man health
							OIL CON	SER	VATION	DIVISIO	ON	-
Signature:	TQ	my Z	que	۶		Approved by District Supervisor:						
Printed Nam	e: Tony Sav	oie					Signed by		1/4 202	Malie-	<u> </u>	
Title: Waste	Mgmt.& Re	mediation Sp	ecialist			Approval Date: FEB 2 1 201			Expiration	Date:		
E-mail Addr Date: 2/20/1		oie@BassPet.		Phone:432-556-8	Conditions of Approval:			) Rule	s &	Attached	1 🗌	
Attach Addi		ets If Necess		1 10110.432-330-8		Guidelines	SUBMIT REM NOT LATER T	HAN:		2R	A - 1	1037

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<u>District I</u> 1625 N. French Dr., Hobbs, NM 88240 <u>District II</u> 1301 W. Grand Avenue, Artesia, NM 88210	State of New Mexico Energy Minerals and Natural Resour	RECEIVED	Form C-141 Revised October 10, 2003
District III 1000 Rio Brazos Road, Aztec, NM 87410 District IV 1220 S. St. Francis Dr., Santa Fe, NM 87505	Oil Conservation Division 1220 South St. Francis Dr. Santa Fe, NM 87505	OCT 03 2013 Subn Di NMOCD ARTESIA	it 2 Copies to appropriate trict Office in accordance with Rule 116 on back side of form
Dol	assa Natification and Correcti	vo Action	

# **Release Notification and Corrective Action**

					OPE	RATOR		Initia	l Report	X Final Report
Name of Co	mpany	BOPCO, LI	2			Contact To	ny Savoie			
Address 5	22 W. Me	rmod, Suite	704, Carls	bad, NM 8822	20	Telephone N	No. (432)556-8	730		
Facility Nar	ne Indian	Flats Bass F	ederal #1	SWD		Facility Typ				
Surface Ow				Mineral	Owner	Federal			e No. LC-00	
								API	#30-015-24	968
				LOCA	<b>ATIO</b>	N OF REI	LEASE			
Unit Letter J	Section 35	Township 21S	Range 28E	Feet from the	North	n/South Line	Feet from the	East/West Lin	e County Eddy	
	1	· · · · · · · · ·	Latitu	de 32.4339059			Longitude 10	4.055425° We	<u>st</u>	
				NAT	URE	COF REL				
Type of Rele						produced v	Release 200 bbl vater Iour of Occurrence		e Recovered	
		fitting on the	1	nd Hour of E 9:00 a.m.	Discovery					
Was Immedi										
By Whom?	Tony Savo	ie				Date and H	Iour 2/8/12 11:44	1 a.m.		
Was a Water	course Read		]Yes X	No		If YES, Vo	blume Impacting 1	he Watercourse		
If a Watercou	urse was Im	pacted, Descr	ibe Fully.*							
replaced.						-	-	-		broke. The fitting was
well pad. A	vacuum tru	ck was utilize	ed to remov	ve all of the free	e-standi	ng liquid. Fol	lowing initial resp	ponse activities,	the release	lease road, and caliche was remediated as per
							y & Risk-Based S			
regulations a public health should their	Il operators or the envo operations l	s are required ironment. Th have failed to	to report a ne acceptan adequately	nd/or file certai ce of a C-141 re investigate and	n relea eport b remedi	se notification y the NMOCE iate contamina	s and perform co marked as "Fina tion that pose a t	prrective actions al Report" does hreat to ground	for releases not relieve the water, surfact	to NMOCD rules and , which may endanger he operator of liability we water, human health
		addition, NM ws and/or reg		eptance of a C-I	41 rep	ort does not r		_		bliance with any other
							<u>OIL CON</u>	SERVATIO	N DIVIS	ION
Signature:	10	m R	ania							
Printed Nam	e: (	owy So	woie	<u> </u>		Approved by	District Supervis	or:		· · · · · · · · · · · · · · · · · · ·
Title:		`				Approval Da	te:	Expiration	on Date:	
E-mail Addr	ess:					Conditions o	f Approval:			
Date: 10	13/13	<u>3 рі</u>	none:							

2RP-1037

Oil Conservation Division 1220 South St. Francis Dr. Santa Fe, NM 87505 Submit 2 Copies to appropriate District Office in accordance with Rule 116 on back side of form

1220 5 50.114	icis Di , Saina	11C, NW 0750.	,	Sa	anta F	Fe, NM 875	505					Side of form	
	1		Rele	ease Notific	catio	on and Co	prrective A	ction					
nTM	N 1219	350779				OPERA'			_	al Report	П	Final Report	
Name of Co				260737		Contact Tor			E				
				ad, N.M. 88220	)		No. 432-556-87	30					
Facility Na	me: Indian	Flats Bass F	ederal #	I SWD		Facility Typ	e: E&P						
Surface Ow	mer Federa	1		Mineral C	Juner	Federal			1 anea N	10. LC-06	7-1-1.1	A Pr#	
Indian Fl				Milleral C	Jwnei	reuciai						/f/ _ "	
				LOCA	<b>ATIO</b>	N OF RE	LEASE			-2490	68		
Unit Letter J	Section 35	Township 21S	Range 28E	Feet from the	Nort	h/South Line	Feet from the	East/V	Vest Line	County Eddy			
<u></u>	·		L	atitude_N 32.4	33905	Longitu	de W 104.0554	25_					
				NAT	TURE	E OF REL	EASE						
Type of Rele							Release: 50 bbls			lecovered:			
Source of Re	elease: A SW	/D pump					Hour of Occurrence me unknown	ce	Date and 5/23/12 9	Hour of Dis	scovery	/	
Was Immedi	ate Notice (	Given?				1f YES, To							
Yes No Not Required NMOCD Emergency #104													
By Whom?	Fony Savoie			· · · · ·		Date and Hour 5/23/12 1:30 p.m.							
Was a Water	course Read	hed?	Yes 🗵	] No			olume Impacting		ercourse.				
If a Wataraa	urco woo Im	pacted, Descr											
Describe Ard well pad. Th same area as The Site rem I hereby cert regulations a public health should their or the enviro	ea Affected a e free standi another spil ediation for ify that the i ill operators or the envir operations h nment. In a	and Cleanup A ng fluid was p ll reported on the produced nformation gi are required to ronment. The ave failed to a ddition, NMC	Action Tab bicked up 2/8/12. water will ven above o report ar acceptanc adequately DCD accept	n Taken.* A 1" va cen.*The released with a vacuum tru l follow the NMC e is true and comp nd/or file certain r ce of a C-141 report investigate and r otance of a C-141	I fluid a uck and DCD gu blete to release ort by t remedia	affected approx the saturated addelines for lea the best of my notifications a he NMOCD m ate contaminati	ximately 8,000 sq soil was scraped aks and spills. knowledge and ι nd perform correc arked as "Final R ion that pose a thr	. ft. area up and si understar ctive acti teport" d reat to gr	around the tockpiled o nd that purs ions for rele loes not reli round water	pump, leas n-site. The uant to NM eases which eve the ope	c road spill cc OCD r may e rator o ater, hu	and caliche overed the rules and ndanger f liability uman health	
rederal, state	, or local lav	vs and/or regu	lations.				OIL CON	SEDV	ATION		)NI		
Signature:	e: Tony Sav	- Sau oie	о ш.			Approved by	District Supervis	sor:	gned By_	. P.I	Bren	Mallon	
Title: Waste	Mgmt.& Re	mediation Sp	ecialist			Approval Da	te: JUL 11	2012	Expiration	Date:			
E-mail Addr	ess: TASavo	oie@BassPet.	com	A		Conditions o	f Approval:			Attached			
Date: 6/24/1	2	•	1	Phone:432-556-8	730								
Attach Addi	tional Shee	ets If Necess	ary	Rer	media	tion per OC	D Rules &			2RF	>-17	208	
				Guideli	nes. <b>S</b>	UBMIT REN IOT LATER 1 12	EDIATION		J	CEIV	/ED	)	

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

RECEIVED

Form C-141 Revised October 10, 2003

OCT 0 3 2013submit 2 Copies to appropriate District Office in accordance with Rule 116 on back side of form

# **Release Notification and Corrective Action**

					0			730					
Facility Nar	ne Indian	Flats Bass F	ederal #1	SWD		Facility Typ	e E&P						
Surface Ow	ner Feder	ral		Mineral O	wner	Federal		Lease	No. API	#30-015-24968			
				LOCA	TIO	N OF RE	LEASE						
Unit Letter J	Section 35	Township 21S	Range 28E	Feet from the	Nortl	h/South Line	Feet from the	East/West Line	County Eddy				
			<u>Latit</u>	ude 32.433905°	Nortl	1	Longitude 104	4.055425° Wes					
				NAT	URF	COF REL	EASE						
Type of Rele	ase Produc	ed water					Release 50 bbls	of Volume	Recovered	10 bbls			
Source of Re	lease An S	SWD pump		<u> </u>			lour of Occurrenc		d Hour of D	iscovery			
Was Immedia	ate Notice C	Given?				5/23/12 time unknown         5/23/12 9:00 a.m.           If YES, To Whom?         11							
By Whom? Tony Savoie Date and Hour 5/23/12 1:30 p.m.													
Was a Water	course Read		]Yes 2	X No		If YES, Vo	olume Impacting t	he Watercourse.					
If a Watercou	irse was Im												
		p, 2											
Describe Cau	ise of Probl	em and Reme	dial Actio	n Taken:* A I" va	lve wa	as left open on	the pump, causing	g the sump to ove	rflow. The	valve was closed.			
caliche well Following in	pad. A vacu itial respon	um truck was se activities,	utilized to the releas	o remove all of the	e free-: ed as p	standing liquid	. The spill covere	d the same area a	s another sp	bump, lease road, and bill reported on 2/8/12. attached <i>Remediation</i>			
regulations a public health should their or the enviro	Il operators or the envo operations lonment. In	are required ironment. Th nave failed to	to report le accepta adequatel 10CD acc	and/or file certain nce of a C-141 re y investigate and	n relea port b remed	se notification y the NMOCE iate contamina	s and perform co marked as "Fina tion that pose a the elieve the operato	rrective actions il Report" does r irreat to ground v or of responsibili	for releases, ot relieve the vater, surface ty for comp	to NMOCD rules and which may endanger ne operator of liability e water, human health liance with any other			
		~	<i>(</i>				OIL CON	SERVATIO	N DIVISI	ON			
Signature:	Signature: Toy Saudie Approved by District Supervisor:												
Printed Nam		DNY SO	LUDie	-		Approved by	District Supervis	or:					
Title:						Approval Da	te:	Expiratio	n Date:	· · · · · · · · · · · · · · · · · · ·			
E-mail Addre	ess:					Conditions o	f Approval:						
Date: 0	13/12	S Pł	ione:										

2RP-1208

Oil Conservation Division 1220 South St. Francis Dr. Submit 2 Copies to appropriate District Office in accordance with Rule 116 on back

1220 S St Fran	cis Dr., Santa	a Fe, NM 8/505	)	Sa	anta Fe	, NM 875	505					side of form
			Rel	ease Notific	cation	and Co	orrective A	ction				
nJMW	1219=	152 657				OPERA'			_	al Report		Final Repor
Name of Co	mpany B	OPCO, L.P.		260		Contact Tor						
Address 522	2 W. Mern	nod, Suite 70	)4 Carlst	ad, N.M. 88220			No. 432-556-87	30				
Facility Nat	ne: Indian	Flats Bass F	ederal #	1 SWD		Facility Typ	be: E&P		··········			
Surface Ow	ner Federa	al		Mineral (	Owner F	ederal			Lease 1	No: LC-06	7144	AFEH
Fordian Fla	IS BASI	Fed#1	<u> </u>		TION	OF RE	IFASE	30-0		14968		
Unit Letter	Section	Township	Range	Feet from the		South Line	Feet from the		Vest Line	County		
J	35	215	28E					Lasu	Vest Elle	Eddy		
i <del></del>		L,	I	· · · · ·						<u> </u>		
			L	atitude_N 32.4	33905_	_ Longitu	de W 104.0554	25_				
······				NAT	TURE	OF REL	EASE					
Type of Rele				······································			Release: 80 bbls			Recovered: 2		
Source of Re	lease: A sal	t water transfo	er pump.				lour of Occurrend me unknown	ce	Date and 5/25/12 9	Hour of Dis	scovery	
Was Immedi	ate Notice (	Given?		······································		If YES, To			5125112 5	.00 a.m.	·	
		$\boxtimes$	Yes [	🗌 No 🔲 Not R	equired	Mike Brate	cher					
By Whom? 1						Date and H	lour 5/25/12 11:4	0 a.m.				
Was a Water	course Rea		Yes 🛛			If YES, Vo	olume Impacting	the Wate	ercourse.			
		pacted, Descr										<u></u>
and road at the Describe Are well pad. The rotary rig wa The Site rem I hereby cert regulations a public health should their of	a Affected e free stand s used to de ediation for fy that the ll operators or the envi	The gauge was and Cleanup A ing fluid was etermine the vo- the produced information g are required t ronment. The nave failed to a	s replaced Action Ta picked up ertical ext water wil iven above o report a acceptan adequatel	n Taken.* A gaug ken.*The released with a vacuum tri ent of the first rele ll follow the NMC e is true and comp nd/or file certain ce of a C-141 rep y investigate and n ptance of a C-141	I fluid aff uck. The ease. A ri OCD guid olete to the release no ort by the remediate	ected approx release is in g will be re- lelines for lease e best of my otifications a NMOCD me contaminat	kimately 5,000 sq the same location scheduled to delin aks and spills. knowledge and u nd perform correct arked as "Final R ion that pose a thr	. ft. area as prev neate the understanctive act teport" c reat to g	around the ious spills recent spi nd that pur ions for rel loes not rel round wate	c pump, leas of 2/8/12 an lls. suant to NM eases which ieve the ope r. surface w	e road a d 5/23/ OCD ru may er grator of ater, hu	and caliche 12. An air ules and idanger Tiability man health
federal, state	or local la	ws and/or regi	ulations.									
			0				<u>OIL CON</u>	SERV	ATION	DIVISIO	<u>)N</u>	
Signature:	$\leq 1_{o}$	ny Dai	un_		/	Approved by	District Supervis	sor:		11		
Printed Name	e: Tony Say	J Voie			·			Signe	d By H	lity B	CARTON	2. <b>5</b> 8 _
		emediation Sp	agialist				te: 1 1 2012	1				
				<del></del>		чрргочарыа			Expiration			
E-mail Addro	ess: TASav	oie@BassPet.	com		(	Conditions o	f Approval:			Attached	I 🗌	
Date: 6/24/12				Phone:432-556-8	730							
Attach Addi	tional She	ets If Necess	ary			er OCD Ru				21	RP-	. 1209
				Guidelines. PROPOSAL				1	ECEI			·

1

NMOCD ARTESIA

OPERATOR         Initial Report         X Final Report           Name of Company         BOPCO, LP         Contact Tony Savoie         Toddress         224           Facility Name         Initial Report         Telephone No. (32):556-8730         Toddress         724           Facility Name         Initial Report         Mineral Owner         Federal         Lease No. API #30-015-24968           Surface Owner         Federal         Mineral Owner         Federal         Lease No. API #30-015-24968           Unit Letter         Section         Township         Range         Feet from the         North/South Line         Feet from the         Counced Vestor           Unit Letter         Section         Township         Range         Feet from the         North/South Line         Feet from the         Counced Vestor           Surface Owner         Folder Status         North RELEASE         Volume of Release Produced water         Volume of Release Status         Surface Owner         Surfac	District I 1625 N. French District II 1301 W. Grand District III 1000 Rio Brazo District IV 1220 S. St. Fran	Avenue, Arto 8 Road, Azteo	esia, NM 88210 c, NM 87410	5	Oil C 1220	Conse Sout inta F	ervation Div th St. Franc Fe, NM 875	vision dis Dr. 105	NM	OCD ARTE	Submit 2 Copies to appropriate District Office in accordance		
Name of Company       BOPCO, LP       Contact. Tony Savoie         Addross       522 W. Mermod, Suie 704, Carlsbad, NM 88220       Telephone No. (432)556-8730         Facility Name. Indian Flats Bass Federal #1 SWD       Facility Type E&P         Surface Owner       Federal       Mineral Owner         Unit Letter       Section       Township       Range       Feet from the       East/West Line       Coanty         J       35       218       Range       Feet from the       North/South Line       Feet from the       East/West Line       Coanty         Latitude 32.433905* North       Longitude 104.055425* West       NATURE OF RELEASE       Coanty       Eddy         Type of Release       Produced water       Volume of Release 80 bbls of produced water       Date and Hour of Discovery       525/12 June June June June June June June June						OPE	RATOR			Initial	Report X Final Report		
Facility Name       Indian Flats Bass Federal #1 SWD       Facility Type       E&P         Surface Owner       Federal       Lease No. API #30-015-24968         LOCA TION OF RELEASE       Locase No. API #30-015-24968         Unit Letter       Section       Township       Range       Feet from the       North/South Line       Feet from the       East/West Line       County         Eddy       21S       Z8E       Feet from the       North/South Line       Feet from the       East/West Line       County         Eddy       21S       Z8E       Feet from the       North/South Line       Feet from the       East/West Line       County         Latitude 32.433905*       North       Longitude 104.055425° West       North/South Line       Volume Recovered 20 bbls         Source of Release       An sait water transfer pump       Date and Hour of Courrence       Date and Hour of Discovery       525/12 9:00 a.m.         Was Immediate Notice Given?       X Yes       No       If YES, To Whom?       Thy Source       Date and Hour 5725/12 11:40 p.m.         Was Immediate Notice Given?       Yes       X No       If YES, Volume Impacting the Watercourse.       If YES, Volume Impacting the Watercourse.         If a Watercourse was Impacted.       Describe Cause of Problem and Remedial Action Taken.* A gauge broke on the pump. Water was spray	Name of Co	mpany	BOPCO, LI	2				ony Savoie					
Surface Owner       Federal       Mineral Owner       Federal       Lease No. API #30-015-24968         Unit Letter       Section       Township       Range       Feet from the       North/South Line       Feet from the       East/West Line       County         J       35       Township       Range       Feet from the       North/South Line       Feet from the       East/West Line       County         Latitude 32,433905° North       Longitude 104.055425° West         NATURE OF RELEASE       Volume of Release \$80 bbls of       Produced water       Date and Hour of Discovery       5/25/12 the unknown       5/25/12 the unk						20			56-87	30			
LOCATION OF RELEASE           Unit Letter         Section         Township         Range 21S         Feet from the         North/South Line         Feet from the         East/West Line         County Edy           Latitude 32.433905*         North         Longitude 104.055425*         West         Mature           Source of Release         Produced water         Volume of Release 80 bbls of produced water         Volume conference         Date and Hour of Occurrence 525/12 1:4te unknown         Date and Hour of Occurrence 525/12 1:4te unknown         Date and Hour of Discovery 525/12 1:4te unknown           Was Immediate Notice Given?         X Yes         No         No Required         HYES, To Whom?           Was a Watercourse Reached?         Yes         X No         If YES, Volume Impacting the Watercourse.         If YES, Volume Impacting the Watercourse.           If a Watercourse was Impacted, Describe Fully.*         If Section Taken.* A gauge broke on the pump. Water was sprayed outside the containment area on the calideh pad and road to the facility. The gauge was replaced.         2/8/12         Reser remediation during split covered the same area as splits reported to 2/8/12 and 2/3/12. Foldowing initial response activities. He released fluid affected an approximately 5/000 sq. ft. area around the pump, lease reference the attached geaneting liquid. The split covered the same area as splits reported to 2/8/12 and 2/3/12. Foldowing initial response activities. He released area cover generativities and understand t	Facility Na	ne Indian	Flats Bass F	ederal #1	SWD		Facility Typ	e E&P					
Unit Letter       Section       Township       Rarge 21S       Feet from the       North/South Line       Feet from the       East/West Line       County Edgy         Latitude 32.433905° North       Longitude 104.055425° West         NATURE OF RELEASE         Type of Release Produced water       Volume of Release 80 bbls of produced water       Volume of Release 80 bbls of produced water       Volume Recovered 20 bbls         Source of Release An salt water transfer pump       Date and Hour of Occurrence 5/25/12 line unknown       Date and Hour of Occurrence 5/25/12 9:00 a.m.       Date and Hour of Occurrence 5/25/12 9:00 a.m.         Was Immediate Notice Given?       If YES, To Whom?       Mike Bratcher       Date and Hour 5/25/12 1:40 p.m.         Was a Watercourse Reached?       If YES, To Vhom?       If YES, Volume Impacting the Watercourse.       If a Watercourse was Impacted, Describe Fully.*         Describe Cause of Problem and Remedial Action Taken.* A gauge broke on the pump. Water was sprayed outside the containment area on the caliche pad and road to the facility. The gauge was replaced.       Describe Area Affected and Cleanup Action Taken.* A gauge broke on the pump. Water was sprayed outside the containment area on 2/8/12 and (2/2/12. Folyons activitics, the released fluid affected an approximately 5,000 sq. ft. area around the pump, lease road, and caliche well pad. A vacuum truck was utilized to remove all of the three-standing liquid. The spill covered the same area as spills reported on 2/8/12 and (2/2/12. Folyonshas actrivites, the release tomplete to the best of m	Surface Ow	ner Fede	ral		Mineral C	)wner	Federal			Lease	No. API #30-015-24968		
J       35       218       28E       Eddy         Latitude 32.433905° North       Longitude 104.055425° West         NATURE OF RELEASE         Type of Release Produced water       Volume of Release 80 bbls of produced water       Volume of Release 80 bbls of produced water       Volume of Release 80 bbls of produced water         Source of Release An salt water transfer pump       Date and Hour of Occurrence       Date and Hour of Discovery       5/23/12 flue unknown       5/23/12 0.00 a.m.         Was Immediate Notice Given?       X Ves No Not Required       Mike Bracher       Date and Hour of Z23/12 0.00 a.m.       117 WES, To Whom?         Was a Watercourse Reached?       Yes X No       If a Watercourse Reached?       If YES, Volume Impacting the Watercourse.       117 WES, Volume Impacting the Watercourse.         Describe Cause of Problem and Remedial Action Taken.* A gauge broke on the pump. Water was sprayed outside the containment area on the caliche pad and road to the facility. The gauge was replaced.         Describe Area Affected and Cleanup Action Taken.* The released fluid affected an approximately 5,000 sq. ft. area around the pump, lease road, and caliche well pad. A vacuum truck was utilized to remove all of the free-standing liquid. The spill covered the same area as spills reported on 28/12 and 5/23/12. Following initial reported on 28/12 and Computer to the bast of my knowledge and understand that pursuant to NMCCD Turkes and regulations and logerators are required to report and/or file certain release notifications and perefore or r					LOCA	TIO	<b>N OF RE</b>	LEASE					
NATURE OF RELEASE         Type of Release Produced water       Volume of Release 80 bbls of produced water       Volume Recovered 20 bbls         Source of Release An salt water transfer pump       Date and Hour of Occurrence       Date and Hour of Discovery         %25/12 time unknown       \$725/12 time unknown       \$725/12 9:00 a.m.         Was Immediate Notice Given?       If YES, To Moon?       Mike Bratcher         By Whom? Tony Savoie       Date and Hour 5/25/12 11:40 p.m.       If YES, To Moon?         Was a Watercourse Reached?       If YES, To Moon?       If YES, To Wom?         If a Watercourse was Impacted, Describe Fully.*       Describe Cause of Problem and Remedial Action Taken:* A gauge broke on the pump. Water was sprayed outside the containment area on the caliche pad and road to the facility. The gauge was replaced.         Describe Cause of Problem and Remedial Action Taken.* The released fluid affected an approximately 5,000 sq. ft. area around the pump, lease road, and caliche well pad, A vacuum truck was utilized to remove all of the free-standing liquid. The spill covered the same area as spills reported on 2/8/12 and 5/23/12. Following initial response activities, the releases were remediated as per NMOCD recommended guidelines. Please reference the atached Remediation Summary & Rive Assed Size Closure Request for remediated 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 of releases, which may endanger public health or the environment. In addition, NMOCD acceptance of a C-141 report does not relieve the operator of thabi	Unit Letter J								the	East/West Line	1 -		
NATURE OF RELEASE         Type of Release Produced water       Volume of Release 80 bbls of produced water       Volume Recovered 20 bbls         Source of Release An salt water transfer pump       Date and Hour of Occurrence       Date and Hour of Discovery         %25/12 time unknown       \$725/12 time unknown       \$725/12 9:00 a.m.         Was Immediate Notice Given?       If YES, To Moon?       Mike Bratcher         By Whom? Tony Savoie       Date and Hour 5/25/12 11:40 p.m.       If YES, To Moon?         Was a Watercourse Reached?       If YES, To Moon?       If YES, To Wom?         If a Watercourse was Impacted, Describe Fully.*       Describe Cause of Problem and Remedial Action Taken:* A gauge broke on the pump. Water was sprayed outside the containment area on the caliche pad and road to the facility. The gauge was replaced.         Describe Cause of Problem and Remedial Action Taken.* The released fluid affected an approximately 5,000 sq. ft. area around the pump, lease road, and caliche well pad, A vacuum truck was utilized to remove all of the free-standing liquid. The spill covered the same area as spills reported on 2/8/12 and 5/23/12. Following initial response activities, the releases were remediated as per NMOCD recommended guidelines. Please reference the atached Remediation Summary & Rive Assed Size Closure Request for remediated 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 of releases, which may endanger public health or the environment. In addition, NMOCD acceptance of a C-141 report does not relieve the operator of thabi		9	J	L.atit	ude 32 433905°	Nort	h	Longitud	le 104	. 055425° West			
Type of Release Produced water       Volume of Release 80 bbls of produced water       Volume Recovered 20 bbls         Source of Release An salt water transfer pump       Date and Hour of Occurrence       Date and Hour of Discovery         Was Immediate Notice Given?       X Yes No Not Required       If YES, To Whom?         Was a Watercourse Reached?       Date and Hour of 2/25/12 11:40 p.m.       Date and Hour of 2/25/12 11:40 p.m.         Was a Watercourse Reached?       If YES, Volume Impacting the Watercourse.       If YES, Volume Impacting the Watercourse.         Describe Cause of Problem and Remedial Action Taken:* A gauge broke on the pump. Water was sprayed outside the containment area on the caliche pad and road to the facility. The gauge was replaced.         Describe Area Affected and Cleanup Action Taken.* The released fluid affected an approximately 5,000 sq. ft. area around the pump, lease road, and 5/23/12. Following initial response activities, the releases were remediated as per NMOCD recommended guidelines. Please reference the attached Remediation Summary & Risk-Baaed Site Closure Request for remediation details.         1 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 and perform corrective actions for releases, which may endanger public health or the ovironment. The acceptance of a C-141 report by the NMOCD marked as "Final Peopr" does not relieve the operator of fishility 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. The acceptance of a C-141 report by the				Datte				-	<u>it 104</u>	<u>.055425 West</u>			
St25/12 time unknown       5/25/12 9:00 a.m.         Was Immediate Notice Given?       X Yes No Not Required       If YES, To Whom?         Mike Bratcher       Date and Hour 5/25/12 11:40 p.m.         Was a Watercourse Reached?       If YES, Volume Impacting the Watercourse.         If a Watercourse was Impacted, Describe Fully.*         Describe Cause of Problem and Remedial Action Taken:* A gauge broke on the pump. Water was sprayed outside the containment area on the caliche pad and road to the facility. The gauge was replaced.         Describe Area Affected and Cleanup Action Taken.* The released fluid affected an approximately 5,000 sq. ft. area around the pump, lease road, and caliche well pad. A vacuum truck was utilized to remove all of the free-standing liquid. The spill covered the same area as spills reported on 2/8/12 and 5/23/12. Following initial response activities, the releases were remediated as per NMOCD recommended guidelines. Please reference the attached <i>Remediation Summary &amp; Risk-Based Site Closure Request</i> for remediation details.         I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to NMOCD rules and regulations all operators are required to report and/or file certain release notifications and perform does not relieve the operator of ilability 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. The acceptance of a C-141 report by the NMOCD marked as "Final Report" does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.         Signature	Type of Rele	ase Produc	ed water			UKI	Volume of	Release 80	) bbls c	of Volume	Recovered 20 bbls		
Was Immediate Notice Given?       X Yes No Not Required       If YES, To Whom?         Mike Bracher       Date and Hour 5/25/12 11:40 p.m.         Was a Watercourse Reached?       If YES, Volume Impacting the Watercourse.         If a Watercourse was Impacted, Describe Fully.*       If YES, Volume Impacting the Watercourse.         Describe Cause of Problem and Remedial Action Taken:* A gauge broke on the pump. Water was sprayed outside the containment area on the caliche pad and road to the facility. The gauge was replaced.         Describe Area Affected and Cleanup Action Taken.* The released fluid affected an approximately 5,000 sq. ft. area around the pump, lease road, and caliche well pad. A vacuum truck was utilized to remove all of the free-standing liquid. The spill covered the same area as spills reported on 2/8/12 and 5/23/12. Following initial response activities, the releases were remediated as per NMOCD recommended guidelines. Please reference the attached <i>Remediation Summary &amp; Risk-Based Still Closure Request for remeitation details</i> .         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 headlet to addition, NMOCD acceptance of a C-141 report does not relieve the operator of hability 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. The 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 an	Source of Re	lease An s	alt water trans	sfer pump									
Was a Watercourse Reached?       If YES, X No         If a Watercourse was Impacted, Describe Fully.*       If YES, Volume Impacting the Watercourse.         Describe Cause of Problem and Remedial Action Taken:* A gauge broke on the pump. Water was sprayed outside the containment area on the caliche pad and road to the facility. The gauge was replaced.         Describe Area Affected and Cleanup Action Taken.* The released fluid affected an approximately 5,000 sq. ft. area around the pump, lease road, and caliche well pad. A vacuum truck was utilized to remove all of the free-standing liquid. The spill covered the same area as spills reported on 2/8/12 and 5/23/12. Following initial response activities, the releases were remediated as per NMOCD recommended guidelines. Please reference the attached <i>Remediation Summary &amp; Risk-Based Site Closure Request for</i> remediation details.         I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to NMOCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases, which may endanger public health or the environment. The acceptance of a C-141 report by the NMOCD marked as "Final Report" does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to ground water, surface water, human health or the environment. In addition, NMOCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.         Signature:       Torty Sauoie         Printed Name:       Approved by District Supervisor:	Was Immedi	ate Notice (		es No	Not Required		If YES, To	Whom?	l <u> </u>	5/25/12	9:00 a.m.		
Was a Watercourse Reached?       If YES, X No         If a Watercourse was Impacted, Describe Fully.*         Describe Cause of Problem and Remedial Action Taken:* A gauge broke on the pump. Water was sprayed outside the containment area on the caliche pad and road to the facility. The gauge was replaced.         Describe Area Affected and Cleanup Action Taken.* The released fluid affected an approximately 5,000 sq. ft. area around the pump, lease road, and caliche well pad. A vacuum truck was utilized to remove all of the free-standing liquid. The spill covered the same area as spills reported on 2/8/12 and 5/23/12. Following initial response activities, the releases were remediated as per NMOCD recommended guidelines. Please reference the attached <i>Remediation Summary &amp; Risk-Based Site Closure Request</i> for remediation details.         I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to NMOCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases, which may endanger public health or the environment. The acceptance of a C-141 report by the NMOCD marked as "Final Report" does not relieve the operator of itability 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:       Tory       Sauoi e         Printed Name:       Approved by District Supervisor:       Expiration Date:         E-m	By Whom?	Tony Savo	ie				Date and H	lour 5/25/12	2 11:40	0 p.m.			
Describe Cause of Problem and Remedial Action Taken:* A gauge broke on the pump. Water was sprayed outside the containment area on the caliche pad and road to the facility. The gauge was replaced.         Describe Area Affected and Cleanup Action Taken.* The released fluid affected an approximately 5,000 sq. ft. area around the pump, lease road, and caliche well pad. A vacuum truck was utilized to remove all of the free-standing liquid. The spill covered the same area as spills reported on 2/8/12 and 5/23/12. Following initial response activities, the releases were remediated as per NMOCD recommended guidelines. Please reference the attached <i>Remediation Summary &amp; Risk-Based Site Closure Request</i> for remediation details.         I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to NMOCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases, which may endanger public health or the environment. The acceptance of a C-141 report by the NMOCD marked as "Final Report" does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to ground water, surface water, human health or the environment. In addition, NMOCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local haws and/or regulations.         Signature:       Image:	Was a Water	course Read		]Yes X	X No								
and road to the facility. The gauge was replaced.  Describe Area Affected and Cleanup Action Taken.* The released fluid affected an approximately 5,000 sq. ft. area around the pump, lease road, and caliche well pad. A vacuum truck was utilized to remove all of the free-standing liquid. The spill covered the same area as spills reported on 2/8/12 and 5/23/12. Following initial response activities, the releases were remediated as per NMOCD recommended guidelines. Please reference the attached <i>Remediation Summary &amp; Risk-Based Site Closure Request</i> for remediation details.  I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to NMOCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases, which may endanger regulations 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 by the NMOCD marked as "Final Report" does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.  Signature: Tory Sauoie Printed Name: Con Sauoie Printed Name: Con Sauoie E-mail Address: Conditions of Approval:			-	·		ze brok	ce on the numr	Water was	sprav	ed outside the co	ntainment area on the caliche pad		
Remediation Summary & Risk-Based Site Closure Request for remediation details.         I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to NMOCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases, which may endanger public health or the environment. The acceptance of a C-141 report by the NMOCD marked as "Final Report" does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to ground water, surface water, human health or the environment. In addition, NMOCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.         Signature:       Image: Convert Sauce Sauce         Printed Name:       Guide Sauce         Title:       Approval Date:         E-mail Address:       Conditions of Approval:	and road to t Describe Are caliche well	he facility.	The gauge wa and Cleanup uum truck wa	s replaced Action T s utilized	aken.* The release to remove all of t	sed flu the fre	id affected an e-standing liqu	approximat iid. The spil	ely 5,0 l cover	000 sq. ft. area a red the same area	round the pump, lease road, and a ss spills reported on 2/8/12 and		
Signature:     Lowy     Sauoie       Printed Name:     Quark     Approved by District Supervisor:       Title:     Approval Date:     Expiration Date:       E-mail Address:     Conditions of Approval:	Remediation I hereby cert regulations a public health should their or the enviro	Summary d ify that the II operators or the env operations I onment. In	<u>&amp; Risk-Based</u> information s are required ironment. The have failed to addition, NM	Site Closu given abo to report acceptat adequatel 10CD acc	re Request for ren ve is true and cou and/or file certain nce of a C-141 re y investigate and	nediati nplete n relea port b remed	on details. to the best of use notification by the NMOCE liate contamina	my knowled is and perfor marked as ition that pos	dge an rm cor "Final se a th	d understand tha rective actions for Report" does no reat to ground wa	t pursuant to NMOCD rules and or releases, which may endanger ot relieve the operator of liability ater, surface water, human health		
Title:     Approval Date:     Expiration Date:       E-mail Address:     Conditions of Approval:								<u>OIL</u> C	CONS	SERVATION	DIVISION		
Title:     Approval Date:     Expiration Date:       E-mail Address:     Conditions of Approval:	Signature:	LONY	Saudi	2			Approved by	District Sur	nervisc	٨			
E-mail Address: Conditions of Approval:	Printed Nam	e: ( 6	y S	me						,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,			
	Title:	(	J				Approval Da	te:		Expiration	Date:		
Date: 10/3/13 Phone:	E-mail Addr	ess:					Conditions o	f Approval:					
	Date: 0	13/13	PI	10ne:									

2RP-1209

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

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NMOCD ARTESIA

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

1220 S. St Flat	icis Di., Saina	a re, ivivi 6750.	)	S	anta F	e, NM 875	05						
i i i i i i i i i i i i i i i i i i i			Rela	ease Notifi	catio	n and Co	orrec	tive A	ction	1			<u>, , , , , , , , , , , , , , , , , , , </u>
nJAI	A 12.19	34884				<b>OPERA</b>					al Report		Final Report
Name of Co	ompany BC	DPCO, L.P.	<b>-</b>	26	0737	Contact Tor	iy Save	oie					·····
				ad, N.M. 88220	)	Telephone 1	No. 432	2-556-87 <u>3</u>	0				
Facility Na	me: Indian	Flats Bass F	Federal #	1 Tank Battery		Facility Typ	e: E&	P				<u> </u>	
Surface Ow				Mineral	Owner	Federal			-	-Lease 1	No. LC-06'	7144	AFZ#
Endian F	lots Ba	ss Fed #	1	LOC	<b>A</b> TIO	N OF RE	LEAS	SF.	30	2-01	5-2	491	\$
Unit Letter	Section	Township	Range	Feet from the		South Line		from the	East/V	West Line	County	/ / 4	0
J	35	215	28Ĕ								Eddy		
1		<b>L</b>	L	atitude_N 32.4	133905	Longitu	de W 1	104.05542	25		I		
				_		OF REL			-				
Type of Rele	ease: Crude	oil				Volume of					Recovered:		
Source of Re	elease: 3" fil	I line to the ta	inks.					Occurrence	e		Hour of Dis	scovery	
Was Immedi	into Notion (	Giuang				6/21/12 ti				6/21/12 1	:00 p.m.		
was mineur			]Yes [	] No 🛛 Not R	Required		whon	17					
By Whom?						Date and I	lour	·					
Was a Water	rcourse Rea			7		If YES, V	olume I	mpacting th	he Wat	ercourse.			
			Yes 🛛										•
If a Waterco	urse was Im	pacted, Descr	ibe Fully.	*									
			$\sim$	~									
Describe Cou	use of Probl	em and Dame	dial Actio	on Taken.* Crews		atalling a nav	haatar	trantar at th		tion when a	2" line oon	ing fro	m the flow
				was on-site remo								ang no	in the now
										-			
				ken.*The release	d fluid a	iffected approx	cimately	y 1500 sq. i	ft. insid	le the tank	battery earth	nen cont	ainment. The
The Site rem	rediation for	vicked up with the crude oil	will follo	w the NMOCD g	uideline	s for leaks and	l spills.						
I hereby cert	tify that the	information g	iven abov	e is true and com	plete to	the best of my	knowl	edge and u	ndersta	nd that pur	suant to NM	10CD r	ules and
regulations a	all operators	are required (	to report a	nd/or file certain	release	notifications a	nd perf	orm correct	tive act	ions for re	leases which	n may ei	ıdanger
should their	onerations h	ronment. The	e acceptan adequately	ce of a C-141 rep y investigate and	ort by t remedia	he NMOCD n ite contaminat	arked a	as "Final Ro	eport" o eat to o	does not rel	lieve the ope	erator of	'liability man health
or the enviro	onment. In a	addition, NM(	DCD acce	ptance of a C-141	l report	does not reliev	e the o	perator of r	respons	ibility for c	compliance	with any	/ other
		ws and/or reg					_				-		
		- 0					<u> 0</u>	L CONS	SERV	ATION	DIVISI	<u>NC</u>	
Signature:	1 ou	y Sain	0			Approved by	Distric	t Supervise	o <b>r</b> .		11		
Printed Nam	e: Tony Sa	Joie					210111			ed By 🗡	1,14 B	/ ////84/84/	16 <b>2</b>
Title: Waste	Mgmt.& R	emediation Sp	oecialist			Approval De	<u>ul</u> 1	1 2012		Expiration	Date:		
E mail Adda	A Sau	aia@DagaDat				C	<b>C 1</b>						
E-mail Audr	ess: TASav	oie@BassPet.	com			Conditions o	r Appro	oval:			Attache	d 🗋	
Date: 6/24/1				Phone:432-556-8	8730								
* Attach Add	itional She	ets If Neces	sary	•	Reme	diation per (	DCD R	ules &			2RP	2-12	57
						. SUBMIT R				DE	CEIV		7
						L NOT LATE					UEIV		
					8/1	112				I.I.	IN 2.6 21	012	
					T					JUN <b>2</b> 6 2012			

District I 1625 N. French District II 1301 W. Grand District III 1000 Rio Brazos District IV 1220 S. St. Fran	Avenue, Arte s Road, Azte	esia, NM 88210 c, NM 87410		Energy Mir Oil C 1220 Sa ease Notific	nerals Conse Sout Inta F catio	rvation Div h St. Franc e, NM 875	l Resources	OCT <b>03</b> 2 MOCD AR <sup>-</sup> ction	] 3 Submit 2 Copies to appropriate District Office in accordance with Rule 116 on back	
Name of Co	mnany	BOPCO, LI	>			Contact To	ny Savoie	IIIItia	r Keport A Final Keport	
		,		sbad, NM 8822	20		No. (432)556-8	730		
				Tank Battery		Facility Typ			· · · · · · ·	
Surface Ow	ner Fede	ral	· · ·	Mineral C	)wner	Federal		Lease	e No. API #30-015-24968	
				LOCA	TIO	N OF RE	LEASE			
Unit Letter J	Section 35	Township 21S	Range 28E	Feet from the	Nort	h/South Line	Feet from the	East/West Lin	e County Eddy	
L		·	Latit	ude 32.433905°	<sup>9</sup> Nortl	1	Longitude 10	4.055425° We	st	
						E OF REL			<u></u>	
Type of Rele	ase Crude	Oil			UNI		Release 15 bbls	Volum	e Recovered 5 bbls	
Source of Re	lease An s	alt water trans	sfer pump	<u>,                                     </u>		Date and Hour of OccurrenceDate and Hour of Discovery6/21/12 1:00 p.m.6/21/12 1:00 p.m.				
Was Immedi	ate Notice (		No X	Not Required		If YES, To Whom?				
By Whom?						Date and H				
Was a Water		Ľ	-	X No		If YES, Volume Impacting the Watercourse.				
If a Watercou	urse was Im	pacted, Descr	ibe Fully.	*						
				on Taken:* Crews was on-site remov					hen a 3" line coming from the flow spilled fluid.	
containment.	Following	initial respor	ise activit	ies, the release w	as ren	nediated as pe			inside the tank battery earthen ines. Please reference the attached	
I hereby cert regulations a public health should their or the enviro	Remediation Summary & Risk-Based Site Closure Request for remediation details. I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to NMOCD rules are regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases, which may endang 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 heal or the environment. In addition, NMOCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any oth federal, state, or local laws and/or regulations.								for releases, which may endanger not relieve the operator of liability water, surface water, human health	
		0					OIL CON	SERVATIO	N DIVISION	
Signature: Dig Smile										
Printed Name: TONY SAVOIE						Approved by	District Supervis	or:	•	
Title:						Approval Da	te:	Expirati	on Date:	
E-mail Addre	ess:					Conditions o	f Approval:			
Date:	3/13	P	ione:							

2RP-1207

District 1 1625 N. French Dr., Hobbs, NM 88240 District II 1301 W. Grand Avenue, Artesia, NM 88210 District II1 1000 Rio Brazos Road, Aztec, NM 87410 District IV 1220 S. St. Francis Dr., Santa Fe, NM 87505

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# State of New Mexico Energy Minerals and Natural Resources

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

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

			Rele	ease Notific	ation	and Co	orrective A	ction		المنولية مشارعه مرج		
nJMWI	2353	28868		60737		<b>OPERA</b>	ГOR		🛛 Initi	al Report	🗌 Final	Report
Name of Co	mpany BC	Contact Tony Savoie										
				ad, N.M. 88220			No. 432-556-87	30				
Facility Nat	ne: Indian	Flats Bass F	ederal #	I SWD		Facility Typ	be: E&P	····· · ·				
Surface Ow	ner Federa	1		Mineral C	)wner F	ederal				No. LC-067		
				LOCA	TION	N OF REI	LEASE		API	#30-0	15-249	168
Unit Letter J	Section 35	Township 21S	Range 28E	Feet from the	North/				West Line	County Eddy		
	<u>1- ,,,,,,,</u> ,	<b></b>	L	atitude_N 32.4	33905_	Longitu	de W 104.0554	25_		<b></b>	· · · · · · · · · · · · ·	
		·		NAT	TURE	OF REL	EASE					
Type of Rele							Release: 80 bbls			Recovered:		
Source of Re	lease: A sai	t water transfe	er pump.			1	lour of Occurren time unknown	ce		Hour of Dis 1:00 p.m.	scovery	
Was Immedi	ate Notice C		] Yes [	] No 📋 Not R	equired	If YES, To						-
By Whom? 1	ony Savoie	;			· · · ·	Date and H	lour 11/27/12 2:	30 p.m.	<u>.</u>			
Was a Water	course Read			2		If YES, Vo	olume Impacting	the Wat	ercour <del>se:</del>			7
			Yes 🛛						F	NEUE	IVED	
If a Waterco	urse was Im	pacted, Descr	ibe Fully.	*						DEC 1	7 2012	
									N	MOCD /	ARTESIA	
				n Taken.* A back	pressure	valve broke	on the pump, wa	ter was s	sprayed out	side the con	tainment area	on the
caliche pad a	ind road at t	he facility. Th	ne valve w	as replaced.								
Describe Are	a Affected	and Cleanup	Action Ta	ken.*The released	l fluid af	fected approx	cimately 4,500 sc	. ft. area	around the	e pump, leas	e road and ca	liche
well pad. Th	e free standi	ing fluid was	picked up	with a vacuum tre	uck. The	release is in	the same location	n as prev	ious spills	. An air rota	ry rig was use	d to
				A rig was on loca ertical extent. A re							ne tank batter	У
The Site rem	ediation for	the produced	water wil	ll follow the NMC	OCD guid	delines for le	aks and spills.					_
				e is true and comp nd/or file certain i								
public health	or the envi	ronment. The	e acceptan	ce of a C-141 rep	ort by the	e NMOCD n	arked as "Final I	Report" (	does not re	lieve the ope	rator of liabil	ity
should their	operations h	nave failed to	adequately	y investigate and r	remediate	e contaminat	ion that pose a th	reat to g	round wate	r, surface w	ater, human h	ealth
		ws and/or reg		ptance of a C-141	report d	oes not reliev	e the operator of	respons	sibility for a	compliance v	with any other	ſ
	,						OIL CON	ISERV	ATION	DIVISI	ON	
Signature:	1 0		0									
Signature.	1 on	<u> </u>	mo	·····		Approved by	District Supervi			al.	Kenne	ella
Printed Nam	e: Tony Sav	voie						S	igned By_	101114	K)MATURES	
Title: Waste	Mgmt.& Ro	emediation Sp	pecialist			DE Approval Da	C 1 8 2012		Expiration	Date:		
E-mail Addr	ess: TASav	oie@BassPet.	com			Conditions of Approval:				Attached	J 🗌	
Date: 12/17/	12			Phone:432-556-	8730		11					
* Attach Add		ets If Necess	sary				diation per OC			ZRF	2-1457	
							SUBMIT REN		HON	· ``	,	
						Januara	LNOT LATER	INAN:				
						Journaura	1 14 XV	KL_				

	Avenue, Arte s Road, Aztec cis Dr., Santa ompany 22 W. Me	sia, NM 88210 c, NM 87410 a Fe, NM 87505 BOPCO, LI	<b>Rel</b> ( 704, Carl	Energy Mi Oil C 1220 Sa ease Notific sbad, NM 8822	nerals Conse Sout Inta F Catio	rvation Div h St. Franc Se, NM 875	l Resource vision is Dr. 05 <b>prrectiv</b> my Savoie No. (432)5	NM0 e Act	OCD ARTS tion Initial	3 <sup>Submit</sup> Dist	Form C-141 Revised October 10, 2003 2 Copies to appropriate ict Office in accordance with Rule 116 on back side of form X Final Report
Surface Ow	ner Feder	ral		Mineral C	Jwner	Federal			Lease	No. AP	I #30-015-24968
L				LOC		N OF RE	FASE				
Unit Letter J	Section 35	Township 21S	Range 28E	Feet from the		h/South Line	Feet from	the	East/West Line	County Eddy	/
			<u>Latit</u>	ude 32.433905°	<sup>°</sup> North	<u>h</u>	Longitud	<b>le</b> 104.	055425° West		
				NAT	URE	E OF REL	EASE				
Type of Rele						produced v					d 70 bbls
Source of Re	lease A sa	lt water transf	èr pump			Date and Hour of OccurrenceDate and Hour of Discovery11/27/12 time unknown11/27/12 1:00 p.m.					-
Was Immedi	ate Notice (		'es No	Not Required		If YES, To Whom? NMOCD Emergency #104					
By Whom? Was a Water		ched?	]Yes 2	X No		Date and Hour 11/27/12 2:30 p.m.         If YES, Volume Impacting the Watercourse.					
If a Waterco	urse was Im	pacted, Descr	ibe Fully.	*							
				on Taken:* A bac re was replaced.	k press	sure valve broł	te on the pu	ump. Wa	ater was sprayed	outside	the containment area on
caliche well 5/23/12, and	pad. A vac 5/25/12. F	cuum truck w ollowing initi	as utilized al respons	I to remove all o be activities, the r	f the fi eleases	ree-standing li s were remedia	quid. The s ited as per l	pill cov	ered the same a	irea as sp	e pump, lease road, and pills reported on 2/8/12, es. Please reference the
I hereby cert regulations a public health should their or the enviro	attached <i>Remediation Summary &amp; Risk-Based Site Closure Request</i> for I hereby certify that the information given above is true and complete regulations all operators are required to report and/or file certain rele public health or the environment. The acceptance of a C-141 report I should their operations have failed to adequately investigate and remed or the environment. In addition, NMOCD acceptance of a C-141 re federal, state, or local laws and/or regulations.						my knowle s and perfo marked as tion that po	orm corr Final se a thr	ective actions for Report" does not eat to ground wa	or release ot relieve ater, surfa	es, which may endanger the operator of liability ace water, human health
							<u>OIL C</u>	CONS	ERVATION		SION
Signature: ( Org. Savoie.						Approved by District Supervisor:					
Title:		`				Approval Da	te:		Expiration	Date:	
E-mail Addr	ess:					Conditions o	f Approval:				
Date: 0	13/13	P	none:								
									~		

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Oil Conservation Division 1220 South St. Francis Dr. Santa Fe, NM 87505 Submit 1 Copy to appropriate District Office in accordance with 19.15.29 NMAC.

/	0,1111 07505								
TAN Release Notification and Corrective Action									
N/W1314055065	OPERATOR	🛛 Initial Report	Final Report						
Name of Company: BOPCO, L.P. 260737	Contact: Tony Savoie								
Address: 522 W. Mermod, Suite 704 Carlsbad, N.M. 88220	Telephone No. 575-887-7329								
Facility Name: Indian Flats Bass Federal SWD Tank Battery	Facility Type: Exploration and F	Production							
Battery is located 1340 ft, North of Well #6 API 30-015-22673									

Surface Owner: Federal

Mineral Owner: Federal

API No. 30-015-22673

# LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County Eddy
J	35	215	28E	1652	South	2150	East	

Latitude N. 32.434001 Longitude W. 104.055557

## **NATURE OF RELEASE**

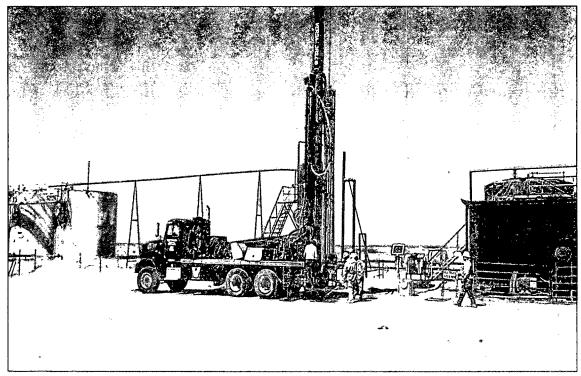
Type of Release: Produced Water	Volume of Release: 375 Bbls.	Volume Recovered: 10 Bbls.
Source of Release: Produced water tank overflowed	Date and Hour of Occurrence:	Date and Hour of Discovery:
	Date 4/25/13 time unknown	Date 4/25/13 5:00 p.m.
Was Immediate Notice Given?	If YES, To Whom? NMOCD Eme	
Yes 🗌 No 🗍 Not Required	- /	
	D	
By Whom? Tony Savoie	Date and Hour: 4/26/13 at 8:00 a.r	
Was a Watercourse Reached?	If YES, Volume Impacting the Wa	atercourse.
🗌 Yes 🖾 No		RECEIVED
If a Watercourse was Impacted, Describe Fully.*		
		MAY <b>17</b> 2013
		NMOCD ARTESIA
Describe Cause of Problem and Remedial Action Taken.*		
The Strainer on the suction to the SWD plugged up causing the pump to c	lischarge at a rate that was not suffici	ent to keep up with the incoming water. The
alarm system failed to report high tank levels and high discharge pressure		
Describe Area Affected and Cleanup Action Taken.*		
The area was being remediated as a result of previous spills associated wi	th the SWD pump failure. New impe	rvious containment has been constructed
around the SWD pump and oil production tanks. The area around the SW		
be delineated with a backhoe in that area. An air rotary rig has been schee		
that stayed primarily around the SWD tanks and the caliche tank battery p		
The remediation will continue as planned. The containment will be consti		chieving closure status for leaks and spills.
I hereby certify that the information given above is true and complete to t		
regulations all operators are required to report and/or file certain release n		
public health or the environment. The acceptance of a C-141 report by th	e NMOCD marked as "Final Report"	does not relieve the operator of liability
should their operations have failed to adequately investigate and remediat		
or the environment. In addition, NMOCD acceptance of a C-141 report d	loes not relieve the operator of respor	nsibility for compliance with any other
federal, state, or local laws and/or regulations.		
	OIL CONSER	VATION DIVISION
Signature: Buy Danue		Å ,

	<i><i><i>I</i>I</i>.</i>
Approved by Environmental Special	ist: med By Mily Brancher
MAY 2 0 2013 Approval Date:	Expiration Date:
Conditions of Approval:	Attached
-	
June 20,201	1711060
	Conditions of Approval: Remediation per OCD Ru Guidelines. SUBMIT REMED

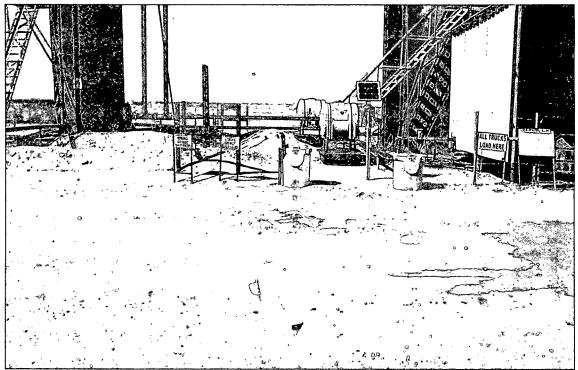
<u>District I</u> 1625 N. French Dr., Hobbs, NM 88240 <u>District II</u>	State of New Mexico Energy Minerals and Natural Resources	
<ul> <li>1301 W. Grand Avenue, Artesia, NM 88210</li> <li><u>District III</u></li> <li>1000 Rio Brazos Road, Aztec, NM 87410</li> <li><u>District IV</u></li> <li>1220 S. St. Francis Dr., Santa Fe, NM 87505</li> </ul>	Oil Conservation Division 1220 South St. Francis Dr. Santa Fe, NM 87505	back
	lease Notification and Corrective Action	10 199 BAR

OP						RATOR		Initial	Report	X Final Report	
Name of Co		BOPCO, LI				Contact To	ony Savoie			·	
				lsbad, NM 8822			No. (432)556-8	730			
				l Tank Battery		Facility Type E&P					
Battery is lo	ocated 134	0 ft. north of	Well #6	API 30-015-226	573						
Surface Ow	mer Feder	ral		Mineral O	wner	Federal		Lease	No. API	#30-015-22673	
Surface OW				- Willordi O	where	Touciai		Lease	10. 111	<i>moo</i> 01 <i>0</i> 22010	
				LOCA	TIO	N OF RE	LEASE				
Unit Letter	Section	Township	Range	Feet from the	North	/South Line	Feet from the	East/West Line	County		
J	35	218	28E	1652	S	outh	2150	East	Eddy		
						· · ·					
			<u>Latit</u>	ude 32.434001°	North		Longitude 10	<u>4.055557° West</u>			
				TA PE		OPDEL					
		1			UKE	OF REL			<b></b>	10111	
Type of Rele	ase Produc	ed water				Volume of	Release 375 bbl	s Volume	Recovered	10 bbls	
Source of Re	lease Prod	uced water ta	nk overflo	owed		Date and H	lour of Occurrenc	e Date and	Hour of I	Discovery	
				-		4/25/13 tir	ne unknown	4/25/13 5		, 	
Was Immedi	ate Notice (					If YES, To					
		ΧΥ	es No	Not Required		NMOCD I	Emergency #104				
By Whom?	Tony Savo	ie				Date and H	Iour 4/26/13 at 8	:00 a.m.			
Was a Water	course Read		_			If YES, Volume Impacting the Watercourse.					
		Ĺ	Yes 2	X No							
If a Waterco	urse was Im	pacted, Descr	ibe Fully.	*							
removed and Describe Are The area imp response act <i>Based Site C</i> I hereby cert regulations a public health should their or the enviro	l cleaned. ea Affected pacted was ivities, the <i>losure Requ</i> tify that the all operators of the env operations l ponment. In t, or local la	and Cleanup on top of sev release was re <i>test</i> for remed information are required ironment. The nave failed to	Action Ta eral prior emediated iation deta given abo to report ne accepta adequate 10CD acc ulations.	aken.* The area w spills that stayed as per NMOCD ails. ve is true and cor and/or file certain nce of a C-141 re ly investigate and ceptance of a C-1	as bein primari recomm nplete n releas port by remedi	g remediated ly around the nended guide to the best of se notification the NMOCE ate contamina ort does not r	as a result of prev SWD tanks and lines. Please refe my knowledge a as and perform cc marked as "Fina tion that pose a t elieve the operate	vious spills association the caliche tank brence the attached and understand that brrective actions for al Report" does not hreat to ground was or of responsibility SERVATION	ated with t attery pad l <i>Remedia</i> t pursuant or releases of relieve t ater, surfac y for com	ssure. The strainer was he SWD pump failure. area. Following initial <i>tion Summary &amp; Risk</i> - to NMOCD rules and , which may endanger he operator of liability water, human health pliance with any other <u>ION</u>	
Printed Nam	e: <b>] (</b>	DNY Sa	Joie			Approval Da		Expiration	Date:		
					†				-		
E-mail Addr	ess:					Conditions o	f Approval:				
Date: O	13/13	PI	none:								
									7 6	2P-1650	

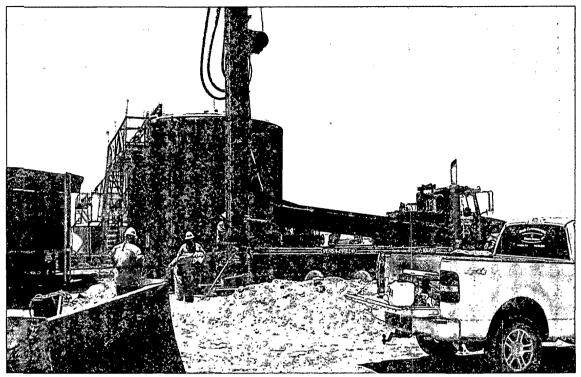
# Appendix B Photographs



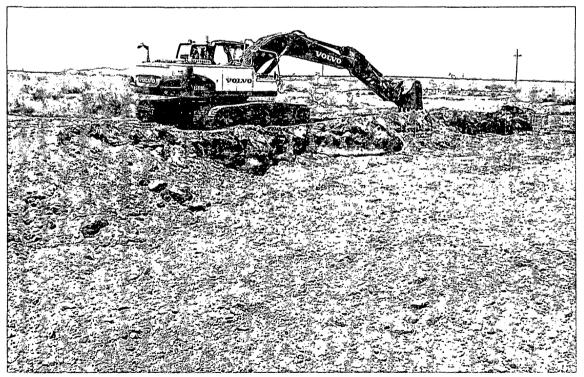
Indian Flats Bass Federal #1 SWD - Advancement of Soil Boring SB-2



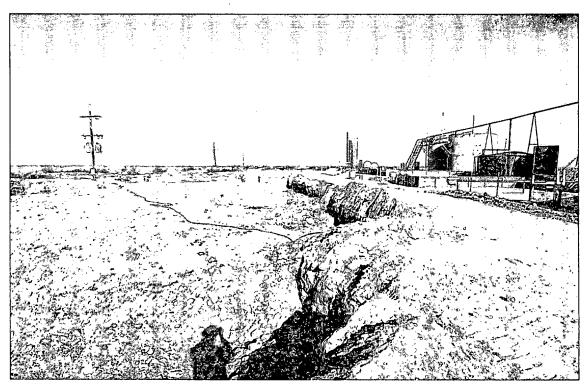
Indian Flats Bass Federal #1 SWD - Soil Boring SB-2 Following P&A (Portion of Stain Visible in Right Foreground)



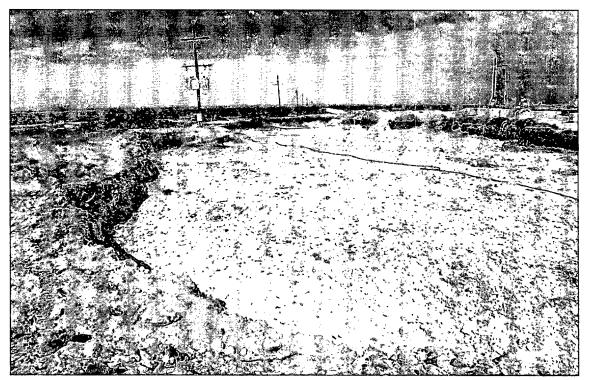
Indian Flats Bass Federal #1 SWD - Advancement of Soil Boring SB-9



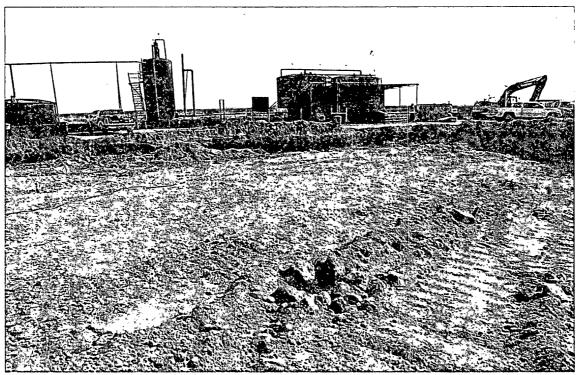
Indian Flats Bass Federal #1 SWD - Excavation



Indian Flats Bass Federal #1 SWD - Excavation (Looking West)



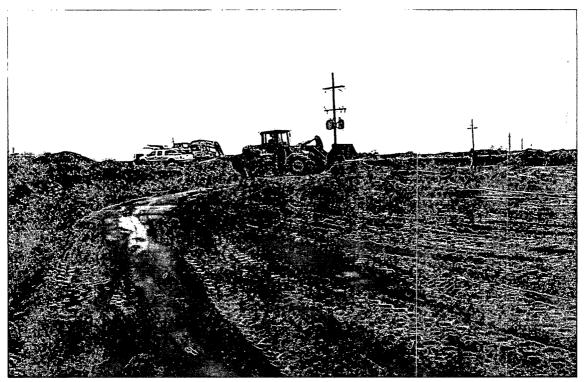
Indian Flats Bass Federal #1 SWD - Excavation (Looking West)



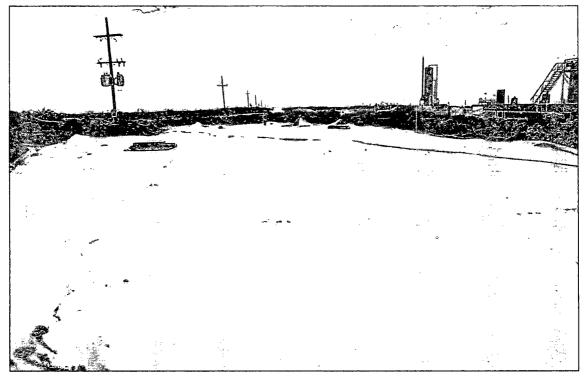
Indian Flats Bass Federal #1 SWD - Excavation (Looking East-Northeast)



Indian Flats Bass Federal #1 SWD - Excavation (Looking East)



Indian Flats Bass Federal #1 SWD - Preparations for Liner Installation



Indian Flats Bass Federal #1 SWD - Liner Installation (Looking West)



Indian Flats Bass Federal #1 SWD - Installation of Pad Sand



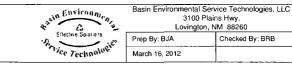
Indian Flats Bass Federal #1 SWD - Installation of Pad Sand

# Appendix C Soil Boring Logs

Depth Below		Chloride					
Ground	Soil	Field	PID	Petroleum P	etroleum		
Surface	Column	Test	Reading	Odor	Stain	Soil Description	Boring SB-1
ǰ				None	None	0' - 3' - Brown loamy sand with clay	Date Drilled March 6, 2012
-5			(1.1)	None	None	3' - 5' - Tan calcified sandstone - fine sand	Thickness of Bentonite Seat 30 Ft Depth of Exploratory Boring 30 Ft bgs
- 10			6.5	None	None	5' - 8' - Tan fine sand - sandstone - caliche	Depth to Groundwater Ground Water Elevation
Ē						8' - 17' - Tan fine sand - sandstone (dense)	
- 15			1.1	None	None		Indicates the PSH level measured
20		1,052		None	None		on Indicates the groundwater level measured on Indicates samples selected for Laboratory Analysis.
25		644	)	None	None	17' - 30' - Red fine sand	PID Head-space reading in ppm obtained with a photo-ionization detector.
E 30		300	)	None	None		

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

Soil	Boring	SB-1
------	--------	------



Soil Boring SB-2								
Depth Below Ground <u>Surface</u> E°	Soil Column	Chloride Field <u>Test</u> 3,614	PID Reading	Petroleum <u>Odor</u> None	Petroleum <u>Stain</u> Moderate	Soil Description 0' - 1' - Tan fine sand - caliche	Boring SB-2 Date Drilled March 6, 2012	
			1.0	None	Moderate	1' - 5' - Brown fine sand with clay	Thickness of Bentonite Seal. <u>35 Ft</u> Depth of Exploratory Boring <u>35 Ft bqs</u> Depth to Groundwater	
10			1.0	None	None	5' - 16' - Tan fine sand - calcified sandstone - caliche	Ground Water Elevation	
- 15			1.8	None	None		Indicates the PSH level measured	
- 20		2,428		None	None	16' - 20' - Tan very fine sand - sandstone 20' - 22' - Red fine sand - gravel	Indicates the groundwater level measured on     Indicates samples selected for Laboratory Analysis. PID Head-space reading in ppm obtained	
- 25				None	None		with a photo-ionization detector.	
- 		820		None	None	22' - 35' - Red fine sand		
E_35		372						

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

Soil Boring SB-2

	Basin Environmente	Basin Environmental Service Technologies, LLC 3100 Plains Hwy. Lovington, NM 88260		
)	Ellectore Solutions	Prep By: BJA	Checked By: BRB	
	Price Technoluties	March 16, 2012		

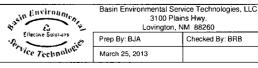
## Soil Boring SB-3 (Background)

Depth							
Below		Chloride					
Ground	Soil	Field	PID	Petroleum F	Petroleum	0 H D I H	
Surface	Column	Test	Reading	<u>Odor</u>	<u>Stain</u>	Soil Description	Boring SB-3
E°		<116	)	None	None	0' - 1' - Tan fine sand	Date Drilled December 12, 2012
F,		<112	<b>\</b>	None	None		Thickness of Bentonite Seal 25 Ft
- 5	8286		/	None	Home		Depth of Exploratory Boring 25 Ft bgs
10		<112	)	None	None	1' - 14' - Tan fine sand - caliche - sandstone	Depth to Groundwater Ground Water Elevation
- 15		<112	)	None	None		Indicates the PSH level measured on
20		<112	)	None	None	14' - 25' - Red fine sand - caliche	Indicates the groundwater level measured on Indicates samples selected for Laboratory Analysis.
25		<112	)	None	None		PID Head-space reading in ppm obtained with a photo-ionization detector.

**Completion Notes** 

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

Soil Boring SB-3 (Background)



Soil Boring SB-4								
Depth Below		Chloride						
Ground Surface	Soil <u>Column</u>	Field Test (1,684)	PID Reading 2.5	Petroleum <u>Odor</u> Heavy	Petroleum <u>Stain</u> Heavy	Soil Description	Boring SB-4	
- - - -		568	2.5	Heavy	Moderate	0' - 5' - Tan fine sand - caliche	Date Drilled <u>December 12, 2012</u> Thickness of Bentonite Seal <u>56 Ft</u> Depth of Exploratory Boring <u>56 Ft bgs</u> Depth to Groundwater	
- 10		(1,812)	0.7	Moderate	Moderate	5' - 12' - Tan fine sand - sandstone	Ground Water Elevation	
- 15			1.0	Slight	None	12' - 14' - Pale tan very fine sand - caliche sandstone 14' - 17' - Tan fine sandstone	<ul> <li>Indicates the PSH level measured on</li> <li>Indicates the groundwater level</li> </ul>	
- 20		1,736	5.3	Heavy	Heavy	17' - 23' - Tannish red silty sand	Indicates samples selected for     Laboratory Analysis.	
- 25				None	None		PID Head-space reading in ppm obtained with a photo-ionization detector.	
- 30		2,140	4.7	None	None	23' - 41' - Red silty sand		
- - 35 -				None	None	20 - 41 - Hed Sity Sand		
- - 40		(1,220)		None	None			
r - 45 		1,480		None	None	41' - 44' - Red fine sand - pea gravel		
- 45 - 50 - 50		568	1	None	None	44' - 51' - Red fine sand		
55		776	I.	None	None	51' - 56' - Red fine sand - sandstone		

Completion Notes

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

Soil Boring SB-4

Basin Environmental Service Technologies, LLC 3100 Plains Hwy. Lovington, NM 88260 Effective Souriers Prep By: BJA Checked By: BRB Ratice Technologie March 25, 2013

Depth							
Below		Chloride					
Ground	Soil	Field	PID	Petroleum	Petroleum	0 1 0 1 1	
Surface	Column	Test	Reading	<u>Odor</u>	<u>Stain</u>	Soil Description	Boring SB-5
Ē			128	Heavy	Moderate	0' - 3' - Red fine sand - sandstone	Date Drilled December 12, 2012 Thickness of Bentonite Seat 50 Ft
-5		620	16.4	Slight	None	3' - 7' - Tan fine sand - sandstone	Depth of Exploratory Boring 50 Ft bgs
10		1,080	9.9	None	None	7' - 8' - Dense caliche sandstone - tan sand 8' - 11' - Tan fine sand - sandstone	Depth to Groundwater Ground Water Elevation
- 15		(1,684)	(13.7)	None	None	11' - 16' - Beige silty sand - sandstone	Indicates the PSH level measured
20		2,256		None	None	16' - 19' - Tan silty sand - sandstone	on
25				None	None		PID Head-space reading in ppm obtained with a photo-ionization detector.
		860	32.0	None	None		
-35			6.8	None	None	19' - 49' - Red silty sand - sandstone	
		672	4.5	None	None		
45		792	)	None	None		
50	505	568	)	None	None	49' - 50' - Cobble	

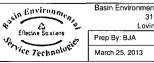
**Completion Notes** 

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

LLC

Soil Boring SB-5

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_	Basin Environmental Sen	vice Technologies,						
	3100 Plains Hwy.							
Lovington, NM 88260								
	Prep By: BJA	Checked By: BRB						
	March 25, 2013							

Soil Boring SB-6								
Depth Below Ground Surface	Soil <u>Column</u>	Chloride Field Test (2,928)	PID Reading	Petroleum <u>Odor</u> None	Petroleum <u>Stain</u> Moderate	Soil Description		Boring SB-6
- - - 5		(192)	4.6	None	Slight	0' - 12' - Tan fine sand - caliche - sandstone	Depth Depth	ess of Bentonite Seal <u>40 Ft</u> of Exploratory Boring <u>40 Ft bgs</u> to Groundwater
- 10 -		1,164	4.9	None	None	12' - 14' - Tan fine sand - sandstone	Groun	d Water Elevation
- 15		1,948	128	Slight	None		<u>Т</u> .	Indicates the PSH level measured on Indicates the groundwater level
20		620	7.0	None	None	14' - 23' - Red fine sand - sandstone	O PID	measured on Indicates samples selected for Laboratory Analysis. Head-space reading in ppm obtained
25		352	8.9	None	None		PID	with a photo-ionization detector.
30		192		None	None	23' - 40' - Red silty sand		
35		192	)	None	None			
L_40		192	)	None	None			

Completion Notes

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

Soil Boring SB-6

Basin Environment	Basin Environmental Sen 3100 Plai Lovington, N	ns Hwy.
Effective Solutions	Prep By: BJA	Checked By: BRB
Service Technologies	March 25, 2013	
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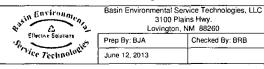
Donth			2		oring	g SB-7		
Depth Below Ground Surface <u>C</u>	Soil Column	Chloride Field Test	PID Reading	<u>Odor</u>	ı Petroleum <u>Stain</u>	Soil Description	Borin	ig SB-7
Ē		(12,002)	(2.0)	Slight	Moderate	0' - 4' - Tan fine sand - caliche - sandstone	Date Drilled Decem Thickness of Bentonite Set	ber 12, 2012
- - -		316	1.6	None	None	4' - 8' - Tan fine sand - calcified sandstone	Death of Euploratory Bori	
10		928	1.7	None	None	8' - 17' - Tan fine sand - sandstone	Ground Water Elevation_	
15			1.2	None	None	o - 17 - Tan nne sand - sanosione	Indicates the PSH	_
20		252	0.0	None	None	17' - 24' - Red silty sand - sandstone	<ul> <li>Indicates the groumeasured on</li> <li>Indicates samples Laboratory Analys</li> </ul>	selected for
25			2.0	None	None			ng in porn obtained
30		(192)	0.0	None	None	24' - 36' - Red silty sand		
35		220		None	None			
40		352	)	None	None	36' - 38' - Red fine sand - cobble		
45		792		None	None			
50		568	)	None	None			
- 55		520		None	None	38' - 65' - Red silty sand		
- 		(432)	)	None	None			
E65		(388)	)	None	None			
							Compl	etion Notes
							<ol> <li>The soil borin using air rota</li> <li>The lines bet on the profile</li> </ol>	g was advanced on d ry drilling techniques, ween material types s log represent approx Actual transitions may
SB-7		 Ii		 OPCO, LP Bass Fede	ral SWD	Rasin Elimententente	Basin Environmental Sen 3100 Plair Lovington, N	ns Hwy. IM 88260
				unty, New N		Service Statistics	Prep By: BJA	Checked By: BRB

Basin Environmente	Basin Environmer 31 Lovii
Ellectine Solutions	Prep By: BJA
Price Technolugies	March 25, 2013

 <del></del> .			0		ring		
Depth			0		JIII	g SB-8	
Below Ground Surface	Soil <u>Column</u>	Chloride Field <u>Test</u>	PID Reading	Petroleum F Odor	<u>Stain</u>	Soil Description	Boring SB-8
ǰ				None	None	0' - 1' - Tan fine sand - caliche - sandstone	Date Drilled <u>May 31, 2013</u> Thickness of Bentonite Seal 70 Ft
5			3.7	None	None	1' - 9' - Brown fine sand	Depth of Exploratory Boring <u>70 Ft bgs</u> Depth to Groundwater
- 10 -			3.4	None	None		Ground Water Elevation
- 15				None	None	9' - 18' - Tan fine sand - cemented sandston	Indicates the PSH level measured     on Indicates the groundwater level
20				None	None	18' - 20' - Reddish tan fine sand	measured on Indicates samples selected for Laboratory Analysis.
- 25		1,204	2.2	None	None	20' - 26' - Red very fine sand with clay	PID Head-space reading in ppm obtained with a photo-ionization detector.
- 30				None	None		
35				None	None	26' - 32' - Tan very fine sand - sandstone 32' - 41' - Red fine sand - pea gravel	
40		600	)	None	None	41' - 43' - Tan fine sand - sandstone	
45				None	None	41 - 45 - Tailline sand - sandstone 43' - 45' - Red very fine sand - cemented san	ndstone
50				None	None		
55		420	)	None	None	45' - 70' - Tan very fine sand - sandstone	
60				None	None	·····	
- 65 		280	)	None	None		
-70		464	)	None	None		
							Completion Notes
							<ol> <li>The soil boring was advanced on date using air rotary drilling techniques.</li> <li>The lines between material types shown on the profile tog represent approximate boundaries. Actual transitions may be gradual.</li> </ol>
 						Ra	sin Environmental Service Technologies, LLC

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BOPCO, LP Indian Flats Bass Federal SWD Eddy County, New Mexico



Checked By: BRB

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			$\underline{-}$		0	
Depth Below Ground <u>Surface</u>	Soil <u>Column</u>	Chloride Field <u>Test</u>	PID Reading	Petroleum <u>Odor</u>	Petroleum <u>Stain</u>	Soil Description Boring SB-9
E				Moderate	Moderate	0' - 3' - Tan fine sand - caliche - sandstone Date Drilled. <u>May 31, 2013</u> Thickness of Bentonite Seat. <u>110 Fi</u>
5			2.6	Slight	None	Theorems of perinding object of the series of perinding object of the series of perinding      Theorems of perinding
- 10			1.2	None	None	Ground Water Elevation
- 15				None	None	11' - 17' - Tan fine sand - caliche - sandstone (dense) ✓ Indicates the PSH level measured on Indicates the groundwater level
20				None	None	Indicates samples selected for Laboratory Analysis.
- 25		2,144	)	None	None	17' - 29' - Red very fine - sandstone - gravel PID Head-space reading in ppm obtained with a photo-ionization detector.
- 10 - 15 - 20 - 25 - 30 - 35			0.5	None	None	
35				None	None	
- 40				None	None	29' - 51' - Red very fine sand - pea gravel
- 45		1,040	0.8	None	None	
50				None	None	
-50 				None	None	51' - 55' - Red fine sand with clay
60		1,856	0 (1.0)	None	None	55' - 63' - Red silty sand - silty clay
65				None	None	63' - 66' - Red fine sand - pea gravel
70				None	None	66' - 71' - Red silty sand - silty clay
- 75	L. I.	1,608	)	None	None	71' - 80' - Red silty clay
80		464	)	None	None	
85		964	)	None	None	80' - 92' - Tan silty sand - clay
90		768	)	None	None	
- 		464	)	None	None	92' - 94' - Red very fine sand - sandstone 94' - 97' - Tan silty sand - silty clay
- - 100		552	)	None	None	97' - 102' - Tan fine sand - pea gravel - sandstone
105		348	>	None	None	102' - 110' - Red silty sand - silty clay
103		708	)	None	None	
						Completion Notes
						using air rotary drilling techniques. 2.) The lines between material types show on the profile log represent approximat boundaries. Actual transitions may be
						gradual. Basin Environmental Service Technologies, LL 3100 Plains Hwy. Lovington, NM 88260
oring SB-9	)	1	ndian Flats	OPCO, LP Bass Feder unty, New M		Silecture Spruit 9/15 Filecture Spruit 9/15 Prep By: BJA Checked By: BRB
						June 12. 2013

Soil

	Depth		Soil Bo	Jing	30-10		
	Below Ground Soil			n Petroleum	Sail Description		
	Surface Column	<u>n Test Re</u>	ading Odor Moderate	<u>Stain</u> e Moderate	Soil Description		ring SB-10
		$\langle$	0.0 None	None	0' - 8' - Tan fine sand - caliche - cement sandstone	Depth of Exploratory E	oring110 Ft bgs_
		$\langle$	0.8 None	None	8' - 13' - Tan fine sand - cemented sand	Depth to Groundwater Ground Water Elevation Stone	
			0.0 None	None		on Indicates the g	SH level measured
			1.0 None	None		measured on Indicates samp Laboratory Ani PID Head-space re	les selected for tysis. ading in ppm obtained
	-25	652	0.5 None	None		with a photo-io	nization detector.
	-30		None	None	13' - 52' - Red fine sand - sandstone - p	ea gravel (layers)	
	-35	_	None	None			
	-40	1,040	None	None			
	45	_	None	None			
	- 50	3,304	None	None			
	- 55 - -		None	None	52' - 63' - Red silty sand - silty clay		
			None	None			
	- 65	$\frown$	None	None			
		(2,304)	None	None			
	75		None	None	63' - 86' - Red silty sand - silty sandstone - p	ie - pea gravei	
		600	None	None None			
		(1,204)	None	None			
		1,204	None	None			
		600	None	None	86' - 108' - Tan fine sand - sandstone (siliceous)		
			None	None			
		652	None	None			
	115	896	None	None	108' - 115' - Red & tan fine sand (layers	s) - sandstone	
						1.) The soil t using air 2.) The lines on the pr boundari	npletion Notes oring was advanced or oridary drilling technique between material types file kog represent appr s. Actual transitions m
			<u> </u>		Basin Environments	gradual. Basin Environmental S	
Soil Boring SB-10			BOPCO, LP an Flats Bass Fed	eral SWD	Steerine Soutions		n, NM 88260 Checked By: Bf
			ddy County, New	MEXICO	Trice Technolutie	June 12, 2013	

## Appendix D Permits

Scott A. Verhines, P.E. State Engineer



Roswell Office 1900 WEST SECOND STREET ROSWELL, NM 88201

#### STATE OF NEW MEXICO OFFICE OF THE STATE ENGINEER

Trn Nbr: 514456 File Nbr: CP 01118

Oct. 09, 2012

BEN J. ARGUIJO (BASIN ENVIRONMENTAL) BOPCO 522 W. MERMOD CARLSBAD, NM 88220

Greetings:

Enclosed is your copy of the above numbered permit that has been approved subject to the conditions set forth on the approval page. In accordance with the conditions of approval, the well can only be tested for 10 cumulative days, and the well is to be plugged on or before 10/31/2013, unless a permit to use the water is acquired from this office.

A Well Record & Log (OSE Form wr-20) shall be filed in this office within twenty (20) days after completion of drilling, but no later than 10/31/2013.

Appropriate forms can be downloaded from the OSE website www.ose.state.nm.us or will be mailed upon request.

Sincerely,

Margaret Wolf (575)622-6521

Enclosure

explore

#### NEW MEXICO STATE ENGINEER OFFICE PERMIT TO EXPLORE

#### SPECIFIC CONDITIONS OF APPROVAL

- 4 No water shall be appropriated and beneficially used under this permit.
- B The well shall be drilled by a driller licensed in the State of New Mexico in accordance with Section 72-12-12 New Mexico Statutes Annotated.
- C Driller's well record must be filed with the State Engineer within 20 days after the well is drilled or driven. Well record forms will be provided by the State Engineer upon request.
- P The well shall be constructed, maintained, and operated to prevent inter-aquifer exchange of water and to prevent loss of hydraulic head between geologic zones.
- LOG The Point of Diversion CP 01118 POD1 must be completed and the Well Log filed on or before 10/31/2013.
- LOG The Point of Diversion CP 01118 POD2 must be completed and the Well Log filed on or before 10/31/2013.
- LOG The Point of Diversion CP 01118 POD3 must be completed and the Well Log filed on or before 10/31/2013.
- LOG The Point of Diversion CP 01118 POD4 must be completed and the Well Log filed on or before 10/31/2013.
- LOG The Point of Diversion CP 01118 POD5 must be completed and the Well Log filed on or before 10/31/2013.

No water shall be diverted from these wells except for testing purposes which shall not exceed ten (10) cumulative days, and wells shall be plugged or capped on or before 10/31/2013, unless a permit to use water from these wells is acquired from the Office of the State Engineer.

Trn Desc: CP\_01118 (5 EXPLORATORY WELLS)

File Number: <u>CP 01118</u> Trn Number: 514456

#### NEW MEXICO STATE ENGINEER OFFICE PERMIT TO EXPLORE

#### ACTION OF STATE ENGINEER

Notice of Intention Rcvd:Date Rcvd. Corrected:Formal Application Rcvd: 09/19/2012Pub. of Notice Ordered:Date Returned - Correction:Affidavit of Pub. Filed:

This application is approved provided it is not exercised to the detriment of any others having existing rights, and is not contrary to the conservation of water in New Mexico nor detrimental to the public welfare of the state; and further subject to the specific conditions listed previously.

Witness my hand and seal this 09 day of Oct A.D., 2012

Scott A. Verhines, P.E.\_\_\_, State Engineer By: 6 ma Andy Morley

Trn Desc: CP 01118 (5 EXPLORATORY WELLS)

File Number: <u>CP 01118</u> Trn Number: 514456

Interstate Stream Commission	NEW MEXICO OFFICE OF APPLICATION FOR PERM WITH NO CONSUMPTIN (check applica						
	For fees, see State Engineer websit	e: http://www.ose.state.nm.us/	2-32017				
Purpose:	Pollution Control And / Or Recovery	Geo-Thermal					
Exploratory	Construction Site De-Watering	Other (Describe):					
	Mineral De-Watering						
A separate permit will be required to apply water to beneficial use.							
Temporary Request -	Requested Start Date: 9/18/2012	Requested End Date: 9/18	/2013				
Plugging Plan of Operations Submitted?  Yes X No							

File No.

#### 1. APPLICANT(S)

Name: BOPCO, LP		Name:		
Contact or Agent: Ben J. Arguijo (Basin Envi	check here if Agent 🔯	Contact or Agent:	check here if Agent	
Mailing Address: 522 W. Me	mod	Mailing Address:		
City: Carlsbad		City:		
State: NM	Zip Code: 88220	State:	Zip Code:	
Phone: <b>(432)556-8730</b> Phone (Work):	🗌 Home 🖾 Cell	Phone: Phone (Work):		
E-mail (optional): TASavoie bjarguijo@basinenv.cc	-	E-mail (optional):		

ί.	ō.	V	0	، داریا	1152
بر د	1.1L	6	Intel 1	NE S	TAT2 (208

FOR OSE INTERNAL USE	Application for Permit, Form wr-07, Rev 4/12/12				
File Number: CP-1/18	Tm Number: 514456				
Trans Description (optional): 5 E	Exploratory Wells				
Sub-Basin: CP	,				
PCW/LOG Due Date: 10/31/2	013				
	Page 1 of 3				

#### 2. WELL(S) Describe the well(s) applicable to this application.

AACTT(2) Describe the Meil(s		•	2-3201
ocation Required: Coordin Lat/Long - WGS84).	nate location must b	e reported in NM S	tate Plane (NAD 83), UTM (NAD 83), <u>or</u> Latitude/Longitude
	trict VII (Cimarron) c	ustomers, provide	a PLSS location in addition to above.
NM State Plane (NAD83) NM West Zone NM East Zone NM East Zone NM Central Zone	· · / _ [	UTM (NAD83) (Mete ]Zone 12N ]Zone 13N	rs) X Lat/Long (WGS84) (to the nearest 1/10 <sup>th</sup> of second)
Well Number (if known):	X or Easting or Longitude:	Y or Northing or Latitude:	Provide if known: -Public Land Survey System (PLSS) (Quarters or Halves, Section, Township, Range) OR - Hydrographic Survey Map & Tract; OR - Lot, Block & Subdivision; OR - Land Grant Name
B-1	104 3 19.5 w	32 26 2.1 n	Unit Letter "J" (NW/SE), Section 35, Township 21 South, Range 28 East
3B-2	104 3 19.5 w	32 26 2.1 n	Unit Letter "J" (N₩/SE), Section 35, Township 21 South, Range 28 East
\$B-3	104 3 19.5 w	32 26 2.1 n	Unit Letter "J" (NW/SE), Section 35, ⊺ownship 21 South, Range 28 East
\$B-4	104 3 19.5 w	32 26 2.1 n	Unit Letter "J" (NW/SE), Section 35, Township 21 South, Range 28 East
iB-5	104 3 19.5 w	32 26 2.1 n	Unit Letter "J" (NW/SE), Section 35, Township 21 South, Range 28 East
OTE: If more well location			I WR-08 (Attachment 1 – POD Descriptions) If yes, how many
Other description relating we	ll to common landmar	ks, streets, or other:	See attached Site Location Map.
Vell is on land owned by: US	Department of the	Interior - Bureau Ol	Land Management
Vell Information: NOTE: If If yes, how many	more than one (1) w	ell needs to be des	cribed, provide attachment. Attached? 🗌 Yes 🗌 No
pproximate depth of well (fe	et): 50.00	C	Dutside diameter of well casing (inches): 0.00
Filler Name: Straub Corpor			niller License Number: WD1478

#### 3. ADDITIONAL STATEMENTS OR EXPLANATIONS

Up to five (5) soil borings will be drilled on-site to investigate the vertical and horizontal extent of contamination following a series of produced water and/or crude oil releases at BOPCO's Indian Flats Bass Federal Salt Water Disposal (SWD) site. The exact number, location(s), and depth(s) of the soil bore(s) will be determined on the drilling date by field-screens using a chloride test kit and/or Photo-Ionization Detector. Due to the depth to water at the location (approximately 140 feet below ground surface), it is unlikely that monitor wells will be required.

62 10 VI61 635 71m

<u>scon</u> STATE ENGINEER OFFICE

FOR OSE INTERNAL USE

Application for Permit, Form wr-07

Trn Number: 514456 File Number: CP - 1/1 8

Page 2 of 3

4. SPECIFIC REQUIREMENTS: The applicant must include the following, as applicable to each well type. Please check the appropriate boxes, to indicate the information has been included and/or attached to this application:

the following:
or mine
eriod of time
1.
to be diverted.
eristics of the
ater to be
ater to be
operation.
•
nt of water
e aquifer.
d area of
t.
ischarge.
on surface
water rights
ect.
Is employed to
ater rights and
<b>.</b>
s, rivers,
he area of

#### ACKNOWLEDGEMENT

I, We (name of applicant(s)), Ben J. Arguijo

Print Name(s)

affirm that the foregoing statements are true to the best of (my, our) knowledge and belief.

**Applicant Signature** 

#### **ACTION OF THE STATE ENGINEER**

	This	application is:		NG
X	kapproved	partially approved	🔲 denied	
provided it is not exercised to the detriment of Mexico nor detrimental to the public welfare	of any others having and further subject	existing rights, and is not to the <u>attached</u> condition	ot contrary to the conserved of approval.	
Witness my hand and seal this9th_da	ay ofOctobe	er 20 12	, for the State Enginee	r
Scott A. Verhines, P.E.		, State Engineer	-	LER OFFICE
By: Signature	uly	Print		
<u>Title: Andy Morley, Acting Distr</u> Print	vict II Manage	2r		
	FOR OSE INT	ERNAL USE	Applicati	on for Permit, Form wr-07
	File Number:	CP-1118	Trn Number: 57	14456

Page 3 of 3

2-32017



#### United States Department of the Interior

BUREAU OF LAND MANAGEMENT Carisbad Field Office 620 E. Greene St. Carisbad, New Mexico 88220-6292 www.bhm.gov/nm



In Reply Refer To: 3162.4 (NM-080) NMLC067144

September 16, 2012

NM Office of the State Engineer Attn: Bill Duemling 1900 W. Second St. Roswell, NM 99201

RE: NMLC067144; Indian Flats Bass Federal #1 SWD NWSE, Section 35, T21S-R28E Latitude: 32.433816, Longitude: -104.055308 Eddy County, New Mexico

Gentlemen:

The above well location has had recent spill events related to oil and gas operation on the above well location. In order to fully delineate the impacted sites, a drilling unit will be needed to complete the delineation. The Bureau of Land Management (land owner) authorizes the use of a drilling unit to accomplish the full delineation of the site.

If there are any questions please call Jim Amos, Supervisory Environmental Protection Specialist, at (505) 234-5909.

Sincerely,

ames a. Oma

James A. Amos Supervisory Environmental **Protection Specialist** 

MIL ZEB TOTI V & 53 BORAET. SIMIE ENGMEES OLETCE

#### Locator Tool Report

#### General Information:

· · .

Application ID:29

Date: 10-09-2012

Time: 10:34:24

WR File Number: CP Purpose: POINT OF DIVERSION

Applicant First Name: BOPCO Applicant Last Name: BEN J. ARGUIJO

> GW Basin: CAPITAN County: EDDY

Critical Management Area Name(s): NONE Special Condition Area Name(s): NONE Land Grant Name: NON GRANT

#### PLSS Description (New Mexico Principal Meridian):

SE 1/4 of SW 1/4 of NW 1/4 of SE 1/4 of Section 35, Township 21S, Range 28E.

#### **Coordinate System Details:**

#### **Geographic Coordinates:**

Latitude: 32 Degrees 26 Minutes 2.1 Seconds N Longitude: 104 Degrees 3 Minutes 19.5 Seconds W

#### **Universal Transverse Mercator Zone: 13N**

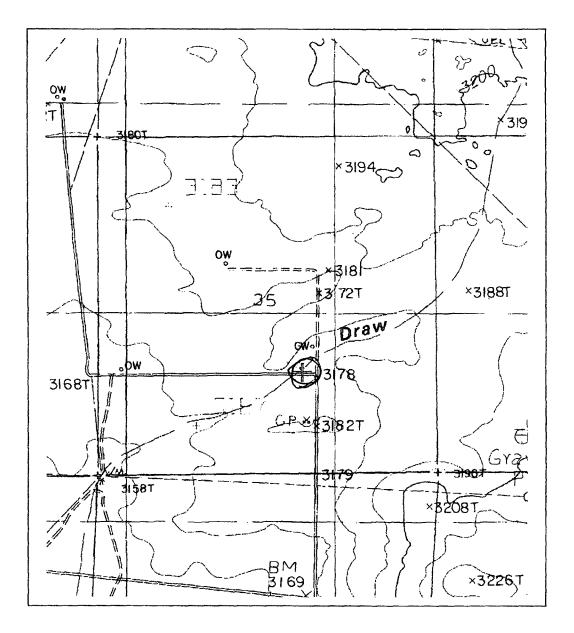
NAD 1983(92) (Meters)	N: 3,588,926	E: 588,800
NAD 1983(92) (Survey Feet)	N: 11,774,669	E: 1,931,754
NAD 1927 (Meters)	N: 3,588,724	E: 588,849
NAD 1927 (Survey Feet)	N: 11,774,006	E: 1,931,915

#### State Plane Coordinate System Zone: New Mexico East

NAD 1983(92) (Meters)	N: 159,015	E: 191,134
NAD 1983(92) (Survey Feet)	N: 521,702	E: 627,080
NAD 1927 (Meters)	N: 158,996	E: 178,582
NAD 1927 (Survey Feet)	N: 521,641	E: 585,899

#### **NEW MEXICO OFFICE OF STATE ENGINEER**

#### Locator Tool Report





 WR File Number: CP
 Scale: 1:17,516

 Northing/Easting: UTM83(92) (Meter):
 N: 3,588,926
 E: 588,800

 Northing/Easting: SPCS83(92) (Feet):
 N: 521,702
 E: 627,080

 GW Basin: Capitan
 Eigen and Eigen and

Page 2 of 2

Print Date: 10/09/2012

Scott A. Verhines, P.E. State Engineer



Roswell Office 1900 WEST SECOND STREET ROSWELL, NM 88201

#### STATE OF NEW MEXICO OFFICE OF THE STATE ENGINEER

Trn Nbr: 527952 File Nbr: CP 01171

May. 22, 2013

BEN J ARGUIJO BOPCO LP 3100 PLAINS HWY LOVINGTON, NM 88260

Greetings:

Enclosed is your copy of the above numbered permit that has been approved subject to the conditions set forth on the approval page. In accordance with the conditions of approval, the well can only be tested for 10 cumulative days, and the well is to be plugged on or before 05/31/2014, unless a permit to use the water is acquired from this office.

A Well Record & Log (OSE Form wr-20) shall be filed in this office within twenty (20) days after completion of drilling, but no later than 05/31/2014.

Appropriate forms can be downloaded from the OSE website www.ose.state.nm.us or will be mailed upon request.

Sincerely,

Andy Morley (575)622-6521

Enclosure

File No.

of the Store Co.	NEW MEXICO OFFICE OF THE STATE ENGINEER						
	APPLICATION FOR PERMIT TO DRILL A WELL WITH NO CONSUMPTIVE USE OF WATER						
Interactive or case commission	(check applicable box):						
	For fees, see State Engineer website	e: http://www.ose.state.nm.us/ 2,3}	Ozo				
Purpose:	Pollution Control And / Or Recovery	Geo-Thermal					
X Exploratory	Construction Site De-Watering	Other (Describe):					
Monitoring	Mineral De-Watering						
A separate permit will be	required to apply water to beneficial use.						
Temporary Request -	Requested Start Date: 5/20/2013	Requested End Date:					
Plugging Plan of Operation	ons Submitted? 🗌 Yes 🛛 No						

#### 1. APPLICANT(S)

Name: BOPCO, LP		Name:	
Contact or Agent: Ben J. Arguijo (Basin Env	check here if Agent 🛛 vironmental)	Contact or Agent:	check here if Agent 🛛
Mailing Address: 3100 Plair	ns Hwy.	Mailing Address:	
City: Lovington	999	City:	anna a sanan an
State: NM	Zip Code: 88220	State:	Zip Code:
Phone: <b>(806)549-9597</b> Phone (Work):	🗌 Home 🛛 Cell	Phone: Phone (Work):	
E-mail (optional): bjarguijo	@basinenv.com	E-mail (optional):	

	FOR OSE INTERNAL USE	Application for Permit, Form wr-07, Rev 4/12/12
IN THE REPORT OF	File Number: CP-1171	Trn Number: 527952
	Trans Description (optional): POD	1-5
	Sub-Basin:	
	PCW/LOG Due Date: 5-3/-	- /4
		Page 1 of 3

2. WELL(S) Describe the well(s) applicable to this application.

Location Required: Coordinate location must be reported in NM State Plane (NAD 83), UTM (NAD 83), or Latitude/Longitude (Lat/Long - WGS84). District II (Roswell) and District VII (Cimarron) customers, provide a PLSS location in addition to above. UTM (NAD83) (Meters) NM State Plane (NAD83) (Feet) Lat/Long (WGS84) (to the nearest NM West Zone Zone 12N 1/10<sup>th</sup> of second) NM East Zone Zone 13N NM Central Zone Provide if known: -Public Land Survey System (PLSS) Y or Northing (Quarters or Halves, Section, Township, Range) OR X or Easting or Well Number (if known): Longitude: or Latitude: - Hydrographic Survey Map & Tract; OR - Lot, Block & Subdivision; OR - Land Grant Name SB-6 104 3 19.5 w 32 26 2.1 n Unit Letter "J" (NW/SE), Section 35, Township 21 South, CP-INI PODI Range 28 East SR.7 104 3 19.5 w 32 26 2.1 n Unit Letter "J" (NW/SE), Section 35, Township 21 South, Range 28 East <u>CP-1171 POD2</u> 58-8 104 3 19.5 w 32 26 2.1 n Unit Letter "J" (NW/SE), Section 35, Township 21 South, Range 28 East <u>CP-1171 POD3</u> SB-9 Unit Letter "J" (NW/SE), Section 35, Township 21 South, 104 3 19.5 w 32 26 2.1 n Range 28 East <u>CP-1171 POD4</u> SB-10 104 3 19.5 w 32 26 2.1 n Unit Letter "J" (NW/SE), Section 35, Township 21 South, Range 28 East CP-1171 POD5 NOTE: If more well locations need to be described, complete form WR-08 (Attachment 1 – POD Descriptions) Additional well descriptions are attached: 
Yes 
No If yes, how many Other description relating well to common landmarks, streets, or other: See attached Site Location Map. Well is on land owned by: US Department Of The Interior - Bureau Of Land Management Well Information: NOTE: If more than one (1) well needs to be described, provide attachment. Attached? Yes No If yes, how many Approximate depth of well (feet): 50.00 Outside diameter of well casing (inches): 0.00 **Driller Name: Straub Corporation** Driller License Number: WD1478

#### 3. ADDITIONAL STATEMENTS OR EXPLANATIONS

Up to five (5) soil borings will be drilled on-site to investigate the vertical and horizontal extent of contamination following a series of produced water and/or crude oil releases at BOPCO's Indian Flats Bass Federal Salt Water Disposal (SWD) site. The exact number, location(s), and depth(s) of the soil bore(s) will be determined on the drilling date by field-screens using a chloride test kit and/or Photo-Ionization Detector. Due to the depth to water at the location (approximately 140 feet below ground surface), it is unlikely that monitor wells will be required.

1. V h1 X18

SIME SLUGAR LAND

FOR OSE INTERNAL USE

File Number:

- 1171

Application for Permit, Form wr-07

Trn Number:	5	2	7	94	5	ス

Page 2 of 3

4. SPECIFIC REQUIREMENTS: The applicant must include the following, as applicable to each well type. Please check the appropriate boxes, to indicate the information has been included and/or attached to this application:

			$\alpha$ $5500$
Exploratory:	Pollution Control and/or Recovery:	Construction	Mine De-Watering:
Include a	Include a plan for pollution	De-Watering:	Include a plan for pollution
description of	control/recovery, that includes the	Include a description of the	control/recovery, that includes the following:
any proposed	following:	proposed dewatering	A description of the need for mine
pump test, if	A description of the need for the	operation,	dewatering.
applicable.	pollution control or recovery operation.	The estimated duration of	The estimated maximum period of time
	The estimated maximum period of	the operation,	for completion of the operation.
	time for completion of the operation.	The maximum amount of	The source(s) of the water to be diverted.
	The annual diversion amount.	water to be diverted,	The geohydrologic characteristics of the
	The annual consumptive use	A description of the need	aquifer(s).
	amount.	for the dewatering operation,	The maximum amount of water to be
	The maximum amount of water to be	and,	diverted per annum.
	diverted and injected for the duration of	A description of how the	The maximum amount of water to be
	the operation.	diverted water will be disposed	diverted for the duration of the operation.
	The method and place of discharge.	of.	The quality of the water.
Monitoring:	The method of measurement of	Geo-Thermal:	The method of measurement of water
Include the	water produced and discharged.	Include a description of the	diverted.
reason for the	The source of water to be injected.	geothermal heat exchange	The recharge of water to the aquifer.
monitoring	The method of measurement of	project,	Description of the estimated area of
well, and,	water injected.	The amount of water to be	hydrologic effect of the project.
🗌 The	The characteristics of the aquifer.	diverted and re-injected for the	The method and place of discharge.
duration	The method of determining the	project,	An estimation of the effects on surface
of the planned	resulting annual consumptive use of	The time frame for	water rights and underground water rights
monitoring.	water and depletion from any related	constructing the geothermal	from the mine dewatering project.
	stream system.	heat exchange project, and,	A description of the methods employed to
	Proof of any permit required from the	The duration of the project.	estimate effects on surface water rights and
	New Mexico Environment Department.	Preliminary surveys, design	underground water rights.
	An access agreement if the	data, and additional	Information on existing wells, rivers,
	applicant is not the owner of the land on	information shall be included to	springs, and wellands within the area of
	which the pollution plume control or	provide all essential facts	hydrologic effect.
	recovery well is to be located.	relating to the request.	

#### ACKNOWLEDGEMENT

I, We (name of applicant(s)), Ben J. Arguijo

Print Name(s)

affirm that the foregoing statements are true	e to the best of (my, o	ur) knowledge and belie	f.		N. C.
11/1/1	5/13/13				
Applicant-Signature	Солиция и Солиция — С	Applicant Sign	ature		· · ·
	ACTION OF TH	HE STATE ENGINEER		anana anan Ma	
	This	application is:			1. 1.e
	🚽 approved	partially approved	🗋 denied	··: -	_ f 
provided it is not exercised to the detrimer Mexico nor detrimental to the public welfar	t of any others having e and further subject	g existing rights, and is r to the <u>attached</u> conditio	not contrary to the second s	ne conservation	n of water in New
Witness my hand and seal this _22**	day of Ma	<u>y</u> 20 <u>13</u>	_ , for the Stat	e Engineer,	
Lim	Verhines, P.E.	, State Engineer			
By: Signature	7	Print			
Tille: Andy Morley, District I Print	I Manager	-			
	FOR OSE INT	ERNAL USE		Application fo	or Permit, Form wr-07
	File Number:	CP 1171	Trn Nu	mber: 52	7952
					Page 3 of 3

#### NEW MEXICO STATE ENGINEER OFFICE PERMIT TO EXPLORE

#### SPECIFIC CONDITIONS OF APPROVAL (Continued)

- LOG The Point of Diversion CP 01171 POD3 must be completed and the Well Log filed on or before 05/31/2014.
- LOG The Point of Diversion CP 01171 POD4 must be completed and the Well Log filed on or before 05/31/2014.
- LOG The Point of Diversion CP 01171 POD5 must be completed and the Well Log filed on or before 05/31/2014.

#### ACTION OF STATE ENGINEER

Notice of Intention Rcvd:		Date Rcvd. Corrected:
Formal Application Rcvd:	05/14/2013	Pub. of Notice Ordered:
Date Returned - Correction:		Affidavit of Pub. Filed:

This application is approved provided it is not exercised to the detriment of any others having existing rights, and is not contrary to the conservation of water in New Mexico nor detrimental to the public welfare of the state; and further subject to the specific conditions listed previously.

Witness my hand and seal this 22 day of May A.D., 2013

Scott A. Verhiges, P.E.\_\_\_, State Engineer

And Morley

Trn Desc: CP-1171 POD1-5 EXPL

File Number: <u>CP 01171</u> Trn Number: <u>527952</u>

#### NEW MEXICO STATE ENGINEER OFFICE PERMIT TO EXPLORE

#### SPECIFIC CONDITIONS OF APPROVAL

- 4 No water shall be appropriated and beneficially used under this permit.
- 7 The Permittee shall utilize the highest and best technology available to ensure conservation of water to the maximum extent practical.
- B The well shall be drilled by a driller licensed in the State of New Mexico in accordance with Section 72-12-12 New Mexico Statutes Annotated.
- C Driller's well record must be filed with the State Engineer within 20 days after the well is drilled or driven. Well record forms will be provided by the State Engineer upon request.
- C2 No water shall be diverted from this well except for testing purposes which shall not exceed ten (10) cumulative days, and well shall be plugged or capped on or before, unless a permit to use water from this well is acquired from the Office of the State Engineer.
- P The well shall be constructed, maintained, and operated to prevent inter-aquifer exchange of water and to prevent loss of hydraulic head between geologic zones.
- LOG The Point of Diversion CP 01171 POD1 must be completed and the Well Log filed on or before 05/31/2014.
- LOG The Point of Diversion CP 01171 POD2 must be completed and the Well Log filed on or before 05/31/2014.

Trn Desc: CP-1171 POD1-5 EXPL

File Number: <u>CP 01171</u> Trn Number: 527952

## Appendix E Laboratory Analytical Reports



March 14, 2012

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

RE: INDIAN FLATS BASS FEDERAL SWD

Enclosed are the results of analyses for samples received by the laboratory on 03/08/12 9:03.

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

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

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

Accreditation applies to public drinking water matrices.

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

Sincerely,

.

Celeg D. Keine

Celey D. Keene Lab Director/Quality Manager



#### Analytical Results For:

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

Received:	03/08/2012	Sampling Date:	03/06/2012
Reported:	03/14/2012	Sampling Type:	Soil
Project Name:	INDIAN FLATS BASS FEDERAL SWD	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	EDDY CO., NM		

#### Sample ID: SB - 1 @ 5' (H200609-01)

Chloride, SM4500Cl-B	CI-B mg/kg		Analyzed By: AP		·······				
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	. Qualifier
Chloride	2440	16.0	03/09/2012	ND	432	108	400	3.64	
TPH 8015M	mg/	mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	8S	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<50.0	50.0	03/10/2012	ND	187	93.7	200	1.65	
DRO >C10-C28	68.2	50.0	03/10/2012	ND	162	81.2	200	4.19	
EXT DRO >C28-C35	< 50.0	50.0	03/10/2012	ND					
Surrogate: 1-Chlorooctane	103 %	6 55.5-15	4						
Surrogate: 1-Chlorooctadecane	111%	6 57.6-15	8						

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\*=Accredited Analyte

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Celegit Keine

Celey D. Keene, Lab Director/Quality Manager

Page 2 of 9



#### Analytical Results For:

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

Received:	03/08/2012	Sampling Date:	03/06/2012
Reported:	03/14/2012	Sampling Type:	Soil
Project Name:	INDIAN FLATS BASS FEDERAL SWD	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	EDDY CO., NM		

#### Sample ID: SB - 1 @ 10' (H200609-02)

BTEX 8021B	mg/	kg	Analyze	Analyzed By: AP						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	03/09/2012	ND	1.92	96.2	2.00	11.2		
Toluene*	<0.050	0.050	03/09/2012	ND	2.12	106	2.00	9.70		
Ethylbenzene*	<0.050	0.050	03/09/2012	ND	2.19	110	2.00	10.9		
Total Xylenes*	<0.150	0.150	03/09/2012	ND	6.92	115	6.00	9.87		
Surrogate: 4-Bromofluorobenzene (P1L	1119	% 64.4-13	4							
Chloride, SM4500Cl-B	mg/	kg	Analyze	d By: AP						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	3320	16.0	03/12/2012	ND	432	108	400	3.64		
TPH 8015M	mg/	kg	Analyzed By: MS							
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10	<10.0	10.0	03/10/2012	ND	187	93.7	200	1.65		
DRO >C10-C28	15.4	10.0	03/10/2012	ND	162	81.2	200	4.19		
EXT DRO >C28-C35	10.1	10.0	03/10/2012	ND						
Surrogate: 1-Chlorooctane	103 9	% 55.5-15	4							
Surrogate: 1-Chlorooctadecane	107 9	% 57.6-15	Q							

#### Sample ID: SB - 1 @ 25' (H200609-03)

Chloride, SM4500Cl-B	mg	/kg	Analyze	d By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	512	16.0	03/12/2012	ND	432	108	400	3.64	

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Celey D. Keene, Lab Director/Quality Manager



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#### Analytical Results For:

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

Received:	03/08/2012	Sampling Date:	03/06/2012
Reported:	03/14/2012	Sampling Type:	Soil .
Project Name:	INDIAN FLATS BASS FEDERAL SWD	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	EDDY CO., NM		

#### Sample ID: SB - 1 @ 30' (H200609-04)

BTEX 80218	mg,	/kg	Analyze	d By: AP				<u></u>	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	03/09/2012	ND	1.92	96.2	2.00	11.2	
Toluene*	<0.050	0.050	03/09/2012	ND	2.12	106	2.00	9.70	
Ethylbenzene*	<0.050	0.050	03/09/2012	ND	2.19	110	2.00	10.9	
Total Xylenes*	<0.150	0.150	03/09/2012	ND .	6.92	115	6.00	9.87	

Surrogate: 4-Bromofluorobenzene (PIL 111 % 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	320	16.0	03/12/2012	ND	432	108	400	3.64	
TPH 8015M	mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	03/10/2012	ND	187	93.7	200	1.65	
DRO >C10-C28	<10.0	10.0	03/10/2012	ND	162	81.2	200	4.19	
EXT DRO >C28-C35	<10.0	10.0	03/10/2012	ND					
Surrogate: 1-Chlorooctane	85.4	% 55.5-15	4						
Surrogate: 1-Chlorooctadecane	. 85.1	% 57.6-15	8						

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Celey D. Keene, Lab Director/Quality Manager



#### Analytical Results For:

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

Received:	03/08/2012	Sampling Date:	03/06/2012
Reported:	03/14/2012	Sampling Type:	Soil
Project Name:	INDIAN FLATS BASS FEDERAL SWD	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	EDDY CO., NM		

#### Sample ID: SB - 2 @ 5' (H200609-05)

Chloride, SM4500CI-B	mg/kg Ana			d By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	3880	16.0	03/12/2012	ND	432	108	400	3.64	
TPH 8015M	mg/kg		Analyzed By: MS					-	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	03/10/2012	ND	187	93.7	200	1.65	
DRO >C10-C28	<10.0	10.0	03/10/2012	ND	162	81.2	200	4.19	
EXT DRO >C28-C35	<10.0	10.0	03/10/2012	ND					
Surrogate: 1-Chlorooctane	92.8	% 55.5-15	4						
Surrogate: 1-Chlorooctadecane	96.5	% 57.6-15	8						

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Celey D. Keene, Lab Director/Quality Manager



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## Analytical Results For:

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

Received:	03/08/2012	Sampling Date:	03/06/2012
Reported:	03/14/2012	Sampling Type:	Soil
Project Name:	INDIAN FLATS BASS FEDERAL SWD	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	EDDY CO., NM	,	

## Sample ID: SB - 2 @ 10' (H200609-06)

BTEX 8021B	mg,	/kg	Analyze	d By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	03/09/2012	ND	1.92	96.2	2.00	11.2	
Toluene*	<0.050	0.050	03/09/2012	ND	2.12	106	2.00	9.70	
Ethylbenzene*	<0.050	0.050	03/09/2012	ND	2.19	110	2.00	10. <del>9</del>	
Total Xylenes*	<0.150	0.150	03/09/2012	ND	6.92	115	6.00	9.87	
							· · · · · · · · · · · · · · · · · · ·		

Surrogate: 4-Bromofluorobenzene (PIL 110 % 64.4-134

Chloride, SM4500Cl-B	mg,	/kg	Analyze	d By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	2760	16.0	03/12/2012	ND	432	108	400	3.64	
TPH 8015M	mg,	/kg	Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	03/10/2012	ND	187	93.7	200	1.65	
DRO >C10-C28	<10.0	10.0	03/10/2012	ND	162	81.2	200	4.19	
EXT DRO >C28-C35	<10.0	10.0	03/10/2012	ND					
Surrogate: 1-Chlorooctane	113 9	% 55.5-15	4						
Surrogate: 1-Chlorooctadecane	112 9	57.6-15	8						

## Sample ID: SB - 2 @ 20' (H200609-07)

Chloride, SM4500CI-B	mg,	/kg							
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	3720	16.0	03/12/2012	ND	432	108	400	3.64	

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Celey D. Keene, Lab Director/Quality Manager



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

Received:	03/08/2012	Sampling Date:	03/06/2012
Reported:	03/14/2012	Sampling Type:	Soil
Project Name:	INDIAN FLATS BASS FEDERAL SWD	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	EDDY CO., NM		

## Sample ID: SB - 2 @ 30' (H200609-08)

Chloride, SM4500CI-B	mg/	'kg	Analyze	d By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	768	16.0	03/12/2012	ND	432	108	400	3.64	

## Sample ID: SB - 2 @ 35' (H200609-09)

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	03/09/2012	ND	1.92	96.2	2.00	11.2	
Toluene*	<0.050	0.050	03/09/2012	ND	2.12	106	2.00	9.70	
Ethylbenzene*	<0.050	0.050	03/09/2012	ND	2.19	110	2.00	10.9	
Total Xylenes*	<0.150	0.150	03/09/2012	ND	6.92	115	6.00	9.87	

Surrogate: 4-Bromofluorobenzene (PIL

107 % 64.4-134

Chloride, SM4500CI-B	mg.	/kg	Analyze	d By: AP						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	336	16.0	03/12/2012	ND	432	108	400	3.64		
TPH 8015M	mg	/kg	Analyze	d By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10	<10.0	10.0	03/10/2012	ND	187	93.7	200	1.65		
DRO >C10-C28	<10.0	10.0	03/10/2012	ND	162	81.2	200	4.19		
EXT DRO >C28-C35	<10.0	10.0	03/10/2012	ND						
Surrogate: 1-Chlorooctane	102	% 55.5-15	4							
Surrogate: 1-Chlorooctadecane	103	% 57.6-15	8							

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Celeg Di Keine

Celey D. Keene, Lab Director/Quality Manager



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

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## **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  $6^\circ$ C

Samples reported on an as received basis (wet) unless otherwise noted on report

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Celey D. Keene, Lab Director/Quality Manager



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

Company Name	<sup>:</sup> Basin Environmental Service	Тес	hne	olo	gies, L	LC.		BILL TO ANALYSIS REQUEST																
Project Manage	<sup>r:</sup> Ben J. Arguijo							P.0	). #:															
Address: P.O.							Company: BOPCO, LP											ļ						
City: Loving:	State: NM	Zip	p: 1	682	60			Attr	1: Tony	/ Savo	oie													
Phone #: (575		96-	142	29				Add	iress: 5	22 W.	Mer	ncd												
Project #:	Project Owne	r: 3(	OPC		LP	***-***		City	: Carls	bad									1					
	Indian Flats Bass Federal SWE							Stat	te: NM	Zip: 8	8822	0				[								
	ו: Eddy Co., אא							Pho	one#: (4						1		1							
	Ben Arguijo							Fax						2	\$		1							
FOR LAB USE ONLY		Г	Т	T	MAT	RIX			PRESERV	SA	MPLI	NG												
Lab I.D. H2006019	Sample I.D.	(G)RAB OR (C)OMP.	AINE	CPOLINIOWATER	WASTEWATER SOIL	OIL	SLUDGE	OTHER :	ACID/BASE: ICE / COOL OTHER :	DA	TE	TIME	Chlor de	TPH (SOISM	1 -									
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service, in no event was calculated on the events and consequence of an angles, instance motion instances in our consequences of a service because of the service of the se

Relinquished By:	Date:	Received By:		Phone Result: Fax Result:	Yes		Add'I Phone #: Add'I Fax #:		-
	Time: 0700	Patorno wink		REMARKS:					
Relinquished By:	Date 3/9/12 5/9/12 Time; 03	Received By:	-11-	Plea	se emai	l resul	ts to pm@basinenv.com		
Delivered By: (Circle One) Sampler - UPS - Bus - Other:		Sample Condition     Cool       Cool     Intact'       D     D       Ves     Yes       No     No	CHECKED BY: (Initials)	& TA	savoie@	BassPet			
	al changes. Pleas	e fax written changes to 505-393	-2476					Pa	age 9 of 9
196Bn Nay	GCa.	all non the No							





December 20, 2012

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

RE: INDIAN FLATS BASS FEDERAL SWD

Enclosed are the results of analyses for samples received by the laboratory on 12/14/12 15:00.

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

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

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

Accreditation applies to public drinking water matrices.

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

Sincerely,

Celeg D. Keine

Celey D. Keene Lab Director/Quality Manager



#### Analytical Results For:

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

Received:	12/14/2012	Sampling Date:	12/12/2012
Reported:	12/20/2012	Sampling Type:	Soil
Project Name:	INDIAN FLATS BASS FEDERAL SWD	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	EDDY CO., NM		

## Sample ID: SB - 3 (BG) @ SURFACE (H203013-01)

Chloride, SM4500Cl-B	mg,	/kg	Analyze	d By: HM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	32.0	16.0	12/19/2012	ND	416	104	400	3.77	

## Sample ID: SB - 3 (BG)@ 5' (H203013-02)

Chloride, SM4500Cl-B	mg/	'kg	Analyze	d By: HM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	64.0	16.0	12/19/2012	ND	416	104	400	3.77	
TPH 8015M	mg/	kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	12/20/2012	ND	184	92.1	200	3.64	
DRO >C10-C28	<10.0	10.0	12/20/2012	ND	19 <del>9</del>	99.5	200	5.25	
EXT DRO >C28-C35	<10.0	10.0	12/20/2012	ND					
Surrogate: 1-Chlorooctane	84.5 %	65.2-14	0				~		
Surrogate: 1-Chlorooctadecane	94.5 %	63.6-15	4						

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Celey E. Kere-

Celey D. Keene, Lab Director/Quality Manager



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

Received:	12/14/2012	Sampling Date:	12/12/2012	
Reported:	12/20/2012	Sampling Type:	Soil	
Project Name:	INDIAN FLATS BASS FEDERAL SWD	Sampling Condition:	Cool & Intact	
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson	
Project Location:	EDDY CO., NM			

## Sample ID: SB - 3(BG) @ 10' (H203013-03)

BTEX 8021B	mg,	/kg	Analyze	d By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	12/20/2012	ND	1.98	99.2	2.00	2.63	
Toluene*	<0.050	0.050	12/20/2012	ND	2.21	110	2,00	2.60	
Ethylbenzene*	<0.050	0.050	12/20/2012	ND	2.17	109	2.00	5.28	
Total Xylenes*	<0.150	0.150	12/20/2012	ND	6.78	113	6.00	7.51	
Total BTEX	<0.300	0.300	12/20/2012	ND					

Surrogate: 4-Bromofluorobenzene (PIE 115 % 89.4-126

Chloride, SM4500Cl-B	mg,	/kg	Analyze	d By: HM	-				
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	48.0	16.0	12/19/2012	ND	416	104	400	3.77	
TPH 8015M	mg,	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	12/20/2012	ND	184	92.1	200	3.64	
DRO >C10-C28	<10.0	10.0	12/20/2012	ND	199	99.5	200	5.25	
EXT DRO >C28-C35	<10.0	10.0	12/20/2012	ND					
Surrogate: 1-Chlorooctane	87.6	% 65.2-14	0						
Surrogate: 1-Chlorooctadecane	99.5	% 63.6-15	4						

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Celey D. Keene, Lab Director/Quality Manager



# Analytical Results For:

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

Received:	12/14/2012	Sampling Date:	12/12/2012
Reported:	12/20/2012	Sampling Type:	Soil
Project Name:	INDIAN FLATS BASS FEDERAL SWD	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	EDDY CO., NM		

## Sample ID: SB - 3 (BG)@ 15' (H203013-04)

Chloride, SM4500Cl-B	mg	/kg	Analyze	d By: HM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	32.0	16.0	12/19/2012	ND	416	104	400	3.77	

## Sample ID: SB - 3 (BG)@ 20' (H203013-05)

Chloride, SM4500Cl-B	mg	/kg	Analyze	d By: HM			·		<u></u>
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	32.0	16.0	12/19/2012	ND	416	104	400	3,77	

#### Sample ID: SB - 3 (BG)@ 25' (H203013-06)

Chloride, SM4500Cl-B	mg	/kg	Analyze	d By: HM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	32.0	16.0	12/19/2012	ND	432	108	400	3.64	
· .									
		a							

## Sample ID: SB - 4 @ SURFACE (H203013-07)

Chloride, SM4500Cl-B	mg,	/kg	Analyze	d By: HM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	3520	16.0	12/19/2012	ND	432	108	400	3.64	

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Celey D. Keene, Lab Director/Quality Manager



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

Received:	12/14/2012	Sampling Date:	12/12/2012
Reported:	12/20/2012	Sampling Type:	Soil
Project Name:	INDIAN FLATS BASS FEDERAL SWD	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	EDDY CO., NM		

## Sample ID: SB - 4 @ 5' (H203013-08)

mg,	/kg	Analyze	d By: HM					
Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
928	16.0	12/19/2012	ND	432	108	400	3.64	
mg,	/kg	Analyze	d By: MS					
Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
<10.0	10.0	12/19/2012	ND	184	92.1	200	3.64	
123	10.0	12/19/2012	ND	199	99.5	200	5.25	
34.9	10.0	12/19/2012	ND					
90.1	% 65.2-14	0						
105	% 63.6-15	4						
	Result 928 mg, Result <10.0 123 34.9 90.1	928 16.0 mg/kg Result Reporting Limit <10.0 10.0 123 10.0 34.9 10.0 90.1 % 65.2-14	Result         Reporting Limit         Analyzed           928         16.0         12/19/2012           mg/kg         Analyzed           Result         Reporting Limit         Analyzed           <10.0	Result         Reporting Limit         Analyzed         Method Blank           928         16.0         12/19/2012         ND           mg/kg         Analyzed By: MS         Method Blank           Result         Reporting Limit         Analyzed         Method Blank           <10.0	Result         Reporting Limit         Analyzed         Method Blank         BS           928         16.0         12/19/2012         ND         432           mg/kg         Analyzed By: MS         Method Blank         BS           Result         Reporting Limit         Analyzed By: MS         BS           <10.0	Result         Reporting Limit         Analyzed         Method Blank         BS         % Recovery           928         16.0         12/19/2012         ND         432         108           mg/kg         Analyzed By: MS         Method Blank         BS         % Recovery            Result         Reporting Limit         Analyzed By: MS              Result         Reporting Limit         Analyzed         Method Blank         BS         % Recovery           <10.0	Result         Reporting Limit         Analyzed         Method Blank         BS         % Recovery         True Value QC           928         16.0         12/19/2012         ND         432         108         400           mg/kg         Analyzed By: MS         Method Blank         BS         % Recovery         True Value QC            Analyzed By: MS         Method Blank         BS         % Recovery         True Value QC            Analyzed         Method Blank         BS         % Recovery         True Value QC           <10.0	Result         Reporting Limit         Analyzed         Method Blank         BS         % Recovery         True Value QC         RPD           928         16.0         12/19/2012         ND         432         108         400         3.64           mg/kg         Analyzed By: MS         Method Blank         BS         % Recovery         True Value QC         RPD            Analyzed By: MS            400         3.64           Result         Reporting Limit         Analyzed         Method Blank         BS         % Recovery         True Value QC         RPD           <10.0

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Celey D. Keene, Lab Director/Quality Manager



## Analytical Results For:

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

Received:	12/14/2012	Sampling Date:	12/12/2012
Reported:	12/20/2012	Sampling Type:	Soil
Project Name:	INDIAN FLATS BASS FEDERAL SWD	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	EDDY CO., NM		

## Sample ID: SB - 4 @ 10' (H203013-09)

BTEX 8021B	mg/kg		Analyze	Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	12/20/2012	ND	1.94	96.8	2.00	2.01	
Toluene*	<0.050	0.050	12/20/2012	ND	2.07	104	2.00	1.83	
Ethylbenzene*	<0.050	0.050	12/20/2012	ND	1.99	99.4	2.00	1.87	
Total Xylenes*	<0.150	0.150	12/20/2012	ND	5.98	99.7	6.00	1.51	
Total BTEX	<0.300	0.300	12/20/2012	ND		<u>.</u>			

Surrogate: 4-Bromofluorobenzene (PIC 111 % 89.4-126

Chloride, SM4500Cl-B	mg/kg		Analyze	Analyzed By: HM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	1620	16.0	12/19/2012	ND	432	108	400	3.64	
TPH 8015M	mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	12/19/2012	ND	184	92.1	200	3.64	
DR0 >C10-C28	63.1	10.0	12/19/2012	ND	199	99.5	200	5.25	
EXT DRO >C28-C35	18.2	10.0	12/19/2012	ND					
Surrogate: 1-Chlorooctane	83.1	% 65.2-14	0						
Surrogate: 1-Chlorooctadecane	95.2	% 63.6-154	4						

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Celey D. Keene, Lab Director/Quality Manager



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

Received:	12/14/2012	Sampling Date:	12/12/2012
Reported:	12/20/2012	Sampling Type:	Soil
Project Name:	INDIAN FLATS BASS FEDERAL SWD	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	EDDY CO., NM		

## Sample ID: SB - 4 @ 20' (H203013-10)

Chloride, SM4500CI-B	mg,	/kg	Analyze	d By: HM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	1950	16.0	12/19/2012	ND	432	108	400	3.64	

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Celey D. Keene, Lab Director/Quality Manager



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## Analytical Results For:

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

Received:	12/14/2012	Sampling Date:	12/12/2012
Reported:	12/20/2012	Sampling Type:	Soil
Project Name:	INDIAN FLATS BASS FEDERAL SWD	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	EDDY CO., NM		

# Sample ID: SB - 4 @ 30' (H203013-11)

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	12/20/2012	ND	1. <del>9</del> 4	96.8	2.00	2.01	
Toluene*	<0.050	0.050	12/20/2012	ND	2.07	104	2.00	1.83	
Ethylbenzene*	<0.050	0.050	12/20/2012	ND	1.99	99.4	2.00	1.87	
Total Xylenes*	<0.150	0.150	12/20/2012	ND	5.98	99.7	6.00	1.51	
Total BTEX	<0.300	0.300	12/20/2012	ND				·	
Surrogate: 4-Bromofluorobenzene (PIL	115 %	89.4-120	5						
Chloride, SM4500Cl-8	mg/l	g	Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	2880	16.0	12/19/2012	ND	432	108	400	3.64	
TPH 8015M	mg/k	9	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	12/19/2012	ND	184	92.1	200	3.64	
DRO >C10-C28	256	10.0	12/19/2012	ND	199	99.5	200	5.25	
EXT DRO >C28-C35	60.4	10.0	12/19/2012	ND					
Surrogate: 1-Chlorooctane	79.0 %	65.2-140							
Surrogate: 1-Chlorooctadecane	92.0%	63.6-154						•	

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Celey D. Keene, Lab Director/Quality Manager



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

Received:	12/14/2012	Sampling Date:	12/12/2012
Reported:	12/20/2012	Sampling Type:	Soil
Project Name:	INDIAN FLATS BASS FEDERAL SWD	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	EDDY CO., NM		

## Sample ID: SB - 4 @ 40' (H203013-12)

Chloride, SM4500Cl-B	14500Cl-B mg/kg			Analyzed By: HM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	1620	16.0	12/19/2012	ND	432	108	400	3.64	

## Sample ID: SB - 4 @ 50' (H203013-13)

Chloride, SM4500Cl-B	mg/kg		Analyze	Analyzed By: HM				<u> </u>	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	848	16.0	12/19/2012	ND	432	108	400	3.64	
TPH 8015M	mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	12/19/2012	ND	184	92.1	200	3.64	
DRO >C10-C28	<10.0	10.0	12/19/2012	ND	199	<del>9</del> 9.5	200	5.25	
EXT DRO >C28-C35	<10.0	10.0	12/19/2012	ND					
Surrogate: 1-Chlorooctane	84.1	% 65.2-14	0						
Surrogate: 1-Chlorooctadecane	94.1	% 63.6-15	4						

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Celey D. Keene, Lab Director/Quality Manager



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## Analytical Results For:

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

Received:	12/14/2012	Sampling Date:	12/12/2012
Reported:	12/20/2012	Sampling Type:	Soil
Project Name:	INDIAN FLATS BASS FEDERAL SWD	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	EDDY CO., NM		

## Sample ID: SB - 4 @ 55' (H203013-14)

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	12/20/2012	ND	1. <del>9</del> 4	96.8	2.00	2.01	
Toluene*	<0.050	0.050	12/20/2012	ND	2,07	104	2.00	1.83	
Ethylbenzene*	<0.050	0.050	12/20/2012	ND	1.99	99.4	2.00	1.87	
Total Xylenes*	<0.150	0.150	12/20/2012	ND	5.98	99.7	6.00	1.51	
Total BTEX	<0.300	0.300	12/20/2012	ND					
Surrogate: 4-Bromofluorobenzene (PIC	114 %	6 89.4-12	6	<u> </u>					
Chloride, SM4500Cl-B	mg/	kg	Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	896	16.0	12/19/2012	ND	432	108	400	3.64	
TPH 8015M	mg/l	(g	Anaiyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10,0	12/19/2012	ND	184	92.1	200	3,64	
DRO >C10-C28	33.2	10.0	12/19/2012	ND	1 <b>99</b>	99.5	200	5.25	
EXT DRO >C28-C35	<10.0	10.0	12/19/2012	ND					
Surrogate: 1-Chlorooctane	77.6%	65.2-140	)			·			
Surrogate: 1-Chlorooctadecane	86.3 %	6 63.6-154	1						

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Celey D. Keene, Lab Director/Quality Manager



## Analytical Results For:

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

Received:	12/14/2012	Sampling Date:	12/12/2012
Reported:	12/20/2012	Sampling Type:	Soil
Project Name:	INDIAN FLATS BASS FEDERAL SWD	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	EDDY CO., NM		

## Sample ID: SB - 5 @ 15' (H203013-18)

BTEX 8021B	mg/kg		Analyze	d By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS % Rec	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	12/20/2012	ND	1. <b>94</b>	96.8	2.00	2.01	
Toluene*	<0.050	0.050	12/20/2012	ND	2.07	104	2.00	1.83	
Ethylbenzene*	<0.050	0.050	12/20/2012	ND	1.99	99.4	2.00	1.87	
Total Xylenes*	<0.150	0.150	12/20/2012	ND	5.98	99.7	6.00	1.51	
Total BTEX	<0.300	0.300	12/20/2012	ND					
Surrogate: 4-Bromofluorobenzene (PIL	114 %	% 89.4-12	6						
Chloride, SM4500Cl-B	mg/	kg	Analyze	d By: HM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	2000	16.0	12/19/2012	ND	432	108	400	3.64	
[PH 8015M	mg/	kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	12/19/2012	ND	184	92.1	200	3.64	
DRO >C10-C28	20.9	10.0	12/19/2012	ND	199	99.5	200	5.25	
EXT DRO >C28-C35	<10.0	10.0	12/19/2012	ND					

Surrogate: 1-Chlorooctane 91.3% 63.6-154 Surrogate: 1-Chlorooctadecane

81.5 %

65.2-140

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Celegit Keine

Celey D. Keene, Lab Director/Quality Manager



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

Received:	12/14/2012	Sampling Date:	12/12/2012	
Reported:	12/20/2012	Sampling Type:	Soil	
Project Name:	INDIAN FLATS BASS FEDERAL SWD	Sampling Condition:	Cool & Intact	
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson	
Project Location:	EDDY CO., NM			

## Sample ID: SB - 5 @ 20' (H203013-19)

Chloride, SM4500Cl-B mg/kg		Analyzed By: HM							
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	2440	16.0	12/19/2012	ND	432	108	400	3.64	

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Celey D. Keene, Lab Director/Quality Manager



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## Analytical Results For:

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

Received:	12/14/2012	Sampling Date:	12/12/2012
Reported:	12/20/2012	Sampling Type:	Soil
Project Name:	INDIAN FLATS BASS FEDERAL SWD	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	EDDY CO., NM		

## Sample ID: SB - 5 @ 30' (H203013-20)

BTEX 8021B	mg/	kg	Analyze	ed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	12/20/2012	ND	1. <del>9</del> 4	96.8	2.00	2.01	
Toluene*	<0.050	0.050	12/20/2012	ND	2.07	104	2.00	1.83	
Ethylbenzene*	<0.050	0.050	12/20/2012	ND	1.99	99.4	2.00	1.87	
Total Xylenes*	<0.150	0.150	12/20/2012	ND	5.98	99.7	6.00	1.51	
Total BTEX	<0.300	0.300	12/20/2012	ND					
Surrogate: 4-Bromofluorobenzene (PIL	113 %	6 89.4-120	5						
Chloride, SM4500Cl-B	mg/l	kg	Analyze	d By: HM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	1040	16.0	12/19/2012	ND	432	108	400	3.64	
TPH 8015M	mg/l	«g	Analyze	d By: MS			·		
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	12/19/2012	ND	184	92.1	200	3.64	
DRO >C10-C28	104	10.0	12/19/2012	ND	199	99.5	200	5.25	
EXT DRO >C28-C35	12.4	10.0	12/19/2012	ND					
Surrogate: 1-Chlorooctane	79.7 %	65.2-140	•						
Surrogate: 1-Chlorooctadecane	88.6 %	63.6-15-4							

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Celegit Keene

Celey D. Keene, Lab Director/Quality Manager



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

Received:	12/14/2012	Sampling Date:	12/12/2012
Reported:	12/20/2012	Sampling Type:	Soil
Project Name:	INDIAN FLATS BASS FEDERAL SWD	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	EDDY CO., NM		

# Sample ID: SB - 5 @ 45' (H203013-21)

Chloride, SM4500CI-B	mg/kg		Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	992	16.0	12/19/2012	ND	432	108	400	3.64	
TPH 8015M mg		/kg	kg Analyzed By						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	12/19/2012	ND	184	92.1	200	3.64	
DRO >C10-C28	<10.0	10.0	12/19/2012	ND	199	99.5	200	5.25	
EXT DRO >C28-C35	<10.0	10.0	12/19/2012	ND					
Surrogate: 1-Chlorooctane	82.7	% 65.2-14	0						
Surrogate: 1-Chlorooctadecane	<i>93.1</i>	% 63.6-15	4						

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Celey D. Keene, Lab Director/Quality Manager



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# Analytical Results For:

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

Received:	12/14/2012	Sampling Date:	12/12/2012
Reported:	12/20/2012	Sampling Type:	Soil
Project Name:	INDIAN FLATS BASS FEDERAL SWD	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	EDDY CO., NM		

# Sample ID: SB - 5 @ 50' (H203013-22)

BTEX 80218	mg/	kg	Analyze	ed By: AP			·		
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	12/20/2012	ND	1.94	96.8	2.00	2.01	
Toluene*	<0.050	0.050	12/20/2012	ND	2.07	104	2.00	1.83	
Ethylbenzene*	<0.050	0.050	12/20/2012	ND	1.99	99.4	2.00	1.87	
Total Xylenes*	<0.150	0.150	12/20/2012	ND	5.98	99.7	6.00	1.51	
Total BTEX	<0.300	0.300	12/20/2012	ND					
Surrogate: 4-Bromofluorobenzene (PIC	1179	6 89.4-126	5 5	· · · · · · · · · · · · · · · · · · ·					
Chloride, SM4500Cl-B	mg/	kg	Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	688	16.0	12/19/2012	ND	432	108	400	3.64	
TPH 8015M	mg/	kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	12/19/2012	ND	184	92.1	200	0.0933	
DRO >C10-C28	<10.0	10.0	12/19/2012	ND	202	101	200	2.20	
EXT DRO >C28-C35	<10.0	10.0	12/19/2012	ND					
Surrogate: 1-Chlorooctane	79.0%	65.2-140							
Surrogate: 1-Chlorooctadecane	87.4%	63.6-154							

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Celey D. Keene, Lab Director/Quality Manager



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

Received:	12/14/2012	Sampling Date:	12/12/2012
Reported:	12/20/2012	Sampling Type:	Soil
Project Name:	INDIAN FLATS BASS FEDERAL SWD	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	EDDY CO., NM		

## Sample ID: SB - 6 @ SURFACE (H203013-23)

Chloride, SM4500Cl-B	mg	/kg	Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	3680	16.0	12/19/2012	ND	432	108	400	3.64	

# Sample ID: SB - 6 @ 5' (H203013-24)

Chloride, SM4500CI-B	hloride, SM4500Cl-B mg/kg			Analyzed By: HM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	192	16.0	12/19/2012	ND	432	108	400	3.64	

## Sample ID: SB - 6 @ 10' (H203013-25)

Chloride, SM4500Cl-B	mg/kg		Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	1520	16.0	12/19/2012	ND	432	108	400	3.64	
TPH 8015M	mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	12/19/2012	ND	184	92.1	200	0.0933	
DRO >C10-C28	<10.0	10.0	12/19/2012	ND	202	101	200	2.20	
EXT DRO >C28-C35	<10.0	10.0	12/19/2012	ND					
Surrogate: 1-Chlorooctane	81.0	% 65.2-14	0	·····					
Surrogate: 1-Chlorooctadecane	88.2	% 63.6-15	4						

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Celey D. Keene, Lab Director/Quality Manager



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## Analytical Results For:

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

Received:	12/14/2012	Sampling Date:	12/12/2012
Reported:	12/20/2012	Sampling Type:	Soil
Project Name:	INDIAN FLATS BASS FEDERAL SWD	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	EDDY CO., NM		

## Sample ID: SB - 6 @ 15' (H203013-26)

BTEX 8021B	mg,	/kg	Analyz	ed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	12/20/2012	ND	1. <del>94</del>	96.8	2.00	2.01	
Toluene*	<0.050	0.050	12/20/2012	ND	2.07 ·	104	2.00	1.83	
Ethylbenzene*	<0.050	0.050	12/20/2012	ND	1.99	99.4	2.00	1.87	
Total Xylenes*	<0.150	0.150	12/20/2012	ND	5.98	99.7	6.00	1.51	
Total BTEX	<0.300	0.300	12/20/2012	ND					
Surrogate: 4-Bromofluorobenzene (PIC	115 9	89.4-12	6						
Chloride, SM4500Cl-B	mg/	/kg	Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	2000	16.0	12/19/2012	ND	432	108	400	0.00	
TPH 8015M	mg/	'kg	Analyzed By: MS						·
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	12/19/2012	ND	184	92.1	200	0.0933	
DRO >C10-C28	<10.0	10.0	12/19/2012	ND	202	101	200	2.20	
EXT DRO >C28-C35	<10.0	10.0	12/19/2012	ND					
Surrogate: 1-Chlorooctane	82.8 9	65.2-140	)						
Surrogate: 1-Chlorooctadecane	93.5 %	63.6-154	1						

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Celey D. Keene, Lab Director/Quality Manager



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

Received:	12/14/2012	Sampling Date:	12/12/2012
Reported:	12/20/2012	Sampling Type:	Soil
Project Name:	INDIAN FLATS BASS FEDERAL SWD	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	EDDY CO., NM		

#### Sample ID: SB - 6 @ 40' (H203013-29)

BTEX 8021B	mg/	/kg	Analyze	d By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	12/20/2012	ND	1.94	96.8	2.00	2.01	
Toluene*	<0.050	0.050	12/20/2012	ND	2.07	104	2.00	1.83	
Ethylbenzene*	<0.050	0.050	12/20/2012	ND	1.99	99.4	2.00	1.87	
Total Xylenes*	<0.150	0.150	12/20/2012	ND	5.98	99.7	6.00	1.51	
Total BTEX	<0.300	0.300	12/20/2012	ND					
Surrogate: 4-Bromofluorobenzene (PIC	114 9	% 89.4-12	6						
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	12/19/2012	ND	432	108	400	0.00	
ТРН 8015М	mg,	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	12/19/2012	ND	184	92.1	200	0.0933	
DRO >C10-C28	<10.0	10.0	12/19/2012	ND	202	101	200	2.20	
EXT DRO >C28-C35	<10.0	10.0	12/19/2012	ND					
Surrogate: 1-Chlorooctane	80.3	% 65.2-14	0						
Surrogate: 1-Chlorooctadecane	87.4	% 63.6-15	4						

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Celey D. Keene, Lab Director/Quality Manager

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## Analytical Results For:

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

Received:	12/14/2012	Sampling Date:	12/12/2012
Reported:	12/20/2012	Sampling Type:	Soil
Project Name:	INDIAN FLATS BASS FEDERAL SWD	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	EDDY CO., NM		

# Sample ID: SB - 6 @ 40' (H203013-29)

BTEX 8021B	mg/	kg	Analyz	ed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	12/20/2012	ND	1.94	96.8	2.00	2.01	
Toluene*	<0.050	0.050	12/20/2012	ND .	2.07	104	2.00	1.83	
Ethylbenzene*	<0.050	0.050	12/20/2012	ND	1.99	99.4	2.00	1.87	
Total Xylenes*	<0.150	0.150	12/20/2012	ND	5.98	99.7	6.00	1.51	
Total BTEX	<0.300	0.300	12/20/2012	ND					
Surrogate: 4-Bromofluorobenzene (PID	114 % 89.4-12		6					/	
Chloride, SM4500Cl-B	mg/1	kg	Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	112	16.0	12/19/2012	ND	432	108	400	0.00	
TPH 8015M	mg/l	kg	Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	12/19/2012	ND	184	92.1	200	0.0933	
DRO >C10-C28	<10.0	10.0	12/19/2012	ND	202	101	200	2.20	
EXT DRO >C28-C35	<10.0	10.0	12/19/2012	ND					
Surrogate: 1-Chlorooctane	80.3 %	65.2-140	)						· · ·

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Celey D. Keene, Lab Director/Quality Manager



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

Received:	12/14/2012	Sampling Date:	12/12/2012
Reported:	12/20/2012	Sampling Type:	Soil
Project Name:	INDIAN FLATS BASS FEDERAL SWD	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	EDDY CO., NM		

## Sample ID: SB - 7 @ SURFACE (H203013-30)

Chloride, SM4500Cl-B mg/kg			Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	13200	16.0	12/19/2012	ND	432	108	400	0.00	

## Sample ID: SB - 7 @ 5' (H203013-31)

Chloride, SM4500CI-B	mg/kg		Analyze	Analyzed By: HM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	384	16.0	12/19/2012	ND	432	108	400	0.00	
TPH 8015M	mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	12/19/2012	ND	184	92.1	200	0.0933	
DRO >C10-C28	<10.0	10.0	12/19/2012	ND	202	101	200	2.20	
EXT DRO >C28-C35	<10.0	10.0	12/19/2012	ND					
Surrogate: 1-Chlorooctane	83.6	% 65.2-14	0						
Surrogate: 1-Chlorooctadecane	94.3	% 63.6-15	4						

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Celey D. Keene, Lab Director/Quality Manager



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## Analytical Results For:

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

Received:	12/14/2012	Sampling Date:	12/12/2012
Reported:	12/20/2012	Sampling Type:	Soil
Project Name:	INDIAN FLATS BASS FEDERAL SWD	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	EDDY CO., NM		

## Sample ID: SB - 7 @ 10' (H203013-32)

BTEX 8021B	mg/	/kg	Analyz	ed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifie
Benzene*	<0.050	0.050	12/20/2012	ND	1. <del>94</del>	96.8	2.00	2.01	
Toluene*	<0.050	0.050	12/20/2012	ND	2.07	104	2.00	1.83	
Ethylbenzene*	<0.050	0.050	12/20/2012	ND	1.99	99.4	2.00	1.87	
Total Xylenes*	<0.150	0.150	12/20/2012	ND	5.98	99.7	6.00	1.51	
Total BTEX	<0.300	0.300	12/20/2012	ND					
Surrogate: 4-Bromofluorobenzene (PIL	1169	6 89.4-12	б						
Chloride, SM4500Cl-B	mg/	kg	Analyze	d By: HM					. <u> </u>
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	784	16.0	12/19/2012	ND	432	108	400	0.00	
TPH 8015M	mg/	kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	85	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	12/19/2012	ND	184	92.1	200	0.0933	
DRO >C10-C28	<10.0	10.0	12/19/2012	ND	202	101	200	2.20	
EXT DRO >C28-C35	<10.0	10.0	12/19/2012	ND					
Surrogate: 1-Chlorooctane	85.1%	6 65.2-140	)						
Surrogate: 1-Chlorooctadecane	93.4%	63.6-154							

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#### \*=Accredited Analyte

PLEASE NOTE: Labelity and Damages. Cardinal's labelity and client's erclusive remedy for any claim ansing, whether based in contract or tort, shall be limited to the amount paid by chent for analyses. All claims, including those for in-gligence and any other cause whatsoever shall be deemed walved unless made in writing and received by claims, including those for angligence and tampes, including, without function, business interruptions, loss of use, or loss of profits including, addinates, affiliates or successors arising out of or related to the performance of the services hereunder by Claimal, regardless of whether such claims observing. In our event shall Cardinal be liable for incidential or consequential damages, including, without function, 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 claims observing in any of the above stated resons or otherwse. Results relate only to the samples identified above. This reproduced excepts in not write approval of Cardinal Laborations.

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Celey D. Keene, Lab Director/Quality Manager



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

Received:	12/14/2012	Sampling Date:	12/12/2012
Reported:	12/20/2012	Sampling Type:	Soil
Project Name:	INDIAN FLATS BASS FEDERAL SWD	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	EDDY CO., NM		

## Sample ID: SB - 7 @ 20' (H203013-33)

Chloride, SM4500Cl-B	mg,	kg	Analyze	d By: HM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	304	16.0	12/20/2012	ND	432	108	400	0.00	

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Celey D. Keene, Lab Director/Quality Manager



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## Analytical Results For:

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

Received:	12/14/2012	Sampling Date:	12/12/2012
Reported:	12/20/2012	Sampling Type:	Soil
Project Name:	INDIAN FLATS BASS FEDERAL SWD	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	EDDY CO., NM		

## Sample ID: SB - 7 @ 30' (H203013-34)

BTEX 8021B	mg/	kg	Analyz	ed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	12/20/2012	ND	1. <del>94</del>	96.8	2.00	2.01	
Toluene*	<0.050	0.050	12/20/2012	ND	2.07	104	2.00	1.83	
Ethylbenzene*	<0.050	0.050	12/20/2012	ND	1.99	99.4	2.00	1.87	
Total Xylenes*	<0.150	0.150	12/20/2012	ND	5.98	99.7	6.00	1.51	
Total BTEX	<0.300	0.300	12/20/2012	ND					
Surrogate: 4-Bromofluorobenzene (PIE	116%	89.4-120	5						
Chloride, SM4500Cl-B	mg/i	g	Analyze	d By: HM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	288	16.0	12/20/2012	ND	432	108	400	0.00	
TPH 8015M	mg/k	g	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	ßS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	12/19/2012	ND	184	92.1	200	0.0933	
DRO >C10-C28	<10.0	10.0	12/19/2012	ND	202	101	200	2.20	
EXT DRO >C28-C35	<10.0	10.0	12/19/2012	ND					
Surrogate: 1-Chlorooctane	83.3 %	65.2-140							
Surrogate: 1-Chlorooctadecane	95.2 %	63.6-154							

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Celey D. Keene, Lab Director/Quality Manager



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

Received:	12/14/2012	Sampling Date:	12/12/2012
Reported:	12/20/2012	Sampling Type:	Soil
Project Name:	INDIAN FLATS BASS FEDERAL SWD	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	EDDY CO., NM		

## Sample ID: SB - 7 @ 40' (H203013-35)

Chloride, SM4500Cl-B	mg/	kg	Analyze	d By: HM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	368	16.0	12/20/2012	ND	432	108	400	0.00	

## Sample ID: SB - 7 @ 50' (H203013-36)

Chloride, SM4500Cl-B	mg	/kg	Analyze	d By: HM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	704	16.0	12/20/2012	ND	432	108	400	0.00	

#### Sample ID: SB - 7 @ 60' (H203013-37)

Chloride, SM4500CI-B	mg,	/kg	Analyze	d By: HM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	576	16.0	12/20/2012	ND	432	108	400	0.00	
TPH 8015M	mg,	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	12/19/2012	ND	184	92.1	200	0.0933	
DRO >C10-C28	<10.0	10.0	12/19/2012	ND	202	101	200	2.20	
EXT DRO >C28-C35	<10.0	10.0	12/19/2012	ND					
Surrogate: 1-Chlorooctane	83.5	% 65.2-14	0						
Surrogate: 1-Chlorooctadecane	<b>92</b> .7	% 63.6-15	4						

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Celey D. Keene, Lab Director/Quality Manager



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# Analytical Results For:

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

Received:	12/14/2012	Sampling Date:	12/12/2012
Reported:	12/20/2012	Sampling Type:	Soil
Project Name:	INDIAN FLATS BASS FEDERAL SWD	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	EDDY CO., NM		

# Sample ID: SB - 7 @ 65' (H203013-38)

BTEX 8021B	mg,	/kg	Analyz	ed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifie
Benzene*	<0.050	0.050	12/20/2012	ND	1.94	96.8	2.00	2.01	
Toluene*	<0.050	0.050	12/20/2012	ND	2.07	104	2.00	1.83	
Ethylbenzene*	<0.050	0.050	12/20/2012	ND	1.99	99.4	2.00	1.87	
Total Xylenes*	<0.150	0.150	12/20/2012	ND	5.98	99.7	6.00	1.51	
Total BTEX	<0.300	0.300	12/20/2012	ND					
Surrogate: 4-Bromofluorobenzene (PIC	117 9	% 89.4-12	6						
Chloride, SM4500Cl-B	mg/	kg	Analyze	d By: HM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	496	16.0	12/20/2012	ND	432	108	400	0.00	
TPH 8015M	mg/	kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	12/19/2012	ND	184	92.1	200	0.0933	
DRO >C10-C28	<10.0	10.0	12/19/2012	ND	202	101	200	2.20	
EXT DRO >C28-C35	<10.0	10.0	12/19/2012	ND					
Surrogate: 1-Chlorooctane	78.8 9	65.2-140	)					<u> </u>	·····
Surrogute: 1-Chlorooctadecane	86.9%	63.6-154	<i>(</i>						

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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 SM4500CI-B does not require samples be received at or below $6^{\circ}$ C Samples reported on an as received basis (wet) unless otherwise noted on report

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Celey D. Keene, Lab Director/Quality Manager



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

Company Name	Basin Environmental Service T	echnologies, LLC	BILL TO		ANALYSIS REQUEST						
Project Manager	Ben J. Arguijo	and private a second reaction of the second s	P.O. #:		T						
Address: P.O.			Company: BOPCO, LP								
City: Lovingto	State: NM	Zip: 88260	Attn: Tony Savoie								
Phone #: (575)			Address: 522 W. Marinod								
Project #:	Project Owner	: BGPCO, I.P	City: Carlsbad								
Project Name:	Indian Flats Bass Federal SWD		State: NM Zip: 89220								
Project Location	ι βάδγ Co., ΝΜ		Phone #: (432) 556-8730								
1	Ben J. Arguijo	andenines, or one a composing announces a subman and	Fax #:								
FOR LAS USE ONLY		MATRIX	PRESERV. SAMPLING								
Lab I.D. H花いまに13	Sample I.D.	(G)RAB OR (C)OM # CONTAINERS GROUNDWATER WASTEWATER SOIL OIL	OTHER: ACIDIBASE ACIDIBASE ATER: OTHER: AMIL	Chloride TOW (SNICM)	1.1						
1	SB-3 (Buley ound ) & Suface	6   X	X 12/12/12 000	X							
4	SB-3 (BACKGIUNA) 2 P 5'		1005								
<u> </u>			1010		LX						
4	5B-3 (Background) @ 15'		1015	<b> </b>							
E	5B-3 (Background) ( 201		1000	<b> </b>							
	5B-3 (BACK ground) P 25'	╉╼┥┫╌┠╴┨┈╤╌╾╤╶┥┨┞╌╌┊┄	1025	] _]	· ·		ļ	_			
	5B-4@Surface	<b>┟╍╷╎╌╎╶╎╶╎╶╌╴</b> ╌╴╼┥╴╽╌╵╍╌┶═╍╸	1100		<i>b</i>	h	<b>.</b>				
50	SB-YES	┨╺ <b>┟</b> ┓╢╢╏╌╍╎╌╌┥╌┥╌╷ <sub>┝╍╸</sub>	1105	ŀ	X X I				·		
$\frac{1}{\psi}$	3B-4P26'		1110		X						

PLEASE NOTE: Unbloy and Damayes. Card natis Labity and clerit's documenterments for any claim are my all bline based in contract of terr, shall be threed in the environmenter by the clerit for the analyses. All claims including those for negligence and any office cause waitscover shall be decined waived unless made in which grad reserved by Carama white 30 days after consideron of the disclassion.

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Relinguished By:	Date: Julio	Received By:	Phone Result: 🖸 Yes 🖾 No (Add'I Phone #:
11/19	Time: 140.5	Mul Ka	Fax Result:
Relinquished By:	Date:	Received By: C. C. MUGAL.	Please smail results to pm@basinenv.com
Delivered By: (Circle One)		Sample Condition CHECKED BY: Cool intact (Initialis) Ves Yes	& TAsavoie@BassPet.com

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Page 28 of 31



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

	Basin Environmental Service		hno	logies, LLC	BILL TO					ANALYSIS REQUEST									]		
Project Manager	<sup>r:</sup> Ben J. Arguijo				P.O. #:																
Address: P.O.					Company: EOFCO, LP										ł		1				
City: Lovington State: NM Zip: 85265			Attn: Tony Savole																		
Phone #: (575)	396~2378 Fax #: (575) 3	96-3	42	9	Address: 522 W. Mermod			bd													
Project #:	Project Owner	r: 30	0500	), LP	c	ity: Carls	bad														
Project Name:	Indian Flacs Bass Federal SWD			· · · · · · · · · · · · · · · · · · ·	s	tate: NM	Zip:	88220													
Project Location	n: Eddy Co., NM				Р	hone #: (4.	2) 55	6-873	0												
Sampler Name:	Beh J. Arguijo				F	ax #:						$\langle  $					{				
FOR LAB USE ONLY		<b>.</b>		MATRIX	<del>.</del>	PRESERV	SA	MPLING	3		1 E										
Lab I.D.	Sample I.D.	(G)RAB OR (C)OMP.	# CONTAINERS	GROUNDWATER WASTEWATER SOIL OIL SLUDGE	OTHER .	ACID/ISASE ICE / COOL OTHER	DA	ATE :	T≀ME	Chloride	-01 (SUL	CINCINO) UNI	BTEN								
11.	<u></u>	6	1			X _	12/	<u>p/12</u>	1130	<u>X</u>		$\leq  $	X							 	
12	58-4040		<b> _</b>		- <del>)</del>	┛╌┼┼┼──			1140					<del></del>						 	
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7.0	58-5 R 30'	1	11		1	.,/		/	1315	J		$\overline{\zeta}$	X					-	1	 	

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The Internet	1 D. M. C. C. Starter	Please email results to provbasineny.com
Delivered By: (Circle One) / )	Sample Condition   CHEC	CKED BY: & TAsavoie@BassPet.com
	Cool Intact	(jijals)
Sampler - UPS - Bus - Other:	Yes [] Yes [] / j	
	6- NO NO LT	[**]

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

Company Name:	Basin Environmental Service	lechr	ologies, LLC	BILL TO ANALYSIS REQUEST									
Project Manager	· Sen J. Arquijo			P.O. #:									
Address; P.C.				Company: BOPCO, LP						}			
City: Lavingue	r. State: S14	Zip:	0.0256	Attn: Tony Savole	}								}
Phone #: (575)	396~2378 Fax #:(575)3	95-14	29	Address: 522 W. Megmod	}			}					
Project #;	Project Owner	: BOP	CO, LP	City: Carlsbad				}					
Project Name:	Indian Flats Bacs Federal SWD			State: NM Zip: 36220			}				}		
Project Location	: Eddy Co., NM			Phone #: (432)556-8730							}		
Sampter Name:	Ban J. Arguijo			Fax #:		$\sim$							
FOR LABUSE OFLY		Γ	MATRIX	PRESERV. SAMPLING		×		}					
Lab I.D.	Sample I.D.	(G)RAB OR (C)OMP	# CONTAINERS GROUNDWATER WASTEWATER SCIL OIL	OTHER . OTHER . OTHER .	Chloride	7PH (8015M)	BTEA						
31	5B-5@45'	6	X	X 12/12/13 1330	X	X							
12	5B-5 @ 45' 5B-5 @ 50'			335		X	×						
	SB-6@ Surface			1400									 
	58-685			1405									 
25	5B-6@10			1410		X							 
ZL.	5B-6 @ 15'			1415		X	X						 
21 75	5B-6 B 75	1-1-1		1425								·}}	 
20	58.6835	╂┼╂	<b>┽┨</b> ╾┊╸┽╿╞╴┥╸	1435		<u> </u>			·}}			<b></b> _	 
-759 34	58-6840'			1440		X	K		.			<b> </b>	 
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PLEASE NOTE: Doubly and Damages. Cardwards Lapley and over 1's oxiliance remeats for any cave areaing whether based on coverant actors, shall be strated to the amount point by the client for the analyses. At claums including note for negligence and any other course whiteoever shall be betted waived unless made it whiley and received by Cardward within 30 days, they comparation of the approaches.

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		o No			

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Page 30 of 31

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

Company Namé	ompany Name: Basin Environmental Service Technologies, LLC					LC	BILL TO ANALYSIS REQUEST															
Project Manager	"Ben J. Arguijo						Р.(	0.#:				]	Τ			[	ſ			T		
Address: P.O.							Ċo	ompany	: 60	орсо, ы	2											
City: Lovington State: NM Zip: 88260				Attn: Tony Savoie																		
Phone #: (575)	396-2378 Fax #: (575) 3	96 - :	1429	)			Address: 522 W. Mermod															
Project #: Project Owner: BOPCO, LP					Cit	ly: Car	1sb	ad						ļ								
Project Name:	Indian Flats Bass Federal SWD	1					Sta	áto: NM		Zip: 8822	:0							1				
1	Eddy Co., NM						Ph	one #:		2)556-87		1						1			1	
Sampler Name:	Beń J. Arguijo						1	x #:				·										
FOR LAB USE ONLY		Т	Π		MATE	RIX		PRESE	RV.	SAMPL	NG			R)								
Lab I.D. 147203013	Sample I.D.	(G)RAB OR (C)OMP.	# CONTAINERS	GROUNDWATER WASTEWATER	SOIL	OIL	OTHER :	ACID/BASE: ICE / COOL	OTHER ;	DATE	TIME	16 handa	cn/or/ne	TPH (8015M)	BTEN							
<u>_</u>	5B-7 85'	6	1		X			X		12/12/12		2	X.	X		 						
<u>3</u> 32 33 33 34	SB-7810'										1510			X	ĸ	 			[		<u> </u>	
33	_SB.7 @ 20'										1500					 						 
<u>34</u>	<u>50-7030'</u>										1530			X	_X	 						 
35	5B-7@40'										1540					 			<u> </u>			 
36	SB-7@50'										1550					 						 
3) 3%	5B-7060'				44			╏──┼╌┞╌┆			1600	14		X		 				<u> </u>		 
	5B-70651	1V	V		V					V	1605	1-1	4	_X_	K	 						 

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service. In no event snall Cardinal periods to inditorial or consequential damages, including infroutilimization, business interruptions, loss of use, or loss of profils incurred by ofient, its subsidiaries.

	ince of services religioner by Carcinal regardless of whether such plann is based book any or die above stated	
Relinquished By:	Date: //// Received By:	
- iii	10/17/1d , M , // 1	Fax Result: 🖸 Yes 🗆 No 🛛 Add'I Fax #:
11/11/2	Time: 1405	REMARKS:
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1 March V and S	me star / Mall Alland	Please email results to pm@basinenv.com
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	Cool Intact / Initials)	& TAsavoie@BassPet.com
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† Cardinal cannot accept verbal changes. Please fax written changes to 505-393-2476



June 11, 2013

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

RE: INDIAN FLATS BASS FEDERAL SWD

Enclosed are the results of analyses for samples received by the laboratory on 06/04/13 13:40.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-11-3. Accreditation applies to drinking water, non-potable water and solid and chemical materials. All accredited analytes are denoted by an asterisk (\*). For a complete list of accredited analytes and matrices visit the TCEQ website at <a href="https://www.tceq.texas.gov/field/ga/lab">www.tceq.texas.gov/field/ga/lab</a> accred certif.html.

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

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

Accreditation applies to public drinking water matrices.

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

Sincerely,

Celeg D. Keine

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:	06/04/2013	Sampling Date:	05/31/2013
Reported:	06/11/2013	Sampling Type:	Soil
Project Name:	INDIAN FLATS BASS FEDERAL SWD	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	EDDY CO., NM		

# Sample ID: SB-8 @ 5' (H301305-01)

BTEX 8021B	mg/kg		Analyz	Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	06/10/2013	ND	1.88	93.9	2.00	7.29	
Toluene*	<0.050	0.050	06/10/2013	ND	1.95	97.6	2.00	9.07	
Ethylbenzene*	<0.050	0.050	06/10/2013	ND	2.03	101	2.00	10.9	
Total Xylenes*	<0.150	0.150	06/10/2013	ND	6.14	102	6.00	10.9	
Total BTEX	<0.300	0.300	06/10/2013	ND					
Surrogate: 4-Bromofluorobenzene (PIE	105 %	6 89.4-12	6			<u> </u>			
Chloride, SM4500Cl-B	mg/l	«g	Analyzed By: DW					· · · ·	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	92 <b>8</b>	16.0	06/10/2013	ND	416	104	400	3.77	
трн 8015м	mg/k	g	Analyze	d By: MS				······	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	06/05/2013	ND	212	106	200	3.07	
DRO >C10-C28	17.4	10.0	06/05/2013	ND	222	111	200	3.64	
EXT DRO >C28-C35	15.5	10.0	06/05/2013	ND					
Surrogate: 1-Chlorooctane	109 %	65.2-140	)						<u></u> _
Surrogate: 1-Chlorooctadecane	116%	63.6-154	· ·						

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#### \*=Accredited Analyte

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Celegi Kune

Celey D. Keene, Lab Director/Quality Manager



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

Received:	06/04/2013	Sampling Date:	05/31/2013
Reported:	06/11/2013	Sampling Type:	Soil
Project Name:	INDIAN FLATS BASS FEDERAL SWD	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	EDDY CO., NM		

# Sample ID: SB-8 @ 10' (H301305-02)

BTEX 8021B	mg,	/kg	Analyze	Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	06/10/2013	ND	1.88	93.9	2.00	7.29	
Toluene*	<0.050	0.050	06/10/2013	ND	1.95	97.6	2.00	9.07	
Ethylbenzene*	<0.050	0.050	06/10/2013	ND	2.03	101	2.00	10.9	
Total Xylenes*	<0.150	0.150	06/10/2013	ND	6.14	102	6.00	10.9	
Total BTEX	<0.300	0.300	06/10/2013	ND					

Surrogate: 4-Bromofluorobenzene (PIE 108 % 89.4-126

Chloride, SM4500Cl-B	mg/kg		Analyze	Analyzed By: DW					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	2400	16.0	06/10/2013	ND	416	104	400	3.77	
ТРН 8015М	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	06/05/2013	ND	212	106	200	3.07	
DRO >C10-C28	<10.0	10.0	06/05/2013	ND	222	111	200	3.64	
EXT DRO >C28-C35	<10.0	10.0	06/05/2013	ND					
Surrogate: 1-Chlorooctane	115	65.2-14	0						
Surrogate: 1-Chlorooctadecane	126	% 63.6-15	4						

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Celey D. Kune

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:	06/04/2013	Sampling Date:	05/31/2013
Reported:	06/11/2013	Sampling Type:	Soil
Project Name:	INDIAN FLATS BASS FEDERAL SWD	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	EDDY CO., NM		

# Sample ID: SB-8 @ 25' (H301305-03)

BTEX 8021B	mg/	kg	Analyz	ed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	06/10/2013	ND	1.88	93.9	2.00	7.29	
Toluene*	<0.050	0.050	06/10/2013	ND	1,95	97.6	2.00	9.07	
Ethylbenzene*	<0.050	0.050	06/10/2013	ND	2.03	101	2.00	10.9	
Total Xylenes*	<0.150	0.150	06/10/2013	ND	6.14	102	6.00	10.9	
Total BTEX	<0.300	0.300	06/10/2013	ND					
Surrogate: 4-Bromofluorobenzene (PIE	105 %	5 89.4-120	6						
Chloride, SM4500Cl-B	mg/l	(g	Analyzed By: DW						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	1570	16.0	06/10/2013	ND	416	104	400	3.77	
TPH 8015M	mg/k	g	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	06/05/2013	ND	212	106	200	3.07	
DRO >C10-C28	11.7	10.0	06/05/2013	ND	222	111	200	3.64	
EXT DRO >C28-C35	10.2	10.0	06/05/2013	ND					
Surrogate: 1-Chlorooctane	98.4 %	65.2-140	,				······································		
Surrogate: 1-Chlorooctadecane	104%	63.6-154							

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Celey D. Keene, Lab Director/Quality Manager



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

Received:	06/04/2013	Sampling Date:	05/31/2013
Reported:	06/11/2013	Sampling Type:	Soil
Project Name:	INDIAN FLATS BASS FEDERAL SWD	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	EDDY CO., NM		

# Sample ID: SB-8 @ 40' (H301305-04)

Chloride, SM4500Cl-B mg/kg			Analyzed By: DW						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	672	16.0	06/10/2013	ND	416	104	400	3.77	

### Sample ID: SB-8 @ 55' (H301305-05)

Chloride, SM4500Cl-B	Chloride, SM4500Cl-B mg/kg			d By: DW					<u> </u>
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	512	16.0	06/10/2013	ND	416	104	400	3.77	

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Celey D. Kune

Celey D. Keene, Lab Director/Quality Manager



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# Analytical Results For:

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

Received:	06/04/2013	Sampling Date:	05/31/2013
Reported:	06/11/2013	Sampling Type:	Soil
Project Name:	INDIAN FLATS BASS FEDERAL SWD	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	EDDY CO., NM		

# Sample ID: SB-8 @ 65' (H301305-06)

BTEX 8021B	mg,	/kg	Analyz	ed By: AP		•			
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	06/10/2013	ND	1.88	93. <del>9</del>	2.00	7.29	
Toluene*	<0.050	0.050	06/10/2013	ND	1.95	97.6	2.00	9.07	
Ethylbenzene*	<0.050	0.050	06/10/2013	ND	2.03	101	2.00	10.9	
Total Xylenes*	<0.150	0.150	06/10/2013	ND	6.14	102	6.00	10.9	
Total BTEX	<0.300	0.300	06/10/2013	ND					
Surrogate: 4-Bromofluorobenzene (PIE	106 9	% 89.4-12	6						
Chloride, SM4500Cl-B	mg/	kg	Analyze	d By: DW					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	256	16.0	06/10/2013	ND	416	104	400	0.00	
TPH 8015M	mg/	kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	06/05/2013	ND	212	106	200	3.07	
DRO >C10-C28	<10.0	10.0	06/05/2013	ND	222	111	200	3.64	
EXT DRO >C28-C35	<10.0	10.0	06/05/2013	ND					
Surrogate: 1-Chlorooctane	104%	6 65.2-140	, ,						
Surrogate: 1-Chlorooctadecane	109 %	63.6-154							

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Celey D. Keene, Lab Director/Quality Manager



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

Received:	06/04/2013	Sampling Date:	05/31/2013
Reported:	06/11/2013	Sampling Type:	Soil
Project Name:	INDIAN FLATS BASS FEDERAL SWD	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	EDDY CO., NM		

## Sample ID: SB-8 @ 70' (H301305-07)

BTEX 8021B	mg,	/kg	Analyze	d By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	06/10/2013	ND	1.88	93.9	2.00	7.29	
Toluene*	<0.050	0.050	06/10/2013	ND	1.95	97.6	2.00	9.07	
Ethylbenzene*	<0.050	0.050	06/10/2013	ND	2.03	101	2.00	10.9	
Total Xylenes*	<0.150	0.150	06/10/2013	ND	6.14	102	6.00	10.9	
Total BTEX	<0.300	0.300	06/10/2013	ND					

Surrogate: 4-Bromofluorobenzene (PID 106 % 89.4-126

Chloride, SM4500Cl-B	mg,	/kg	Analyze	d By: DW					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	352	16.0	06/10/2013	ND	416	104	400	0.00	
TPH 8015M	mg,	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	06/06/2013	ND	212	106	200	3.07	
DRO >C10-C28	13.2	10.0	06/06/2013	ND	222	111	200	3.64	
EXT DRO >C28-C35	<10.0	10.0	06/06/2013	ND					
Surrogate: 1-Chlorooctane	105	% 65.2-14	0						
Surrogate: 1-Chlorooctadecane	113	% 63.6-15	4						

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Celeg D. Kune

Celey D. Keene, Lab Director/Quality Manager

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### Analytical Results For:

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

Received:	06/04/2013	Sampling Date:	05/31/2013
Reported:	06/11/2013	Sampling Type:	Soil
Project Name:	INDIAN FLATS BASS FEDERAL SWD	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	EDDY CO., NM		

# Sample ID: SB-9 @ 5' (H301305-08)

BTEX 8021B	mg,	'kg	Analyze	d By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	06/10/2013	ND	1.88	93.9	2.00	7.29	
Toluene*	<0.050	0.050	06/10/2013	ND	1.95	97.6	2.00	9.07	
Ethylbenzene*	<0.050	0.050	06/10/2013	ND	2.03	101	2.00	10.9	
Total Xylenes*	<0.150	0.150	06/10/2013	ND	6.14	102	6.00	10.9	
Total BTEX	<0.300	0.300	06/10/2013	ND					

Surrogate: 4-Bromofluorobenzene (PIL 106 % 89.4-126

Chloride, SM4500Cl-B mg/kg Analyzed By: DW Analyte Result Reporting Limit Analyzed Method Blank BS % Recovery True Value QC RPD Qualifier Chloride 3680 16.0 06/10/2013 ND 416 104 400 0.00 **TPH 8015M** mg/kg Analyzed By: MS Reporting Limit Analyzed Analyte Result Method Blank BS % Recovery True Value QC RPD Qualifier GRO C6-C10 <10.0 10.0 06/06/2013 ND 212 106 200 3.07 06/06/2013 DRO >C10-C28 <10.0 10.0 ND 222 111 200 3.64 06/06/2013 EXT DRO >C28-C35 <10.0 10.0 ND Surrogate: 1-Chlorooctane 107 % 65.2-140 Surrogate: 1-Chlorooctadecane 109 % 63.6-154

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Celey D. Keene, Lab Director/Quality Manager

Page 8 of 30



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

Received:	06/04/2013	Sampling Date:	05/31/2013
Reported:	06/11/2013	Sampling Type:	Soil
Project Name:	INDIAN FLATS BASS FEDERAL SWD	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	EDDY CO., NM		

# Sample ID: SB-9 @ 10' (H301305-09)

BTEX 8021B	mg,	/kg	Analyze	d By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	06/10/2013	ND	1.88	93.9	2.00	7.29	
Toluene*	<0.050	0.050	06/10/2013	ND	1.95	97.6	2.00	9.07	
. Ethylbenzene*	<0.050	0.050	06/10/2013	ND	2.03	101	2.00	10.9	
Total Xylenes*	<0.150	0.150	06/10/2013	ND	6.14	102	6.00	10.9	
Total BTEX	<0.300	0.300	06/10/2013	ND					

Surrogate: 4-Bromofluorobenzene (PIC 104 % 89.4-126

Chloride, SM4500CI-B	mg,	/kg	Analyze	d By: DW					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	3600	16.0	06/10/2013	ND	416	104	400	0.00	
TPH 8015M	mg,	/kg	Analyze	d By: MS					·
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	06/06/2013	ND	212	106	200	3.07	
DRO >C10-C28	<10.0	10.0	06/06/2013	ND	222	111	200	3.64	
EXT DRO >C28-C35	<10.0	10.0	06/06/2013	ND					
Surrogate: 1-Chlorooctane	110	% 65.2-14	0						
Surrogate: 1-Chlorooctadecane	108	% 63.6-15	4						

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Celey D. Kune

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:	06/04/2013	Sampling Date:	05/31/2013
Reported:	06/11/2013	Sampling Type:	Soil
Project Name:	INDIAN FLATS BASS FEDERAL SWD	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	EDDY CO., NM		

### Sample ID: SB-9 @ 25' (H301305-10)

Chloride, SM4500Cl-B	mg,	/kg	Analyze	d By: DW					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	3320	16.0	06/10/2013	ND	416	104	400	0.00	

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Celleg L. Keine

Celey D. Keene, Lab Director/Quality Manager



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

Received:	06/04/2013	Sampling Date:	05/31/2013
Reported:	06/11/2013	Sampling Type:	Soil
Project Name:	INDIAN FLATS BASS FEDERAL SWD	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	EDDY CO., NM		

# Sample ID: SB-9 @ 45' (H301305-11)

BTEX 8021B	mg/kg		Analyze	Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	06/10/2013	ND	1.88	93.9	2.00	7.29	
Toluene*	<0.050	0.050	06/10/2013	ND	1.95	97.6	2.00	9.07	
Ethylbenzene*	<0.050	0.050	06/10/2013	ND	2.03	101	2.00	10.9	
Total Xylenes*	<0.150	0.150	06/10/2013	ND	6.14	102	6.00	10.9	
Total BTEX	<0.300	0.300	06/10/2013	ND					

Surrogate: 4-Bromofluorobenzene (PIL 108 % 89.4-126

Chloride, SM4500Cl-B	mg/kg		Analyze	Analyzed By: DW					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	1090	16.0	06/10/2013	ND	416	104	400	0.00	
ТРН 8015М	015M 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	06/06/2013	ND	212	106	200	3.07	
DRO >C10-C28	<10.0	10.0	06/06/2013	ND	222	111	200	3.64	
EXT DRO >C28-C35	<10.0	10.0	06/06/2013	ND					
Surrogate: 1-Chlorooctane	107	% 65.2-14	0						
Surrogate: 1-Chlorooctadecane	107	% 63.6-15	4						

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Celey D. Keine

Celey D. Keene, Lab Director/Quality Manager



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# Analytical Results For:

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

Received:	06/04/2013	Sampling Date:	05/31/2013
Reported:	06/11/2013	Sampling Type:	Soil
Project Name:	INDIAN FLATS BASS FEDERAL SWD	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	EDDY CO., NM		

# Sample ID: SB-9 @ 60' (H301305-12)

BTEX 8021B	mg/	kg	Analyze	ed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	06/10/2013	ND	1.88	93.9	2.00	7.2 <del>9</del>	
Toluene*	<0.050	0.050	06/10/2013	ND	1.95	97.6	2.00	9.07	
Ethylbenzene*	<0.050	0.050	06/10/2013	ND	2.03	101	2.00	10.9	
Total Xylenes*	<0.150	0.150	06/10/2013	ND	6.14	102	6.00	10.9	
Total BTEX	<0.300	0.300	06/10/2013	ND					
Surrogate: 4-Bromofluorobenzene (PIE	106 %	6 89.4-120	5						
Chloride, SM4500Cl-B	mg/l	kg	Analyze	d By: DW					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	2100	16.0	06/10/2013	ND	416	104	400	0.00	
TPH 8015M	mg/l	(g	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	06/06/2013	ND	212	106	200	3.07	
DRO >C10-C28	<10.0	10.0	06/06/2013	ND	222	111	200	3.64	
EXT DRO >C28-C35	<10.0	10.0	06/06/2013	ND					
Surrogate: 1-Chlorooctane	109 %	65.2-140				· · · · · · · · · · · · · · · · · · ·			
Surrogate: 1-Chlorooctadecane	114 %	63.6-154							

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Celeg Di Keene-

Celey D. Keene, Lab Director/Quality Manager



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

Received:	06/04/2013	Sampling Date:	05/31/2013
Reported:	06/11/2013	Sampling Type:	Soil
Project Name:	INDIAN FLATS BASS FEDERAL SWD	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	EDDY CO., NM		

# Sample ID: SB-9 @ 75' (H301305-13)

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	06/10/2013	ND	1.88	93.9	2.00	7.29	
Toluene*	<0.050	0.050	06/10/2013	ND	1.95	97.6	2.00	9.07	
Ethylbenzene*	<0.050	0.050	06/10/2013	ND	2.03	101	2.00	10.9	
Total Xylenes*	<0.150	0.150	06/10/2013	ND	6.14	102	6.00	10.9	
Total BTEX	<0.300	0.300	06/10/2013	ND					

Surrogate: 4-Bromofluorobenzene (PIL 106 % 89.4-126

Chloride, SM4500Cl-B	mg/kg		Analyze	Analyzed By: DW					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	1680	16.0	06/10/2013	ND	416	104	400	0.00	
TPH 8015M	mg,	/kg	Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	06/06/2013	ND	214	107	200	5.56	
DRO >C10-C28	<10.0	10.0	06/06/2013	ND	220	110	200	4.61	
EXT DRO >C28-C35	<10.0	10.0	06/06/2013	ND					
Surrogate: 1-Chlorooctane	100	% 65.2-14	0						<u>.</u>
Surrogate: 1-Chlorooctadecane	106	% 63.6-15	4						

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Celegit Keine

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:	06/04/2013	Sampling Date:	05/31/2013
Reported:	06/11/2013	Sampling Type:	Soil
Project Name:	INDIAN FLATS BASS FEDERAL SWD	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	EDDY CO., NM		

### Sample ID: SB-9 @ 85' (H301305-14)

Chloride, SM4500Cl-B	mg	'kg	Analyze	d By: DW					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	800	16.0	06/10/2013	ND	416	104	400	0.00	

### Sample ID: SB-9 @ 95' (H301305-15)

Chloride, SM4500Cl-B	mg	/kg	Analyze	d By: DW					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	512	16.0	06/10/2013	ND	416	104	400	0.00	

### Sample ID: SB-9 @ 100' (H301305-16)

Chloride, SM4500Cl-B	mg/kg		Analyzed By: DW						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	512	16.0	06/10/2013	ND	416	104	400	0.00	

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Celey D. Keene, Lab Director/Quality Manager



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

Received:	06/04/2013	Sampling Date:	05/31/2013
Reported:	06/11/2013	Sampling Type:	Soil
Project Name:	INDIAN FLATS BASS FEDERAL SWD	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	EDDY CO., NM		

# Sample ID: SB-9 @ 105' (H301305-17)

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	06/10/2013	ND	1.88	93.9	2.00	7.29	
Toluene*	<0.050	0.050	06/10/2013	ND	1.95	97.6	2.00	9.07	
Ethylbenzene*	<0.050	0.050	06/10/2013	ND	2.03	101	2.00	10.9	
Total Xylenes*	<0.150	0.150	06/10/2013	ND	6.14	102	6.00	10.9	
Total BTEX	<0.300	0.300	06/10/2013	ND					

Surrogate: 4-Bromofluorobenzene (PIL 107 % 89.4-126

Chloride, SM4500Cl-B	mg/kg		Analyzed By: DW						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	336	16.0	06/10/2013	ND	416	104	400	0.00	
TPH 8015M mg/kg		Analyze	d By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	06/06/2013	ND	214	107	200	5.56	
DRO >C10-C28	<10.0	10.0	06/06/2013	ND	220	110	200	4.61	
EXT DRO >C28-C35	<10.0	10.0	06/06/2013	ND					
Surrogate: 1-Chlorooctane	103	% 65.2-14	0						
Surrogate: I-Chlorooctadecane	112	% 63.6-15	4						

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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:	06/04/2013	Sampling Date:	05/31/2013
Reported:	06/11/2013	Sampling Type:	Soil
Project Name:	INDIAN FLATS BASS FEDERAL SWD	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	EDDY CO., NM		

# Sample ID: SB-9 @ 110' (H301305-18)

BTEX 8021B	mg/	kg	Analyze	ed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	8S	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	06/10/2013	ND	1.88	93.9	2.00	7.29	
Toluene*	<0.050	0.050	06/10/2013	ND	1.95	97.6	2.00	9.07	
Ethylbenzene*	<0.050	0.050	06/10/2013	ND	2.03	101	2.00	10.9	
Total Xylenes*	<0.150	0.150	06/10/2013	ND	6.14	102	6.00	10.9	
Total BTEX	<0.300	0.300	06/10/2013	ND					
Surrogate: 4-Bromofluorobenzene (PIC	105 %	6 89.4-12	б.						
Chloride, SM4500CI-B	mg/	kg	Analyzed By: DW						
. Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	688	16.0	06/10/2013	ND	416	104	400	0.00	
TPH 8015M	mg/	kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	06/06/2013	ND	214	107	200	5.56	
DRO >C10-C28	<10.0	10.0	06/06/2013	ND	220	110	200	4.61	'n
EXT DRO >C28-C35	<10.0	10.0	06/06/2013	ND					
Surrogate: 1-Chlorooctane	102 %	65.2-140	)				•		
Surrogate: 1-Chlorooctadecane	110%	63.6-154	¢						

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Celey D. Keene, Lab Director/Quality Manager



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

Received:	06/04/2013	Sampling Date:	06/03/2013
Reported:	06/11/2013	Sampling Type:	Soil
Project Name:	INDIAN FLATS BASS FEDERAL SWD	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	EDDY CO., NM		

### Sample ID: SB-10 @ 5' (H301305-19)

BTEX 8021B	mg/kg		Analyze	Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	< 0.050	0.050	06/10/2013	ND	1.88	93.9	2.00	7.29	
Toluene*	<0.050	0.050	06/10/2013	ND	1.95	97.6	2.00	9.07	
Ethylbenzene*	<0.050	0.050	06/10/2013	ND	2.03	101	2.00	10.9	
Total Xylenes*	<0.150	0.150	06/10/2013	ND	6.14	102	6.00	10.9	
Total BTEX	<0.300	0.300	06/10/2013	ND					

89.4-126

Surrogate: 4-Bromofluorobenzene (PIE 106 %

Chloride, SM4500Cl-B	mg/kg		Analyze	Analyzed By: DW					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	5120	16.0	06/10/2013	ND	416	104	400	0.00	
ТРН 8015М	M 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	06/06/2013	ND	214	107	200	5.56	
DRO >C10-C28	<10.0	10.0	06/06/2013	ND	220	110	200	4.61	
EXT DRO >C28-C35	<10.0	10.0	06/06/2013	ND					
Surrogate: 1-Chlorooctane	104	% 65.2-14	0						
Surrogate: 1-Chlorooctadecane	$\overline{H}$	% 63.6-15	4						

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Celeg D. Kune

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:	06/04/2013	Sampling Date:	06/03/2013
Reported:	06/11/2013	Sampling Type:	Soil
Project Name:	INDIAN FLATS BASS FEDERAL SWD	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	EDDY CO., NM		

### Sample ID: SB-10 @ 10' (H301305-20)

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	06/10/2013	ND	1,88	93.9	2.00	7.2 <del>9</del>	
Toluene*	<0.050	0.050	06/10/2013	ND	1,95	97.6	2.00	9.07	
Ethylbenzene*	<0.050	0.050	06/10/2013	ND	2.03	101	2.00	10.9	
Total Xylenes*	<0.150	0.150	06/10/2013	ND	6.14	102	6.00	10.9	
Total BTEX	<0.300	0.300	06/10/2013	ND	*				
Surrogate: 4-Bromofluorobenzene (PIE	108 %	6 89.4-120	5						
Chloride, SM4500Cl-B	mg/l	«g	Analyzed By: DW						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	7440	16.0	06/10/2013	ND	416	104	400	0.00	
TPH 8015M	mg/l	(g	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	06/06/2013	ND	214	107	200	5.56	
DRO >C10-C28	<10.0	10.0	06/06/2013	ND	220	110	200	4.61	
EXT DRO >C28-C35	<10.0	10.0	06/06/2013	ND					
Surrogate: 1-Chlorooctane	96.8 %	65.2-140					· · · · · · · · · · · · ·		
Surrogate: 1-Chlorooctadecane	101%	63.6-154							

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#### \*=Accredited Analyte

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Celeg E. Keine

Celey D. Keene, Lab Director/Quality Manager



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

Received:	06/04/2013	Sampling Date:	06/03/2013
Reported:	06/11/2013	Sampling Type:	Soil
Project Name:	INDIAN FLATS BASS FEDERAL SWD	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	EDDY CO., NM		

# Sample ID: SB-10 @ 25' (H301305-21)

Chloride, SM4500Cl-B mg/kg			Analyzed By: DW						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	704	16.0	06/10/2013	ND	416	104	400	0.00	

# Sample ID: SB-10 @ 40' (H301305-22)

Chloride, SM4500CI-B	mg/kg		Analyzed By: DW						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	1090	16.0	06/10/2013	ND	416	104	400	0.00	

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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:	06/04/2013	Sampling Date:	06/03/2013
Reported:	06/11/2013	Sampling Type:	Soil
Project Name:	INDIAN FLATS BASS FEDERAL SWD	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	EDDY CO., NM		

# Sample ID: SB-10 @ 50' (H301305-23)

BTEX 8021B	mg/kg		Analyza	Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	06/10/2013	ND	1.88	93.9	2.00	7.29	
Toluene*	<0.050	0.050	06/10/2013	ND	1.95	97.6	2.00	9.07	
Ethylbenzene*	<0.050	0.050	06/10/2013	ND	2.03	101	2.00	10.9	
Total Xylenes*	<0.150	0.150	06/10/2013	ND	6.14	102	6.00	10.9	
Total BTEX	<0.300	0.300	06/10/2013	ND					
Surrogate: 4-Bromofluorobenzene (PIL	107 %	6 89.4-12	6						
Chloride, SM4500Cl-B	mg/	kg	Analyzed By: DW						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	3520	16.0	06/10/2013	ND	416	104	400	0.00	
TPH 8015M	mg/i	kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	06/06/2013	ND	214	107	200	5.56	
DRO >C10-C28	<10.0	10.0	06/06/2013	ND	220	110	200	4.61	
EXT DRO >C28-C35	<10.0	10.0	06/06/2013	ND					
Surrogate: 1-Chlorooctane	104 %	65.2-140	)						
Surrogate: 1-Chlorooctadecane	112 %	63.6-15-	1						

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Celey D. Keene, Lab Director/Quality Manager



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

Received:	06/04/2013	Sampling Date:	06/03/2013
Reported:	06/11/2013	Sampling Type:	Soil
Project Name:	INDIAN FLATS BASS FEDERAL SWD	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	EDDY CO., NM		

# Sample ID: SB-10 @ 70' (H301305-24)

BTEX 8021B	mg,	/kg	Analyze	d By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	06/10/2013	ND	1.88	93.9	2.00	7.29	
Toluene*	<0.050	0.050	06/10/2013	ND	1.95	97.6	2.00	9.07	
Ethylbenzene*	<0.050	0.050	06/10/2013	ND	2.03	101	2.00	10.9	
Total Xylenes*	<0.150	0.150	06/10/2013	ND	6.14	102	6.00	10.9	
Total BTEX	<0.300	0.300	06/10/2013	ND					

Surrogate: 4-Bromofluorobenzene (PIC 107 % 89.4-126

Chloride, SM4500Cl-B	mg/kg		Analyzed By: DW						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	2180	16.0	06/10/2013	ND	416	104	400	0.00	
TPH 8015M	mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	06/06/2013	ND	214	107	200	5.56	
DRO >C10-C28	<10.0	10.0	06/06/2013	ND	220	110	200	4.61	
EXT DRO >C28-C35	<10.0	10.0	06/06/2013	ND					
Surrogate: 1-Chlorooctane	103	% 65.2-14	0	A sumo					
Surrogate: 1-Chlorooctadecane	107	63.6-15	4						

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Celey D. Keene, Lab Director/Quality Manager



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### Analytical Results For:

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

Received: 06/04/2013	Sampling Date:	06/03/2013
Reported: 06/11/2013	Sampling Type:	Soil
Project Name: INDIAN FLATS BASS FEDERAL S	SWD Sampling Condition:	Cool & Intact
Project Number: NONE GIVEN	Sample Received By:	Jodi Henson
Project Location: EDDY CO., NM		

### Sample ID: SB-10 @ 80' (H301305-25)

Chloride, SM4500Cl-B	mg	/kg	Analyze	d By: DW					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	768	16.0	06/10/2013	ND	416	104	400	0.00	

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Celey D. Keene, Lab Director/Quality Manager



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

Received:	06/04/2013	Sampling Date:	06/03/2013
Reported:	06/11/2013	Sampling Type:	Soil
Project Name:	INDIAN FLATS BASS FEDERAL SWD	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	EDDY CO., NM		

# Sample ID: SB-10 @ 90' (H301305-26)

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	06/10/2013	ND	1.88	93.9	2.00	7.29	
Toluene*	<0.050	0.050	06/10/2013	ND	1.95	97.6	2.00	9.07	
Ethylbenzene*	<0.050	0.050	06/10/2013	ND	2.03	101	2.00	10.9	
Total Xylenes*	<0.150	0.150	06/10/2013	ND	6.14	102	6.00	10.9	
Total BTEX	<0.300	0.300	06/10/2013	ND					

Surrogate: 4-Bromofluorobenzene (PIL 105 % 89.4-126

Chloride, SM4500Cl-B	mg/kg		Analyzed By: DW						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	1170	16.0	06/10/2013	ND	432	108	400	0.00	
TPH 8015M	PH 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	06/06/2013	ND	214	107	200	5.56	
DRO >C10-C28	<10.0	10.0	06/06/2013	ND	220	110	200	4.61	
EXT DRO >C28-C35	<10.0	10.0	06/06/2013	ND					
Surrogate: 1-Chlorooctane	101	% 65.2-14	0						
Surrogate: 1-Chlorooctadecane	106	% 63.6-15	4						

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Celey D. Kune

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:	06/04/2013	Sampling Date:	06/03/2013
Reported:	06/11/2013	Sampling Type:	Soil
Project Name:	INDIAN FLATS BASS FEDERAL SWD	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	EDDY CO., NM		

### Sample ID: SB-10 @ 100' (H301305-27)

Chloride, SM4500Cl-B	mg	/kg	Analyze	d By: DW					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	608	16.0	06/10/2013	ND	432	108	400	0.00	

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Celey D. Keene, Lab Director/Quality Manager



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

Received:	06/04/2013	Sampling Date:	06/03/2013
Reported:	06/11/2013	Sampling Type:	Soil
Project Name:	INDIAN FLATS BASS FEDERAL SWD	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	EDDY CO., NM		

# Sample ID: SB-10 @ 110' (H301305-28)

BTEX 8021B	mg,	/kg	Analyze	d By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	06/10/2013	ND	1.88	93.9	2.00	7.29	
Toluene*	<0.050	0.050	06/10/2013	ND	1.95	97.6	2.00	9.07	
Ethylbenzene*	<0.050	0.050	06/10/2013	ND	2.03	101	2.00	10.9	
Total Xylenes*	<0.150	0.150	06/10/2013	ND	6.14	102	6.00	10.9	
Total BTEX	<0.300	0.300	06/10/2013	ND					

Surrogate: 4-Bromofluorobenzene (PIL 105 % 89.4-126

Chloride, SM4500Cl-B	mg,	/kg	Analyze	d By: DW					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	672	16.0	06/10/2013	ND	432	108	400	0.00	
TPH 8015M	mg,	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	06/06/2013	ND	214	107	200	5.56	
DRO >C10-C28	<10.0	10.0	06/06/2013	ND	220	110	200	4.61	
EXT DRO >C28-C35	<10.0	10.0	06/06/2013	ND					
Surrogate: 1-Chlorooctane	102	% 65.2-14	0						
Surrogate: 1-Chlorooctadecane	110	% 63.6-15	4						

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Celey D. Keene, Lab Director/Quality Manager



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## Analytical Results For:

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

Received:	06/04/2013	Sampling Date:	06/03/2013
Reported:	06/11/2013	Sampling Type:	Soil
Project Name:	INDIAN FLATS BASS FEDERAL SWD	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	EDDY CO., NM		

### Sample ID: SB-10 @ 115' (H301305-29)

BTEX 80218	mg/	kg	Analyze	ed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	06/11/2013	ND	1.88	93.9	2.00	7.29	
Toluene*	<0.050	0.050	06/11/2013	ND	1.95	97.6	2.00	9.07	
Ethylbenzene*	<0.050	0.050	06/11/2013	ND	2.03	101	2.00	10.9	
Total Xylenes*	<0.150	0.150	06/11/2013	ND	6.14	102	6.00	10.9	
Total BTEX	<0,300	0.300	06/11/2013	ND					
Surrogate: 4-Bromofluorobenzene (PIE	106%	6 89.4-120	5						
Chloride, SM4500Cl-B	mg/l	(g	Analyze	d By: DW					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	1060	16.0	06/10/2013	ND	432	108	400	0.00	
TPH 8015M	mg/l	(g	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	06/07/2013	ND	199	99.6	200	2.79	
DRO >C10-C28	< 10.0	10.0	06/07/2013	ND	209	104	200	5.01	
EXT DRO >C28-C35	<10.0	10.0	06/07/2013	ND					
Surrogate: 1-Chlorooctane	98.3 %	65.2-140	)						
Surrogate: 1-Chlorooctadecane	106%	63.6-154	1						

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Celey D. Keene, Lab Director/Quality Manager



# **Notes and Definitions**

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

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Celey D. Keene, Lab Director/Quality Manager

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	Bus - Other:	(Circle One)		land a		)	of or related to the performance of	analyses. All claims including those for negligence and any other cau sourvoe. In no event shall Cantinal be liable for incidental or conseque	anages. Cardinal's lability and clerr	SB-9 @ 10	SB-9 @ 5'	SB-8 @ 70'	SB-8 @ 65'	SB-8 @ 55'	SB-8 @ 40	SB-8 @ 25'	SB-8 @ 10'	SB-8 @ 5'		Sample I.D.		•	Ben J. Arguijo	Eddy Co., NM	Indian Flats Bass Federal SWD		(575)396-2378	a ma da managemente en activita en la constante de la constante de la constante de la constante de la constant	ox 301	Ben Arguijo	Basin Environmen	101 East Marland, Hobbs, NM 88240 (575) 393-2326 FAX (575) 393-2476	ARDINAL LABORATORIES
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Cardinal cannot accept verbal changes. Please fax written chan		CHECKED BY:	<b>.</b>				aled reasons or otherw	after completer	CONTRACT AND A PARTY AND A PAR	5/31/13	5/31/13	5/31/13	5/31/13	5/31/13	5/31/13	5/31/13	5/31/13	5/31/13	DATE			1 SAMPLING		Ñ	<b>Zip:</b> 88220	Carlsbad	522 W. Marland	Tony Savoie	BOPCO,		BILL TO		
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# CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

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of

# ARDINAL LABORATORIES 101 East Marland, Hobbs, NM 88240

Company Name:         Bein Environmental Sundea Technologies, LLC         P.O. #.           Project Manager:         Bein Arguip         ANALYSIS REQUEST           Project Manager:         Bein Arguip         Angessi P.O. Br. 301         Company:         BOPCO, LP           Reine F. (575)386-2378:         Fax K: (575)386-1428         Address:         CCU Maleod         Foreight Manager:         Bin Arguip           Project Manage:         India Filles Base Faderal SVD         State: NM Zip:         Basics: NM Zip:         Basics: NM Zip:         Basics: MM Zip: </th <th></th> <th>101 East Marland, H (575) 393-2326 FA</th> <th></th> <th></th> <th></th> <th>:</th> <th></th> <th></th> <th></th> <th></th> <th></th> <th></th> <th></th> <th></th> <th>- </th> <th></th> <th></th> <th>· · · : ·</th> <th></th> <th></th> <th></th> <th>  <u>-</u></th> <th></th> <th></th> <th></th> <th></th>		101 East Marland, H (575) 393-2326 FA				:									- 			· · · : ·				 <u>-</u>				
Address:       P.O. Box 301       Company:       BOPCO. LP         Address:       Visite:       NM       Zip:       B0260         Prone &:       (570)350-278       Fax #:       (Troy Secole         Prolect &:       Project A:       Project A:       Project A:       Project A:         Project A:       Project A:       Project A:       Project A:       Project A:         Project A:       Project A:       Project A:       Project A:       Project A:         Project A:       Project A:       Project A:       Project A:       Project A:         Project A:       Project A:       Project A:       Project A:       Project A:         Project A:       Project A:       Project A:       Project A:       Project A:         Project A:       Project A:       Project A:       Project A:       Project A:       Project A:         Project A:       Project	Company Name:	and the second se			, LLC			•			81	LL TO				1	1.1.	ANA	YSI	S RE	QUE	ST		· · :.		1
City:       Lonington       State:       NM:       Zip::       B8260       Attr:::       Tory Secie         Priore 5:       (157)396-273       Fax 6:       (157)396-1429       Address::       522 W. Marland         Project 5:       Project 6:       Project 6:       Project 6:       822 W. Marland         Project 6:       Image: State:       NM. Zip::       68220       90         Sampler Name:       Brin:       Tory Secie       68220       90         Sampler Name:       Brin:       Tory Secie       75       842         H 201305       Sample 1.D.       90       11       X       75       847         H 201305       Git 75       Git 75       Git 75       12       13       85-9.00       45       1       12       553/113       1440       14	Project Manager:	Ben Arguijo		· · ·		.'			Ρ.	0. ‡	¥:	· · . ·					T					:			T	<b>1</b>
Phone #:       (175)396-2378       Pax #:       (175)396-1423       Address:       622 W. Marland         Project Mamme:       Indian Flast Bsen Sederal SWD       State:       NX Zip:       63220.       gg       gg </td <td>Address: P.O.</td> <td>Box 301</td> <td></td> <td>÷</td> <td></td> <td>• •</td> <td>. :</td> <td>-</td> <td>c</td> <td>omp</td> <td>oany:</td> <td>BOP</td> <td>CO, LP</td> <td></td> <td></td> <td></td> <td></td> <td>·.</td> <td>. ::</td> <td></td> <td></td> <td></td> <td>1.1</td> <td></td> <td></td> <td></td>	Address: P.O.	Box 301		÷		• •	. :	-	c	omp	oany:	BOP	CO, LP					·.	. ::				1.1			
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II       SB-9 @ 45'       G       I       X       X       5/31/13       1350       X <thx< th=""> <thx< th="">       X</thx<></thx<>				DO DO	ERS	ATE P	5	.:										:								
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12       SB-9@ 60'       G       1       X       X       5/31/13       1415       X	H301305		· · · · ·	Ō	#	R S	S S	5	15	ĮŠ	5	DATE	TIME					:					<u> </u>			1 · · ·
13       SB-9 @ 75'       G       1       X       5/31/13       1440       X					1						X	5/31/13	1350	× X	<u>x</u>	X										а на <sub>с</sub>
14       SB-9 @ 85'       G       1       X       X       5/31/13       1500       X       Image: Constraint of the second seco			:	G	1		<u> </u>	·	·   	<u> </u>	X	5/31/13	1415	X	<u> </u>	X	. ::					ļ	ļ	· · ·		
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17       SB-9 @ 105'       G       1       X       5/31/13       1540       X				÷					<u>: </u>					1	<u> </u>							<u> </u>	<b>_</b> '	ļ	ļ	1
18       SB-9 @ 110'       G       1       X       5/31/13       1550       X       X       x	no						*****		<u> </u>						<u> </u>		<u> </u>				<u>  .</u>	<u> </u>	<b> </b>	<u> </u>	<u> </u> '	
9       SB-10 @ 5'       G       1       X       6/3/13       0930       X       X       X       6/3/13       0930       X       X       X       A       X       A       X       A       X       A       X       A       X       A       X       A       X       A       X       A       X       A       X       A       X       X       X       A       X       A       X       A       X       A       X       A       X       A       X       A       X       A       X       A       X       A       X       A       X       A       X       A       X       A       X       A       X       A       X <thx< th="">       X       X       <thx< <="" td=""><td></td><td></td><td></td><td></td><td>1-1</td><td>·  </td><td>+</td><td>::</td><td>_</td><td></td><td></td><td>1</td><td></td><td>-</td><td>-</td><td>1</td><td><u> </u></td><td></td><td><u> </u></td><td>┥</td><td>-</td><td><u> </u></td><td></td><td><u> </u></td><td><u> </u>'</td><td></td></thx<></thx<>					1-1	·	+	::	_			1		-	-	1	<u> </u>		<u> </u>	┥	-	<u> </u>		<u> </u>	<u> </u> '	
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server. In no event static Cardinal be table for incidental or corecquential damages, including without limiting or servers are incident by Cardinal, business intermytions, less of user) or first above stated reasons or otherwise.  Relinquished By:  Relinquished By:  Date:  Date: Date		Damages, Cardinal's liability and client's ex		n arising			in contract				to the amou	nt paid by the clien	t for the	<u>1:</u>	<u>+</u> ^	<u> </u>		L:	<u> </u>	1	<u>}</u>	. <u></u>		L	L	1 ·
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FORM-006 Revision 1.0

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ty: Lovington		State: NM	Zip:	882	60			Attn			Tony Savo				1									
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	B-10 @ 40'		G	1-		X		┼┤	<u> </u>		6/3/13	1010	X	<u> </u>	<u> </u>	ļ	<u> </u>	<u> </u> ;	<u> </u>	+	<u> </u>			
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78 s	B-10 @ 110'		G		1	x			×	+	6/3/13	1220	Îx	x	1 x	1	<u> </u>	<u>†</u>	<u> </u>	+	<u>†</u>	┟╧╍╧╸	1	
29 s	B-10 @ 115'	· · · · · · · · · · · · · · · · · · ·	G			X			X		6/3/13	1230	X	X	X		1	1		1	1			
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FORM-006 Revision 1.0 † Cardinal cannot accept verbal changes. Please fax written changes to 575-393-2476

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June 20, 2013

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

RE: INDIAN FLATS BASS FEDERAL SWD

Enclosed are the results of analyses for samples received by the laboratory on 06/14/13 15:47.

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 <a href="https://www.tceq.texas.gov/field/qa/lab">www.tceq.texas.gov/field/qa/lab</a> accred certif.html.

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

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

Accreditation applies to public drinking water matrices.

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

Sincerely,

Celeg D. Keine

Celey D. Keene Lab Director/Quality Manager



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

Received:	06/14/2013	Sampling Date:	06/14/2013
Reported:	06/20/2013	Sampling Type:	Soil
Project Name:	INDIAN FLATS BASS FEDERAL SWD	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Celey D. Keene
Project Location:	EDDY CO., NM		

### Sample ID: SOUTH WALL #1 (H301383-01)

Chloride, SM4500CI-B	mg,	/kg	Analyze	d By: DW					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	864	16.0	06/19/2013	ND	416	104	400	0.00	
TPH 8015M	mg/kg		Analyzed By: MS			<u>.</u>			
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	06/19/2013	ND	205	103	200	2.90	
DRO >C10-C28	<10.0	10.0	06/19/2013	ND	215	107	200	2.48	
EXT DRO >C28-C35	<10.0	10.0	06/19/2013	ND					
Surrogate: 1-Chlorooctane	79.7	% 65.2-14	0				- <u>-</u>		
Surrogate: 1-Chlorooctadecane	83.6	% 63.6-15	4						

# Sample ID: NORTH WALL #1 (H301383-02)

Chioride, SM4500CI-B Analyzed By: DW mg/kg Analyte Result Reporting Limit Analyzed Method Blank BS % Recovery True Value QC RPD Qualifier 960 16.0 06/19/2013 Chloride ND 416 104 400 0.00 **TPH 8015M** Analyzed By: MS mg/kg Reporting Limit Analyzed Method Blank Qualifier Analyte Result 8S % Recovery True Value QC RPD GRO C6-C10 <10.0 10.0 06/19/2013 ND 205 103 200 2.90 DRO >C10-C28 <10.0 10.0 06/19/2013 ND 215 107 200 2.48 06/19/2013 EXT DRO >C28-C35 <10.0 10.0 ND Surrogate: 1-Chlorooctane 96.4 % 65.2-140 Surrogate: 1-Chlorooctadecane 102 % 63.6-154

### **Cardinal Laboratories**

#### \*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager

Page 2 of 4



### **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 SM4500CI-B does not require samples be received at or below $6^{\circ}\text{C}$
	Samples reported on an as received basis (wet) unless otherwise noted on report

#### **Cardinal Laboratories**

#### \*=Accredited Analyte

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Celuz D. Kune

Celey D. Keene, Lab Director/Quality Manager



# CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

101 East Marland, I (575) 393-2326 FAX					:				:	· · ·	-		:	•		;					•		
Company Name: Basin Environme			nolc	gies	, LL	C.			BI	11 10				:		ANA	LYSI	S RE	QUE	ST			
Project Manager: Ben J. Arguijo							P.O.	#:						·					[				
Address: P.O. Box 301		<u>.</u> .					Company: BOPCO, LP				÷.,			} · `			<b> </b> .:		1.1	ł			
City: Lovington	State: NM	Zip	88260 Attn: Tony			Savoie		}		. :					<b>]</b>				1				
Phone #: (575) 396-2378	Fax #: (575) 3	96-1	429			;	Add	ress	: 52	2 W. Mer	mod	]						] .	1				- · ·
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June 27, 2013

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

RE: INDIAN FLATS BASS FEDERAL SWD

Enclosed are the results of analyses for samples received by the laboratory on 06/24/13 16:10.

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 <a href="https://www.tceq.texas.gov/field/qa/lab">www.tceq.texas.gov/field/qa/lab</a> accredited analytes and matrices visit the TCEQ website at <a href="https://www.tceq.texas.gov/field/qa/lab">www.tceq.texas.gov/field/qa/lab</a> accredited analytes and matrices visit the TCEQ website at <a href="https://www.tceq.texas.gov/field/qa/lab">www.tceq.texas.gov/field/qa/lab</a> accredited analytes and matrices visit the TCEQ website at <a href="https://www.tceq.texas.gov/field/qa/lab">www.tceq.texas.gov/field/qa/lab</a> accred certif.html.

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

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

Accreditation applies to public drinking water matrices.

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

Sincerely,

Celey D. Keine

Celey D. Keene Lab Director/Quality Manager



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

Received:	06/24/2013	Sampling Date:	06/24/2013
Reported:	06/27/2013	Sampling Type:	Soil
Project Name:	INDIAN FLATS BASS FEDERAL SWD	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	EDDY CO., NM		

# Sample ID: NORTH WALL #2 (H301476-01)

Chloride, SM4500Ci-B mg/kg Analyzed By: AP Qualifier Analyte Result **Reporting Limit** Analyzed Method Blank BS % Recovery True Value QC RPD 06/27/2013 Chloride 368 16.0 ND 400 100 400 0.00 TPH 8015M mg/kg Analyzed By: MS Analyte Result **Reporting Limit** Analyzed Method Blank BS % Recovery True Value QC RPD Qualifier GRO C6-C10 <10.0 10.0 06/26/2013 ND 216 108 200 0.621 <10.0 10.0 06/26/2013 DRO >C10-C28 ND 221 111 200 0.714 <10.0 10.0 06/26/2013 EXT DRO >C28-C35 ND Surrogate: 1-Chlorooctane 97.4% 65.2-140 63.6-154 Surrogate: 1-Chlorooctadecane 103 %

# Sample ID: EAST WALL #1 (H301476-02)

Chloride, SM4500Cl-B	mg/	/kg	Analyze	Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	416	16.0	06/27/2013	ND	400	100	400	0.00	
TPH 8015M	mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	06/26/2013	ND	216	108	200	0.621	
DRO >C10-C28	<10.0	10.0	06/26/2013	ND	221	111	200	0.714	
EXT DRO >C28-C35	<10.0	10.0	06/26/2013	ND					
Surrogate: 1-Chlorooctane	96.4 9	% 65.2-14	0				· · ·		
Surrogate: I-Chlorooctadecane	93.3 9	63.6-15	4						

#### Cardinal Laboratories

#### \*=Accredited Analyte

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Celleg Detrena-

Celey D. Keene, Lab Director/Quality Manager



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

Received:	06/24/2013	Sampling Date:	06/24/2013
Reported:	06/27/2013	Sampling Type:	Soil
Project Name:	INDIAN FLATS BASS FEDERAL SWD	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	EDDY CO., NM		

# Sample ID: SOUTH WALL #2 (H301476-03)

Chloride, SM4500CI-B	mg,	/kg	Analyze	Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	304	16.0	06/27/2013	ND	400	100	400	0.00	
TPH 8015M	mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	06/26/2013	ND	216	108	200	0.621	
DRO >C10-C28	<10.0	10.0	06/26/2013	ND	221	111	200	0.714	
EXT DRO >C28-C35	<10.0	10.0	06/26/2013	ND					
Surrogate: 1-Chlorooctane	93.5	% 65.2-14	0						
Surrogate: 1-Chlorooctadecane	98.2	% 63.6-15	4						

# Sample ID: WEST WALL #1 (H301476-04)

Chloride, SM4500Cl-B	mg,	/kg	Analyze	Analyzed By: AP		1			
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	640	16.0	06/27/2013	ND	400	100	400	0.00	
TPH 8015M	mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	06/26/2013	ND	216	108	200	0.621	
DRO >C10-C28	<10.0	10.0	06/26/2013	ND	221	111	200	0.714	
EXT DRO >C28-C35	<10.0	10.0	06/26/2013	ND					
Surrogate: 1-Chlorooctane	91.4	% 65.2-14	0						
Surrogate: 1-Chlorooctadecane	95.4	% 63.6-15	4						

### **Cardinal Laboratories**

\*=Accredited Analyte

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Celey D. Kune

Celey D. Keene, Lab Director/Quality Manager



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

## **Notes and Definitions**

ND	Analyte NOT DETECTED at or above the reporting limit
RPD	Relative Percent Difference
**	Samples not received at proper temperature of 6°C or below.
***	Insufficient time to reach temperature.
-	Chloride by SM4500CI-B does not require samples be received at or below 6°C
	Samples reported on an as received basis (wet) unless otherwise noted on report

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Celey D. Keene, Lab Director/Quality Manager



# CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

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Page 5 of

Company Name:       Basin Environmental Service Technologies, LLC       BILL TO         Project Manager:       Ben J. Arguijo       P.O. #:         Address:       P.O. Box 301       Company: BOPCO, LP         City:       Lovington       State: NM Zip: 88260       Attn: Tony Savoie         Phone #:       (575) 396-2378       Fax #: (575) 396-1429       Address: 522 W. Mermod	ANAL	YSIS REQUES	ST.
Project Manager: Ben J. Arguijo     P.O. #:       Address: P.O. Box 301     Company: BOPCO, LP       City: Lovington     State: NM Zip: 88260     Attn: Tony Savoie			
City: Lovington State: NM Zip: 88260 Attn: Tony Savoie			
Phone #: (575)396-2378 Fax #:(575)396-1429 Address: 522 W. Mermod	1 1 1 1		
Project #: Project Owner: BOPCO, LP City: Carlsbad			
Project Name: State: № Zip: 88220			
Project Location: Phone #: (432) 556-8730			
FOR LAB USE ONLY MATRIX PRESERV. SAMPLING			
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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 these for negligence and any other cause whatsiever 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 consequental damages, including without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, including without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, including 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.			
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Please en	mail results to p	pm@basinenv.com	n
Delivered By: (Circle One)       Sample Condition       CHECKED BY:       & TAsavoi         Sampler - UPS - Bus - Other:       UPS       Integer       Integer       Integer	e@BassPet.com		

t Cardinal cannot accept verbal changes. Please fax written changes to 505-393-2476 ##54



July 10, 2013

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

RE: INDIAN FLATS BASS FEDERAL SWD

Enclosed are the results of analyses for samples received by the laboratory on 07/03/13 16:00.

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

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

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

Accreditation applies to public drinking water matrices.

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

Sincerely,

Celeg D. Keine

Celey D. Keene Lab Director/Quality Manager



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

Received:	07/03/2013	Sampling Date:	07/03/2013
Reported:	07/10/2013	Sampling Type:	Soil
Project Name:	INDIAN FLATS BASS FEDERAL SWD	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	EDDY CO., NM		

# Sample ID: SOUTH WALL #3 (H301576-01)

Chloride, SM4500Cl-B mg/kg Analyzed By: AP Analyte Result **Reporting Limit** Analyzed Method Blank BS % Recovery True Value QC RPD Qualifier Chloride 512 16.0 07/10/2013 ND 416 104 400 0.00 TPH 8015M mg/kg Analyzed By: MS Result Reporting Limit Analyzed Method Blank Qualifier Analyte BS % Recovery True Value QC RPD GRO C6-C10 10.0 07/09/2013 ND 100 <10.0 201 200 2.08 07/09/2013 DRO >C10-C28 <10.0 10.0 ND 212 106 200 5.52 EXT DRO >C28-C35 <10.0 10.0 07/09/2013 ND 65.2-140 Surrogate: 1-Chlorooctane 87.5 % Surrogate: 1-Chlorooctadecane 92.3 % 63.6-154

# Sample ID: SOUTH WALL #4 (H301576-02)

Chloride, SM4500Cl-B	mg/	/kg	Analyze	d By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	576	16.0	07/10/2013	ND	416	104	400	0.00	
TPH 8015M	mg/	′kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	ŔPD	Qualifier
GRO C6-C10	<10.0	10.0	07/10/2013	ND	202	101	200	7.87	
DRO >C10-C28	<10.0	10.0	07/10/2013	ND	205	103	200	9.74	
EXT DRO >C28-C35	<10.0	10.0	07/10/2013	ND					
Surrogate: 1-Chlorooctane	91.19	65,2-14	0						
Surrogate: 1-Chlorooctadecane	92.3 9	63.6-15-	4						

#### Cardinal Laboratories

#### \*=Accredited Analyte

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Celleg D. Kerna

Celey D. Keene, Lab Director/Quality Manager

Page 2 of 4



### **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 SM4500CI-B does not require samples be received at or below $6^{\circ}C$
	Samples reported on an as received basis (wet) unless otherwise noted on report

#### **Cardinal Laboratories**

### \*=Accredited Analyte

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Celley D. Kune

Celey D. Keene, Lab Director/Quality Manager

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

Page 4 of

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

**Laboratories** 

Company Name	mpany Name: Basin Environmental Service Technologies, LLC										B	1	L TO		\$	ANALYSIS REQUEST									<b>i</b> 1			
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Delivered By: (Circle One) Sampler - UPS - Bus - Other: Please email results to pm@basinenv.com

& TAsavoie@BassPet.com

+ Cardinal cannot accept verbal changes. Please fax written changes 10/505-393/24

2.42

Sample Condition Cool Intact Yes Yes No No No



July 11, 2013

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

RE: INDIAN FLATS BASS FEDERAL SWD

Enclosed are the results of analyses for samples received by the laboratory on 07/10/13 15:50.

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

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

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

Accreditation applies to public drinking water matrices.

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

Sincerely,

Celey D. Keine

Celey D. Keene Lab Director/Quality Manager



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# Analytical Results For:

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

Received:	07/10/2013	Sampling Date:	07/10/2013
Reported:	07/11/2013	Sampling Type:	Soil
Project Name:	INDIAN FLATS BASS FEDERAL SWD	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	EDDY CO., NM		

# Sample ID: NORTH #3 (H301612-01)

Chloride, SM4500Cl-B	mg/	kg	Analyze	d By: AP		·····			
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	2800	16.0	07/11/2013	ND	400	100	400	0.00	
TPH 8015M	mg/	kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	07/11/2013	ND	201	101	200	4.50	
DRO >C10-C28	<10.0	10.0	07/11/2013	ND	211	105	200	7.08	
EXT DRO >C28-C35	<10.0	10.0	07/11/2013	ND					
Surrogate: 1-Chlorooctane	92.2 9	65.2-14	0						
Surrogate: 1-Chlorooctadecane	96.1 %	63.6-15	4						

### Sample ID: NORTH #4 (H301612-02)

Chloride, SM4500CI-B	mg,	/kg	Analyze	d By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	ßS	% Recovery	True Value QC	RPD	Qualifier
Chloride	3680	16.0	07/11/2013	ND	400	100	400	0.00	
TPH 8015M	mg	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recoverý	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	07/11/2013	ND	201	101	200	4.50	
DRO >C10-C28	<10.0	10.0	07/11/2013	ND	211	105	200	7.08	
EXT DRO >C28-C35	<10.0	10.0	07/11/2013	ND					
Surrogate: 1-Chlorooctane	90,9	% 65.2-14	0	· · · · · · · · · · · · · · · · · · ·					
Surrogate: 1-Chlorooctadecane	93.2	% 63.6-15	4						

#### 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 bort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whitscherer shall be deemed waved unless made in writing and received by claims, including those for negligence and including, without limitation, business interruptions, loss of use, or loss, attended to the performance of the services hereinder by Canthal, regardless of whether such claims based on any other wave statel reasons or otherwork, each related by client, its subclaimes, affiliates or successions anising out of or related to the performance of the services hereinder by Canthal, regardless of whether such claims based on otherwork.

Celeg Di Kerre

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. Kune

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

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

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