

# *Basin Environmental Service Technologies, LLC*

3100 Plains Highway  
P. O. Box 301  
Lovington, New Mexico 88260

[jwlowry@basinenv.com](mailto:jwlowry@basinenv.com)

Office: (575) 396-2378

Fax: (575) 396-1429



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

**BOPCO, LP  
POKER LAKE UNIT #129  
Eddy County, New Mexico  
Unit Letter "H" (SE/NE), Section 20, Township 24 South, Range 31 East  
Latitude 32.204440° North, Longitude 103.793891° West  
NMOCD Reference #2RP-2128**

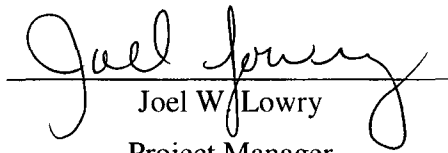
Prepared For:

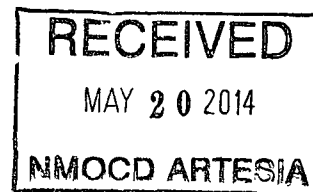
**BOPCO, LP  
522 W. Mermod, Suite 704  
Carlsbad, New Mexico 88220**

Prepared By:

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

**May 2014**

  
Joel W. Lowry  
Project Manager



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## 1.0 INTRODUCTION & BACKGROUND INFORMATION

Basin Environmental Service Technologies, LLC (Basin), on behalf of BOPCO, LP (BOPCO), has prepared this *Remediation Summary and Site Closure Request* for the release site known as Poker Lake Unit #129 (PLU #129). The legal description of the release site is Unit Letter "H" (SE/NE), Section 20, Township 24 South, Range 31 East, in Eddy County, New Mexico. The geographic coordinates of the release site are 32.204440° North latitude and 103.793891° West longitude. The property affected by the release is owned by the United States Department of the Interior - Bureau of Land Management (BLM). A "Site Location Map" is provided as Figure 1.

On December 16, 2013, BOPCO discovered a release had occurred on the PLU #129 flow line. The release was attributed to the failure of a collar connection, resulting in the release of approximately two barrels (2 bbls) of crude oil and thirty-eight (38 bbls) of produced water. The New Mexico Oil Conservation Division (NMOCD)-Artesia District Office was notified of the release immediately upon discovery. The "Release Notification and Corrective Action" (Form C-141) indicated approximately 1,950 ft<sup>2</sup> of pasture was affected by the release. During initial response activities, the well was shut in and a vacuum truck was used to recover approximately one barrel (1 bbl) of crude oil and twenty-nine barrels (29 bbls) of produced water. The affected segment of pipe has since been replaced. The Form C-141 is provided as Appendix A. General photographs of the release site are provided as Appendix B.

On December 18, 2013, upon receiving permission from the BLM to access the pasture, heavily saturated material was excavated and stockpiled on the adjacent well pad, pending final disposition.

## 2.0 NMOCD SITE CLASSIFICATION

A search of the New Mexico Water Rights Reporting System (NMWRRS) database maintained by the New Mexico Office of the State Engineer (NMOSE) indicated information was unavailable for Section 20, Township 24 South, Range 31 East. A depth to groundwater reference map utilized by the NMOCD indicates groundwater should be encountered at approximately three hundred and twenty-five feet (325') below ground surface (bgs). Based on the NMOCD ranking system, zero (0) points will be assigned to the site as a result of this criterion.

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

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

NMOCD guidelines indicate the PLU #129 release site has an initial ranking score of zero (0) points. The soil remediation levels for a site with a ranking score of zero (0) points are as follows:

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

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

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

On March 4, 2014, Basin began excavating impacted soil at the release site. The floor and sidewalls of the excavation were advanced until field tests suggested concentrations of BTEX, TPH and chloride were below NMOCD regulatory standards. Excavated soil was stockpiled on-site, pending final disposition.

On March 7, 2014, one (1) confirmation soil sample (Sec. B @ 1') was collected from the excavated area and submitted to the laboratory for analysis of chloride concentrations. Laboratory analytical results indicated the chloride concentration was 320 ppm. A summary of "Concentrations of Benzene, BTEX, TPH and Chloride in Soil" is provided in Table 1. A "Site and Sample Location Map" is provided as Figure 2. Laboratory analytical reports are provided as Appendix C.

On March 8, 2014, two (2) confirmation soil samples (Floor #1 @ 14' and Floor #2 @ 9') were collected from the floor of the excavation and submitted to the laboratory for analysis of TPH and chloride concentrations. Laboratory analytical results indicated TPH concentrations ranged from less than the laboratory method detection limit (MDL) for soil sample Floor #1 @ 14' to 57.6 ppm for soil sample Floor #2 @ 9'. Chloride concentrations ranged from 464 ppm for soil sample Floor #1 @ 14' to 624 ppm for soil sample Floor #2 @ 9'. The excavation was advanced toward the west.

On March 17, 2014, four (4) confirmation soil samples (Sec. A NSW, Sec. A SSW, Sec. B NSW and Sec. B SSW) were collected from the excavation sidewalls and submitted to the laboratory for analysis of chloride concentrations. Laboratory analytical results indicated chloride concentrations ranged from 32.0 ppm for soil sample Sec. B NSW to 320 ppm for soil sample Sec. A NSW. The excavation was advanced toward the west.

On March 22, 2014, five (5) confirmation soil samples (ESW, Sec. C NSW, Sec. C SSW, Sec. C WSW #1 and Sec. C WSW #2) were collected from the excavation sidewalls and submitted to the laboratory for analysis of chloride concentrations. Laboratory analytical results indicated chloride concentrations ranged from less than the laboratory MDL for soil samples Sec. C WSW #1 and Sec. C WSW #2 to 64.0 ppm for soil samples ESW and Sec. C NSW.

Between March 9 and 22, 2014, approximately one thousand, four hundred and sixty cubic yards (1,460 yd<sup>3</sup>) of impacted material was transported to Lea Land, Inc. (NMOCD Permit #WM-01-035) for disposal.

The final dimensions of the excavation were approximately fifteen (15) to forty feet (40') in width, one hundred and twenty feet (120') in length and one (1) to fourteen feet (14') in depth. Upon receiving laboratory analytical data from confirmation soil samples, the excavated area was backfilled with locally purchased, non-impacted soil. Following backfilling, areas affected by the remediation activities were compacted and contoured to match the surrounding topography.

The site will be reseeded with a BLM-approved seed mixture at a time more conducive to germination.

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

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

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

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

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

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

##### **4.3 Laboratory Protocol**

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

#### **5.0 SITE CLOSURE REQUEST**

Confirmation soil samples collected from the floor and sidewalls of the PLU #129 excavation were analyzed by an NMOCD-approved laboratory, which determined concentrations of BTEX, TPH and chloride were less than NMOCD regulatory standards in each of the submitted soil samples. Based on these laboratory analytical results, Basin recommends BOPCO provide the NMOCD-Artesia District Office and the BLM a copy of this *Remediation Summary and Site Closure Request* and request the NMOCD grant site closure to the PLU #129 release site.

## 6.0 LIMITATIONS

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

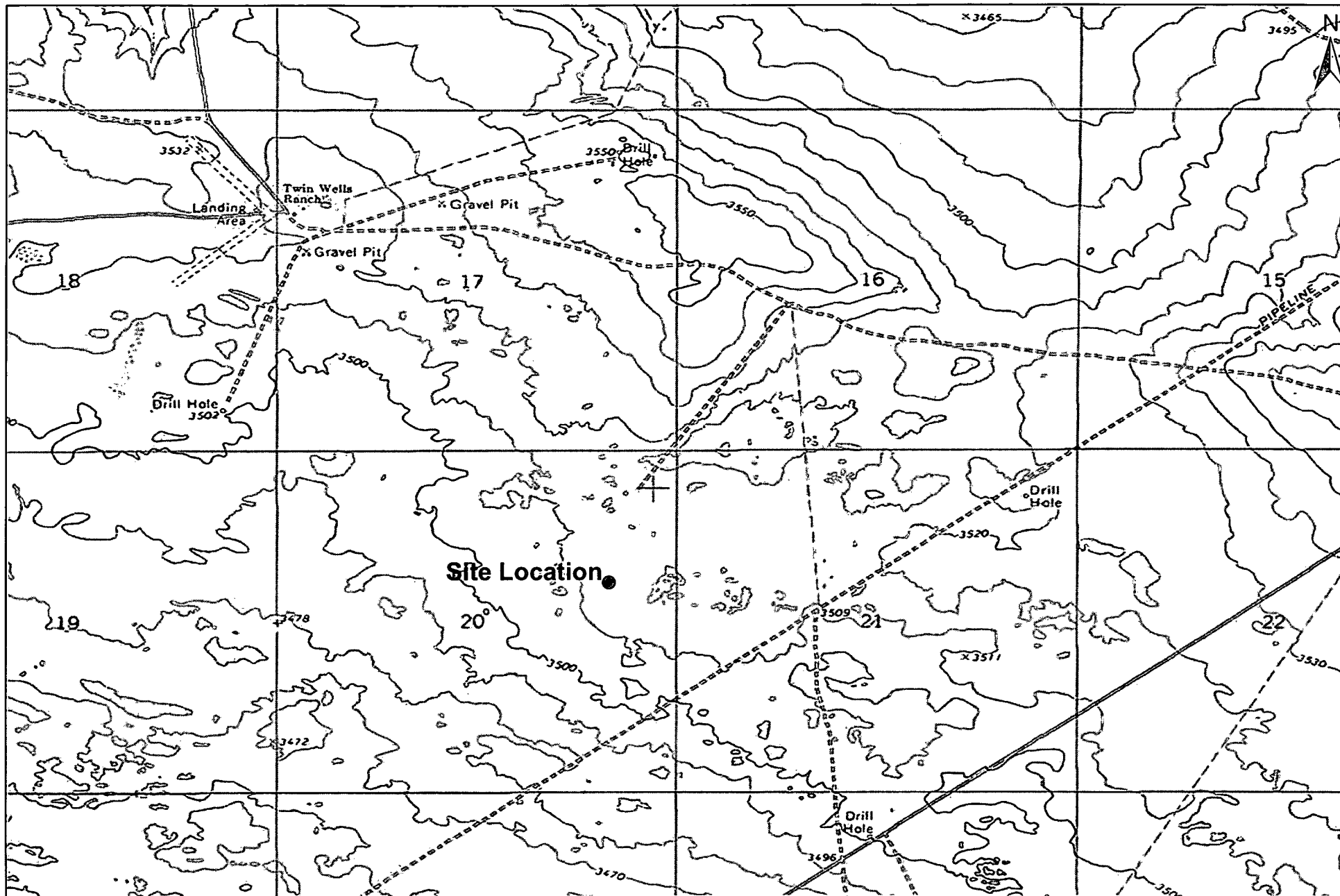
This report has been prepared for the benefit of BOPCO, LP. The information contained in this report, including all exhibits and attachments, may not be used by any other party without the express consent of Basin Environmental Service Technologies, LLC, and/or BOPCO, LP.

**7.0 DISTRIBUTION:**

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

# FIGURES





1,000 500 0 1,000 2,000  
Distance in Feet

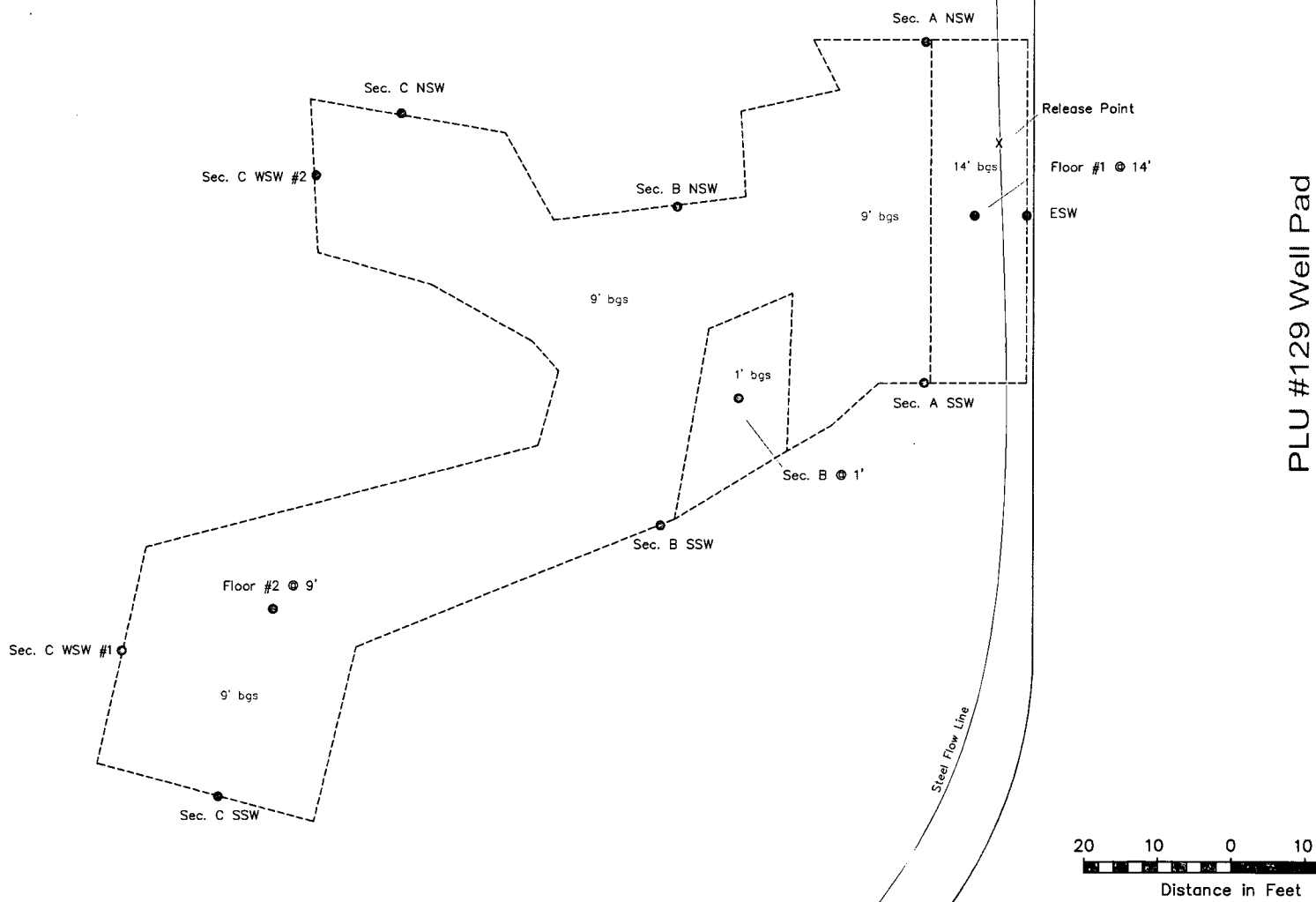
**Figure 1**  
**Site Location Map**  
**BOPCO, LP**  
**PLU #129**  
**Eddy County, New Mexico**  
**NMOCD Reference #: 2RP-2128**



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

Drawn By: BJA  
April 16, 2014

Checked By: BRB  
Scale: 1" = 2,000'



Legend:

- Excavation Extent
- Caliche Well Pad
- Pipeline
- Sample Location

Figure 2  
Site & Sample Location Map  
BOPCO, L.P.  
Poker Lake Unit #129  
Eddy County, New Mexico

Basin Environmental Services

Prep By: JWL	Checked By: BJA
April 24, 2014	Scale 1"=20'

# TABLES

**TABLE 1**  
**CONCENTRATIONS OF BENZENE, BTEX, TPH & CHLORIDE IN SOIL**

**BOPCO, LP**  
**PLU #129**  
**EDDY COUNTY, NEW MEXICO**  
**NMOCD REFERENCE #: 2RP-2128**

SAMPLE LOCATION	SAMPLE DEPTH (BGS)	SAMPLE DATE	SOIL STATUS	METHOD: EPA SW 846-8021B, 5030					METHOD: 8015M			TOTAL	4500 CI-B
				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)
Sec. B @ 1'	1'	4/7/2014	In-Situ	-	-	-	-	-	-	-	-	-	320
Floor #1 @ 14'	14'	4/8/2014	In-Situ	-	-	-	-	-	<10.0	<10.0	<10.0	<10.0	464
Floor #2 @ 9'	9'	4/8/2014	In-Situ	-	-	-	-	-	<10.0	57.6	<10.0	57.6	624
Sec. A NSW	7'	4/17/2014	In-Situ	-	-	-	-	-	-	-	-	-	320
Sec. A SSW	7'	4/17/2014	In-Situ	-	-	-	-	-	-	-	-	-	160
Sec. B NSW	7'	4/17/2014	In-Situ	-	-	-	-	-	-	-	-	-	32.0
Sec. B SSW	7'	4/17/2014	In-Situ	-	-	-	-	-	-	-	-	-	96.0
ESW	7'	4/22/2014	In-Situ	-	-	-	-	-	-	-	-	-	64.0
Sec. C NSW	7'	4/22/2014	In-Situ	-	-	-	-	-	-	-	-	-	64.0
Sec. C SSW	7'	4/22/2014	In-Situ	-	-	-	-	-	-	-	-	-	32.0
Sec. C WSW #1	7'	4/22/2014	In-Situ	-	-	-	-	-	-	-	-	-	<16.0
Sec. C. WSW #2	7'	4/22/2014	In-Situ	-	-	-	-	-	-	-	-	-	<16.0
<b>NMOCD Criteria</b>				<b>10</b>				<b>50</b>				<b>5,000</b>	<b>1,000</b>

- = Not analyzed.

## **APPENDICES**

**Appendix A**  
**Release Notification and Corrective Action**  
**(Form C-141)**

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

State of New Mexico  
Energy Minerals and Natural Resources

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

Form C-141  
Revised August 8, 2011

Submit 1 Copy to appropriate District Office in  
accordance with 19.15.29 NMAC.

Release Notification and Corrective Action

JMW 1406241816

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: PLU-129	Facility Type: Exploration and Production	
Surface Owner: Federal	Mineral Owner: Federal	API No. 30-015-29552

LOCATION OF RELEASE

Unit Letter H	Section 20	Township 24S	Range 31E	Feet from the 1980	North/South Line North	Feet from the 660	East/West Line East	County Eddy
------------------	---------------	-----------------	--------------	-----------------------	---------------------------	----------------------	------------------------	----------------

Latitude N 32.204440 Longitude W 103.793891

NATURE OF RELEASE

Type of Release: Crude oil and produced water	Volume of Release: 2 bbls crude oil and 38 bbls produced water. 40 bbls total fluid	Volume Recovered: 1 bbl crude oil and 29 bbls produced water. 30 bbls total fluid
Source of Release: 2 7/8" flow line	Date and Hour of Occurrence: 12/16/18 time unknown	Date and Hour of Discovery: 12/16/18 at 5:00 p.m.
Was Immediate Notice Given? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Required	If YES, To Whom? NMOCD emergency #104 and BLM	
By Whom? Tony Savoie	Date and Hour: 12/17/18 at 9:58 a.m.	
Was a Watercourse Reached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If YES, Volume Impacting the Watercourse	

If a Watercourse was Impacted, Describe Fully.\*

Describe Cause of Problem and Remedial Action Taken.\*

The flow line developed a leak at a collar connection. The well was shut in, a vacuum truck was used to pull the fluid out of the line and pick up the free standing fluid. The section of pipe was scheduled to be replaced on 12/17/13.

Describe Area Affected and Cleanup Action Taken.\*

The spill impacted approximately 1,950 square feet of pasture, a crew was dispatched to the site to gather information for one-call clearance and BLM arch. clearance. A crew started removing the heavily saturated soil at 9 a.m. 12/18/13 after receiving permission from the BLM to access the site. The spill will be cleaned up in accordance to the NMOCD and BLM guidelines for spill remediation.

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

OIL CONSERVATION DIVISION

Signature: Tony Savoie

Printed Name: Tony Savoie

Title: Waste Management and Remediation Specialist

E-mail Address: tasavoie@basspet.com

Date: 12/18/13

Phone: 432-556-8730

Approved by Environmental Specialist

Signed By Mike Brannon

JAN 02 2014

Approval Date:

Expiration Date:

Conditions of Approval:

Attached ☐

Remediation per OCD Rule & Guidelines, &  
like approval by BLM. SUBMIT REMEDIATION

PROPOSAL NO LATER THAN:

Feb. 2, 2014

2RP-2128

\* Attach Additional Sheets If Necessary

**Appendix B**  
**Photographs**





Photograph of the initial release at the PLU #129 Release Site.



Photograph of the initial release at the PLU #129 Release Site.



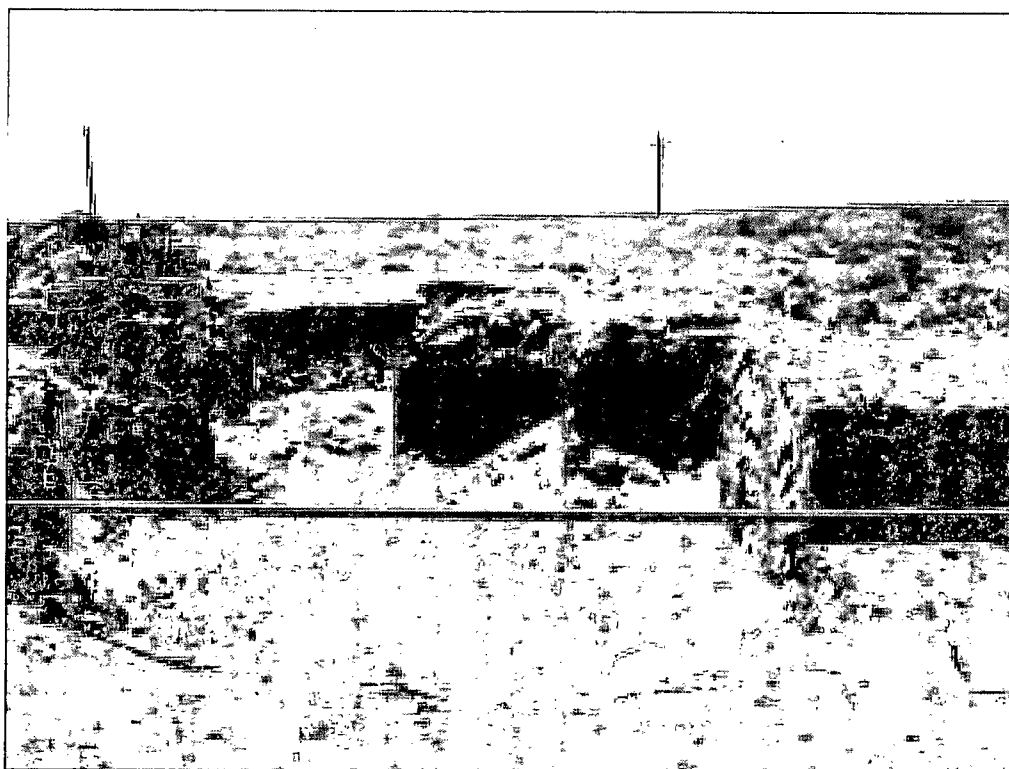
Photograph of the initial release at the PLU #129 Release Site.



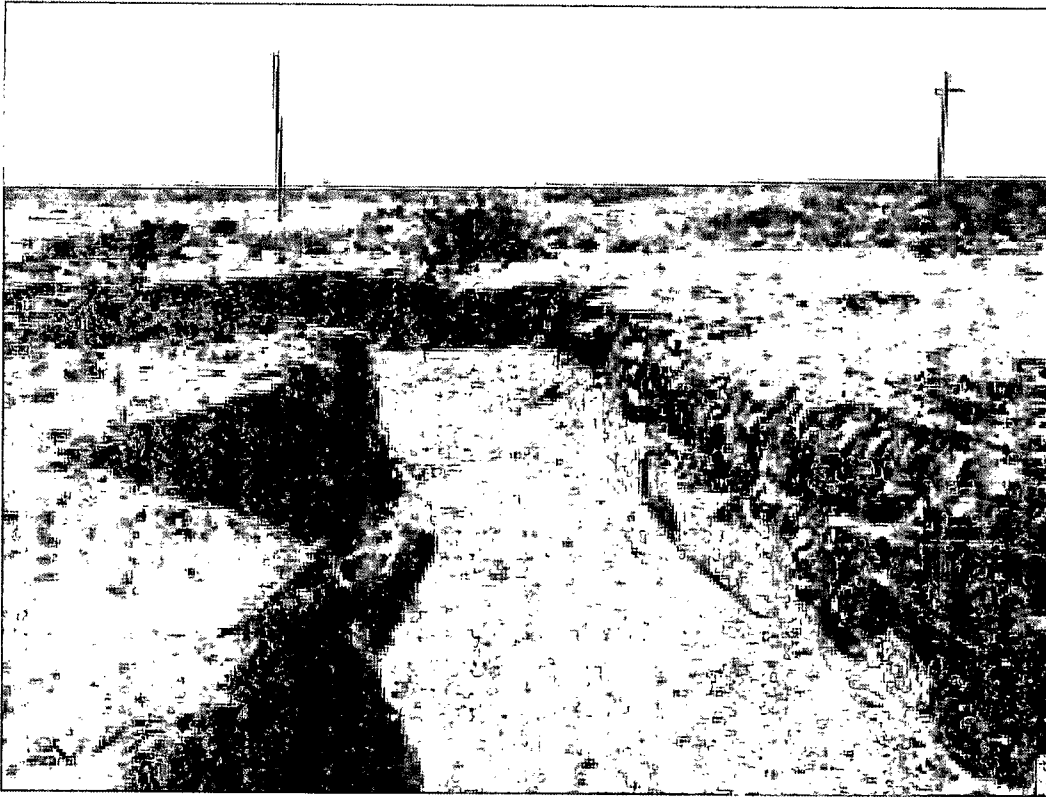
Photograph of excavation activities at the PLU #129 Release Site.



Photograph of the excavated area at the PLU #129 Release Site.



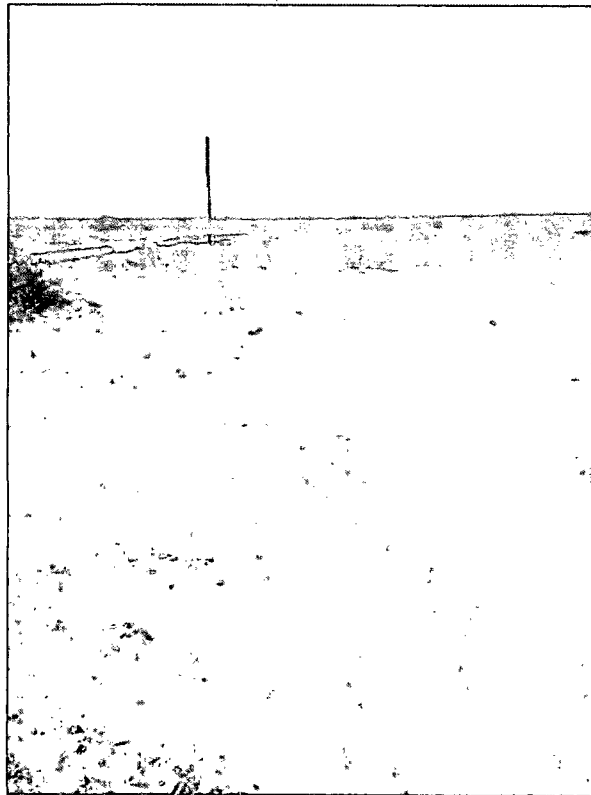
Photograph of the excavated area at the PLU #129 Release Site.



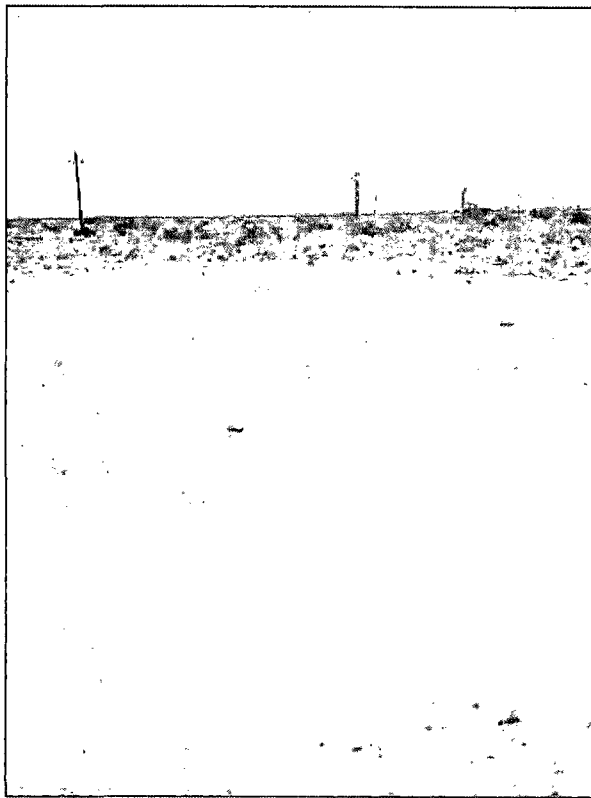
Photograph of the excavated area at the PLU #129 Release Site.



Photograph of backfilling activities at the PLU #129 Release Site.



Photograph of the PLU #129 Release Site after remediation activities.



Photograph of the PLU #129 Release Site after remediation activities.

# **Appendix C**

## **Laboratory Analytical Reports**



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

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April 15, 2014

JOEL LOWRY

Basin Environmental Service

P.O. Box 301

Lovington, NM 88260

RE: PLU #129

Enclosed are the results of analyses for samples received by the laboratory on 04/09/14 10:40.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-13-5. Accreditation applies to drinking water, non-potable water and solid and chemical materials. All accredited analytes are denoted by an asterisk (\*). For a complete list of accredited analytes and matrices visit the TCEQ website at [www.tceq.texas.gov/field/qa/lab\\_accred\\_certif.html](http://www.tceq.texas.gov/field/qa/lab_accred_certif.html).

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

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

Accreditation applies to public drinking water matrices.

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

Sincerely,

A handwritten signature in black ink that reads "Celey D. Keene". The signature is fluid and cursive, with the first name "Celey" being more prominent.

Celey D. Keene

Lab Director/Quality Manager

**Analytical Results For:**

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

 Received: 04/09/2014  
 Reported: 04/15/2014  
 Project Name: PLU #129  
 Project Number: NONE GIVEN  
 Project Location: EDDY COUNTY, NM

 Sampling Date: 04/08/2014  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Jodi Henson

**Sample ID: FLOOR #1 @ 14' (H401070-01)**

Chloride, SM4500Cl-B			mg/kg		Analyzed By: AP				
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
<b>Chloride</b>	<b>464</b>	16.0	04/15/2014	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	04/15/2014	ND	190	95.1	200	0.196	
DRO >C10-C28	<10.0	10.0	04/15/2014	ND	205	103	200	0.435	
EXT DRO >C28-C35	<10.0	10.0	04/15/2014	ND					
<i>Surrogate: 1-Chlorooctane</i>									
	106 %	65.2-140							
<i>Surrogate: 1-Chlorooctadecane</i>									
	103 %	63.6-154							

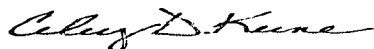
**Sample ID: FLOOR #2 @ 9' (H401070-02)**

Chloride, SM4500Cl-B			mg/kg		Analyzed By: AP				
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
<b>Chloride</b>	<b>624</b>	16.0	04/15/2014	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	04/15/2014	ND	190	95.1	200	0.196	
<b>DRO &gt;C10-C28</b>	<b>57.6</b>	10.0	04/15/2014	ND	205	103	200	0.435	
EXT DRO >C28-C35	<10.0	10.0	04/15/2014	ND					
<i>Surrogate: 1-Chlorooctane</i>									
	114 %	65.2-140							
<i>Surrogate: 1-Chlorooctadecane</i>									
	110 %	63.6-154							

Cardinal Laboratories

\*=Accredited Analyte

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



Celey D. Keene, Lab Director/Quality Manager



**Analytical Results For:**

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

Received: 04/09/2014  
Reported: 04/15/2014  
Project Name: PLU #129  
Project Number: NONE GIVEN  
Project Location: EDDY COUNTY, NM

Sampling Date: 04/07/2014  
Sampling Type: Soil  
Sampling Condition: Cool & Intact  
Sample Received By: Jodi Henson

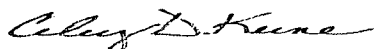
**Sample ID: SEC. B @ 1' (H401070-03)**

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	04/15/2014	ND	400	100	400	0.00	

Cardinal Laboratories

\*=Accredited Analyte

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



Celey D. Keene, Lab Director/Quality Manager

**Notes and Definitions**

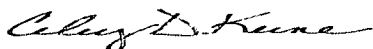
ND	Analyte NOT DETECTED at or above the reporting limit
RPD	Relative Percent Difference
**	Samples not received at proper temperature of 6°C or below.
***	Insufficient time to reach temperature.
-	Chloride by SM4500Cl-B does not require samples be received at or below 6°C Samples reported on an as received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

---

Cardinal Laboratories

\* = Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager



## Page 5 of 5

#54



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

---

April 23, 2014

JOEL LOWRY

Basin Environmental Service

P.O. Box 301

Lovington, NM 88260

RE: PLU #129

Enclosed are the results of analyses for samples received by the laboratory on 04/16/14 11:30.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-13-5. Accreditation applies to drinking water, non-potable water and solid and chemical materials. All accredited analytes are denoted by an asterisk (\*). For a complete list of accredited analytes and matrices visit the TCEQ website at [www.tceq.texas.gov/field/qa/lab\\_accred\\_certif.html](http://www.tceq.texas.gov/field/qa/lab_accred_certif.html).

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

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

Accreditation applies to public drinking water matrices.

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

Sincerely,

Celey D. Keene

Lab Director/Quality Manager

**Analytical Results For:**

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

 Received: 04/16/2014  
 Reported: 04/23/2014  
 Project Name: PLU #129  
 Project Number: NONE GIVEN  
 Project Location: EDDY COUNTY, NM

 Sampling Date: 04/15/2014  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Jodi Henson

**Sample ID: SEC. A NSW (H401146-01)**

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	04/17/2014	ND	416	104	400	3.77	

**Sample ID: SEC. A SSW (H401146-02)**

Chloride, SM4500Cl-B		mg/kg	Analyzed By: AP						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	160	16.0	04/17/2014	ND	416	104	400	3.77	

**Sample ID: SEC. B NSW (H401146-03)**

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	32.0	16.0	04/17/2014	ND	416	104	400	3.77		

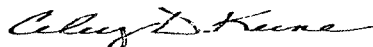
**Sample ID: SEC. B SSW (H401146-04)**

Chloride, SM4500Cl-B		mg/kg	Analyzed By: AP						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	96.0	16.0	04/17/2014	ND	416	104	400	3.77	

Cardinal Laboratories

\* = Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager

**Notes and Definitions**

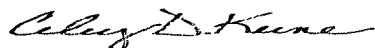
ND	Analyte NOT DETECTED at or above the reporting limit
RPD	Relative Percent Difference
**	Samples not received at proper temperature of 6°C or below.
***	Insufficient time to reach temperature.
-	Chloride by SM4500Cl-B does not require samples be received at or below 6°C
	Samples reported on an as received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

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Celey D. Keene, Lab Director/Quality Manager



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FORM-006  
Revision 1.0

† Cardinal cannot accept verbal changes. Please fax written changes to 575-393-2476

#54

April 24, 2014

JOEL LOWRY

Basin Environmental Service

P.O. Box 301

Lovington, NM 88260

RE: PLU #129

Enclosed are the results of analyses for samples received by the laboratory on 04/23/14 16:05.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-13-5. Accreditation applies to drinking water, non-potable water and solid and chemical materials. All accredited analytes are denoted by an asterisk (\*). For a complete list of accredited analytes and matrices visit the TCEQ website at [www.tceq.texas.gov/field/qa/lab\\_accred\\_certif.html](http://www.tceq.texas.gov/field/qa/lab_accred_certif.html).

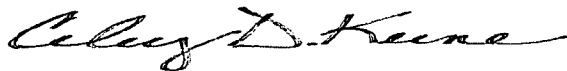
Cardinal Laboratories is accredited through the State of Colorado Department of Public Health and Environment for:

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

Accreditation applies to public drinking water matrices.

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

Sincerely,



Celey D. Keene

Lab Director/Quality Manager



**Analytical Results For:**

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

 Received: 04/23/2014  
 Reported: 04/24/2014  
 Project Name: PLU #129  
 Project Number: NONE GIVEN  
 Project Location: EDDY COUNTY, NM

 Sampling Date: 04/21/2014  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Jodi Henson

**Sample ID: ESW (H401228-01)**

Chloride, SM4500Cl-B		mg/kg	Analyzed By: AP						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	64.0	16.0	04/24/2014	ND	400	100	400	3.92	

**Sample ID: SEC. C NSW (H401228-02)**

Chloride, SM4500Cl-B		mg/kg	Analyzed By: AP						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	64.0	16.0	04/24/2014	ND	400	100	400	3.92	

**Sample ID: SEC. C SSW (H401228-03)**

Chloride, SM4500Cl-B		mg/kg	Analyzed By: AP						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	32.0	16.0	04/24/2014	ND	400	100	400	3.92	

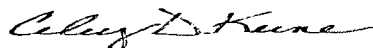
**Sample ID: SEC. C WSW #1 (H401228-04)**

Chloride, SM4500Cl-B		mg/kg	Analyzed By: AP						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	<16.0	16.0	04/24/2014	ND	400	100	400	3.92	

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\* = Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager

**Analytical Results For:**

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

Received: 04/23/2014  
Reported: 04/24/2014  
Project Name: PLU #129  
Project Number: NONE GIVEN  
Project Location: EDDY COUNTY, NM

Sampling Date: 04/21/2014  
Sampling Type: Soil  
Sampling Condition: Cool & Intact  
Sample Received By: Jodi Henson

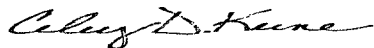
**Sample ID: SEC. C WSW #2 (H401228-05)****Chloride, SM4500Cl-B****mg/kg****Analyzed By: AP**

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	<16.0	16.0	04/24/2014	ND	416	104	400	0.00	

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Celey D. Keene, Lab Director/Quality Manager

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Celey D. Keene, Lab Director/Quality Manager



# **CARDINAL LABORATORIES**

101 East Marland, Hobbs, NM 88240

(575) 393-2326 FAX (575) 393-2476

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

Page 5 of 5

Company Name: Basin Environmental Service Technologies, LLC				<b>BILL TO</b>				<b>ANALYSIS REQUEST</b>																							
Project Manager: Joel Lowry				P.O. #:				<div style="display: flex; flex-direction: column; align-items: center;"> <div>Chloride</div> <div>TPH (8015M)</div> <div>BTEX (8021B)</div> <div>HOLD FOR TPH</div> </div>																							
Address: P.O. Box 301				Company: BOPCO, LP																											
City: Lovington State: NM Zip: 88260				Attn: Tony Savoie																											
Phone #: (575)396-2378 Fax #: (575)396-1429				Address: 522 W. Marland																											
Project #: Project Owner:				City: Carlsbad																											
Project Name: PLU #129				State: NM Zip: 88220																											
Project Location: Eddy Co., NM				Phone #: (432)556-8730																											
Sampler Name:				Fax #:																											
FOR LAB USE ONLY						MATRIX		PRESERV.		SAMPLING																					
Lab I.D.		Sample I.D.		G/RAB OR (C)OMP.		# CONTAINERS		GROUNDWATER		WASTEWATER		SOIL		OIL		SLUDGE		OTHER :		ACID/BASE:		ICE / COOL		OTHER :		DATE		TIME			
H401228				G		1				x										x				4/21/14		1000		x			
2		Sec. C NSW		G		1				x										x				4/21/14		1015		x			
3		Sec. C SSW		G		1				x										x				4/21/14		1030		x			
4		Sec. C WSW #1		G		1				x										x				4/21/14		1045		x			
5		Sec. C WSW #2		G		1				x										x				4/21/14		1055		x			

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Relinquished By: <i>Joel Lowry</i>		Date: 4/23/14		Received By: <i>Samuel</i>		Phone Result: <input type="checkbox"/> Yes <input type="checkbox"/> No		Add'l Phone #:	
Time: 2:45		Time: 4:05		Received By: <i>Nodi Jensen</i>		Fax Result: <input type="checkbox"/> Yes <input type="checkbox"/> No		Add'l Fax #:	
Relinquished By: <i>Samuel</i>		Date: 4/23/14		Received By: <i>Nodi Jensen</i>		REMARKS:  HOLD FOR TPH  Please email results to pm@basinenv.com, TASavoie@BassPet.com & SJWalters@BassPet.com			
Delivered By: (Circle One)		Time: 4:05		Time: 4:05					
Sampler: UPS - Bus - Other:		1.40		Sample Condition					
FORM-006		Revision 1.0		Cool Intact		CHECKED BY: <i>JS</i>			
				<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		<input type="checkbox"/> Yes <input type="checkbox"/> No			

† Cardinal cannot accept verbal changes. Please fax written changes to 575-393-2476

#511