

**REMEDIATION SUMMARY  
&  
SITE CLOSURE REQUEST**

**BOPCO, L.P.  
POKER LAKE UNIT #213 (SWD)  
(Spill dated 10/28/13)  
API-30-015-33859  
Eddy County, New Mexico  
UL-P, Section 18, Twns. 24 South, Range 30 East  
Latitude N 32.212505° Longitude W 103.914199°  
NMOCD Spill reference #2RP-2042**

Prepared By:

**BOPCO, L.P.  
522 W. Mermod, Suite 704  
Carlsbad, N.M. 88220**

September 2015

Tony Savoie  
Waste Management & Remediation Specialist



**Site History:**

On the 10/28/13 the pumper at the PLU discovered a release due loose flange bolts on a transition fitting from 10" poly to 10" steel. The area was excavated, the soil was placed on plastic on the SWD pad pending disposal, no fluid was recovered. A C-141 spill report was submitted to the NMOCD on 11/1/13 stating that 12 bbls of produced water had been released that impacted approximately 240 square ft. of pasture area. The spill was given spill report #2RP-2042. The excavation was left open pending the final remediation. The initial Form C-141 is included with this report.

**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 18, Township 24 South, Range 30 East. A depth to groundwater reference map utilized by the NMOCD indicates groundwater should be encountered at approximately one hundred and seventy-five feet (175') below ground surface (bgs).

Based on the NMOCD ranking system, zero (0) points will be assigned to the site as a result of this criterion.

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

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

NMOCD guidelines indicate the PLU#211 release site has an initial ranking score of zero (0) points. The soil remediation levels for a site with a ranking score of zero (0) points are as follows:

- Benzene – 10 mg/Kg (ppm)
- BTEX – 50 mg/Kg (ppm)
- TPH – 5,000 mg/Kg (ppm)

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

## **SUMMARY OF SOIL REMEDATION ACTIVITIES**

Beginning on 1/19/15 Basin Environmental began a sampling event of the release point and pasture area just to the south of the SWD road and pad area. As mentioned earlier the excavation was left open at the time of discovery and the permanent repair on the transition fitting. The excavation was approximately 4 ft. deep and measured approximately 8 ft. wide and 10 ft. long.

A sample was collected from the floor of the excavation and a hand auger was used to collect another sample at 6 ft. below the ground surface, referenced to as SP#1 in the attached site map and soil chemistry table. Four additional sample locations were randomly selected in what was considered to be the potential flow path area south of the release point. Samples were collected from the surface and 2 ft. below ground surface, referenced to SP#2 through SP#5.

The sample locations and analysis were discussed with the NMOCD in a meeting on 3/4/15. It was determined that everything was below the remediation action level for Chlorides.

The soil that had been excavated and placed on-site was eventually removed during the remediation of several other spill areas on and around the SWD pad. It was estimated that between 12 to 20 cubic yards of soil had been hauled to an NMOCD approved facility as a result of this spill.

The excavation and sample location points were backfilled with clean soil that had been previously pushed up during construction activities or purchased soil used for the other remediation projects.

A site map with the sample locations and soil chemistry table is attached with this report. The entire disturbed area resulting from remediation and construction activities was re-seeded with BLM seed mix #2. Photo documentation 9/29/15.

## **SITE CLOSURE REQUEST**

The soil sample results at the PLU-213 SWD location have met the objectives defined in the NMOCD guidelines for the remediation of leaks and spills. BOPCO, L.P. hereby request the NMOCD to grant closure for the release at the spill site.

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

nJMW1330829263

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: 10" Water transfer mainline. The spill location is 160 ft. S.W. of the PLU-213 SWD well	Facility Type: Exploration and Production

Surface Owner: Federal	Mineral Owner: Federal	API No. 30-015-33859
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LOCATION OF RELEASE

Unit Letter P	Section 18	Township 24S	Range 30E	Feet from the	North/South Line	Feet from the	East/West Line	County: Eddy
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Latitude N 32.212260 Longitude W 103.914606

NATURE OF RELEASE

Type of Release: Produced water	Volume of Release: 12 bbls.	Volume Recovered: 0 bbls.
Source of Release: Flange connection on 10" mainline	Date and Hour of Occurrence: 10/28/13 time unknown	Date and Hour of Discovery: 10/28/13 at 11:47 a.m.
Was Immediate Notice Given? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Not Required	If YES, To Whom?	
By Whom?	Date and Hour	
Was a Watercourse Reached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If YES, Volume Impacting the Watercourse.	

If a Watercourse was Impacted, Describe Fully.\*

Describe Cause of Problem and Remedial Action Taken.\*

A flange on the 10" mainline developed a leak due to loose flange bolts, the bolts were re-torqued and the line was pressure tested.

Describe Area Affected and Cleanup Action Taken.\*

Approximately 240 sq.ft. of pasture was affected by the release, all of the fluid soaked into the ground. The area around the leak point was excavated and stockpiled on-site pending removal. The remediation will be in accordance to the NMOCD and BLM guidelines.

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

Signature: Tony Savoie		OIL CONSERVATION DIVISION	
Printed Name: Tony Savoie		Approved by Environmental Specialist By: [Signature]	
Title: Waste Management and Remediation Specialist		Approval Date: NOV 01 2013	Expiration Date:
E-mail Address: tasavoie@basspet.com		Conditions of Approval: Remediation per OCD Rule & Guidelines, & like approval by BLM. SUBMIT REMEDIATION PROPOSAL NO LATER THAN:	
Date: 10/31/13		Attached <input type="checkbox"/>	

\* Attach Additional Sheets If Necessary

December 1, 2013 2RP-2042





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[www.delorme.com](http://www.delorme.com)





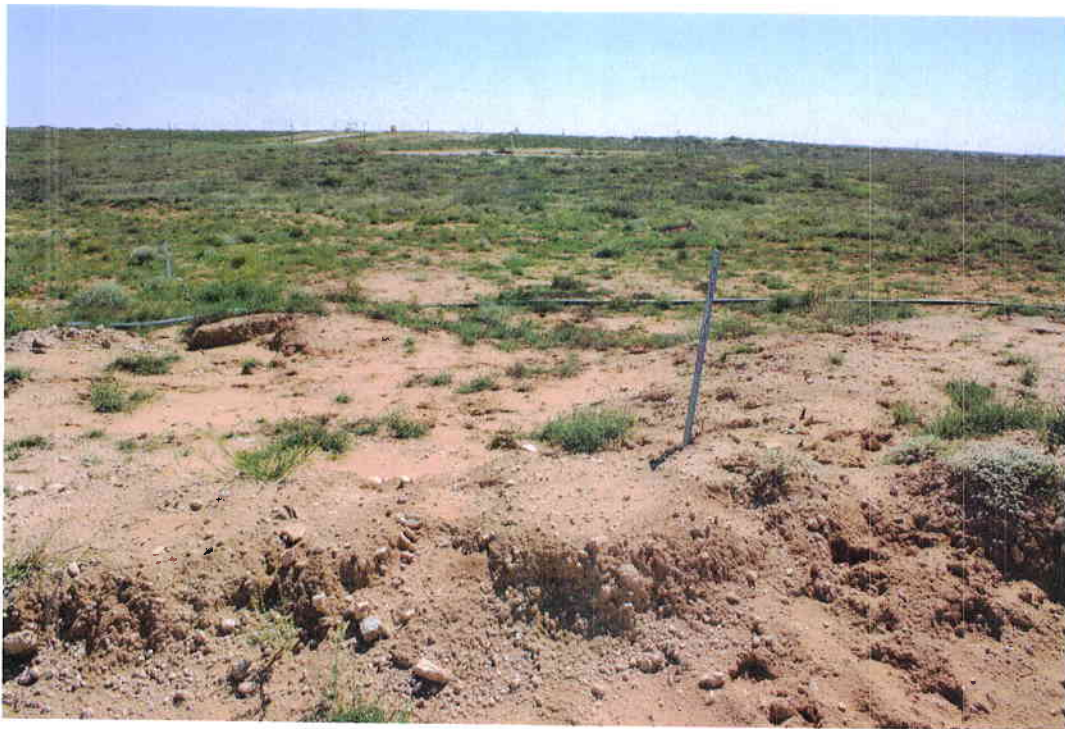
## Sample location map with Lab Analysis



Date	Lab ID	Sample Location	Status	TPH C-6-C-10 Mg/kg	TPH C-10-C-28 Mg/kg	TPH C-28-C-35 Mg/kg	TPH C-6-C-35 Mg/kg	BTEX Mg/kg	Chlorides Mg/kg
1/19/15	H-500363-01	SP-1 Excavation floor At 4 ft.	In-situ						<16
1/19/15	H-500363-02	SP-1 Excavation floor At 6 ft.	In-situ						<16
1/19/15	H-500363-03	SP-2 Surface	In-situ						<16
1/19/15	H-500363-04	SP-2 At 4 ft.	In-situ						<16
1/19/15	H-500363-05	SP-3 Surface	In-situ						16
1/19/15	H-500363-06	SP-3 At 2 ft.	In-situ						<16
1/19/15	H-500363-07	SP-4 Surface	In-situ						<16
1/19/15	H-500363-08	SP-4 At 2 ft.	In-situ						<16
1/19/15	H-500363-09	SP-5 Surface	In-situ						<16
1/19/15	H-500363-10	SP-5 At 2 ft.	In-situ						<16



**Initial Photo 10/28/13**



**Post Remediation Photo 9/28/15**



Initial Photo 10/28/13



Post Remediation Photo 9/28/15





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

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February 09, 2015

JOEL LOWRY

Basin Environmental Service

P.O. Box 301

Lovington, NM 88260

RE: PLU #213 GREEN

Enclosed are the results of analyses for samples received by the laboratory on 02/06/15 13:35.

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 written in a cursive, flowing style.

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: 02/06/2015  
Reported: 02/09/2015  
Project Name: PLU #213 GREEN  
Project Number: NONE GIVEN  
Project Location: EDDY COUNTY, NM

Sampling Date: 01/19/2015  
Sampling Type: Soil  
Sampling Condition: Cool & Intact  
Sample Received By: Jodi Henson

**Sample ID: G-SP #1 @ 4' (H500363-01)**

Chloride, SM4500Cl-B		mg/kg	Analyzed By: AP						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	<16.0	16.0	02/09/2015	ND	416	104	400	0.00	

**Sample ID: G-SP #1 @ 6' (H500363-02)**

Chloride, SM4500Cl-B		mg/kg	Analyzed By: AP						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	<16.0	16.0	02/09/2015	ND	416	104	400	0.00	

**Sample ID: G-SP #2 @ SURFACE (H500363-03)**

Chloride, SM4500Cl-B		mg/kg	Analyzed By: AP						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	<16.0	16.0	02/09/2015	ND	416	104	400	0.00	


**Sample ID: G-SP #2 @ 2' (H500363-04)**

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	02/09/2015	ND	416	104	400	0.00	

Cardinal Laboratories

\*=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: 02/06/2015  
 Reported: 02/09/2015  
 Project Name: PLU #213 GREEN  
 Project Number: NONE GIVEN  
 Project Location: EDDY COUNTY, NM

 Sampling Date: 01/19/2015  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Jodi Henson

**Sample ID: G-SP #3 @ SURFACE (H500363-05)**

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	02/09/2015	ND	416	104	400	0.00	

**Sample ID: G-SP #3 @ 2' (H500363-06)**

Chloride, SM4500Cl-B		mg/kg	Analyzed By: AP						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	<16.0	16.0	02/09/2015	ND	416	104	400	0.00	

**Sample ID: G-SP #4 @ SURFACE (H500363-07)**

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	02/09/2015	ND	416	104	400	0.00	

**Sample ID: G-SP #4 @ 2' (H500363-08)**

Chloride, SM4500Cl-B		mg/kg	Analyzed By: AP						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	48.0	16.0	02/09/2015	ND	416	104	400	0.00	

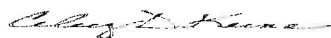
**Sample ID: G-SP #5 @ SURFACE (H500363-09)**

Chloride, SM4500Cl-B		mg/kg	Analyzed By: AP						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	<16.0	16.0	02/09/2015	ND	416	104	400	0.00	

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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: 02/06/2015  
Reported: 02/09/2015  
Project Name: PLU #213 GREEN  
Project Number: NONE GIVEN  
Project Location: EDDY COUNTY, NM

Sampling Date: 01/19/2015  
Sampling Type: Soil  
Sampling Condition: Cool & Intact  
Sample Received By: Jodi Henson

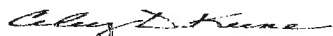
**Sample ID: G-SP #5 @ 2' (H500363-10)****Chloride, SM4500Cl-B****mg/kg****Analyzed By: AP**

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	<16.0	16.0	02/09/2015	ND	416	104	400	0.00	

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Celey D. Keene, Lab Director/Quality Manager



**Notes and Definitions**


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

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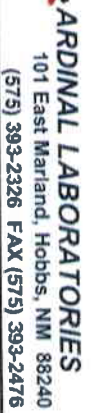
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Celey D. Keene, Lab Director/Quality Manager



## Page 6 of 6

<b>Company Name:</b> Joel Lowry <b>Project Manager:</b> P.O. Box 301 <b>Address:</b> Lovington <b>City:</b> (575)396-2378 <b>Phone #:</b> State: NM Zip: 88260 <b>Fax #:</b> (575)396-1429 <b>Project #:</b> Project Owner: <b>Project Name:</b> PLU #213 Green <b>Project Location:</b> Eddy Co., NM <b>Sampler Name:</b> Billy Blackwood				<b>P.O. #:</b> <b>Company:</b> BOPCO, LP <b>Attn:</b> Tony Savio <b>Address:</b> <b>City:</b> <b>State:</b> NM <b>Zip:</b> <b>Phone #:</b> <b>Fax #:</b>							
<b>FOR LAB USE ONLY</b>				<b>Lab I.D.</b>				<b>Sample I.D.</b>			
(G)RAB OR (C)OMP.				# CONTAINERS				MATRIX			
GROUNDWATER WASTEWATER SOIL OIL SLUDGE OTHER:				ACID/BASE: ICE / COOL OTHER:				DATE			
G-SP #1 @ 4' G-SP #1 @ 6' G-SP #2 @ Surf. G-SP #2 @ 2' G-SP #3 @ Surf. G-SP #3 @ 2' G-SP #4 @ Surf. G-SP #4 @ 2' G-SP #5 @ Surf. G-SP #5 @ 2'				1 1 1 1 1 1 1 1 1 1				X X X X X X X X X X			
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Chloride				TPH (8015M)				BTEX (8021B)			
HOLD FOR TPH											

**PLEASE NOTE:** Laboratory and Client's retention period for any data arising whether stated or not, shall be limited to the amount paid by the client for the analysis. All claims including those for negligence and any other claims whatsoever shall be deemed waived unless made in writing and received by Cardinal within 30 days after completion of the analysis. In no event shall Cardinal be liable for incidental or consequential damages, including without limitation, business interruptions, loss of data, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise.

**Relinquished By:** *[Signature]* **Date:** 2-6-15  
**Received By:** *[Signature]* **Time:** 13:35  
**Relinquished By:** *[Signature]* **Date:** 1-16-15  
**Received By:** *[Signature]* **Time:** 1:00

**Sample Condition:** Cool ☒ Intact ☒  
 Yes ☒ No ☒  
 Yes ☒ No ☒

**CHECKED BY:** *[Signature]*

**REMARKS:**

Please email results to pm@basinenv.com,  
 TAsavio@BassPet.com, acruh@basspet.com