

# *Basin Environmental Service Technologies, LLC*

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

**BOPCO, LP  
PLU-CVX-JV-RR #006H FRAC HOSE  
API 30-015-40580  
Eddy County, New Mexico  
Unit Letter "D" (NW/NW), Section 21, Township 25 South, Range 30  
East Latitude 32.122517° North, Longitude 103.893486° West  
NMOCD Reference #2RP-2801**

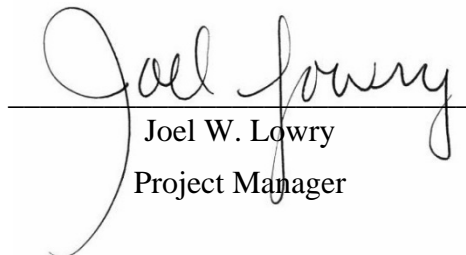
Prepared For:

**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**

**February 2015**

  
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 PLU-CVX-JV-RR #006H Frac Hose (Ross Ranch #006H). The legal description of the release site is Unit Letter "D" (NW/NW), Section 21, Township 25 South, Range 30 East, in Eddy County, New Mexico. The geographic coordinates of the release site are 32.122517° North latitude and 103.893486° 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 February 2, 2015, BOPCO discovered a release had occurred while doing a follow up inspection for the removal of frac hoses and fracking containments at the PLU CVS JV RR #006H well. The "Release Notification and Corrective Action" (Form C-141) indicated the spill affected approximately seven hundred square feet (700 ft<sup>2</sup>) of caliche well pad and three thousand, one hundred twenty square feet (3,120 ft<sup>2</sup>) of pasture area. Upon visiting with the fracking contractor, it was discovered that a majority of the produced water had been spilled on the ground during the frac hose removal. On February 6, 2015, during another follow-up inspection, it was discovered that additional produced water had been released during the completion of the hose removal. The New Mexico Oil Conservation Division (NMOCD) Artesia District Office was notified of the releases immediately upon discovering the release. The Form C-141 is provided as Appendix A. General photographs of the release site 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 21, Township 25 South, Range 30 East. A depth to groundwater reference map utilized by the NMOCD indicates groundwater should be encountered between two hundred seventy-five (275) and three hundred feet (300') 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 Ross Ranch #006H 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 February 11, 2015, 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 guidelines. Excavated soil was stockpiled on-site, pending final disposition.

Twenty-two (22) confirmation soil samples (SSW #1, NSW #6, ESW #1, ESW #2, ESW #3, ESW #4, ESW #5, ESW #6, WSW #1, WSW #2, WSW #3, WSW #4, WSW #5, WSW #6, Floor #1, Floor #2, Floor #3, Floor #4, Floor #5, Floor #6, Floor #7 and Floor #8) were collected from the excavated areas and submitted to the laboratory for analysis of chloride concentrations. Laboratory analytical results indicated the chloride concentrations ranged from less than the laboratory method detection limit (MDL) for soil samples NSW #6, ESW #5, ESW #6 and WSW #6 to 592 ppm for soil sample Floor #3 @ 1'. Soil samples Floor #2 @ 1', Floor #4 @ 1', Floor #6 @ 1' and Floor #8 @ 1' were also analyzed for concentrations of BTEX & TPH, which were determined to be less than the appropriate laboratory MDL. A summary of "Concentrations of Benzene, BTEX, TPH & 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 February 12, 2015, fifteen (15) confirmation soil samples (WSW #8, WSW #12, ESW #12, NSW #9, NSW #10, NSW #11, NSW #12, SSW #8, SSW #9, SSW #10, SSW #11, Floor #9, Floor #10, Floor #11 and Floor #12) were collected from the excavated areas 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 WSW #8, Floor #9 @ 18", Floor #10 and Floor #11 to 864 ppm for soil sample NSW #11. Soil samples Floor #9 and Floor #11 were also analyzed for concentrations of BTEX and TPH, which were determined to be less than the appropriate laboratory MDL.

On February 17, 2015, six (6) confirmation soil samples (Strip #1, Strip #2, Strip #3, Road #1, Road #2 and Road #3) were collected from the excavated areas and submitted to the laboratory for analysis of chloride concentrations. Laboratory analytical results indicated the chloride concentrations ranged from less than the laboratory MDL for soil samples Strip #1, Strip #2, Road #1 and Road #3 to 176 ppm for soil sample Strip #3.

On February 18, 2015, six (6) confirmation soil samples (N. Spot #1, N. Spot #2, N. Strip #1, N. Strip #2, Pad #1 and Pad #2) were collected from the excavated areas 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 N. Spot #1, N. Spot #2 and N. Strip #2 to 128 ppm for soil sample Pad #2. Soil samples N. Spot #2 and N. Strip #2 were also analyzed for concentrations of TPH, which were determined to be less than the appropriate laboratory MDL.

On February 19, 2015, two (2) confirmation soil samples (Pad #3 and Pad #4) were collected from the excavated areas and submitted to the laboratory for analysis of chloride concentrations.

Laboratory analytical results indicated the chloride concentrations ranged from less than the laboratory MDL for soil Pad #4 to 96.0 ppm for soil sample Pad #3.

The final dimensions of the primary excavation south of the caliche well pad were approximately six (6) to thirty-five feet (35') in width, two hundred thirty feet (230') in length and one foot (1') to eighteen inches (18") in depth. An area on the caliche well pad measuring approximately fifteen (15) to thirty-five feet (35') in width and one hundred ten feet (110') in length was excavated to approximately six inches (6") bgs. The southernmost excavated area on the caliche access road measured approximately four (4) to fifteen feet (15') in width, seventy-five feet (75') in length and six inches (6") in depth. An additional area on the caliche road measuring approximately four feet (4') in width and one hundred feet (100') in length was also excavated to six inches (6") bgs. Approximately one hundred fifty feet (150') of affected bar ditch was excavated to one foot (1') bgs. Two (2) small areas measuring four (4) to fifteen feet (15') in width and thirty (30) to forty-five (45') in length on the north side of the caliche access road to the Ross Ranch #006H were excavated to one foot (1') bgs.

Upon receiving laboratory analytical results from confirmation soil samples, the excavated areas were backfilled with locally purchased, non-impacted material. Following backfilling activities, the well pad and caliche road were repaired. Remediated areas within the affected pasture were contoured to match the surrounding topography and will be seeded in accordance with BLM requirements at a time more conducive to germination.

Between February 12 and 20, 2015, approximately six hundred sixty cubic yards (600 yd<sup>3</sup>) of impacted material was transported to Lea Land, Inc. (NMOCD Permit #WM-01-035) for disposal.

#### **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 excavated area at the Ross Ranch #006H remediation site 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 Ross Ranch #006H release site.

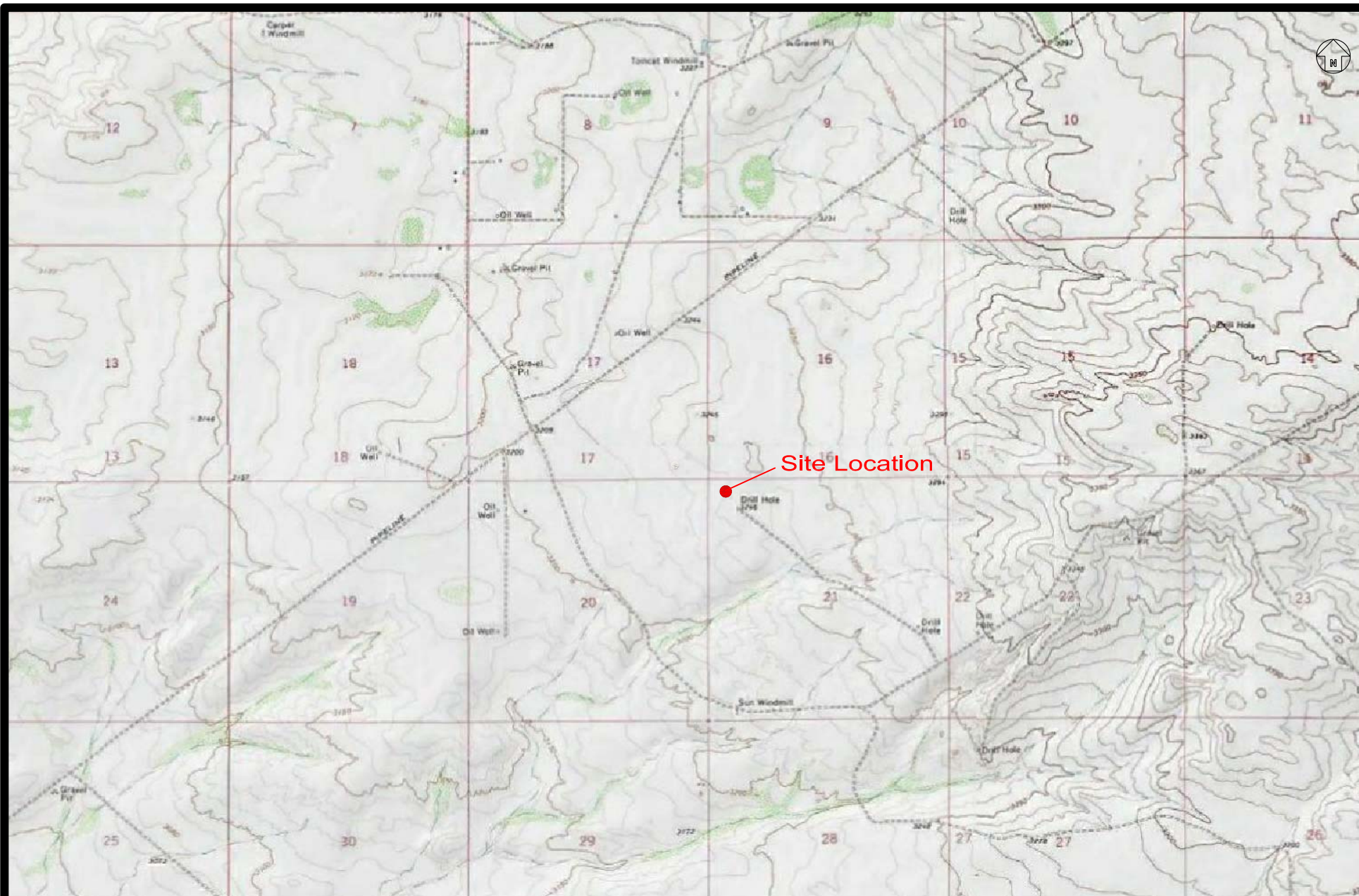
### **6.0 LIMITATIONS**

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




3000 1500 0 1500 3000  
  
 Distance in Feet

Figure 1  
 Site Location Map  
 BOPCO, LP  
 PLU -CVX-JV-RR #006H Frac Hose  
 Eddy County, New Mexico  
 NMOCD Ref# 2RP-2801

Basin Environmental Service Technologies

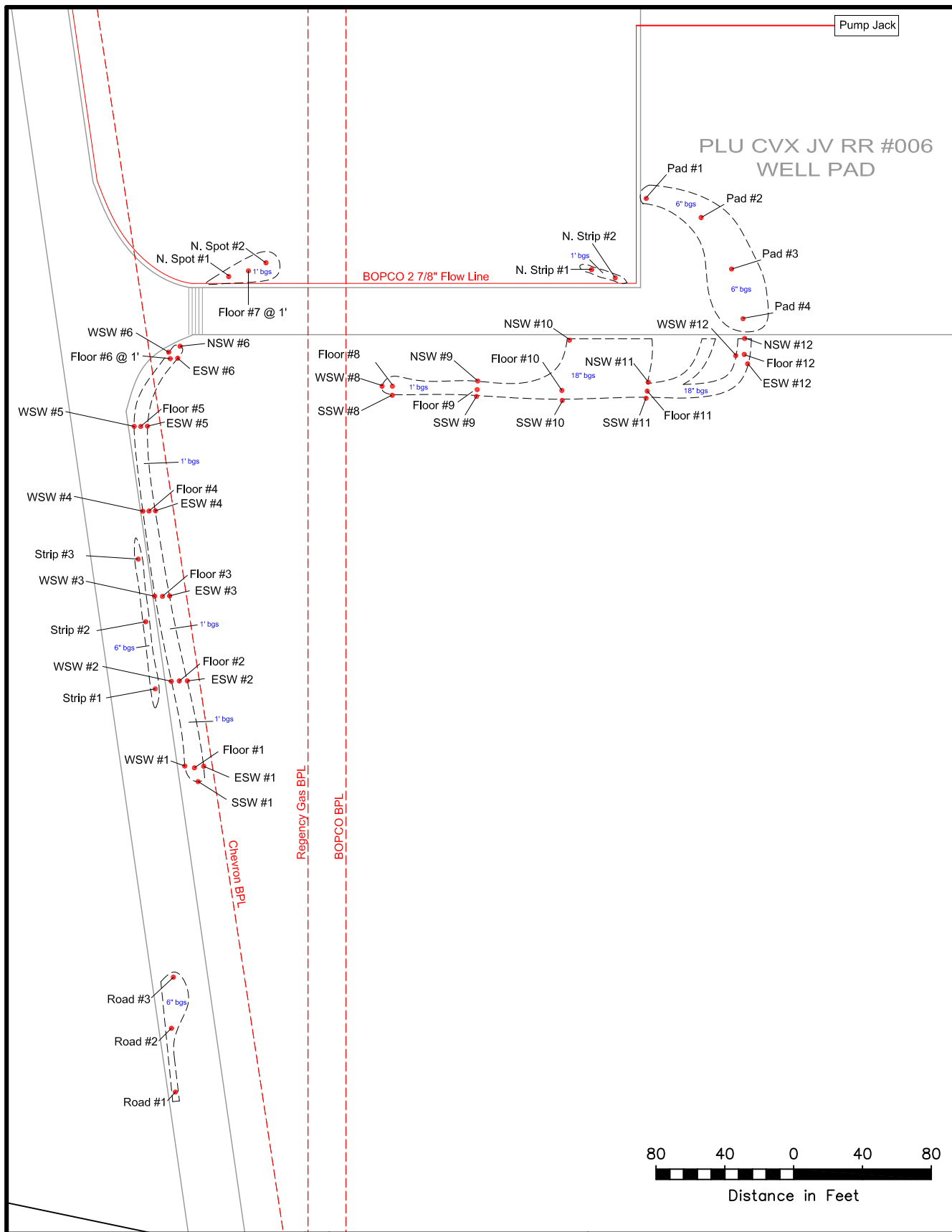
Prep By: JWL

Checked By: BJA

February 25, 2015

Scale 1"=3000'





#### LEGEND:

- Excavation Extent
- Caliche Well Pad
- Sample Location
- Above Ground Pipeline
- - - Below Ground Pipeline

Figure 2  
Site & Sample Location Map  
BOPCO, L.P.  
PLU-CVX-JV-RR #006H Frac Hose  
Eddy County, NM  
NMOC Ref# 2RP-2801

Basin Environmental Services

Scale: 1" = 80'	Drawn By: JWL	Prepared By: BRB
February 23, 2015		

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

**BOPCO, LP**  
**PLU-CVX-JV-RR #006H FRAC HOSE**  
**EDDY COUNTY, NEW MEXICO**  
**NMOCD REFERENCE #: 2RP-2801**

SAMPLE LOCATION	SAMPLE DEPTH (BGS)	SAMPLE DATE	SOIL STATUS	METHOD: EPA SW 846-8021B, 5030					METHOD: 8015M			TOTAL TPH	4500 Cl-B CHLORIDE (mg/Kg)
				BENZENE (mg/Kg)	TOLUENE (mg/Kg)	ETHYL-BENZENE (mg/Kg)	TOTAL XYLENES (mg/Kg)	TOTAL BTEX (mg/Kg)	GRO C <sub>6</sub> -C <sub>12</sub> (mg/Kg)	DRO C <sub>12</sub> -C <sub>28</sub> (mg/Kg)	ORO C <sub>28</sub> -C <sub>35</sub> (mg/Kg)	C <sub>6</sub> -C <sub>35</sub> (mg/Kg)	
SSW #1	6"	2/11/2015	In-Situ	-	-	-	-	-	-	-	-	-	176
NSW #6	6"	2/11/2015	In-Situ	-	-	-	-	-	-	-	-	-	<16.0
ESW #1	6"	2/11/2015	In-Situ	-	-	-	-	-	-	-	-	-	80.0
ESW #2	6"	2/11/2015	In-Situ	-	-	-	-	-	-	-	-	-	64.0
ESW #3	6"	2/11/2015	In-Situ	-	-	-	-	-	-	-	-	-	64.0
ESW #4	6"	2/11/2015	In-Situ	-	-	-	-	-	-	-	-	-	48.0
ESW #5	6"	2/11/2015	In-Situ	-	-	-	-	-	-	-	-	-	<16.0
ESW #6	6"	2/11/2015	In-Situ	-	-	-	-	-	-	-	-	-	<16.0
WSW #1	6"	2/11/2015	In-Situ	-	-	-	-	-	-	-	-	-	160
WSW #2	6"	2/11/2015	In-Situ	-	-	-	-	-	-	-	-	-	352
WSW #3	6"	2/11/2015	In-Situ	-	-	-	-	-	-	-	-	-	64.0
WSW #4	6"	2/11/2015	In-Situ	-	-	-	-	-	-	-	-	-	48.0
WSW #5	6"	2/11/2015	In-Situ	-	-	-	-	-	-	-	-	-	128
WSW #6	6"	2/11/2015	In-Situ	-	-	-	-	-	-	-	-	-	<16.0
Floor #1 @ 1'	1'	2/11/2015	In-Situ	-	-	-	-	-	-	-	-	-	64.0
Floor #2 @ 1'	1'	2/11/2015	In-Situ	-	-	-	-	-	-	-	-	-	240
Floor #3 @ 1'	1'	2/11/2015	In-Situ	-	-	-	-	-	-	-	-	-	592
Floor #4 @ 1'	1'	2/11/2015	In-Situ	-	-	-	-	-	-	-	-	-	80.0
Floor #5 @ 1'	1'	2/11/2015	In-Situ	-	-	-	-	-	-	-	-	-	464
Floor #6 @ 1'	1'	2/11/2015	In-Situ	-	-	-	-	-	-	-	-	-	432
Floor #7 @ 1'	1'	2/11/2015	In-Situ	-	-	-	-	-	-	-	-	-	560
Floor #8 @ 1'	1'	2/11/2015	In-Situ	-	-	-	-	-	-	-	-	-	64.0
WSW #8	6"	2/12/2015	In-Situ	-	-	-	-	-	-	-	-	-	<16.0
WSW #12	1'	2/12/2015	In-Situ	-	-	-	-	-	-	-	-	-	96.0
ESW #12	1'	2/12/2015	In-Situ	-	-	-	-	-	-	-	-	-	64.0
NSW #9	1'	2/12/2015	In-Situ	-	-	-	-	-	-	-	-	-	864
NSW #10	1'	2/12/2015	In-Situ	-	-	-	-	-	-	-	-	-	512
NSW #11	1'	2/12/2015	In-Situ	-	-	-	-	-	-	-	-	-	48.0
NSW #12	1'	2/12/2015	In-Situ	-	-	-	-	-	-	-	-	-	32.0
SSW #8	6"	2/12/2015	In-Situ	-	-	-	-	-	-	-	-	-	224
SSW #9	1'	2/12/2015	In-Situ	-	-	-	-	-	-	-	-	-	416
SSW #10	1'	2/12/2015	In-Situ	-	-	-	-	-	-	-	-	-	48.0
SSW #11	1'	2/12/2015	In-Situ	-	-	-	-	-	-	-	-	-	624
Floor #9 @ 18"	18"	2/12/2015	In-Situ	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<10.0	<16.0
Floor #10 @ 18"	18"	2/12/2015	In-Situ	-	-	-	-	-	-	-	-	-	<16.0
Floor #11 @ 18"	18"	2/12/2015	In-Situ	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<10.0	<16.0
Floor #12 @ 18"	18"	2/12/2015	In-Situ	-	-	-	-	-	-	-	-	-	96.0
Strip #1	6"	2/17/2015	In-Situ	-	-	-	-	-	-	-	-	-	<16.0
Strip #2	6"	2/17/2015	In-Situ	-	-	-	-	-	-	-	-	-	<16.0
Strip #3	6"	2/17/2015	In-Situ	-	-	-	-	-	-	-	-	-	176
Road #1	6"	2/17/2015	In-Situ	-	-	-	-	-	-	-	-	-	<16.0
Road #2	6"	2/17/2015	In-Situ	-	-	-	-	-	-	-	-	-	64.0
Road #3	6"	2/17/2015	In-Situ	-	-	-	-	-	-	-	-	-	<16.0
N. Spot #1	1'	2/18/2015	In-Situ	-	-	-	-	-	-	-	-	-	<16.0
N. Spot #2	1'	2/18/2015	In-Situ	-	-	-	-	-	<10.0	<10.0	<10.0	<10.0	<16.0
N. Strip #1	1'	2/18/2015	In-Situ	-	-	-	-	-	-	-	-	-	32.0
N. Strip #2	1'	2/18/2015	In-Situ	-	-	-	-	-	<10.0	<10.0	<10.0	<10.0	<16.0
Pad #1	6"	2/18/2015	In-Situ	-	-	-	-	-	-	-	-	-	80.0
Pad #2	6"	2/18/2015	In-Situ	-	-	-	-	-	-	-	-	-	128
Pad #3	6"	2/19/2015	In-Situ	-	-	-	-	-	-	-	-	-	96.0
Pad #4	6"	2/19/2015	In-Situ	-	-	-	-	-	-	-	-	-	<16.0
<b>NMOCD Criteria</b>				<b>10</b>				<b>50</b>				<b>5,000</b>	<b>1,000</b>

- = Not analyzed.

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

NM OIL CONSERVATION

ARTESIA DISTRICT

Form C-141

Revised August 8, 2011

Submittal Copy to appropriate District Office in accordance with 19.15.29 NMAC.

RECEIVED

Release Notification and Corrective Action

NAB1504 139930  
OPERATOR ☒ Initial Report ☐ Final Report  
Name of Company: BOPCO, L.P. 210737  
Address: 522 W. Mermod, Suite 704 Carlsbad, N.M.: 88220  
Facility Name: PLU-CVX-JV-RR #006H  
Contact: Tony Savoie  
Telephone No. 575-887-7329  
Facility Type: Exploration and Production  
Surface Owner: Federal Mineral Owner: Federal API No. 30-015-40580

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County:
D	21	25S	30E	125	North	400	West	Eddy

Latitude N 32.122517 Longitude W 103.893486

NATURE OF RELEASE

Type of Release: Produced water	Volume of Release: 26 Bbls	Volume Recovered: None
Source of Release: 10" lay flat frac hose	Date and Hour of Occurrence: Not known	Date and Hour of Discovery: 2/2/15 at approx. 2:32 p.m.
Was Immediate Notice Given? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Required	If YES, To Whom? Mike Bratcher, Heather Patterson, and Jim Amos (e-mail)	
By Whom? Tony Savoie	Date and Hour: 2/3/15 at 7:52 p.m.	
Was a Watercourse Reached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If YES, Volume Impacting the Watercourse.	
If a Watercourse was Impacted, Describe Fully.*		
Describe Cause of Problem and Remedial Action Taken.* BOPCO EH&S discovered the spill while doing a follow up inspection for frac hose and containment removal. After visiting with the contractor it was discovered that the produced water had been spilled on the ground during the frac hose removal.		
Describe Area Affected and Cleanup Action Taken.* The spill impacted approximately 700 sq.ft of caliche pad and approximately 3,120 sq. ft. of pasture area. All of the fluid had soaked into the ground. On 2/6/15 after another follow up inspection, it was discovered that more produced water had been spilled during the completion of the hose removal. The impacted area will be cleaned up in accordance to the NMOCD and BLM remediation 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: [Signature]	
Title: Waste Management and Remediation Specialist	Approval Date: 2/10/15	Expiration Date: N/A
E-mail Address: tasavoie@basspet.com	Conditions of Approval: Remediation per O.C.D. Rules & Guidelines	
Date: 2/9/15 Phone: 432-556-8730	Attached <input type="checkbox"/>	
PERMIT REMEDIATION PROPOSAL NO		

\* Attach Additional Sheets If Necessary

DATE: 3/10/15

2RP-2801



Photograph of the initial release at the PLU-CVX-JV-RR #006H release site.



Photograph of the initial release at the PLU-CVX-JV-RR #006H release site.



Photograph of the initial release at the PLU-CVX-JV-RR #006H release site.



Photograph of the initial release at the PLU-CVX-JV-RR #006H release site.





Photograph of the initial release at the PLU-CVX-JV-RR #006H release site.



Photograph of the initial release at the PLU-CVX-JV-RR #006H release site.





Photograph of excavation activities PLU-CVX-JV-RR #006H release site.



Photograph of excavation activities PLU-CVX-JV-RR #006H release site.





Photograph of excavation activities PLU-CVX-JV-RR #006H release site.



Photograph of excavation activities PLU-CVX-JV-RR #006H release site.





Photograph of the PLU-CVX-JV-RR #006H release site after remediation activities.



Photograph of the PLU-CVX-JV-RR #006H release site after remediation activities.



Photograph of the PLU-CVX-JV-RR #006H release site after remediation activities.



Photograph of the PLU-CVX-JV-RR #006H release site after remediation activities.





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

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February 20, 2015

JOEL LOWRY

Basin Environmental Service

P.O. Box 301

Lovington, NM 88260

RE: PLU CVX JV RR #006

Enclosed are the results of analyses for samples received by the laboratory on 02/12/15 13:20.

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: 02/12/2015  
 Reported: 02/20/2015  
 Project Name: PLU CVX JV RR #006  
 Project Number: NONE GIVEN  
 Project Location: EDDY COUNTY, NM

 Sampling Date: 02/11/2015  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Jodi Henson

**Sample ID: SSW #1 (H500410-01)**

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	176	16.0	02/13/2015	ND	400	100	400	0.00	

**Sample ID: NSW #6 (H500410-02)**

Chloride, SM4500CI-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	02/13/2015	ND	400	100	400	0.00		

**Sample ID: ESW #1 (H500410-03)**

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	80.0	16.0	02/13/2015	ND	400	100	400	0.00	

**Sample ID: ESW #2 (H500410-04)**

Chloride, SM4500CI-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	02/13/2015	ND	400	100	400	0.00	

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\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager

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Fax To: (575) 396-1429

Received: 02/12/2015  
Reported: 02/20/2015  
Project Name: PLU CVX JV RR #006  
Project Number: NONE GIVEN  
Project Location: EDDY COUNTY, NM

Sampling Date: 02/11/2015  
Sampling Type: Soil  
Sampling Condition: Cool & Intact  
Sample Received By: Jodi Henson

**Sample ID: ESW #3 (H500410-05)**

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	02/13/2015	ND	400	100	400	0.00		

**Sample ID: ESW #4 (H500410-06)**

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	02/13/2015	ND	400	100	400	0.00	

**Sample ID: ESW #5 (H500410-07)**

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	02/13/2015	ND	400	100	400	0.00		

**Sample ID: ESW #6 (H500410-08)**

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	02/13/2015	ND	400	100	400	0.00		

**Sample ID: WSW #1 (H500410-09)**

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	02/13/2015	ND	416	104	400	0.00	

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Received: 02/12/2015  
Reported: 02/20/2015  
Project Name: PLU CVX JV RR #006  
Project Number: NONE GIVEN  
Project Location: EDDY COUNTY, NM

Sampling Date: 02/11/2015  
Sampling Type: Soil  
Sampling Condition: Cool & Intact  
Sample Received By: Jodi Henson

**Sample ID: WSW #2 (H500410-10)**

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	352	16.0	02/13/2015	ND	416	104	400	0.00	

**Sample ID: WSW #3 (H500410-11)**

Chloride, SM4500CI-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	02/13/2015	ND	416	104	400	0.00	

**Sample ID: WSW #4 (H500410-12)**

Chloride, SM4500CI-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	02/13/2015	ND	416	104	400	0.00	

**Sample ID: WSW #5 (H500410-13)**

Chloride, SM4500CI-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	128	16.0	02/13/2015	ND	416	104	400	0.00	

**Sample ID: WSW #6 (H500410-14)**

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	02/13/2015	ND	416	104	400	0.00	

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Received: 02/12/2015  
Reported: 02/20/2015  
Project Name: PLU CVX JV RR #006  
Project Number: NONE GIVEN  
Project Location: EDDY COUNTY, NM

Sampling Date: 02/11/2015  
Sampling Type: Soil  
Sampling Condition: Cool & Intact  
Sample Received By: Jodi Henson

**Sample ID: FLOOR #1 @ 1' (H500410-15)****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>64.0</b>	16.0	02/13/2015	ND	416	104	400	0.00	

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Received: 02/12/2015  
Reported: 02/20/2015  
Project Name: PLU CVX JV RR #006  
Project Number: NONE GIVEN  
Project Location: EDDY COUNTY, NM

Sampling Date: 02/11/2015  
Sampling Type: Soil  
Sampling Condition: Cool & Intact  
Sample Received By: Jodi Henson

**Sample ID: FLOOR #2 @ 1' (H500410-16)**

BTX 8021B		mg/kg		Analyzed By: ms					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	02/19/2015	ND	1.76	87.9	2.00	14.0	
Toluene*	<0.050	0.050	02/19/2015	ND	1.77	88.3	2.00	14.6	
Ethylbenzene*	<0.050	0.050	02/19/2015	ND	1.77	88.6	2.00	14.2	
Total Xylenes*	<0.150	0.150	02/19/2015	ND	5.20	86.7	6.00	14.8	
Total BTX	<0.300	0.300	02/19/2015	ND					

Surrogate: 4-Bromofluorobenzene (PID) 100 % 61-154

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	240	16.0	02/13/2015	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	02/19/2015	ND	194	97.1	200	0.244	
DRO >C10-C28	<10.0	10.0	02/19/2015	ND	192	96.2	200	1.14	
EXT DRO >C28-C35	<10.0	10.0	02/19/2015	ND					

Surrogate: 1-Chlorooctane 90.4 % 47.2-157

Surrogate: 1-Chlorooctadecane 87.6 % 52.1-176

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Fax To: (575) 396-1429

Received: 02/12/2015  
Reported: 02/20/2015  
Project Name: PLU CVX JV RR #006  
Project Number: NONE GIVEN  
Project Location: EDDY COUNTY, NM

Sampling Date: 02/11/2015  
Sampling Type: Soil  
Sampling Condition: Cool & Intact  
Sample Received By: Jodi Henson

**Sample ID: FLOOR #3 @ 1' (H500410-17)****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>592</b>	16.0	02/13/2015	ND	416	104	400	0.00	

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Fax To: (575) 396-1429

Received: 02/12/2015  
Reported: 02/20/2015  
Project Name: PLU CVX JV RR #006  
Project Number: NONE GIVEN  
Project Location: EDDY COUNTY, NM

Sampling Date: 02/11/2015  
Sampling Type: Soil  
Sampling Condition: Cool & Intact  
Sample Received By: Jodi Henson

**Sample ID: FLOOR #4 @ 1' (H500410-18)**

BTX 8021B		mg/kg		Analyzed By: ms					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	02/19/2015	ND	1.76	87.9	2.00	14.0	
Toluene*	<0.050	0.050	02/19/2015	ND	1.77	88.3	2.00	14.6	
Ethylbenzene*	<0.050	0.050	02/19/2015	ND	1.77	88.6	2.00	14.2	
Total Xylenes*	<0.150	0.150	02/19/2015	ND	5.20	86.7	6.00	14.8	
Total BTX	<0.300	0.300	02/19/2015	ND					

Surrogate: 4-Bromofluorobenzene (PID) 102 % 61-154

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	80.0	16.0	02/13/2015	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	02/19/2015	ND	194	97.1	200	0.244	
DRO >C10-C28	<10.0	10.0	02/19/2015	ND	192	96.2	200	1.14	
EXT DRO >C28-C35	<10.0	10.0	02/19/2015	ND					

Surrogate: 1-Chlorooctane 90.7 % 47.2-157

Surrogate: 1-Chlorooctadecane 83.7 % 52.1-176

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Lovington NM, 88260  
Fax To: (575) 396-1429

Received: 02/12/2015  
Reported: 02/20/2015  
Project Name: PLU CVX JV RR #006  
Project Number: NONE GIVEN  
Project Location: EDDY COUNTY, NM

Sampling Date: 02/11/2015  
Sampling Type: Soil  
Sampling Condition: Cool & Intact  
Sample Received By: Jodi Henson

**Sample ID: FLOOR #5 @ 1' (H500410-19)**

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	464	16.0	02/13/2015	ND	416	104	400	0.00	

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Received: 02/12/2015  
Reported: 02/20/2015  
Project Name: PLU CVX JV RR #006  
Project Number: NONE GIVEN  
Project Location: EDDY COUNTY, NM

Sampling Date: 02/11/2015  
Sampling Type: Soil  
Sampling Condition: Cool & Intact  
Sample Received By: Jodi Henson

**Sample ID: FLOOR #6 @ 1' (H500410-20)**

BTX 8021B		mg/kg		Analyzed By: ms					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	02/19/2015	ND	1.76	87.9	2.00	14.0	
Toluene*	<0.050	0.050	02/19/2015	ND	1.77	88.3	2.00	14.6	
Ethylbenzene*	<0.050	0.050	02/19/2015	ND	1.77	88.6	2.00	14.2	
Total Xylenes*	<0.150	0.150	02/19/2015	ND	5.20	86.7	6.00	14.8	
Total BTX	<0.300	0.300	02/19/2015	ND					

Surrogate: 4-Bromofluorobenzene (PID) 101 % 61-154

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	432	16.0	02/13/2015	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	02/19/2015	ND	194	97.1	200	0.244	
DRO >C10-C28	<10.0	10.0	02/19/2015	ND	192	96.2	200	1.14	
EXT DRO >C28-C35	<10.0	10.0	02/19/2015	ND					

Surrogate: 1-Chlorooctane 89.0 % 47.2-157

Surrogate: 1-Chlorooctadecane 80.9 % 52.1-176

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Received: 02/12/2015  
Reported: 02/20/2015  
Project Name: PLU CVX JV RR #006  
Project Number: NONE GIVEN  
Project Location: EDDY COUNTY, NM

Sampling Date: 02/11/2015  
Sampling Type: Soil  
Sampling Condition: Cool & Intact  
Sample Received By: Jodi Henson

**Sample ID: FLOOR #7 @ 1' (H500410-21)****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>560</b>	16.0	02/13/2015	ND	416	104	400	0.00	

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 Project Name: PLU CVX JV RR #006  
 Project Number: NONE GIVEN  
 Project Location: EDDY COUNTY, NM

 Sampling Date: 02/11/2015  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Jodi Henson

**Sample ID: FLOOR #8 @ 1' (H500410-22)**

BTX 8021B		mg/kg		Analyzed By: ms						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	02/19/2015	ND	1.76	87.9	2.00	14.0		
Toluene*	<0.050	0.050	02/19/2015	ND	1.77	88.3	2.00	14.6		
Ethylbenzene*	<0.050	0.050	02/19/2015	ND	1.77	88.6	2.00	14.2		
Total Xylenes*	<0.150	0.150	02/19/2015	ND	5.20	86.7	6.00	14.8		
Total BTX	<0.300	0.300	02/19/2015	ND						

Surrogate: 4-Bromofluorobenzene (PID) 99.4 % 61-154

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	02/13/2015	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	02/19/2015	ND	194	97.1	200	0.244	
DRO >C10-C28	<10.0	10.0	02/19/2015	ND	192	96.2	200	1.14	
EXT DRO >C28-C35	<10.0	10.0	02/19/2015	ND					

Surrogate: 1-Chlorooctane 93.5 % 47.2-157

Surrogate: 1-Chlorooctadecane 94.8 % 52.1-176

Cardinal Laboratories

\*=Accredited Analyte

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



Celey D. Keene, Lab Director/Quality Manager

**Notes and Definitions**

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

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Cardinal Laboratories

\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager



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

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

1045

<b>Company Name:</b>		<b>P.O. #:</b>		<b>BILL TO</b>										<b>ANALYSIS REQUEST</b>									
<b>Project Manager:</b> Joel Lowry		<b>Company:</b> BOPCO, LP																					
<b>Address:</b> P.O. Box 301		<b>Attn:</b> Tony Savio																					
<b>City:</b> Lovington		<b>State:</b> NM <b>Zip:</b> 88260																					
<b>Phone #:</b> (575)396-2378		<b>Fax #:</b> (575)396-1429																					
<b>Project #:</b>		<b>City:</b>																					
<b>Project Name:</b> PLU CVX JV RR #006		<b>State:</b> NM <b>Zip:</b>																					
<b>Project Location:</b> Eddy Co., NM		<b>Phone #:</b>																					
<b>Sampler Name:</b> Steve Taylor		<b>Fax #:</b>																					
<b>FOR LAB USE ONLY</b>		<b>(G)RAB OR (C)OMP.</b>		<b># CONTAINERS</b>		<b>MATRIX</b>				<b>PRESERV.</b>		<b>SAMPLING</b>											
<b>Lab I.D.</b>																							
<b>Sample I.D.</b>																							
H500410																							
1		SSW #1		1		X				X		2/1/15		X									
2		NSW #6		1		X				X		2/1/15		X									
3		ESW #1		1		X				X		2/1/15		X									
4		ESW #2		1		X				X		2/1/15		X									
5		ESW #3		1		X				X		2/1/15		X									
6		ESW #4		1		X				X		2/1/15		X									
7		ESW #5		1		X				X		2/1/15		X									
8		ESW #6		1		X				X		2/1/15		X									
9		WSW #1		1		X				X		2/1/15		X									
10		WSW #2		1		X				X		2/1/15		X									

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

<b>Relinquished By:</b>	<b>Date:</b> 2/12/15	<b>Received By:</b>	<b>Date:</b> 2/12/15	<b>Time:</b> 1300	<b>Time:</b> 1300
<b>Relinquished By:</b>		<b>Received By:</b>			
<b>Delivered By:</b> (Circle One)		<b>Sample Condition</b>		<b>CHECKED BY:</b>	
<b>Sampler - UPS - Bus - Other:</b>		<b>Cool</b> <input type="checkbox"/> <b>Intact</b> <input type="checkbox"/>			
		<b>Yes</b> <input type="checkbox"/> <b>No</b> <input type="checkbox"/>			

**REMARKS:**

Phone Result: ☐ Yes ☐ No **Add'l Phone #:**

Fax Result: ☐ Yes ☐ No **Add'l Fax #:**

Please email results to pm@basinenv.com,  
TASavioe@BassPet.com, acruth@basspet.com

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





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

2015

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

Page 15 of 16



# CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

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

Please email results to [pm@basineny.com](mailto:pm@basineny.com),  
[TASavoie@BassPet.com](mailto:TASavoie@BassPet.com), [acruth@basspet.com](mailto:acruth@basspet.com)



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

---

February 19, 2015

JOEL LOWRY

Basin Environmental Service

P.O. Box 301

Lovington, NM 88260

RE: PLU CVX ROSS RANCH #006

Enclosed are the results of analyses for samples received by the laboratory on 02/13/15 12:01.

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:	02/13/2015	Sampling Date:	02/12/2015
Reported:	02/19/2015	Sampling Type:	Soil
Project Name:	PLU CVX ROSS RANCH #006	Sampling Condition:	** (See Notes)
Project Number:	NONE GIVEN	Sample Received By:	Celey D. Keene
Project Location:	EDDY COUNTY, NM		

**Sample ID: WSW #8 (H500434-01)**

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	02/17/2015	ND	416	104	400	3.92	

**Sample ID: WSW #12 (H500434-02)**

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	02/17/2015	ND	416	104	400	3.92	

**Sample ID: ESW #12 (H500434-03)**

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	02/17/2015	ND	416	104	400	3.92	

**Sample ID: NSW #9 (H500434-04)**

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	864	16.0	02/17/2015	ND	416	104	400	3.92	

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:	02/13/2015	Sampling Date:	02/12/2015
Reported:	02/19/2015	Sampling Type:	Soil
Project Name:	PLU CVX ROSS RANCH #006	Sampling Condition:	** (See Notes)
Project Number:	NONE GIVEN	Sample Received By:	Celey D. Keene
Project Location:	EDDY COUNTY, NM		

**Sample ID: NSW #10 (H500434-05)**

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	02/17/2015	ND	416	104	400	3.92		

**Sample ID: NSW #11 (H500434-06)**

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	02/17/2015	ND	416	104	400	3.92	

**Sample ID: NSW #12 (H500434-07)**

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	02/17/2015	ND	416	104	400	3.92		

**Sample ID: SSW #8 (H500434-08)**

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	224	16.0	02/17/2015	ND	416	104	400	3.92		

**Sample ID: SSW #9 (H500434-09)**

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	416	16.0	02/17/2015	ND	416	104	400	3.92	

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:	02/13/2015	Sampling Date:	02/12/2015
Reported:	02/19/2015	Sampling Type:	Soil
Project Name:	PLU CVX ROSS RANCH #006	Sampling Condition:	** (See Notes)
Project Number:	NONE GIVEN	Sample Received By:	Celey D. Keene
Project Location:	EDDY COUNTY, NM		

**Sample ID: SSW #10 (H500434-10)**

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	02/17/2015	ND	416	104	400	3.92		

**Sample ID: SSW #11 (H500434-11)**

Chloride, SM4500CI-B		mg/kg		Analyzed By: AP						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	624	16.0	02/17/2015	ND	416	104	400	3.92		

**Sample ID: FLOOR #9 @ 18" (H500434-12)**

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	02/17/2015	ND	416	104	400	3.92		

**Sample ID: FLOOR #10 @ 18" (H500434-13)**

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	02/17/2015	ND	416	104	400	3.92		

**Sample ID: FLOOR #11 @ 18" (H500434-14)**

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	02/17/2015	ND	416	104	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: 02/13/2015  
Reported: 02/19/2015  
Project Name: PLU CVX ROSS RANCH #006  
Project Number: NONE GIVEN  
Project Location: EDDY COUNTY, NM

Sampling Date: 02/12/2015  
Sampling Type: Soil  
Sampling Condition: \*\* (See Notes)  
Sample Received By: Celey D. Keene

**Sample ID: FLOOR #12 @ 18" (H500434-15)****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>96.0</b>	16.0	02/17/2015	ND	416	104	400	3.92	

Cardinal Laboratories

\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager

**Notes and Definitions**

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

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Cardinal Laboratories

\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager





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

## CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

pg 1 of 2

Company Name: <b>Project Manager:</b> P.O. Box 301 <b>Address:</b> Lovington <b>State:</b> NM <b>Zip:</b> 88260 <b>Phone #:</b> (575)396-2378 <b>Fax #:</b> (575)396-1429 <b>Project #:</b> <b>Project Name:</b> PLU CVX Ross Ranch #06 <b>Project Location:</b> Eddy Co., NM <b>Sample Name:</b> Stelson Kirkpatrick										<b>BILL TO</b>										<b>ANALYSIS REQUEST</b>									
<b>Project Manager:</b> Joel Lowmy <b>Address:</b> P.O. Box 301 <b>City:</b> Lovington <b>State:</b> NM <b>Zip:</b> 88260 <b>Phone #:</b> (575)396-2378 <b>Fax #:</b> (575)396-1429 <b>Project #:</b> <b>Project Name:</b> PLU CVX Ross Ranch #06 <b>Project Location:</b> Eddy Co., NM <b>Sample Name:</b> Stelson Kirkpatrick										<b>P.O. #:</b> <b>Company:</b> BOPCO, LP <b>Attn:</b> Tony Savote <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>LABORATORY USE ONLY</b>																			
<b>Lab I.D.</b>										<b>Sample I.D.</b>																			
<b>Relinquished By:</b>										<b>Received By:</b>																			
<b>Date:</b> 2-13-15										<b>Date:</b> 2-13-15																			
<b>Time:</b> 8:05										<b>Time:</b> 8:05																			
<b>Reinquired By:</b>										<b>Reinquired By:</b>																			
<b>Date:</b> 2-13-15										<b>Date:</b> 2-13-15																			
<b>Time:</b> 12:01										<b>Time:</b> 12:01																			
<b>Delivered By: (Circle One)</b>										<b>Delivered By: (Circle One)</b>																			
<b>Sampler - UPS - Bus - Other:</b>										<b>Sampler - UPS - Bus - Other:</b>																			
<b>18.8°C</b>										<b>18.8°C</b>																			
<b>Sample Condition</b>										<b>Sample Condition</b>																			
<input type="checkbox"/> Yes <input type="checkbox"/> No										<input type="checkbox"/> Yes <input type="checkbox"/> No																			
<b>Intact</b>										<b>Intact</b>																			
<input type="checkbox"/> Yes <input type="checkbox"/> No										<input type="checkbox"/> Yes <input type="checkbox"/> No																			
<b>CHECKED BY:</b>										<b>CHECKED BY:</b>																			
<b>(Initials)</b>										<b>(Initials)</b>																			
<b>REMARKS:</b>										<b>REMARKS:</b>																			
<b>Phone Result:</b> <input type="checkbox"/> Yes <input type="checkbox"/> No										<b>Phone Result:</b> <input type="checkbox"/> Yes <input type="checkbox"/> No																			
<b>Fax Result:</b> <input type="checkbox"/> Yes <input type="checkbox"/> No										<b>Fax Result:</b> <input type="checkbox"/> Yes <input type="checkbox"/> No																			
<b>Add'l Phone #:</b>										<b>Add'l Phone #:</b>																			
<b>Add'l Fax #:</b>										<b>Add'l Fax #:</b>																			
<b>Please email results to pm@basinenv.com, TASavote@BassPet.com, acuth@basspet.com</b>										<b>Please email results to pm@basinenv.com, TASavote@BassPet.com, acuth@basspet.com</b>																			



pg 2 of 2

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

---

February 23, 2015

JOEL LOWRY

Basin Environmental Service

P.O. Box 301

Lovington, NM 88260

RE: PLU CVX JV RR #006

Enclosed are the results of analyses for samples received by the laboratory on 02/18/15 14:30.

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,

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: 02/18/2015  
 Reported: 02/23/2015  
 Project Name: PLU CVX JV RR #006  
 Project Number: NONE GIVEN  
 Project Location: EDDY COUNTY, NM

 Sampling Date: 02/17/2015  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Jodi Henson

**Sample ID: STRIP #1 (H500475-01)**

Chloride, SM4500CI-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	02/19/2015	ND	416	104	400	3.77	

**Sample ID: STRIP #2 (H500475-02)**

Chloride, SM4500CI-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	02/19/2015	ND	416	104	400	3.77	

**Sample ID: STRIP #3 (H500475-03)**

Chloride, SM4500CI-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	176	16.0	02/19/2015	ND	400	100	400	0.00	

**Sample ID: ROAD #1 (H500475-04)**

Chloride, SM4500CI-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	02/19/2015	ND	400	100	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: 02/18/2015  
Reported: 02/23/2015  
Project Name: PLU CVX JV RR #006  
Project Number: NONE GIVEN  
Project Location: EDDY COUNTY, NM

Sampling Date: 02/17/2015  
Sampling Type: Soil  
Sampling Condition: Cool & Intact  
Sample Received By: Jodi Henson

**Sample ID: ROAD #2 (H500475-05)**

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	02/19/2015	ND	400	100	400	0.00	

**Sample ID: ROAD #3 (H500475-06)**

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	02/19/2015	ND	400	100	400	0.00		

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



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

## ANALYSIS REQUEST

[illegible]





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

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February 23, 2015

JOEL LOWRY

Basin Environmental Service

P.O. Box 301

Lovington, NM 88260

RE: PLU CVX JV RR #006

Enclosed are the results of analyses for samples received by the laboratory on 02/19/15 10:30.

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,

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: 02/19/2015  
Reported: 02/23/2015  
Project Name: PLU CVX JV RR #006  
Project Number: NONE GIVEN  
Project Location: EDDY COUNTY, NM

Sampling Date: 02/18/2015  
Sampling Type: Soil  
Sampling Condition: Cool & Intact  
Sample Received By: Jodi Henson

**Sample ID: NORTH SPOT #1 (H500480-01)**

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	02/20/2015	ND	400	100	400	0.00		

**Sample ID: NORTH SPOT #2 (H500480-02)**

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	02/20/2015	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	02/19/2015	ND	194	97.1	200	0.244	
DRO >C10-C28	<10.0	10.0	02/19/2015	ND	192	96.2	200	1.14	
EXT DRO >C28-C35	<10.0	10.0	02/19/2015	ND					

Surrogate: 1-Chlorooctane 89.0 % 47.2-157

Surrogate: 1-Chlorooctadecane 82.7 % 52.1-176

**Sample ID: NORTH STRIP #1 (H500480-03)**

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	02/20/2015	ND	400	100	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: 02/19/2015  
Reported: 02/23/2015  
Project Name: PLU CVX JV RR #006  
Project Number: NONE GIVEN  
Project Location: EDDY COUNTY, NM

Sampling Date: 02/18/2015  
Sampling Type: Soil  
Sampling Condition: Cool & Intact  
Sample Received By: Jodi Henson

**Sample ID: NORTH STRIP #2 (H500480-04)**

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	02/20/2015	ND	400	100	400	3.92	
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	02/19/2015	ND	194	97.1	200	0.244	
DRO >C10-C28	<10.0	10.0	02/19/2015	ND	192	96.2	200	1.14	
EXT DRO >C28-C35	<10.0	10.0	02/19/2015	ND					
Surrogate: 1-Chlorooctane	84.7 %	47.2-157							
Surrogate: 1-Chlorooctadecane	77.8 %	52.1-176							

**Sample ID: PAD #1 (H500480-05)**

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	80.0	16.0	02/20/2015	ND	400	100	400	3.92		

**Sample ID: PAD #2 (H500480-06)**

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	128	16.0	02/20/2015	ND	400	100	400	3.92	

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Celey D. Keene, Lab Director/Quality Manager

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Celey D. Keene, Lab Director/Quality Manager



CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

<sup>t</sup> Cardinal cannot accept verbal changes. Please fax written changes to 575-393-2476





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

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February 23, 2015

JOEL LOWRY

Basin Environmental Service

P.O. Box 301

Lovington, NM 88260

RE: PLU CVX JV RR #006

Enclosed are the results of analyses for samples received by the laboratory on 02/20/15 12:20.

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Sincerely,

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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: 02/20/2015  
Reported: 02/23/2015  
Project Name: PLU CVX JV RR #006  
Project Number: NONE GIVEN  
Project Location: EDDY COUNTY, NM

Sampling Date: 02/19/2015  
Sampling Type: Soil  
Sampling Condition: Cool & Intact  
Sample Received By: Jodi Henson

**Sample ID: PAD #3 (H500504-01)**

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	02/23/2015	ND	416	104	400	3.92	

**Sample ID: PAD #4 (H500504-02)**

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	02/23/2015	ND	416	104	400	3.92	

Cardinal Laboratories

\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager

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Celey D. Keene, Lab Director/Quality Manager



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Revision 1.0