

January 11, 2016

Oil Conservation Division  
District 2 – Artesia  
811 S. First St.  
Artesia, NM 88210

**Re: Big Papi Federal Com #1**  
**30-015-37833**  
**Sec. 4, T26S-R29E**  
**Eddy County, NM**

Mr. Mike Bratcher,

COG Operating LLC would like to submit for your consideration the enclosed work plan for the above captioned well. The plan is in response to the C-141 Initial report dated August 7, 2015.

### **Background**

The release was due to a split in the poly line resulting in the release of 125 barrels of produced water of which 120 barrels were recovered. The release impacted the surrounding pasture, lease road, and crossed pipeline right of ways running parallel to the lease road. The release path ranged from approximately 30' in width at the initial point of release to 2' in width on the east side of the lease road and pipeline right of ways. The initial point of release occurred on a hillside causing the fluid to flow quickly in some areas while pooling in low lying areas. The attached Site Diagram depicts the approximate area impacted by the release along with the approximate sampling points.

### **Groundwater**

Based on the Chevron-Texaco Trend Maps, the release area would be classified at a site ranking of **Zero** with depth to groundwater at greater than 100'.

### **Soil Assessment and Analytical Results**

Sample points noted on the attached Site Diagram were chosen based on safe proximity to existing gas lines and release pooling areas. Below is a summary of the attached analytical results:

S1	Cl-
1'	ND
2'	2520
3'	12000
4'	8130
6'	7360
8'	432
S2	Cl-
1'	ND
2'	32
3'	12400
4'	7600
6'	432
S3	Cl-
1'	9200
2'	560
3'	1150
4'	1150
6'	816
S4	Cl-
1'	ND
2'	ND
3'	1570
4'	25600
6'	12800
8'	10100
10'	8130
12'	544

S5	Cl-
1'	80
2'	80
3'	208
4'	1840
6'	3400
8'	96
S6	Cl-
1'	64
2'	256
3'	2080
4'	7360
6'	4200
8'	48
S7	Cl-
1'	96
2'	96
3'	96
4'	560
6'	16000
8'	17600
10'	1540
12'	ND
S8	Cl-
1'	48
2'	48
3'	48
4'	ND

## Work Plan

COG Operating LLC proposes the following work plan based on delineation samples:

- **S1:** Surface scrape of approximately 4 inches to remove any visible staining. Sample results indicate high levels of chlorides at a depths past 2'. The scraped area will be capped with 2.5' of topsoil leaving the area at about 1' above the surrounding grade. Chlorides at this depth and at a site ranking of Zero poses no threat to ground water and chlorides are well below the root zone for future surface reclamation.

- **S2:** Surface scrape of approximately 4 inches to remove any visible staining. Sample results indicate high levels of chlorides at a depths of 3' & 4'. With chlorides at this depth and a site ranking of Zero poses no threat to ground water and chlorides are well below the root zone for future surface reclamation.
- **S3:** Excavate to a depth of 1.5' and backfill with topsoil. The chlorides left in place are slightly elevated at a depth of 3' & 4', but pose no threat to ground water and surface reclamation.
- **S4:** Surface scrape of approximately 4 inches to remove any visible staining. Sample results indicate high levels of chlorides at a depths of 4' plus. With chlorides at this depth and a site ranking of Zero poses no threat to ground water and chlorides are well below the root zone for future surface reclamation.
- **S5-S8:** Surface tillage with no excavation. This area is comprised of sandy topsoil with an underlying caliche base. S5 - S7 show elevated chlorides below 3' which at a site ranking of Zero poses no impact to ground water and chlorides are well below the root zone for future surface reclamation.

Areas such as the lease road and the pipeline right of way will not be excavated or sampled due to safety concerns associated with work performed in these areas. The impacted area of the lease road will be bladed and caliche added to reduce the low lying areas in the road, thus immobilizing the chlorides from future leaching. The sampling performed up and down gradient of the pipeline right of ways should serve as representation of possible impact within these areas. The visible signs of fast moving fluid across these areas would lead one to suspect that impact is low in the areas associated with the pipelines and the sample results from S4 and S5 prove that any chloride impact will probably be seen past the base of the pipeline. The excavated or disturbed areas will be reseeded with a BLM approved seed mixture in June 2016.

If there are no objections or further stipulations, COG Operating LLC would like to begin the remediation process based on approval of this work plan. Please feel free to contact me with any questions or concerns at (575) 748-6933.

Sincerely,



Lupe Carrasco  
Environmental Coordinator

Enclosure(s): Site Diagram  
Analytical Results  
C-141 Initial (Copy)



# Big Papi Federal Com #1

## Sec. 4, T26S-29E

32.074050, -103.985530

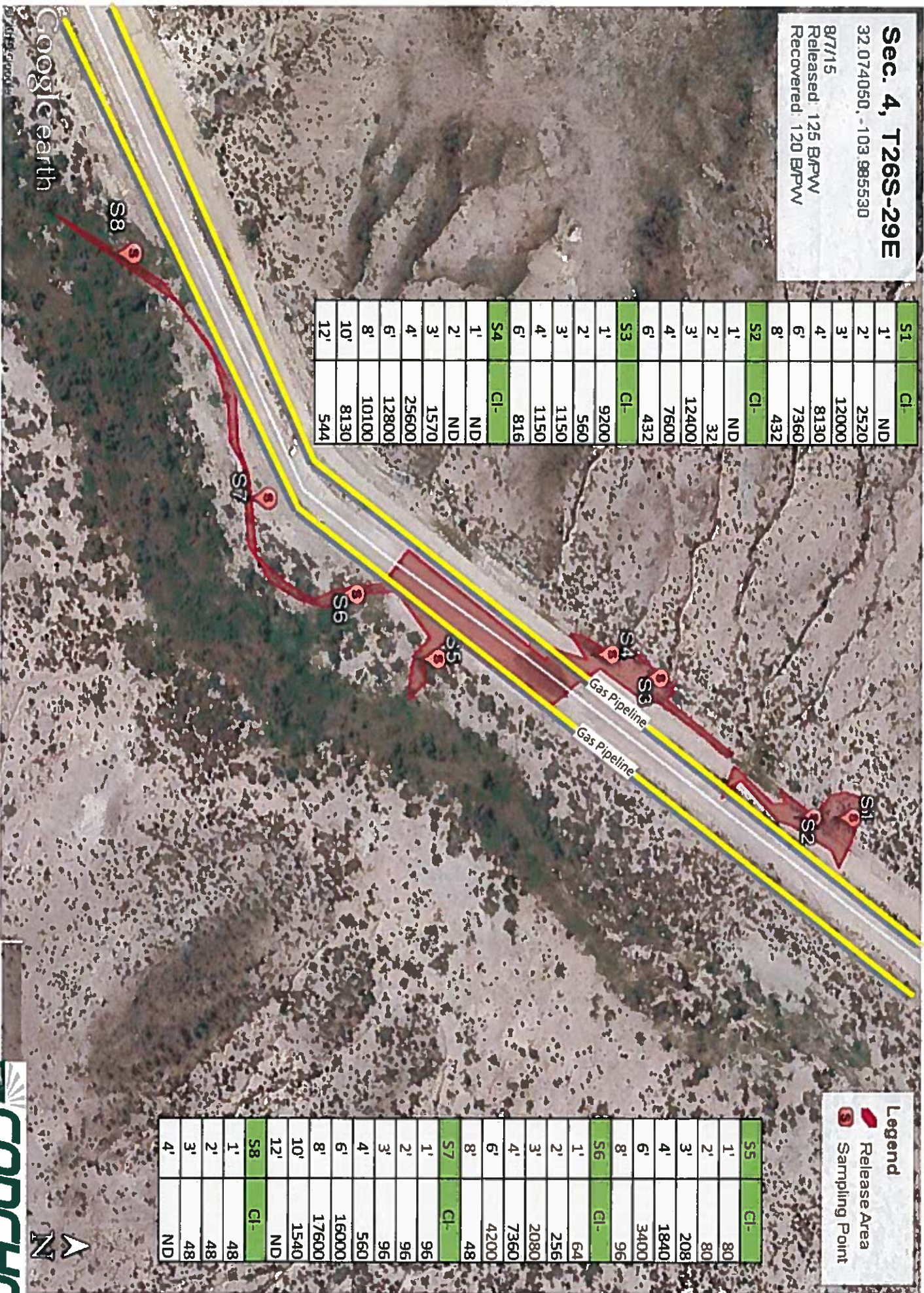
8/7/15

Released: 125 B/PV  
Recovered: 120 B/PV

S1	Cl-	ND
1'		2520
2'		12000
3'		8130
4'		7360
6'		432
8'		432
S2	Cl-	ND
1'		32
2'		12400
3'		7600
4'		432
6'		9200
S3	Cl-	560
1'		1150
2'		1150
3'		1150
4'		816
6'		ND
S4	Cl-	ND
1'		1570
2'		25600
3'		12800
4'		10100
6'		8130
8'		544
10'		
12'		

S5	Cl-	80
1'		80
2'		208
3'		1840
4'		3400
6'		96
8'		64
S6	Cl-	256
1'		2080
2'		7360
3'		4200
4'		48
6'		96
8'		16000
S7	Cl-	17600
1'		1540
2'		ND
3'		48
4'		48
6'		48
8'		48
10'		48
12'		48
S8	Cl-	ND
1'		ND
2'		ND
3'		ND
4'		ND

**Legend**  
 Release Area  
 Sampling Point





November 11, 2015

LUPE CARRASCO  
COG OPERATING  
P. O. BOX 1630  
ARTESIA, NM 88210

RE: BIG PAPI FEDERAL COM #1

Enclosed are the results of analyses for samples received by the laboratory on 10/21/15 15:13.

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:**COG OPERATING  
LUPE CARRASCO  
P. O. BOX 1630  
ARTESIA NM, 88210  
Fax To: NONEReceived: 10/21/2015  
Reported: 11/11/2015  
Project Name: BIG PAPI FEDERAL COM #1  
Project Number: NONE GIVEN  
Project Location: NOT GIVENSampling Date: 10/15/2015  
Sampling Type: Soil  
Sampling Condition: \*\* (See Notes)  
Sample Received By: Jodi Henson**Sample ID: S1 - 1' (H502749-01)**

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	10/23/2015	ND	432	108	400	3.77			

**Sample ID: S1 - 2' (H502749-02)**

Chloride, SM4500Cl-B			mg/kg							Analyzed By: AP	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier		
Chloride	2520	16.0	10/23/2015	ND	432	108	400	3.77			

**Sample ID: S1 - 3' (H502749-03)**

Chloride, SM4500Cl-B			mg/kg							Analyzed By: AP	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier		
Chloride	12000	16.0	10/23/2015	ND	432	108	400	3.77			

**Sample ID: S1 - 4' (H502749-04)**

Chloride, SM4500Cl-B			mg/kg							Analyzed By: AP	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier		
Chloride	8130	16.0	10/23/2015	ND	432	108	400	3.77			

Cardinal Laboratories

\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager

**Analytical Results For:**

COG OPERATING  
LUPE CARRASCO  
P. O. BOX 1630  
ARTESIA NM, 88210  
Fax To: NONE

Received: 10/21/2015  
Reported: 11/11/2015  
Project Name: BIG PAPI FEDERAL COM #1  
Project Number: NONE GIVEN  
Project Location: NOT GIVEN

Sampling Date: 10/15/2015  
Sampling Type: Soil  
Sampling Condition: \*\* (See Notes)  
Sample Received By: Jodi Henson

**Sample ID: S1 - 6' (H502749-05)**

Chloride, SM4500Cl-B			mg/kg							Analyzed By: AP	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier		
Chloride	7360	16.0	10/26/2015	ND	432	108	400	0.00			

**Sample ID: S1 - 8' (H502749-06)**

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	10/29/2015	ND	416	104	400	3.92			

**Sample ID: S2 - 1' (H502749-08)**

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	10/23/2015	ND	432	108	400	3.77			

**Sample ID: S2 - 2' (H502749-09)**

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	10/23/2015	ND	432	108	400	3.77			

**Sample ID: S2 - 3' (H502749-10)**

Chloride, SM4500Cl-B			mg/kg							Analyzed By: AP	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier		
Chloride	12400	16.0	10/23/2015	ND	432	108	400	3.77			

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\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager

**Analytical Results For:**

 COG OPERATING  
 LUPE CARRASCO  
 P. O. BOX 1630  
 ARTESIA NM, 88210  
 Fax To: NONE

 Received: 10/21/2015  
 Reported: 11/11/2015  
 Project Name: BIG PAPI FEDERAL COM #1  
 Project Number: NONE GIVEN  
 Project Location: NOT GIVEN

 Sampling Date: 10/15/2015  
 Sampling Type: Soil  
 Sampling Condition: \*\* (See Notes)  
 Sample Received By: Jodi Henson

**Sample ID: S2 - 4' (H502749-11)**

Chloride, SM4500CI-B			mg/kg							Analyzed By: AP	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier		
Chloride	7600	16.0	10/23/2015	ND	432	108	400	3.77			

**Sample ID: S2 - 6' (H502749-12)**

Chloride, SM4500CI-B			mg/kg							Analyzed By: AP	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier		
Chloride	432	16.0	10/26/2015	ND	432	108	400	0.00			

**Sample ID: S3 - 1' (H502749-14)**

Chloride, SM4500CI-B			mg/kg							Analyzed By: AP	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier		
Chloride	9200	16.0	10/23/2015	ND	432	108	400	3.77			

**Sample ID: S3 - 2' (H502749-15)**

Chloride, SM4500CI-B			mg/kg							Analyzed By: AP	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier		
Chloride	560	16.0	10/23/2015	ND	432	108	400	3.77			

**Sample ID: S3 - 3' (H502749-16)**

Chloride, SM4500CI-B			mg/kg							Analyzed By: AP	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier		
Chloride	1150	16.0	10/23/2015	ND	416	104	400	0.00			

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Celey D. Keene, Lab Director/Quality Manager



**Analytical Results For:**COG OPERATING  
LUPE CARRASCO  
P. O. BOX 1630  
ARTESIA NM, 88210  
Fax To: NONEReceived: 10/21/2015  
Reported: 11/11/2015  
Project Name: BIG PAPI FEDERAL COM #1  
Project Number: NONE GIVEN  
Project Location: NOT GIVENSampling Date: 10/15/2015  
Sampling Type: Soil  
Sampling Condition: \*\* (See Notes)  
Sample Received By: Jodi Henson**Sample ID: S3 - 4' (H502749-17)**

Chloride, SM4500CI-B		mg/kg	Analyzed By: AP						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	1150	16.0	10/23/2015	ND	416	104	400	0.00	

**Sample ID: S3 - 6' (H502749-18)**

Chloride, SM4500CI-B		mg/kg	Analyzed By: AP						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	816	16.0	10/26/2015	ND	432	108	400	0.00	

**Sample ID: S4 - 1' (H502749-20)**

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	10/23/2015	ND	416	104	400	0.00	

**Sample ID: S4 - 2' (H502749-21)**

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	10/23/2015	ND	416	104	400	0.00	

**Sample ID: S4 - 3' (H502749-22)**

Chloride, SM4500CI-B		mg/kg	Analyzed By: AP						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	1570	16.0	10/23/2015	ND	416	104	400	0.00	

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Celey D. Keene, Lab Director/Quality Manager

**Analytical Results For:**

COG OPERATING  
LUPE CARRASCO  
P. O. BOX 1630  
ARTESIA NM, 88210  
Fax To: NONE

Received: 10/21/2015  
Reported: 11/11/2015  
Project Name: BIG PAPI FEDERAL COM #1  
Project Number: NONE GIVEN  
Project Location: NOT GIVEN

Sampling Date: 10/15/2015  
Sampling Type: Soil  
Sampling Condition: \*\* (See Notes)  
Sample Received By: Jodi Henson

**Sample ID: S4 - 4' (H502749-23)**

Chloride, SM4500CI-B			mg/kg							Analyzed By: AP	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier		
Chloride	25600	16.0	10/23/2015	ND	416	104	400	0.00			

**Sample ID: S4 - 6' (H502749-24)**

Chloride, SM4500CI-B			mg/kg							Analyzed By: AP	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier		
Chloride	12800	16.0	10/26/2015	ND	432	108	400	0.00			

**Sample ID: S4 - 8' (H502749-25)**

Chloride, SM4500CI-B			mg/kg							Analyzed By: AP	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier		
Chloride	10100	16.0	10/29/2015	ND	416	104	400	3.92			

**Sample ID: S4 - 10' (H502749-26)**

Chloride, SM4500CI-B			mg/kg							Analyzed By: AP	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier		
Chloride	8130	16.0	11/03/2015	ND	432	108	400	7.69			

**Sample ID: S4 - 12' (H502749-27)**

Chloride, SM4500CI-B			mg/kg							Analyzed By: AP	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier		
Chloride	544	16.0	11/04/2015	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:**

 COG OPERATING  
 LUPE CARRASCO  
 P. O. BOX 1630  
 ARTESIA NM, 88210  
 Fax To: NONE

 Received: 10/21/2015  
 Reported: 11/11/2015  
 Project Name: BIG PAPI FEDERAL COM #1  
 Project Number: NONE GIVEN  
 Project Location: NOT GIVEN

 Sampling Date: 10/15/2015  
 Sampling Type: Soil  
 Sampling Condition: \*\* (See Notes)  
 Sample Received By: Jodi Henson

**Sample ID: S5 - 1' (H502749-28)**

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	10/23/2015	ND	416	104	400	0.00			

**Sample ID: S5 - 2' (H502749-29)**

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	10/23/2015	ND	416	104	400	0.00			

**Sample ID: S5 - 3' (H502749-30)**

Chloride, SM4500Cl-B			mg/kg							Analyzed By: AP	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier		
Chloride	208	16.0	10/23/2015	ND	416	104	400	0.00			

**Sample ID: S5 - 4' (H502749-31)**

Chloride, SM4500Cl-B			mg/kg							Analyzed By: AP	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier		
Chloride	1840	16.0	10/23/2015	ND	416	104	400	0.00			

**Sample ID: S5 - 6' (H502749-32)**

Chloride, SM4500Cl-B			mg/kg							Analyzed By: AP	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier		
Chloride	3400	16.0	10/26/2015	ND	432	108	400	3.77			

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\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager

**Analytical Results For:**

 COG OPERATING  
 LUPE CARRASCO  
 P. O. BOX 1630  
 ARTESIA NM, 88210  
 Fax To: NONE

 Received: 10/21/2015  
 Reported: 11/11/2015  
 Project Name: BIG PAPI FEDERAL COM #1  
 Project Number: NONE GIVEN  
 Project Location: NOT GIVEN

 Sampling Date: 10/15/2015  
 Sampling Type: Soil  
 Sampling Condition: \*\* (See Notes)  
 Sample Received By: Jodi Henson

**Sample ID: S5 - 8' (H502749-33)**

Chloride, SM4500CI-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	10/29/2015	ND	416	104	400	3.92			

**Sample ID: S6 - 1' (H502749-36)**

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	10/23/2015	ND	416	104	400	0.00			

**Sample ID: S6 - 2' (H502749-37)**

Chloride, SM4500CI-B			mg/kg							Analyzed By: AP	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier		
Chloride	256	16.0	10/23/2015	ND	416	104	400	0.00			

**Sample ID: S6 - 3' (H502749-38)**

Chloride, SM4500CI-B			mg/kg							Analyzed By: AP	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier		
Chloride	2080	16.0	10/23/2015	ND	416	104	400	0.00			

**Sample ID: S6 - 4' (H502749-39)**

Chloride, SM4500CI-B			mg/kg							Analyzed By: AP	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier		
Chloride	7360	16.0	10/23/2015	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:**COG OPERATING  
LUPE CARRASCO  
P. O. BOX 1630  
ARTESIA NM, 88210  
Fax To: NONEReceived: 10/21/2015  
Reported: 11/11/2015  
Project Name: BIG PAPI FEDERAL COM #1  
Project Number: NONE GIVEN  
Project Location: NOT GIVENSampling Date: 10/15/2015  
Sampling Type: Soil  
Sampling Condition: \*\* (See Notes)  
Sample Received By: Jodi Henson**Sample ID: S6 - 6' (H502749-40)**

Chloride, SM4500CI-B		mg/kg	Analyzed By: AP						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	4200	16.0	10/26/2015	ND	432	108	400	3.77	

**Sample ID: S6 - 8' (H502749-41)**

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	10/29/2015	ND	416	104	400	3.92	

**Sample ID: S7 - 1' (H502749-44)**

Chloride, SM4500CI-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	10/23/2015	ND	416	104	400	0.00	

**Sample ID: S7 - 2' (H502749-45)**

Chloride, SM4500CI-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	10/23/2015	ND	416	104	400	0.00	

**Sample ID: S7 - 3' (H502749-46)**

Chloride, SM4500CI-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	10/23/2015	ND	416	104	400	0.00	

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Celey D. Keene, Lab Director/Quality Manager

**Analytical Results For:**

 COG OPERATING  
 LUPE CARRASCO  
 P. O. BOX 1630  
 ARTESIA NM, 88210  
 Fax To: NONE

 Received: 10/21/2015  
 Reported: 11/11/2015  
 Project Name: BIG PAPI FEDERAL COM #1  
 Project Number: NONE GIVEN  
 Project Location: NOT GIVEN

 Sampling Date: 10/15/2015  
 Sampling Type: Soil  
 Sampling Condition: \*\* (See Notes)  
 Sample Received By: Jodi Henson

**Sample ID: S7 - 4' (H502749-47)**

Chloride, SM4500Cl-B			mg/kg							Analyzed By: AP	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier		
Chloride	560	16.0	10/23/2015	ND	416	104	400	0.00			

**Sample ID: S7 - 6' (H502749-48)**

Chloride, SM4500Cl-B			mg/kg							Analyzed By: AP	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier		
Chloride	16000	16.0	11/11/2015	ND	400	100	400	7.69			

**Sample ID: S7 - 8' (H502749-49)**

Chloride, SM4500Cl-B			mg/kg							Analyzed By: AP	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier		
Chloride	17600	16.0	11/11/2015	ND	400	100	400	7.69			

**Sample ID: S7 - 10' (H502749-50)**

Chloride, SM4500Cl-B			mg/kg							Analyzed By: AP	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier		
Chloride	1540	16.0	11/11/2015	ND	400	100	400	7.69			

**Sample ID: S7 - 12' (H502749-51)**

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	11/11/2015	ND	400	100	400	7.69			

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Celey D. Keene, Lab Director/Quality Manager

**Analytical Results For:**

 COG OPERATING  
 LUPE CARRASCO  
 P. O. BOX 1630  
 ARTESIA NM, 88210  
 Fax To: NONE

 Received: 10/21/2015  
 Reported: 11/11/2015  
 Project Name: BIG PAPI FEDERAL COM #1  
 Project Number: NONE GIVEN  
 Project Location: NOT GIVEN

 Sampling Date: 10/15/2015  
 Sampling Type: Soil  
 Sampling Condition: \*\* (See Notes)  
 Sample Received By: Jodi Henson

**Sample ID: S8 - 1' (H502749-52)**

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	10/23/2015	ND	416	104	400	0.00	

**Sample ID: S8 - 2' (H502749-53)**

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	10/23/2015	ND	416	104	400	0.00	

**Sample ID: S8 - 3' (H502749-54)**

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	10/23/2015	ND	432	108	400	0.00	

**Sample ID: S8 - 4' (H502749-55)**

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	10/23/2015	ND	432	108	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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Celey D. Keene, Lab Director/Quality Manager





# BILL TO

ANALYSIS REQUEST

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



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

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

BILL TO

ANALYSIS REQUEST

Company Name: COG Operating LLC

Project Manager: Lupe Carrasco

Address: 2208 West Main

City: Artesia

Phone #: (575) 748-6940

Project #:

Project Name: Big Papi Federal Com #1

Project Location:

Sampler Name: Lupe Carrasco

FOR LAB USE ONLY

Lab I.D.

Sample I.D.

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## Page 15 of 20

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



ANALYSIS REQUEST

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





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

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

Company Name: COG Operating LLC

Project Manager: Lupe Carrasco

Address: 2208 West Main

City: Artesia

Phone #: (575) 748-6940

Project #:

Project Name: Big Papi Federal Com #1

Project Location:

Sampler Name: Lupe Carrasco

P.O. #:

Company: COG Operating LLC

Attn: Robert McNeill

Address: 600 W Illinois

City: Midland

State: TX Zip: 79701

Phone #: (432) 221-0388

Fax #:

**BILL TO**

**ANALYSIS REQUEST**

FOR LAB USE ONLY	Sample I.D.	(G)RAB OR (C)OMP	# CONTAINERS	MATRIX	PRESERV	SAMPLING	DATE	TIME	BTEX	TPH	Chloride	Cl added 10/23	Cl added 10/27
	SS-1'	X					10/15/15				X		
	SS-2'	X					10/15/15				X		
	SS-3'	X					10/15/15				X		
	SS-4'	X					10/15/15				X		
	SS-6'	X					10/15/15				X		
	SS-8'	X					10/15/15				X		
	SS-10'	X					10/15/15				X		
	SS-12'	X					10/15/15				X		

PLEASE NOTE: Liability and Damages: Cardinal's liability and client's exposure is limited to the amount paid by the client for the analysis. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within 30 days after completion of the applicable analysis. 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. Signatures of whoever such claim is based upon any of the above stated reasons or otherwise.

Relinquished By:

Date:

Received By:

Time:

Relinquished By:

Date:

Received By:

Delivered By: (Circle One)

Sampler - UPS - Bus - Other:

FORM-006 R 2.0

Sample Condition

Yes ☒ No ☐

CHECKED BY:

(Initials)

Phone Result:

Fax Result:

REMARKS:

altruillo@concho.com RUN UNTIL CHLORIDES FALL BELOW 1000PPM

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





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

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

Company Name: COG Operating LLC		BILL TO		ANALYSIS REQUEST																			
Project Manager: Lupe Carrasco		P.O. #:																					
Address: 2208 West Main		Company: COG Operating LLC																					
City: Artesia		Attn: Robert McNeil																					
State: NM		Address: 600 W Illinois																					
Zip: 88210		City: Midland																					
Phone #: (575) 748-6940		State: TX																					
Fax #: (575) 748-6940		Zip: 79701																					
Project #: Project Owner:		Phone #: (432) 221-0308																					
Project Name: Big Papi Federal Com #1		Fax #:																					
Project Location:																							
Sampler Name: Lupe Carrasco																							
FOR LAB USE ONLY																							
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	BTEX	TPH	Chloride						
H50214	44	X											10/15/15					X					
	45	X											10/15/15					X					
	46	X											10/15/15					X					
	47	X											10/15/15					X					
	48	X											10/15/15					X					
	49	X											10/15/15					X					
	50	X											10/15/15					X					
	51	X											10/15/15					X					
	52	X											10/15/15					X					
PLEASE NOTE: Liability and Damages. Cardinal's liability and client's retention remedy for any claim arising whether based in contract or tort, shall be limited to the amount paid by the client for the analysis. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within 30 days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including without limitation, business interruption, 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. Signatures of whether such client is based upon any of the above stated reasons or otherwise.																							
Relinquished By: [Signature]		Date: 10/15/15		Received By: [Signature]		Time: 1:45 PM		Phone Result: <input type="checkbox"/> Yes <input type="checkbox"/> No		Add'l Phone #: [Blank]		Fax Result: <input type="checkbox"/> Yes <input type="checkbox"/> No		Add'l Fax #: [Blank]		REMARKS: gcarascove@concho.com							
Relinquished By: [Signature]		Date: 10/15/15		Received By: [Signature]		Time: 1:45 PM		Phone Result: <input type="checkbox"/> Yes <input type="checkbox"/> No		Add'l Phone #: [Blank]		Fax Result: <input type="checkbox"/> Yes <input type="checkbox"/> No		Add'l Fax #: [Blank]		REMARKS: gcarascove@concho.com RUN UNTIL CHLORIDES FALL BELOW 1000PPM							
Delivered By: (Circle One)		Received By: [Signature]		Sample Condition: [Blank]		Checked By: [Signature]		Cool (March) <input type="checkbox"/> Yes <input type="checkbox"/> No		Add'l Phone #: [Blank]		Fax Result: <input type="checkbox"/> Yes <input type="checkbox"/> No		Add'l Fax #: [Blank]		REMARKS: gcarascove@concho.com RUN UNTIL CHLORIDES FALL BELOW 1000PPM							
Sampler - UPS - Bus - Other: [Blank]		Received By: [Signature]		Sample Condition: [Blank]		Checked By: [Signature]		Cool (March) <input type="checkbox"/> Yes <input type="checkbox"/> No		Add'l Phone #: [Blank]		Fax Result: <input type="checkbox"/> Yes <input type="checkbox"/> No		Add'l Fax #: [Blank]		REMARKS: gcarascove@concho.com RUN UNTIL CHLORIDES FALL BELOW 1000PPM							

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





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

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

<b>Company Name:</b> COG Operating LLC		<b>P.O. #:</b>		<b>BILL TO</b>										<b>ANALYSIS REQUEST</b>									
<b>Project Manager:</b> Lupe Carrasco		<b>Company:</b> COG Operating LLC																					
<b>Address:</b> 2208 West Main		<b>Attn:</b> Robert McNeill																					
<b>City:</b> Artesia		<b>Address:</b> 800 W Illinois																					
<b>Phone #:</b> (575) 748-6940		<b>City:</b> Midland																					
<b>Fax #:</b>		<b>State: TX</b>																					
<b>Project #:</b>		<b>Zip: 79701</b>																					
<b>Project Name:</b> Big Papi Federal Com #1		<b>Phone #:</b> (432) 221-0388																					
<b>Project Location:</b>		<b>Fax #:</b>																					
<b>Sampler Name:</b> Lupe Carrasco																							
<b>FOR LAB USE ONLY</b>																							
<b>Lab I.D.</b>		<b>Sample I.D.</b>																					
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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

Form C-141  
Revised August 8, 2011

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

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

**Release Notification and Corrective Action**

**OPERATOR**

☒ Initial Report ☐ Final Report

Name of Company: COG Operating LLC	Contact: Robert McNeill	
Address: 600 West Illinois Avenue, Midland TX 79701	Telephone No. 432-230-0077	
Facility Name: Big Papi Federal Com #2H	Facility Type: Well	
Surface Owner: Federal	Mineral Owner:	API No. 30-015-37833

**LOCATION OF RELEASE**

Unit Letter C	Section 4	Township 26S	Range 29E	Feet from the 330'	North/South Line North	Feet from the 1980'	East/West Line West	County Eddy
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Latitude 32.0780182 Longitude -103.9915085

**NATURE OF RELEASE**

Type of Release: Produced Water	Volume of Release: 125 bbls PW	Volume Recovered: 120 bbls PW
Source of Release: Flowline	Date and Hour of Occurrence: 8/7/2015 7:00 am	Date and Hour of Discovery: 8/7/2015 7:00 am
Was Immediate Notice Given? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Required	If YES, To Whom? Mike Bratcher - NMOCD / Jim Amos - BLM	
By Whom? Lupe Carrasco	Date and Hour: Saturday, August 08, 2015 2:18 PM	
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.\*

This release was caused a poly flowline. Vacuum trucks were dispatched to recover all standing fluids and repairs were made to the line.

Describe Area Affected and Cleanup Action Taken.\*

This release occurred along the road in an area about 20' x 100'. Concho will have the spill site sampled to delineate any possible contamination from the release and we will present a remediation work plan to the NMOCD for approval prior to any significant remediation work.

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

Signature: 	<b>OIL CONSERVATION DIVISION</b>		
Printed Name: Amanda Trujillo	Approved by Environmental Specialist:		
Title: Senior Environmental Coordinator	Approval Date:	Expiration Date:	
E-mail Address: <a href="mailto:atrujillo@concho.com">atrujillo@concho.com</a>	Conditions of Approval:		Attached <input type="checkbox"/>
Date: 8/21/2015 Phone: 575-748-6940			

\* Attach Additional Sheets If Necessary