



# Bonnie Fed Com

## REMEDIATION WORK PLAN

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Release Date: 6/18/2015

UL/P Sec 35, T25 south, R26 east, Eddy county NM

API # 30-015-42956

June 29, 2015

**Prepared by:**

Environmental Department  
Diversified Field Service, Inc.  
206 West Snyder  
Hobbs, NM 88240  
Phone: (575)964-8394  
Fax: (575)393-8396

Mike Bratcher  
Environmental Specialist  
NM Oil Conservation District-Division 2  
Artesia, NM 88210

**RE: Cimarex, Bonnie 35 Fed Com – Remediation Work Plan**  
UL/P, Section 35, T25S, R26E  
API No. 30-015-42956

Mr. Bratcher,

Cimarex has retained Diversified Field Service, Inc. (DFSI) to address environmental issues for the site detailed herein.

The site is located southeast of Whites City NM, in Eddy County. The leak site resulted from a hammer union coming loose due to vibration. The impacted area is on the back side of the battery. Approximately 15 bbls of produced water was released, and 5 bbls recovered. A C-141 was submitted to the NMOCD on June 19<sup>th</sup>, 2015. The C-141 is attached.

### **Site Assessment and Delineation**

On June 23<sup>rd</sup>, 2015 DFSI personnel delineated 3 sample points of the leak area. Each sample was tested for chloride levels as well as BTEX. The BTEX samples were performed using a Mini Rae Photoionization Detector (PID). The clean 1' samples were taken to a lab for confirmation. The results are attached.

DFSI has conducted a groundwater study of the area and has determined that according to the New Mexico Office of the State Engineer the average depth to groundwater for this area is 260+ foot below ground surface. According to the BLM this area is a high potential Cave/Karst area.

### **Conclusion**

After careful review DFSI on behalf of Cimarex would like to propose the following:

Remove 1' bgs of the contaminated soil on the backside of the facility. Haul all contaminated material to an approved NM state disposal. Then backfill with caliche.

Following the approval of the above plan, DFSI will submit all proper closure documentation to the NMOCD and BLM in accordance to the State and Federal Guidelines set forth.

Please feel free to contact me with any questions concerning this remediation plan request.

Sincerely,



Michael Burton  
Environmental Operations Director  
Diversified Field Service, Inc.  
206 West Snyder  
Hobbs, NM 88240  
Office: (575)964-8394  
Mobile: (575)390-5454  
Fax: (575)964-8396  
Email: Mburton@diversifiedfsi.com

cc Jeff Robertson

Attachments: Initial Form C-141  
Site/Sample Map  
Sample Data  
Photo Page

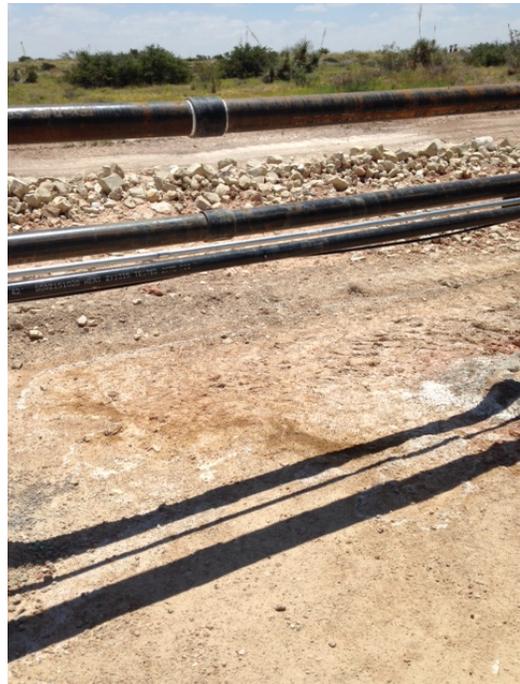


# Bonnie Fed Com

## PHOTO PAGE

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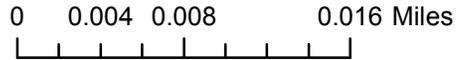
6/23/2015





# Site Diagram

**Cimarex, Bonnie 35 Federal Com  
UL/P, Sec. 35 T25S R26E  
Eddy County, NM  
Drafted By: Lance Crenshaw, 6-22-15**



## Legend

### Misc\_points

#### Types

-  Electrical Box
-  Power Pole
-  Headers
-  Injection
-  Pumpjacks
-  Tanks
-  Valves
-  Other
-  Soil Bores
-  sample\_pts
-  Source

### Pipeline

#### Type

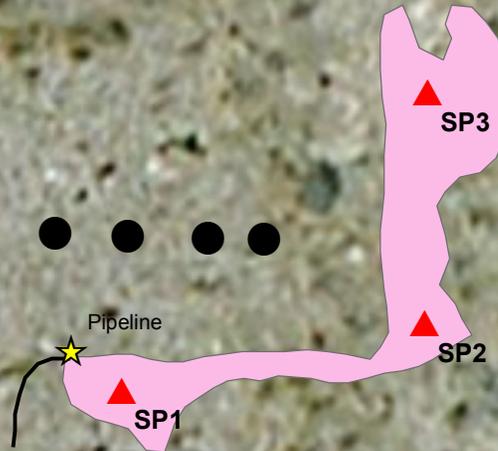
-  Above Ground Line
-  Buried Line

### Spill

-  <all other values>

### Spill\_Media

-  Oil and Produced H2O
-  Oil
-  Other
-  Produced Water



**Spill Area:  
2,842 sq. ft.**

Lance Crenshaw  
GIS Technician



Soil Remediation and Ground Water Remediation  
Environmental Assessments  
Regulatory Compliance

Environmental **DFSI** Services

Office: 575-964-8394  
Fax: 575-964-8396

Cell: 575-441-2359  
Email: lcrenshaw@diversifiedfsi.com

Source: Esri, DigitalGlobe, GeoEye, I-cubed, US swisstopo, and the GIS User Community





# New Mexico Office of the State Engineer

## Water Column/Average Depth to Water

(A CLW##### in the POD suffix indicates the POD has been replaced & no longer serves a water right file.)

(R=POD has been replaced, O=orphaned, C=the file is closed) (quarters are 1=NW 2=NE 3=SW 4=SE) (quarters are smallest to largest) (NAD83 UTM in meters) (In feet)

POD Number	POD Sub-Code	basin	County	Q 64	Q 16	Q 4	Sec	Tws	Rng	X	Y	Depth Well	Depth Water	Water Column
<a href="#">C 01013</a>	C	ED		4	25	25S	26E			571505	3551456*	245		
<a href="#">C 02220</a>	CUB	ED		3	1	2	26	25S	26E	569598	3552352*	35		
<a href="#">C 02221</a>	CUB	ED		4	3	2	25	25S	26E	571412	3551961*	35		

Average Depth to Water: --  
 Minimum Depth: --  
 Maximum Depth: --

**Record Count:** 3

**Basin/County Search:**

**County:** Eddy

**PLSS Search:**

**Section(s):** 35, 34, 25, 26    **Township:** 25S    **Range:** 26E

\*UTM location was derived from PLSS - see Help

The data is furnished by the NMOSE/ISC and is accepted by the recipient with the expressed understanding that the OSE/ISC make no warranties, expressed or implied, concerning the accuracy, completeness, reliability, usability, or suitability for any particular purpose of the data.



June 26, 2015

CHRISTINE ALDERMAN  
CIMAREX ENERGY CO.-MIDLAND  
600 N. MARIENFELD ST, SUITE 600  
MIDLAND, TX 79701

RE: BONNIE 35 FED COM

Enclosed are the results of analyses for samples received by the laboratory on 06/25/15 8:06.

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".

Celey D. Keene  
Lab Director/Quality Manager

**Analytical Results For:**

 CIMAREX ENERGY CO.-MIDLAND  
 CHRISTINE ALDERMAN  
 600 N. MARIENFELD ST, SUITE 600  
 MIDLAND TX, 79701  
 Fax To: UNK-NOWN

Received:	06/25/2015	Sampling Date:	06/23/2015
Reported:	06/26/2015	Sampling Type:	Soil
Project Name:	BONNIE 35 FED COM	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	NOT GIVEN		

**Sample ID: SP.1 @ 1' (H501646-01)**

BTEX 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	06/26/2015	ND	1.96	98.1	2.00	3.40	
Toluene*	<0.050	0.050	06/26/2015	ND	2.00	100	2.00	1.61	
Ethylbenzene*	<0.050	0.050	06/26/2015	ND	2.03	102	2.00	3.17	
Total Xylenes*	<0.150	0.150	06/26/2015	ND	5.73	95.5	6.00	2.41	
Total BTEX	<0.300	0.300	06/26/2015	ND					

*Surrogate: 4-Bromofluorobenzene (PID) 110 % 61-154*

Chloride, SM4500Cl-B		mg/kg		Analyzed By: CK					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
<b>Chloride</b>	<b>480</b>	16.0	06/26/2015	ND	416	104	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	06/25/2015	ND	166	82.8	200	3.75	
<b>DRO &gt;C10-C28</b>	<b>45.0</b>	10.0	06/25/2015	ND	194	97.2	200	2.72	

*Surrogate: 1-Chlorooctane 110 % 47.2-157*
*Surrogate: 1-Chlorooctadecane 135 % 52.1-176*

Cardinal Laboratories

\* = Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager

**Analytical Results For:**

 CIMAREX ENERGY CO.-MIDLAND  
 CHRISTINE ALDERMAN  
 600 N. MARIENFELD ST, SUITE 600  
 MIDLAND TX, 79701  
 Fax To: UNK-NOWN

Received:	06/25/2015	Sampling Date:	06/23/2015
Reported:	06/26/2015	Sampling Type:	Soil
Project Name:	BONNIE 35 FED COM	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	NOT GIVEN		

**Sample ID: SP.2 @ 1' (H501646-02)**

BTEX 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	06/26/2015	ND	1.96	98.1	2.00	3.40		
Toluene*	<0.050	0.050	06/26/2015	ND	2.00	100	2.00	1.61		
Ethylbenzene*	<0.050	0.050	06/26/2015	ND	2.03	102	2.00	3.17		
Total Xylenes*	<0.150	0.150	06/26/2015	ND	5.73	95.5	6.00	2.41		
Total BTEX	<0.300	0.300	06/26/2015	ND						

Surrogate: 4-Bromofluorobenzene (PID) 110 % 61-154

Chloride, SM4500CI-B		mg/kg		Analyzed By: CK						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
<b>Chloride</b>	<b>320</b>	16.0	06/26/2015	ND	416	104	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	06/25/2015	ND	166	82.8	200	3.75		
DRO >C10-C28	<10.0	10.0	06/25/2015	ND	194	97.2	200	2.72		

Surrogate: 1-Chlorooctane 111 % 47.2-157

Surrogate: 1-Chlorooctadecane 132 % 52.1-176

Cardinal Laboratories

\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager

**Analytical Results For:**

 CIMAREX ENERGY CO.-MIDLAND  
 CHRISTINE ALDERMAN  
 600 N. MARIENFELD ST, SUITE 600  
 MIDLAND TX, 79701  
 Fax To: UNK-NOWN

Received:	06/25/2015	Sampling Date:	06/23/2015
Reported:	06/26/2015	Sampling Type:	Soil
Project Name:	BONNIE 35 FED COM	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	NOT GIVEN		

**Sample ID: SP.3 @ 1' (H501646-03)**

BTEX 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	06/26/2015	ND	1.96	98.1	2.00	3.40	
Toluene*	<0.050	0.050	06/26/2015	ND	2.00	100	2.00	1.61	
Ethylbenzene*	<0.050	0.050	06/26/2015	ND	2.03	102	2.00	3.17	
Total Xylenes*	<0.150	0.150	06/26/2015	ND	5.73	95.5	6.00	2.41	
Total BTEX	<0.300	0.300	06/26/2015	ND					

*Surrogate: 4-Bromofluorobenzene (PID) 107 % 61-154*

Chloride, SM4500CI-B		mg/kg		Analyzed By: CK					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
<b>Chloride</b>	<b>384</b>	16.0	06/26/2015	ND	416	104	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	06/25/2015	ND	166	82.8	200	3.75	
<b>DRO &gt;C10-C28</b>	<b>33.6</b>	10.0	06/25/2015	ND	194	97.2	200	2.72	

*Surrogate: 1-Chlorooctane 115 % 47.2-157*
*Surrogate: 1-Chlorooctadecane 140 % 52.1-176*

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



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: Cimarex Energy	Contact: Gloria Garza
Address: 600 N Marienfeld Ste 600 Midland TX	Telephone No. 432-234-3204
Facility Name: Bonnie 35 Federal Com	Facility Type: Tank Battery

Surface Owner: Federal	Mineral Owner	API No.: 30-015-42956
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**LOCATION OF RELEASE**

Unit Letter P	Section 35	Township 25S	Range 26E	Feet from the 200	North/South Line FSL	Feet from the 970	East/West Line FEL	County Eddy
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Latitude: 32.0795801765834 Longitude: -104.258295270376

**NATURE OF RELEASE**

Type of Release: Produced Water	Volume of Release: 15 BBLS	Volume Recovered: 5 BBLS
Source of Release: Water transfer line	Date and Hour of Occurrence: 6/18/2015 7:30 PM	Date and Hour of Discovery: 6/18/2015 7:30 PM
Was Immediate Notice Given? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Required	If YES, To Whom? Mike Bratcher/Jeff Robertson	
By Whom? Gloria Garza	Date and Hour: 6/19/2015 9:26 AM	
Was a Watercourse Reached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If YES, Volume Impacting the Watercourse.	

If a Watercourse was Impacted, Describe Fully.\*

Describe Cause of Problem and Remedial Action Taken.\*

A hammer union on the water transfer line came loose due to vibration from pressure.

Describe Area Affected and Cleanup Action Taken.\*

Diversified Environmental Services will remediate the impacted soil.

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: <i>Gloria Garza</i>		<u>OIL CONSERVATION DIVISION</u>	
Printed Name: Gloria Garza		Approved by Environmental Specialist:	
Title: ESH Tech	Approval Date:	Expiration Date:	
E-mail Address: ggarza@cimarex.com	Conditions of Approval:		Attached <input type="checkbox"/>
Date: 6/19/15	Phone: 432-234-3204		

\* Attach Additional Sheets If Necessary