



Gadwall 18 Fed Com #2H

Third release

REMEDIATION WORK PLAN

Release Date: 6/21/2015

UL/C Sec 18, T25 south, R27 east, Eddy county NM

API # 30-015-39141

August 3rd, 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, Gadwall 18 Fed Com #2H third release – Remediation Work Plan
UL/C, Section 18, T25S, R27E
API No. 30-015-39141

Mr. Bratcher,

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

The site is located east of Whites City, NM, in Eddy County. On 6/1/15 the leak site resulted from a poly flow line failure. The impacted area is on the west side of John D Forehand. The release started in a right of way and runs east and southeast. Approximately 15 bbls of produced water was released, and 0 bbls recovered. A C-141 was submitted to the NMOCD on June 26, 2015. The C-141 is attached.

Site Assessment and Delineation

On June 7, 2015 DFSI personnel delineated 10 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 results are attached. The clean field samples were taken to Cardinal Labs in Hobbs NM. 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 351 + foot below ground surface.

Conclusion

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

Remove 1' to 3' bgs of the contaminated soil in the respective areas. Confirmation samples will be obtained when the excavation is started for the sample areas that came back above 100 ppm. Haul all contaminated material to an approved NM state disposal. In the areas of the spill that is wide we will backfill with clean soil. In the narrow areas we will use surrounding terrain for backfill. We will re seed using a BLM approved seed mix.

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 Shelly Tucker

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

Site Diagram

Cimarex, Gadwall 3rd release
Eddy County, NM
Drafted By: Lance Crenshaw, 6-25-15

0 0.005 0.01 0.02 Miles

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:
35,908 sq. ft.

Lance Crenshaw
 GIS Technician

Soil Remediation and Ground Water Remediation
 Environmental Assessments
 Regulatory Compliance



Environmental **DFS** Services

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

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

Source: Esri, DigitalGlobe, GeoEye, i-cube, swisstopo, and the GIS User Community



Gadwall 18 Fed Com #2H

Third release

PHOTO PAGE



7/10/2015

SP Date: 7/10/2015
Rel Date:

	Lab Confirmation Sample
	Field Sampling
	Needs Delineation and confirmation samples

Diversified Environmental Services

[illegible]

	Lab Confirmation Sample
	Field Sampling
	Needs Delineation and confirmation samples

July 20, 2015

CHRISTINE ALDERMAN

CIMAREX ENERGY CO.-MIDLAND

600 N. MARIENFELD ST, SUITE 600

MIDLAND, TX 79701

RE: GADWALL #3

Enclosed are the results of analyses for samples received by the laboratory on 07/13/15 9:29.

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.

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:

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

Received: 07/13/2015
Reported: 07/20/2015
Project Name: GADWALL #3
Project Number: NONE GIVEN
Project Location: NOT GIVEN

Sampling Date: 07/10/2015
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Jodi Henson

Sample ID: SP.1 @ 1' (H501775-01)

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	07/16/2015	ND	2.02	101	2.00	0.122	
Toluene*	<0.050	0.050	07/16/2015	ND	2.19	110	2.00	2.86	
Ethylbenzene*	<0.050	0.050	07/16/2015	ND	2.10	105	2.00	6.40	
Total Xylenes*	<0.150	0.150	07/16/2015	ND	6.81	114	6.00	10.5	
Total BTEX	<0.300	0.300	07/16/2015	ND					

Surrogate: 4-Bromofluorobenzene (PID) 102 % 85.6-137

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	768	16.0	07/17/2015	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	07/15/2015	ND	184	92.2	200	0.512	
DRO >C10-C28	<10.0	10.0	07/15/2015	ND	187	93.5	200	2.63	

Surrogate: 1-Chlorooctane 84.8 % 47.2-157

Surrogate: 1-Chlorooctadecane 86.1 % 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: 07/13/2015
Reported: 07/20/2015
Project Name: GADWALL #3
Project Number: NONE GIVEN
Project Location: NOT GIVEN

Sampling Date: 07/10/2015
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Jodi Henson

Sample ID: SP.2 @ 1' (H501775-02)

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	07/16/2015	ND	2.02	101	2.00	0.122	
Toluene*	<0.050	0.050	07/16/2015	ND	2.19	110	2.00	2.86	
Ethylbenzene*	<0.050	0.050	07/16/2015	ND	2.10	105	2.00	6.40	
Total Xylenes*	<0.150	0.150	07/16/2015	ND	6.81	114	6.00	10.5	
Total BTX	<0.300	0.300	07/16/2015	ND					

Surrogate: 4-Bromofluorobenzene (PID) 103 % 85.6-137

Chloride, SM4500CI-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	1100	16.0	07/17/2015	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	07/15/2015	ND	184	92.2	200	0.512	
DRO >C10-C28	<10.0	10.0	07/15/2015	ND	187	93.5	200	2.63	

Surrogate: 1-Chlorooctane 84.5 % 47.2-157

Surrogate: 1-Chlorooctadecane 83.0 % 52.1-176

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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: 07/13/2015
Reported: 07/20/2015
Project Name: GADWALL #3
Project Number: NONE GIVEN
Project Location: NOT GIVEN

Sampling Date: 07/10/2015
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Jodi Henson

Sample ID: SP.3 @ 1' (H501775-03)

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	07/16/2015	ND	2.02	101	2.00	0.122	
Toluene*	<0.050	0.050	07/16/2015	ND	2.19	110	2.00	2.86	
Ethylbenzene*	<0.050	0.050	07/16/2015	ND	2.10	105	2.00	6.40	
Total Xylenes*	<0.150	0.150	07/16/2015	ND	6.81	114	6.00	10.5	
Total BTX	<0.300	0.300	07/16/2015	ND					

Surrogate: 4-Bromofluorobenzene (PID) 102 % 85.6-137

Chloride, SM4500CI-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	1300	16.0	07/17/2015	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	07/15/2015	ND	184	92.2	200	0.512	
DRO >C10-C28	21.2	10.0	07/15/2015	ND	187	93.5	200	2.63	

Surrogate: 1-Chlorooctane 83.1 % 47.2-157

Surrogate: 1-Chlorooctadecane 88.9 % 52.1-176

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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: 07/13/2015
Reported: 07/20/2015
Project Name: GADWALL #3
Project Number: NONE GIVEN
Project Location: NOT GIVEN

Sampling Date: 07/10/2015
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Jodi Henson

Sample ID: SP.4 @ 2' (H501775-04)

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	07/16/2015	ND	2.02	101	2.00	0.122	
Toluene*	<0.050	0.050	07/16/2015	ND	2.19	110	2.00	2.86	
Ethylbenzene*	<0.050	0.050	07/16/2015	ND	2.10	105	2.00	6.40	
Total Xylenes*	<0.150	0.150	07/16/2015	ND	6.81	114	6.00	10.5	
Total BTX	<0.300	0.300	07/16/2015	ND					

Surrogate: 4-Bromofluorobenzene (PID) 103 % 85.6-137

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	07/17/2015	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	07/14/2015	ND	190	94.9	200	4.33	
DRO >C10-C28	<10.0	10.0	07/14/2015	ND	187	93.7	200	8.55	

Surrogate: 1-Chlorooctane 81.9 % 47.2-157

Surrogate: 1-Chlorooctadecane 89.2 % 52.1-176

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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: 07/13/2015
 Reported: 07/20/2015
 Project Name: GADWALL #3
 Project Number: NONE GIVEN
 Project Location: NOT GIVEN

 Sampling Date: 07/10/2015
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Jodi Henson

Sample ID: SP.5 @ 2' (H501775-05)

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	07/16/2015	ND	2.02	101	2.00	0.122	
Toluene*	<0.050	0.050	07/16/2015	ND	2.19	110	2.00	2.86	
Ethylbenzene*	<0.050	0.050	07/16/2015	ND	2.10	105	2.00	6.40	
Total Xylenes*	<0.150	0.150	07/16/2015	ND	6.81	114	6.00	10.5	
Total BTX	<0.300	0.300	07/16/2015	ND					

Surrogate: 4-Bromofluorobenzene (PID) 103 % 85.6-137

Chloride, SM4500CI-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	320	16.0	07/17/2015	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	07/14/2015	ND	190	94.9	200	4.33	
DRO >C10-C28	<10.0	10.0	07/14/2015	ND	187	93.7	200	8.55	

Surrogate: 1-Chlorooctane 86.4 % 47.2-157

Surrogate: 1-Chlorooctadecane 91.7 % 52.1-176

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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: 07/13/2015
Reported: 07/20/2015
Project Name: GADWALL #3
Project Number: NONE GIVEN
Project Location: NOT GIVEN

Sampling Date: 07/10/2015
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Jodi Henson

Sample ID: SP.6 @ 1' (H501775-06)

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	07/16/2015	ND	2.02	101	2.00	0.122	
Toluene*	<0.050	0.050	07/16/2015	ND	2.19	110	2.00	2.86	
Ethylbenzene*	<0.050	0.050	07/16/2015	ND	2.10	105	2.00	6.40	
Total Xylenes*	<0.150	0.150	07/16/2015	ND	6.81	114	6.00	10.5	
Total BTX	<0.300	0.300	07/16/2015	ND					

Surrogate: 4-Bromofluorobenzene (PID) 103 % 85.6-137

Chloride, SM4500CI-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	720	16.0	07/17/2015	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	07/14/2015	ND	190	94.9	200	4.33	
DRO >C10-C28	<10.0	10.0	07/14/2015	ND	187	93.7	200	8.55	

Surrogate: 1-Chlorooctane 77.3 % 47.2-157

Surrogate: 1-Chlorooctadecane 82.7 % 52.1-176

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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: 07/13/2015
Reported: 07/20/2015
Project Name: GADWALL #3
Project Number: NONE GIVEN
Project Location: NOT GIVEN

Sampling Date: 07/10/2015
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Jodi Henson

Sample ID: SP.7 @ 2' (H501775-07)

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	07/16/2015	ND	2.02	101	2.00	0.122		
Toluene*	<0.050	0.050	07/16/2015	ND	2.19	110	2.00	2.86		
Ethylbenzene*	<0.050	0.050	07/16/2015	ND	2.10	105	2.00	6.40		
Total Xylenes*	<0.150	0.150	07/16/2015	ND	6.81	114	6.00	10.5		
Total BTEx	<0.300	0.300	07/16/2015	ND						

Surrogate: 4-Bromofluorobenzene (PID) 103 % 85.6-137

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	07/17/2015	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	07/14/2015	ND	190	94.9	200	4.33	
DRO >C10-C28	<10.0	10.0	07/14/2015	ND	187	93.7	200	8.55	

Surrogate: 1-Chlorooctane 85.0 % 47.2-157

Surrogate: 1-Chlorooctadecane 90.7 % 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: 07/13/2015
Reported: 07/20/2015
Project Name: GADWALL #3
Project Number: NONE GIVEN
Project Location: NOT GIVEN

Sampling Date: 07/10/2015
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Jodi Henson

Sample ID: SP.8 @ 2' (H501775-08)

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	07/16/2015	ND	2.02	101	2.00	0.122	
Toluene*	<0.050	0.050	07/16/2015	ND	2.19	110	2.00	2.86	
Ethylbenzene*	<0.050	0.050	07/16/2015	ND	2.10	105	2.00	6.40	
Total Xylenes*	<0.150	0.150	07/16/2015	ND	6.81	114	6.00	10.5	
Total BTX	<0.300	0.300	07/16/2015	ND					

Surrogate: 4-Bromofluorobenzene (PID) 102 % 85.6-137

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	07/17/2015	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	07/14/2015	ND	190	94.9	200	4.33	
DRO >C10-C28	<10.0	10.0	07/14/2015	ND	187	93.7	200	8.55	

Surrogate: 1-Chlorooctane 81.1 % 47.2-157

Surrogate: 1-Chlorooctadecane 87.4 % 52.1-176

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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: 07/13/2015
Reported: 07/20/2015
Project Name: GADWALL #3
Project Number: NONE GIVEN
Project Location: NOT GIVEN

Sampling Date: 07/10/2015
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Jodi Henson

Sample ID: SP.9 @ 1' (H501775-09)

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	07/17/2015	ND	1.93	96.5	2.00	2.49		
Toluene*	<0.050	0.050	07/17/2015	ND	1.93	96.5	2.00	1.73		
Ethylbenzene*	<0.050	0.050	07/17/2015	ND	2.03	101	2.00	3.30		
Total Xylenes*	<0.150	0.150	07/17/2015	ND	5.34	88.9	6.00	2.63		
Total BTEx	<0.300	0.300	07/17/2015	ND						

Surrogate: 4-Bromofluorobenzene (PID) 112 % 85.6-137

Chloride, SM4500CI-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	368	16.0	07/17/2015	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	07/14/2015	ND	190	94.9	200	4.33	
DRO >C10-C28	<10.0	10.0	07/14/2015	ND	187	93.7	200	8.55	

Surrogate: 1-Chlorooctane 93.5 % 47.2-157

Surrogate: 1-Chlorooctadecane 98.5 % 52.1-176

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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: 07/13/2015
Reported: 07/20/2015
Project Name: GADWALL #3
Project Number: NONE GIVEN
Project Location: NOT GIVEN

Sampling Date: 07/10/2015
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Jodi Henson

Sample ID: SP.10 @ 1' (H501775-10)

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	07/17/2015	ND	1.93	96.5	2.00	2.49	
Toluene*	<0.050	0.050	07/17/2015	ND	1.93	96.5	2.00	1.73	
Ethylbenzene*	<0.050	0.050	07/17/2015	ND	2.03	101	2.00	3.30	
Total Xylenes*	<0.150	0.150	07/17/2015	ND	5.34	88.9	6.00	2.63	
Total BTEx	<0.300	0.300	07/17/2015	ND					

Surrogate: 4-Bromofluorobenzene (PID) 116 % 85.6-137

Chloride, SM4500CI-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	736	16.0	07/17/2015	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	07/14/2015	ND	190	94.9	200	4.33	
DRO >C10-C28	<10.0	10.0	07/14/2015	ND	187	93.7	200	8.55	

Surrogate: 1-Chlorooctane 94.8 % 47.2-157

Surrogate: 1-Chlorooctadecane 103 % 52.1-176

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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

Page 13 of 13



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														
		Sub-	Q Q Q									Depth		
POD Number	Code	basin	County	64	16	4	Sec	Tws	Rng	X	Y	Well	Water	Column
C 03261	POD1		ED	3	2	1	20	25S	27E	574007	3554006*		351	

Average Depth to Water: --

Minimum Depth: --

Maximum Depth: --

Record Count: 1

Basin/County Search:

County: Eddy

PLSS Search:

Section(s): 18, 19, 17, 20 **Township:** 25S **Range:** 27E

*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.

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

State of New Mexico
Energy Minerals and Natural Resources
Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, NM 87505

Form C-141
Revised August 8, 2011

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

Release Notification and Corrective Action

OPERATOR

☒ Initial Report ☐ Final Report

Name of Company <u>Cimarex Energy</u>	Contact <u>Christine Alderman</u>
Address <u>600 N Marienfeld Ste 600 Midland TX</u>	Telephone No. <u>432-853-7059</u>
Facility Name <u>Gadwall 18 Fed Com 2H</u>	Facility Type <u>production</u>

Surface Owner <u>Federal</u>	Mineral Owner	API No. <u>30-015-39141</u>
------------------------------	---------------	-----------------------------

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
<u>C</u>	<u>18</u>	<u>25S</u>	<u>27E</u>	<u>150</u>	<u>N</u>	<u>2310</u>	<u>W</u>	<u>Eddy</u>

Latitude 32.13681 Longitude -104.23044

NATURE OF RELEASE

Type of Release <u>produced water</u>	Volume of Release <u>15 bbls</u>	Volume Recovered <u>0</u>
Source of Release <u>poly flowline</u>	Date and Hour of Occurrence <u>06/1/2015</u>	Date and Hour of Discovery <u>06/1/2015</u>
Was Immediate Notice Given? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Required	If YES, To Whom? <u>Mike Bratcher/BLM</u>	
By Whom? <u>Christine Alderman</u>	Date and Hour <u>6/1/2015 4:00pm</u>	
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.*
Poly flowline ruptured

Describe Area Affected and Cleanup Action Taken.*
ROW area of pasture on the west side of John D Forehan Rd. Spray impacted large area of pasture to south of release. Diversified will assess and develop workplan.

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

OIL CONSERVATION DIVISION

Signature: <u>Christine Alderman</u>	Approved by Environmental Specialist:		
Printed Name: <u>Christine Alderman</u>			
Title: <u>ESII Supervisor</u>	Approval Date:	Expiration Date:	
E-mail Address: <u>calderman@cimarex.com</u>	Conditions of Approval:		Attached <input type="checkbox"/>
Date: <u>6/26/2015</u> Phone: <u>432-853-7059</u>			

* Attach Additional Sheets If Necessary