Submit within 45 days of well completion

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

Revised November 6, 2013

1. WELL API NO. 30-015-43487

2. Well Name: GADWALL 18 FEDERAL COM #004H

3. Well Number: 004H

HYDRAULIC FRACTURING FLUID DISCLOSURE

☒ Original

☐ Amendment

4. Surface Hole Location:
Unit:D Lot:1 Section:18 Township:25S Range:27E
Feet from:130 N/S Line:N
Feet from:611 E/W Line:W

5. Bottom Hole Location:
Unit:D Lot:1 Section:18 Township:25S Range:27E
Feet from:130 N/S Line:N
Feet from:611 E/W Line:W

6. latitude: 32.081261 longitude: -104.140953

7. County: Eddy

8. Operator Name and Address:
CIMAREX ENERGY CO. OF COLORADO
202 S. Cheyenne Ave, Ste 1000
Tulsa 74103

9. OGRID: 162683

10. Phone Number: 918-295-1763

11. Last Fracture Date: 5/26/2016 Frac Performed by: Halliburton

12. Production Type: O

13. Pool Code(s): 97494

14. Gross Fractured Interval: 7,173 ft to 7,263 ft

15. True Vertical Depth (TVD): 7,263 ft

16. Total Volume of Fluid Pumped: 4,032,808 gals

17. Total Volume of Re-Use Water Pumped: N/A

18. Percent of Re-Use Water in Fluid Pumped: Not Disclosed

19. **HYDRAULIC FLUID COMPOSITION AND CONCENTRATION:**

Trade Name	Supplier	Purpose	Ingredients	(CAS #) Chemical Abstract Service #	Maximum Ingredient Concentration in Additive (% by mass)	Maximum Ingredient Concentration in HF Fluid (% by mass)
Fresh Water	Operator	Base Fluid	Fresh Water	7732-18-5	100%	83.73629%
BC-140 X2, FE-2, HAI-OS, LOSURF-360, OPTIFLO-III,	Halliburton	Breaker, Concentrate, Corrosion Inhibitor, Gelling Agent, Initiator, Iron Control Agent, Proppant, S	Crystalline silica, quartz	14808-60-7	100%	15.92545%
			Hydrochloric acid	7647-01-0	60%	0.20294%
			Guar gum	9000-30-0	100%	0.05489%
			Poly(oxy-1,2-ethanediyl), .alpha.-isodecyl-.omega.-hydroxy-	61827-42-7	30%	0.02531%
			Monoethanolamine borate	26038-87-9	100%	0.01395%
			Hydroreated light petroleum distillate	64742-47-8	30%	0.00911%
			Complex alkylamine	Proprietary	5%	0.00422%
			Ethylene glycol	107-21-1	30%	0.00418%
			Sodium perborate tetrahydrate	10486-00-7	100%	0.00329%
			Alcohols, C12-16, ethoxylated	68551-12-2	10%	0.00304%
			Ammonium Chloride	12125-02-9	10%	0.00304%
			Bentonite, benzyl(hydrogenated tallow alkyl) dimethylammonium stearate complex	121888-68-4	5%	0.00274%
			Citric acid	77-92-9	100%	0.00255%
			Ammonium persulfate	7727-54-0	100%	0.00162%
			9-Octadecenamide, n,n-bis2 (hydroxy-ethyl)-,(Z)	93-83-4	5%	0.00152%
			Surfactant mixture	Proprietary	1%	0.0011%
			Alkane	Proprietary	1%	0.00084%
			Sodium persulfate	7775-27-1	100%	0.00081%
			Silica gel	112926-00-8	1%	0.00055%
			Polymer	Proprietary	30%	0.00049%
			Methanol	67-56-1	60%	0.00033%
			Alcohols, C14-C15, ethoxylated	68951-67-7	30%	0.00016%
			Fatty acids, tall oil	Proprietary	30%	0.00016%
			Reaction product of acetophenone, formaldehyde, thiourea and oleic acid in dimethyl formamide	68527-49-1	30%	0.00016%
			Olefins	Proprietary	5%	7E-05%
			Crystalline Silica, Quartz	14808-60-7	0.1%	5E-05%
			Propargyl alcohol	107-19-7	10%	5E-05%
			Inorganic salt	Proprietary	1%	2E-05%
			Talc	14807-96-6	1%	2E-05%
			2,7-Naphthalenedisulfonic acid, 3-hydroxy-4-[(4-sulfor-1-naphthalenyl) azo] -, trisodium salt	915-67-3	0.1%	1E-05%
			Ethylenediaminetetraacetic acid, tetrasodium salt	64-02-8	0.01%	1E-05%
			Sodium bicarbonate	144-55-8	0.01%	1E-05%
			Sodium sulfate	7757-82-6	0.1%	0%
ClO2	Baker Hughes	Biocide	Chlorine Dioxide	10049-04-4	1%	1E-05%

20. I, as Operator, hereby certify that the information shown on this disclosure form is true and complete to the best of my knowledge and belief.

Signature: Signed Electronically Printed Name: Skipper Herring Title: Manager Stimulation Operations

Date: 6/9/2016

E-mail Address: sherring@cimarex.com

NMOCD does not require the reporting of information beyond MSDS data as described in 29 CFR 1910.1200. NMOCD does not require the reporting or disclosure of proprietary, trade secret or confidential business information.