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 February 15, 2012

HYDRAULIC FRACTURING FLUID DISCLOSURE

☒ Original

☐ Amendment

1. WELL API NO.: 30-015-41084
2. Well Name: COTTONWOOD HILLS 32 STATE COM #002H
3. Well Number: 002H
4. Surface Hole Location: Unit:M Lot:M Section:32 Township:25S Range:27E Feet from:200 N/S Line:S Feet from:400 E/W Line:W
5. Bottom Hole Location: Unit:M Lot:M Section:32 Township:25S Range:27E Feet from:200 N/S Line:S Feet from:400 E/W Line:W
6. latitude: 32.0795581909044 longitude: -104.219647354114
7. County: Eddy

8. Operator Name and Address: CIMAREX ENERGY CO. 600 N MARIENFELD STREET SUITE 600 MIDLAND 79701
9. OGRID: 215099
10. Phone Number:
11. Last Fracture Date: 7/1/2013 Frac Performed by: Halliburton
12. Production Type: O
13. Pool Code(s): 97818
14. Gross Fractured Interval: 7,310 ft to 8,528 ft
15. True Vertical Depth (TVD): 7,528 ft
16. Total Volume of Fluid Pumped: 1,889,676 gals

17. **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	Fluid	Water	7732-18-5	100%	83.12571%
Losurf-360	Halliburton	Surfactant	Poly(oxy-1,2-ethanediyl), .alpha.-isodecyl-.omega. -hydroxy-	61827-42-7	30%	0.00741%
			Glycerine	56-81-5	10%	0.00247%
			Complex alkylamine	Proprietary	5%	0.00124%
Premium Brown -20/40	Halliburton	Proppant	Crystalline silica, quartz	14808-60-7	100%	11.63125%
CRC Garnet-20/40	Halliburton	Proppant	Crystalline silica, quartz	14808-60-7	100%	4.68377%
			Hexamethylenetetramine	100-97-0	2%	0.09368%
			Phenol / formaldehyde resin	9003-35-4	5%	0.23419%
LCA-1	Halliburton	Solvent	Paraffinic solvent	Proprietary	100%	0.00452%
BC-140 X2	Halliburton	Initiator	Ethylene glycol	107-21-1	30%	0.01713%
			Monoethanolamine borate	26038-87-9	100%	0.05709%
BA-40L BUFFERING AGENT	Halliburton	Buffer	Potassium carbonate	584-08-7	60%	0.01611%
SP BREAKER	Halliburton	Breaker	Sodium persulfate	7775-27-1	100%	0.00978%
OPTIFLO-HTE	Halliburton	Breaker	Crystalline silica, quartz	14808-60-7	30%	0.0015%
			Walnut hulls	Mixture	100%	0.00499%
SP BREAKER	Halliburton	Breaker	Sodium persulfate	7775-27-1	100%	0.00048%
HCL 15%	Petroplex	Acid	Hydrochloric Acid	7647-01-0	15%	0.01548%
Cronox AK-50	Petroplex	Corrosion Inhibitor	Oxyalkylated Alkylphenol	Proprietary	30%	6E-05%
			Heavy Aromatic Naptha	64742-94-5	30%	6E-05%
			Isopropanol	67-63-0	30%	6E-05%
			Fatty Acids	Proprietary	10%	2E-05%
			Complex Alkylaryl Polyo-Ester	Proprietary	10%	2E-05%
			Tar Bases, Quinoline Derivatives, Benzyl Chloride-Quaternized	72480-70-7	10%	2E-05%
			Formaldehyde	50-00-0	10%	2E-05%
			Acetylenic Alcohol	Proprietary	5%	1E-05%
			Propargyl Alcohol	107-19-7	5%	1E-05%
			Napthalene	91-20-3	5%	1E-05%
Citric Acid	Petroplex	Iron Control	Citric Acid	77-92-9	100%	0.00516%
EC9546A	Petroplex	Surfactant	Heavy Aromatic Naptha	64742-94-5	10%	2E-05%
			Isopropanol	67-63-0	60%	0.00011%
			Polyethylene Glycol	25322-68-3	5%	1E-05%
			Napthalene	91-20-3	1%	0%
			Phosphoric Acid Ester	Proprietary	10%	2E-05%
			Oxyalkylated Alcohol	Proprietary	10%	2E-05%
			Oxyalkylated Alkyl Alcohol	Proprietary	10%	2E-05%
ClO2	Bosque	Biocide	Chlorine Dioxide	10049-04-4	100%	0.00019%
Ingredients Listed Below This Line Are Part of the			2,7-Naphthalenedisulfonic acid, 3-hydroxy-4-[(4-sulfor-1-naphthalenyl) azo] -, trisodium salt	915-67-3	0%	0%
			C.I. Pigment Red 5	6410-41-9	0%	0%
			Cured Acrylic Resin	Mixture	0%	0%
			Cured Acrylic Resin	9002-98-6	0%	0%
			Enzyme	9025-56-3	0%	0%
			Sodium sulfate	7757-82-6	0%	0%
			Water	7732-18-5	0%	0%

18. 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: 8/6/2013

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.