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. 30-015-42175

2. Well Name: MEDWICK 32 FEDERAL COM #011H

3. Well Number: 011H

HYDRAULIC FRACTURING FLUID DISCLOSURE

☒ Original

☐ Amendment

4. Surface Hole Location:
Unit:H Lot:1 Section:32 Township:26S Range:27E
Feet from:210 N/S Line:S
Feet from:750 E/W Line:E

5. Bottom Hole Location:
Unit:H Lot:1 Section:32 Township:26S Range:27E
Feet from:210 N/S Line:S
Feet from:750 E/W Line:E

6. latitude: 32.0005615079308 longitude: -104.205772685291

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: 1/16/2015 Frac Performed by: Schlumberger

12. Production Type: O

13. Pool Code(s): 98017, 98018

14. Gross Fractured Interval: 7,183 ft to 7,424 ft

15. True Vertical Depth (TVD): 7,424 ft

16. Total Volume of Fluid Pumped: 4,434,751 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)
Slickwater , WF120, YF120Flex	Schlumberger	Surfactant , Breaker, Additive, Gelling Agent, Crosslinker, Propping Agent	Water (Including Mix Water Supplied by Client)	NA	0%	83.23224%
			Crystalline silica	14808-60-7	98.53736%	16.51172%
			Guar gum	9000-30-0	0.57602%	0.09652%
			Glass fibers	60676-86-0	0.29923%	0.05014%
			Potassium borate	1332-77-0	0.1231%	0.02063%
			Polyethylene glycol monohexyl ether	31726-34-8	0.06077%	0.01018%
			Potassium hydroxide	1310-58-3	0.04548%	0.00762%
			Glycerol	56-81-5	0.04012%	0.00672%
			Diammonium peroxidisulphate	7727-54-0	0.03411%	0.00572%
			Vinylidene chloride/methylacrylate copolymer	25038-72-6	0.00399%	0.00067%
			Solid Unsaturated Polyester Resin	39382-21-3	0.00304%	0.00051%
			Dicoco dimethyl quaternary ammonium chloride	61789-77-3	0.00256%	0.00043%
			Non-crystalline silica (impurity)	7631-86-9	0.00143%	0.00024%
			Propan-2-ol	67-63-0	0.00054%	9E-05%
			Magnesium silicate hydrate (talc)	14807-96-6	0.00012%	2E-05%
			poly (tetrafluoroethylene)	9002-84-0	6E-05%	1E-05%
HCL 15%	Petroplex	Acid	Hydrochloric Acid	7647-01-0	0.04794%	0.00803%
Cronox AK-50	Petroplex	Corrosion Inhibitor	Oxyalkylated Alkylphenol	Proprietary	0.00017%	3E-05%
			Heavy Aromatic Naptha	64742-94-5	0.00017%	3E-05%
			Isopropanol	67-63-0	0.00017%	3E-05%
			Fatty Acids	Proprietary	6E-05%	1E-05%
			Complex Alkylaryl Polyo-Ester	Proprietary	6E-05%	1E-05%
			Tar Bases, Quinoline Derivatives, Benzyl Chloride-Quaternized	72480-70-7	6E-05%	1E-05%
			Formaldehyde	50-00-0	6E-05%	1E-05%
			Acetylenic Alcohol	Proprietary	3E-05%	0%
			Propargyl Alcohol	107-19-7	3E-05%	0%
			Napthalene	91-20-3	3E-05%	0%
Citric Acid	Petroplex	Iron Control	Citric Acid	77-92-9	0.01599%	0.00268%
EC9546A	Petroplex	Surfactant	Heavy Aromatic Naptha	64742-94-5	6E-05%	1E-05%
			Isopropanol	67-63-0	0.00033%	6E-05%
			Polyethylene Glycol	25322-68-3	3E-05%	0%
			Napthalene	91-20-3	1E-05%	0%
			Phosphoric Acid Ester	Proprietary	6E-05%	1E-05%
			Oxyalkylated Alcohol	Proprietary	6E-05%	1E-05%
			Oxyalkylated Alkyl Alcohol	Proprietary	6E-05%	1E-05%
ClO2	Bosque	Biocide	Chlorine Dioxide	10049-04-4	0.00074%	0.00012%
† Proprietary Technology					0%	0%

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: 2/12/2015

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.