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.
30-015-42884

2. Well Name:
BOSE IKARD 4 STATE COM #016H

3. Well Number:
016H

HYDRAULIC FRACTURING FLUID DISCLOSURE

☒ **Original**

☐ **Amendment**

4. Surface Hole Location:
Unit:L Lot:L Section:4 Township:17S Range:29E
Feet from:1730 N/S Line:S
Feet from:330 E/W Line:W

5. Bottom Hole Location:
Unit:I Lot:I Section:4 Township:17S Range:29E
Feet from:1706 N/S Line:S
Feet from:378 E/W Line:E

6. latitude: 32.861213746 longitude: -104.08736507

7. County:
Eddy

8. Operator Name and Address:
COG OPERATING LLC
One Concho Center
600 W. Illinois Ave
Midland 79701

9. OGRID: 229137

10. Phone Number: 432-685-4332

11. Last Fracture Date: 10/25/2015 Frac Performed by: Halliburton

12. Production Type:
O

13. Pool Code(s):
96610

14. Gross Fractured Interval:
4,312 ft to 8,302 ft

15. True Vertical Depth (TVD):
4,034 ft

16. Total Volume of Fluid Pumped:
2,217,999 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%	78.64965%
HYDROCHLORIC ACID	Halliburton	Base Fluid	NA	NA	0%	0%
BC-140 X2, BE-9, FE-1A ACIDIZING COMPOSITION, FE-2	Halliburton	Additive, Biocide, Breaker, Corrosion Inhibitor, Gelling Agent, Initiator, pH Control Additive, Prop	NA	NA	0%	0%
CAT 106 SI	Catalyst Oilfield Services, LLC	Scale Inhibitor	NA	NA	0%	0%
			1,2-Benzisothiazolin-3-one	2634-33-5	0.1%	0%
			2,7-Naphthalenedisulfonic acid, 3-hydroxy-4-[(4-sulfor-1-naphthalenyl) azo] -, trisodium salt	915-67-3	0.1%	5E-05%
			Acetic acid	64-19-7	60%	0.04326%
			Acetic anhydride	108-24-7	100%	0.0721%
			Alcohols, C14-C15, ethoxylated	68951-67-7	30%	0.00358%
			Alkane	Confidential	1%	0.00042%
			Bentonite, benzyl(hydrogenated tallow alkyl) dimethylammonium stearate complex	121888-68-4	5%	0.00645%
			C.I. Pigment Red 5	6410-41-9	1%	8E-05%
			Calcium chloride	10043-52-4	0.1%	0%
			Citric acid	77-92-9	60%	0.04489%
			Complex alkylamine	Proprietary	5%	0.00212%
			Crystalline silica, quartz	14808-60-7	100%	18.87832%
			Crystalline Silica, Quartz	14808-60-7	0.1%	0.00013%
			Cured acrylic resin	Confidential	30%	0.00248%
			Enzyme	Confidential	5%	0.0004%
			Ethylene glycol	107-21-1	30%	0.01431%
			Ethylenediaminetetraacetic acid, tetrasodium salt	64-02-8	0.01%	0%
			Fatty acids, tall oil	Confidential	30%	0.00358%
			Glassy calcium magnesium phosphate	65997-17-3	100%	0.01658%
			Guar gum	9000-30-0	100%	0.12909%
			Hexamethylenetetramine	100-97-0	2%	0.05621%
			Hydrochloric acid	7647-01-0	60%	1.18692%
			Hydrochloric Acid	7647-01-0	1%	0.00038%
			Methanol	67-56-1	60%	0.00715%
			Monoethanolamine borate	26038-87-9	100%	0.04769%
			Olefins	Confidential	5%	0.00143%
			Phenol / formaldehyde resin	9003-35-4	5%	0.14052%
			Phosphonate Compound	Confidential	60%	0.02301%
			Poly(oxy-1,2-ethanediyl), .alpha.-isodecyl-.omega.-hydroxy-	61827-42-7	30%	0.01272%
			Propargyl alcohol	107-19-7	10%	0.00119%
			Reaction product of acetophenone, formaldehyde, thiourea and oleic acid in dimethyl formamide	68527-49-1	30%	0.00358%
			Silica gel	112926-00-8	1%	0.00129%
			Sodium bicarbonate	144-55-8	0.01%	0%
			Sodium chloride	7647-14-5	30%	0.00026%
			Sodium hydroxide	1310-73-2	30%	0.00412%
			Surfactant mixture	Confidential	1%	0.00258%
			Tributyl tetradecyl phosphonium chloride	81741-28-8	10%	0.00411%
			Walnut hulls	NA	100%	0.00799%
			Water	7732-18-5	100%	2.14005%

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: Chasity Jackson Title: Regulatory Analyst

Date: 12/17/2015

E-mail Address: cjackson@conchoresources.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.