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. 30-025-42062
2. Well Name: PYGMY 27 STATE #002H
3. Well Number: 002H

HYDRAULIC FRACTURING FLUID DISCLOSURE

☒ Original

☐ Amendment

4. Surface Hole Location:
Unit:C Lot:C Section:27 Township:21S Range:33E
Feet from:190 N/S Line:N
Feet from:1980 E/W Line:W

5. Bottom Hole Location:
Unit:N Lot:N Section:27 Township:21S Range:33E
Feet from:330 N/S Line:S
Feet from:1968 E/W Line:W

6. latitude: 32.4565288230314 longitude: -103.562514319184

7. County: Lea

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: 4/22/2015 Frac Performed by: Halliburton

12. Production Type: O

13. Pool Code(s): 97929

14. Gross Fractured Interval: 10,437 ft to 14,690 ft

15. True Vertical Depth (TVD): 10,275 ft

16. Total Volume of Fluid Pumped: 6,923,548 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)
FE-1	Halliburton	Base Fluid	NA	NA	0%	0%
Fresh Water	Operator	Base Fluid	Fresh Water	7732-18-5	100%	87.50972%
BE-6 MICROBIOCIDE, BE-9, CL-22 UC, CL-31 CROSSLINK	Halliburton	Additive, Biocide, Breaker, Clay Stabilizer, Clay Stablizer, Corrosion Inhibitor, Crosslinker, Defoa	NA	NA	0%	0%
Scalechek(R) SCP-2 Scale Inhibitor, SP BREAKER, WG	Halliburton	pH Control Additive, Scale Inhibitor, Scale Preventer, Surfactant	NA	NA	0%	0%
			2,7-Naphthalenedisulfonic acid, 3-hydroxy-4-[(4-sulfor-1-naphthalenyl) azo] -, trisodium salt	915-67-3	0.01%	0%
			2,7-Naphthalenedisulfonic acid, 5-(acetylamino) -4-hydroxy-3-[(2-methoxyphenyl) azo] -, disodium salt	6625-46-3	0.01%	0%
			2-Bromo-2-nitro-1,3-propanediol	52-51-7	100%	4E-05%
			Acetic acid	64-19-7	100%	1.72948%
			Acrylate polymer	Confidential	1%	0.00023%
			Alcohols, C14-C15, ethoxylated	68951-67-7	30%	0.0009%
			Alkane	Confidential	1%	0.00044%
			Alkenes	Confidential	100%	0.00364%
			Amine salts	Confidential	0.1%	0.0001%
			Ammonium persulfate	7727-54-0	100%	0.00501%
			Ammonium salt	Confidential	60%	0.02892%
			Bentonite, benzyl(hydrogenated tallow alkyl) dimethylammonium stearate complex	121888-68-4	5%	0.00786%
			Borate salts	Confidential	60%	0.01363%
			Complex alkylamine	Proprietary	5%	0.00222%
			Crystalline silica, quartz	14808-60-7	30%	0.00152%
			Crystalline Silica, Quartz	14808-60-7	0.1%	0.00016%
			Cured acrylic resin	Confidential	30%	0.0015%
			Ethylenediaminetetraacetic acid, tetrasodium salt	64-02-8	0.01%	0%
			Fatty acids, tall oil	Confidential	30%	0.0009%
			Food red 10	3734-67-6	0.01%	0%
			Glassy calcium magnesium phosphate	65997-17-3	100%	0.01692%
			Guar gum	9000-30-0	100%	0.15719%
			Methanol	67-56-1	60%	0.00179%
			NFIDB:NA	NFIDB:NA	100%	10.35172%
			Olefins	Confidential	5%	0.00036%
			Poly(oxy-1,2-ethanediyl), .alpha.-isodecyl-.omega.-hydroxy-	61827-42-7	30%	0.01333%
			Polyacrylate	Confidential	60%	0.01578%
			Polyepichlorohydrin, trimethyl amine quaternized	51838-31-4	60%	0.00834%
			Polypropylene glycol	25322-69-4	30%	0.00109%
			Potassium formate	590-29-4	60%	0.01363%
			Potassium hydroxide	1310-58-3	5%	0.00044%
			Potassium metaborate	13709-94-9	60%	0.00523%
			Propargyl alcohol	107-19-7	10%	0.0003%
			Quaternary amine	Confidential	5%	0.00294%
			Reaction product of acetophenone, formaldehyde, thiourea and oleic acid in dimethyl formamide	68527-49-1	30%	0.0009%
			Silica gel	112926-00-8	1%	0.00157%
			Siloxanes and Silicones, di-Me, reaction products with silica	67762-90-7	30%	0.00109%
			Sodium bicarbonate	144-55-8	0.01%	0%
			Sodium carboxymethyl cellulose	9004-32-4	1%	0.00023%
			Sodium chloride	7647-14-5	5%	0.00272%
			Sodium glycollate	2836-32-0	1%	0.00023%
			Sodium hydroxide	1310-73-2	30%	0.00248%
			Sodium persulfate	7775-27-1	100%	0.00809%
			Sodium sulfate	7757-82-6	5%	0.00132%
			Surfactant mixture	Confidential	1%	0.00314%
			Tributyl tetradecyl phosphonium chloride	81741-28-8	10%	0.00427%
			Trimethylamine, N-oxide	1184-78-7	5%	0.0007%
			Water	7732-18-5	100%	0.17606%

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: Stormi Davis Title: Regulatory Analyst

Date: 5/29/2015

E-mail Address: sdavis@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.