

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

HYDRAULIC FRACTURING FLUID
DISCLOSURE

☒ Original
☐ Amendment

4. Surface Hole Location:
Unit: C Lot: 3 Section: 5 Township: 20S Range: 30E
Feet from: 190
Feet from: 2250
5. Bottom Hole Location:
Unit: F Lot: F Section: 8 Township: 20S Range: 30E
Feet from: 2303
Feet from: 1973
6. Latitude: 32.609016 Longitude: -103.994952
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: 9/7/2015 Frac Performed by: Halliburton

12. Production Type:
O

13. Pool Code(s):
49622

14. Gross Fractured Interval:
8,534 ft to 15,440 ft

15. True Vertical Depth (TVD):
8,477 ft

16. Total Volume of Fluid Pumped:
8,612,367 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%	86.80348%
HYDROCHLORIC ACID	Halliburton	Base Fluid	NA	NA	0%	0%
BC-140 X2, BE-9, Cla-Web(TM), FE-1A ACIDIZING COMP	Halliburton	Additive, Biocide, Breaker, Concentrate, Corrosion Inhibitor, Friction Reducer, Gelling Agent, Initi	NA	NA	0%	0%
Scalechek(R) SCP-2 Scale Inhibitor, WG-36 GELLING	Halliburton	Scale Preventer, Surfactant	NA	NA	0%	0%
Parasorb, Scaletrol	Baker Hughes	Additive, 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%	3E-05%
			Acetic acid	64-19-7	60%	0.00219%
			Acetic anhydride	109-24-7	100%	0.00365%
			Alcohols ethoxylated	Confidential	5%	0.00028%
			Alcohols, C14-C15, ethoxylated	Confidential	30%	0.00018%
			Alkane	Confidential	1%	0.00044%
			Amide	Confidential	5%	0.00028%
			Amine salts	Confidential	0.1%	0.0001%
			Ammonium chloride	12125-02-9	5%	0.00028%
			Ammonium salt	Confidential	60%	0.02856%
			Bentonite, benzyl(hydrogenated tallow alkyl) dimethylammonium stearate complex	121888-68-4	5%	0.00422%
			C.I. Pigment Red 5	6410-41-9	1%	4E-05%
			Calcium chloride	10043-52-4	5%	0.00129%
			Citric acid	77-92-9	60%	0.00228%
			Complex alkylamine	Proprietary	5%	0.00218%
			Crystalline silica, quartz	14808-60-7	100%	12.50756%
			Crystalline silica, quartz	14808-60-7	0.1%	8E-05%
			Crystalline silica, Quartz	14808-60-7	1%	0.00011%
			Cured acrylic resin	Confidential	30%	0.00137%
			Diatomaceous earth, calcined	91053-39-3	60%	0.00655%
			Enzyme	Confidential	5%	0.00022%
			Ethylene glycol	107-21-1	30%	0.01588%
			Ethylenediaminetetraacetic acid, tetrasodium salt	64-02-8	0.01%	0%
			Fatty acids, tall oil	Confidential	30%	0.00018%
			Glassy calcium magnesium phosphate	65997-17-3	100%	0.0139%
			Guar gum	9000-30-0	100%	0.08442%
			Hexamethylenetetramine	100-97-0	2%	0.05006%
			Hydrochloric acid	7647-01-0	60%	0.22221%
			Hydrotreated light petroleum distillate	64742-47-8	30%	0.00171%
			Methanol	67-56-1	60%	0.00037%
			Mineral oil	8042-47-5	30%	0.00328%
			Monoethanolamine borate	26038-87-9	100%	0.02714%
			Olefins	Confidential	5%	7E-05%
			Phenol / formaldehyde resin	9003-35-4	5%	0.12516%
			Poly(oxy-1,2-ethanediy), alpha -isodecyl- omega -hydroxy-	61827-42-7	30%	0.01306%
			Polyacrylamide copolymer	Confidential	30%	0.00171%
			Propargyl alcohol	107-19-7	10%	6E-05%
			Quaternary amine	Confidential	5%	0.0029%
			Reaction product of acetophenone, formaldehyde, thiourea and oleic acid in dimethyl formamide	68527-49-1	30%	0.00018%
			Silica gel	112926-00-8	1%	0.00084%
			Sodium bicarbonate	144-55-8	0.01%	0%
			Sodium chloride	7647-14-5	30%	0.00279%
			Sodium hydroxide	1310-73-2	30%	0.00164%
			Sodium perborate tetrahydrate	10486-00-7	100%	0.00059%
			Sorbitan monooleate	9005-65-6	1%	6E-05%
			polyoxyethylene derivative			
			Sorbitan, mono-9-octadecenoate, (Z)	1338-43-8	1%	6E-05%
			Surfactant mixture	Confidential	1%	0.00169%
			Tributyl tetradecyl phosphonium chloride	81741-28-8	10%	0.00422%
			Walnut hulls	NA	100%	0.00443%
			Water	7732-18-5	100%	0.50832%

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: 10/7/2015

E-mail Address: sdavis@conchoresources.com

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