

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:
30-025-41390

2. Well Name:
CRAZY HORSE FEDERAL COM #002H

3. Well Number:
002H

HYDRAULIC FRACTURING FLUID
DISCLOSURE

☒ Original
☐ Amendment

4. Surface Hole Location:
Unit:E Lot:2 Section:18 Township:19S Range:32E
Feet from:1750 N/S Line:N
Feet from:420 E/W Line:W

5. Bottom Hole Location:
Unit:H Lot: Section:18 Township:19S Range:32E
Feet from:1853 N/S Line:N
Feet from:336 E/W Line:E

6. latitude: longitude:
32.6629849914061 -103.81287614553

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: 1/17/2014 Frac Performed by: Halliburton

12. Production Type:
O

13. Pool Code(s):
41440

14. Gross Fractured Interval:
9,437 ft to 13,460 ft

15. True Vertical Depth (TVD):
9,185 ft

16. Total Volume of Fluid Pumped:
4,634,337 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				100%	84.22369%
HYDROCHLORIC ACID 5-10%	Halliburton		Hydrochloric acid	7647-01-0	10%	0.15985%
SAND - PREMIUM WHITE	Halliburton	Proppant	Crystalline silica, quartz	14808-60-7	100%	10.86736%
CRC SAND	Halliburton	Proppant	Crystalline silica, quartz	14808-60-7	100%	2.89972%
			Hexamethylenetetramine	100-97-0	2%	0.05799%
			Phenol / formaldehyde resin	9003-35-4	5%	0.14499%
BE-9	Halliburton	Biocide	Tributyl tetradecyl phosphonium chloride	81741-28-8	10%	0.004%
CLA-STA XP ADDITIVE	Halliburton	Clay Stabilizer	Polyepichlorohydrin, trimethyl amine quaternized	51838-31-4	60%	0.00608%
Cla-Web™	Halliburton	Additive	Ammonium salt	Confidential Business Information	60%	0.02928%
SUPERSET W	Halliburton	Activator	Methanol	67-56-1	60%	0.02583%
			Ethoxylated nonylphenol	Confidential Business Information	60%	0.02583%
HpH BREAKER	Halliburton	Breaker	Sodium chloride	7647-14-5	30%	3E-05%
BC-140 X2	Halliburton	Initiator	Ethylene glycol	107-21-1	30%	0.00369%
			Monoethanolamine borate	26038-87-9	100%	0.01229%
MO-67	Halliburton	pH Control Additive	Sodium hydroxide	1310-73-2	30%	0.00339%
Losurf-360W	Halliburton	Surfactant	Poly(oxy-1,2-ethanedilyl), alpha.-isodecyl- omega.-hydroxy- Glycerine	61827-42-7	30%	0.01252%
			Complex alkylamine	56-81-5	10%	0.00417%
Scaletrol 720	Baker Hughes	Scale Preventer	Ethylene glycol	107-21-1	30%	0.00209%
			Calcium chloride	10043-52-4	5%	0.00124%
WG-36 GELLING AGENT	Halliburton	Gelling Agent	Guar gum	9000-30-0	100%	0.14241%
OPTIFLO-HTE	Halliburton	Breaker	Crystalline silica, quartz	14808-60-7	30%	0.00167%
			Walnut hulls	Mixture	100%	0.00557%
Scalechek® SCP-2 Scale Inhibitor	Halliburton	Scale Preventer	Glassy calcium magnesium phosphate	65997-17-3	100%	0.01525%
BE-6 MICROBIOCID	Halliburton	Biocide	2-Bromo-2-nitro-1,3-propanediol	52-51-7	100%	0.0001%
Parasorb 5000	Baker Hughes	Paraffin Inhibitor	Diatomaceous earth, calcined	91053-39-3	60%	0.00915%
			Mineral oil	8042-47-5	30%	0.00458%
			Crystalline silica: Quartz (SiO2)	14808-60-7	1%	0.00015%
			1,2-Benzisothiazolin-3-one	2634-33-5	0%	0%
			2,7-Naphthalenedisulfonic acid, 3-hydroxy-4-[(4-sulfor-1-naphthalenyl) azo] -, trisodium salt	915-67-3	0%	0%
			Amine salts	Confidential Business Information	0%	0%
			Amine salts	Confidential Business Information	0%	0%
			Bentonite, benzyl(hydrogenated tallow alkyl) dimethylammonium stearate complex	121888-68-4	0%	0%
			C.I. Pigment Red 5	6410-41-9	0%	0%
			Calcium chloride	10043-52-4	0%	0%
			Crystalline Silica, Quartz	14808-60-7	0%	0%
			Cured acrylic resin	Confidential Business Information	0%	0%
			Cured acrylic resin	Confidential Business Information	0%	0%
			Enzyme	Confidential Business Information	0%	0%
			Enzyme	Confidential Business Information	0%	0%
			Quaternary amine	Confidential Business Information	0%	0%
			Quaternary amine	Confidential Business Information	0%	0%
			Quaternary amine	Confidential Business Information	0%	0%
			Silica gel	112926-00-8	0%	0%
			Sodium chloride	7647-14-5	0%	0%
			Surfactant mixture	Confidential Business Information	0%	0%
			Surfactant mixture	Confidential Business Information	0%	0%
			Trimethylamine, N-oxide	1184-78-7	0%	0%
			Water	7732-18-5	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: Stormi Davis

Date: 7/16/2014

E-mail Address: sdavis@conchoresources.com

Title: Regulatory Analyst

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