

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:
30-025-41888

2. Well Name:
GRAMMA 27 STATE #002H

3. Well Number:
002H

HYDRAULIC FRACTURING FLUID
DISCLOSURE

☒ Original
☐ Amendment

4. Surface Hole Location:
Unit:A Lot:A Section:27 Township:21S Range:34E
Feet from:330 N/S Line:N
Feet from:500 E/W Line:E

5. Bottom Hole Location:
Unit:A Lot:A Section:27 Township:21S Range:34E
Feet from:330 N/S Line:N
Feet from:500 E/W Line:E

6. Latitude:
32.4562565084484 longitude:
-103.450793155385

7. County:
Lea

8. Operator Name and Address:
CAZA OPERATING, LLC
200 N LORAINE
STE 1550
MIDLAND 79701

9. OGRID:
249099

10. Phone Number:
432-682-7424

11. Last Fracture Date:
8/4/2014 Frac Performed by:
Nabors Completion & Production Services

12. Production Type:
O

13. Pool Code(s):
28435

14. Gross Fractured Interval:
10,575 ft to 14,572 ft

15. True Vertical Depth (TVD):
10,288 ft

16. Total Volume of Fluid Pumped:
2,967,272 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)
HCL Acid (12.5 %-18.0%)	Nabors Completion & Production Ser	Bulk Acid	20° Baume Hydrochloric Acid	7647-01-0	100%	0.080003%
Acid Inhibitor 3M (AL-3M)	Nabors Completion & Production Ser	Acid Corrosion Inhibitors	Water	7732-18-5	100%	0.078419%
			1-DECANOL	112-30-1	5%	0.00026%
			1-OCTANOL	111-87-5	2.5%	0.00013%
			2-Butoxyethanol	111-76-2	7%	0.000364%
			Cinnamaldehyde	104-55-2	6%	0.000312%
			Ethoxylated Nonyphenol	68412-54-4	5%	0.00026%
			Ethylene Glycol	107-21-1	40%	0.002081%
			Isopropyl Alcohol	67-63-0	2.5%	0.00013%
			N,N-Dimethylformamide	68-12-2	20%	0.001041%
			Triethyl Phosphate	78-40-0	2.5%	0.00013%
KR-153SL	Nabors Completion & Production Ser	Biocides	2,2-dibromo-3-nitriopropionamide	10222-01-2	20%	0.00368%
Clay Treat LT	Nabors Completion & Production Ser	Clay Control Additives	Polyethylene-Glycol	25322-68-3	50%	0.009199%
			Water	7732-18-5	65%	0.053363%
XL-11	Nabors Completion & Production Ser	Cross-Linkers	Ethylene Glycol	107-21-1	10%	0.012867%
			Potassium Hydroxide	1310-58-3	5%	0.006434%
			Potassium Metaborate	13709-94-9	30%	0.038602%
			Water	7732-18-5	75%	0.096504%
OB-2	Nabors Completion & Production Ser	Gel Breaker	Ammonium Persulfate	727-54-0	100%	0.005071%
			Silica,crystalline Quartz	7631-86-9	10%	0.000571%
EB-20L	Nabors Completion & Production Ser	Gel Breakers	Hemicellulase Enzyme	Proprietary	1%	4.4E-05%
LSG-100	Nabors Completion & Production Ser	Gelling Agents	Guar Gum	9000-30-0	50%	0.225237%
			Petroleum Distillates	64742-47-8	60%	0.270284%
			Surfactant	68439-51-0	2%	0.009009%
IC-500	Nabors Completion & Production Ser	Iron Contro Additives	2-Mercaptoethanol or Thioglycol	60-24-2	75%	0.003112%
			Aqua Ammonia	1336-21-6	5%	0.000207%
			Cupric Chloride	10125-13-0	7%	0.00029%
			Aliphatic Hydrocarbons	Proprietary	95%	0.01342%
			Dodecane	Proprietary	14%	0.001978%
Super Greem Solvent-M	Nabors Completion & Production Ser	Paraffin & Scale Additives	Tridecane	Proprietary	9%	0.001271%
			Tetradecane	Proprietary	11%	0.001554%
			Undecane	Proprietary	8%	0.00113%
			Water	7732-18-5	60%	0.009973%
			Super TSC-LTS	Nabors Completion & Production Ser	Paraffin and Scale Additive	
Super OW 3	Nabors Completion & Production Ser	Surfactant & Foamers	Dimethylcocoamine,bis (chloroethyl) ether,diquaternary ammonium salt	68607-28-3	60%	0.00066%
			Isopropyl Alcohol	67-63-0	60%	0.00066%
			Methanol	67-56-1	30%	0.00033%
			Ethylene Glycol	107-21-1	60%	0.054523%
Super Flow ZM	Nabors Completion & Production Ser	Surfactant & Foamers	Methanol	67-56-1	60%	0.054523%
			Ethylene Glycol	107-21-1	60%	0.054523%
			Phosphate Ester	Proprietary	0%	0%
			Aluminum Oxide	1344-28-1	1.1%	0.002308%
			Crystalline Silica,quartz	14808-60-7	99.9%	0.209607%
Tx Specific 30/50 mesh Sand	Nabors Completion & Production Ser	Sand-Bulk-Texas	Iron Oxide	1309-37-1	0.1%	0.00021%
			Titanium Oxide	13463-67-7	0.1%	0.00021%
			Quaternized Alkyl Nitrogenated Compound	Proprietary	7%	0.006361%
			Amorphous Silica	7631-86-9	15%	1.705091%
			Cristobalite	14464-46-1	30%	3.410183%
Imerys Proliete 30/50	Nabors Completion & Production Ser	Propapants-Manufactured-Miscellaneous	Mulite	1302-93-8	70%	7.957094%
			Water	7732-18-5	100%	87.4426625%
Water	Caza Operating, LLC	Water				

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:
8/26/2014
E-mail Address: rwright@cazapetro.com

Signed Electronically
Printed Name: Richard Wright

Title:

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.