

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 February 15, 2012					
		1. WELL API NO: 30-025-41173					
		2. Well Name: WEST GRAMA RIDGE 6 FEDERAL #004H					
		3. Well Number: 004H					
HYDRAULIC FRACTURING FLUID DISCLOSURE ☒ Original ☐ Amendment		4. Surface Hole Location: Unit:A Lot:1 Section:6 Township:22S Range:34E Feet from:330 N/S Line:N E/W Line:E Feet from:660					
		5. Bottom Hole Location: Unit:A Lot:1 Section:6 Township:22S Range:34E Feet from:330 N/S Line:N E/W Line:E Feet from:660					
		6. latitude: longitude: 32.4270984228248 - 103.502646376511					
		7. County: Lea					
8. Operator Name and Address: CIMAREX ENERGY CO. 600 N MARIENFELD STREET SUITE 600 MIDLAND 79701		9. OGRID: 215099	10. Phone Number:				
11. Last Fracture Date: 9/16/2013 Frac Performed by: Halliburton		12. Production Type: O					
13. Pool Code(s): 28432		14. Gross Fractured Interval: 10,854 ft to 11,025 ft					
15. True Vertical Depth (TVD): 11,025 ft		16. Total Volume of Fluid Pumped: 1,683,175 gals					
17. 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%	83.28338%	
LoSurf 360	Halliburton	Surfactant	Poly(oxy-1,2-ethanediyl), .alpha.-isodecyl-.omega.-hydroxy-Complex alkylamine	61827-42-7 Proprietary	30% 5%	0.01263% 0.00421%	
Premium White - 20/40	Halliburton	Proppant	Crystalline silica, quartz	14808-60-7	100%	11.39738%	
Garnet CRC 20/40	Halliburton	Proppant	Crystalline silica, quartz	14808-60-7	100%	4.55217%	
			Hexamethylenetetramine	100-97-0	2%	0.09104%	
			Phenol / formaldehyde resin	9003-35-4	5%	0.22761%	
BA-20 BUFFERING AGENT	Halliburton	Buffer	Acetic acid	64-19-7	30%	0.00178%	
			Ammonium acetate	631-61-8	100%	0.00593%	
BC-140 X2	Halliburton	Initiator	Ethylene glycol	107-21-1	30%	0.02709%	
			Monoethanolamine borate	26038-87-9	100%	0.09031%	
WG-36 GELLING AGENT	Halliburton	Gelling Agent	Guar gum	9000-30-0	100%	0.19085%	
OPTIFLO-HTE	Halliburton	Breaker	Crystalline silica, quartz	14808-60-7	30%	0.00149%	
			Walnut hulls	Proprietary	100%	0.00498%	
SP BREAKER	Halliburton	Breaker	Sodium persulfate	7775-27-1	100%	0.00047%	
HCL 15%	Petroplex	Acid	Hydrochloric Acid	7647-01-0	15%	0.01547%	
Cronox AK-50	Petroplex	Corrosion Inhibitor	Oxyalkylated Alkylphenol	Proprietary	30%	6E-05%	
			Heavy Aromatic Naptha	64742-94-5	30%	6E-05%	
			Isopropanol	67-63-0	30%	6E-05%	
			Fatty Acids	Proprietary	10%	2E-05%	
			Complex Alkylaryl Poly-Ester	Proprietary	10%	2E-05%	
			Tar Bases, Quinoline Derivatives, Benzyl Chloride-Quaternized	72480-70-7	10%	2E-05%	
			Formaldehyde	50-00-0	10%	2E-05%	
			Acetylenic Alcohol	Proprietary	5%	1E-05%	
			Propargyl Alcohol	107-19-7	5%	1E-05%	
			Napthalene	91-20-3	5%	1E-05%	
Citric Acid	Petroplex	Iron Control	Citric Acid	77-92-9	100%	0.00516%	
EC9546A	Petroplex	Surfactant	Heavy Aromatic Naptha	64742-94-5	10%	2E-05%	
			Isopropanol	67-63-0	60%	0.00011%	
			Polyethylene Glycol	25322-68-3	5%	1E-05%	
			Napthalene	91-20-3	1%	0%	
			Phosphoric Acid Ester	Proprietary	10%	2E-05%	
			Oxyalkylated Alcohol	Proprietary	10%	2E-05%	
			Oxyalkylated Alkyl Alcohol	Proprietary	10%	2E-05%	
CIO2	Bosque	Biocide	Chlorine Dioxide	10049-04-4	100%	0.00021%	
Ingredients Listed Below This Line Are Part of the			2,7-Naphthalenedisulfonic acid, 3-hydroxy-4-[(4-sulfor-1-naphthalenyl) azo] -, trisodium salt	915-67-3	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%	
			Crystalline Silica, Quartz	14808-60-7	0%	0%	
			Cured acrylic resin	Proprietary	0%	0%	
			Enzyme	Proprietary	0%	0%	
			Silica gel	112926-00-8	0%	0%	
			Sodium sulfate	7757-82-6	0%	0%	
			Surfactant mixture	Proprietary	0%	0%	
			Water	7732-18-5	0%	0%	
	18. 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: Skipper Herring		Manager Stimulation Title: Operations		
	Date: 10/12/2013						
E-mail Address: sherring@cimarex.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.