Submit within 45 days of well completion		State of New Mexico Energy, Minerals and Natural Resources Oil Conservation Division			Revised February 15, 2012 1. WELL API NO. 30-015-40465				
					Well Name: RAVEN FEDERAL #001				
1220 S. St Francis Dr. Santa Fe, NM 87505					3. Well Number: 001				
HYDRAULIC FRACTURING FLUID DISCLOSURE					4. Surface Hole Location: Unit:L Lot:3 Section:7 Township:17S Range:31E Feet from:2190 N/S Line:S				
⊠ Original					Feet from:990 E/W Line:W				
☐ Amendment					5. Bottom Hole Location: Unit:L Lot:3 Section:7 Township:17S Range:31E Feet from:2190 N/S Line:S Feet from:990 E/W Line:W				
					6. latitude:	947767	2749222	ngitude:	
				7	County:			03.91370705951	
				4		,			
Operator Name and Address: APACHE CORP 303 Veterans Airpark Lane Suite 3000 Midland 79705					9. OGRID: 873		10. Phone Number: 432-818-1062		
11. Last Fracture Da		9/2012 Frac Perf	ormed by: Baker Hughes		12. Productio	n Type:			
13. Pool Code(s):					O 14. Gross Fractured Interval:				
96831					5,880 ft to 5,980 ft				
15. True Vertical Depth (TVD): 5,980 ft					16. Total Volume of Fluid Pumped: 2,361 bbls				
			CONCENTRATION:						
Trade Name	Supplier	Purpose	Ingredients		S #) Chemical tract Service			Maximum Ingredient Concentration in HF Fluid (% by mass)	
Water	Operator	Carrier	Water	_	32-18-5		100%	84.45119%	
Superset-W, 330 gl tote	Baker Hughes	Activator	Methanol Poly (Oxyethylene)		56-1 16-45-9		50% 50%	0.03837% 0.03837%	
Alpha 125	Baker Hughes	Biocide	Nonylphenol Ether Glutaraldehyde	111	1-30-8		30%	0.00701%	
GBW-5	Baker Hughes	Breaker	Ammonium Phosphate	772	27-54-0	100		0.00306%	
GBW-15L	Baker Hughes	Breaker	Enzyme solution	Tra	de Secret	100%		0.05672%	
ClayCare, tote	Baker	Clay	Choline Chloride	_	48-1		75%	0.03972%	
XLW-10A	Hughes Baker	Crosslinker	Water Ethylene Glycol	_	32-18-5 7-21-1		30% 30%	0.01589% 0.04247%	
	Hughes	Ciossilikei	Sodium Hydroxide	_	10-73-2		10%	0.04247 %	
	- 1000 - 1000		Sodium Tetraborate	_	30-43-4		30%	0.04247%	
GW-4LDF	Baker Hughes	Gelling Agent	Guar Gum Paraffinic Petroleum Distillate		00-30-0 742-55-8		60% 60%	0.32962% 0.32962%	
		1	Petroleum Distillate	647	742-47-8		60%	0.32962%	
NE-35, 330 gl	Baker	Non-	Mixture of Surfactants	Tra	de Secret		50%	0.04515%	
Sand, White,	Hughes Baker	emulsifier Proppant	Propylene Glycol Crystalline Silica (Quartz)	_	55-6 308-60-7	30% 100%		0.02709% 10.22861%	
16/30 Super LC, 16/30	Hughes Baker	Proppant	Hexamethylenetetramine	100	9-7-0		0.01%	0.00037%	
	Hughes		P/F Resin Silicon Dioxide (Silica	900	03-35-4 808-60-7		5% 97%	0.18702% 3.62827%	
Inclo 0500 000	Bakar	Ouefe -tt	Sand)		50.4		2001	0.007000	
InFlo 250G, 330 gl tote	Baker Hughes	Surfactant	Methanol Mixture of Surfactants	_	56-1 de Secret		30% 50%	0.02708% 0.04514%	
	ugiioo		Water	_	32-18-5		30%	0.02708%	
Ingredients shown above			Methanol	67-	56-1		0%	5.85E-05%	
CFR 1910		that the information	Water on shown on this disclosure for		32-18-5	ete to the	0% e best of my kr	0.0458498%	
Signature:	Signed Ele 1/28/2013		Printed Name: F3				Title: Regula		

E-mail Address: fatima.vasquez@apachecorp.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.