

Hydraulic Fracturing Fluid Product Component Information Disclosure

Job Start Date:	4/21/2013
Job End Date:	4/24/2013
State:	Oklahoma
County:	Johnston
API Number:	35-069-20142-00-00
Operator Name:	XTO Energy/ExxonMobil
Well Name and Number:	Ross 3-29H
Longitude:	-96.80544400
Latitude:	34.17386100
Datum:	NAD27
Federal/Tribal Well:	NO
Total Base Water Volume (gal):	9,507,372
Total Base Non Water Volume:	



Hydraulic Fracturing Fluid Composition:

Trade Name	Supplier	Purpose	Ingredients	Chemical Abstract Service Number (CAS #)	Maximum Ingredient Concentration in Additive (% by mass)**	Maximum Ingredient Concentration in HF Fluid (% by mass)**	Comments
Sand	Halliburton	Proppant					
			Crystalline Silica	14808-60-7	100.00000	5.55082	
HCL 15%	Halliburton	Hydrochloric Acid					
			Water	7732-18-5	60.00000	0.05621	
			Hydrogen Chloride	7647-01-0	40.00000	0.03747	
FR-66	Halliburton	Friction Reducer					
			Proprietary	NA	70.00000	0.03526	
			Hydrotreated light petroleum distillate	64742-47-8	30.00000	0.01511	
Bactron K-176	Champion	Biocide					
			Water	7732-18-5	0.45000	0.01555	
			Glutaraldehyde	111-30-8	30.00000	0.01037	
			Quaternary ammonium compounds,benzyl-C12-16 alkydimethyl, chloride	68424-85-1	10.00000	0.00346	
			1-Decanaminium,N-decyl-N,N-dimethyl-chloride	7173-51-5	10.00000	0.00346	
			Ethenol	64-17-5	5.00000	0.00173	
Gypton T-390	Champion	Scale Inhibitor					
			Water	7732-18-5	80.00000	0.00814	
			Methanol	67-56-1	10.00000	0.00172	
			Nonylphenol Ethoxylate	NA	10.00000	0.00102	

Optikleen	Halliburton	Breaker					
			Sodium Perborate Tetrahydrate	10486-00-7	100.00000	0.00514	
HAI-OIS	Halliburton	Acid Corrosion Inhibitor					
			Methanol	67-56-1	60.00000	0.00008	
			Proprietary	NA	30.00000	0.00004	
			Propargyl Alcohol	107-19-7	10.00000	0.00001	
Ingredients shown above are subject to 29 CFR 1910.1200(i) and appear on Material Safety Data Sheets (MSDS). Ingredients shown below are Non-MSDS.							
		Other Chemicals					
			Water	7732-18-5	100.00000	94.25344	

* Total Water Volume sources may include fresh water, produced water, and/or recycled water

** Information is based on the maximum potential for concentration and thus the total may be over 100%

Note: For Field Development Products (products that begin with FDP), MSDS level only information has been provided.

Ingredient information for chemicals subject to 29 CFR 1910.1200(i) and Appendix D are obtained from suppliers Material Safety Data Sheets (MSDS)