Hydraulic Fracturing Fluid Product Component Information Disclosure

Fracture Date	**12/7/2011**
State:	**California**
County:	**Kern**
API Number:	**04-030-44462**
Operator Name:	**ExxonMobil Corporation**
Well Name and Number:	**Hill 632GW**
Longitude:	**-119.755037**
Latitude:	**35.481523**
Long/Lat Projection:	**WGS84**
Production Type:	**Oil**
True Vertical Depth (TVD):	**2,857**
Total Water Volume (gal)*:	**280,056**

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
Water				7732-18-5	100.00%	80.53495%	Density = 8.330
Sand	BJ Services	Proppant	Crystalline Silica (quartz)	14808-60-7	99.90%	18.44615%	
GW3-LDF	BJ Services	Gellant - Water					
			Petroleum Distillate Blend	Proprietary	70.00%	0.32265%	
			Guar Gum	009000-30-0	40.00%	0.18437%	
XLW-32	BJ Services	Cross Linker					
			Methanol	67-56-1	90.00%	0.04627%	
			Boric Oxide	68951-67-7	20.00%	0.01028%	
BF-7L	Baker Hughes	Special Buffer Solution	Potassium Carbonate	584-08-7	60.00%	0.08750%	
ENZYME G Conc (GBW-12 CD)	BJ Services	Breaker - Water	Hemicellulase Enzyme	N.A.	100.00%	0.00214%	
KCL	BJ Services	Base Fluid/Salt	Potassium Chloride	7447-40-7	100.00%	0.00214%	
GBW-5	BJ Services	Breaker - Water	Ammonium Persulfate	7727-54-0	99.00%	0.01299%	
XCIDE-207	Baker Hughes	Bacteria Control					
			5-chloro-2methyl-4-isothiazolin-3-one	26172-55-4	10.00%	0.00012%	
			2-Methyl-4-isothiazoline-3-one	2682-20-4	5.00%	0.00006%	
			Magnesium nitrate	10377-60-3	10.00%	0.00012%	
			Magnesium chloride	7786-30-3	5.00%	0.00006%	
			Diatomaceous earth, calcined	91053-39-3	60.00%	0.00075%	
			Crystalline silica: cristobalite	14464-46-1	1.00%	0.00001%	
			Crystalline silica: Quartz (SiO2)	14808-60-7	1.00%	0.00001%	
ENZYME G-1	Baker Hughes	Special Breaker	N.A.	N.A.	100.00%	0.05981%	

* 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%

All component information listed was obtained from the supplier's Material Safety Data Sheets (MSDS). As such, the Operator is not responsible for inaccurate and/or incomplete information. Any questions regarding the content of the MSDS should be directed to the supplier who provided it. The Occupational Safety and Health Administration's (OSHA) regulations govern the criteria for the disclosure of this information. Please note that Federal Law protects "proprietary", "trade secret", and "confidential business information" and the criteria for how this information is reported on an MSDS is subject to 29 CFR 1910.1200(i) and Appendix D.