

Hydraulic Fracturing Fluid Product Component Information Disclosure

Fracture Date:	4/26/2011
State:	COLORADO
County:	WELD
API Number:	0512332368
Operator Name:	CHESAPEAKE
Well Name and Number:	STATE 10-67 28-1H
Longitude:	-104.902546
Latitude:	40.811546
Long/Lat Projection:	NAD27
Production Type:	OIL
True Vertical Depth (TVD):	7,920
Total Water Volume (gal)*:	2,208,276

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
Fresh Water		Carrier/Base Fluid				83.91038%	
Sand (Proppant)		Proppant				9.09138%	
HCL	HALLIBURT	Acid	Water	007732-18-5	85.00%	2.40793%	
HYDROCHLORIC	ON ENERGY		Hydrochloric Acid	007647-01-0	15.00%	0.42493%	
HAI-OS	HALLIBURT	Corrosion Inhibitor	Methanol (Methyl Alcohol)	000067-56-1	60.00%	0.00779%	
	ON ENERGY		Propargyl Alcohol (2-Propynol)	000107-19-7	10.00%	0.00130%	
WG-18	HALLIBURT	Gelling Agent	Guar Gum Derivative	N/A	100.00%	0.23090%	
	ON ENERGY SERVICES						
VICON NF	HALLIBURT	Breaker	Sodium Chloride	007647-14-5	30.00%	0.08124%	
BREAKER	ON ENERGY		Sodium Chlorite	007758-19-2	10.00%	0.02708%	
LOSURF-300D	HALLIBURT	Surfactant	Ethanol	000064-17-5	60.00%	0.04299%	
	ON ENERGY SERVICES		Heavy Aromatic Naphtha (Naphtha, Petroleum Naphtha, Catalytic Reformed Naphtha, Heavy Paraffinic Distillate)	064742-94-5	30.00%	0.02149%	
			Naphthalene	000091-20-3	5.00%	0.00358%	
			Nonyl Phenol Poly Ethylene Glycol Ether Blend	127087-87-0	5.00%	0.00358%	

			1,2,4 Trimethylbenzene	000095-63-6	1.00%	0.00072%	
CLA-WEB	HALLIBURT ON ENERGY SERVICES	Clay Stabilizer	Proprietary	N/A	60.00%	0.02635%	
CL-23	HALLIBURT ON ENERGY SERVICES	Cross Linker	Zirconium Complex Quaternary Ammonium Chloride (Ammonium Chloride)	N/A 012125-02-9	60.00% 27.00%	0.02311% 0.01040%	
BE-7	HALLIBURT ON ENERGY	Anti-Bacterial Agent	Sodium Hypochlorite Sodium Hydroxide	007681-52-9 001310-73-2	30.00% 5.00%	0.00577% 0.00096%	
CAT-3	HALLIBURT ON ENERGY SERVICES	Activator	EDTA/Copper chelate	N/A	30.00%	0.00493%	

* 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.