

Hydraulic Fracturing Fluid Product Component Information Disclosure

Fracture Date	7/14/2011
State:	Arkansas
County:	CONWAY
API Number:	03-029-10867
Operator Name:	SEECO, Inc.
Well Name and Number:	POOLE-KIRTLEY 08-15 #5-22H15
Longitude:	-92.576499
Latitude:	35.313335
Long/Lat Projection:	NAD27
Production Type:	Gas
True Vertical Depth (TVD):	5,371
Total Water Volume (gal)*:	7,740,582

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
Surface Water	SEECO	Base Fluid	Water	7732-18-5	100.00%	60.28774%	
Recycled Water	SEECO	Base Fluid	Water	7732-18-5	100.00%	31.88185%	
Sand (Proppant)	SEECO	Proppant	Silica quartz	14808-60-7	100.00%	7.23356%	
15% HCl	CUDD	Hydrochloric Acid	Hydrochloric Acid	7647-01-0	36.93%	0.05879%	
FR10A	CUDD	Friction Reducer	No Hazardous Ingredients	N/A	N/A	0.05732%	
MAI-28	CUDD	Corrosion Inhibitor	Isopropanol	67-63-0	6.00%	0.00016%	
			Quaternary Amine	Proprietary	100.00%	0.00259%	
			Methanol	67-56-1	23.00%	0.00060%	
			Kerosene	8008-20-6	6.00%	0.00016%	
MIC-97	CUDD	Iron Stabilizer	Methyl Alcohol	67-56-1	20.00%	0.00031%	
Treat 661	CUDD	Scale Inhibitor	Methanol	67-65-1	15.00%	0.00073%	
Ozone	Ecosphere	Microbial Control	Ozone	10028-15-6	100.00%	0.00087%	
CFT-1000	Protechnics	Fluid Tracer	Proprietary Ingredient in Aqueous Solution	Proprietary	10.00%	0.00001%	
			Water	7732-18-5	90.00%	0.00005%	
CFT-1400	Protechnics	Fluid Tracer	Proprietary Ingredient in Aqueous Solution	Proprietary	10.00%	0.00001%	
			Water	7732-18-5	90.00%	0.00005%	
CFT-1100	Protechnics	Fluid Tracer	Proprietary Ingredient in Aqueous Solution	Proprietary	10.00%	0.00001%	
			Water	7732-18-5	90.00%	0.00005%	
CFT-1200	Protechnics	Fluid Tracer	Proprietary Ingredient in Aqueous Solution	Proprietary	10.00%	0.00001%	
			Water	7732-18-5	90.00%	0.00005%	
CFT-1500	Protechnics	Fluid Tracer	Proprietary Ingredient in Aqueous Solution	Proprietary	10.00%	0.00001%	
			Water	7732-18-5	90.00%	0.00005%	
CFT-1700	Protechnics	Fluid Tracer	Water	7732-18-5	90.00%	0.00005%	

			Proprietary Ingredient in Aqueous Solution	Proprietary	10.00%	0.00001%	
CFT-1600	Protechnics	Fluid Tracer	Water	7732-18-5	90.00%	0.00005%	
			Proprietary Ingredient in Aqueous Solution	Proprietary	10.00%	0.00001%	
CFT-1900	Protechnics	Fluid Tracer	Water	7732-18-5	90.00%	0.00005%	
			Proprietary Ingredient in Aqueous Solution	Proprietary	10.00%	0.00001%	
CFT-2000	Protechnics	Fluid Tracer	Water	7732-18-5	90.00%	0.00005%	
			Proprietary Ingredient in Aqueous Solution	Proprietary	10.00%	0.00001%	
CFT-2100	Protechnics	Fluid Tracer	Proprietary Ingredient in Aqueous Solution	Proprietary	10.00%	0.00001%	
			Water	7732-18-5	90.00%	0.00005%	
CFT-2200	Protechnics	Fluid Tracer	Water	7732-18-5	90.00%	0.00005%	
			Proprietary Ingredient in Aqueous Solution	Proprietary	10.00%	0.00001%	
CFT-2500	Protechnics	Fluid Tracer	Water	7732-18-5	90.00%	0.00005%	
			Proprietary Ingredient in Aqueous Solution	Proprietary	10.00%	0.00001%	
CFT-2400	Protechnics	Fluid Tracer	Water	7732-18-5	90.00%	0.00005%	
			Proprietary Ingredient in Aqueous Solution	Proprietary	10.00%	0.00001%	

* 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.