

Hydraulic Fracturing Fluid Product Component Information Disclosure

Last Fracture Date	05/09/2012
State:	California
County:	Ventura
API Number:	04-111-22143
Operator Name:	Vintage Prod Of Cal
Well Name and Number:	Dryden 29
Longitude:	-118.92002
Latitude:	34.36199
Long/Lat Projection:	NAD27
Production Type:	Oil
True Vertical Depth (TVD):	4,701
Total Water Volume (gal)*:	128,898

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	Operator	Carrier	Water	7732-18-5	100.00%	71.09392%	
Superset-W, 330 gl tote	Baker Hughes	Activator	Methanol	67-56-1	50.00%	0.06500%	
			Poly (Oxyethylene) Nonylphenol Ether	9016-45-9	50.00%	0.06500%	
Alpha 125	Baker Hughes	Biocide	Glutaraldehyde	111-30-8	30.00%	0.01101%	SmartCare Product
GBW-5	Baker Hughes	Breaker	Ammonium Persulfate	7727-54-0	100.00%	0.00397%	SmartCare Product
Enzyme G-I	Baker Hughes	Breaker	Hemicellulase Enzyme Concentrate	9025-56-3	3.00%	0.00488%	SmartCare Product
			Water	7732-18-5	97.00%	0.15783%	
BC-3	Baker Hughes	Breaker Catalyst	No Hazardous Ingredients	Trade Secret	100.00%	0.02125%	
BF-7L	Baker Hughes	Buffer	Potassium Carbonate	584-08-7	60.00%	0.06033%	SmartCare Product
			Potassium Hydroxide	1310-58-3	1.00%	0.00101%	
			Water	7732-18-5	60.00%	0.06033%	
Clay Master-5C (Tote)	Baker Hughes	Clay Control	Oxyakylated Amine Quat	138879-94-4	60.00%	0.06481%	
XLW-32, 260 gal tote	Baker Hughes	Crosslinker	Boric Acid (H3BO3)	10043-35-3	30.00%	0.01483%	
			Methanol	67-56-1	60.00%	0.02967%	
			Methyl Borate	121-43-7	30.00%	0.01483%	
GW-3LDF	Baker	Gelling Agent	1-Butoxy-2-Propanol	5131-66-8	5.00%	0.02956%	SmartCare Product

[illegible]