

# Hydraulic Fracturing Fluid Product Component Information Disclosure

Fracture Date	12/27/2011
State:	California
County:	Kern
API Number:	04-030-43765
Operator Name:	Vintage Prod Of Cal
Well Name and Number:	Eckmann 2-4H
Longitude:	-119.26112
Latitude:	35.51477
Long/Lat Projection:	NAD27
Production Type:	Oil
True Vertical Depth (TVD):	7,715
Total Water Volume (gal)*:	503,286

## 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%	83.26972%	0
Alpha 125	Baker Hughes	Biocide	Glutaraldehyde	111-30-8	30.00%	0.00676%	SmartCare Product
Enzyme G-I	Baker Hughes	Breaker	Hemicellulase Enzyme Concentrate	9025-56-3	3.00%	0.00479%	SmartCare Product
0	0	0	Water	7732-18-5	97.00%	0.15503%	0
BC-3	Baker Hughes	Breaker Catalyst	Non-Hazardous Ingredient	Trade Secret	100.00%	0.02165%	0
BF-7L	Baker Hughes	Buffer	Potassium Carbonate	584-08-7	50.00%	0.25349%	SmartCare Product
XLW-56	Baker Hughes	Crosslinker	D-Glucitol	50-70-4	10.00%	0.01896%	0
0	0	0	Glyoxal	107-22-2	30.00%	0.05687%	0
0	0	0	Sodium Hydroxide	1310-73-2	5.00%	0.00948%	0
0	0	0	Sodium Tetraborate	1330-43-4	10.00%	0.01896%	0
GLFC-1B	Baker Hughes	Gelling Agent	Alkanes / Alkenes	Multiple	45.00%	0.29511%	0
0	0	0	Guar Gum	9000-30-0	50.00%	0.32790%	0
Sand, White, 20/40	Baker Hughes	Proppant	Crystalline Silica (Quartz)	14808-60-7	100.00%	14.18501%	0
Sand, White, 100 mesh	Baker Hughes	Proppant	Crystalline Silica (Quartz)	14808-60-7	100.00%	0.41672%	0
Atlas CRC-E, 20/40 mesh	Baker Hughes	Proppant	Crystalline Silica Quartz	14808-60-7	98.00%	0.64874%	0

