

Hydraulic Fracturing Fluid Product Component Information Disclosure

Last Fracture Date	05/11/2012
State:	California
County:	Kern
API Number:	04-030-47329
Operator Name:	Aera Energy Llc
Well Name and Number:	Belridge V 7391G-2
Longitude:	-119.6892108
Latitude:	35.4322154
Long/Lat Projection:	NAD83
Production Type:	Oil
True Vertical Depth (TVD):	2,090
Total Water Volume (gal)*:	91,140

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%	75.00167%	
GBW-5	Baker Hughes	Breaker	Ammonium Persulfate	7727-54-0	100.00%	0.00296%	SmartCare Product
Enzyme G-I	Baker Hughes	Breaker	Hemicellulase Enzyme Concentrate	9025-56-3	3.00%	0.00089%	SmartCare Product
			Water	7732-18-5	97.00%	0.02874%	
Clay Master-5C (Tote)	Baker Hughes	Clay Control	Oxyakylated Amine Quat	138879-94-4	60.00%	0.04952%	
XLW-10A	Baker Hughes	Crosslinker	Ethylene Glycol	107-21-1	30.00%	0.02425%	SmartCare Product
			Sodium Hydroxide	1310-73-2	10.00%	0.00808%	
			Sodium Tetraborate	1330-43-4	30.00%	0.02425%	
Sand, White, 20/40	Baker Hughes	Proppant	Crystalline Silica (Quartz)	14808-60-7	100.00%	24.81872%	
ScaleSorb 3, (25# pail)	Baker Hughes	Scale Inhibitor	Amino Alkyl Phosphonic Acid	Trade Secret	30.00%	0.00563%	SmartCare Product
			Crystalline Silica: Quartz (SiO2)	14808-60-7	1.00%	0.00019%	
			Diatomaceous Earth, Calcined	91053-39-3	100.00%	0.01875%	
			Phosphonic Acid	13598-36-2	1.00%	0.00019%	

Ingredients shown above are subject to 29 CFR 1910.1200(i) and appear on Material Safety Data Sheets (MSDS). Ingredients shown below are Non-MSDS.

			Water	7732-18-5		0.0161668105%	
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* 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%

Ingredient information for chemicals subject to 29 CFR 1910.1200(i) and Appendix D are obtained from suppliers Material Safety Data Sheets (MSDS)