

## Hydraulic Fracturing Fluid Product Component Information Disclosure

<b>Last Fracture Date</b>	<b>02/09/2013</b>
<b>State:</b>	<b>California</b>
<b>County:</b>	<b>Los Angeles Offshore</b>
<b>API Number:</b>	<b>04-237-29974</b>
<b>Operator Name:</b>	<b>Thums Long Beach Co</b>
<b>Well Name and Number:</b>	<b>C-240</b>
<b>Longitude:</b>	<b>-118.13738</b>
<b>Latitude:</b>	<b>33.74002</b>
<b>Long/Lat Projection:</b>	<b>NAD27</b>
<b>Production Type:</b>	<b>Oil</b>
<b>True Vertical Depth (TVD):</b>	<b>5,821</b>
<b>Total Water Volume (gal)*:</b>	<b>194,838</b>

### 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%	73.24771%	
Superset-W, 330 gal tote	Baker Hughes	Activator	Methanol	67-56-1	50.00%	0.08742%	
			Poly (Oxyethylene) Nonylphenol Ether	9016-45-9	50.00%	0.08742%	
X-Cide 207	Baker Hughes	Biocide	2-Methyl-4-Isothiazolin-3-One	2682-20-4	5.00%	0.00030%	
			5-Chloro-2-Methyl-4-Isothiazolin-3-One	26172-55-4	10.00%	0.00060%	
			Crystalline Silica: Cristobalite	14464-46-1	1.00%	0.00006%	
			Crystalline Silica: Quartz (SiO2)	14808-60-7	1.00%	0.00006%	
			Diatomaceous Earth, Calcined	91053-39-3	60.00%	0.00357%	
			Magnesium Chloride	7786-30-3	5.00%	0.00030%	
			Magnesium Nitrate	10377-60-3	10.00%	0.00060%	
Enzyme G-I	Baker Hughes	Breaker	Hemicellulase Enzyme Concentrate	9025-56-3	3.00%	0.00400%	SmartCare Product
			Water	7732-18-5	97.00%	0.12946%	
High Perm CRB	Baker Hughes	Breaker	Ammonium Persulphate	7727-54-0	60.00%	0.00568%	SmartCare Product
			Crystalline Silica Quartz	14808-60-7	30.00%	0.00284%	
BF-7L	Baker Hughes	Buffer	Potassium Carbonate	584-08-7	60.00%	0.54169%	SmartCare Product
			Potassium Hydroxide	1310-58-3	1.00%	0.00903%	
			Water	7732-18-5	60.00%	0.54169%	
XLW-56, 330 gal tote	Baker Hughes	Crosslinker	D-Glucitol	50-70-4	10.00%	0.04870%	
			Glyoxal	107-22-2	30.00%	0.14611%	
			Sodium Hydroxide	1310-73-2	5.00%	0.02435%	

