

Hydraulic Fracturing Fluid Product Component Information Disclosure

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|----------------------------|-------------------------------|
| Fracture Date | 1/20/2013 |
| State: | California |
| County: | Kern |
| API Number: | 0403049015 |
| Operator Name: | Occidental of Elk Hills, Inc. |
| Well Name and Number: | 78-18R |
| Longitude: | -119.540765 |
| Latitude: | 35.310943 |
| Long/Lat Projection: | NAD83 |
| Production Type: | Oil |
| True Vertical Depth (TVD): | 3,076 |
| Total Water Volume (gal)*: | 14,494 |

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 |
|-------------------|-------------|------------------------|-----------------------------------|--|--|--|----------|
| CRC SAND | Halliburton | Proppant | Crystalline silica, quartz | 14808-60-7 | 100.00% | 95.49551% | |
| | | | Hexamethylenetetramine | 100-97-0 | 2.00% | 1.90991% | |
| | | | Phenol / formaldehyde resin | 9003-35-4 | 5.00% | 4.77478% | |
| SUPERSET W | Halliburton | Activator | Methanol | 67-56-1 | 60.00% | 0.86197% | |
| | | | Ethoxylated nonylphenol | Confidential Business Information | 60.00% | 0.86197% | |
| BC-140 | Halliburton | Crosslinker | Ethylene glycol | 107-21-1 | 30.00% | 0.11493% | |
| | | | Monoethanolamine borate | 26038-87-9 | 60.00% | 0.22986% | |
| MO-67 | Halliburton | pH Control Additive | Sodium hydroxide | 1310-73-2 | 30.00% | 0.04882% | |
| LOSURF-300M | Halliburton | Surfactant | Ethanol | 64-17-5 | 0.60% | 0.00069% | |
| | | | Light aromatic solvent | 64742-95-6 | 0.30% | 0.00034% | |
| | | | Ethoxylated nonylphenol | Confidential Business Information | 0.10% | 0.00011% | |
| LGC-36 UC | Halliburton | Liquid Gel Concentrate | Guar gum | 9000-30-0 | 60.00% | 1.28973% | |
| | | | Naphtha, hydrotreated heavy | 64742-48-9 | 60.00% | 1.28973% | |
| BE-3S BACTERICIDE | Halliburton | Biocide | 2,2 Dibromo-3-nitrilopropionamide | 10222-01-2 | 100.00% | 0.01532% | |
| | | | 2-Monobromo-3-nitrilopropionamide | 1113-55-9 | 5.00% | 0.00077% | |
| GBW-30 BREAKER | Halliburton | Breaker | Hemicellulase enzyme | 9012-54-8 | 15.00% | 0.00996% | |

| | | | | |
|--|--|-----------------------------------|--------|----------|
| | Carbohydrates | Confidential Business Information | 95.00% | 0.06308% |
| | Crystalline silica, quartz | 14808-60-7 | | |
| | Fatty alcohol polyglycol ether surfactant | 9043-30-5 | | |
| | Formaldehyde polymer with 4,1,1-dimethylethyl phenolmethyl oxirane | 29316-47-0 | | |
| | Formaldehyde polymer with methyl oxirane, 4-nonylphenol and oxirane | 63428-92-2 | | |
| | Naphthalene | 91-20-3 | | |
| | Quaternary ammonium compounds, bis(hydrogenated tallow alkyl) dimethyl, salts with bentonite | 68953-58-2 | | |
| | Sodium chloride | 7647-14-5 | | |
| | Water | 7732-18-5 | | |
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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%

Note: For Field Development Products (products that begin with FDP), MSDS level only information has been provided.

Ingredients Listed Below The White Line Are Part of the Fluid Composition Provided by Halliburton Which Do Not Appear On the MSDS

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