

## Hydraulic Fracturing Fluid Product Component Information Disclosure

|                            |                     |
|----------------------------|---------------------|
| Last Fracture Date         | 02/04/2012          |
| State:                     | California          |
| County:                    | Kern                |
| API Number:                | 04-030-43150        |
| Operator Name:             | Venoco Incorporated |
| Well Name and Number:      | Bowerbank 2-9H      |
| Longitude:                 | -119.402679         |
| Latitude:                  | 35.416195           |
| Long/Lat Projection:       | NAD83               |
| Production Type:           | Oil                 |
| True Vertical Depth (TVD): | 11,200              |
| Total Water Volume (gal)*: | 226,968             |

### 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%  | 77.15057%  |                   |
| X-Cide 207     | Baker Hughes | Biocide          | 2-Methyl-4-Isothiazolin-3-One          | 2682-20-4                                | 5.00%  | 0.00028%   |                   |
|                |              |                  | 5-Chloro-2-Methyl-4-Isothiazolin-3-One | 26172-55-4                               | 10.00%   | 0.00056%   |                   |
|                |              |                  | 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%   | 0.00338%   |                   |
|                |              |                  | Magnesium Chloride                     | 7786-30-3                                | 5.00%  | 0.00028%   |                   |
|                |              |                  | Magnesium Nitrate                      | 10377-60-3                               | 10.00%   | 0.00056%   |                   |
| Enzyme G-I     | Baker Hughes | Breaker          | Hemicellulase Enzyme Concentrate       | 9025-56-3                                | 3.00%  | 0.00343%   | SmartCare Product |
|                |              |                  | Water                                  | 7732-18-5                                | 97.00%   | 0.11079%   |                   |
| High Perm CRB  | Baker Hughes | Breaker          | Ammonium Persulphate                   | 7727-54-0                                | 60.00%   | 0.00318%   | SmartCare Product |
|                |              |                  | Crystalline Silica Quartz              | 14808-60-7                               | 30.00%   | 0.00159%   |                   |
| BC-3           | Baker Hughes | Breaker Catalyst | No Hazardous Ingredients               | Trade Secret                             | 100.00%  | 0.00116%   |                   |
|                |              |                  | Non-Hazardous Ingredient               | Trade Secret                             | 100.00%  | 0.00112%   |                   |
| BF-7L, Tote    | Baker Hughes | Buffer           | Potassium Carbonate                    | 584-08-7                                 | 60.00%   | 0.29198%   | SmartCare Product |
|                |              |                  | Potassium Hydroxide                    | 1310-58-3                                | 1.00%  | 0.00487%   |                   |
|                |              |                  | Water                                  | 7732-18-5                                | 60.00%   | 0.29198%   |                   |
| Clay Master-5C | Baker        | Clay Control     | Oxyakylated Amine Quat                 | 138879-94-4                              | 60.00%   | 0.11959%   |                   |

|                        |              |                |                                      |              |         |           |                   |
|------------------------|--------------|----------------|--------------------------------------|--------------|---------|-----------|-------------------|
| (Tote)                 | Hughes       |                |                                      |              |         |           |                   |
| XLW-56, 330 gal tote   | Baker Hughes | Crosslinker    | D-Glucitol                           | 50-70-4      | 10.00%  | 0.02290%  |                   |
|                        |              |                | Glyoxal                              | 107-22-2     | 30.00%  | 0.06871%  |                   |
|                        |              |                | Sodium Hydroxide                     | 1310-73-2    | 5.00%   | 0.01145%  |                   |
|                        |              |                | Sodium Tetraborate                   | 1330-43-4    | 10.00%  | 0.02290%  |                   |
| GS-1L                  | Baker Hughes | Gel Stabilizer | Non-Hazardous Ingredient             | Trade Secret | 100.00% | 0.14818%  |                   |
| GW-3LDF                | Baker Hughes | Gelling Agent  | Guar Gum                             | 9000-30-0    | 40.00%  | 0.24606%  | SmartCare Product |
|                        |              |                | Petroleum Distillate Blend           | Trade Secret | 70.00%  | 0.43060%  |                   |
| Mg Light, 30/50        | Baker Hughes | Proppant       | Magnesium Iron Silicate              | 1317-71-1    | 10.00%  | 1.89198%  |                   |
|                        |              |                | Magnesium Silicate                   | 1343-88-0    | 60.00%  | 11.35186% |                   |
|                        |              |                | Silicon Dioxide (Amorphous As Glass) | 7631-86-9    | 40.00%  | 7.56791%  |                   |
| GasFlo G, 330 gal tote | Baker Hughes | Surfactant     | Methanol                             | 67-56-1      | 30.00%  | 0.04877%  | SmartCare Product |
|                        |              |                | Mixture of Surfactants               | Trade Secret | 60.00%  | 0.03594%  |                   |
|                        |              |                | Surfactants                          | Trade Secret | 60.00%  | 0.06161%  |                   |
|                        |              |                | Water                                | 7732-18-5    | 70.00%  | 0.10183%  |                   |

**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.**

|  |  |  |  |              |  |               |  |
|--|--|--|--|--------------|--|---------------|--|
|  |  |  | Acetyl Triethyl Citrate  | 77-89-4      |  | 0.0022770234% |  |
|  |  |  | Crystalline Silica   | 14808-60-7   |  |               |  |
|  |  |  | Cured Acrylic Resin  | Trade Secret |  | 0.0015899652% |  |
|  |  |  | Ethylene Glycol Monobutyl Ether  | 111-76-2     |  |               |  |
|  |  |  | Iron   | 7439-89-6    |  |               |  |
|  |  |  | Poly (oxy-1,2-ethanediyl)  | 24938-91-8   |  |               |  |
|  |  |  | Quaternary Ammonium Compounds bis[Hydrogenated Tallow Alkyl] Dimethyl Salts With Bentonite | 68953-58-2   |  |               |  |
|  |  |  | Sodium Chloride  | 7647-14-5    |  |               |  |
|  |  |  | Sodium Sulfate   | 7757-82-6    |  |               |  |
|  |  |  | Sodium Sulfite   | 7757-83-7    |  |               |  |
|  |  |  | Sodium Thiosulfate   | 7772-98-7    |  |               |  |
|  |  |  | Water  | 7732-18-5    |  |               |  |

\* 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)