

## Hydraulic Fracturing Fluid Product Component Information Disclosure

|                            |                   |
|----------------------------|-------------------|
| Fracture Date:             | 2/2/2012          |
| State:                     | California        |
| County/Parish              | Kern County       |
| API Number:                | 0403046237        |
| Operator Name:             | OXY USA ELK HILLS |
| Well Name and Number:      | 58SW-27S          |
| Longitude:                 | -119.384658658106 |
| Latitude:                  | 35.2832185071617  |
| Long/Lat Projection:       | NAD83             |
| Production Type:           | Oil               |
| True Vertical Depth (TVD): | 3289              |
| Total Water Volume (gal)*: | 25,220            |

### 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 |
|--|--------------|---|---|--|--|--|----------|
| 15% HCL, SLICKWATER, MUD ACID, YF125ST | Schlumberger | Corrosion Inhibitor, Activator , Surfactant , Acid, Breaker, Crosslinker, Gelling Agent, Clay Control Agent, Iron Control Agent, Bactericide, Chelating Agent, Demulsifier, Emulsion/Sludge Preventer, Acid Intensifier, Propping Agent | Water (Including Mix Water Supplied by Client)* | -  |  | 91.56381%  |          |
|  |              |   | Crystalline silica                              | 14808-60-7                               | 76.93770%  | 6.49061%   |          |
|  |              |   | Hydrogen chloride                               | 7647-01-0                                | 13.80327%  | 1.16447%   |          |
|  |              |   | Phenolic resin                                  | 9003-35-4                                | 1.57016%   | 0.13246%   |          |
|  |              |   | Guar gum  | 9000-30-0                                | 1.06930%   | 0.09021%   |          |
|  |              |   | Ammonium hydrogendifluoride                     | 1341-49-7                                | 0.98496%   | 0.08309%   |          |

|  |  |  |   |             |          |          |  |
|--|--|--|---|-------------|----------|----------|--|
|  |  |  | Methanol  | 67-56-1     | 0.87282% | 0.07363% |  |
|  |  |  | Alcohol, C7-9-iso, C8, ethoxylated                        | 78330-19-5  | 0.80022% | 0.06751% |  |
|  |  |  | Propan-2-ol   | Proprietary | 0.76275% | 0.06435% |  |
|  |  |  | Diammonium peroxidisulphate                               | 7727-54-0   | 0.51053% | 0.04307% |  |
|  |  |  | 1, 2, 3 - Propanetriol                                    | 56-81-5     | 0.49405% | 0.04168% |  |
|  |  |  | Sodium tetraborate decahydrate                            | 1303-96-4   | 0.29643% | 0.02501% |  |
|  |  |  | Decyl-dimethyl amine oxide                                | 2605-79-0   | 0.27973% | 0.02360% |  |
|  |  |  | Tetramethylammonium chloride                              | 75-57-0     | 0.21733% | 0.01833% |  |
|  |  |  | Tetrasodium ethylenediaminetetraacetate                   | 64-02-8     | 0.20860% | 0.01760% |  |
|  |  |  | Zirconium dichloride oxide                                | 7699-43-6   | 0.15859% | 0.01338% |  |
|  |  |  | Alcohol, C9-11-iso, C10, ethoxylated                      | 78330-20-8  | 0.11998% | 0.01012% |  |
|  |  |  | Fatty acids, tall-oil                                     | 61790-12-3  | 0.09406% | 0.00793% |  |
|  |  |  | Ethoxylated propoxylated 4-nonylphenol-formaldehyde resin | 30846-35-6  | 0.08968% | 0.00757% |  |
|  |  |  | Thiourea, polymer with formaldehyde and 1-phenylethanone  | 68527-49-1  | 0.07741% | 0.00653% |  |
|  |  |  | Aromatic acid derivative                                  | Proprietary | 0.06610% | 0.00558% |  |
|  |  |  | Heavy aromatic naphtha                                    | 64742-94-5  | 0.06058% | 0.00511% |  |
|  |  |  | Alcohol, C11-14, ethoxylated                              | 78330-21-9  | 0.05938% | 0.00501% |  |

|  |  |  |   |             |          |          |  |
|--|--|--|---|-------------|----------|----------|--|
|  |  |  | Quaternary ammonium compounds chlorides derivatives | 68989-00-4  | 0.05938% | 0.00501% |  |
|  |  |  | Vinylidene chloride/methylacrylate copolymer        | 25038-72-6  | 0.05389% | 0.00455% |  |
|  |  |  | Ethoxylated alcohol                                 | Proprietary | 0.04304% | 0.00363% |  |
|  |  |  | Alcohols, C14-15, ethoxylated (7EO)                 | 68951-67-7  | 0.03602% | 0.00304% |  |
|  |  |  | Alcohol, C11 linear, ethoxylated                    | 34398-01-1  | 0.03486% | 0.00294% |  |
|  |  |  | Non-crystalline silica                              | 7631-86-9   | 0.03385% | 0.00286% |  |
|  |  |  | Tetrakis(hydroxymethyl)phosphonium sulfate          | 55566-30-8  | 0.03094% | 0.00261% |  |
|  |  |  | Poly(oxy-1,2-ethanediyl)                            | 25322-68-3  | 0.02666% | 0.00225% |  |
|  |  |  | Prop-2-yn-1-ol                                      | 107-19-7    | 0.02401% | 0.00203% |  |
|  |  |  | Alcohol, C9-C11, Ethoxylated                        | 68439-46-3  | 0.02324% | 0.00196% |  |
|  |  |  | Glycol ether  | Proprietary | 0.01721% | 0.00145% |  |
|  |  |  | Sodium Glycolate (impurity)                         | 2836-32-0   | 0.01691% | 0.00143% |  |
|  |  |  | Alkenes, C>10 a-                                    | 64743-02-8  | 0.01601% | 0.00135% |  |
|  |  |  | Naphtalene (impurity)                               | 91-20-3     | 0.01211% | 0.00102% |  |
|  |  |  | Sodium erythorbate                                  | 6381-77-7   | 0.01031% | 0.00087% |  |
|  |  |  | Glycol  | Proprietary | 0.00861% | 0.00073% |  |
|  |  |  | Sodium hydroxide                                    | 1310-73-2   | 0.00564% | 0.00048% |  |
|  |  |  | Trisodium Ethylenediaminetetraacetate (impurity)    | 150-38-9    | 0.00564% | 0.00048% |  |

|  |  |  |  |             |          |          |  |
|--|--|--|--|-------------|----------|----------|--|
|  |  |  | Disodium Ethylene Diamine Tetra Acetate (impurity) | 139-33-3    | 0.00564% | 0.00048% |  |
|  |  |  | Decyldimethyl amine (impurity)                     | 1120-24-7   | 0.00447% | 0.00038% |  |
|  |  |  | Magnesium silicate hydrate (talc)                  | 14807-96-6  | 0.00283% | 0.00024% |  |
|  |  |  | Trisodium nitrilotriacetate (impurity)             | 5064-31-3   | 0.00282% | 0.00024% |  |
|  |  |  | Aliphatic amide derivative                         | Proprietary | 0.00275% | 0.00023% |  |
|  |  |  | Hydrogen peroxide (impurity)                       | 7722-84-1   | 0.00269% | 0.00023% |  |
|  |  |  | Dodecylbenzene (impurity)                          | Proprietary | 0.00138% | 0.00012% |  |
|  |  |  | Sulfuric acid (impurity)                           | Proprietary | 0.00086% | 0.00007% |  |

\* 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%

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