

Hydraulic Fracturing Fluid Product Component Information Disclosure

| | |
|--------------------------------|------------------------------|
| Job Start Date: | 4/10/2022 |
| Job End Date: | 4/21/2022 |
| State: | Texas |
| County: | Winkler |
| API Number: | 42-495-34683-00-00 |
| Operator Name: | Percussion Petroleum II, LLC |
| Well Name and Number: | UL PAHASKA 21-6 A005H |
| Latitude: | 31.75177900 |
| Longitude: | -103.27633700 |
| Datum: | NAD83 |
| Federal Well: | NO |
| Indian Well: | NO |
| True Vertical Depth: | 12,033 |
| Total Base Water Volume (gal): | 12,009,322 |
| Total Base Non Water Volume: | 0 |



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 | 100.00000 | 91.02898 | None |
| Crystalline Silica Quartz / US Silica | Liberty Oilfield Services | Sand | | | | | |
| | | | Crystalline Silica (quartz) | 14808-60-7 | 99.90000 | 8.56149 | None |
| | | | Aluminum Oxide | 1344-28-1 | 1.00000 | 0.08570 | None |
| | | | Iron Oxide | 1309-37-1 | 0.10000 | 0.00857 | None |
| | | | Titanium Oxide | 13463-67-7 | 0.10000 | 0.00857 | None |
| HCL-15 | Liberty Oilfield Services | Solvent | | | | | |
| | | | Water | 7732-18-5 | 85.00000 | 0.26280 | None |
| | | | Hydrochloric Acid | 7647-01-0 | 15.00000 | 0.04638 | None |
| FRP-1S | Liberty Oilfield Services | Friction reduction | | | | | |
| | | | Petroleum distillates, hydrotreated light | 64742-47-8 | 45.00000 | 0.02351 | None |
| | | | Poly(oxy-1,2-ethanediyl), a-tridecyl-w-hydroxy-, branched | 69011-36-5 | 3.00000 | 0.00157 | None |
| BiorCK-1038 | Rockwater Energy Solutions | Biocide | | | | | |
| | | | Quaternary Ammonium Chloride | 68424-85-1 | 10.00000 | 0.00181 | None |

| | | | | | | | |
|--|---------------------------|-----------------------|---|-------------|----------|---------|------|
| | | | Glutaraldehyde | 111-30-8 | 10.00000 | 0.00181 | None |
| | | | Ethanol | 64-17-5 | 3.00000 | 0.00054 | None |
| A11-B688 | Liberty Oilfield Services | Acid Additive Mixture | | | | | |
| | | | Alkyl pyridine | Proprietary | 60.00000 | 0.00095 | None |
| | | | Ethylene Glycol | 107-21-1 | 60.00000 | 0.00095 | None |
| | | | Carboxylic acid derivatives | Proprietary | 30.00000 | 0.00048 | None |
| | | | Ethoxylated alcohol | Proprietary | 10.00000 | 0.00016 | None |
| SCI-68 | Liberty Oilfield Services | Scale Inhibitor | | | | | |
| | | | Bis (hexamethylenetriaminepenta (methylenephosphonic acid)) | 34690-00-1 | 10.00000 | 0.00189 | None |
| DFR-HV8200 | Liberty Oilfield Services | Friction Reducer | | | | | |
| | | | Polyacrylamide | 9003-05-8 | 88.00000 | 0.00077 | None |
| 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. | | | | | | | |
| | | Other Chemicals | | | | | |
| | | | Water | 7732-18-5 | | | |
| | | | Acrylamide (residual) | 79-06-1 | | | |
| | | | Proprietary | 9003-05-8 | | | |
| | | | 2-Propenoic acid, polymer with 2 | 25987-30-8 | | | |
| | | | -propenamide, sodium salt | | | | |
| | | | Sodium acetate | 127-09-3 | | | |
| | | | Citric Acid | 77-92-9 | | | |
| | | | Surfactant blend | Proprietary | | | |
| | | | C12-16-alkyldimethyl amines | 68439-70-3 | | | |

* 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.

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