

Hydraulic Fracturing Fluid Product Component Information Disclosure

Job Start Date:	1/6/2023
Job End Date:	1/25/2023
State:	Texas
County:	Ward
API Number:	42-475-38417-00-00
Operator Name:	Continental Resources, Inc
Well Name and Number:	UTL War University 2324N 22-14H
Latitude:	31.61512660
Longitude:	-103.27346230
Datum:	NAD83
Federal Well:	NO
Indian Well:	NO
True Vertical Depth:	11,967
Total Base Water Volume (gal):	20,532,218
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	88.58518	None
Crystalline Silica Quartz / US Silica	Liberty Oilfield Services	Sand					
			Crystalline Silica (quartz)	14808-60-7	99.90000	11.24139	None
			Aluminum Oxide	1344-28-1	1.00000	0.11253	None
			Titanium Oxide	13463-67-7	0.10000	0.01125	None
			Iron Oxide	1309-37-1	0.10000	0.01125	None
FRP-1K	Liberty Oilfield Services	Friction Reduction					
			Distillates, petroleum, hydrotreated light	64742-47-8	26.00000	0.02435	None
			Alcohols, C10-16	68002-97-1	2.50000	0.00234	None
			Alcohols, C12-16	68551-12-2	2.50000	0.00234	None
			Alcohols, C12-14	68439-50-9	2.50000	0.00234	None
HCL-15	Liberty Oilfield Services	Solvent					
			Water	7732-18-5	85.00000	0.02142	None
			Hydrochloric Acid	7647-01-0	15.00000	0.00378	None

SCI-28H	Liberty Oilfield Services	Scale Inhibitor					
			No Hazardous Ingredients	00-00-0	100.00000	0.01446	None
B-2512	Aquaserv	Biocide					
			Water	7732-18-5	60.00000	0.00570	None
			Glutaraldehyde	111-30-8	27.00000	0.00256	None
			Didecyl dimethyl ammonium chloride	7173-51-5	8.00000	0.00076	None
			Alkyl dimethyl benzyl ammonium chloride	64-17-5	5.50000	0.00052	None
			Ethanol	64-17-5	2.00000	0.00019	None
ScavGen 2180	NexGen	H2S Scavenger					
			Methanol	67-56-1	85.00000	0.00687	None
			Methoxymethanol	Proprietary	25.00000	0.00202	None
SFT-NE45B	Liberty Oilfield Services	Surfactant					
			Methanol	67-56-1	20.00000	0.00223	None
			Alkyl Sulfonic Acid	Proprietary	10.00000	0.00112	None
			Surfactant 1	Proprietary	10.00000	0.00112	None
			Surfactant 2	Proprietary	5.00000	0.00056	None
A11-B688	Liberty Oilfield Services	Acid Additive Mixture					
			Alkyl pyridine	Proprietary	60.00000	0.00005	None
			Ethylene Glycol	107-21-1	60.00000	0.00005	None
			Carboxylic acid derivatives	Proprietary	30.00000	0.00002	None
			Ethoxylated alcohol	Proprietary	10.00000	0.00001	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.

* 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)