

Hydraulic Fracturing Fluid Product Component Information Disclosure

Job Start Date:	8/2/2019
Job End Date:	8/14/2019
State:	Texas
County:	Reagan
API Number:	42-383-40619-00-00
Operator Name:	Sable Permian Resources
Well Name and Number:	University Owens 33HK
Latitude:	31.16018899
Longitude:	-101.30334300
Datum:	NAD27
Federal Well:	NO
Indian Well:	NO
True Vertical Depth:	7,340
Total Base Water Volume (gal):	19,928,500
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	Sable Permian Resources	Carrier/Base Fluid					
			Water	7732-18-5	100.00000	85.26125	
Sand	Sable Permian Resources	Proppant					
			Crystalline Silica, quartz	14808-60-7	100.00000	12.43056	
HCL Acid (12.6%-17.5%)	U.S. Well Services	Bulk Acid					
			Water	7732-18-5	87.40000	1.82967	
			Hydrogen Chloride	7647-01-0	17.50000	0.42540	
ECO-FLEX	U.S. Well Services	Friction Reducer					
			Distillates, petroleum, hydrotreated middle	64742-46-7	50.00000	0.03073	
CC-2500	U.S. Well Services	Clay Control Additives					
			Sodium Chloride	7647-14-5	30.00000	0.01521	
			Sodium Formate	141-53-7	5.00000	0.00281	
SI-1100s	U.S. Well Services	Scale Inhibitor					
			Copolymer of Maleic and Acrylic acid	52255-49-9	10.00000	0.00205	

			Potassium salt of diethylene triamine penta (methylene phosphonic acid)	15827-60-8	3.00000	0.00070	
			Phosphino carboxylic acid polymer	71050-62-9	3.00000	0.00068	
			Hexamethylene tramine penta (methylene phosphonic acid)	34690-00-1	3.00000	0.00068	
AI-303	U.S. Well Services	Acid Corrosion Inhibitors					
			Ethylene glycol	107-21-1	40.00000	0.00012	
			Cinnamaldehyde	104-55-2	20.00000	0.00004	
			Formic acid	64-18-6	20.00000	0.00004	
			Butyl cellosolve	111-76-2	20.00000	0.00004	
			Polyether	60828-78-6	10.00000	0.00002	
			Acetophenone,thiourea,formaldehyde polymer	68527-49-1	5.00000	0.00001	

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)