

Hydraulic Fracturing Fluid Product Component Information Disclosure

Job Start Date:	5/17/2018
Job End Date:	5/25/2018
State:	Texas
County:	Winkler
API Number:	42-495-33713-00-00
Operator Name:	XTO Energy/ExxonMobil
Well Name and Number:	University BLK 20 #1310H
Latitude:	31.70606000
Longitude:	-103.27044000
Datum:	NAD83
Federal Well:	NO
Indian Well:	NO
True Vertical Depth:	11,981
Total Base Water Volume (gal):	8,040,186
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/Base Fluid	Water	7732-18-5	100.00000	88.04245	None
Sand	Sanrol	Proppant	Silica	14808-60-7	100.00000	11.26636	None
HA04-10-15% HCL	Reagent Chemical	Acidizing	Water	7732-18-5	85.00000	0.41736	None
			Hydrogen Chloride	7647-01-0	15.00000	0.07365	None
LGW01-Liquid Gellant	Ace Completions	Liquid Gellant	Petroleum Distillate	64742-47-8	60.00000	0.04986	None
			Guar Gum	9000-30-0	50.00000	0.04155	None
			Clay	Proprietary	10.00000	0.00831	None
			Surfactant	Proprietary	10.00000	0.00831	None
FR300-Anionic Friction Reducer	Solnexus	Anionic Friction Reducer	Petroleum Hydrotreated Light Distillate	64742-47-8	25.00000	0.02770	None
IC5-Iron Control	Solnexus	Iron Control	Water	7732-18-5	60.00000	0.00141	None
			Acetic Acid	64-19-7	60.00000	0.00141	None

			Citric Acid	77-92-9	30.00000	0.00071	None
BR1-AP Breaker	Rockwater	AP Breaker					
			Ammonium Persulfate	7727-54-0	99.00000	0.00286	None
CI200-Corrosion Inhibitor	Economy Polymers	Corrosion Inhibitor					
			Methanol	67-56-1	60.00000	0.00042	None
NE116-Plexbreak 116	Chemplex	N/E Surfactant					
			Methanol	67-56-1	50.00000	0.00018	None
			Alkyl Quarternary Ammonium Chlorides	7173-51-5	25.00000	0.00009	None
			Isopropanol	67-63-0	5.00000	0.00002	None
			Diethanolamide	111-42-2	2.00000	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)