

Hydraulic Fracturing Fluid Product Component Information Disclosure

Job Start Date:	6/12/2018
Job End Date:	7/12/2018
State:	Texas
County:	Ward
API Number:	42-475-37423-00-00
Operator Name:	Jagged Peak Energy
Well Name and Number:	UTL 2714A-17-11H
Latitude:	31.61302100
Longitude:	-103.21221000
Datum:	NAD83
Federal Well:	NO
Indian Well:	NO
True Vertical Depth:	11,381
Total Base Water Volume (gal):	31,676,232
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
Fresh Water	Operator	Carrier Fluid					
			Water	7732-18-5	100.00000	92.47869	None
Proppant (Sand)	Keane	Propping Agent					
			Crystalline Silica, quartz	14808-60-7	100.00000	6.84953	None
15% HCl	Keane	Acid					
			Water	7732-18-5	85.00000	0.36558	None
15% HCl	Keane	Acid					
			Hydrochloric Acid	7647-01-0	15.00000	0.06451	None
KFR-22	Keane	Friction Reducer					
			Distillates, Petroleum, Hydrotreated Light	64742-47-8	30.00000	0.02824	None
KFR-22	Keane	Friction Reducer					
			Proprietary Polymer	Proprietary	30.00000	0.02824	None
StimOil ENX	Flotek	Surfactant					
			Isopropyl alcohol	67-63-0	30.00000	0.02774	None
StimOil ENX	Flotek	Surfactant					
			Citrus Terpenes	68647-72-3	30.00000	0.02774	None
BIOC11139A	Keane	Biocide					

			benzyl-(C12-C16 alkyl)-dimethyl-ammonium chloride	68424-85-1	30.00000	0.01526	None
BIOC11139A	Keane	Biocide					
			Glutaraldehyde	111-30-8	10.00000	0.00509	None
KFR-22	Keane	Friction Reducer					
			Proprietary Surfactant Blend	Proprietary	5.00000	0.00471	None
KGBO-1	Keane	Breaker					
			Sodium perborate tetrahydrate	10486-00-7	95.00000	0.00267	None
BIOC11139A	Keane	Biocide					
			ethanol	64-17-5	5.00000	0.00254	None
KAI-12	Keane	Corrosion inhibitor					
			Methanol	67-56-1	90.00000	0.00059	None
KFEAC-20	Keane	Iron control					
			acetic acid	64-19-7	60.00000	0.00044	None
KAI-12	Keane	Corrosion inhibitor					
			prop-2-yn-1-ol	107-19-7	5.00000	0.00003	None
KAI-12	Keane	Corrosion inhibitor					
			Alcohols, C7-9-iso-, C8-rich	68526-83-0	5.00000	0.00003	None
KAI-12	Keane	Corrosion inhibitor					
			isopropyl alcohol	67-63-0	5.00000	0.00003	None
KAI-12	Keane	Corrosion inhibitor					
			fatty imidazoline	61790-69-0	5.00000	0.00003	None
KAI-12	Keane	Corrosion inhibitor					
			xylene	1330-20-7	5.00000	0.00003	None
KAI-12	Keane	Corrosion inhibitor					
			ethylbenzene	100-41-4	1.00000	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)