

Hydraulic Fracturing Fluid Product Component Information Disclosure

Job Start Date:	5/31/2016
Job End Date:	5/31/2016
State:	Texas
County:	Andrews
API Number:	42-003-47231-00-00
Operator Name:	XTO Energy/ExxonMobil
Well Name and Number:	Fullerton Clearfork Unit 8020
Longitude:	-102.80520000
Latitude:	32.38268000
Datum:	NAD27
Federal/Tribal Well:	NO
True Vertical Depth:	7,450
Total Base Water Volume (gal):	326,386
Total Base Non Water Volume:	29,774



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	Base Carrier Fluid					
			Water	7732-18-5	100.00000	83.85663	
Sand	Multiple Suppliers	Proppants					
			Silicon Dioxide	14808-60-7	100.00000	7.76689	
SLC,SDC,TLC,THS,PowerProp,OptiProp,Spe arProp,CoolSet	Santrol Proppants	Proppants					
			Crystalline Silica(Quartz)	14808-60-7	98.00000	5.46865	
			Phenol-formaldehyde Novolak Resin	9003-35-4	5.00000	0.27901	
15% Hydrochloric Acid	Reagent	Scale Dissolver					
			Water	7732-18-5	85.00000	1.64320	
			36% Hydrochloric Acid	7647-01-0	15.00000	0.28998	
SG-15G	ACE Completions	Gelling Agents					
			Petroleum Distillate	64742-47-8	60.00000	0.23745	
			Guar Gum	9000-30-0	50.00000	0.19787	
			Bentonite Clay	14808-60-7	10.00000	0.03957	Ace Completions 1301 W. 1st St. Odessa, Tx 79763 Jeff Louis 713-703-2172
			Surfactant	68439-51-0	10.00000	0.03957	CAS # Proprietary
Gypton T-249	Nalco Champion	Scale Inhibitors					

			Amine Phosphonate 1	Proprietary	60.00000	0.10088	7705 Hwy 90-A Sugar Land, Tx 77478 Daljinder Woloch 713-332-1693
			Hydrochloric Acid	7647-01-0	10.00000	0.01681	
			Phosphoric Acid	7664-38-2	1.00000	0.00168	
BF-200	Ace Completions	Buffers / Ph Control					
			Water	7732-18-5	80.00000	0.07367	
			Potassium Hydroxide	1310-58-3	35.00000	0.03223	Ace Completions 1301 W. 1st St. Odessa, Tx 79763 Jeff Louis 713-703-2172
GB-150	Chemplex	Gel Breakers/Delayed Breakers					
			Water	7732-18-5	90.00000	0.04833	
			Sodium Chloride	7647-14-5	15.00000	0.00805	
			Ethylene Glycol	107-21-1	5.00000	0.00268	
			Mannanase Enzymes	37288-54-3	1.00000	0.00054	
CX-14G	Magnablend	Crosslinkers					
			Ulexite	1319-33-1	50.00000	0.02860	
			Petroleum Distillates, hydrotreated light	64742-47-8	40.00000	0.02288	
CX-10	PfP	Crosslinkers					
			Glycerol	56-81-5	50.00000	0.01804	
			Sodium Tetraborate Decahydrate	1310-58-3	30.00000	0.01082	PfP Mo Hossain 14227 Fern Houston, Tx 77079 281-589-0047
			Water	7732-18-5	20.00000	0.00721	
PAS-C	Rockwater Energy Solutions	Solvents					
			Glacial Acetic Acid	64-19-7	100.00000	0.00490	% Confidential used 100
			Alkyl Aryl Sulfonate	26264-05-1	100.00000	0.00490	% Confidential used 100
			Isopropanol	67-30-0	100.00000	0.00490	% Confidential used 100
			Ethylene Glycol monbutyl Ether	111-76-2	100.00000	0.00490	Tom Roland 7904 W. Hwy 80 Midland, Tx 79706 432-560-5600 (FE Green)
			Dodecylbenzene Sulfonic Acid	27176-87-0	100.00000	0.00490	% Confidential used 100
NE-217	PfP	Non and De-Emulsifiers					
			Water	7732-18-5	91.00000	0.00880	
			Mixture of surfactants and copolymers	Proprietary	40.00000	0.00387	PfP Mo Hossain 14227 Fern Houston, Tx 77079 281-589-0047
			Propylene Glycol	57-55-6	10.00000	0.00097	
FE-360	Chemplex	Iron Controller / Reducers					
			2-Mercaptoethanol	60-24-2	100.00000	0.00989	
			Water	7732-18-5	7.00000	0.00069	Dr. Ed Vinson 506 CR 1071 Snyder, Texas 79549 325-572-7298
			Aqua Ammonia	1336-21-6	5.00000	0.00049	
			Cupric Chloride Dihydrate	10125-13-0	5.00000	0.00049	

			Potassium Iodide	7681-11-0	1.00000	0.00010	
Bactron K-139	Nalco Champion	Biocides					
			Benzyl-C12-16-alkyldimethyl-Ammonium chloride	68424-85-1	30.00000	0.00635	
			Glutaraldehyde	111-30-8	10.00000	0.00212	
			Ethanol	64-17-5	5.00000	0.00106	
EMS-44 Plus	Flotek Chemistry	Surfactants					
			Isopropyl Alcohol	67-63-0	30.00000	0.00256	
			Denatured Ethyl Alcohol	64-17-5	30.00000	0.00256	Jason White Chemical 1004 S. Plainsman Road Marlow, OK 73055 580-658-6608
			Citrus Terpenes	68647-72-3	30.00000	0.00256	
			Methyl Alcohol	67-56-1	5.00000	0.00043	
			Methylisobutyl Ketone	108-10-1	0.50000	0.00004	
GB-2	Fritz Industries	Gel Breakers/Delayed Breakers					
			Ammonium Persulfate	7727-54-0	100.00000	0.00441	
I-122	Chemplex	Acid Corrosion Inhibitors					
			Methanol	67-56-1	80.00000	0.00124	Dr. Ed Vinson 506 CR 1071 Snyder, Texas 79549 325-572-7298
			Alcohol, C14-15, Ethoxylated	68951-67-7	25.00000	0.00039	
			Propargyl alcohol	107-19-7	10.00000	0.00015	
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)