

Hydraulic Fracturing Fluid Product Component Information Disclosure

Job Start Date:	11/19/2015
Job End Date:	11/20/2015
State:	Texas
County:	Andrews
API Number:	42-003-47198-00-00
Operator Name:	ConocoPhillips Company/Burlington Resources
Well Name and Number:	University UA 5
Longitude:	-102.73867700
Latitude:	32.14529000
Datum:	NAD27
Federal/Tribal Well:	NO
True Vertical Depth:	8,794
Total Base Water Volume (gal):	92,442
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	Conoco Phillips	Carrier / Base Fluid	Water	7732-18-5	100.00000	83.60924	
20-40 mesh White Sand, Area 1	Universal Pressure Pumping, Inc.	PROPPANT	Silica, Quartz, SiO2	14808-60-7	100.00000	8.48208	
Santrol Super LC, 20/40 mesh - Curable	Universal Pressure Pumping, Inc.	PROPPANT	Crystalline Silica (quartz)	14808-60-7	97.00000	6.96377	
			Phenol-Formaldehyde Novolak Resin	9003-35-4	5.00000	0.35896	
			Hexamethylenetetramine	100-97-0	1.00000	0.07179	
WGA-1A SLR	Universal Pressure Pumping, Inc.	GELLING AGENTS FOR WATER	Petroleum Distillates	64742-47-8	60.00000	0.23362	
			Polysaccharide blend	00-00-0	60.00000	0.23362	
CX-9	Universal Pressure Pumping, Inc.	CROSSLINKERS AND DELAYERS	Water	7732-18-5	75.00000	0.07584	
			Potassium Metaborate	13709-94-9	30.00000	0.03034	
			Ethylene Glycol	107-21-1	10.00000	0.01011	
			Potassium Hydroxide	1310-58-3	5.00000	0.00506	

WFR-4	Universal Pressure Pumping, Inc.	FRICTION REDUCERS					
			Isoparaffinic Solvent	64742-47-8	45.00000	0.02521	
			Water	7732-18-5	35.00000	0.01961	
			Copolymer of acrylamide and sodium acrylate	25987-30-8	34.00000	0.01905	
			Surfactant blend	00-00-0	6.00000	0.00336	
BA-2	Universal Pressure Pumping, Inc.	BREAKERS AND BREAKER CATALYSTS					
			Amine Salt	00-00-0	100.00000	0.02340	
Superset-W	Universal Pressure Pumping, Inc.	Resin Activators					
			Methyl Alcohol	67-56-1	50.00000	0.01111	
			Polyethylene glycol nonylphenyl ether	9016-45-9	50.00000	0.01111	
SI-1	Universal Pressure Pumping, Inc.	SCALE CONVERTERS, SOLVENTS, AND INHIBITORS					
			Bis(hexamethylenetriamine) penta methylene phosphonic acid salt	35657-77-3	60.00000	0.01050	
			Caustic Soda	1310-73-2	20.00000	0.00350	
B-6E	Universal Pressure Pumping, Inc.	BREAKERS AND BREAKER CATALYSTS					
			Ammonium Persulfate	7727-54-0	75.00000	0.00814	
			Cured Acrylic Resin	00-00-0	16.00000	0.00174	
			Silica, Crystalline - Quartz	14808-60-7	10.00000	0.00109	
			Talc	14807-96-6	2.00000	0.00022	
BIO-15G	Universal Pressure Pumping, Inc.	BIOCIDES					
			Glutaraldehyde	111-30-8	14.00000	0.00425	
			Alkyl Dimethyl Benzyl Ammonium Chloride	68424-85-1	3.00000	0.00091	
			Didecyl Dimethyl Ammonium Chloride	7173-51-5	3.00000	0.00091	
			Ethanol	64-17-5	3.00000	0.00091	
B-4	Universal Pressure Pumping, Inc.	BREAKERS AND BREAKER CATALYSTS					
			Ammonium Persulfate	7727-54-0	98.00000	0.00585	
S-602	Universal Pressure Pumping, Inc.	SURFACTANTS					
			Sodium Carbonate	497-19-8	4.00000	0.00291	
			Linear Alkyl Benzene Sulfonate	68081-81-2	2.00000	0.00145	
			Primary C14-15 Alcohol Sulfate	68081-98-1	1.00000	0.00073	
			d-Limonene	94266-47-4	1.00000	0.00073	
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.							
		Other Ingredients					
			Isopropanol	67-63-0			
			Alcohol Ether Sulfate	68585-34-2			

			N/A	00-00-0			
			As residual acrylamide	79-06-1			
			Phenol-Formaldehyde Novolak Resin	9003-35-4			
			Hexamethylenetetramine	100-97-0			
			Crystalline Silica (quartz)	14808-60-7			
			Proteolytic Enzyme	9014-01-1			

* 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)