

Hydraulic Fracturing Fluid Product Component Information Disclosure

Job Start Date:	3/22/2013
Job End Date:	4/7/2013
State:	Texas
County:	Dimmit
API Number:	42-127-34967-00-00
Operator Name:	Anadarko Petroleum Corporation
Well Name and Number:	Briscoe Carla Ranch 32H
Longitude:	-99.85813800
Latitude:	28.35886816
Datum:	NAD27
Federal/Tribal Well:	YES
Total Base Water Volume (gal):	4,824,701
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	Anadarko	Carrier/Base Fluid					
			Water	7732-18-5	100.00000	94.11978	None
Sand (Proppant)	Cudd	Proppant					
			Silica Substrate	NA	100.00000	5.41780	None
Hydrochloric Acid (15%)	Cudd	Acidizing					
			Hydrochloric Acid	7647-01-0	15.00000	0.02630	None
X-CIDE 750	Baker Add-Frac	Industrial Biocide					
			Tetrakis(hydroxymethyl) phosphonium sulfate	55566-30-8	60.00000	0.02169	None
Hydrochloric Acid (7.5%)	Cudd	Acidizing					
			Hydrochloric Acid	7647-01-0	7.50000	0.01342	None
CIA-7	Universal	Acid Corrosion Inhibitor					
			Ethylene Glycol	107-21-1	35.00000	0.00153	None
			Dimethylformamide	68-12-2	25.00000	0.00109	None
			Isopropyl Alcohol	67-63-0	10.00000	0.00044	None
WFR-4	Universal	Friction Reducer					
			Ethylene Acetate	107-21-1	3.00000	0.00164	None
-1L	Universal	Iron Control Agent					
			Citric Acid Anhydrous	77-92-9	55.00000	0.00116	None

SCW5277	Baker Add-Frac	Scale Inhibitor					
			Phosphonate Salt	Trade Seceret	5.00000	0.00054	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.							
		Other Chemicals					
			Proprietary Polymer	Trade secret			
			Sodium sulfate	7757-82-6			
			Sodium biosulfate	Trade secret			
			Sorbitan Monooleate	1338-43-8			
			Isoparaffinic Solvent	64742-47-8			
			Ethoxylated Alcohols	66455-15-0			
			Potassium Hydroxide	1310-58-3			
			Water	7732-18-5			
			Sodium Acetate	127-09-3			
			Sodium chloride	7647-14-5			
			2-Propenoic acid, polymer with 2-hydroxy-1-propenamide, sodium salt	25987-30-8			

* 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)