

# Hydraulic Fracturing Fluid Product Component Information Disclosure

Job Start Date:	3/10/2013
Job End Date:	3/12/2013
State:	Texas
County:	Webb
API Number:	42-479-41987-00-00
Operator Name:	Anadarko Petroleum Corporation
Well Name and Number:	Briscoe Chupadera Ranch 14H
Longitude:	-99.95807500
Latitude:	28.19035300
Datum:	NAD27
Federal/Tribal Well:	NO
Total Base Water Volume (gal):	6,133,423
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	94.02657	Not Provided
Sand (Proppant)	Cudd	Proppant					
			Silica Substrate	N/A	100.00000	5.51493	Not Provided
FR-60	Cudd	Friction Reducer					
			Non-Hazardous Ingredients	N/A	100.00000	0.04887	Not Provided
Hydrochloric Acid (7.5%)	Cudd	Acidizing					
			Hydrochloric Acid	7647-01-0	7.50000	0.02147	Not Provided
X-CIDE 750	Baker Add-Frac	Industrial Biocide					
			Tetrakis (hydroxymethyl) phosphonium sulfate	55566-30-8	60.00000	0.02124	Not Provided
Hydrochloric Acid (15%)	Cudd	Acidizing					
			Hydrochloric Acid	7647-01-0	15.00000	0.01121	Not Provided
I-24	Cudd	Inhibitor					
			Methanol	67-56-1	30.00000	0.00078	Not Provided
			Haloalkyl heteropolycycle salt	Proprietary	30.00000	0.00078	Not Provided
			Isopropanol	67-63-0	30.00000	0.00078	Not Provided
			Formamide	75-12-7	30.00000	0.00078	Not Provided
			Ethoxylated 4-Nonylphenol	26027-38-3	10.00000	0.00026	Not Provided
			Pine Oil	8002-09-3	5.00000	0.00013	Not Provided

			Propargyl alcohol	107-19-7	5.00000	0.00013	Not Provided
			Substituted alcohol	Proprietary	5.00000	0.00013	Not Provided
			Heavy Aromatic Naphtha	64742-94-5	5.00000	0.00013	Not Provided
			Naphthalene	91-20-3	1.00000	0.00003	Not Provided
			Benzyl Chloride	100-44-7	1.00000	0.00003	Not Provided
SCW-5277	Baker Add-Frac	Scale Inhibitor					
			Phosphonate Salt	Proprietary	5.00000	0.00053	Not Provided
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					
			Ammonium Sulfate	7783-20-2			
			Tetrasodium Eethelenediaminetetraacetate	64-02-8			
			Aliphatic Hydrocarbon	64742-47-8			
			Sodium Chloride	7647-14-5			
			Proprietary Polymer	Proprietary			
			Sodium Sulfate	7757-82-6			
			Anionic Polymer	Proprietary			
			Potassium Hydroxide	1310-58-3			
			Oxyalkylated Alcohol	68002-97-1			
			Modified Carboxylic Acid Polymer Salt	Proprietary			
			Polyglycol Ester	Proprietary			
			Water	7732-18-5			
			Sodium Bisulfite	7631-90-5			
			Polyol Ester	Proprietary			
			Water	7732-18-5			

\* 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)