

Hydraulic Fracturing Fluid Product Component Information Disclosure

Fracture Date	6/30/2012
State:	North Dakota
County:	Billings
API Number:	33-007-01729
Operator Name:	Continental Resources
Well Name and Number:	Kubas 1-22H
Longitude:	-103.087944
Latitude:	47.010284
Long/Lat Projection:	NAD83
Production Type:	Oil
True Vertical Depth (TVD):	10,770
Total Water Volume (gal)**:	2,643,392

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	Carrier	Water	7732-18-5	100.00%	86.40260%	
Frac Sand (All Meshes) [CWT]	Sanjel	Proppant	Crystalline Silica (Quartz)	14808-60-7	100.00%	8.03872%	
Ceramic Proppant (All sizes)	Sanjel	Proppant	Mullite	1302-93-8	70.00%	3.24503%	
			Silica	7631-86-9	30.00000%	1.39073%	
			Cristobalite	14464-46-1	30.00%	1.39073%	
			Rutile (TiO2)	1317-80-2	0.01	0.04636%	
WG-2BL	Sanjel	Gellant	No Hazardous Ingredients	N/A	0.00%	0.00000%	
NE-6	Sanjel	Non-emulsifier	Isopropyl Alcohol	67-63-0	60.00%	0.05271%	
			2-Ethylhexanol	104-76-7	5.00%	0.00439%	
			Diethylenetriamine	111-40-0	5.00%	0.00439%	
			Heavy Aromatic Solvent Naphtha	64742-94-5	5.00%	0.00439%	
			Naphthalene	91-20-3	1.00%	0.00088%	
			Benzene 1-1-oxybis-, tetrapropylene	119345-03-8	10.00%	0.00878%	
			Diethylenetriamine Alkylbenzene Sulfate	40139-72-8	30.00%	0.02635%	
LDP-F-0311	Sanjel	Borate Crosslinker	Boric Acid, sodium salt	13840-56-7	10.00%	0.02247%	
			Ethylene Glycol	107-21-1	30.00%	0.06741%	
			Sodium Hydroxide	1310-73-2	5.00%	0.01124%	
BE-1	Sanjel	Biocide	2,2-Dibromo-3-Nitrilopropionamide	10222-01-2	97.60%	0.00198%	
LDP-F-0911	Sanjel	High pH Adjuster	Sodium Hydroxide	1310-73-2	45.00%	0.04143%	
Breaker 3HT	Sanjel	Break fluid	Tert-Butyl-Hydroperoxide	75-91-2	70.00%	0.00059%	
SCC-5L	Sanjel	Clay Control	Tetramethylammonium Chloride	75-57-0	60.00%	0.05570%	
ISA-1	Sanjel	Gel Breaker/Iron Seq.	Citric Acid	77-92-9	100.00%	0.00085%	

* 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%

Ingredient information for chemicals subject to 29 CFR 1910.1200(i) and Appendix D are obtained from suppliers Material Safety Data Sheets (MSDS)

Fill in all the boxes on left top for fracture date through gallons of water used.
Fill in yellow boxes with appropriate values.
Copy red column over to the Maximum Ingredient Conc in HF Fluid column using Paste Special (values only)

	percentage		gallons	SG	loadings	weight
Water	86.40260%	0.42176% WG-2BL	12247	1.05		107246.979
		0.09207% LDP-F-0911	1884	1.49		23411.7144
Frac Sand (All Meshes) [CWT]	8.03872%	0.22470% LDP-F-0311	5895	1.1622		57138.74946
		0.08784% NE-6	2747	0.975		22337.2305
Ceramic Proppant (All sizes)	3.24503%	0.09283% SCC-5L	2747	1.0303		23604.152394
Ceramic Proppant (All sizes)	1.39073%	0.00085% Breaker 3HT	2750	0.94	1	215.589
Ceramic Proppant (All sizes)	1.39073%	0.00203% BE-1				516
Ceramic Proppant (All sizes)	0.04636%	0.00085% ISA-1				215
		0.00000%				
WG-2BL	0.00000%	0.00000%				
		0.00000%				
NE-6	0.05271%	0.00000%				
NE-6	0.00439%	0.00000%				
NE-6	0.00439%	8.03872% sand				2044120
NE-6	0.00439%	4.63576% ceramic				1178800
NE-6	0.00088%	0.00000%				
NE-6	0.00878%	0.00000%				
NE-6	0.02635%	0.00000%				
		0.00000%				
LDP-F-0311	0.02247%	0.00000%		Breaker water		
LDP-F-0311	0.06741%	86.40260% water	2634392			21970829.28
LDP-F-0311	0.01124%	0.00000%				
		0.00000%				
BE-1	0.00198%	100.00000% total			total	25428434.694754
LDP-F-0911	0.04143%					
5% Breaker-3HT	0.00059%					
SCC-5L	0.05570%		82422.63461	3362843.492088		
ISA-1	0.00085%					

WG-2BL	10934
LDP-F-0911	1527
LDP-F-0311	4360
NE-6	2376
SCC-5L	2375
BRK 3HT	2047
BE-1	475
ISA-1	285
	0
	0
	0
	0
40/70 Mesh	105.0627068335
20/40 Mesh	894.9267467671
PowerProp	401.1061802212.2068874

	034437	
BORAJel-6	34681	2343600
Linear 2.5	5253	
Treated Water	15866	