

Hydraulic Fracturing Fluid Product Component Information Disclosure

Job Start Date:	7/26/2013
Job End Date:	7/28/2013
State:	North Dakota
County:	McKenzie
API Number:	33-053-04904-00-00
Operator Name:	Newfield Exploration
Well Name and Number:	Holm 150-99-13-24-2H
Longitude:	-103.29997500
Latitude:	47.81834400
Datum:	NAD83
Federal/Tribal Well:	NO
True Vertical Depth:	11,120
Total Base Water Volume (gal):	2,597,196
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
Silica Sand	Sanjel	Proppant					
			Crystalline Silica, SiO2	14808-60-7	99.90000	14.21091	
WG-2BL	Sanjel	Gellant					
			No hazardous ingredients	NA	100.00000	0.28780	
SCC-1L	Sanjel	Clay Control					
			No hazardous ingredients	NA	100.00000	0.09577	
BX-6L	Sanjel	Borate Crosslinker					
			Ethylene Glycol	107-21-1	30.00000	0.05421	
NE-6	Sanjel	Non-emulsifier					
			Isopropal Alcohol	67-63-0	60.00000	0.04884	
NE-6	Sanjel	Non-emulsifier					
			Diethylenetriamine Alkylbenzene Sulfate	40139-72-8	30.00000	0.02442	
ScaleSorb 7	Baker	Scale Inhibitor					
			Diatomaceous Earth, Calcined	91053-39-3	100.00000	0.01880	
BX-6L	Sanjel	Borate Crosslinker					
			Boric Acid, sodium salt	13840-56-7	10.00000	0.01807	
Buffer E	Sanjel	High pH Buffer					
			Potassium Hydroxide	1310-58-3	30.00000	0.01790	
Buffer E	Sanjel	High pH Buffer					

			Potassium Carbonate	584-08-7	30.00000	0.01790	
5% Breaker-3HT	Sanjel	Break fluid					
			Tert-Butyl Hydroperoxide	75-91-2	5.00000	0.00999	
BX-6L	Sanjel	Borate Crosslinker					
			Sodium Hydroxide	1310-73-2	5.00000	0.00903	
NE-6	Sanjel	Non-emulsifier					
			Benzene 1-1-oxybis-, tetrapropylene	119345-03-8	10.00000	0.00814	
FRW-3	Sanjel	Friction reducer					
			Isoparaffinic Solvent	64742-47-8	40.00000	0.00787	
AQUCAR DB 20	Dow	Biocide					
			Polyethylene glycol	25322-68-3	54.50000	0.00643	
ScaleSorb 7	Baker	Scale Inhibitor					
			Organo Phosphorus Salt	Proprietary	30.00000	0.00564	
NE-6	Sanjel	Non-emulsifier					
			Diethylenetriamine	111-40-0	5.00000	0.00407	
NE-6	Sanjel	Non-emulsifier					
			Heavy Aromatic Solvent Naphtha	64742-94-5	5.00000	0.00407	
NE-6	Sanjel	Non-emulsifier					
			2-Ethylhexanol	104-76-7	5.00000	0.00407	
AQUCAR DB 20	Dow	Biocide					
			2,2-Dibromo-3-nitrilopropionamide	10222-01-2	20.00000	0.00236	
ScaleSorb 7	Baker	Scale Inhibitor					
			Sodium Chloride	7647-14-5	10.00000	0.00188	
FRW-3	Sanjel	Friction reducer					
			Surfactant	68131-40-8	5.00000	0.00098	
NE-6	Sanjel	Non-emulsifier					
			Napthalene	91-20-3	1.00000	0.00081	
ISA-1	Sanjel	Iron Sequestering Agent					
			Citric Acid	77-92-9	100.00000	0.00061	
AQUCAR DB 20	Dow	Biocide					
			Sodium bromide	7647-15-6	4.00000	0.00047	
AQUCAR DB 20	Dow	Biocide					
			Dibromoacetoneitrile	3252-43-5	3.00000	0.00035	
ScaleSorb 7	Baker	Scale Inhibitor					
			Crystalline Silica (Quartz)	14808-60-7	1.00000	0.00019	
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.							
Base Fluid	Operator	Base Fluid					
			Water, other	7732-18-5	100.00000	84.81882	

* 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)