

# Hydraulic Fracturing Fluid Product Component Information Disclosure

Job Start Date:	5/2/2016
Job End Date:	5/18/2016
State:	Texas
County:	Crockett
API Number:	42-105-42268-00-00
Operator Name:	Henry Resources LLC
Well Name and Number:	UnivNichole 5198NH
Latitude:	31.07823000
Longitude:	-101.79031600
Datum:	NAD27
Federal Well:	NO
Indian Well:	NO
True Vertical Depth:	7,425
Total Base Water Volume (gal):	18,590,124
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	Operator	Carrier/Base Fluid	Water	7732-18-5	100.00000	88.86555	
Sand	Sanrol	Proppant	Crystalline silica	14808-60-7	100.00000	10.30254	
HA04	Tarquin	Acidizing	Water	7732-18-5	85.00000	0.56576	
			Hydrochloric acid	7647-01-0	15.00000	0.09984	
NE601	Solnexus	NE/Surfactant	Diaethanolamine	111-42-2	70.00000	0.06629	
			Methanol	67-56-1	70.00000	0.06629	
			Polyethylene glycol monobutyl ether	9004-77-7	50.00000	0.04735	
FR300	Solnexus	Anionic Friction Reducer	Hydrotreated light petroleum distillate	64742-47-8	25.00000	0.04171	
BC1058	Buckman Lab	Liquid Biocide	Tetrahydro-3,5-dimethyl-1,3,5-thiadiazine-2-thione	533-74-4	24.00000	0.00618	
			Sodium hydroxide	1310-73-2	11.00000	0.00283	

IC05	Solnexus	Iron Control				
			Water	7732-18-5	60.00000	0.00191
			Acetic acid	64-19-7	60.00000	0.00191
			Citric acid	77-92-9	30.00000	0.00191
CI200	Economy Polymers	Corrosion Inhibitor				
			Methanol	67-56-1	60.00000	0.00057

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.

\* 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)