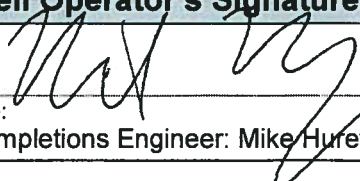


LOG OF FORMATIONS

Well API#: 37-125-23098-

Formation Name or Type	Top (feet)	Bottom (feet)	Gas at (feet)	Oil at (feet)	Water at (fresh / brine; ft.)	Source of Data
Fill	0'	10'				Driller's Log
Sand	10'	30'				Driller's Log
Clay & Shale	30'	60'				Driller's Log
Sand	60'	75'				Driller's Log
Clay & Sand	75'	90'				Driller's Log
Sand & Shale	90'	150'				Driller's Log
Limestone	150'	165'				Driller's Log
Sand	165'	262'				Driller's Log
Sand/Shale	262''	508'				Driller's Log
Red Rock	508'	630'				Driller's Log
Sand and Shale	630'	710'				Driller's Log
Sand	710'	815'				Driller's Log
Sand and Shale	815'	2200''				Driller's Log
Sand	2200'	2375'				Driller's Log
Shale	2375'	2425'				Driller's Log
Red Rock	2425'	2440'				Driller's Log
Sand	2440'	2820'				Driller's Log
Sand	2785'	2820'				Driller's Log
Shale and Shale	2820'	3560'				Driller's Log
Sand and Shale	3350'	3560'				Driller's Log
Shale	3560'	3595'				Driller's Log
Sand	3595'	3605'				Driller's Log
Shale	3605'	3890'				Driller's Log
Sand	3890'	3905'				Driller's Log
Sand and Shale	3905'	4235'				Driller's Log
Sand	4235'	4419'				Driller's Log
Sand and Shale	4419'	4604'				Driller's Log
Shale	4604'	4750'				Driller's Log
Sand	4750'	4970'				Driller's Log
Sand and Shale	4970'	5320'				Driller's Log
Sand	5320'	5640'				Driller's Log
Shale	5640'	6345'				Driller's Log
Horizontal Section						
Shale	5900''	6470'				Driller's Log
Limestone	6470'	6560'				Driller's Log
Shale	6560'					Driller's Log
Drillers Total Depth		9690'				Driller's Log

Please delete empty rows if necessary to make all of page 2 fit on one page.

Well Operator's Signature: 	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td colspan="2" style="background-color: #e0e0e0;">DEP USE ONLY</td> </tr> <tr> <td style="width: 70%;">Reviewed by:</td> <td style="width: 30%;">Date:</td> </tr> <tr> <td colspan="2">Comments:</td> </tr> </table>	DEP USE ONLY		Reviewed by:	Date:	Comments:	
DEP USE ONLY							
Reviewed by:	Date:						
Comments:							
Title: Completions Engineer: Mike Hurey	Date: 12-14-2010						



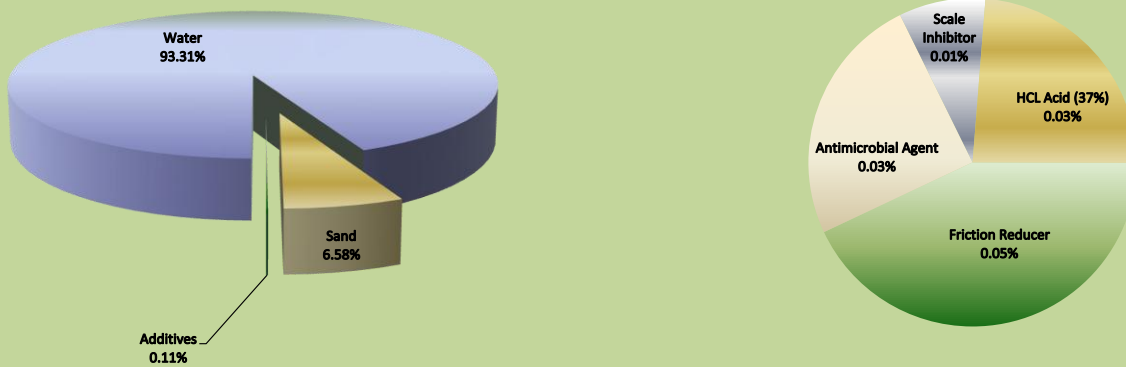
RANGE RESOURCES

John Miller Unit #1H
Well API: 37-125-23098

Completion Date: November 1 - 18, 2010
Township: Canton

% Composition of Hydraulic Fracture Fluid (by volume)						
Product Name	Additive	Purpose	Use and Dillution	Volume	Overall %	Common Uses
Water	Carrier Fluid	Creates fracture network in shale and carry proppant to the formation	Primary constituent	3,231,135 gal	93.31%	Water is the most abundant molecule on the Earth's surface
Sand	Sand	Allows fractures to remain open so gas can escape	Second most common constituent, making up almost 6% of the fluid	227,807 gal	6.58%	Drinking water filtration, play sand
FRW-200	Friction Reducer	Reduces friction between fluid and pipe	Diluted at one-half gallon per 1,000 gallons of water	1,600 gal	0.046%	Water treatment; soil conditioner; some children's toys
MC B-8650/Bioban	Antimicrobial Agent	Eliminates bacteria in the water that produce corrosive byproducts	Diluted at one-half gallon per 1,000 gallons of water	0,920 gal	0.027%	Water treatment, disinfectant; sterilize medical and dental equipment and surfaces
MX 588-2	Scale Inhibitor	Prevents scaling in pipe	Diluted at one-tenth gallon per 1,000 gallons of water	318 gal	0.009%	Water treatment, household cleaners, de-icing agent
HCL Acid (37%)	Perf Clean-Up	Dissolves cement and minerals to help initiate fractures	177 gallons per stage if required (non-diluted chemicals)	886 gal	0.026%	Swimming pool and household cleaner

Composition of Hydraulic Fracture Fluid (by volume)





Composition of Components in Marcellus Shale Hydraulic Fracturing Fluid

RANGE RESOURCES

Common Name & Supplier	Supplier Chemical Name	Common Description	Hazardous Component listed on MSDS	Purpose	MSDS Component Weight % of Chemical	Gallons MSDS Component in Well	Maximum Concentration of MSDS Component of Total Stage Fluid	
							% Vol	% Weight
7.5% HCl Mixture (FracTech)	37% HCL	concentrated HCl Acid	HCL	Cleans perforation	37.0%	886.18	0.0256%	0.0101%
	CI-100	Corrosion Inhibitor	Methanol	Protects casing	95.0%	10.32	0.0003%	0.0002%
			Propargyl Alcohol	Protects casing	5.0%	0.44	0.0000%	0.0000%
	NE100	Non- Emulsifer	No hazardous ingredients	Prevents emulsions	0.0%	N/A	N/A	N/A
FE100L	Iron Chelator	No hazardous ingredients	Prevents precipitation	0.0%	N/A	N/A	N/A	N/A
TOTAL							0.0259%	0.0103%

Friction Reducer (FracTech)	FRW-200	Friction Reducer	No hazardous ingredients	Reduce friction down casing	0.0%	N/A	N/A	N/A
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Scale Inhibitor (Multichem)	MX 588-2	Scale Inhibitor	No hazardous ingredients	prevents scale deposits	0.0%	N/A	N/A	N/A
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Antibacterial Agent (Multichem)	Bioban	Antibacterial Agent	4,4-Dimethyloxazolidine	eliminates bacteria in water	78.0%	505.47	0.0146%	0.0132%
			3,4,4-Trimethyloxazolodine		5.0%	33.09	0.0010%	0.0008%
			2-Amino-2-methyl-1-propanol		1.0%	6.93	0.0002%	0.0002%
			Formaldehyde Amine		0.5%	3.02	0.0001%	0.0001%
	BMC B-8650	Antibacterial Agent	Glutaraldehyde	eliminates bacteria in water	50.0%	94.91	0.0027%	0.0037%
			Methanol		0.5%	0.95	0.0000%	0.0000%
TOTAL							0.0186%	0.0181%

SUMMARY	by vol %	by weight %
	0.045%	0.028%