



COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
OIL AND GAS MANAGEMENT PROGRAM

Well Record and Completion Report

DEP USE ONLY	
Site ID	Primary Fac ID
Client Id	Subfacility Id

Well Operator Range Resources - Appalachia, LLC		DEP ID# 141142	Well API # (Permit / Reg) 37125-23875		Project Number	Acres 1181
Address 380 Southpointe Blvd, Suite 300			Well Farm Name Goettel		Well # 11H	Serial #
City Canonsburg	State PA	Zip Code 15317	County Washington		Municipality Independence Twp	
Phone 724-743-6700	Fax 724-743-6790	USGS 7.5 min. quadrangle map Middletown				

Check all that apply: Original Well Record Original Completion Report Amended Well Record Amended Completion Report

WELL RECORD Also complete the Log of Formations on back (page 2)

Well Type	<input checked="" type="checkbox"/> Gas	<input type="checkbox"/> Oil	<input type="checkbox"/> Combination Oil & Gas	<input type="checkbox"/> Injection	<input type="checkbox"/> Storage	<input type="checkbox"/> Disposal	
Drilling Method	<input type="checkbox"/> Rotary – Air	<input checked="" type="checkbox"/> Rotary – Mud	<input type="checkbox"/> Cable Tool				
Date Drilling Started 12/16/09	Date Drilling Completed 5/26/10	Surface Elevation 1318 ft.	Total Depth – Driller 12659 ft.	Total Depth - Logger 12659 ft.			
Casing and Tubing		Cement returned on surface casing? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		Cement returned on coal protective casing? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A			
Hole Size	Pipe Size	Wt.	Thread / Weld	Amount in Well (ft)	Material Behind Pipe Type and Amount	Packer / Hardware / Centralizers Type Size Depth	Date Run
30"	26"	108#	Thread	40'	Driven	-- 26" 40'	12/16/09
24"	20"	81.3#	Thread	282'	Gas Block, 325 sx	GS 20" 282'	1/16/10
12-1/4"	9-5/8"	40#	Thread	1888'	Gas Block, 975 sx	GS 9-5/8" 1888'	1/20/10
8-3/4"	5-1/2"	20#	Thread	12364'	50/50 12% poz, 787 sx	FS 5-1/2" 12364'	5/26/10
					50/50 13% poz, 708 sx		
					Acid sol 827 sx		

COMPLETION REPORT

Perforation Record			Stimulation Record							
Date	Interval Perforated From	To	Date	Interval Treated	Fluid Type	Amount	Propping Agent Type	Amount	Average Injection Rate	
8/9/10	7,745' MD	9,425' MD	8/24/10	Marcellus Shale	Slick H2O	147,607 bbl	Sand	8,062k lb	69.6 bpm	
Natural Open Flow			too small to measure		Natural Rock Pressure		too small		Hours	Days
After Treatment Open Flow			Not enough time to determine		After Treatment Rock Pressure		Undeterminable		Hours	Days

Well Service Companies -- Provide the name, address, and phone number of all well service companies involved.

Name Patterson UTI	Name Universal Well Services	Name Frac Tech Services
Address 4501 Lamesa Highway	Address 730 Braddock View Dr	Address 16858 IH20
City - State - Zip Snyder, TX 79549	City - State - Zip Mt. Braddock, PA 15465	City - State - Zip Cisco, TX 76437
Phone 325-574-6300	Phone 724-430-6201	Phone 817-850-1008

LOG OF FORMATIONS

Well API#: 37-125-23875-_____

(If you will need more space than this page, please photocopy the blank form before filling it in.)

Formation Name or Type	Top (feet)	Bottom (feet)	Gas at (feet)	Oil at (feet)	Water at (fresh / brine; ft.)	Source of Data
Fill	0'	40'				Drillers Log
Sandstone	40'	50'				Drillers Log
Sand	50'	65'				Drillers Log
Redrock	65'	75'				Drillers Log
Gray Shale	75'	90'				Drillers Log
Redrock	90'	112'				Drillers Log
Shale	112'	172'				Drillers Log
Sandy Shale	172'	235'				Drillers Log
Shale	235'	292'				Drillers Log
Sand	292'	400'				Drillers Log
Shale and Sand	400'	460'				Drillers Log
Shale	460'	500'				Drillers Log
Sand	500'	560'				Drillers Log
Redrock	560'	630'				Drillers Log
Sandy Shale	630'	680'				Drillers Log
Redrock	680'	760'				Drillers Log
Sandy Shale	760'	1415'				Drillers Log
Limestone	1415'	1500'				Drillers Log
Sand and Shale	1500'	2600'				Drillers Log
Shale	2600'	3750'				Drillers Log
Sandy Shale	3750'	3940'				Drillers Log
Shale	3940'	4650'				Drillers Log
Sandy Shale	4650'	4820'				Drillers Log
Sandy	4820'	4950'				Drillers Log
Shale	4950'	5620'				Drillers Log
Sand	5620'	5700'				Drillers Log
Horizontal						
Shale	4800'	7181'				Drillers Log
Limestone	7181'	7350'				Drillers Log
Shale	7350'					Drillers Log
Drillers Total Depth		12659'				Drillers Log

I do hereby certify to the best of my knowledge, information and belief that the well identified on this Well Record and Completion Report has been properly cased and cemented in accordance with the requirements of 25 Pa. Code Chapter 78 and any conditions contained in the permit for this well. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.

Well Operator's Signature	DEP USE ONLY
	Reviewed by: _____ Date: _____
Title: _____ Date: _____ Michael Hurey-Completions Engineer 9/9/10	Comments: _____

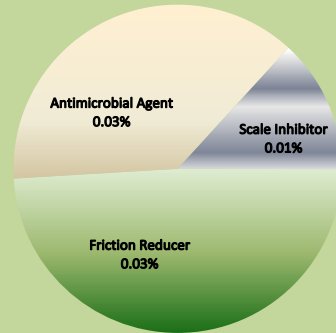
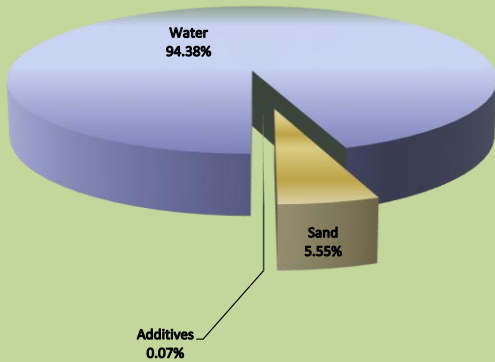


Goettel Unit #11H
Well API: 37-125-23875

Completion Date: August 9 - 24, 2010
Township: Independence

% Composition of Hydraulic Fracture Fluid (by volume)						
Product Name	Additive	Purpose	Use and Dilution	Volume	Overall %	Common Uses
Water	Carrier Fluid	Creates fracture network in shale and carry proppant to the formation	Primary constituent	6,199,511 gal	94.38%	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	364,445 gal	5.55%	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	2,260 gal	0.03%	Water treatment; soil conditioner; some children's toys
MC B-8642/Bioban	Antimicrobial Agent	Eliminates bacteria in the water that produce corrosive byproducts	Diluted at one-half gallon per 1,000 gallons of water	1,741 gal	0.03%	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	610 gal	0.01%	Water treatment, household cleaners, de-icing agent

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
Friction Reducer (FracTech)	FRW-200	Friction Reducer	No hazardous ingredients	Reduce friction down casing	0.0%	N/A	N/A	N/A

Scale Inhibitor (Multichem)	MC MS S-2510T	Scale Inhibitor	Sodium hydroxide	prevents scale deposits in pipe and perforations	5.0%	22.33	0.0003%	0.0005%
			Ethylene Glycol		60.0%	362.76	0.0055%	0.0057%
TOTAL							0.0059%	0.0062%

Antibacterial Agent (Multichem)	Bioban	Antibacterial Agent	4,4-Dimethyloxazolidine	eliminates bacteria in water	78.0%	956.56	0.0146%	0.0134%
			3,4,4-Trimethyloxazolidine		5.0%	62.61	0.0010%	0.0009%
			2-Amino-2-methyl-1-propanol		1.0%	13.12	0.0002%	0.0002%
			Formaldehyde Amine		0.5%	5.71	0.0001%	0.0001%
	BMC B-8642	Antibacterial Agent	Glutaraldehyde	eliminates bacteria in water	60.0%	215.53	0.0033%	0.0045%
			n-alkyl dimethyl benzyl ammonium chloride		10.0%	35.92	0.0005%	0.0008%
			Ethanol		1.0%	3.59	0.0001%	0.0001%
TOTAL							0.0158%	0.0145%

SUMMARY	by vol %	by weight %
	0.022%	0.021%