



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

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

Well Record and Completion Report

Well Operator Range Resources - Appalachia, LLC		DEP ID# 141142	Well API # (Permit / Reg) 37125-23904		Project Number	Acres 503
Address 380 Southpointe Blvd, Suite 300			Well Farm Name Troyer Space Management Unit		Well # 3H	Serial #
City Canonsburg		State PA	Zip Code 15317	County Washington	Municipality Cecil	
Phone 724-743-6700		Fax 724-743-6790		USGS 7.5 min. quadrangle map Canonsburg		
Check all that apply: <input checked="" type="checkbox"/> Original Well Record <input checked="" type="checkbox"/> Original Completion Report <input type="checkbox"/> Amended Well Record <input type="checkbox"/> 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 1/14/2010	Date Drilling Completed 7/30/2010	Surface Elevation 1102 ft.	Total Depth - Driller 11264 ft.	Total Depth - Logger 11264 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 checked="" type="checkbox"/> No <input 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'	1/14/10
24"	20"	81.3#	Thread	254'	Class A GB 288 sx	GS	20"	254'	4/8/10
12-1/4"	9-5/8"	36#	Thread	1778'	Class A GB 835 sx	GS	9-5/8"	1778'	4/11/10
8-3/4"	5-1/2"	20#	Thread	11185'	Extendacem, 890 sx	FS	5 1/2"	11185'	7/30/10
					Hal Light, 440 sx, Fracem 460 sx				

COMPLETION REPORT

Perforation Record			Stimulation Record							
Date	Interval Perforated From	To	Date	Interval Treated	Fluid		Propping Agent		Average Injection Rate	
					Type	Amount	Type	Amount		
1/19/2011	11,055'MD	7,160'MD	1/28/2011	Marcellus Shale	Slick H2O	97,396 bbl	Sand	4,252Klb	66.4 bpm	
Natural Open Flow			Too small to measure		Natural Rock Pressure		Too small to measure		Hours	Days
After Treatment Open Flow			Omcf/d@24 hrs post treatment		After Treatment Rock Pressure		NA@24 hrs post treatment		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
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#: 37-125-23904-

(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
Sand and Shale	105'	415'				Drillers Log
Red Rock	415'	450'				Drillers Log
Sand and Shale	450'	522'				Drillers Log
Red Rock	522'	546'				Drillers Log
Shale	546'	608'				Drillers Log
Sand and Shale	608'	624'				Drillers Log
Red Rock	624'	630'				Drillers Log
Shale	630'	770'				Drillers Log
Coal	770'	774'				Drillers Log
Shale	774'	865'				Drillers Log
Coal	865'	870'				Drillers Log
Shale	870'	1008'				Drillers Log
Sandy Shale	1008'	1395'	□			Drillers Log
Sand	1395'	1530'				Drillers Log
Sandy Shale	1530'	2000'				Drillers Log
Shale	2000'	2205'				Drillers Log
White Sand and Shale	2205'	2304'				Drillers Log
Shale	2304'	5506'				Drillers Log
Sandy Shale	5506'	6307'				Drillers Log
Limestone	6307'	6410'				Drillers Log
Shale	6410'	6602'				Drillers Log
Horizontal						
Shale	5650'	6440'				Drillers Log
Limestone	6440'	6650'				Drillers Log
Shale	6650'					Drillers Log
Drillers Total Depth		11264'				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

 Date: 3/4/2011

Reviewed by: _____ Date: _____

Title: _____
Completion Engineer: R Archibque 3/4/2011

Comments: _____

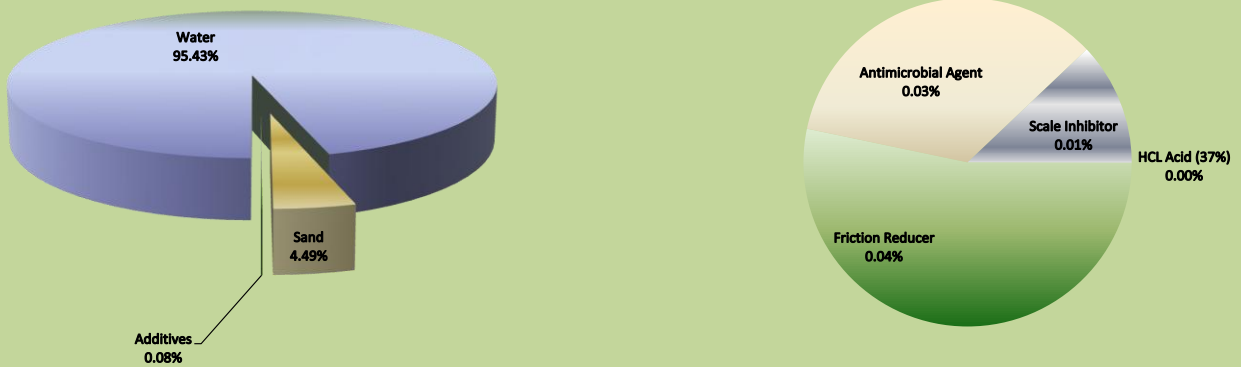


Troyer Space Management Unit 3H
Well API: 37-125-23904

Completion Date: January 28,2011
Township: Cecil

% 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	4,087,301 gal	95.43%	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	192,218 gal	4.49%	Drinking water filtration, play sand
FRW-200 & FRW-300	Friction Reducer	Reduces friction between fluid and pipe	Diluted at one-half gallon per 1,000 gallons of water	1,767 gal	0.04%	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	1,149 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	402 gal	0.01%	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)	0 gal	0.00%	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%	0.00	0.0000%	0.0000%	
	CI-100	Corrosion Inhibitor	Methanol	Protects casing	95.0%	0.00	0.0000%	0.0000%	
			Propargyl Alcohol	Protects casing	5.0%	0.00	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								0.0000%	0.0000%

Friction Reducer (FracTech)	RW-200 & FRW-30	Friction Reducer	No hazardous ingredients	Reduce friction down casing	0.0%	N/A	N/A	N/A
------------------------------------	-----------------	------------------	--------------------------	-----------------------------	------	-----	-----	-----

Scale Inhibitor (Multichem)	MX 588-2	Scale Inhibitor	No hazardous ingredients	prevents scale deposits	0.0%	N/A	N/A	N/A
------------------------------------	----------	-----------------	--------------------------	-------------------------	------	-----	-----	-----

Antibacterial Agent (Multichem)	Bioban	Antibacterial Agent	4,4-Dimethyloxazolidine	eliminates bacteria in water	78.0%	631.29	0.0147%	0.0138%	
			3,4,4-Trimethyloxazolodine		5.0%	41.32	0.0010%	0.0009%	
			2-Amino-2-methyl-1-propanol		1.0%	8.66	0.0002%	0.0002%	
			Formaldehyde Amine		0.5%	3.77	0.0001%	0.0001%	
	BMC B-8650	Antibacterial Agent	Glutaraldehyde	eliminates bacteria in water	50.0%	118.53	0.0028%	0.0039%	
			Methanol		0.5%	1.19	0.0000%	0.0000%	
TOTAL								0.0188%	0.0188%

SUMMARY	by vol %	by weight %
	0.019%	0.019%