



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

DEP USE ONLY	
Site ID	Primary Fac ID
Client	Subfacility Id


Completion Report

Well Information					
If you are submitting this Completion Report attached to the Well Record, you only need to enter the well API # in this section.					
Well Operator Range Resources-Appalachia,LLC	DEP ID# 141142	Well API # (Permit / Reg) 37 - 081-20219- -	Project Number	Acres 230	
Address 380 Southpointe Blvd, Suite 300		Well Farm Name Dog Run Hunting Club Unit	Well # 1H	Serial #	
City Canonsburg	State PA	Zip Code 15317	County Lycoming	Municipality Cummings	
Phone 817 869-4158	Fax 817 869-1458	Email mdennis@rangeresources.com	USGS 7.5 min. quadrangle map Waterville		
Check the appropriate submission: <input checked="" type="checkbox"/> Original Completion Report <input type="checkbox"/> Amended Completion Report					

STIMULATION BASE FLUID		
List Water Management Plan Approved Water Source(s) that were used	Water Management Plan ID No.	Volume (Gallons)
1. Jersey Shore Joint Water Authority	PADWIS ID# 4410156	1,281,978
2. Borough of Montoursville	PADWIS ID# 4175501	983,087
3. Williamsport Municipal Authority	PADWIS ID# 4189510	1,201,908
4.		
5.		
6.		
Recycled Water Used		0 gal
Other Bass Fluid(s)Components Used		
1.		
2.		
Total Base Fluid(s)/Components Used		3,466,974 gallons

PERFORATION RECORD					
Stage No.	Perforation Date	Stage Perforated From	Stage Perforated To	Perf. Orientation (Vertical, Horizontal, Radial)	Formation
1	3/10/2011	11016'	10816'	Horizontal	Marcellus Shale
2	3/11/2011	10716'	10516'	Horizontal	Marcellus Shale
3	3/12/2011	10416'	10216'	Horizontal	Marcellus Shale
4	3/18/2011	10116'	9916'	Horizontal	Marcellus Shale
5	3/19/2011	9816'	9616'	Horizontal	Marcellus Shale
6	3/20/2011	9516'	9316'	Horizontal	Marcellus Shale
7	3/20/2011	9216'	9016'	Horizontal	Marcellus Shale
8	3/21/2011	8716"	8916'	Horizontal	Marcellus Shale

STIMULATION INFORMATION (WELL)			
Open Flow Production: 0mcf/d @ 24hrs pos treatment	24 Hr. Open Flow Production: 0mcf/d @ 24hrs pos treatment	24 Hr. Shut-in Pressure: N/A @ 24hrs post treatment	Flow Back Date: 4/11/11
STIMULATION INFORMATION (STAGE)			
Complete a separate record for each stimulation stage. (Please insert additional copies of this page for additional stages).			
Stage No.: 1	Stimulation Date: 3-10-2011	Pump Rate: 68.7	
Pressure (psi): 9133	Shut-in Surface Pressure: 5909	5 Minute Shut-in Surface Pressure: N/A	
Propping Agent Type: Sand	Propping Agent Amount: 507,803	Propping Agent Size: 100 mesh/30-50 Mesh	
Stage No.: 2	Stimulation Date: 3-11-2011	Pump Rate: 69.4	
Pressure (psi): 8828	Shut-in Surface Pressure: 4269	5 Minute Shut-in Surface Pressure: NA	
Propping Agent Type: Sand	Propping Agent Amount: 506,229	Propping Agent Size: 100 mesh/30-50 Mesh	
Stage No.: 3	Stimulation Date: 3-12-2011	Pump Rate: 69.7	
Pressure (psi): 8947	Shut-in Surface Pressure: 6041	5 Minute Shut-in Surface Pressure: NA	
Propping Agent Type: Sand	Propping Agent Amount: 501,627	Propping Agent Size: 100 mesh/30-50 Mesh	
Stage No.: 4	Stimulation Date: 3-18-2011	Pump Rate: 69.1	
Pressure (psi): 9019	Shut-in Surface Pressure: 7150	5 Minute Shut-in Surface Pressure: NA	
Propping Agent Type: Sand	Propping Agent Amount: 503,151	Propping Agent Size: 100 mesh/30-50 Mesh	
Stage No.: 5	Stimulation Date: 3-19-2011	Pump Rate: 69.9	
Pressure (psi): 8715	Shut-in Surface Pressure: 6455	5 Minute Shut-in Surface Pressure: NA	
Propping Agent Type: Sand	Propping Agent Amount: 501,587	Propping Agent Size: 100 mesh/30-50 Mesh	
Stage No.: 6	Stimulation Date: 3-20-2011	Pump Rate: 64.7	
Pressure (psi): 8420	Shut-in Surface Pressure: 6543	5 Minute Shut-in Surface Pressure: NA	
Propping Agent Type: Sand	Propping Agent Amount: 502,049	Propping Agent Size: 100 mesh/30-50 Mesh	
WELL SERVICE COMPANIES (Provide the name, address, and telephone number of all well service companies involved.)			
Name Frac Tech	Name Multi-Chem	Name Cased Hole Solutions, Inc.	
Address 16858 IH 20	Address 2905 Southwest Blvd.	Address 1720 North Airport Rd.	
City – State - Zip Cisco, Texas 76437	City – State – Zip San Angelo, Texas 76904	City – State – Zip Weatherford, Oklahoma 73096	
Phone 817 850-1008	Phone 325 223-6200	Phone 580 772-3100	
<i>I do hereby certify to the best of my knowledge, information and belief that the information contained on this Completion Report is true and correct. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.</i>			
Well Operator's Signature		DEP USE ONLY	
Title: Regulatory Analyst Date: 4/20/2011		Reviewed by:	Date:
		Comments:	

STIMULATION INFORMATION (WELL)			
Open Flow Production: 0mcf/d @ 24hrs pos treatment	24 Hr. Open Flow Production: 0mcf/d @ 24hrs pos treatment	24 Hr. Shut-in Pressure: N/A @ 24hrs post treatment	Flow Back Date: 4/11/11
STIMULATION INFORMATION (STAGE)			
Complete a separate record for each stimulation stage. (Please insert additional copies of this page for additional stages).			
Stage No.: 7	Stimulation Date: 3-20-2011	Pump Rate: 69.7	
Pressure (psi): 8453	Shut-in Surface Pressure: 4214	5 Minute Shut-in Surface Pressure: NA	
Propping Agent Type: Sand	Propping Agent Amount: 501,278	Propping Agent Size: 100 Mesh/30-50 Mesh	
Stage No.: 8	Stimulation Date: 3-21-2011	Pump Rate: 71	
Pressure (psi): 7931	Shut-in Surface Pressure: 5450	5 Minute Shut-in Surface Pressure: NA	
Propping Agent Type: Sand	Propping Agent Amount: 502,184	Propping Agent Size: 100 Mesh/30-50 Mesh	
Stage No.:	Stimulation Date:	Pump Rate:	
Pressure (psi):	Shut-in Surface Pressure:	5 Minute Shut-in Surface Pressure:	
Propping Agent Type:	Propping Agent Amount:	Propping Agent Size:	
Stage No.:	Stimulation Date:	Pump Rate:	
Pressure (psi):	Shut-in Surface Pressure:	5 Minute Shut-in Surface Pressure:	
Propping Agent Type:	Propping Agent Amount:	Propping Agent Size:	
Stage No.:	Stimulation Date:	Pump Rate:	
Pressure (psi):	Shut-in Surface Pressure:	5 Minute Shut-in Surface Pressure:	
Propping Agent Type:	Propping Agent Amount:	Propping Agent Size:	
Stage No.:	Stimulation Date:	Pump Rate:	
Pressure (psi):	Shut-in Surface Pressure:	5 Minute Shut-in Surface Pressure:	
Propping Agent Type:	Propping Agent Amount:	Propping Agent Size:	
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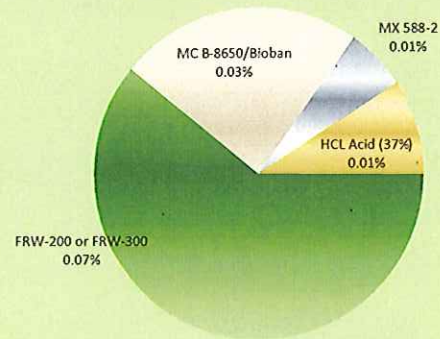
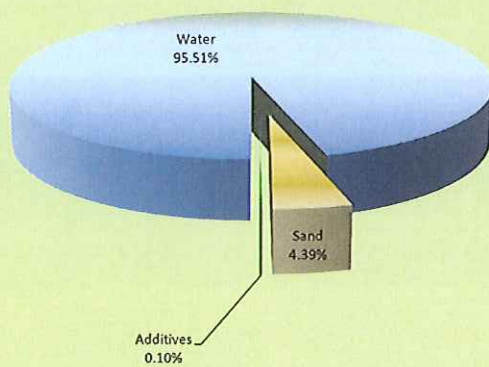


Dog Run Hunting Club Unit #1H
Well API: 37-081-20219

Completion Date: 3/21/2011
Township: Cummings

% 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	3,465,812 gal	95.49%	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	159,313 gal	4.39%	Drinking water filtration, play sand
FRW-200 or FRW-300	Friction Reducer	Reduces friction between fluid and pipe	Diluted at one-half gallon per 1,000 gallons of water	2,579 gal	0.07%	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	1,017 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	0,256 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)	0,394 gal	0.01%	Swimming pool and household cleaner

Composition of Hydraulic Fracture Fluid (by volume)





Composition of Components in Marcellus Shale Hydraulic Fracturing Fluid

Dog Run Hunting Club Unit #1H
Well API: 37-081-20219

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%	394.00	0.0109%	0.0044%
	CI-100	Corrosion Inhibitor	Methanol	Protects casing	95.0%	33.01	0.0009%	0.0007%
			Propargyl Alcohol	Protects casing	5.0%	1.42	0.00004%	0.00004%
	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	
TOTAL							0.0118%	0.0051%

Friction Reducer (FracTech)	RW-200 or FRW-3	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)	Supplier	Common Description	Hazardous Component	Purpose	MSDS Component Weight %	Gallons	Concentration	
							% Vol	% Weight
	Bioban	Antibacterial Agent	4,4-Dimethyloxazolidine	eliminates bacteria in water	78.0%	558.77	0.0154%	0.0144%
			3,4,4-Trimethyloxazolidine		5.0%	36.58	0.0010%	0.0009%
			2-Amino-2-methyl-1-propanol		1.0%	7.67	0.0002%	0.0002%
			Formaldehyde Amine		0.5%	3.34	0.0001%	0.0001%
	BMC B-8650	Antibacterial Agent	Glutaraldehyde	eliminates bacteria in water	50.0%	104.92	0.0029%	0.0040%
			Methanol		0.5%	1.05	0.00003%	0.00004%
TOTAL							0.0196%	0.0197%

SUMMARY	by vol %	by weight %
	0.031%	0.025%