



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 - 081-20231- -	Project Number	Acres	
Address 100 Throckmorton St., Suite 1200		Well Farm Name Shohocken Hunt Cub Unit	Well # 3H	Serial #	
City Fort Worth	State TX	Zip Code 76102	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 Shores @ Larrys Creek and Pine Creek	PADWIS ID# 4410156	1,672,687
2. Montoursville Borough (Howard Ave and Pool Road)	PADWIS ID# 4175501	821,267
3. Williamsport Water Authority @ Sanitary Plant	PADWIS ID# 4189510	555,539
4. LHP Management @ Fishing Creek	SRBC Docket # 20090906	195,694
5.		
6.		
<b>Recycled Water Used</b>		<b>212,253</b>
<b>Other Bass Fluid(s)Components Used</b>		
1.		
2.		
<b>Total Base Fluid(s)/Components Used</b>		<b>3,457,440 Gallons</b>

PERFORATION RECORD					
Stage No.	Perforation Date	Stage Perforated From	Stage Perforated To	Perf. Orientation (Vertical, Horizontal, Radial)	Formation
1	7/15/2011	11,950'MD	11,750'MD	Horizontal	Marcellus Shale
2	8/08/2011	11,650'MD	11,450'MD	Horizontal	Marcellus Shale
3	8/09/2011	11,350'MD	11,150'MD	Horizontal	Marcellus Shale
4	8/11/2011	11,050'MD	10,850'MD	Horizontal	Marcellus Shale
5	8/12/2011	10,750'MD	10,550'MD	Horizontal	Marcellus Shale
6	8/16/2011	10,450'MD	10,250'MD	Horizontal	Marcellus Shale
7	8/16//2011	10,150'MD	9,950'MD	Horizontal	Marcellus Shale
8	8/17/2011	9,850'MD	9,650'MD	Horizontal	Marcellus Shale
9	8/18/2011	9,550'MD	9,350'MD	Horizontal	Marcellus Shale
10	8/18/2011	9,250'MD	9,050'MD	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:
STIMULATION INFORMATION (STAGE)			
Complete a separate record for each stimulation stage. (Please insert additional copies of this page for additional stages).			
<b>Stage No.:</b> 1	Stimulation Date: 08/08/2011	Pump Rate: 63.2	
Pressure (psi): 9,459	Shut-in Surface Pressure: 6,698	5 Minute Shut-in Surface Pressure: NA	
Propping Agent Type: Sand	Propping Agent Amount: 394,862	Propping Agent Size: 100 mesh/30-50 Mesh	
<b>Stage No.:</b> 2	Stimulation Date: 08/09/2011	Pump Rate: 70.3	
Pressure (psi): 9,355	Shut-in Surface Pressure: 6,918	5 Minute Shut-in Surface Pressure: NA	
Propping Agent Type: Sand	Propping Agent Amount: 397,318	Propping Agent Size: 100 mesh/30-50 Mesh	
<b>Stage No.:</b> 3	Stimulation Date: 08/10/2011	Pump Rate: 69.5	
Pressure (psi): 9,048	Shut-in Surface Pressure: 6,794	5 Minute Shut-in Surface Pressure: NA	
Propping Agent Type: Sand	Propping Agent Amount: 402,100	Propping Agent Size: 100 mesh/30-50 Mesh	
<b>Stage No.:</b> 4	Stimulation Date: 08/12/2011	Pump Rate: 69.7	
Pressure (psi): 9,320	Shut-in Surface Pressure: 6,578	5 Minute Shut-in Surface Pressure: NA	
Propping Agent Type: Sand	Propping Agent Amount: 403,404	Propping Agent Size: 100 mesh/30-50 Mesh	
<b>Stage No.:</b> 5	Stimulation Date: 8/15/2011	Pump Rate: 70.0	
Pressure (psi): 9,066	Shut-in Surface Pressure: 6,711	5 Minute Shut-in Surface Pressure: NA	
Propping Agent Type: Sand	Propping Agent Amount: 400,847	Propping Agent Size: 100 mesh/30-50 Mesh	
<b>Stage No.:</b> 6	Stimulation Date: 8/16/2011	Pump Rate: 70.4	
Pressure (psi): 8,241	Shut-in Surface Pressure: 6,606	5 Minute Shut-in Surface Pressure: NA	
Propping Agent Type: Sand	Propping Agent Amount: 398,951	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 <b>Frac Tech</b>	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>			
<b>Well Operator's Signature</b>		<b>DEP USE ONLY</b>	
		Reviewed by:	Date:
Title: Regulatory Analyst	Date: 9/14/2011	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:
STIMULATION INFORMATION (STAGE)			
Complete a separate record for each stimulation stage. (Please insert additional copies of this page for additional stages).			
<b>Stage No.:</b> 7	Stimulation Date: 08/17/2011	Pump Rate: 70.4	
Pressure (psi): 8,147	Shut-in Surface Pressure: 6,983	5 Minute Shut-in Surface Pressure: NA	
Propping Agent Type: Sand	Propping Agent Amount: 399,185	Propping Agent Size: 100 mesh/30-50 Mesh	
<b>Stage No.:</b> 8	Stimulation Date: 08/18/2011	Pump Rate: 69.3	
Pressure (psi): 8,643	Shut-in Surface Pressure: 7,148	5 Minute Shut-in Surface Pressure: NA	
Propping Agent Type: Sand	Propping Agent Amount: 399,377	Propping Agent Size: 100 mesh/30-50 Mesh	
<b>Stage No.:</b> 9	Stimulation Date: 8/18/2011	Pump Rate: 70.4	
Pressure (psi): 8,029	Shut-in Surface Pressure: 6,765	5 Minute Shut-in Surface Pressure: NA	
Propping Agent Type: Sand	Propping Agent Amount: 397,723	Propping Agent Size: 100 mesh/30-50 Mesh	
<b>Stage No.:</b> 10	Stimulation Date: 8/19/2011	Pump Rate: 69.5	
Pressure (psi): 7,741	Shut-in Surface Pressure: 6,820	5 Minute Shut-in Surface Pressure: NA	
Propping Agent Type: Sand	Propping Agent Amount: 400,203	Propping Agent Size: 100 mesh/30-50 Mesh	
<b>Stage No.:</b>	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:	
<b>Stage No.:</b>	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:	
WELL SERVICE COMPANIES (Provide the name, address, and telephone number of all well service companies involved.)			
Name <b>Frac Tech</b>	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	
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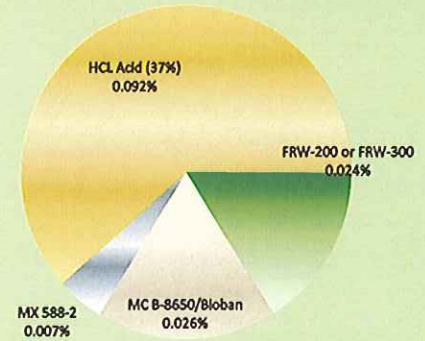
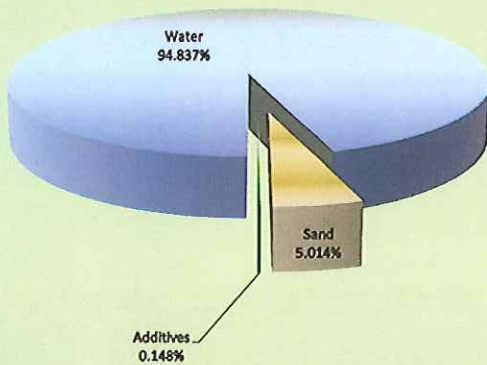


Shohocken HC 3-H  
Well API: 37-081-20231

Completion Date: 8/19/11  
Township: Cummings

% 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	3,414,290 gal	94.837%	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	180,527 gal	5.014%	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	0,856 gal	0.024%	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	0,947 gal	0.026%	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	0,248 gal	0.007%	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)	3,294 gal	0.092%	Swimming pool and household cleaner

Composition of Hydraulic Fracture Fluid (by volume)





Wellname: Shohocken HC 3-H  
Township: Cummings

WELL API#: 37-081-20231  
Completion Date: 8/19/11

### 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%	3294.48	0.0915%	0.0370%
	CI-100	Corrosion Inhibitor	Methanol	Protects casing	95.0%	38.35	0.0011%	0.0008%
			Propargyl Alcohol	Protects casing	5.0%	1.65	0.00005%	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	N/A
<b>TOTAL</b>							<b>0.0926%</b>	<b>0.0379%</b>

Friction Reducer (FracTech)	RW-200 or FRW-30	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 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
	Bioban	Antibacterial Agent	4,4-Dimethyloxazolidine	eliminates bacteria in water	78.0%	520.31	0.0145%	0.0134%
			3,4,4-Trimethyloxazolodine		5.0%	34.06	0.0009%	0.0009%
			2-Amino-2-methyl-1-propanol		1.0%	7.14	0.0002%	0.0002%
			Formaldehyde Amine		0.5%	3.11	0.0001%	0.0001%
	BMC B-8650	Antibacterial Agent	Glutaraldehyde	eliminates bacteria in water	50.0%	97.70	0.0027%	0.0038%
			Methanol		0.5%	0.98	0.00003%	0.00004%
			<b>TOTAL</b>		<b>0.0184%</b>	<b>0.0183%</b>		

<b>SUMMARY</b>	by vol %	by weight %
	0.111%	0.056%