




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 - 121-44693- -		Project Number Acres 105
Address 100 Throckmorton St., Suite 1200			Well Farm Name Carter, R Unit	Well # 3H	Serial #
City Fort Worth	State TX	Zip Code 76102	County Venango	Municipality Oakland	
Phone 817 869-4158	Fax 817 869-1458	Email mdennis@rangeresources.com		USGS 7.5 min. quadrangle map Oil City	
Check the appropriate submission: <input 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. Justus Lake			WMP-141142-6	2,275,224	
2. City of Oil City Municipal Authority			ID # 59771	0	
3.					
4.					
5.					
6.					
				Recycled Water Used	
				Other Bass Fluid(s)Components Used	
1.					
2.					
				Total Base Fluid(s)/Components Used	2,275,224 gallons
PERFORATION RECORD					
Stage No.	Perforation Date	Stage Perforated From	Stage Perforated To	Perf. Orientation (Vertical, Horizontal, Radial)	Formation
1	6/15/2011	7704'MD	7500'MD	Horizontal	Marcellus Shale
2	6/22/2011	7398'MD	7194'MD	Horizontal	Marcellus Shale
3	6/22/2011	7092'MD	6888'MD	Horizontal	Marcellus Shale
4	6/23/2011	6786'MD	6582'MD	Horizontal	Marcellus Shale
5	6/23/2011	6480'MD	6276'MD	Horizontal	Marcellus Shale



STIMULATION INFORMATION (WELL)			
Open Flow Production: 0mcf/d @ 24hrs pos treatment	24 Hr. Open Flow Production: mcf/d @ 24hrs pos treatment	24 Hr. Shut-in Pressure: N/A @ 24hrs post treatment	Flow Back Date: 6/26/2011
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: 6/22/2011	Pump Rate: 70.1	
Pressure (psi): 4,984	Shut-in Surface Pressure: 3,702	5 Minute Shut-in Surface Pressure: NA	
Propping Agent Type: Sand	Propping Agent Amount: 502,809	Propping Agent Size: 100 mesh/40-70 Mesh	
<b>Stage No.:</b> 2	Stimulation Date: 6/22/2011	Pump Rate: 69.6	
Pressure (psi): 6,465	Shut-in Surface Pressure: 3,637	5 Minute Shut-in Surface Pressure: NA	
Propping Agent Type: Sand	Propping Agent Amount: 494,545	Propping Agent Size: 100 mesh/40-70 Mesh	
<b>Stage No.:</b> 3	Stimulation Date: 6/22/2011	Pump Rate: 70.1	
Pressure (psi): 6,658	Shut-in Surface Pressure: 3,464	5 Minute Shut-in Surface Pressure: NA	
Propping Agent Type: Sand	Propping Agent Amount: 498,924	Propping Agent Size: 100 mesh/40-70 Mesh	
<b>Stage No.:</b> 4	Stimulation Date: 6/23/2011	Pump Rate: 70.0	
Pressure (psi): 5,436	Shut-in Surface Pressure: 3,067	5 Minute Shut-in Surface Pressure: NA	
Propping Agent Type: Sand	Propping Agent Amount: 503,079	Propping Agent Size: 100 mesh/40-70 Mesh	
<b>Stage No.:</b> 5	Stimulation Date: 6/23/2011	Pump Rate: 70.2	
Pressure (psi): 4,371	Shut-in Surface Pressure: 3,291	5 Minute Shut-in Surface Pressure: NA	
Propping Agent Type: Sand	Propping Agent Amount: 501,152	Propping Agent Size: 100 mesh/40-70 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>WELL SERVICE COMPANIES (Provide the name, address, and telephone number of all well service companies involved.)</b>			
Name <b>Frac Tech</b>	Name <b>Multi-Chem</b>	Name <b>Cased Hole Solutions, Inc.</b>	
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>	
 Title: Regulatory Analyst      Date: 7/20/2011		Reviewed by:	Date:
		Comments:	



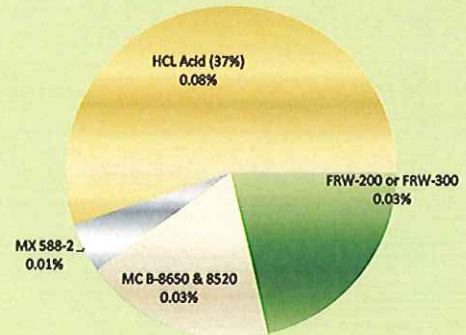
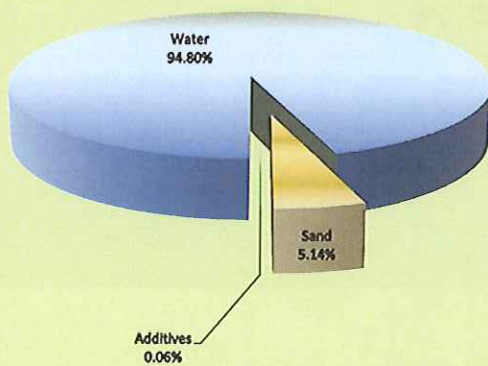
RANGE RESOURCES

Carter R Unit 3-H  
Well API: 37-121-44693

Completion Date: 6/22/2011  
Township: Oakland

% 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	2,083,603 gal	94.72%	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	113,023 gal	5.14%	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	0,681 gal	0.03%	Water treatment; soil conditioner; some children's toys
MC B-8650 & 8520	Antimicrobial Agent	Eliminates bacteria in the water that produce corrosive byproducts	Diluted at one-half gallon per 1,000 gallons of water	0,603 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	0,158 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)	1,772 gal	0.08%	Swimming pool and household cleaner

Composition of Hydraulic Fracture Fluid (by volume)





Wellname: Carter R Unit 3-H  
 Township: Oakland  
 WELL API#: 37-121-44693  
 Completion Date: 6/22/2011

### 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	Specific Gravity of Additive	Specific Gravity of Component	Additive Conc (gal/1000 gal)	lbs Hazardous Component	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%	1.1652	1.1652	183.0	6474.29	1772.37	0.0606%	0.0326%
	CI-100	Corrosion Inhibitor	Methanol	Protects casing	95.0%	0.86	0.792	2.0	136.11	20.63	0.0009%	0.0007%
	NE100	Non-Emulsifier	Propargyl Alcohol	Protects casing	5.0%	0.86	0.97	2.0	7.16	0.89	0.00040%	0.00036%
	FE100L	Iron Chelator	No hazardous ingredients	Prevents emulsions	0.0%	0.97		1.0	N/A	N/A	N/A	N/A
			No hazardous ingredients	Prevents precipitation	0.0%	1.23		3.0	N/A	N/A	N/A	N/A
<b>TOTAL</b>											<b>0.0815%</b>	<b>0.0333%</b>
Friction Reducer (FracTech)	RW-200 or FRW-3	Friction Reducer	No hazardous ingredients	Reduce friction down casing	0.0%	0.99		0.5	N/A	N/A	N/A	N/A
Scale Inhibitor (MultiChem)	MX 583-2	Scale Inhibitor	No hazardous ingredients	prevents scale deposits	0.0%	1.12	1.53	0.1	N/A	N/A	N/A	N/A
Antibacterial Agent (MultiChem)	BMC B-6520	Antibacterial Agent	4,4-Dimethylloxazolidine	eliminates bacteria in water	78.0%	0.9832	1.004	0.205	2770.62	331.31	0.0151%	0.0139%
			3,4,4-Trimethylloxazolidine		5.0%	0.985	0.955	0.205	177.94	21.69	0.0010%	0.0009%
			2-Amino-2-methyl-1-propanol		1.0%	0.986	0.94	0.205	35.59	4.55	0.0002%	0.0002%
			Formaldehyde Amine		0.5%	0.985	1.08	0.205	17.79	1.98	0.0001%	0.0001%
	BMC B-6650	Antibacterial Agent	Glutaraldehyde	eliminates bacteria in water	50.0%	1.103	1.13	0.08	777.59	62.21	0.0028%	0.0039%
			Methanol		0.5%	1.103	0.765	0.08	7.78	0.62	0.00028%	0.00039%
<b>TOTAL</b>											<b>0.0192%</b>	<b>0.0189%</b>
<b>SUMMARY</b>											<b>0.101%</b>	<b>0.052%</b>