

WR-35
Rev (9-11)

State of West Virginia
Department of Environmental Protection
Office of Oil and Gas
Well Operator's Report of Well Work

DATE: 4-23-2014
API #: 47-009-00113

FINAL

JR

Farm name: John Good Jr. BRK 8H Operator Well No.: 834044

LOCATION: Elevation: 1145 Quadrangle: Bethany

District: Buffalo County: Brooke
Latitude: 10910' Feet South of 40 Deg. 15 Min. 00 Sec.
Longitude 9510' Feet West of 80 Deg. 32 Min. 30 Sec.

Company: Chesapeake Appalachia, L.L.C.

Address:	Casing & Tubing	Used in drilling	Left in well	Cement fill up Cu. Ft.
P.O. Box 18496 Oklahoma City, OK 73154-0496	20"	125'	125'	505 Cu. Ft.
Agent: Eric Gillespie	13 3/8"	345'	345'	392 Cu. Ft.
Inspector: Bill Hendershot	9 5/8"	1685'	1685'	769 Cu. Ft.
Date Permit Issued: 1-18-2012	5 1/2"	9800'	9800'	2380 Cu. Ft.
Date Well Work Commenced: 5-5-2012				
Date Well Work Completed: 8-12-2012				
Verbal Plugging:				
Date Permission granted on:				
Rotary <input checked="" type="checkbox"/> Cable <input type="checkbox"/> Rig <input type="checkbox"/>				
Total Vertical Depth (ft): 5944'				
Total Measured Depth (ft): 9800'				
Fresh Water Depth (ft.): 300'				
Salt Water Depth (ft.): 1200'				
Is coal being mined in area (N/Y)? N				
Coal Depths (ft.): 288'				
Void(s) encountered (N/Y) Depth(s) N				

OPEN FLOW DATA (If more than two producing formations please include additional data on separate sheet)

Producing formation Marcellus Pay zone depth (ft) 6,176'-9,660'
Gas: Initial open flow 2,028* MCF/d Oil: Initial open flow 195 Bbl/d
Final open flow _____ MCF/d Final open flow _____ Bbl/d
Time of open flow between initial and final tests 24 Hours
Static rock Pressure 3,864* psig (surface pressure) after 24 Hours *Calculated

Second producing formation _____ Pay zone depth (ft) _____
Gas: Initial open flow _____ MCF/d Oil: Initial open flow _____ Bbl/d
Final open flow _____ MCF/d Final open flow _____ Bbl/d
Time of open flow between initial and final tests _____ Hours
Static rock Pressure _____ psig (surface pressure) after _____ Hours

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I certify under penalty of law that I have personally examined and am familiar with the information submitted on this document and all the attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information I believe that the information is true, accurate, and complete.

Marlene Williams
Signature

4-23-2014
Date

05/23/2014

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Were core samples taken? Yes _____ No N

Were cuttings caught during drilling? Yes Y No _____

Were Electrical, Mechanical or Geophysical logs recorded on this well? If yes, please list LWD GR from 5850-9,800' MD.

NOTE: IN THE AREA BELOW PUT THE FOLLOWING: 1). DETAILS OF PERFORATED INTERVALS, FRACTURING OR STIMULATING, PHYSICAL CHANGE, ETC. 2). THE WELL LOG WHICH IS A SYSTEMATIC DETAILED GEOLOGICAL RECORD OF THE TOPS AND BOTTOMS OF ALL FORMATIONS, INCLUDING COAL ENCOUNTERED BY THE WELLBORE FROM SURFACE TO TOTAL DEPTH.

Perforated Intervals, Fracturing, or Stimulating:

(See attached)

Plug Back Details Including Plug Type and Depth(s):

<u>Formations Encountered:</u>	<u>Top Depth</u>	<u>Bottom Depth</u>
<u>Surface:</u>		

(See attached)

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PERFORATION RECORD ATTACHMENT

Well Number and Name: 834044 John Good JR. BRK 8H

PERFORATION RECORD			STIMULATION RECORD							
Date	Interval Perforated		Date	Interval	Treated	Fluid		Propping Agent		Average Injection
	From	To				Type	Amount	Type	Amount	
6/29/2012	9,141	9,660	8/6/2012	9,141	9,660	Slk wtr	19,076	Sand	1,039,200	80
8/6/2012	8,847	9,085	8/7/2012	8,847	9,085	Slk wtr	9,903	Sand	541,620	80
8/7/2012	8,550	8,791	8/8/2012	8,550	8,791	Slk wtr	13,462	Sand	538,100	72
8/8/2012	8,253	8,494	8/9/2012	8,253	8,494	Slk wtr	10,042	Sand	545,280	80
8/9/2012	7,956	8,197	8/9/2012	7,956	8,197	Slk wtr	9,857	Sand	540,480	80
8/9/2012	7,659	7,900	8/9/2012	7,659	7,900	Slk wtr	10,168	Sand	542,340	80
8/9/2012	7,362	7,603	8/10/2012	7,362	7,603	Slk wtr	10,147	Sand	543,660	80
8/10/2012	7,065	7,306	8/10/2012	7,065	7,306	Slk wtr	9,976	Sand	540,980	80
8/10/2012	6,768	7,009	8/11/2012	6,768	7,009	Slk wtr	9,956	Sand	544,920	80
8/11/2012	6,472	6,713	8/11/2012	6,472	6,713	Slk wtr	9,740	Sand	541,660	80
8/11/2012	6,176	6,417	8/12/2012	6,176	6,417	Slk wtr	9,704	Sand	535,620	80

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LATERAL WELLBORE (no vertical pilot hole associated with this well)**Maximum TVD of wellbore: 5939 ft TVD @ 9720 ft MD**

Formation/Lithology	Top Depth, MD (ft)	Top Depth, TVD (ft)	Bottom Depth, MD (ft)	Bottom Depth, TVD (ft)
LS/SS/SH	0	0	288	288
PITTSBURG COAL	288	288	293	293
LS	293	293	420	420
SS	420	420	450	450
LS/SS	450	450	650	650
LS/SS/SH	650	650	810	810
SS/SH	810	810	1300	1300
BIG LIME	1300	1300	1390	1390
BIG INJUN (SS)	1390	1390	1510	1510
SHALE	1510	1510	5727	5688
GENESEO (SH)	5727	5688	5744	5701
TULLY (LS)	5744	5701	5833	5763
HAMILTON (SH)	5833	5763	6030	5858
MARCELLUS (SH)	6030	5858		
TD OF LATERAL			9800	5944

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Hydraulic Fracturing Fluid Product Component Information Disclosure

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Fracture Date:	8/6/2012
State:	WEST VIRGINIA
County:	BROOKE
API Number:	4700900113
Operator Name:	CHESAPEAKE APPALACHIA LLC
Well Name and Number:	JOHN GOOD JR BRK 8H
Longitude:	-80.580925
Latitude:	40.223836
Long/Lat Projection:	NAD27
Production Type:	GAS
True Vertical Depth (TVD):	5,945
Total Water Volume (gal)*:	5,176,290

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Hydraulic Fracturing Fluid Composition:

Trade Name	Supplier	Purpose	Ingredients	Chemical Abstract Service Number (CAS #)	Maximum Ingredient Concentration in Additive (% by Mass)**	Maximum Ingredient Concentration in HF Fluid (% by Mass)**	Comments
Fresh Water		Carrier/Base Fluid				82.06187%	
Recycled Produced Water		Carrier/Base Fluid				4.29149%	
Ottawa Sand		Proppant	Crystalline Silica (Quartz Sand, Silicon Dioxide)	014808-60-7	100.00%	10.98803%	
100 Mesh Sand		Proppant	Crystalline Silica (Quartz Sand, Silicon Dioxide)	014808-60-7	100.00%	1.84916%	
Acid, Hydrochloric 15pct	SCHLUMBERGER	Acid	Water	007732-18-5	85.00%	0.60827%	
			Hydrogen Chloride	007647-01-0	15.00%	0.10734%	
L058	SCHLUMBERGER	Iron Control Agent	Sodium Erythorbate	006381-77-7	100.00%	0.00053%	
A264	SCHLUMBERGER	Corrosion Inhibitor	Methanol (Methyl Alcohol)	000067-56-1	40.00%	0.00045%	
			Aliphatic acid	N/A	30.00%	0.00034%	
			Aliphatic alcohols, ethoxylated # 1	N/A	30.00%	0.00034%	
			Propargyl Alcohol (2-Propynol)	000107-19-7	10.00%	0.00011%	
EC6110A	NALCO	Anti-Bacterial Agent	Glutaraldehyde	000111-30-8	60.00%	0.01705%	
			Quaternary Ammonium Compounds	N/A	10.00%	0.00284%	
			Ethanol	000064-17-5	5.00%	0.00142%	

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EC6629A	NALCO	Scale Inhibitor	No Hazardous Components	NONE				
J580	SCHLUMBE RGER	Gelling Agent	Carbohydrate polymer	N/A	100.00%	0.01214%		
B315	SCHLUMBE RGER	Friction Reducer	Petroleum Distillate Hydroreated Light	064742-47-8	30.00%	0.01183%		
			Aliphatic alcohol polyglycol ether	N/A	1.50%	0.00059%		
J610	SCHLUMBE RGER	Cross Linker	Aliphatic polyol	N/A	30.00%	0.00171%		
			Potassium Hydroxide	001310-58-3	15.00%	0.00086%		
J218	SCHLUMBE RGER	Breaker	Ammonium Persulfate	007727-54-0	100.00%	0.00104%		

* Total Water Volume sources may include fresh water, produced water, and/or recycled water

** Information is based on the maximum potential for concentration and thus the total may be over 100%

"Additional Ingredients Not Listed on MSDS" component information were obtained directly from the supplier. As such, the Operator is not responsible for inaccurate and/or incomplete information. Any questions regarding the content of this information should be directed to the supplier who provided it.

05/23/2014