

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

DATE: 10-18-2012
API #: 47-009-00112

Farm name: John Harwatt BRK 3H Operator Well No.: 834170

LOCATION: Elevation: 1135' Quadrangle: Bethany WV

District: Buffalo County: Brooke
Latitude: 2650' Feet South of 40 Deg. 12 Min. 30 Sec.
Longitude: 10230' Feet West of 80 Deg. 35 Min. 00 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	13 3/8"	371'	371'	499.646 Cu. Ft.
Agent: Eric Gillespie	9 5/8"	1810'	1810'	814 Cu. Ft.
Inspector: Bill Hendershot	5 1/2"	10030'	10030'	2408 Cu. Ft.
Date Permit Issued: 11-21-2011				
Date Well Work Commenced: 2-21-2012				
Date Well Work Completed: 7-17-2012				
Verbal Plugging:				
Date Permission granted on:				
Rotary <input checked="" type="checkbox"/> Cable <input type="checkbox"/> Rig <input type="checkbox"/>				
Total Vertical Depth (ft.): 5980'				
Total Measured Depth (ft.): 10039'				
Fresh Water Depth (ft.): 70', 300'				
Salt Water Depth (ft.): 1090'				
Is coal being mined in area (N/Y)? N				
Coal Depths (ft.): 319'				
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) 6,237'-9,898'

Gas: Initial open flow _____ MCF/d Oil: Initial open flow _____ Bbl/d

Final open flow Not Tested 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

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

10-18-2012
Date

Were core samples taken? Yes _____ No

Were cuttings caught during drilling? Yes _____ No

Were Electrical, Mechanical or Geophysical logs recorded on this well? If yes, please list GR MWD from 5,303'-9,987' 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):

Formations Encountered: Surface:	Top Depth	/	Bottom Depth
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(See attached)

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PERFORATION RECORD ATTACHMENT

Well Number and Name: 834170 John Harwatt BRK 3H

PERFORATION RECORD			STIMULATION RECORD							
Date	Interval Perforated		Date	Interval Treated		Fluid		Propping Agent		Average Injection
	From	To		Type	Amount	Type	Amount			
6/27/2012	9,352	9,898	7/12/2012	9,352	9,898	Slk wtr	12,633	Sand	630,240	80
7/12/2012	8,729	9,275	7/12/2012	8,729	9,275	Slk wtr	12,622	Sand	623,540	80
7/12/2012	8,106	8,652	7/16/2012	8,106	8,652	Slk wtr	12,716	Sand	629,800	80
7/16/2012	7,483	8,029	7/16/2012	7,483	8,029	Slk wtr	12,637	Sand	628,340	80
7/16/2012	6,860	7,406	7/17/2012	6,860	7,406	Slk wtr	12,488	Sand	623,760	80
7/17/2012	6,237	6,783	7/17/2012	6,237	6,783	Slk wtr	12,554	Sand	625,700	80

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LATERAL SIDETRACK WELLBORE (no vertical pilot hole associated with this well)

Maximum TVD of wellbore: 5980 ft TVD @ 6774 ft MD

Formation/Lithology	Top Depth, MD (ft)	Top Depth, TVD (ft)	Bottom Depth, MD (ft)	Bottom Depth, TVD (ft)
LS/SS	0	0	319	319
PITTSBURG COAL	319	319	327	327
LS/SS	327	327	760	760
SS	760	760	960	960
SS/SH	960	960	1090	1090
SS	1090	1090	1300	1300
LS	1300	1300	1330	1330
BIG INJUN (SS)	1330	1330	1630	1630
SHALE	1630	1630	5805	5779
GENESEO (SH)	5805	5779	5823	5794
TULLY (LS)	5823	5794	5896	5848
HAMILTON (SH)	5896	5848	6106	5947
MARCELLUS (SH)	6106	5947		
TD OF LATERAL			10039	5935

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