

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

DATE: 2-8-2012
API #: 47-051-01296

Farm name: Shawn Harlan Operator Well No.: 3H (831189)

LOCATION: Elevation: 1397' Quadrangle: Littleton

District: Liberty County: Marshall
Latitude: 11350' Feet South of 39 Deg. 45 Min. 00 Sec.
Longitude 5840' Feet West of 80 Deg. 37 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	13 3/8"	1242'	1242'	1352 cf
Agent: Eric Gillespie	9 5/8"	2715'	2715'	856 cf
Inspector: Bill Hatfield	5 1/2"	11911'	11911'	2838 cf
Date Permit Issued: <u>8/25/2009</u>				
Date Well Work Commenced: <u>2/13/2011</u>				
Date Well Work Completed: <u>4/28/2011</u>				
Verbal Plugging:				
Date Permission granted on:				
Rotary <input checked="" type="checkbox"/> Cable <input type="checkbox"/> Rig <input type="checkbox"/>				
Total Vertical Depth (ft): <u>7,153'</u>				
Total Measured Depth (ft): <u>11,914'</u>				
Fresh Water Depth (ft.): <u>395'</u>				
Salt Water Depth (ft.): <u>N/A</u>				
Is coal being mined in area (N/Y)? <u>N</u>				
Coal Depths (ft.): <u>450'</u>				
Void(s) encountered (N/Y) Depth(s) <u>N</u>				

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

Producing formation Marcellus Pay zone depth (ft) 7,444'-11,766'

Gas: Initial open flow 7,724 MCF/d Oil: Initial open flow 22 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 4,649 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

3-19-2012
Date

12/14/2012

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 GR, neutron, density, and resistivity
open hole logs run from 0-7014' MD; LWD GR from 6600-11914' 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): Cement -11,816'

<u>Formations Encountered:</u>	<u>Top Depth</u>	<u>Bottom Depth</u>
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See Attached

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Formation/Lithology	Top Depth (ft)	Bottom Depth (ft)
SHALE/LS	0	450
SS	450	510
COAL	510	540
SHALE/SS	540	850
LS/SHALE	850	1105
Pittsburg Coal	1105	1125
LS/SHALE	1125	1160
SHALE	1160	1680
COAL	1680	1710
SHALE	1710	2150
SHALE/SS	2150	2236
Big Lime	2236	2268
Big Injun	2268	2506
SHALE/SS	2506	7040
Geneseo	7040	7061
Tully	7061	7170
Hamilton	7170	7268
Marcellus	7268	11914

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PERFORATION RECORD ATTACHMENT

Well Name and Number: Shawn Harlan 3H (831189)

PERFORATION RECORD			STIMULATION RECORD							
Date	Interval Perforated		Date	Interval Treated		Fluid		Propping Agent		Average Injection
	From	To		Type	Amount	Type	Amount			
4/20/2011	7,444	7,686	4/28/2011	7,444	7,686	Slk Wtr	11,232	Sand	483,163	83
4/20/2011	7,844	8,086	4/20/2011	7,844	8,086	Slk Wtr	10,747	Sand	484,870	82
4/19/2011	8,244	8,486	4/20/2011	8,244	8,486	Slk Wtr	10,486	Sand	488,733	86
4/19/2011	8,564	8,886	4/19/2011	8,564	8,886	Slk Wtr	12,659	Sand	486,470	85
4/18/2011	8,904	9,226	4/19/2011	8,904	9,226	Slk Wtr	9,940	Sand	425,108	85
4/18/2011	9,364	9,546	4/18/2011	9,364	9,546	Slk Wtr	9,846	Sand	276,480	84
4/18/2011	9,604	9,786	4/18/2011	9,604	9,786	Slk Wtr	9,401	Sand	387,861	85
4/17/2011	9,840	10,026	4/18/2011	9,840	10,026	Slk Wtr	9,317	Sand	390,926	84
4/17/2011	10,080	10,266	4/17/2011	10,080	10,266	Slk Wtr	10,495	Sand	356,668	74
4/16/2011	10,324	10,506	4/17/2011	10,324	10,506	Slk Wtr	9,434	Sand	389,955	79
4/13/2011	10,562	10,806	4/14/2011	10,562	10,806	Slk Wtr	9,098	Sand	385,644	75
4/12/2011	10,832	11,124	4/13/2011	10,832	11,124	Slk Wtr	10,712	Sand	401,378	74
4/11/2011	11,170	11,446	4/12/2011	11,170	11,446	Slk Wtr	11,195	Sand	384,776	78
4/1/2011	11,524	11,766	4/11/2011	11,524	11,766	Slk Wtr	11,920	Sand	398,945	77