

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

DATE: 8-28-2012
API #: 47-051-01430

Farm name: Michael Southworth 8H Operator Well No.: 832806

LOCATION: Elevation: 1180' Quadrangle: Valley Grove

District: Sandhill County: Marshall
Latitude: 8820' Feet South of 40 Deg. 02 Min. 30 Sec.
Longitude 10500' 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	20"	100'	100'	303 Cu. Ft.
Agent: Eric Gillespie	13 3/8"	800'	800'	875 Cu. Ft.
Inspector: David Scranage	9 5/8"	1980'	1980'	707 Cu. Ft.
Date Permit Issued: 1-13-2011	5 1/2"	14054'	14054'	3632 Cu. Ft.
Date Well Work Commenced: 2-20-2011				
Date Well Work Completed: 5-2-2012				
Verbal Plugging:				
Date Permission granted on:				
Rotary <input checked="" type="checkbox"/> Cable <input type="checkbox"/> Rig <input type="checkbox"/>				
Total Vertical Depth (ft): 6486'(cement plug 5538')				
Total Measured Depth (ft): 14058'				
Fresh Water Depth (ft.): 300'				
Salt Water Depth (ft.): 950'				
Is coal being mined in area (N/Y)? Y				
Coal Depths (ft.): 743'				
Void(s) encountered (N/Y) Depth(s) Y 743'				

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

Producing formation Marcellus Pay zone depth (ft) 8,755'-13,915'

Gas: Initial open flow _____ MCF/d Oil: Initial open flow _____ Bbl/d
Final open flow 1,684* MCF/d Final open flow 104 Bbl/d
Time of open flow between initial and final tests 32 Hours *Calculated
Static rock Pressure 4,214* 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

PAID BY THE STATE OF WEST VIRGINIA
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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.

Marlow Williams
Signature

8-29-2012
Date

12/07/2012

Were core samples taken? Yes _____ No X

Were cuttings caught during drilling? Yes X No _____

Were Electrical, Mechanical or Geophysical logs recorded on this well? If yes, please list _____

Pilot hole: MWD GR, Resistivity, Nuclear, Spectral GR, Sonic, Borehole image. Lateral: MWD GR

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 plug up to 5538 ft MD / 5537 ft TVD

Formations Encountered:	Top Depth	/	Bottom Depth
Surface:			

(See Attached)

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PERFORATION RECORD ATTACHMENT

Well Number and Name: 832806 Michael Southworth 8H

PERFORATION RECORD			STIMULATION RECORD							
Date	Interval Perforated		Date	Interval Treated	Type	Fluid		Propping Agent		Average Injection
	From	To				Type	Amount	Type	Amount	
4/18/2012	13,450	13,915	4/24/2012	13,450	13,915	Sik wtr	12,406	Sand	657,320	80
4/25/2012	12,790	13,352	4/25/2012	12,790	13,352	Sik wtr	12,092	Sand	658,640	77
4/25/2012	12,119	12,682	4/28/2012	12,119	12,682	Sik wtr	12,296	Sand	661,880	77
4/28/2012	11,449	12,011	4/28/2012	11,449	12,011	Sik wtr	12,040	Sand	660,080	80
4/28/2012	10,778	11,341	4/28/2012	10,778	11,339	Sik wtr	13,178	Sand	660,880	77
4/28/2012	10,108	10,670	4/29/2012	10,108	10,670	Sik wtr	12,199	Sand	659,840	78
4/30/2012	9,437	9,999	4/30/2012	9,437	9,999	Sik wtr	11,853	Sand	658,650	78
4/30/2012	8,766	9,329	4/30/2012	8,766	9,329	Sik wtr	12,062	Sand	657,280	78
4/30/2012	8,100	8,658	5/2/2012	8,100	8,658	Sik wtr	12,272	Sand	661,900	80
5/2/2012	7,425	7,988	5/2/2012	7,425	7,988	Sik wtr	12,556	Sand	659,820	76
5/2/2012	6,755	7,317	5/2/2012	6,755	7,317	Sik wtr	11,998	Sand	660,020	78

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VERTICAL PILOT HOLE

Formation/Lithology	Top Depth, MD (ft)	Top Depth, TVD (ft)	Bottom Depth, MD (ft)	Bottom Depth, TVD (ft)
SS	0	0	120	119
SS/SHALE	120	119	160	159
SS	160	159	220	219
SS/SHALE	220	219	280	279
SS	280	279	370	369
SS/LS	370	369	670	669
COAL	670	669	682	681
LS/SS	682	681	810	809
SS/SLTSTN	810	809	920	919
SS	920	919	1557	1556
MAXTON	1557	1556	1765	1764
BIG LIME	1765	1764	1839	1838
BIG INJUN	1839	1838	1965	1964
SS/SHALE	1965	1964	2070	2069
SHALE	2070	2069	6210	6209
GENESEO	6210	6209	6231	6230
TULLY	6231	6230	6263	6262
HAMILTON	6263	6262	6368	6367
MARCELLUS	6368	6367	6420	6419
ONONDAGA	6420	6419	6438	6437
PILOT HOLE TD	6438	6437		
PLUG BACK DEPTH	5538	5537		

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LATERAL WELLBORE

Maximum TVD of wellbore: 6486 ft TVD @ ft MD

Formation/Lithology	Top Depth, MD (ft)	Top Depth, TVD (ft)	Bottom Depth, MD (ft)	Bottom Depth, TVD (ft)
SHALE	5538	5538	6275	6214

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GENESEO	6275	6214	6308	6234
TULLY	6308	6234	6371	6268
HAMILTON	6371	6268	6615	6369
MARCELLUS	6615	6369	14054	6482
TD	14054	6482		0

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