

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

DATE: 9-7-2012
API #: 47-061-01616

RECEIVED

Farm name: Esther Clark 1H Operator Well No.: 832638

LOCATION: Elevation: 1424' Quadrangle: Hundred

SEP 12 2012

District: Battelle County: Monongalia
Latitude: 5490' Feet South of 39 Deg. 40 Min. 00 Sec.
Longitude 5960' Feet West of 80 Deg. 22 Min. 30 Sec.

WV GEOLOGICAL SURVEY
MORGANTOWN, WV

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"	110'	110'	106 Cu. Ft.
Agent: <u>Eric Gillespie</u>	13 3/8"	525'	525'	623 Cu. Ft.
Inspector: <u>Sam Ward</u>	9 5/8"	3660'	3660'	1852 Cu. Ft.
Date Permit Issued: <u>1-25-2011</u>	5 1/2"	15657'	15657'	3357 Cu. Ft.
Date Well Work Commenced: <u>12-10-2011</u>				
Date Well Work Completed: <u>3-26-2012</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>7962'</u>				
Total Measured Depth (ft): <u>15674'</u>				
Fresh Water Depth (ft.): <u>400'</u>				
Salt Water Depth (ft.): <u>None</u>				
Is coal being mined in area (N/Y)? <u>Y</u>				
Coal Depths (ft.): <u>221', 1200'</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) 8,349'-15,536'
Gas: Initial open flow _____ MCF/d Oil: Initial open flow _____ Bbl/d
Final open flow 4011* MCF/d Final open flow 0 Bbl/d
Time of open flow between initial and final tests 77 Hours *Calculated
Static rock Pressure 5130* 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

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.

Mallory Williams
Signature

9-11-2012
Date

LATERAL WELLBORE

Maximum TVD of wellbore: 7962 ft TVD @ 8370 ft MD

Formation/Lithology	Top Depth, MD (ft)	Top Depth, TVD (ft)	Bottom Depth, MD (ft)	Bottom Depth, TVD (ft)
SHALE	0	0	250	250
SANDSTONE/SHALE	250	250	500	500
SHALE	500	500	930	930
SANDSTONE	930	930	990	990
LIMESTONE/SHALE	990	990	1140	1140
COAL	1140	1140	1156	1156
COAL/LIMESTONE/SHALE	1156	1156	1240	1240
COAL	1240	1240	1260	1260
COAL/LIMESTONE/SHALE	1260	1260	1320	1320
SHALE	1320	1320	1600	1600
SANDSTONE/SHALE	1600	1600	2460	2460
BIG LIME	2640	2640	2550	2550
BIG INJUN SANDSTONE	2550	2550	2750	2750
SANDSTONE/SHALE	2750	2750	3210	3210
BEREA SANDSTONE	3210	3210	3550	3550
SHALE	3550	3550	4100	4100
SHALE/SANDSTONE	4100	4100	4580	4580
SHALE	4580	4580	7849	7749
GENESEO	7849	7749	7881	7775
TULLY	7881	7775	7911	7797
HAMILTON	7911	7797	8121	7914
MARCELLUS	8121	7914	15674	15674
TD	15674	7894		0