

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

Farm name: Mark Hickman OHI 8H Operator Well No.: 834585

LOCATION: Elevation: 1285' Quadrangle: Valley Grove

District: Triadelphia County: Ohio  
Latitude: 1660' Feet South of 40 Deg. 02 Min. 30 Sec.  
Longitude 720' 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<br>Oklahoma City, OK 73154-0496   | 13 3/8"         | 761'             | 761'         | 589 Cu. Ft.            |
| Agent: Eric Gillespie  | 9 5/8"          | 2280'            | 2280'        | 1010 Cu. Ft.           |
| Inspector: <b>Bill Hendershot</b>  | 5 1/2"          | 14149'           | 14149'       | 3345 Cu. Ft.           |
| Date Permit Issued: 3-1-2012   |                 |                  |              |                        |
| Date Well Work Commenced: 5-19-2012  |                 |                  |              |                        |
| Date Well Work Completed: 9-10-2012  |                 |                  |              |                        |
| Verbal Plugging:   |                 |                  |              |                        |
| Date Permission granted on:  |                 |                  |              |                        |
| Rotary <input checked="" type="checkbox"/> Cable <input type="checkbox"/> Rig <input type="checkbox"/> |                 |                  |              |                        |
| Total Vertical Depth (ft): 6801'   |                 |                  |              |                        |
| Total Measured Depth (ft): 14151'  |                 |                  |              |                        |
| Fresh Water Depth (ft.): 30'   |                 |                  |              |                        |
| Salt Water Depth (ft.): 1015'  |                 |                  |              |                        |
| Is coal being mined in area (N/Y)? N   |                 |                  |              |                        |
| Coal Depths (ft.): 713'  |                 |                  |              |                        |
| Void(s) encountered (N/Y) Depth(s) 713'-721' COAL VOID   |                 |                  |              |                        |

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

Producing formation Marcellus Pay zone depth (ft) 6,957'-14,008'  
Gas: Initial open flow \_\_\_\_\_ MCF/d Oil: Initial open flow \_\_\_\_\_ Bbl/d  
Final open flow 2,352\* MCF/d Final open flow 95 Bbl/d  
Time of open flow between initial and final tests 156 Hours  
Static rock Pressure 4,421\* 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.

Mark Williams  
Signature

12-11-2012  
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 LWD GR from 6,070' - 14,150' 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>/</u> | <u>Bottom Depth</u> |
|--------------------------------|------------------|----------|---------------------|
|--------------------------------|------------------|----------|---------------------|

See attached



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

**Maximum TVD of wellbore: 6,801 ft TVD @ 14,151 ft MD**

| Formation/Lithology | Top Depth, MD<br>(ft) | Top Depth,<br>TVD (ft) | Bottom Depth,<br>MD (ft) | Bottom Depth,<br>TVD (ft) |
|---------------------|-----------------------|------------------------|--------------------------|---------------------------|
| SH/LS/SS            | 0                     | 0                      | 713                      | 713                       |
| COAL VOID           | 713                   | 713                    | 721                      | 721                       |
| NO-RETURNS          | 721                   | 721                    | 780                      | 780                       |
| LS/SH/SS            | 780                   | 780                    | 1360                     | 1360                      |
| SS                  | 1360                  | 1360                   | 1784                     | 1784                      |
| LS                  | 1784                  | 1784                   | 1816                     | 1816                      |
| BIG INJUN (SS)      | 1816                  | 1816                   | 2120                     | 2120                      |
| SHALE               | 2120                  | 2120                   | 6496                     | 6472                      |
| GENESEO (SH)        | 6496                  | 6472                   | 6536                     | 6503                      |
| TULLY (LS)          | 6536                  | 6503                   | 6575                     | 6533                      |
| HAMILTON (SH)       | 6575                  | 6533                   | 6817                     | 6657                      |
| MARCELLUS (SH)      | 6817                  | 6657                   |                          |                           |
| TD OF LATERAL       |                       |                        | 14151                    | 6801                      |