WR-35 Rev (8-10)

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

| DATE: | 8/10/11      |
|-------|--------------|
| API#: | 47-017-05928 |

| Farm name: Horner  | Operator Well No.: 1HD                     |                      |                    | MESEIVED                         |  |
|--|--|----------------------|--------------------|----------------------------------|--|
| LOCATION: Elevation: 1307  | Quadrangle: Folsom 7.5'  County: Doddridge |                      | Unice (            | Office of Oil & Gas MAR 0 2 2012 |  |
| District: McCllelan  |  |                      | MAR                |                                  |  |
| Latitude: 13260 Feet South of 39 Deg.  Longitude 9,120 Feet West of 80 Deg.  | 27 Min                                     | . 30 Sec<br>. 00 Sec | . WV De            | partment of<br>ental Protection  |  |
| Company: ROUTE 1 BOX 5   | · · · · · · · · · · · · · · · · · · ·      |                      |                    |                                  |  |
| Address: CAIRO, WV 26337   | Casing & Tubing                            | Used in drilling     | Left in well       | Cement fill up Cu. Ft.           |  |
| Agent: Randy Broda   | 16   | 30                   | 30                 |                                  |  |
| Inspector: Scranage  | 9 5/8                                      | 384                  | 384                | CTS                              |  |
| Date Permit Issued: 12/30/2009   |  |                      |                    |                                  |  |
| Date Well Work Commenced: 9/11/2010  | 7  | 2641                 | 2641               | cts                              |  |
| Date Well Work Completed: 11/13/2010   |  |                      |                    |                                  |  |
| Verbal Plugging:   | 4 1/2                                      | 10543                | 10543              | cts                              |  |
| Date Permission granted on:  |  |                      |                    |                                  |  |
| Rotary Cable Rig   |  |                      |                    |                                  |  |
| Total Vertical Depth (ft): 7417  |  |                      |                    |                                  |  |
| Total Measured Depth (ft): 10585   |  |                      |                    |                                  |  |
| Fresh Water Depth (ft.): n/a   |  |                      |                    |                                  |  |
| Salt Water Depth (ft.): 1900   |  |                      |                    |                                  |  |
| Is coal being mined in area (N/Y)? n/a   |  |                      |                    |                                  |  |
| Coal Depths (ft.): 560 by drill time   |  |                      |                    |                                  |  |
| Void(s) encountered (N/Y) Depth(s) n/a   |  |                      |                    |                                  |  |
| Gas: Initial open flow 10 MCF/d Oil: Initial open f  | zone depth (ft)_flow_0B                    | 7412-7395<br>bl/d    | ata on separate sl | heet)                            |  |
| Final open flow 2300 MCF/d Final open flow Time of open flow between initial and final tests 48  | W <u>U</u> Burs                            |                      |                    | RECEIVED                         |  |
| Static rock Pressure 2800 psig (surface pressure) a  |  |                      | Office o           | f Oil & Gas                      |  |
| Gas: Initial open flow MCF/d Oil: Initial open f   |  | <br>bl/d             |                    | 0 7 2011                         |  |
| Final open flow MCF/d Final open flo   |  | ol/d                 |                    |                                  |  |
| Time of open flow between initial and final tests  Static rock Pressure psig (surface pressure) a  | Hours<br>fter Hou                          | žva.                 | :Nvirchine.        | sid Artistant                    |  |
| I certify under penalty of law that I have personally examined the attachments and that, based on my inquiry of these individ the information is true, accurate, and complete. | and am familiar                            | with the inforn      |                    |                                  |  |
| Signature  |  | <del></del>          | Date               | 03/09/2012                       |  |

| Were core samples taken? YesNo_X  | Were cuttings caught during drilling? Yes Y NoNo   |
|---|--|
| Were $\frac{n}{Y/N}$ Electrical, $\frac{n}{Y/N}$ Mechanical, $\frac{y}{Y/N}$ or Geophysical   | logs recorded on this well?  |
| NOTE: IN THE AREA BELOW PUT THE FOLLOW FRACTURING OR STIMULATING, PHYSICAL CHANGE DETAILED GEOLOGICAL RECORD OF THE TOPS AND ENCOUNTERED BY THE WELLBORE FROM SURFACE | E, ETC. 2). THE WELL LOG WHICH IS A SYSTEMATIC BOTTOMS OF ALL FORMATIONS. THE CHING COAL |
| Perforated Intervals, Fracturing, or Stimulating:   | MAR 0 2 2012   |
| 10528-101656249 bbls water, 800 sks sa  |  |
| 10125-97876110 bbls water, 745 sks sa   | Environmental Protection   |
| 9748-94077070 bbls water, 1015 sks s  | and  |
| 9371-90636697 bbls water, 820 sks sa  | nd   |
| 9035-884510807 bbls water, 1700 sks   | sand   |
| 8771-85319728 bbls water, 1750 sks s  | and  |
| 8428-818510533 bbls water, 1650 sks   | sand   |
| 8140-784011201 bbls water, 1580 sks   | sand   |
| Formations Encountered: Top Dept Surface:   | h / Bottom Depth   |
| See Attached  |  |
| Purcell 7287-7307   |  |
| Shale 7307-7382   |  |
| Marcellus 7382-7417   |  |
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|                         | Horner 1HD         |                      |   |
|-------------------------|--------------------|----------------------|---|
|                         | PERMIT # elevation | 47-017-05928<br>1307 |   |
|                         | elevation          | 1307                 |   |
| FORMATION               | TOP                | BOTTOM               |   |
| MISC. RED ROCK & SHALES | 325                | 2323                 |   |
| LIME                    | 2323               | 2411                 |   |
| INJUN                   | 2411               | 2566                 |   |
| SHALE                   | 2566               | 2708                 |   |
| WIER                    | 2708               | 2808                 |   |
| SHALE                   | 2808               | 2932                 |   |
| BEREA                   | 2932               | 2939                 |   |
| SHALE                   | 2939               | 3126                 |   |
| GORDON STRAY            | 3126               | 3152                 |   |
| SHALE                   | 3152               | 3195                 |   |
| GORDON                  | 3195               | 3207                 |   |
| SHALE                   | 3207               | 3447                 |   |
| BAYARD                  | 3447               | 3452                 |   |
| SHALE                   | 3452               | 3847                 |   |
| WARREN                  | 3847               | 3933                 |   |
| SHALE                   | 3933               | 4165                 |   |
| BALLTOWN                | 4165               | 4231                 | , |
| SHALE                   | 4231               | 4806                 |   |
| 2ND RILEY               | 4806               | 4879                 |   |
| SHALE                   | 4879               | 4973                 |   |
| 3RD RILEY               | 4973               | 5019                 |   |
| SHALE                   | 5019               | 5326                 |   |
| BENSON                  | 5326               | 5337                 |   |
| SHALE                   | 5337               | 5498                 |   |
| ALEXANDER               | 5498               | 5567                 |   |
| SHALE                   | 5567               | 5758                 |   |
| ELK                     | 5758               | 5805                 |   |
| SHALE                   | 5805               | 6549                 |   |
| HAMILTON                | 6549               | 7021                 |   |
| SHALE                   | 7021               | 7327                 |   |
| UPPER Marcellus         | 7250               | 7280                 |   |
| PARCELL LIME            | 7287               | 7307                 |   |
| SHALE                   | 7307               | 7382                 |   |
| LOWER MARCELLUS         | 7382               | 7417                 |   |

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