

JA

WR-35  
Rev (9-11)

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

DATE: 12/4/13  
API #: 47-103-02851

Farm name: Coastal Lumber Company Operator Well No.: 514417

LOCATION: Elevation: 1,452' Quadrangle: Big Run

District: Grant County: Wetzel  
Latitude: 6,259 Feet South of 39 Deg. 32 Min. 30 Sec.  
Longitude 2,377 Feet West of 80 Deg. 35 Min. 00 Sec.

Company: EQT Production Company

| Address:  | Casing & Tubing | Used in drilling | Left in well | Cement fill up Cu. Ft. |
|---|-----------------|------------------|--------------|------------------------|
| EQT Plaza, Suite 1700<br>625 Liberty Avenue, Pittsburgh, PA 15222   | 26              | 40               | 40           | 59                     |
| Agent: <u>Rex C. Ray</u>  | 13 3/8          | 1,012            | 1,012        | 1,070                  |
| Inspector: <u>Derek Haught</u>  | 9 5/8           | 3,688            | 3,688        | 2,428                  |
| Date Permit Issued: <u>2/5/2013</u>   | 5 1/2           | 11,427           | 11,427       | 1,897                  |
| Date Well Work Commenced: <u>4/23/13</u>  |                 |                  |              |                        |
| Date Well Work Completed: <u>8/21/13</u>  |                 |                  |              |                        |
| Verbal Plugging: <u>N/A</u>   |                 |                  |              |                        |
| Date Permission granted on: <u>N/A</u>  |                 |                  |              |                        |
| Rotary <input checked="" type="checkbox"/> Cable <input type="checkbox"/> Rig <input checked="" type="checkbox"/> |                 |                  |              |                        |
| Total Vertical Depth (ft): <u>7,665'</u>  |                 |                  |              |                        |
| Total Measured Depth (ft): <u>11,433'</u>   |                 |                  |              |                        |
| Fresh Water Depth (ft.): <u>584', 756'</u>  |                 |                  |              |                        |
| Salt Water Depth (ft.): <u>2,260'</u>   |                 |                  |              |                        |
| Is coal being mined in area (N/Y)? <u>No</u>  |                 |                  |              |                        |
| Coal Depths (ft.): <u>150', 962'</u>  |                 |                  |              |                        |
| Void(s) encountered (N/Y) Depth(s) <u>No</u>  |                 |                  |              |                        |

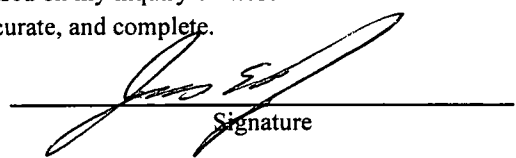
OPEN FLOW DATA (If more than two producing formations please include additional data on separate sheet)

Producing formation Marcellus Pay zone depth (ft) 7,616  
Gas: Initial open flow 1,244 MCF/d Oil: Initial open flow NA Bbl/d  
Final open flow 10,560 MCF/d Final open flow NA Bbl/d  
Time of open flow between initial and final tests 90 Hours  
Static rock Pressure 1,648 psig (surface pressure) after 95 Hours

Second producing formation No second 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

RECEIVED  
Office of Oil and Gas  
MAY 03 2014  
STATE OF WEST VIRGINIA  
DEPARTMENT OF ENVIRONMENTAL PROTECTION

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.

  
Signature

4/28/2014  
Date

06/27/2017

103.02851

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 MWD, Gamma, and CBL logs

**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 Attachment

Amended Report with FB Data

Plug Back Details Including Plug Type and Depth(s): Pumped solid cement plug from 7,775' to 6,151'

| Formations Encountered: | Top Depth | / | Bottom Depth |
|-------------------------|-----------|---|--------------|
| Surface:                |           |   |              |

See Attachment

## 513058

|               |          |          |
|---------------|----------|----------|
| SAND / SHALE  | 1        | 562      |
| COAL          | 562      | 566      |
| SAND / SHALE  | 566      | 647      |
| COAL          | 647      | 652      |
| SAND / SHALE  | 652      | 815      |
| COAL          | 815      | 819      |
| SAND / SHALE  | 819      | 852      |
| COAL          | 852      | 857      |
| SAND / SHALE  | 857      | 1,684.70 |
| 30F           | 1,684.70 | 1,779.10 |
| GORDON        | 1,779.10 | 1,854.10 |
| 4TH           | 1,854.10 | 1,985.00 |
| 5TH           | 1,985.00 | 2,214.50 |
| BAYARD        | 2,214.50 | 6,692.70 |
| SONYEA        | 6,692.70 | 6,779.50 |
| MIDDLESEX     | 6,779.50 | 6,919.70 |
| GENESSEE      | 6,919.70 | 7,053.60 |
| GENESEO       | 7,053.60 | 7,110.80 |
| TULLY         | 7,110.80 | 7,126.10 |
| HAMILTON      | 7,126.10 | 7,232.80 |
| MRC           | 7,204.40 | 7,271.90 |
| PURCELL       | 7,232.80 | 7,204.40 |
| CHERRY VALLEY | 7,271.90 | 7,305.90 |
| ONONDAGA      | 7,305.90 | 7,321.40 |
| HUNTERSVILLE  | 7,321.40 | 7,470.40 |
| NEEDMORE      | 7,470.40 | 7,528.60 |
| ORISKANY      | 7,528.60 | 7,699.00 |
| HELDERBERG    | 7,699.00 | 8,100.00 |

**514417 - Perforations**

| <b>Zone/Stage</b> | <b>Date</b>    | <b>Top Plug Depth (ftKB)</b> | <b>Bottom Plug Depth (ftKB)</b> | <b>Top Perf Depth (ftKB)</b> | <b>Bottom Perf Depth (ftKB)</b> | <b>Shots/ft</b> |
|-------------------|----------------|------------------------------|---------------------------------|------------------------------|---------------------------------|-----------------|
| <b>Toe Pop</b>    | 12/23/13 2:41  | 11,265.00                    | NA                              | 11,400.00                    | 11,413.00                       | NA              |
| <b>1</b>          | 12/23/13 6:35  | 11,265.00                    | NA                              | 11,262.00                    | 11,354.00                       | 4               |
| <b>2</b>          | 12/23/13 11:14 | 11,115.00                    | 11,257.00                       | 11,129.00                    | 11,242.00                       | 4               |
| <b>3</b>          | 12/23/13 16:00 | 10,965.00                    | 11,115.00                       | 10,979.00                    | 11,101.00                       | 4               |
| <b>4</b>          | 12/23/13 22:06 | 10,815.00                    | 10,965.00                       | 10,829.00                    | 10,951.00                       | 4               |
| <b>5</b>          | 12/26/13 18:50 | 10,665.00                    | 10,815.00                       | 10,679.00                    | 10,801.00                       | 4               |
| <b>6</b>          | 12/27/13 1:09  | 10,515.00                    | 10,665.00                       | 10,529.00                    | 10,651.00                       | 4               |
| <b>7</b>          | 12/27/13 6:48  | 10,368.00                    | 10,515.00                       | 10,379.00                    | 10,501.00                       | 4               |
| <b>8</b>          | 12/27/13 13:47 | 10,215.00                    | 10,368.00                       | 10,229.00                    | 10,351.00                       | 4               |
| <b>9</b>          | 12/27/13 20:44 | 10,065.00                    | 10,215.00                       | 10,079.00                    | 10,201.00                       | 4               |
| <b>10</b>         | 12/28/13 0:51  | 9,915.00                     | 10,065.00                       | 9,929.00                     | 10,051.00                       | 4               |
| <b>11</b>         | 12/28/13 6:40  | 9,765.00                     | 9,915.00                        | 9,779.00                     | 9,901.00                        | 4               |
| <b>12</b>         | 12/28/13 16:21 | 9,615.00                     | 9,765.00                        | 9,629.00                     | 9,749.00                        | 4               |
| <b>13</b>         | 12/28/13 23:00 | 9,465.00                     | 9,615.00                        | 9,479.00                     | 9,601.00                        | 4               |
| <b>14</b>         | 12/29/13 3:41  | 9,315.00                     | 9,465.00                        | 9,329.00                     | 9,451.00                        | 4               |
| <b>15</b>         | 12/29/13 20:00 | 9,165.00                     | 9,315.00                        | 9,177.00                     | 9,301.00                        | 4               |
| <b>16</b>         | 12/30/13 0:07  | 9,015.00                     | 9,165.00                        | 9,029.00                     | 9,151.00                        | 4               |
| <b>17</b>         | 12/30/13 12:22 | 8,865.00                     | 9,015.00                        | 8,879.00                     | 9,001.00                        | 4               |
| <b>18</b>         | 12/31/13 1:10  | 8,715.00                     | 8,865.00                        | 8,729.00                     | 8,851.00                        | 4               |
| <b>19</b>         | 1/2/14 9:50    | 8,565.00                     | 8,715.00                        | 8,579.00                     | 8,699.00                        | 4               |
| <b>20</b>         | 1/2/14 16:58   | 8,415.00                     | 8,565.00                        | 8,429.00                     | 8,547.00                        | 4               |
| <b>21</b>         | 1/2/14 21:00   | 8,265.00                     | 8,415.00                        | 8,279.00                     | 8,401.00                        | 4               |
| <b>22</b>         | 1/3/14 14:54   | 8,115.00                     | 8,265.00                        | 8,127.00                     | 8,251.00                        | 4               |
| <b>23</b>         | 1/3/14 19:47   | NA                           | 8,115.00                        | 7,979.00                     | 8,101.00                        | 4               |

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**514417 - Stimulated Stages**

| <b>Zone/Stage</b> | <b>P Break (psi)</b> | <b>Avg Treat Pressure (psi)</b> | <b>Avg rate (bbl/min)</b> | <b>ISIP (psi)</b> | <b>Frac Gradient (psi/ft)</b> | <b>15 Min. SIP (psi)</b> | <b>Fluid Volume (bbl)</b> | <b>Start Date</b> | <b>End Date</b>  | <b>Proppant (lb)</b> |
|-------------------|----------------------|---------------------------------|---------------------------|-------------------|-------------------------------|--------------------------|---------------------------|-------------------|------------------|----------------------|
| Toe Pop           | NA                   | 8,050.00                        | 12.7                      | NA                | NA                            | NA                       | 922                       | 12/23/2013 3:32   | 12/23/2013 4:42  | NA                   |
| 1                 | 8,273.00             | 8,591.00                        | 93.1                      | 4,702.00          | 1.05                          | 4,012.00                 | 5,102                     | 12/23/2013 8:23   | 12/23/2013 9:56  | 200,487              |
| 2                 | 7,425.00             | 8,610.00                        | 94.5                      | 5,095.00          | 1.1                           | 4,131.00                 | 5,059                     | 12/23/2013 13:00  | 12/23/2013 14:29 | 199,065              |
| 3                 | 6,985.00             | 8,590.00                        | 95.6                      | 4,520.00          | 1.02                          | 4,123.00                 | 5,651                     | 12/23/2013 18:45  | 12/23/2013 20:15 | 203,597              |
| 4                 | 6,188.00             | 8,537.00                        | 91.2                      | 5,203.00          | 1.11                          | 4,187.00                 | 5,064                     | 12/26/2013 15:39  | 12/26/2013 16:57 | 196,568              |
| 5                 | 7,015.00             | 8,572.00                        | 94.8                      | 4,993.00          | 1.09                          | 4,311.00                 | 5,078                     | 12/26/2013 22:14  | 12/26/2013 23:32 | 201,526              |
| 6                 | 6,897.00             | 8,556.00                        | 91.3                      | 4,818.00          | 1.06                          | 4,231.00                 | 4,980                     | 12/27/2013 3:43   | 12/27/2013 5:01  | 201,705              |
| 7                 | 7,955.00             | 8,473.00                        | 92.7                      | 5,432.00          | 1.14                          | 4,061.00                 | 5,085                     | 12/27/2013 10:53  | 12/27/2013 12:07 | 203,271              |
| 8                 | 7,454.00             | 8,475.00                        | 97.5                      | 4,687.00          | 1.05                          | 4,109.00                 | 5,016                     | 12/27/2013 17:40  | 12/27/2013 18:56 | 201,628              |
| 9                 | 5,988.00             | 8,557.00                        | 98.6                      | 4,990.00          | 1.09                          | 4,313.00                 | 5,039                     | 12/27/2013 21:56  | 12/27/2013 23:13 | 201,642              |
| 10                | 6,441.00             | 8,621.00                        | 98.6                      | 4,857.00          | 1.07                          | 4,203.00                 | 5,138                     | 12/28/2013 4:36   | 12/28/2013 5:02  | 201,640              |
| 11                | 6,675.00             | 8,266.00                        | 100.2                     | 5,606.00          | 1.17                          | 4,420.00                 | 4,903                     | 12/28/2013 13:46  | 12/28/2013 14:50 | 200,120              |
| 12                | 6,185.00             | 8,280.00                        | 98.2                      | 5,109.00          | 1.1                           | 4,410.00                 | 5,217                     | 12/28/2013 20:11  | 12/28/2013 21:26 | 200,091              |
| 13                | 6,785.00             | 8,443.00                        | 98.7                      | 4,981.00          | 1.08                          | 4,316.00                 | 5,224                     | 12/29/2013 0:49   | 12/29/2013 2:04  | 200,869              |
| 14                | 7,370.00             | 8,516.00                        | 98.3                      | 5,494.00          | 1.15                          | 4,272.00                 | 4,961                     | 12/29/2013 17:03  | 12/29/2013 18:11 | 201,064              |
| 15                | 6,336.00             | 8,475.00                        | 99.8                      | 5,295.00          | 1.13                          | 4,147.00                 | 5,132                     | 12/29/2013 21:19  | 12/29/2013 22:29 | 200,686              |
| 16                | 7,075.00             | 8,340.00                        | 96.3                      | 4,754.00          | 1.05                          | 4,117.00                 | 5,335                     | 12/30/2013 1:16   | 12/30/2013 10:17 | 200,127              |
| 17                | 6,649.00             | 8,523.00                        | 100.1                     | 4,559.00          | 1.03                          | 3,895.00                 | 5,080                     | 12/30/2013 22:28  | 12/30/2013 23:42 | 199,110              |
| 18                | 6,261.00             | 8,128.00                        | 99.3                      | 4,575.00          | 1.03                          | 3,985.00                 | 4,970                     | 1/2/2014 7:24     | 1/2/2014 8:33    | 203,646              |
| 19                | 6,627.00             | 8,183.00                        | 96.5                      | 4,587.00          | 1.03                          | 4,027.00                 | 4,969                     | 1/2/2014 14:18    | 1/2/2014 15:27   | 200,087              |
| 20                | 6,383.00             | 8,223.00                        | 96.0                      | 4,610.00          | 1.04                          | 4,117.00                 | 4,950                     | 1/2/2014 18:08    | 1/2/2014 19:22   | 200,209              |
| 21                | 6,209.00             | 8,326.00                        | 97.2                      | 4,476.00          | 1.02                          | 4,008.00                 | 4,930                     | 1/3/2014 12:14    | 1/3/2014 13:23   | 200,188              |
| 22                | 6,528.00             | 8,133.00                        | 97.6                      | 4,343.00          | 1                             | 3,961.00                 | 4,906                     | 1/3/2014 16:05    | 1/3/2014 17:43   | 200,159              |
| 23                | 6,113.00             | 8,202.00                        | 90.6                      | 4,236.00          | 0.99                          | 3,288.00                 | 4,965                     | 1/4/2014 1:30     | 1/4/2014 2:50    | 194,156              |

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