

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

DATE: 12/04/2013
API #: 47-10302828

pm

Farm name: Richard Dallison ET AL Operator Well No.: 513876

LOCATION: Elevation: 1452 Quadrangle: Big Run 7.5'

District: Grant County: Wetzel
Latitude: 5.149 Feet South of 39 Deg. 32 Min. 30 Sec.
Longitude 11.469 Feet West of 80 Deg. 32 Min. 30 Sec.

Company: EQT Production Company

| Address: | Casing & Tubing | Used in drilling | Left in well | Cement fill up Cu. Ft. |
|---|-----------------|------------------|--------------|------------------------|
| EQT Plaza, Suite 1700 | | | | |
| 625 Liberty Avenue, Pittsburgh, PA | 20" | 40 | 40 | 44.84 |
| Agent: Rex C. Ray | 13-3/8" | 998 | 998 | 1017.45 |
| Inspector: Derek Haught | 9-5/8" | 2769 | 2769 | 1100 |
| Date Permit Issued: 10/29/2012 | 5-1/2" | 13054 | 13054 | 2436.91 |
| Date Well Work Commenced: 2/25/2013 | | | | |
| Date Well Work Completed: 11/30/2013 | | | | |
| Verbal Plugging: N/A | | | | |
| Date Permission granted on: N/A | | | | |
| Rotary <input checked="" type="checkbox"/> Cable <input type="checkbox"/> Rig <input checked="" type="checkbox"/> | | | | |
| Total Vertical Depth (ft): 7,633 | | | | |
| Total Measured Depth (ft): 13054' | | | | |
| Fresh Water Depth (ft.): 783 | | | | |
| Salt Water Depth (ft.): 2260, 2373 | | | | |
| Is coal being mined in area (N/Y)? N | | | | |
| Coal Depths (ft.): 737, 807, 922, 1012, 1244 | | | | |
| Void(s) encountered (N/Y) Depth(s) N | | | | |

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

Producing formation Marcellus Pay zone depth (ft) 7.223.5
Gas: Initial open flow 216 MCF/d Oil: Initial open flow 0 Bbl/d
Final open flow 9.179 MCF/d Final open flow 0 Bbl/d
Time of open flow between initial and final tests 107.5 Hours
Static rock Pressure 1.776 psig (surface pressure) after 109.5 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

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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.


Signature

9/8/2014
Date

01/23/2015

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 Gyro, Gamma, & CBL

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:

Amended Report with Flow Back Data

Re-perforated stages 3 (3.1), 14 (14.1), and 15 (15.1)

Performed additional injection test prior to stage 13

Plug Back Details Including Plug Type and Depth(s): N/A

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

| | | | |
|----------------------------------|--|--|-------------------------------|
| Sand/Shale 0/737/737 | | | Benson 5633.8/5953.1/319.3 |
| Coal 737/738/1 | | | Alexander 5953.1/6872.2/919.1 |
| Sand/Shale 738/807/69 | | | Rhinestreet 6872.2/6877.7/5.5 |
| Coal 807/ 817/10 | | | Sonyea 6877.7/7001.9/124.2 |
| Sand/Shale 817/922/105 | | | Middlesex 7001.9/7043.7/41.8 |
| Coal 922/927/5 | | | Genessee 7043.7/7113.3/69.6 |
| Sand/Shale 927/1012/85 | | | Geneseo 7113.3/7134.8/21.5 |
| Coal 1012/1022/10 | | | Tully 7134.8/7151.3/16.5 |
| Sand/Shale 1022/1244/222 | | | Hamilton 7151.3/7223.5/72.2 |
| Coal 1244/1,250/ 6 | | | Marcellus 7223.5/7659/435.5 |
| Sand/Shale 1,250 /2481.1/ 1241.1 | | | |
| Big Lime 2481.1/3958.4/1477.1 | | | |
| Warren 3958.4/4109.7/151.3 | | | |
| Speechley 4109.7/4999/889.3 | | | |
| Riley 4999/5633.8/634.9 | | | |

513876 - Perforations

| Zone/Stage | Date | Top Plug Depth (ftKB) | Bottom Plug Depth (ftKB) | Top Perf Depth (ftKB) | Bottom Perf Depth (ftKB) | Shots/ft |
|-------------------|---------------|------------------------------|---------------------------------|------------------------------|---------------------------------|-----------------|
| Initiation Sleeve | 5/13/14 18:00 | 13,041.00 | NA | 13,028.00 | 13,030.00 | NA |
| 1 | 5/14/14 4:30 | 12,758.00 | NA | 12,787.00 | 12,969.00 | 4 |
| 2 | 5/15/14 14:13 | 12,458.00 | 12,758.00 | 12,487.00 | 12,729.00 | 4 |
| 3 | 5/16/14 4:11 | 12,158.00 | 12,458.00 | 12,187.00 | 12,427.00 | 4 |
| 3.1 (Re-Perf) | 5/16/14 17:48 | 12,158.00 | 12,458.00 | 12,207.00 | 12,286.00 | 4 |
| 4 | 5/17/14 1:46 | 11,858.00 | 12,158.00 | 11,887.00 | 12,129.00 | 4 |
| 5 | 5/17/14 16:50 | 11,558.00 | 11,858.00 | 11,587.00 | 11,829.00 | 4 |
| 6 | 5/18/14 6:27 | 11,258.00 | 11,558.00 | 11,287.00 | 11,529.00 | 4 |
| 7 | 5/18/14 16:17 | 10,958.00 | 11,258.00 | 10,987.00 | 11,229.00 | 4 |
| 8 | 5/20/14 12:19 | 10,658.00 | 10,958.00 | 10,687.00 | 10,929.00 | 4 |
| 9 | 5/20/14 19:02 | 10,358.00 | 10,658.00 | 10,387.00 | 10,629.00 | 4 |
| 10 | 5/21/14 12:34 | 10,058.00 | 10,358.00 | 10,087.00 | 10,329.00 | 4 |
| 11 | 5/21/14 21:36 | 9,758.00 | 10,058.00 | 9,787.00 | 10,029.00 | 4 |
| 12 | 5/22/14 5:30 | 9,458.00 | 9,758.00 | 9,487.00 | 9,729.00 | 4 |
| 13 | 5/23/14 1:30 | 9,158.00 | 9,458.00 | 9,187.00 | 9,429.00 | 4 |
| 14 | 5/23/14 14:18 | 8,858.00 | 9,158.00 | 8,887.00 | 9,129.00 | 4 |
| 14.1 (Re-Perf) | 5/23/14 18:00 | 8,858.00 | 9,158.00 | 8,877.00 | 8,932.00 | 4 |
| 15 | 5/24/14 10:49 | NA | 8,858.00 | 8,587.00 | 8,829.00 | 4 |
| 15.1 (Re-Perf) | 5/24/14 14:00 | NA | 8,858.00 | 8,617.00 | 8,792.00 | 4 |

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513876 - Stimulated Stages

| Zone/Stage | P Break (psi) | Avg Treat Pressure (psi) | Avg rate (bbl/min) | ISIP (psi) | Frac Gradient (psi/ft) | 15 Min. SIP (psi) | Fluid Volume (bbl) | Start Date | End Date | Proppant (lb) |
|-------------------|---------------|--------------------------|--------------------|------------|------------------------|-------------------|--------------------|-----------------|-----------------|---------------|
| Initiation Sleeve | NA | 8,100.00 | 20.0 | NA | NA | NA | 2,109 | 5/14/2014 16:40 | 5/14/2014 19:17 | NA |
| 1 | 7,757.00 | 8,570.00 | 90.5 | 4,034.00 | 0.96 | 3,158.00 | 12,777 | 5/15/2014 9:44 | 5/15/2014 12:31 | 500,860 |
| 2 | 7,138.00 | 7,897.00 | 93.6 | 4,789.00 | 1.06 | 3,566.00 | 12,437 | 5/15/2014 11:34 | 5/16/2014 2:29 | 498,980 |
| 3 | 7,399.00 | 8,659.00 | 47.0 | 5,250.00 | 1.12 | 4,646.00 | 3,280 | 5/16/2014 10:26 | 5/16/2014 12:12 | 2,700 |
| 3.1 (Re-Perf) | 5,915.00 | 8,529.00 | 94.3 | 4,141.00 | 0.97 | 3,362.00 | 12,847 | 5/16/2014 21:23 | 5/17/2014 0:10 | 500,220 |
| 4 | 6,934.00 | 8,366.00 | 89.7 | 5,139.00 | 1.1 | 3,895.00 | 12,691 | 5/17/2014 12:11 | 5/17/2014 15:00 | 500,480 |
| 5 | 6,058.00 | 8,465.00 | 97.0 | 5,597.00 | 1.16 | 4,374.00 | 12,525 | 5/18/2014 2:10 | 5/18/2014 4:58 | 500,000 |
| 6 | 6,613.00 | 8,739.00 | 94.7 | 4,077.00 | 0.97 | 3,301.00 | 12,609 | 5/18/2014 12:03 | 5/18/2014 14:44 | 500,880 |
| 7 | 7,439.00 | 8,474.00 | 94.1 | 5,093.00 | 1.1 | 3,709.00 | 12,794 | 5/19/2014 14:11 | 5/19/2014 16:53 | 500,060 |
| 8 | 6,734.00 | 8,654.00 | 95.4 | 4,553.00 | 1.03 | 3,480.00 | 12,476 | 5/20/2014 14:50 | 5/20/2014 17:34 | 500,000 |
| 9 | 7,353.00 | 8,574.00 | 96.5 | 4,821.00 | 1.06 | 4,141.00 | 11,625 | 5/21/2014 0:26 | 5/21/2014 3:52 | 489,000 |
| 10 | 6,555.00 | 8,275.00 | 99.3 | 5,239.00 | 1.12 | 3,998.00 | 12,120 | 5/21/2014 13:58 | 5/21/2014 16:23 | 498,920 |
| 11 | 6,162.00 | 8,654.00 | 98.1 | 5,600.00 | 1.16 | 4,474.00 | 11,639 | 5/22/2014 1:08 | 5/22/2014 3:39 | 454,680 |
| 12 | 7,753.00 | 8,367.00 | 99.3 | 8,365.00 | 1.53 | NA | 11,693 | 5/22/2014 14:28 | 5/22/2014 16:54 | 500,220 |
| Inj Test | NA | 4,391.00 | 9.8 | 5,418.00 | 1.14 | NA | 2,531 | 5/22/2014 19:56 | 5/23/2014 0:12 | 0 |
| 13 | 6,981.00 | 8,364.00 | 97.5 | 4,781.00 | 1.06 | 4,091.00 | 12,032 | 5/23/2014 9:57 | 5/23/2014 12:21 | 496,640 |
| 14 | No Break | 7,980.00 | 72.0 | 6,845.00 | 1.33 | NA | 2,500 | 5/23/2014 15:35 | 5/23/2014 17:12 | 625 |
| 14.1 (Re-Perf) | 8,690.00 | 7,390.00 | 94.8 | 5,554.00 | 1.16 | 5,007.00 | 17,516 | 5/23/2014 21:09 | 5/24/2014 9:05 | 464,880 |
| 15 | No Break | 8,500.00 | 57.0 | 5,136.00 | 1.16 | NA | 4,000 | 5/24/2014 12:01 | 5/24/2014 13:24 | 1,200 |
| 15.1 (Re-Perf) | 6,959.00 | 8,208.00 | 95.4 | 5,536.00 | 1.16 | 4,889.00 | 14,301 | 5/24/2014 16:53 | 5/24/2014 19:25 | 500,940 |

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Hydraulic Fracturing Fluid Product Component Information Disclosure

103-02828

| | |
|--------------------------------|--------------------|
| Job Start Date: | 5/13/2014 |
| Job End Date: | 5/24/2014 |
| State: | West Virginia |
| County: | Wetzel |
| API Number: | 47-103-02828-00-00 |
| Operator Name: | EQT Production |
| Well Name and Number: | BIG192 - 513876 |
| Longitude: | -80.58214300 |
| Latitude: | 39.52761300 |
| Datum: | NAD83 |
| Federal/Tribal Well: | NO |
| True Vertical Depth: | 7,659 |
| Total Base Water Volume (gal): | 8,857,548 |
| Total Base Non Water Volume: | 372,504 |



Hydraulic Fracturing Fluid Composition:

| Trade Name | Supplier | Purpose | Ingredients | Chemical Abstract Service Number (CAS #) | Maximum Ingredient Concentration in Additive (% by mass)** | Maximum Ingredient Concentration in HF Fluid (% by mass)** | Comments |
|-----------------------|-------------|------------------|--|--|--|--|----------|
| Water | Weatherford | Carrier | Water | 7732-18-5 | 100.00000 | 90.48562 | |
| Sand | Weatherford | Proppant | Crystalline Silica | 14808-60-7 | 100.00000 | 9.08114 | |
| MX-5 | Halliburton | Biocide | Sodium Nitrate | 7631-99-4 | 60.00000 | 0.05928 | |
| WFR-61LA | Weatherford | Friction Reducer | Distillates, Petroleum, Hydrotreated Light | 64742-47-8 | 40.00000 | 0.03994 | |
| Hydrochloric Acid 15% | Weatherford | Acidizing | Hydrochloric Acid | 7647-01-0 | 15.00000 | 0.02361 | |
| WPB-584L | Weatherford | Buffer | Potassium Hydroxide | 1310-58-3 | 40.00000 | 0.01015 | |
| | | | Potassium Carbonate | 584-08-7 | 40.00000 | 0.01015 | |
| WSI-685L | Weatherford | Scale Inhibitor | Monoethanolamine Hydrochloride | 2002-24-6 | 15.00000 | 0.00467 | |
| | | | Ammonium Chloride | 12125-02-9 | 15.00000 | 0.00467 | |
| | | | Methyl Alcohol | 67-56-1 | 2.50000 | 0.00078 | |
| MX-8 | Halliburton | Biocide | | | | | |

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| | | | | | | |
|-----------|-------------|----------------|--|-------------|-----------|---------|
| | | | Bacteria Culture | N/A | 100.00000 | 0.00998 |
| WGA-15L | Weatherford | Gelling Agent | | | | |
| | | | Solvent naphtha, petroleum, heavy aliph | 64742-96-7 | 60.00000 | 0.00512 |
| WIC-641L | Weatherford | Iron Control | | | | |
| | | | Citric Acid | 77-92-9 | 60.00000 | 0.00102 |
| WAI-251LC | Weatherford | Acid Inhibitor | | | | |
| | | | Ethylene Glycol | 107-21-1 | 40.00000 | 0.00012 |
| | | | N,N-Dimethylformamide | 68-12-2 | 20.00000 | 0.00006 |
| | | | Cinnamaldehyde | 104-55-2 | 15.00000 | 0.00005 |
| | | | Tar bases, quinoline derivs, benzyl chloride-quaternized | 72480-70-7 | 15.00000 | 0.00005 |
| | | | 2-Butoxyethanol | 111-76-2 | 15.00000 | 0.00005 |
| | | | 1-Decanol | 112-30-1 | 5.00000 | 0.00002 |
| | | | Poly(oxy-1,2-ethaned iyl), alpha.-(4-nonylphen yl)-. omega -hyd roxy- ,bran ched | 127087-87-0 | 5.00000 | 0.00002 |
| | | | Isopropanol | 67-63-0 | 2.50000 | 0.00001 |
| | | | 1-Octanol | 111-87-5 | 2.50000 | 0.00001 |
| | | | Triethyl Phosphate | 78-40-0 | 2.50000 | 0.00001 |
| WBK-133 | Weatherford | Breaker | | | | |
| | | | Ammonium Persulfate | 7727-54-0 | 100.00000 | 0.00020 |

Ingredients shown above are subject to 29 CFR 1910.1200(i) and appear on Material Safety Data Sheets (MSDS). Ingredients shown below are Non-MSDS.

* Total Water Volume sources may include fresh water, produced water, and/or recycled water
 ** Information is based on the maximum potential for concentration and thus the total may be over 100%

Note: For Field Development Products (products that begin with FDP), MSDS level only information has been provided. Ingredient information for chemicals subject to 29 CFR 1910.1200(i) and Appendix D are obtained from suppliers Material Safety Data Sheets (MSDS)