

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

DATE: 7-12-2013  
API #: 47-1706112

Farm name: Robert Brannon, et al Operator Well No.: 513171

LOCATION: Elevation: 1240 Quadrangle: Oxford

District: Southwest County: Doddridge, WV  
Latitude: 9,727 Feet South of 39 Deg. 12 Min. 30 Sec.  
Longitude 2,141 Feet West of 80 Deg. 47 Min. 30 Sec.

**Received**

JUL 31 2013

Company: EQT Production Company

Address:	EQT Plaza, Suite 1700	Casing & Tubing	Used in drilling	WV Dept. of Environmental Protection	Office of Oil and Gas
625 Liberty Avenue, Pittsburgh, PA 15222	20	40	40	45	
Agent: Cecil Ray	13 3/8	665	665	696	
Inspector: David Scrange	9 5/8	3,056	3,056	1,275	
Date Permit Issued: 7-31-2-12	5 1/2	11,552	11,552	1,735	
Date Well Work Commenced: 8-30-12					
Date Well Work Completed: 4-13-13					
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): 6,657					
Total Measured Depth (ft): 11,557					
Fresh Water Depth (ft.): 28, 220, 202, 212, 224, 227,	250, 259, 355,	465, 575			
Salt Water Depth (ft.): 1,458					
Is coal being mined in area (N/Y)? N					
Coal Depths (ft.): No show of coal					
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) 6,595

Gas: Initial open flow \_\_\_\_\_ MCF/d Oil: Initial open flow \_\_\_\_\_ Bbl/d

Final open flow 12,144 MCF/d Final open flow \_\_\_\_\_ Bbl/d

Time of open flow between initial and final tests \_\_\_\_\_ Hours

Static rock Pressure 1,735 psig (surface pressure) after 96.5 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.



Signature

7-12-2013

Date

09/27/2013

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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 Gyro, Open Hole, & MWD-gamma

**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**

Plug Back Details Including Plug Type and Depth(s): Class A Cement Plug -- Top Depth @ 5,518' and bottom depth at 5,628'

Formations Encountered: \_\_\_\_\_ Top Depth \_\_\_\_\_ / \_\_\_\_\_ Bottom Depth  
Surface:

Sand/Shale / 0 / 1729 / 1729 -- Maxton / 1729 / 1894 / 165 -- Big Lime / 1894 / 1947 / 53 --  
Keener / 1947 / 3259 / 1312 -- Warren / 3259 / 3309 / 50 -- Speechley / 3309 / 3837 / 528 --  
Balltown A / 3837 / 4197 / 360 -- Bradford / 4197 / 4859 / 662 -- Riley / 4859 / 5103 / 244 --  
Alexander / 5103 / 6227 / 1124 -- Rhinestreet / 6227 / 6252 / 25 -- Sonyea / 6252 / 6399 / 147 --  
Middlesex / 6399 / 6452 / 53 -- Genesee / 6452 / 6521 / 69 -- Geneseo / 6521 / 6564 / 43 --  
Tully / 6564 / 6583 / 19 -- Hamilton / 6583 / 6595 / 12 -- Marcellus / 6595 / 6657 / 62 --

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513171 - Perforations

Zone/Stage	Date	Top Plug Depth (ftKB)	Bottom Plug Depth (ftKB)	Top Perf Depth (ftKB)	Bottom Perf Depth (ftKB)	Shots/ft	Number of Shots
1	4/7/2013 2:45	11,390.00	NA	11,404.00	11,496.00	4	32
2	4/7/2013 6:54	11,240.00	11,382.00	11,254.00	11,376.00	4	40
3	4/7/2013 10:58	11,090.00	11,240.00	11,104.00	11,226.00	4	40
4	4/7/2013 14:39	10,940.00	11,090.00	10,954.00	11,076.00	4	40
5	4/7/2013 18:10	10,790.00	10,940.00	10,804.00	10,926.00	4	40
6	4/7/2013 21:35	10,640.00	10,790.00	10,654.00	10,776.00	4	40
7	4/8/2013 1:05	10,490.00	10,640.00	10,504.00	10,626.00	4	40
8	4/8/2013 4:40	10,340.00	10,490.00	10,354.00	10,476.00	4	40
9	4/8/2013 12:26	10,190.00	10,340.00	10,200.00	10,326.00	4	40
10	4/8/2013 16:45	10,040.00	10,190.00	10,054.00	10,176.00	4	40
11	4/8/2013 21:45	9,890.00	10,040.00	9,904.00	10,026.00	4	40
12	4/9/2013 12:09	9,740.00	9,890.00	9,754.00	9,876.00	4	40
13	4/9/2013 15:37	9,590.00	9,740.00	9,604.00	9,726.00	4	40
14	4/9/2013 19:00	9,440.00	9,590.00	9,454.00	9,576.00	4	40
15	4/9/2013 22:45	9,290.00	9,440.00	9,304.00	9,426.00	4	40
16	4/10/2013 2:20	9,140.00	9,290.00	9,154.00	9,276.00	4	40
17	4/10/2013 5:40	8,990.00	9,140.00	9,004.00	9,126.00	4	40
18	4/10/2013 9:35	8,840.00	8,990.00	8,854.00	8,976.00	4	40
19	4/10/2013 13:39	8,690.00	8,840.00	8,704.00	8,826.00	4	40
20	4/10/2013 17:17	8,540.00	8,690.00	8,554.00	8,676.00	4	40
21	4/10/2013 21:55	8,390.00	8,540.00	8,404.00	8,526.00	4	40
22	4/11/2013 2:50	8,240.00	8,390.00	8,254.00	8,376.00	4	40
23	4/11/2013 7:15	8,090.00	8,240.00	8,104.00	8,226.00	4	40
24	4/11/2013 15:03	7,940.00	8,090.00	7,954.00	8,076.00	4	40
25	4/11/2013 20:38	7,790.00	7,940.00	7,804.00	7,926.00	4	40
26	4/12/2013 1:30	7,640.00	7,790.00	7,654.00	7,776.00	4	40
27	4/12/2013 4:40	7,490.00	7,640.00	7,504.00	7,626.00	4	40
28	4/12/2013 13:47	7,340.00	7,490.00	7,354.00	7,476.00	4	40
29	4/12/2013 16:32	7,190.00	7,340.00	7,204.00	7,326.00	4	40
30	4/12/2013 21:07	7,040.00	7,190.00	7,054.00	7,176.00	4	40
31	4/13/2013 0:10	NA	7,040.00	6,904.00	7,026.00	4	40

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513171 - Stimulated Stages

Zone/Stage	P Break (psil)	Avg Treat Pressure (psil)	Avg rate (bbl/min)	SIP (psil)	Frac Gradient (psil/ft)	15 Min. SIP (psil)	Vol Water Pump (bbl)	Start Date	End Date	Proppant (lb)
1	6,270.00	8,254.00	91.7	4,319.00	1.08	2,592.00	6910	4/7/2013 3:53	4/7/2013 5:19	201,481
2	6,205.00	8,131.00	99.1	3,997.00	1.03	2,531.00	5377	4/7/2013 8:18	4/7/2013 9:34	197,914
3	5,652.00	8,079.00	99.4	4,718.00	1.14	2,834.00	5361	4/7/2013 11:58	4/7/2013 13:13	199,399
4	5,609.00	7,806.00	99.4	4,567.00	1.12	2,814.00	5365	4/7/2013 15:33	4/7/2013 16:49	203,611
5	5,950.00	7,445.00	100.2	4,815.00	1.16	2,790.00	5222	4/7/2013 19:09	4/7/2013 20:22	202,937
6	6,590.00	7,470.00	100.3	4,660.00	1.13	2,856.00	5265	4/7/2013 22:38	4/7/2013 23:52	200,002
7	6,174.00	7,668.00	100.4	4,442.00	1.1	2,870.00	5214	4/8/2013 2:17	4/8/2013 3:28	200,056
8	6,320.00	8,444.00	73.8	3,702.00	0.99	2,834.00	5522	4/8/2013 9:00	4/8/2013 10:34	181,489
9	5,559.00	8,035.00	99.5	5,352.00	1.24	2,921.00	5165	4/8/2013 14:14	4/8/2013 15:28	198,582
10	5,458.00	7,739.00	99.7	4,529.00	1.11	2,953.00	5731	4/8/2013 17:59	4/8/2013 20:36	200,016
11	5,251.00	7,951.00	99.9	4,901.00	1.17	2,776.00	5243	4/9/2013 9:36	4/9/2013 10:50	200,000
12	6,081.00	7,833.00	100.1	4,898.00	1.17	2,971.00	5167	4/9/2013 13:07	4/9/2013 14:20	200,241
13	5,875.00	7,534.00	99.9	5,214.00	1.22	3,054.00	5180	4/9/2013 16:28	4/9/2013 17:44	199,318
14	5,902.00	7,494.00	100.4	4,992.00	1.17	2,860.00	5090	4/9/2013 20:24	4/9/2013 21:34	199,258
15	6,606.00	7,190.00	100.4	4,383.00	1.09	2,805.00	5158	4/10/2013 0:01	4/10/2013 1:12	201,441
16	5,529.00	7,687.00	100.4	4,913.00	1.17	2,934.00	5145	4/10/2013 3:24	4/10/2013 4:34	200,002
17	5,853.00	7,630.00	98.7	5,329.00	1.23	3,178.00	5229	4/10/2013 7:09	4/10/2013 8:23	199,690
18	6,438.00	6,965.00	91.3	5,058.00	1.19	3,008.00	5178	4/10/2013 11:10	4/10/2013 12:24	200,318
19	6,289.00	6,772.00	91.5	5,238.00	1.22	2,929.00	5172	4/10/2013 14:52	4/10/2013 16:07	201,944
20	5,830.00	7,171.00	98.8	4,607.00	1.13	2,705.00	5140	4/10/2013 19:30	4/10/2013 20:40	200,688
21	5,672.00	7,038.00	100	5,041.00	1.19	2,961.00	5022	4/11/2013 0:35	4/11/2013 1:44	200,004
22	5,291.00	7,497.00	100.3	5,162.00	1.21	2,923.00	5000	4/11/2013 4:59	4/11/2013 6:09	198,977
23	5,894.00	7,138.00	100.3	5,168.00	1.21	3,092.00	5089	4/11/2013 12:48	4/11/2013 13:58	201,059
24	6,095.00	7,092.00	100.6	4,929.00	1.17	3,143.00	5080	4/11/2013 18:07	4/11/2013 19:15	201,299
25	6,640.00	7,487.00	100.3	4,851.00	1.16	3,279.00	4847	4/11/2013 23:22	4/11/2013 0:28	197,998
26	6,713.00	7,945.00	92.8	5,070.00	1.19	3,748.00	5241	4/12/2013 2:27	4/12/2013 3:42	199,047
27	6,349.00	7,021.00	100.3	5,066.00	1.19	3,639.00	5080	4/12/2013 11:35	4/12/2013 12:43	202,154
28	6,456.00	6,958.00	100.3	5,072.00	1.2	3,325.00	5080	4/12/2013 14:26	4/12/2013 15:33	201,845
29	5,465.00	6,926.00	100.5	4,460.00	1.1	3,020.00	5026	4/12/2013 18:34	4/12/2013 19:40	198,619
30	6,091.00	7,621.00	100.1	4,936.00	1.18	3,243.00	4763	4/12/2013 22:03	4/12/2013 23:07	200,357
31	6,197.00	7,500.00	99.7	4,932.00	1.18	2,998.00	4984	4/13/2013 1:14	4/13/2013 2:21	198,029

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