

JK

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- FINAL

DATE: 11/7/2013
API #: 47-1706051

pm #

Farm name: Patty J & R Keith Crihfield & David Wentz Operator Well No.: 513162

LOCATION: Elevation: 1179 Quadrangle: Smithburg 7.5

District: Grant County: Doddridge
Latitude: 2754 Feet South of 39 Deg. 22 Min. 30 Sec.
Longitude 8632 Feet West of 80 Deg. 40 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				
625 LIBERTY AVE, PITTSBURGH, PA 15222	20	40	40	45
Agent: CECIL RAY	13-3/8"	1017	1017	964
Inspector: DAVID SCRANAGE	9-5/8"	5355	5355	1336
Date Permit Issued: 06/15/2012	5-1/2"	15655	15655	2580
Date Well Work Commenced: 5/5/2013				
Date Well Work Completed: 11/8/2013				
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): 7028				
Total Measured Depth (ft): 15660				
Fresh Water Depth (ft.): 344				
Salt Water Depth (ft.): 1187				
Is coal being mined in area (N/Y)? N				
Coal Depths (ft.): N/A				
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 Geneseo Pay zone depth (ft) 6.935
Gas: Initial open flow 5,013 MCF/d Oil: Initial open flow 0 Bbl/d
Final open flow 12,853 MCF/d Final open flow 0 Bbl/d
Time of open flow between initial and final tests 71 Hours
Static rock Pressure 2,635 psig (surface pressure) after 71 Hours

Second producing formation NA 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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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

7/9/2014
Date

09/19/2014

17-06051

513162 - Perforations

Zone/Stage	Date	Top Plug Depth (ftKB)	Bottom Plug Depth (ftKB)	Top Perf Depth (ftKB)	Bottom Perf Depth (ftKB)	Shots/ft
Toe Pop	11/26/13 6:21	15,496.00	NA	15,631.00	15,633.00	NA
1	11/26/13 14:35	15,496.00	NA	15,510.00	15,602.00	4
2	11/27/13 5:30	15,346.00	15,496.00	15,360.00	15,482.00	4
3	11/28/13 7:25	15,196.00	15,346.00	15,210.00	15,332.00	4
4	11/28/13 15:45	15,046.00	15,196.00	15,060.00	15,182.00	4
5	11/28/13 22:50	15,032.00	14,910.00	14,910.00	15,032.00	4
6	11/29/13 4:11	14,746.00	14,896.00	14,760.00	14,882.00	4
7	11/29/13 9:15	14,732.00	14,746.00	14,610.00	14,732.00	4
8	11/29/13 22:53	14,446.00	14,596.00	14,460.00	14,582.00	4
9	11/30/13 6:21	14,296.00	14,446.00	14,310.00	14,432.00	4
10	11/30/13 11:30	14,146.00	14,296.00	14,160.00	14,282.00	4
11	11/30/13 16:30	13,996.00	14,146.00	14,010.00	14,132.00	4
12	11/30/13 21:21	13,846.00	13,996.00	13,860.00	13,980.00	4
13	12/1/13 2:20	13,696.00	13,846.00	13,710.00	13,832.00	4
14	12/1/13 6:45	13,546.00	13,696.00	13,560.00	13,682.00	4
15	12/1/13 14:20	13,396.00	13,546.00	13,410.00	13,532.00	4
16	12/1/13 19:40	13,246.00	13,396.00	13,260.00	13,382.00	4
17	12/1/13 23:59	13,096.00	13,246.00	13,110.00	13,232.00	4
18	12/2/13 4:26	12,946.00	13,096.00	12,960.00	13,082.00	4
19	12/2/13 16:00	12,796.00	12,946.00	12,810.00	12,932.00	4
20	12/2/13 22:54	12,646.00	12,796.00	12,660.00	12,780.00	4
21	12/3/13 3:20	12,540.00	12,646.00	12,510.00	12,630.00	4
22	12/3/13 7:30	12,346.00	12,496.00	12,360.00	12,482.00	4
23	12/3/13 11:30	12,196.00	12,343.00	12,210.00	12,332.00	4
24	12/3/13 16:15	12,046.00	12,196.00	12,060.00	12,182.00	4
25	12/3/13 21:09	11,896.00	12,046.00	11,910.00	12,032.00	4
26	12/4/13 1:59	11,746.00	11,896.00	11,760.00	11,882.00	4
27	12/4/13 6:17	11,596.00	11,746.00	11,610.00	11,730.00	4
28	12/4/13 19:48	11,446.00	11,596.00	11,460.00	11,582.00	4
29	12/5/13 0:20	11,296.00	11,446.00	11,310.00	11,432.00	4
30	12/5/13 4:47	11,146.00	11,296.00	11,158.00	11,282.00	4
31	12/5/13 9:24	10,996.00	11,146.00	11,010.00	11,132.00	4
32	12/5/13 13:41	10,846.00	10,996.00	10,860.00	10,982.00	4
33	12/6/13 2:09	10,696.00	10,846.00	10,710.00	10,832.00	4
34	12/6/13 7:10	10,546.00	10,696.00	10,560.00	10,680.00	4
35	12/6/13 12:41	10,396.00	10,546.00	10,410.00	10,532.00	4
36	12/6/13 16:29	10,246.00	10,396.00	10,260.00	10,382.00	4
37	12/6/13 20:47	10,096.00	10,246.00	10,110.00	10,232.00	4
38	12/7/13 1:30	9,946.00	10,096.00	9,960.00	10,082.00	4
39	12/7/13 6:07	9,796.00	9,946.00	9,810.00	9,932.00	4
40	12/7/13 9:00	9,646.00	9,796.00	9,660.00	9,782.00	4
41	12/7/13 14:38	9,496.00	9,646.00	9,510.00	9,629.00	4
42	12/7/13 18:21	9,346.00	9,496.00	9,360.00	9,482.00	4
43	12/7/13 22:45	9,196.00	9,346.00	9,210.00	9,332.00	4
44	12/8/13 3:46	9,046.00	9,196.00	9,060.00	9,182.00	4
45	12/8/13 7:20	8,896.00	9,046.00	8,910.00	9,032.00	4
46	12/8/13 10:59	8,746.00	8,896.00	8,762.00	8,882.00	4
47	12/8/13 15:24	8,596.00	8,746.00	8,610.00	8,732.00	4
48	12/8/13 22:04	8,446.00	8,596.00	8,460.00	8,582.00	4
49	12/9/13 2:11	8,296.00	8,446.00	8,310.00	8,432.00	4
50	12/9/13 5:59	8,146.00	8,296.00	8,160.00	8,282.00	4
51	12/9/13 9:59	7,996.00	8,146.00	8,013.00	8,132.00	4
52	12/9/13 23:45	7,846.00	7,996.00	7,860.00	7,982.00	4
53	12/10/13 4:00	7,696.00	7,846.00	7,710.00	7,832.00	4
54	12/10/13 7:42	7,546.00	7,696.00	7,560.00	7,682.00	4
55	12/10/13 11:22	7,396.00	7,546.00	7,410.00	7,532.00	4
56	12/10/13 17:10	NA	7,396.00	7,260.00	7,382.00	4

09/19/2014

17.06051

513162 - Stimulated Stages

Zone/Stage	P Break (psi)	Avg Treat Pressure (psi)	Avg rate (bbf/min)	ISIP (psi)	Frac Gradient (psi/ft)	15 Min. SIP (psi)	Fluid Volume (bbf)	Start Date	End Date	Proppant (lb)
Toe Pop	NA	6,730.00	15.8	NA	NA	NA	1,075	11/26/2013 11:10	11/26/2013 12:25	NA
1	7,658.00	8,334.00	77.0	3,487.00	0.93	3,019.00	11,294	11/26/2013 18:20	11/27/2013 2:35	198,951
2	4,887.00	8,560.00	83.3	3,750.00	0.97	3,867.00	5,355	11/28/2013 3:25	11/28/2013 4:59	201,452
3	5,948.00	8,600.00	85.7	3,804.00	0.98	3,059.00	5,205	11/28/2013 12:27	11/28/2013 14:00	199,293
4	7,155.00	8,416.00	89.6	3,946.00	1	3,270.00	5,277	11/28/2013 19:06	11/28/2013 20:31	203,734
5	7,255.00	8,353.00	94.7	4,030.00	1.01	3,262.00	5,251	11/29/2013 0:40	11/29/2013 2:08	200,205
6	6,409.00	8,517.00	98.1	3,964.00	1	3,079.00	5,195	11/29/2013 6:10	11/29/2013 7:32	200,345
7	7,467.00	8,428.00	92.0	3,800.00	0.98	3,097.00	5,234	11/29/2013 19:38	11/29/2013 21:21	203,680
8	6,724.00	8,243.00	86.6	3,871.00	0.99	3,316.00	7,350	11/30/2013 1:14	11/30/2013 4:50	201,644
9	7,481.00	8,470.00	89.6	3,482.00	0.93	3,084.00	5,232	11/30/2013 8:21	11/30/2013 9:51	202,304
10	7,077.00	8,481.00	90.4	3,858.00	0.98	3,100.00	5,204	11/30/2013 13:32	11/30/2013 14:55	201,518
11	6,863.00	8,574.00	92.1	3,759.00	0.97	3,025.00	5,166	11/30/2013 18:20	11/30/2013 19:58	201,598
12	6,875.00	8,183.00	96.2	3,739.00	0.97	3,019.00	5,182	11/30/2013 18:20	12/1/2013 0:39	197,844
13	6,445.00	8,044.00	96.8	3,824.00	0.98	3,105.00	5,217	12/1/2013 3:43	12/1/2013 5:19	200,669
14	7,084.00	8,186.00	90.4	3,580.00	0.94	3,019.00	5,111	12/1/2013 11:24	12/1/2013 12:45	202,275
15	6,807.00	8,446.00	91.6	3,555.00	0.94	2,948.00	5,730	12/1/2013 15:34	12/1/2013 17:50	186,685
16	6,763.00	8,600.00	91.7	3,667.00	0.95	2,949.00	5,136	12/1/2013 3:43	12/1/2013 22:27	201,647
17	6,786.00	8,607.00	96.0	3,805.00	0.97	3,066.00	5,134	12/2/2013 1:32	12/2/2013 2:47	199,034
18	6,887.00	8,580.00	91.2	3,583.00	0.94	3,017.00	5,449	12/2/2013 13:05	12/2/2013 14:30	199,824
19	7,083.00	8,655.00	92.9	3,557.00	0.94	2,936.00	5,086	12/2/2013 19:52	12/2/2013 21:28	199,135
20	6,674.00	8,570.00	95.8	3,553.00	0.94	2,882.00	5,077	12/3/2013 0:23	12/3/2013 1:37	201,056
21	7,578.00	8,235.00	97.6	3,432.00	0.92	2,534.00	5,166	12/3/2013 4:50	12/3/2013 6:01	201,162
22	7,422.00	8,422.00	96.9	3,328.00	0.91	2,989.00	5,057	12/3/2013 8:44	12/3/2013 10:00	202,635
23	6,916.00	8,492.00	95.6	3,676.00	0.96	2,837.00	5,279	12/3/2013 13:19	12/3/2013 14:40	200,471
24	7,204.00	8,573.00	97.2	3,617.00	0.95	2,861.00	5,142	12/3/2013 17:58	12/3/2013 0:00	203,828
25	6,744.00	8,409.00	99.2	3,766.00	0.97	2,859.00	5,153	12/3/2013 22:55	12/4/2013 0:09	191,805
26	6,129.00	8,596.00	98.9	4,113.00	1.02	3,072.00	5,175	12/4/2013 3:32	12/4/2013 4:47	198,107
27	6,552.00	8,653.00	98.0	3,660.00	0.96	2,915.00	5,073	12/4/2013 3:32	12/4/2013 4:47	203,050
28	5,887.00	8,485.00	97.3	3,563.00	0.94	2,938.00	5,338	12/4/2013 3:32	12/4/2013 4:47	202,610
29	6,729.00	8,425.00	96.9	4,000.00	1.01	3,031.00	5,215	12/5/2013 1:48	12/5/2013 3:03	202,420
30	7,168.00	8,428.00	94.5	3,637.00	0.95	2,918.00	5,021	12/5/2013 1:48	12/5/2013 3:03	200,665
31	7,835.00	8,607.00	96.9	3,739.00	0.97	3,023.00	5,064	12/5/2013 1:48	12/5/2013 3:03	203,799
32	8,081.00	8,488.00	93.9	3,697.00	0.96	2,869.00	5,358	12/5/2013 1:48	12/5/2013 3:03	205,460
33	6,487.00	8,275.00	98.0	3,599.00	0.95	2,968.00	5,259	12/6/2013 4:19	12/6/2013 5:33	200,600
34	6,542.00	8,436.00	96.9	3,607.00	0.95	2,950.00	5,098	12/6/2013 10:08	12/6/2013 11:20	199,695
35	7,546.00	8,547.00	99.6	3,411.00	0.92	2,820.00	5,199	12/6/2013 13:32	12/6/2013 15:10	199,756
36	7,273.00	8,352.00	96.3	3,188.00	0.89	2,794.00	5,201	12/6/2013 17:39	12/6/2013 19:00	200,150
37	6,518.00	8,324.00	96.2	3,287.00	0.9	2,840.00	5,152	12/6/2013 22:24	12/6/2013 23:43	205,850
38	7,591.00	8,032.00	98.1	3,186.00	0.89	2,825.00	5,241	12/7/2013 2:50	12/7/2013 4:11	210,450
39	7,045.00	8,224.00	100.4	3,166.00	0.89	2,909.00	5,153	12/7/2013 7:41	12/7/2013 9:07	200,220
40	6,343.00	8,278.00	102.5	3,641.00	0.96	2,897.00	5,128	12/7/2013 11:58	12/7/2013 13:09	201,601
41	6,820.00	8,040.00	100.8	3,160.00	0.89	2,791.00	5,127	12/7/2013 15:39	12/7/2013 16:55	199,005
42	6,866.00	8,110.00	99.4	3,241.00	0.9	2,817.00	5,061	12/7/2013 19:49	12/7/2013 21:05	202,950
43	7,343.00	7,889.00	99.7	3,126.00	0.88	2,748.00	5,071	12/8/2013 0:22	12/8/2013 1:40	200,850
44	6,714.00	7,739.00	100.9	3,148.00	0.89	2,753.00	5,310	12/8/2013 4:34	12/8/2013 5:54	197,340
45	7,349.00	7,609.00	101.0	3,288.00	0.91	2,833.00	5,045	12/8/2013 8:32	12/8/2013 9:43	201,610
46	7,755.00	7,658.00	100.7	3,211.00	0.9	2,798.00	5,124	12/8/2013 12:25	12/8/2013 13:38	200,923
47	6,720.00	7,765.00	100.1	3,157.00	0.89	2,814.00	5,296	12/8/2013 18:36	12/8/2013 19:54	197,878
48	6,911.00	7,408.00	101.4	3,617.00	0.95	2,970.00	5,142	12/8/2013 23:34	12/9/2013 0:43	201,504
49	6,731.00	7,382.00	101.8	3,920.00	1	3,194.00	5,144	12/8/2013 3:27	12/8/2013 4:34	200,157
50	7,507.00	7,263.00	100.4	3,619.00	0.95	2,909.00	4,970	12/9/2013 7:02	12/9/2013 8:09	200,663
51	7,117.00	7,689.00	101.8	3,179.00	0.89	2,674.00	5,246	12/9/2013 20:56	12/9/2013 22:11	201,045
52	7,251.00	7,869.00	101.6	3,019.00	0.87	2,693.00	5,504	12/10/2013 0:53	12/10/2013 2:07	203,497
53	6,914.00	7,443.00	102.7	3,240.00	0.9	2,874.00	5,298	12/10/2013 5:03	12/10/2013 6:15	204,128
54	7,120.00	7,365.00	102.7	3,375.00	0.92	2,683.00	5,248	12/10/2013 8:48	12/10/2013 10:02	198,666
55	6,233.00	7,255.00	102.5	3,262.00	0.9	2,832.00	5,235	12/10/2013 14:19	12/10/2013 15:32	199,233
56	6,884.00	7,043.00	100.0	3,077.00	0.88	2,730.00	5,316	12/10/2013 18:33	12/10/2013 19:51	199,277

09/19/2014