

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

DATE: 10-3-2013
API #: 47-085-10007

Farm name: Heartwood Forestland FU Operator Well No.: 513041

LOCATION: Elevation: 794' Quadrangle: Pennsboro

District: Clay County: Ritchie, WV
Latitude: 14.631 Feet South of 39 Deg. 17 Min. 30 Sec.
Longitude 6.444 Feet West of 80 Deg. 55 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 Avenue, Pittsburgh, PA 15222	26	71	71	103
Agent: Cecil Ray	20	464	464	970
Inspector: David Cowan	13 3/8	1,018	1,018	1,000
Date Permit Issued: 5/31/2013	9 5/8	5,108	5,108	1,617
Date Well Work Commenced: 6/24/2013	5 1/2	9,795	9,795	2,026
Date Well Work Completed: 7/15/2013				
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): 6,110'				
Total Measured Depth (ft): 9,798'				
Fresh Water Depth (ft.): 107', 380'				
Salt Water Depth (ft.): No visible show.				
Is coal being mined in area (N/Y)? No				
Coal Depths (ft.): 829'				
Void(s) encountered (N/Y) Depth(s) No				

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

Producing formation Marcellus Pay zone depth (ft) 6,035
Gas: Initial open flow 3,552 MCF/d Oil: Initial open flow 0 Bbl/d
Final open flow 9,120 MCF/d Final open flow 0 Bbl/d
Time of open flow between initial and final tests 91.5 Hours
Static rock Pressure 2,225 psig (surface pressure) after 97 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

10/2/2013
Date

03/07/2014

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 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

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

Formations Encountered: _____ Top Depth _____ / _____ Bottom Depth
Surface:

SAND / SHALE / 0 / 829 / 829

PITTSBURGH COAL / 829 / 834 / 5 -- SAND / SHALE / 834 / 1,968 / 1,134 --

BIG LIME / 1,968 / 2,080 / 112 -- BIG INJUN / 2,080 / 2,375 / 295 --

WEIR / 2,375 / 2,580 / 205 -- GANTZ / 2,580 / 2,720 / 140 --

FIFTY FOOT / 2,720 / 2,801 / 81 -- THIRTY FOOT / 2,801 / 2,845 / 44 --

GORDON / 2,845 / 2,926 / 81 -- FOURTH SAND / 2,926 / 3,115 / 189 --

BAYARD / 3,115 / 3,461 / 346 -- WARREN / 3,461 / 3,545 / 84 --

SPEECHLEY / 3,545 / 3,930 / 385 -- BALLTOWN A / 3,930 / 4,215 / 285 --

RILEY / 4,215 / 4,562 / 347 -- BENSON / 4,562 / 4,837 / 275 --

ALEXANDER / 4,837 / 5,712 / 875 -- RHINESTREET / 5,712 / 5,768 / 55-

SONYEA / 5,768 / 5,878 / 109 -- MIDDLESEX / 5,878 / 5,933 / 55 --

GENESSEE / 5,933 / 5,987 / 53 -- GENESEO / 5,987 / 6,014 / 27 --

TULLY / 6,014 / 6,028 / 14 -- HAMILTON / 6,028 / 6,035 / 7

Marcellus blk shale / 6,035 / 6,110 / 75 --

03/07/2014

513041 - 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)
Toe Pop	NA	7,801.00	13.1	NA	NA	NA	913	9/17/2013 23:23	9/18/2013 04:29	NA
1	5,295.00	7,553.00	84.4	4,704.00	1.2	2,386.00	4937	9/18/2013 7:23	9/18/2013 8:42	200,030
2	5,751.00	7,723.00	97	5,118.00	1.27	2,782.00	4728	9/18/2013 11:48	9/18/2013 13:01	201,060
3	5,837.00	7,510.00	99.2	5,234.00	1.29	3,155.00	4727	9/18/2013 15:53	9/18/2013 17:05	201,670
4	5,492.00	7,391.00	99.3	5,018.00	1.26	2,963.00	5122	9/18/2013 19:53	9/18/2013 21:07	201,205
5	5,395.00	7,118.00	100.9	4,796.00	1.22	2,510.00	5039	9/18/2013 23:45	9/19/2013 0:57	202,329
6	5,188.00	8,038.00	100.1	4,840.00	1.23	2,825.00	5161	9/19/2013 4:46	9/19/2013 5:58	202,380
7	5,045.00	8,151.00	98	5,288.00	1.03	2,977.00	4956	9/19/2013 9:03	9/19/2013 10:18	202,400
8	4,970.00	7,784.00	99	4,917.00	1.24	3,182.00	4780	9/19/2013 13:14	9/19/2013 14:24	202,600
9	4,991.00	7,283.00	100.7	4,996.00	1.25	3,502.00	4996	9/19/2013 17:40	9/19/2013 18:50	201,206
10	5,269.00	7,201.00	101.3	4,787.00	1.22	3,131.00	5005	9/19/2013 21:45	9/19/2013 22:57	199,941
11	4,850.00	7,082.00	100.1	4,806.00	1.22	2,974.00	5029	9/20/2013 2:19	9/20/2013 3:33	199,925
12	4,942.00	7,425.00	100	4,961.00	1.25	3,579.00	4761	9/20/2013 6:13	9/20/2013 7:22	200,010
13	5,233.00	7,078.00	100	5,160.00	1.28	3,716.00	4807	9/20/2013 10:10	9/20/2013 11:07	202,400
14	5,096.00	6,902.00	100.7	4,989.00	1.25	3,994.00	4895	9/20/2013 13:42	9/20/2013 14:49	201,990
15	5,054.00	6,591.00	101.3	5,134.00	1.28	3,745.00	4972	9/20/2013 17:23	9/20/2013 18:31	201,958
16	6,001.00	6,763.00	101.4	5,059.00	1.26	3,937.00	4993	9/20/2013 21:04	9/20/2013 22:14	200,642
17	5,571.00	7,009.00	100.6	5,106.00	1.27	3,330.00	4967	9/21/2013 1:27	9/21/2013 2:38	201,819
18	5,397.00	7,158.00	100.1	4,915.00	1.24	3,092.00	5018	9/21/2013 4:53	9/21/2013 6:08	202,090
19	5,359.00	6,395.00	99	4,934.00	1.24	3,607.00	4847	9/21/2013 8:45	9/21/2013 9:52	201,770
20	5,762.00	6,530.00	100.5	4,947.00	1.25	3,298.00	4814	9/21/2013 13:00	9/21/2013 14:07	201,900
21	5,192.00	6,659.00	100	4,892.00	1.24	3,094.00	4831	9/21/2013 16:27	9/21/2013 17:33	201,810
22	6,520.00	6,619.00	100.6	5,143.00	1.28	3,069.00	4965	9/21/2013 19:51	9/21/2013 20:59	201,922
23	6,299.00	6,879.00	100.3	5,437.00	1.33	3,456.00	4976	9/21/2013 23:39	9/22/2013 0:47	201,443

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