

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

DATE: 2012-11-29  
API #: 47-9101225

Farm name: Charles H. Cather et al Operator Well No.: 513052

LOCATION: Elevation: 1183 Quadrangle: Rosemont

District: Unknown County: Taylor, WV  
Latitude: 39.30322 Feet South of \_\_\_\_\_ Deg. \_\_\_\_\_ Min. \_\_\_\_\_ Sec.  
Longitude -80.16089 Feet West of West Deg. \_\_\_\_\_ Min. \_\_\_\_\_ 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	20	40	40	0
Agent: Cecil Ray	13 3/8	1,060	1,060	912
Inspector: Brian Harris	9 5/8	2,830	2,830	1,130.5
Date Permit Issued: 2011-02-24	5 1/2	11,993	11,993	1387.1
Date Well Work Commenced: 2011-06-01				
Date Well Work Completed: 2012-03-05				
Verbal Plugging:				
Date Permission granted on:				
Rotary <input checked="" type="checkbox"/> Cable <input type="checkbox"/> Rig <input checked="" type="checkbox"/>				
Total Vertical Depth (ft): 7,437.27				
Total Measured Depth (ft): 11,993				
Fresh Water Depth (ft.): 55,542 ft				
Salt Water Depth (ft.): 1,878				
Is coal being mined in area (N/Y)? N				
Coal Depths (ft.): 150, 331, 470, 524, 605				
Void(s) encountered (N/Y) Depth(s)				

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

Producing formation Marcellus Pay zone depth (ft) \_\_\_\_\_

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

Final open flow 2,980 MCF/d Final open flow \_\_\_\_\_ Bbl/d

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

Static rock Pressure 2,672 psig (surface pressure) after \_\_\_\_\_ 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.

Mike Butts  
Signature

2012-11-29  
Date

01/11/2013

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 Geophysical

**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):

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

Fill 0/74 -- Red Rock 78/84 -- Fill/Clay 84/107 -- Red Rock 107/110 -- Fill 110/150-- Coal 150/153 -- Fill 153/169  
Red Rock 169/174 -- Sand/Shale 174/331-- Coal 331/336 -- Rosedale Gas Sand 336/524 -- Coal 524/530  
Black Shale 530/605 -- Coal 605/610 -- Gray Shale 610/955 -- Red Sandstone 955/1320  
Big Lime 1,320 / 1,424.65 -- Big Injun 1,424.65 / 1,577.04 -- Weir Sand 1,577.04 / 1,810  
Gantz 1,810 / 1,879.22 -- Fifty Foot 1,879.22 / 1,949.82 -- -Thirty Foot 1,949.82 / 2,008.36  
Gordon 2,008.36 / 2,128.03 -- -Fourth Sand 2,128.03 / 2,343.85 -- Fifth Sand 2,343.85 / 2,371.67  
Bayard 2,371.67 / 2,783.3 -- -B-5 2,783.3 / 3,001.61 -- -Speechley 3,001.61 / 3,332.79  
Riley 3,717.32 / 4,346.2 -- -Benson 4,346.2 / 4,704.67 -- Elk 4,704.67 / 6,572.83 □  
Sonyea 6,572.83 / 6,901.42 -- Middlesex 6,901.42 / 7,036.62 -- Genesee 7,036.62 / 7,296.36  
Geneseo 7,296.36 / 7,316.42 -- Tully 7,316.42 / 7,369.64 -- Hamilton 7,369.64 / 7,502.25 □  
Marcellus / 7,502.25 -- Purcell / 7,566.8 -- Cherry Valley / 7,643.08

EQT WR-35	Completion	Attachment	Well	Treatment	Summary
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<b>Stage</b>	<b>Formation</b>	<b>Frac Type</b>			
1	MARCELLUS	Slickwater			
<b>Date</b>	<b>From / To</b>	<b># of perfs</b>	<b>BD Press</b>	<b>ATP Psi</b>	<b>SIP Detail</b>
8/29/2011	11647 - 11889		7,752.00	8,282.00	5 Min: 4307
					10 Min: 4145
					15 Min: 4045
<b>Avg Rate</b>	<b>Max Press PSI</b>	<b>ISIP</b>	<b>Frac Gradient</b>		
85.30	9,089.00	5,212.00	1.13		
<b>Sand Proppant</b>	<b>Water-bbl</b>	<b>SCF N2</b>	<b>Acid-Gal</b>		
467,530.00	10,959.00		2,000.00		

<b>Stage</b>	<b>Formation</b>	<b>Frac Type</b>			
2	MARCELLUS	Slickwater			
<b>Date</b>	<b>From / To</b>	<b># of perfs</b>	<b>BD Press</b>	<b>ATP Psi</b>	<b>SIP Detail</b>
8/29/2011	11347 - 11589		8,560.00	8,146.00	5 Min: 5687
					10 Min: 5173
					15 Min: 4843
<b>Avg Rate</b>	<b>Max Press PSI</b>	<b>ISIP</b>	<b>Frac Gradient</b>		
96.80	9,221.00	6,416.00	1.29		
<b>Sand Proppant</b>	<b>Water-bbl</b>	<b>SCF N2</b>	<b>Acid-Gal</b>		
435,700.00	10,780.00		2,000.00		

<b>Stage</b>	<b>Formation</b>	<b>Frac Type</b>			
3	MARCELLUS	Slickwater			
<b>Date</b>	<b>From / To</b>	<b># of perfs</b>	<b>BD Press</b>	<b>ATP Psi</b>	<b>SIP Detail</b>
12/29/2011	11047 - 11289		7,365.00	7,972.00	5 Min: 5138
					10 Min: 4713
					15 Min: 4478
<b>Avg Rate</b>	<b>Max Press PSI</b>	<b>ISIP</b>	<b>Frac Gradient</b>		
97.40	8,685.00	6,138.00	1.25		
<b>Sand Proppant</b>	<b>Water-bbl</b>	<b>SCF N2</b>	<b>Acid-Gal</b>		
409,807.00	10,006.00		1,000.00		

EQT WR-35	Completion	Attachment	Well	Treatment	Summary
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Stage	Formation	Frac Type				
4	MARCELLUS	Slickwater				
<b>Date</b>	<b>From / To</b>	<b># of perfs</b>	<b>BD Press</b>	<b>ATP Psi</b>	<b>SIP Detail</b>	
12/29/2011	10747 - 10989		6,493.00	7,843.00	5 Min: 4798	
<b>Avg Rate</b>	<b>Max Press PSI</b>	<b>ISIP</b>	<b>Frac Gradient</b>			
96.20	9,154.00	5,531.00	1.17	10 Min: 4474		
<b>Sand Proppant</b>	<b>Water-bbl</b>	<b>SCF N2</b>	<b>Acid-Gal</b>	15 Min: 4290		
373,433.00	9,543.00		1,000.00			

Stage	Formation	Frac Type				
5	MARCELLUS	Slickwater				
<b>Date</b>	<b>From / To</b>	<b># of perfs</b>	<b>BD Press</b>	<b>ATP Psi</b>	<b>SIP Detail</b>	
12/29/2011	10447 - 10689		6,749.00	7,883.00	5 Min: 4941	
<b>Avg Rate</b>	<b>Max Press PSI</b>	<b>ISIP</b>	<b>Frac Gradient</b>			
91.50	9,120.00	5,783.00	1.2	10 Min: 4667		
<b>Sand Proppant</b>	<b>Water-bbl</b>	<b>SCF N2</b>	<b>Acid-Gal</b>	15 Min: 4513		
324,532.00	9,175.00		1,000.00			

Stage	Formation	Frac Type				
6	MARCELLUS	Slickwater				
<b>Date</b>	<b>From / To</b>	<b># of perfs</b>	<b>BD Press</b>	<b>ATP Psi</b>	<b>SIP Detail</b>	
1/2/2012	10147 - 10389		6,599.00	7,764.00	5 Min: 5004	
<b>Avg Rate</b>	<b>Max Press PSI</b>	<b>ISIP</b>	<b>Frac Gradient</b>			
82.60	8,511.00	5,562.00	1.17	10 Min: 4758		
<b>Sand Proppant</b>	<b>Water-bbl</b>	<b>SCF N2</b>	<b>Acid-Gal</b>	15 Min: 4604		
400,678.00	10,232.00		1,000.00			

EQT WR-35	Completion	Attachment	Well	Treatment	Summary
<b>Stage</b>	<b>Formation</b>	<b>Frac Type</b>			
7	MARCELLUS	Slickwater			
<b>Date</b>	<b>From / To</b>	<b># of perfs</b>	<b>BD Press</b>	<b>ATP Psi</b>	<b>SIP Detail</b>
1/3/2012	9847 - 10089		7,981.00	8,132.00	5 Min: 5379
<b>Avg Rate</b>	<b>Max Press PSI</b>	<b>ISIP</b>	<b>Frac Gradient</b>		10 Min: 5289
95.80	9,027.00	5,985.00	1.23		15 Min: 4844
<b>Sand Proppant</b>	<b>Water-bbl</b>	<b>SCF N2</b>	<b>Acid-Gal</b>		
400,903.00	11,347.00		1,000.00		
<b>Stage</b>	<b>Formation</b>	<b>Frac Type</b>			
8	MARCELLUS	Slickwater			
<b>Date</b>	<b>From / To</b>	<b># of perfs</b>	<b>BD Press</b>	<b>ATP Psi</b>	<b>SIP Detail</b>
1/3/2012	9547 - 9789		6,670.00	8,037.00	5 Min: 5425
<b>Avg Rate</b>	<b>Max Press PSI</b>	<b>ISIP</b>	<b>Frac Gradient</b>		10 Min: 5185
96.90	8,872.00	5,636.00	1.18		15 Min: 4922
<b>Sand Proppant</b>	<b>Water-bbl</b>	<b>SCF N2</b>	<b>Acid-Gal</b>		
397,911.00	9,887.00		1,000.00		
<b>Stage</b>	<b>Formation</b>	<b>Frac Type</b>			
9	MARCELLUS	Slickwater			
<b>Date</b>	<b>From / To</b>	<b># of perfs</b>	<b>BD Press</b>	<b>ATP Psi</b>	<b>SIP Detail</b>
1/4/2012	9247 - 9489		6,814.00	8,172.00	5 Min: 5109
<b>Avg Rate</b>	<b>Max Press PSI</b>	<b>ISIP</b>	<b>Frac Gradient</b>		10 Min: 4774
98.90	8,773.00	5,907.00	1.22		15 Min: 4560
<b>Sand Proppant</b>	<b>Water-bbl</b>	<b>SCF N2</b>	<b>Acid-Gal</b>		
402,875.00	10,380.00		1,000.00		

EQT WR-35	Completion	Attachment	Well	Treatment	Summary
<b>Stage</b>	<b>Formation</b>	<b>Frac Type</b>			
10	MARCELLUS	Slickwater			
<b>Date</b>	<b>From / To</b>	<b># of perfs</b>	<b>BD Press</b>	<b>ATP Psi</b>	<b>SIP Detail</b>
1/4/2012	8947 - 9189		6,314.00	7,938.00	5 Min: 5393
					10 Min: 5117
					15 Min: 4951
<b>Avg Rate</b>	<b>Max Press PSI</b>	<b>ISIP</b>	<b>Frac Gradient</b>		
96.50	8,532.00	6,001.00	1.23		
<b>Sand Proppant</b>	<b>Water-bbl</b>	<b>SCF N2</b>	<b>Acid-Gal</b>		
404,884.00	9,985.00		1,000.00		
<b>Stage</b>	<b>Formation</b>	<b>Frac Type</b>			
11	MARCELLUS	Slickwater			
<b>Date</b>	<b>From / To</b>	<b># of perfs</b>	<b>BD Press</b>	<b>ATP Psi</b>	<b>SIP Detail</b>
1/5/2012	8647 - 8889		6,996.00	7,784.00	5 Min: 5087
					10 Min: 4776
					15 Min: 4586
<b>Avg Rate</b>	<b>Max Press PSI</b>	<b>ISIP</b>	<b>Frac Gradient</b>		
100.10	8,631.00	5,884.00	1.21		
<b>Sand Proppant</b>	<b>Water-bbl</b>	<b>SCF N2</b>	<b>Acid-Gal</b>		
383,231.00	9,739.00		1,000.00		
<b>Stage</b>	<b>Formation</b>	<b>Frac Type</b>			
12	MARCELLUS	Slickwater			
<b>Date</b>	<b>From / To</b>	<b># of perfs</b>	<b>BD Press</b>	<b>ATP Psi</b>	<b>SIP Detail</b>
1/5/2012	8347 - 8589		7,736.00	7,925.00	5 Min: 5005
					10 Min: 4736
					15 Min: 4566
<b>Avg Rate</b>	<b>Max Press PSI</b>	<b>ISIP</b>	<b>Frac Gradient</b>		
97.80	8,426.00	5,557.00	1.17		
<b>Sand Proppant</b>	<b>Water-bbl</b>	<b>SCF N2</b>	<b>Acid-Gal</b>		
404,084.00	11,041.00		1,000.00		

EQT WR-35	Completion	Attachment	Well	Treatment	Summary
<b>Stage</b>	<b>Formation</b>	<b>Frac Type</b>			
13	MARCELLUS	Slickwater			
<b>Date</b>	<b>From / To</b>	<b># of perfs</b>	<b>BD Press</b>	<b>ATP Psi</b>	<b>SIP Detail</b>
1/5/2012	8047 - 8289		6,742.00	7,392.00	5 Min: 5247
					10 Min: 4900
					15 Min: 4692
<b>Avg Rate</b>	<b>Max Press PSI</b>	<b>ISIP</b>	<b>Frac Gradient</b>		
99.40	8,469.00	5,922.00	1.21		
<b>Sand Proppant</b>	<b>Water-bbl</b>	<b>SCF N2</b>	<b>Acid-Gal</b>		
401,881.00	9,937.00		1,000.00		
<b>Stage</b>	<b>Formation</b>	<b>Frac Type</b>			
14	MARCELLUS	Slickwater			
<b>Date</b>	<b>From / To</b>	<b># of perfs</b>	<b>BD Press</b>	<b>ATP Psi</b>	<b>SIP Detail</b>
1/6/2012	7747 - 7989		6,098.00	7,627.00	5 Min: 4703
					10 Min: 4425
					15 Min: 4229
<b>Avg Rate</b>	<b>Max Press PSI</b>	<b>ISIP</b>	<b>Frac Gradient</b>		
97.90	8,941.00	5,717.00	1.19		
<b>Sand Proppant</b>	<b>Water-bbl</b>	<b>SCF N2</b>	<b>Acid-Gal</b>		
381,166.00	9,448.00		1,000.00		