

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

DATE: 3/11/2013  
API #: 47-091-01215

*Revised*

Farm name: Charles H. Cather et al Operator Well No.: 513053

LOCATION: Elevation: 1,191' Quadrangle: Rosemont

District: Flemington County: Taylor, WV  
Latitude: 15.080 Feet South of 39 Deg. 20 Min. 00 Sec.  
Longitude 7.920 Feet West of 80 Deg. 07 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 15222	20	40	40	94.5
Agent: Cecil Ray	13 3/8	717	717	645
Inspector: Bryan Harris	9 5/8	2,658	2,658	1,047
Date Permit Issued: 3/24/2011	5 1/2	10,510	10,510	1,022
Date Well Work Commenced: 4/15/2011				
Date Well Work Completed: 3/6/2012				
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): 7,797' (Plugged back to 6,749')				
Total Measured Depth (ft): 10,520'				
Fresh Water Depth (ft.): 330'				
Salt Water Depth (ft.): No visible show.				
Is coal being mined in area (N/Y)? No				
Coal Depths (ft.): 330', 522', 605'				
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) 7,502-7,700

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

Final open flow 2,301 MCF/d Final open flow N/A Bbl/d

Time of open flow between initial and final tests N/A Hours

Static rock Pressure 2,720 psig (surface pressure) after 67 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

Received

MAY 15 2013

Office of Oil and Gas  
WV Dept. of 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

3/11/2013  
Date

06/21/2013

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 Yes, Gyro, MWD Gamma, and Open Hole 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 / 330 / 330 -- Coal / 330 / 334 / 4 -- Red Rock / 334 / 522 / 188 --

Coal / 522 / 527 / 5 -- Sand/Shale / 527 / 605 / 78 -- Coal / 605 / 610 / 5

Sand/Shale / 610 / 1,120 / 510 -- Sandstone / 1,120 / 1,320 / 200 -- Big Lime / 1,320 / 1,424 / 104

Big Injun / 1,424 / 1,577 / 152 -- Weir Sand / 1,577 / 1,810 / 232 -- Gantz / 1,810 / 1,879 / 69

Fifty Foot / 1,879 / 1,949 / 70 -- -Thirty Foot / 1,949 / 2,008 / 58 -- Gordon / 2,008 / 2,128 / 119

Fourth Sand / 2,128 / 2,343 / 215 -- Fifth Sand / 2,343 / 2,371 / 27 -- -Bayard / 2,371 / 2,783 / 411

B-5 / 2,783 / 3,001 / 218 -- Speechley / 3,001 / 3,332 / 331 -- Bradford / 3,332 / 3,522 / 189

Balltown B / 3,522 / 3,717 / 194 -- Riley / 3,717 / 4,346 / 628 -- Benson / 4,346 / 4,704 / 358

Elk / 4,704 / 6,572 / 1,868 -- Sonyea / 6,572 / 6,901 / 328 -- Middlesex / 6,901 / 7,157 / 255

Genesee / 7,157 / 7,296 / 139 -- Geneseo / 7,296 / 7,316 / 20 -- Tully / 7,316 / 7,369 / 53

Hamilton / 7,369 / 7,502 / 132 -- Marcellus / 7,502 / 7,700 / 198 -- Onondaga / 7,700 / 7,797 / 97 --

Received

MAY 15 2013

Office of Oil and Gas  
WV Dept. of Environmental Protection

06/21/2013

**EQT WR-35      Completion      Attachment      Well 513053      Treatment      Summary**

<b>Stage</b> 1	<b>Formation</b> MARCELLUS	<b>Frac Type</b> Slickwater				
<b>Date</b> 1/7/2012	<b>From / To</b> 9922 - 10164	<b># of perfs</b>	<b>BD Press</b> 7,193.00	<b>ATP Psi</b> 8,066.00	<b>SIP Detail</b> 5 Min: 4320 10 Min: 4029 15 Min: 3874	
<b>Avg Rate</b> 97.30	<b>Max Press PSI</b> 8,658.00	<b>ISIP</b> 5,577.00	<b>Frac Gradient</b> 1.16			
<b>Sand Proppant</b> 403,193.00	<b>Water-bbl</b> 9,805.00	<b>SCF N2</b>	<b>Acid-Gal</b> 2,000.00			

<b>Stage</b> 2	<b>Formation</b> MARCELLUS	<b>Frac Type</b> Slickwater				
<b>Date</b> 1/7/2012	<b>From / To</b> 9922 - 10164	<b># of perfs</b>	<b>BD Press</b> 6,075.00	<b>ATP Psi</b> 8,065.00	<b>SIP Detail</b> 5 Min: 4670 10 Min: 4467 15 Min: 4281	
<b>Avg Rate</b> 98.00	<b>Max Press PSI</b> 8,471.00	<b>ISIP</b> 5,259.00	<b>Frac Gradient</b> 1.12			
<b>Sand Proppant</b> 402,492.00	<b>Water-bbl</b> 9,770.00	<b>SCF N2</b>	<b>Acid-Gal</b> 1,000.00			

<b>Stage</b> 3	<b>Formation</b> MARCELLUS	<b>Frac Type</b> Slickwater				
<b>Date</b> 1/7/2012	<b>From / To</b> 9622 - 9864	<b># of perfs</b>	<b>BD Press</b> 6,850.00	<b>ATP Psi</b> 8,013.00	<b>SIP Detail</b> 5 Min: 4879 10 Min: 4598 15 Min: 4429	
<b>Avg Rate</b> 98.80	<b>Max Press PSI</b> 8,368.00	<b>ISIP</b> 5,433.00	<b>Frac Gradient</b> 1.14			
<b>Sand Proppant</b> 402,127.00	<b>Water-bbl</b> 9,490.00	<b>SCF N2</b>	<b>Acid-Gal</b> 1,000.00			

Received

MAY 15 2013

Office of Oil and Gas  
WV Dept. of Environmental Protection

06/21/2013

<b>Stage</b> 4	<b>Formation</b> MARCELLUS	<b>Frac Type</b> Slickwater			
<b>Date</b> 1/7/2012	<b>From / To</b> 9322 - 9564	<b># of perfs</b>	<b>BD Press</b> 6,337.00	<b>ATP Psi</b> 7,801.00	<b>SIP Detail</b> 5 Min: 4826 10 Min: 4480 15 Min: 4333
<b>Avg Rate</b> 98.50	<b>Max Press PSI</b> 8,391.00	<b>ISIP</b> 5,641.00	<b>Frac Gradient</b> 1.17		
<b>Sand Proppant</b> 401,850.00	<b>Water-bbl</b> 10,069.00	<b>SCF N2</b>	<b>Acid-Gal</b> 1,000.00		

<b>Stage</b> 5	<b>Formation</b> MARCELLUS	<b>Frac Type</b> Slickwater			
<b>Date</b> 1/7/2012	<b>From / To</b> 9022 - 9264	<b># of perfs</b>	<b>BD Press</b> 6,797.00	<b>ATP Psi</b> 7,536.00	<b>SIP Detail</b> 5 Min: 4760 10 Min: 4526 15 Min: 4369
<b>Avg Rate</b> 100.50	<b>Max Press PSI</b> 8,116.00	<b>ISIP</b> 5,401.00	<b>Frac Gradient</b> 1.14		
<b>Sand Proppant</b> 399,565.00	<b>Water-bbl</b> 9,827.00	<b>SCF N2</b>	<b>Acid-Gal</b> 1,000.00		

<b>Stage</b> 6	<b>Formation</b> MARCELLUS	<b>Frac Type</b> Slickwater			
<b>Date</b> 1/8/2012	<b>From / To</b> 8722 - 8964	<b># of perfs</b>	<b>BD Press</b> 6,059.00	<b>ATP Psi</b> 7,410.00	<b>SIP Detail</b> 5 Min: 4999 10 Min: 4748 15 Min: 4611
<b>Avg Rate</b> 99.95	<b>Max Press PSI</b> 8,110.00	<b>ISIP</b> 5,500.00	<b>Frac Gradient</b> 1.15		
<b>Sand Proppant</b> 398,658.00	<b>Water-bbl</b> 9,692.00	<b>SCF N2</b>	<b>Acid-Gal</b> 1,000.00		

<b>Stage</b> 7	<b>Formation</b> MARCELLUS	<b>Frac Type</b> Slickwater			
<b>Date</b> 1/8/2012	<b>From / To</b> 8422 - 8664	<b># of perfs</b>	<b>BD Press</b> 6,385.00	<b>ATP Psi</b> 7,225.00	<b>SIP Detail</b> 5 Min: 5019 10 Min: 4775 15 Min: 4620
<b>Avg Rate</b> 100.40	<b>Max Press PSI</b> 7,909.00	<b>ISIP</b> 5,202.00	<b>Frac Gradient</b> 1.11		
<b>Sand Proppant</b> 399,560.00	<b>Water-bbl</b> 9,087.00	<b>SCF N2</b>	<b>Acid-Gal</b> 1,000.00		

Received

May 15 2013

Office of Oil and Gas  
WV Dept. Environmental Protection

<b>Stage</b> 8	<b>Formation</b> MARCELLUS	<b>Frac Type</b> Slickwater				
<b>Date</b> 1/8/2012	<b>From / To</b> 8122 - 8362	<b># of perfs</b>	<b>BD Press</b> 6,270.00	<b>ATP Psi</b> 100.70	<b>SIP Detail</b> 5 Min: 4847 10 Min: 4581 15 Min: 4426	
<b>Avg Rate</b> 100.70	<b>Max Press PSI</b> 7,993.00	<b>ISIP</b> 5,643.00	<b>Frac Gradient</b> 1.17			
<b>Sand Proppant</b> 397,008.00	<b>Water-bbl</b> 9,547.00	<b>SCF N2</b>	<b>Acid-Gal</b> 1,000.00			
<b>Stage</b> 9	<b>Formation</b> MARCELLUS	<b>Frac Type</b> Slickwater				
<b>Date</b> 1/8/2012	<b>From / To</b> 7822 - 8064	<b># of perfs</b>	<b>BD Press</b> 6,951.00	<b>ATP Psi</b> 7,435.00	<b>SIP Detail</b> 5 Min: 4542 10 Min: 4355 15 Min: 4289	
<b>Avg Rate</b> 99.60	<b>Max Press PSI</b> 8,598.00	<b>ISIP</b> 5,667.00	<b>Frac Gradient</b> 1.18			
<b>Sand Proppant</b> 399,158.00	<b>Water-bbl</b> 9,805.00	<b>SCF N2</b>	<b>Acid-Gal</b> 1,000.00			
<b>Stage</b> 10	<b>Formation</b> MARCELLUS	<b>Frac Type</b> Slickwater				
<b>Date</b> 1/9/2012	<b>From / To</b> 7657 - 7773	<b># of perfs</b>	<b>BD Press</b> 7,676.00	<b>ATP Psi</b> 7,590.00	<b>SIP Detail</b> 5 Min: 4446 10 Min: 4314 15 Min: 4244	
<b>Avg Rate</b> 97.30	<b>Max Press PSI</b> 8,628.00	<b>ISIP</b> 5,036.00	<b>Frac Gradient</b> 1.1			
<b>Sand Proppant</b> 200,015.00	<b>Water-bbl</b> 4,973.00	<b>SCF N2</b>	<b>Acid-Gal</b> 1,000.00			

Received

MAY 15 2013

Office of Oil and Gas  
WV Dept. of Environmental Protection

06/21/2013