

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

DATE: 4/2/13  
API #: 47-085-09960

Farm name: Williamson, Andrew & Et Al Operator Well No.: Nicholson Unit 2H

LOCATION: Elevation: 1142' Quadrangle: Pullman 7.5'

District: Union County: Ritchie  
Latitude: 2,875 Feet South of 39 Deg. 12 Min. 30 Sec.  
Longitude 4,704 Feet West of 80 Deg. 52 Min. 30 Sec.

Company: Antero Resources Appalachian Corp

Address:	Casing & Tubing	Used in drilling	Left in well	Cement fill up Cu. Ft.
1625 17th Street Denver, CO 80202	20" 94#	40'	40'	38 Cu. Ft Class A
Agent: CT Corporation System	13-3/8" 54.5#	334'	334'	464 Cu. Ft. Class A
Inspector: Sam Ward	9-5/8" 36#	2560'	2560'	1042 Cu. Ft. Class A
Date Permit Issued: 5/29/2012	5-1/2" 20#	13,929'	13,929'	3399 Cu. Ft. Class H
Date Well Work Commenced: 7/13/2012				
Date Well Work Completed: 9/21/2012	2-3/8" 4.7#	6816'		
Verbal Plugging: N/A				
Date Permission granted on: N/A				
Rotary <input checked="" type="checkbox"/> Cable <input type="checkbox"/> Rig <input type="checkbox"/>				
Total Vertical Depth (ft): 6,630' TVD (deepest point drilled)				
Total Measured Depth (ft): 6621' TVD, 13,929' MD (BHL)				
Fresh Water Depth (ft.): 85'				
Salt Water Depth (ft.): None				
Is coal being mined in area (N/Y)? No				
Coal Depths (ft.): No coal layers observed				
Void(s) encountered (N/Y) Depth(s) No, N/A				

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

Producing formation N/A- Waiting on Pipeline Pay zone depth (ft) \_\_\_\_\_  
Gas: Initial open flow \_\_\_\_\_ MCF/d Oil: Initial open flow N/A Bbl/d  
Final open flow \_\_\_\_\_ MCF/d Final open flow N/A Bbl/d  
Time of open flow between initial and final tests N/A Hours  
Static rock Pressure \_\_\_\_\_ 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.

Kate Kei  
Signature

4/19/13  
Date

06/21/2013

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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 - CBL, Dual Laterolog/Gamma Ray, and Photo Density/Compensated Neutron/Gamma Ray

**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:

Perforations: 6,812 - 13,863' MD ( 1,488 holes)

Frac'd w/ 13,500 gals 15% HCL Acid, 146,592 bbls Slick Water carrying 736,700# 100 mesh,  
2,650,200# 40/70 and 1,459,500# 20/40 sand.

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

<u>Formations Encountered:</u>	<u>Top Depth</u>	<u>Bottom Depth</u>
<u>Surface:</u>		
Big Lime	2,115'	2,178'
Big Injun	2,179'	2,462'
Gantz Sand	2,463'	2,597'
Fifty Foot Sand	2,598'	2,709'
Gordon	2,710'	2,084'
Fifth Sandstone	3,085'	3,191'
Bayard	3,192'	3,961'
Speechley	3,962'	4,165'
Balltown	4,166'	4,636'
Bradford	4,637'	5,027'
Benson	5,028'	5,268'
Alexander	5,269'	5,467'
Elk	5,468'	5,815'
Rhinestreet	5,816'	6,240'
Sycamore	6,241'	6,410'
Middlesex	6,411'	6,522'
Burket	6,523'	6,555'
Tully	6,556'	6,576'
Marcellus	6,577'	6,630' TVD