

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: 1/11/2013  
API #: 47-095-02038

Farm name: Moore, Forest C. Jr. & Brenda Operator Well No.: Ed Arnold Unit 1H

LOCATION: Elevation: 749' Quadrangle: Center Point 7.5'

District: McElroy County: Tyler  
Latitude: 8995' Feet South of 38 Deg. 25 Min. 00 Sec.  
Longitude 7564' Feet West of 80 Deg. 42 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.
Agent: <u>CT Corporation System</u>	13 3/8" 68#	537'	537'	746 Cu. Ft. Class A
Inspector: <u>Joe Taylor</u>	9 5/8" 36#	2662'	2662'	1084 Cu. Ft. Class A
Date Permit Issued: <u>12/22/2011</u>	5 1/2" 20#	14121'	14121'	3435 Cu. Ft. Class H
Date Well Work Commenced: <u>4/6/2012</u>				
Date Well Work Completed: <u>7/26/2012</u>				
Verbal Plugging: <u>N/A</u>				
Date Permission granted on: <u>N/A</u>	2 3/8" 4.7#	6856'		
Rotary <input checked="" type="checkbox"/> Cable <input type="checkbox"/> Rig <input type="checkbox"/>				
Total Vertical Depth (ft): <u>6703' TVD</u>				
Total Measured Depth (ft): <u>14121' MD</u>				
Fresh Water Depth (ft.): <u>est. 120', 291'</u>				
Salt Water Depth (ft.): <u>1081'</u>				
Is coal being mined in area (N/Y)? <u>N</u>				
Coal Depths (ft.): <u>est. 672', 747'</u>				
Void(s) encountered (N/Y) Depth(s) <u>None</u>				

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

Producing formation Marcellus Pay zone depth (ft) 6557' TVD (Top)

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

Final open flow 8348 MCF/d Final open flow N/A Bbl/d

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

Static rock Pressure 3550 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.

Shawn Fedri  
Signature

1/24/13  
Date

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Were core samples taken? Yes \_\_\_\_\_ No **X**

Were cuttings caught during drilling? Yes **X** No \_\_\_\_\_

Were Electrical, Mechanical or Geophysical logs recorded on this well? If yes, please list **Yes - CBL,**  
Photo Density/ Compensated Neutron/ Gamma Ray and Dual Laterolog/ 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: 6848'-14057' (1248 holes)

Frac'd w/ 11,000 gals 15% HCL Acid, 152,482 bbls Slick Water carrying 795,784# 100 mesh,  
2,743,723# 40/70 and 1,486,074# 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>		
Gantz Sand	2678'	2803'
Fifty Foot Sand	2804'	2918'
Gordon	2919'	3122'
Fifth Sandstone	3123'	3153'
Bayard	3154'	3526'
Warren	3527'	3903'
Speechley	3904'	4183'
Balltown	4184'	4381'
Bradford	4382'	4836'
Benson	4837'	5090'
Alexander	5091'	5283'
Elk	5284'	5901'
Rhinestreet	5902'	6169'
Sycamore	6170'	6328'
Middlesex	6329'	6832'
West River Shale	6383'	6469'
Burket	6470'	6497'
Tully	6498'	6556'
Marcellus	6557'	6703' TVD

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MORGANTHAU, WV

WELL NAME: Ed Arnold 1H

API #: 47-095-02038

## List of Additives Used for Fracturing Or Stimulating Well

ADDITIVES	CHEMICAL ABSTRACT SERVICE NUMBER (CAS #)
WFRA-405	Mixture
Sodium Chloride	7647-14-5
Ammonium Chloride	12125-02-9
Petroleum Distillate Hydrotreated	64742-47-8
Alcohols, C12-16, Ethoxylated	68551-12-2
SI-1000	Mixture
Ethylene Glycol	107-21-1
Sodium Polyacrylate Copolymer	25987-30-8
Bioclear 2000 (2,2-Dibromo-3-Nitrilopropionamide)	10222-01-2
API-1 (Ammonium Persulfate)	7727-54-0
Hydrochloric Acid	7647-01-0
Water	7732-18-5
AI-300	Mixture
Ethylene Glycol	107-21-1
Ethoxylated Nonylphenol	68412-54-4
Isopropanol (Isopropyl Alcohol)	67-63-0
1-Decanol	112-30-1
1-Octanol	111-87-5
2-Butoxyethanol	111-76-2
Triethyl Phosphate	78-40-0
Cinnamaldehyde	104-55-2
N,N-Dimethylformamide	68-12-2
Tar Bases, Quinoline Derivs, benzyl chloride-quaternized	72480-70-7
LGC-15	Mixture
Guar Gum	9000-30-0
Petroleum Distillate	64742-80-9
Surfactant	68439-51-0
Clay	14808-60-7

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