

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: 9/3/2013
API #: 47-017-06118

Farm name: David Thompson, et al Operator Well No.: Thomas Unit 2H

LOCATION: Elevation: 1,269' Quadrangle: Folsom 7.5'

District: McClellan County: Doddridge
Latitude: 4.866° Feet South of 39 Deg. 25 Min. 00 Sec.
Longitude 11.708° Feet West of 80 Deg. 32 Min. 30 Sec.

Company: Antero Resources Corporation

Address:	Casing & Tubing	Used in drilling	Left in well	Cement fill up Cu. Ft.
1625 17th Street Denver, CO 80202	20" 133#	40'	40'	38 Cu Ft Class A
Agent: CT Corporation System	13 3/8" 48#	417'	417'	579 Cu Ft Class A
Inspector: Douglas Newlon	9 5/8" 36#	2,610'	2,610'	1063 Cu Ft Class A
Date Permit Issued: 9/25/2012	5 1/2" 20#	13,562'	13,562'	3292 Cu Ft Class H
Date Well Work Commenced: 11/27/2012				
Date Well Work Completed: 4/17/2013	2 3/8" 4.7#	7933'		
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): 7526' TVD				
Total Measured Depth (ft): 13,567' MD				
Fresh Water Depth (ft.): 349'				
Salt Water Depth (ft.): None Available				
Is coal being mined in area (N/Y)? N				
Coal Depths (ft.): None Available				
Void(s) encountered (N/Y) Depth(s) None				

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

Producing formation Marcellus Pay zone depth (ft) 7421'
Gas: Initial open flow --- MCF/d Oil: Initial open flow --- Bbl/d
Final open flow 5,570 MCF/d Final open flow --- Bbl/d
Time of open flow between initial and final tests --- Hours
Static rock Pressure 3800 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

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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.

Kathy Buck
Signature

9/9/13
Date

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Were core samples taken? Yes _____ No **X**

Were cuttings caught during drilling? Yes _____ No **X**

Were Electrical, Mechanical or Geophysical logs recorded on this well? If yes, please list **Yes, CBL**

This is a subsequent well. Antero only runs wireline logs on the first well on a multi-well pad (Kemper Unit 1H AP# 47-017-06117). Please reference the wireline logs submitted with Form WR-35 for Kemper Unit 1H.

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:

Perforated: 7,997- 13,506 (1,008 Holes)

Frac'd w/ 7,500 gals 15% HCL Acid, 146,497 bbls Slick Water carrying 880,380# 100 mesh
3,297,830# 40/70 Sand and 2,046,080# 20/40 Sand.

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

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

Big Lime	2253'	2329'
Big Injun	2330'	2682'
Gantz Sand	2683'	2768'
Fifty Foot Sandstone	2769'	2876'
Gordon	2977'	3313'
Fifth Sandstone	3314'	3350'
Bayard	3351'	3988'
Speechley	3989'	4273'
Balltown	4274'	4603'
Bradford	4604'	5335'
Benson	5336'	5594'
Alexander	5595'	5808'
Elk	5809'	6421'
Rhinestreet	6422'	6865'
Sycamore	6866'	7104'
Middlesex	7105'	7284'
Tully LS	7285'	7371'
Hamilton Shale	7372'	7420'
Marcellus	7421'	7526' TVD

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Hydraulic Fracturing Fluid Product Component Information Disclosure

Fracture Date:	4/13/2013
State:	WV
County:	Doddridge
API Number:	47-017-06118
Operator Name:	Antero Resources
Well Name and Number:	Thomas 2H
Longitude:	-80.558806
Latitude:	39.384525
Long/Lat Projection:	NAD27
Production Type:	Gas
True Vertical Depth (TVD):	7,523
Total Water Volume (gal)**:	6,152,874

Hydraulic Fracturing Fluid Composition:

Trade Name	Supplier	Purpose	Ingredients	Chemical Abstract Service Number (CAS #)	Maximum Ingredient Concentration in Additive (% by mass)**	Maximum Ingredient Concentration in HF Fluid (% by mass)**	Comments
Al-300	U.S. Well Services, LLC	Add Corrosion Inhibitors	2-Butoxyethanol	111-76-2	7.00%	0.00001%	
			Cinnamaldehyde	104-55-2	5.00%	0.00001%	
			Ethoxylated Nonylphenol	68412-54-4	5.00%	0.00001%	
			Ethylene Glycol	107-21-1	31.00%	0.00007%	
			Isopropyl Alcohol	67-63-0	3.00%	0.00001%	
			N,N-Dimethylformamide	68-12-2	15.00%	0.00003%	
			Tar bases, quinoline derivs, benzyl chloride-quaternized	72480-70-7	13.00%	0.00003%	
			Triethyl Phosphate	78-40-0	3.00%	0.00001%	
			Water	7732-18-5	20.00%	0.00004%	
BioClear 2000	U.S. Well Services, LLC	Anti-Bacterial Agent	2,2-dibromo-3-nitriopropionamide	10222-01-2	20.00%	0.00430%	
			Deionized Water	7732-18-5	28.00%	0.00246%	
LG-C-15	U.S. Well Services, LLC	Gelling Agents	Guar Gum	9000-30-0	50.00%	0.00480%	
			Petroleum Distillates	64742-47-8	60.00%	0.06887%	
			Surfactant	68439-51-0	3.00%	0.06887%	
			Suspending agent (solid)	14808-60-7	3.00%	0.06887%	
AP One	U.S. Well Services, LLC	Gel Breakers	Ammonium Persulfate	7727-54-0	100.00%	0.00129%	
W/RA-405	U.S. Well Services, LLC	Friction Reducer	Anionic Polyacrylamide	Proprietary	Proprietary		
			Ethoxy/ated alcohol blend	Proprietary	5.00%	0.00235%	
			Water	7732-18-5	40.00%	0.01882%	

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SI-1000	U.S. Well Services, LLC	Scale Inhibitor	Ammonium Chloride Petroleum Distillates Ethylene Glycol	12125-02-9 64742-47-8 107-21-1	5.00% 22.00% 20.00%	0.00235% 0.00833% 0.00380%
			Water	7732-18-5	30.00%	0.00317%
			Anionic Copolymer	Proprietary	Proprietary	
Sand	U.S. Well Services, LLC	Proppant	Crystalline Silica, quartz	14808-60-7	100.00%	10.80974%
			Hydrogen Chloride	1/17641	18.00%	0.01975%
HCL Acid (12.5%-18.0%)	U.S. Well Services, LLC	Bulk Acid				
			Water	7732-18-5	87.50%	0.04748%
			Water	7732-18-5	100.00%	89.02968%
Water		Carrier/Base Fluid				

* Total Water Volume sources may include fresh water, produced water, and/or recycled water
 ** Information is based on the maximum potential for concentration and thus the total may be over 100%

Ingredient information for chemicals subject to 29 CFR 1910.1200(i) and Appendix D are obtained from suppliers Material Safety Data Sheets (MSDS)

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