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: 2/7/2014
API #: 47-017-06165

Farm name: Erwin, John F. Operator Well No.: Schulte Unit 1H

LOCATION: Elevation: 1,218' Quadrangle: New Milton 7.5'

District: New Milton County: Doddridge
Latitude: 8,295' Feet South of 39 Deg. 10 Min. 00 Sec.
Longitude 3,629' Feet West of 80 Deg. 40 Min. 00 Sec.

Company: Antero Resources Corporation

Address: 1625 17th Street	Casing & Tubing	Used in drilling	Left in well	Cement fill up Cu. Ft.
Denver, CO 80202	20" 51#	40'	40'	38 Cu. Ft. Class A
Agent: CT Corporation System	13 3/8" 48#	541'	541'	752 Cu. Ft. Class A
Inspector: Douglas Newlon	9 5/8" 36#	2,500'	2,500'	1,018 Cu. Ft. Class A
Date Permit Issued: 1/21/2013	5 1/2" 20#	15,386'	15,386'	3,824 Cu. Ft. Class H
Date Well Work Commenced: 4/1/2013				
Date Well Work Completed: 12/29/2013	2 3/8" 4.7#	7420'		
Verbal Plugging: N/A				
Date Permission granted on: N/A				
Rotary ☑ Cable ☐ Rig ☐				
Total Vertical Depth (ft): 7246' TVD (Deepest Point Drilled)				
Total Measured Depth (ft): 15,386' MD, 7115' TVD (BHL)				
Fresh Water Depth (ft.): 290'				
Salt Water Depth (ft.): 762', 857', 1130'				
Is coal being mined in area (N/Y)? No				
Coal Depths (ft.): 680', 1850'				
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) 7208' (TOP)
Gas: Initial open flow ---- MCF/d Oil: Initial open flow ---- Bbl/d
Final open flow 11,137 MCF/d Final open flow ---- Bbl/d
Time of open flow between initial and final tests ---- Hours
Static rock Pressure 3950 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.

Kaitlin Buck
Signature

2/10/2014
Date

05/30/2014

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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 (Hinterer Unit 2H API#47-017-06104). Please reference the wireline logs submitted with Form WR-35 for Hinterer Unit 2H.

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: 7,478- 15,330' (2100 Holes)

Frac'd w/ 22,500 gals 15% HCL Acid, 245,548 bbls Slick Water carrying 1,179,220# 100 mesh,

4,138560# 40/70 sand and 2,561,370# 20/40 sand.

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

Formations Encountered:	Top Depth	/	Bottom Depth
Surface:			
Big Lime	est. 2242'		2370'
Big Injun	est. 2371'		2602'
Gantz Sand	est. 2603'		2755'
Fifty Foot Sandstone	est. 2756'		2947'
Gordon	est. 2948'		3303'
Fifth Sandstone	est. 3304'		3351'
Bayard	est. 3352'		3941'
Speechley	est. 3942'		4138'
Balltown	est. 4139'		4779'
Bradford	est. 4780'		5232'
Benson	est. 5233'		5499'
Alexander	est. 5500'		5707'
Elk	est. 5708'		6247'
Rhinestreet	est. 6248'		6952'
Middlesex Shale	6953'		7081'
Burkett Shale	7082'		7121'
Tully	7122'		7200'
Hamilton	7201'		7207'
Marcellus	7208'		7246' TVD

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Hydraulic Fracturing Fluid Product Component Information Disclosure

Job Start Date:	6/3/2013
Job End Date:	12/29/2013
State:	West Virginia
County:	Doddridge
API Number:	47-017-06165-00-00
Operator Name:	Antero Resources Corporation
Well Name and Number:	Schulte Unit 1H
Longitude:	-80.69591670
Latitude:	39.15670560
Datum:	NAD27
Federal/Tribal Well:	NO
True Vertical Depth:	7,246
Total Base Water Volume (gal):	10,395,882
Total Base Non Water Volume:	404,307

FracFocus Chemical Disclosure Registry

GROUNDWATER PROTECTION COUNCIL

Oil & Gas

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
Water	Antero Resources	Base Fluid					
			Water	7732-18-5	100.00000	91.27789	
Sand	U.S. Well Services, LLC	Proppant					
			Crystalline Silica, quartz	14808-60-7	100.00000	8.41298	
HCL Acid (12.6%-18.0%)	U.S. Well Services, LLC	Bulk Acid					
			Water	7732-18-5	87.50000	0.08442	
			Hydrogen Chloride	7641-01-1	18.00000	0.02017	
LGC-15	U.S. Well Services, LLC	Gelling Agents					
			Guar Gum	9000-30-0	50.00000	0.04229	
			Petroleum Distillates	64742-47-8	60.00000	0.04005	
			Suspending agent (solid)	14808-60-7	3.00000	0.00647	
			Surfactant	68439-51-0	3.00000	0.00254	
WFRA-405	U.S. Well Services, LLC	Friction Reducer					
			Water	7732-18-5	40.00000	0.02630	
			Anionic Polyacrylamide	Proprietary		0.02630	
			Petroleum Distillates	64742-47-8	22.00000	0.02117	
			Ethoxylated alcohol blend	Proprietary	5.00000	0.00329	

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			Crystalline Salt	12125-02-9	5.00000	0.00329	
SI-1000	U.S. Well Services, LLC	Scale Inhibitor					
			Anionic Copolymer	Proprietary		0.00456	
			Ethylene Glycol	107-21-1	20.00000	0.00412	
			Water	7732-18-5	30.00000	0.00343	
Hi Flow 3-NE	U.S. Well Services	Surfactants & Foamers					
			Propylene Glycol	57-55-6	30.00000	0.00580	
			Oxirane, methyl-, polymer with oxirane, mono(2-ethylhexyl) ether	64366-70-7	13.00000	0.00240	
			Propylene Glycol n-butyl ether	5131-66-8	5.00000	0.00082	
			D-Limonene	8028-48-6	5.00000	0.00078	
			Isopropyl Alcohol	67-63-0	5.00000	0.00074	
			1-Decanol	112-30-1	2.50000	0.00041	
			1-Octanol	111-87-5	2.50000	0.00039	
K-BAC 1020	U.S. Well Services, LLC	Anti-Bacterial Agent					
			2,2-dibromo-3-nitrilopropionamide	10222-01-2	20.00000	0.00486	
			Deionized Water	7732-18-5	28.00000	0.00278	
AP One	U.S. Well Services, LLC	Gel Breakers					
			Ammonium Persulfate	7727-54-0	100.00000	0.00123	
AI-300	U.S. Well Services, LLC	Acid Corrosion Inhibitors					
			Ethylene Glycol	107-21-1	31.00000	0.00023	
			N,N-Dimethylformamide	68-12-2	15.00000	0.00007	
			Tar bases, quinoline derivs, benzyl chloride-quaternized	72480-70-7	13.00000	0.00006	
			Cinnamaldehyde	104-55-2	5.00000	0.00006	
			2-Butoxyethanol	111-76-2	7.00000	0.00005	
			Water	7732-18-5	20.00000	0.00002	
			Ethoxylated Nonylphenol	68412-54-4	5.00000	0.00002	
			Isopropyl Alcohol	67-63-0	3.00000	0.00001	
			Triethyl Phosphate	78-40-0	3.00000	0.00001	

Ingredients shown above are subject to 29 CFR 1910.1200(i) and appear on Material Safety Data Sheets (MSDS). Ingredients shown below are Non-MSDS.

* 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%

Note: For Field Development Products (products that begin with FDP), MSDS level only information has been provided.
Ingredient information for chemicals subject to 29 CFR 1910.1200(i) and Appendix D are obtained from suppliers Material Safety Data Sheets (MSDS)