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WV GEOLOGICAL SURVEY
MORGANTOWN, WV

WR-35
Rev. 8/23/13

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

API 47 - 017 - 06376 County Doddridge District Greenbrier
Quad Salem & Big Isaac Pad Name Clarence Pad Field/Pool Name
Farm name Mutschelknaus, Clarence & Mary Well Number Arters Unit 2H
Operator (as registered with the OOG) Antero Resources Corporation
Address 1615 Wynkoop Street City Denver State CO Zip 80202

As Drilled location NAD 83/UTM Attach an as-drilled plat, profile view, and deviation survey
Top hole Northing 4,344,026.780m Easting 537,270.085m
Landing Point of Curve Northing 4,344,381.89m Easting 537,428.02m
Bottom Hole Northing 4,347,467.379m Easting 536,474.188m

Elevation (ft) 1050' GL Type of Well ■New □ Existing Type of Report □Interim ■Final

Permit Type □ Deviated □ Horizontal ■ Horizontal 6A □ Vertical Depth Type □ Deep ■ Shallow

Type of Operation □ Convert □ Deepen ■ Drill □ Plug Back □ Redrilling □ Rework ■ Stimulate

Well Type □ Brine Disposal □ CBM ■ Gas □ Oil □ Secondary Recovery □ Solution Mining □ Storage □ Other ___

Type of Completion ■ Single □ Multiple Fluids Produced □ Brine ■Gas □ NGL □ Oil □ Other ___
Drilled with □ Cable ■ Rotary

Drilling Media Surface hole ■ Air □ Mud □Fresh Water Intermediate hole ■ Air □ Mud □ Fresh Water □ Brine
Production hole □ Air ■ Mud □ Fresh Water □ Brine

Mud Type(s) and Additive(s)
Air - Foam & 4% KCL
Mud - Polymer

Date permit issued 10/28/2013 Date drilling commenced 11/28/2013 Date drilling ceased 4/12/2014
Date completion activities began 6/13/2014 Date completion activities ceased 1/16/2015
Verbal plugging (Y/N) N/A Date permission granted N/A Granted by N/A

Please note: Operator is required to submit a plugging application within 5 days of verbal permission to plug

Freshwater depth(s) ft 107', 353' Open mine(s) (Y/N) depths N
Salt water depth(s) ft None Identified Void(s) encountered (Y/N) depths N
Coal depth(s) ft 1736' Cavern(s) encountered (Y/N) depths N
Is coal being mined in area (Y/N) N

Reviewed by:

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API 47- 017 - 06376 Farm name Mutschelknaus, Clarence & Mary Well number Arters Unit 2H

CASING STRINGS	Hole Size	Casing Size	Depth	New or Used	Grade wt/ft	Basket Depth(s)	Did cement circulate (Y/ N) * Provide details below*
Conductor	24"	20"	40'	New	94#/H-40	N/A	Y
Surface	17-1/2"	13-3/8"	379'	New	48#/J-55	N/A	Y
Coal							
Intermediate 1	12-1/4"	9-5/8"	2501'	New	36#/J-55	N/A	Y
Intermediate 2							
Intermediate 3							
Production	8-3/4"/8-1/2"	5-1/2"	18,293'	New	23#/P-110	N/A	Y
Tubing		2-3/8"	7425'	New	4.0#/N-80	N/A	
Packer type and depth set		N/A					

Comment Details

CEMENT DATA	Class/Type of Cement	Number of Sacks	Slurry wt (ppg)	Yield (ft ^{3}/sks)	Volume (ft ^{3})	Cement Top (MD)	WOC (hrs)
Conductor	Class A	110 sx	15.6	1.18	38 Cu. Ft.	0'	8 Hrs.
Surface	Class A	435 sx	15.6	1.18	263 Cu. Ft.	0'	8 Hrs.
Coal							
Intermediate 1	Class A	935 sx	15.6	1.18	784 Cu. Ft.	0'	8 Hrs.
Intermediate 2							
Intermediate 3							
Production	Class H	1022 sx (Lead), 1752 sx (Tail)	13.5 (Lead), 15.2 (Tail)	1.44 (Lead), 1.80 (Tail)	3732 Cu. Ft.	~500' into Intermediate Casing	8 Hrs.
Tubing							

Drillers TD (ft) 18,301' MD, 7222' TVD (BHL) Loggers TD (ft) 18,255' MD

Deepest formation penetrated Marcellus Plug back to (ft) N/A

Plug back procedure N/A

Kick off depth (ft) 6900'

Check all wireline logs run □ caliper □ density □ deviated/directional □ induction □ neutron □ resistivity □ gamma ray □ temperature

** This is a subsequent well. Antero only runs wireline logs on one well on a multi-well pad (Ruth Unit 1H API# 47-017-06164). Please reference the wireline logs submitted with Form WR-35 for the Ruth Unit 1H. A Cement Bond Log has been included with this submittal.

Well cored □ Yes ■ No Conventional Sidewall Were cuttings collected □ Yes ■ No

DESCRIBE THE CENTRALIZER PLACEMENT USED FOR EACH CASING STRING

Conductor - 0

Surface - 1 above guide shoe, 1 above insert float, 1 every 4th joint to surface

Intermediate - 1 above float joint, 1 above float collar, 1 every 4th joint to surface

Production - 1 above float joint, 1 below float collar, 1 every 3rd joint to top of cement

WAS WELL COMPLETED AS SHOT HOLE □ Yes ■ No DETAILS

WAS WELL COMPLETED OPEN HOLE? □ Yes ■ No DETAILS

WERE TRACERS USED ■ Yes □ No TYPE OF TRACER(S) USED Radioactive & Chemical

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PERFORATION RECORD

Stage No.	Perforation date	Perforated from MD ft.	Perforated to MD ft.	Number of Perforations	Formation(s)
			SEE ATTACHED EXHIBIT 1		

Please insert additional pages as applicable.

STIMULATION INFORMATION PER STAGE

Complete a separate record for each stimulation stage.

Stage No.	Stimulations Date	Ave Pump Rate (BPM)	Ave Treatment Pressure (PSI)	Max Breakdown Pressure (PSI)	ISIP (PSI)	Amount of Proppant (lbs)	Amount of Water (bbls)	Amount of Nitrogen/other (units)
			SEE ATTACHED EXHIBIT 2					

Please insert additional pages as applicable.

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PRODUCING FORMATION(S)	DEPTHS			
Marcellus	7115' (Top)	TVD	7469' (Top)	MD

Please insert additional pages as applicable.

GAS TEST □ Build up □ Drawdown ■ Open Flow OIL TEST □ Flow □ Pump

SHUT-IN PRESSURE Surface 3600 psi Bottom Hole ---- psi DURATION OF TEST ----- hrs

OPEN FLOW Gas 1565 mcfpd Oil ---- bpd NGL ---- bpd Water ---- bpd GAS MEASURED BY □ Estimated ■ Orifice □ Pilot

LITHOLOGY/ FORMATION	TOP DEPTH IN FT NAME TVD	BOTTOM DEPTH IN FT TVD	TOP DEPTH IN FT MD	BOTTOM DEPTH IN FT MD	DESCRIBE ROCK TYPE AND RECORD QUANTITY AND TYPE OF FLUID (FRESHWATER, BRINE, OIL, GAS, H_2S, ETC)
	0		0		
					SEE ATTACHED EXHIBIT 3

Please insert additional pages as applicable.

Drilling Contractor Patterson – UTI Drilling Company LLC
Address 207 Carlton Drive City Eighty Four State PA Zip 15330

Logging Company Rush Wellsite Services
Address 600 Alpha Drive City Canonsburg State PA Zip 15317

Cementing Company Allied Oil & Gas Services, LLC
Address 1036 East Main Street City Bridgeport State WV Zip 26330

Stimulating Company US Well Services
Address 533 Industrial Park Drive City Jane Lew State WV Zip 26378
Please insert additional pages as applicable.

Completed by Natalie Komp Telephone 303-357-6820
Signature Natalie Komp Title Permitting Agent Date 6/4/2015

Submittal of Hydraulic Fracturing Chemical Disclosure Information Attach copy of FRACFOCUS Registry

API 47-017-06376 **Farm Name** Mutschelknaus, Clarence & Mary **Well Number** Arters Unit 2H

EXHIBIT 1

Stage No.	Perforation Date	Perforated from MD ft.	Perforated to MD ft.	Number of Perforations	Formations
1	13-Jun-14	18,035	18,203	60	Marcellus
2	3-Aug-14	17,836	18,004	60	Marcellus
3	4-Aug-14	17,637	17,805	60	Marcellus
4	4-Aug-14	17,438	17,606	60	Marcellus
5	4-Aug-14	17,239	17,407	60	Marcellus
6	5-Aug-14	17,040	17,208	60	Marcellus
7	5-Aug-14	16,841	17,009	60	Marcellus
8	5-Aug-14	16,642	16,810	60	Marcellus
9	6-Aug-14	16,443	16,611	60	Marcellus
10	6-Aug-14	16,244	16,412	60	Marcellus
11	6-Aug-14	16,045	16,213	60	Marcellus
12	7-Aug-14	15,846	16,014	60	Marcellus
13	7-Aug-14	15,647	15,815	60	Marcellus
14	7-Aug-14	15,448	15,616	60	Marcellus
15	7-Aug-14	15,249	15,417	60	Marcellus
16	8-Aug-14	15,050	15,218	60	Marcellus
17	8-Aug-14	14,851	15,019	60	Marcellus
18	8-Aug-14	14,652	14,820	60	Marcellus
19	9-Aug-14	14,453	14,621	60	Marcellus
20	9-Aug-14	14,254	14,422	60	Marcellus
21	13-Sep-14	14,055	14,223	60	Marcellus
22	13-Sep-14	13,856	14,024	60	Marcellus
23	14-Sep-14	13,657	13,825	60	Marcellus
24	14-Sep-14	13,458	13,626	60	Marcellus
25	15-Sep-14	13,259	13,427	60	Marcellus
26	15-Sep-14	13,060	13,228	60	Marcellus
27	15-Sep-14	12,861	13,029	60	Marcellus
28	16-Sep-14	12,662	12,830	60	Marcellus
29	16-Sep-14	12,463	12,631	60	Marcellus
30	16-Sep-14	12,264	12,432	60	Marcellus
31	16-Sep-14	12,065	12,233	60	Marcellus
32	17-Sep-14	11,866	12,034	60	Marcellus
33	18-Sep-14	11,667	11,835	60	Marcellus
34	18-Sep-14	11,469	11,636	60	Marcellus
35	18-Sep-14	11,270	11,437	60	Marcellus
36	18-Sep-14	11,071	11,238	60	Marcellus
37	19-Sep-14	10,872	11,039	60	Marcellus
38	19-Sep-14	10,673	10,840	60	Marcellus
39	19-Sep-14	10,474	10,641	60	Marcellus
40	19-Sep-14	10,275	10,442	60	Marcellus
41	20-Sep-14	10,076	10,243	60	Marcellus
42	20-Sep-14	9,877	10,044	60	Marcellus
43	20-Sep-14	9,678	9,845	60	Marcellus
44	21-Sep-14	9,479	9,646	60	Marcellus
45	21-Sep-14	9,280	9,447	60	Marcellus
46	21-Sep-14	9,081	9,248	60	Marcellus
47	21-Sep-14	8,882	9,049	60	Marcellus
48	22-Sep-14	8,683	8,850	60	Marcellus
49	22-Sep-14	8,484	8,651	60	Marcellus
50	22-Sep-14	8,285	8,452	60	Marcellus
51	22-Sep-14	8,086	8,253	60	Marcellus
52	22-Sep-14	7,887	8,055	60	Marcellus
53	23-Sep-14	7,688	7,856	60	Marcellus
54	23-Sep-14	7,489	7,657	60	Marcellus

API 47-017-06376 **Farm Name** Mutschelknaus, Clarence & Mary **Well Number** Arters Unit 2H

EXHIBIT 2

Stage No.	Stimulations Date	Avg Pump Rate	Avg Treatment Pressure (PSI)	Max Breakdown Pressure (PSI)	ISIP (PSI)	Amount of Proppant (lbs)	Amount of Water (bbls)	Amount of Nitrogen/ other (units)
1	3-Aug-14	70.0	7,982	N/A	4,883	226,600	6,470	N/A
2	3-Aug-14	59.0	7,765	6,286	6,155	88,000	6,677	N/A
3	4-Aug-14	64.0	7,913	6,336	4,778	206,850	6,939	N/A
4	4-Aug-14	69.0	7,838	6,298	4,730	230,600	6,888	N/A
5	4-Aug-14	66.0	7,818	6,417	5,436	129,600	7,188	N/A
6	5-Aug-14	69.0	7,883	6,248	5,200	218,200	6,979	N/A
7	5-Aug-14	70.0	7,677	5,998	5,817	201,000	6,877	N/A
8	5-Aug-14	63.0	7,836	6,082	5,912	114,400	4,905	N/A
9	6-Aug-14	70.0	7,861	5,983	5,206	162,000	7,105	N/A
10	6-Aug-14	70.0	7,712	6,563	5,137	241,900	6,892	N/A
11	6-Aug-14	72.0	7,828	6,140	6,187	252,500	6,542	N/A
12	7-Aug-14	70.0	7,683	6,238	5,898	252,060	6,575	N/A
13	7-Aug-14	74.0	7,638	6,064	6,005	252,150	6,524	N/A
14	7-Aug-14	72.0	7,465	5,877	5,910	252,700	6,943	N/A
15	7-Aug-14	73.0	7,725	6,210	5,955	252,700	6,497	N/A
16	8-Aug-14	75.0	7,596	5,922	6,072	251,900	6,471	N/A
17	8-Aug-14	73.0	7,487	6,176	5,858	251,100	6,471	N/A
18	8-Aug-14	73.0	7,629	5,703	5,906	253,200	6,563	N/A
19	9-Aug-14	72.0	7,510	6,015	5,795	184,000	7,001	N/A
20	9-Aug-14	72.0	7,549	5,842	5,919	254,100	6,939	N/A
21	13-Sep-14	70.7	7,599	6,329	5,394	230,300	6,934	N/A
22	13-Sep-14	68.0	7,495	6,312	5,112	207,700	6,949	N/A
23	14-Sep-14	69.1	7,582	6,189	6,081	221,050	6,948	N/A
24	14-Sep-14	73.0	7,455	6,163	5,268	252,600	6,933	N/A
25	15-Sep-14	72.6	7,683	6,256	5,169	135,850	6,699	N/A
26	15-Sep-14	57.3	7,166	6,230	5,822	149,520	6,838	N/A
27	15-Sep-14	59.5	7,387	6,288	5,418	260,745	7,084	N/A
28	16-Sep-14	66.0	7,241	6,272	4,919	256,155	6,552	N/A
29	16-Sep-14	59.9	7,019	6,102	6,053	169,320	6,861	N/A
30	16-Sep-14	65.0	7,366	6,369	5,218	252,690	6,596	N/A
31	16-Sep-14	65.4	7,310	6,236	5,481	254,800	6,465	N/A
32	17-Sep-14	65.4	7,412	6,213	4,961	255,840	6,463	N/A
33	18-Sep-14	65.0	7,178	6,314	4,950	254,300	6,430	N/A
34	18-Sep-14	65.0	7,292	6,180	4,872	254,500	6,409	N/A
35	18-Sep-14	66.5	7,169	6,169	5,232	253,645	6,390	N/A
36	18-Sep-14	66.5	7,169	6,169	5,232	253,645	6,390	N/A
37	19-Sep-14	64.1	7,008	5,831	5,263	254,250	6,311	N/A
38	19-Sep-14	63.6	6,831	5,886	5,730	236,330	6,523	N/A
39	19-Sep-14	67.5	7,010	5,684	6,023	253,935	6,327	N/A
40	19-Sep-14	66.4	7,038	5,869	5,497	253,930	6,300	N/A
41	20-Sep-14	59.0	6,694	5,960	5,878	180,200	6,325	N/A
42	20-Sep-14	63.6	6,904	5,869	5,109	255,750	6,237	N/A
43	20-Sep-14	67.5	7,046	5,859	5,677	254,220	6,260	N/A
44	21-Sep-14	65.2	6,773	5,921	5,581	254,530	6,207	N/A
45	21-Sep-14	64.0	6,810	6,054	5,691	253,200	6,092	N/A
46	21-Sep-14	64.4	6,844	6,007	5,531	253,710	6,165	N/A
47	21-Sep-14	67.0	6,922	5,837	5,903	254,555	6,169	N/A
48	22-Sep-14	69.0	6,987	5,878	5,556	254,020	6,147	N/A
49	22-Sep-14	69.0	7,056	5,963	5,657	254,500	6,093	N/A
50	22-Sep-14	65.0	7,124	6,110	4,188	254,100	6,071	N/A
51	22-Sep-14	65.2	6,823	6,020	5,162	253,435	5,904	N/A
52	22-Sep-14	65.3	6,838	5,700	5,712	253,120	6,076	N/A
53	23-Sep-14	65.0	6,838	6,065	5,853	253,400	6,008	N/A
54	23-Sep-14	64.0	7,009	6,342	5,721	242,000	6,573	N/A
	AVG=	**67.1**	**7,342**	**6,095**	**5,512**	**12,407,405**	**352,175**	TOTAL

API 47-017-06376 Farm Name Mutschelknaus, Clarence & Mary Well Number Arters Unit 2H				
EXHIBIT 3				
LITHOLOGY/ FORMATION	**TOP DEPTH (TVD) From Surface**	**BOTTOM DEPTH (TVD) From Surface**	**TOP DEPTH (MD) From Surface**	**BOTTOM DEPTH (MD) From Surface**
Freshwater	107	NA	107	NA
Freshwater	260	NA	260	NA
Shale	0	566	0	566
Shale/Siltstone	est 566	676	est 566	676
Shale	est 676	716	est 676	716
Shale/Coal	est 716	836	est 716	836
Shale/Siltstone	est 836	1,696	est 836	1,696
Sandstone	est 1696	1,736	est 1696	1,736
Coal	est 1736	1,766	est 1736	1,766
Shale	est 1766	2,023	est 1766	2,026
Big Lime	2,023	2,120	2,026	2,123
Big Injun	2,120	2,462	2,123	2,465
Gantz Sand	2,462	2,597	2,465	2,600
Fifty Foot Sandstone	2,597	2,681	2,600	2,684
Gordon	2,681	2,849	2,684	2,852
Fifth Sandstone	2,849	2,895	2,852	2,898
Bayard	2,895	3,368	2,898	3,371
Warren	3,368	3,582	3,371	3,585
Speechley	3,582	3,891	3,585	3,894
Baltown	3,891	4,383	3,894	4,386
Bradford	4,383	4,976	4,386	4,981
Benson	4,976	5,285	4,981	5,300
Alexander	5,285	5,445	5,300	5,470
Elk	5,445	6,070	5,470	6,152
Rhinestreet	6,070	6,560	6,152	6,703
Sycamore	6,560	6,791	6,703	6,967
Middlesex	6,791	6,942	6,967	7,158
Burkett	6,942	6,967	7,158	7,193
Tully	6,967	7,115	7,193	7,469
Marcellus	7,115	NA	7,469	NA

*Please note Antero determines formation tops based on mud logs that are only run on one well on a multi-well pad. The measured depth (MD) data on subsequent wells may be slightly different due to the well's unique departure.

Hydraulic Fracturing Fluid Product Component Information Disclosure

Job Start Date:	8/3/2014
Job End Date:	9/23/2014
State:	West Virginia
County:	Doddridge
API Number:	47-017-06376-00-00
Operator Name:	Antero Resources Corporation
Well Name and Number:	Arters Unit 2H
Longitude:	-80.56827200
Latitude:	39.24466400
Datum:	NAD27
Federal/Tribal Well:	NO
True Vertical Depth:	11,292
Total Base Water Volume (gal):	14,123,970
Total Base Non Water Volume:	492,278

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	90.51734	
Sand	U.S. Well Services, LLC	Proppant					
			Crystalline Silica, quartz	14808-60-7	100.00000	9.03404	
LGC-15	U.S. Well Services, LLC	Gelling Agents					
			Guar Gum	9000-30-0	50.00000	0.09703	
			Petroleum Distillates	64742-47-8	60.00000	0.09189	
			Suspending agent (solid)	14808-60-7	3.00000	0.01484	
			Surfactant	68439-51-0	3.00000	0.00582	
HCL Acid (12.6%-18.0%)	U.S. Well Services, LLC	Bulk Acid					
			Water	7732-18-5	87.50000	0.08614	
			Hydrogen Chloride	7647-01-0	18.00000	0.02058	
WFRA-405	U.S. Well Services, LLC	Friction Reducer					
			Anionic Polyacrylamide	Proprietary		0.03090	
			Water	7732-18-5	40.00000	0.03090	
			Petroleum Distillates	64742-47-8	22.00000	0.02487	
			Crystalline Salt	12125-02-9	5.00000	0.00386	

			Ethoxylated alcohol blend	Proprietary	5.00000	0.00386	
SI-1100	U.S. Well Services	Scale Inhibitor					
			Di Water	7732-18-5	80.00000	0.01160	
			Ethylene Glycol	107-21-1	40.00000	0.00655	
			Potassium salt of diethylene triamine penta (methylene phosphonic acid)	15827-60-8	10.00000	0.00196	
			2-Phosphonobutane 1,2,4 tricarboxylic salt	37971-36-1	10.00000	0.00187	
			hexamethylenediamine tetra (methylene phosphonic acid)	38820-59-6	10.00000	0.00181	
			Copolymer of Maleic and Acrylic acid	26677-99-6	10.00000	0.00171	
			bis (hexamethylene) tramine penta (methylene phosphonic acid) - phosphate acid	40623-75-4	10.00000	0.00167	
			Acrylic polymer	52255-49-9	5.00000	0.00072	
K-BAC 1020	U.S. Well Services, LLC	Anti-Bacterial Agent					
			2,2-dibromo-3-nitrilopropionamide	10222-01-2	20.00000	0.00470	
			Deionized Water	7732-18-5	28.00000	0.00269	
AP One	U.S. Well Services, LLC	Gel Breakers					
			Ammonium Persulfate	7727-54-0	100.00000	0.00219	
AI-300	U.S. Well Services, LLC	Acid Corrosion Inhibitors					
			Ethylene Glycol	107-21-1	31.00000	0.00013	
			Cinnamaldehyde	104-55-2	5.00000	0.00004	
			N,N-Dimethylformamide	68-12-2	15.00000	0.00004	
			Tar bases, quinoline derivs, benzyl chloride-quaternized	72480-70-7	13.00000	0.00003	
			2-Butoxyethanol	111-76-2	7.00000	0.00003	
			Water	7732-18-5	20.00000	0.00001	
			Triethyl Phosphate	78-40-0	3.00000	0.00001	
			Ethoxylated Nonylphenol	68412-54-4	5.00000	0.00001	
			Isopropyl Alcohol	67-63-0	3.00000		
AI-301	U.S. Well Services, LLC	Acid Corrosion Inhibitors					
			Diethylene Glycol	111-46-6	30.00000	0.00006	
			Methenamine	100-97-0	20.00000	0.00004	
			Hydrogen Chloride	7647-01-0	10.00000	0.00002	
			Polyethylene polyamine	68603-67-8	10.00000	0.00002	
			Coco amine	61791-14-8	5.00000	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)

Antero Resources
Well No. Arters Unit 2H
As-Drilled Plat
Antero Resources Corporation

Line	Bearing	Distance
L1	N 87°06' E	887.6'
L2	N 83°50' W	1234.9'
L3	N 63°36' W	1507.1'

Tax Map 5 Parcels

	Par	Owner	DB/Pg	Acres
1	12	Ricky & Carla Jan Watson	186/339	31.5
2	16	Phillip & Sue Ellen Rager	195/779	1.06
3	12.4	Mt. Olive Baptist Trustees	252/98	0.44
4	12.3	Mt. Olive Baptist Trustees	214/734	0.07
5	13	Mt. Olive Baptist Trustees	-	2.65
6	17.1	William & Leanna J. Davis	229/116	0.55
7	17	James Jr. & Jo Anne Davis	168/338	1.45
8	20	Tillman Lee Williams	246/344	13.5

Tax Map 321 Parcels

9	34	Tillman Lee Williams	1322/1056	5.40
10	22.1	Earl Dixon	1062/878	3.17
11	21	Dave & Jennifer Lohman	1369/196	44.0
12	14	Arthur & Linda Lunsford	1004/1150	1.20
13	24	Gary & Janette Alderman	1421/1212	0.78
14	12.2	Layman Foundation	1300/641	4.81
15	15	Authur & Linda Lunsford	1004/115	18.41
16	3.1	Francis & Edith Marinaro	1461/310	3.75
17	13	Linda S. Lunsford	1219/947	33.0
18	4.1	Gary W. & Terri Donahue	1256/1252	9.31
19	4.2	Gordon & Kerry Edgell	1466/588	0.16
20	5.6	Linda S. Lunsford	1219/947	5.13
21	12	Miracle Meadows School	1210/9	51.02
22	25.1	Fannie Mae	1457/140	4.45
23	33	James L. Jenkins	1345/1059	28.14

Notes:

West Virginia Coordinate System of 1927, North Zone based upon Differential GPS Measurements.

Well No. Arters Unit 2H Top Hole coordinates are
N: 273,021.78 Latitude: 39°14'40.80"
E: 1,697,447.16 Longitude: 80°34'05.80"
Bottom Hole coordinates are
N: 284,355.70 Latitude: 39°16'32.53"
E: 1,695,023.53 Longitude: 80°34'38.33"

UTM Zone 17, NAD 1983

Top Hole Coordinates:	Bottom Hole Coordinates:
N: 4,344,026.780m	N: 4,347,467.379m
E: 537,270.085m	E: 536,474.188m

Plat orientation and corner and well references are based upon the grid north meridian.
Well location references are based upon the magnetic meridian.

Top Hole coordinates verified by survey grade GPS. As-drilled data and information was provided by Antero Resources Corporation. Allegheny Surveys, Inc. (ASI) is not certifying the data and information provided. ASI is not responsible for any errors or inaccuracies with the data and information that has been provided.

7,559' to Top Hole
10,158' to Bottom Hole
1,854' to Top Hole
5,695' to Bottom Hole
TOP & BOTTOM HOLE LONGITUDE 80 - 32 - 30
BOTTOM HOLE LATITUDE 39 - 17 - 30
TOP HOLE LATITUDE 39 - 15 - 00

Detail Not To Scale
As-Drilled Arters Unit 2H (06376)
Arters Unit 1H (06550)
Caswell Unit 2H (06577)
Caswell Unit 1H (06569)
Oneacre Unit 2H (06159)
Walter Unit 1H (06158)
Walter Unit 2H (06162)
Walter Unit 3H (06163)
Walter Unit 4H (06164)
Ruth Unit 1H (06165)
S 58°05' W 10.0'
All Wells are "47-017-" designation.

Legend
- Proposed Gas Well
- Found corner, as noted
- Surface boundary (approx.)
- Existing Road
- Interior surface tracts (approx.)
- Creek or Drain
- County Line

Arters Unit 2H Bottom Hole
Top Hole 7.5' Spot
Bottom Hole 7.5' Spot
As-Drilled
Proposed
47-033-3493
47-033-3392
47-033-3432
47-033-5272
47-033-3391
47-033-2926
47-033-4622
47-033-3373
47-033-3326
47-033-0081
47-033-3652
47-017-3068
47-033-3240
47-033-2655
47-017-2892
47-017-3067
47-017-3843
47-017-2518
47-017-2516
47-017-3645
Dbl Hickory
1/4" Rebar
Iron Pin
Oil Well
Stone pile
Fence Cor.
2.5" Pipe
N 19°16' E 1878.2'
L1
L2
L4
GRID NORTH
(✦) Denotes location of well on United States topographic maps

Note: It appears 6 water wells were found within 2000' of proposed well. No occupied dwellings or buildings 2,500 square feet or larger used to house or shelter dairy cattle or poultry husbandry are located within 625' of the center of the well pad.

Well No. Arters Unit 2H
Water Well
(8) Gas Wells. See Wellhead Layout Detail Above
Water Wells
Plugged (No #)
3000'
Scale: 1" = 2000'

FILE NO:	355-30-G-12
DRAWING NO:	Arters 2H As-Drilled Plat
SCALE:	1" = 1500'
MINIMUM DEGREE OF ACCURACY:	Submeter
PROVEN SOURCE OF ELEVATION:	WVDOT, Bridgeport, WV

STATE OF WEST VIRGINIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
OIL AND GAS DIVISION

DATE: March 27 2015
OPERATOR'S WELL NO. Arters Unit 2H

API WELL NO:
47 - 017 - 06376
STATE COUNTY PERMIT

WELL TYPE: ☐ OIL ☒ GAS ☐ LIQUID INJECTION WASTE DISPOSAL
(IF GAS) PRODUCTION : ☐ STORAGE ☐ DEEP ☒ SHALLOW
LOCATION: ELEVATION: Existing Grade - 1045' Proposed Grade - 1050' WATERSHED: Headwaters Middle Island Creek QUADRANGLE: Salem & Big Isaac
DISTRICT: Greenbrier COUNTY: Doddridge
SURFACE OWNER: Clarence & Mary Mutschelknaus ACREAGE: 99.03
ROYALTY OWNER: D. L. Louchery; Valma L. Arters, et vir; Victor G. Taylor; Ruth Rogers, et al; Edith B. Schmick; J. Moses Raad, et al; Jacob Ford 21620 LEASE NO: DV021531; 21030 ACREAGE: 234.342; 39.339; 447; 172; 55; 55.5; 99.25
PROPOSED WORK: ☐ DRILL ☐ CONVERT ☐ DRILL DEEPER ☐ FRACTURE OR STIMULATE PLUG OFF OLD FORMATION
☐ PERFORATE NEW FORMATION ☒ OTHER PHYSICAL CHANGE IN WELL (SPECIFY) As-Drilled
☐ PLUG AND ABANDON ☐ CLEAN OUT AND REPLUG TARGET FORMATION: Marcellus Shale TVD 7,222' DEPTH: MD 18,301'

WELL OPERATOR: Antero Resources Corporation
ADDRESS: 1615 Wynkoop Street, Denver, CO 80202
DESIGNATED AGENT: Dianna Stamper - CT Corporation System
ADDRESS: 5400 D Big Tyler Road, Charleston, WV 25313