

pmw

WR-35
Rev. 8/23/13

Page ___ of ___

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

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WV Department of
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API 47 - 017 - 06377 County Doddridge District Greenbrier
Quad Salem & Big Isaac Pad Name Clarence Pad Field/Pool Name _____
Farm name Mutschelknaus, Clarence Well Number Caswell 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 4,344,023.575m Easting 537,265.202m
Landing Point of Curve Northing 4,344,186.62m Easting 537,065.10m
Bottom Hole Northing 4,346,952.495m Easting 536,226.949m

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 10/25/2013 Date drilling commenced 11/13/2013 Date drilling ceased 3/24/2014
Date completion activities began 6/12/2014 Date completion activities ceased 8/19/2014
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', 260' 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:
A.L. 5/26/15 ✓
W.S. 06/05/2015

API 47-017 - 06377 Farm name Mutschelknaus, Clarence Well number Caswell Unit 2H

CASING STRINGS	Hole Size	Casing Size	Depth	New or Used	Grade w/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"	361'	New	48#/H-40	N/A	Y
Coal							
Intermediate 1	12-1/4"	9-5/8"	2488'	New	36#/J-55	N/A	Y
Intermediate 2							
Intermediate 3							
Production	8-3/4"/8-1/2"	5-1/2"	17,280'	New	23#/P-110	N/A	Y
Tubing		2-3/8"	7352'	New	4.7#/N-80	N/A	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	150 sx	15.6	1.18	38 Cu. Ft.	0'	8 hrs
Surface	Class A	435 sx	15.6	1.18	251 Cu. Ft.	0'	8 hrs
Coal							
Intermediate 1	Class A	915 sx	15.6	1.18	779 Cu. Ft.	0'	8 hrs
Intermediate 2							
Intermediate 3							
Production	Class H	983 sx (Lead), 1635 sx (Tail)	13.5 (Lead), 15.2 (Tail)	1.44 (Lead), 1.80 (Tail)	3503 Cu. Ft.	~500' into Intermediate Casing	8 hrs
Tubing							

Drillers TD (ft) 17,280' MD, 7214' TVD (BHL) Loggers TD (ft) 17,233' MD
 Deepest formation penetrated Marcellus Plug back to (ft) N/A
 Plug back procedure N/A

Kick off depth (ft) 6461'

** 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.

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

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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API 47-017-06377 Farm Name Mutschelknaus, Clarence Well Number Caswell Unit 2H

EXHIBIT 1

Stage No.	Perforation Date	Perforated from MD ft.	Perforated to MD ft.	Number of Perforations	Formations
1	12-Jun-14	17022'	17189'	60	Marcellus
2	3-Jul-14	16823'	16990'	60	Marcellus
3	4-Jul-14	16624'	16792'	60	Marcellus
4	4-Jul-14	16426'	16593'	60	Marcellus
5	5-Jul-14	16227'	16395'	60	Marcellus
6	7-Jul-14	16029'	16196'	60	Marcellus
7	7-Jul-14	15830'	15997'	60	Marcellus
8	7-Jul-14	15631'	15799'	60	Marcellus
9	8-Jul-14	15433'	15600'	60	Marcellus
10	8-Jul-14	15234'	15402'	60	Marcellus
11	8-Jul-14	15036'	15203'	60	Marcellus
12	8-Jul-14	14837'	15004'	60	Marcellus
13	9-Jul-14	14638'	14806'	60	Marcellus
14	9-Jul-14	14440'	14607'	60	Marcellus
15	9-Jul-14	14241'	14409'	60	Marcellus
16	10-Jul-14	14043'	14210'	60	Marcellus
17	10-Jul-14	13844'	14011'	60	Marcellus
18	11-Jul-14	13645'	13813'	60	Marcellus
19	12-Jul-14	13447'	13614'	60	Marcellus
20	13-Jul-14	13248'	13416'	60	Marcellus
21	13-Jul-14	13050'	13217'	60	Marcellus
22	14-Jul-14	12851'	13051'	60	Marcellus
23	14-Jul-14	12652'	12820'	60	Marcellus
24	14-Jul-14	12454'	12621'	60	Marcellus
25	14-Jul-14	12255'	12423'	60	Marcellus
26	15-Jul-14	12057'	12224'	60	Marcellus
27	15-Jul-14	11858'	12025'	60	Marcellus
28	15-Jul-14	11659'	11827'	60	Marcellus
29	15-Jul-14	11461'	11628'	60	Marcellus
30	16-Jul-14	11262'	11430'	60	Marcellus
31	16-Jul-14	11064'	11231'	60	Marcellus
32	16-Jul-14	10865'	11032'	60	Marcellus
33	17-Jul-14	10666'	10834'	60	Marcellus
34	17-Jul-14	10468'	10635'	60	Marcellus
35	17-Jul-14	10269'	10437'	60	Marcellus
36	17-Jul-14	10071'	10238'	60	Marcellus
37	18-Jul-14	9872'	10039'	60	Marcellus
38	18-Jul-14	9673'	9841'	60	Marcellus
39	18-Jul-14	9475'	9642'	60	Marcellus
40	19-Jul-14	9276'	9444'	60	Marcellus
41	19-Jul-14	9077'	9245'	60	Marcellus
42	19-Jul-14	8879'	9046'	60	Marcellus
43	19-Jul-14	8680'	8848'	60	Marcellus
44	20-Jul-14	8482'	8649'	60	Marcellus
45	20-Jul-14	8283'	8451'	60	Marcellus
46	20-Jul-14	8084'	8252'	60	Marcellus
47	20-Jul-14	7886'	8053'	60	Marcellus
48	20-Jul-14	7687'	7855'	60	Marcellus
49	21-Jul-14	7489'	7656'	60	Marcellus

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API 47-017-06377 Farm Name Mutschelknaus, Clarence Well Number Caswell 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 (bbbls)	Amount of Nitrogen/ other (units)
1	3-Jul-14	67.0	8,064	6,532	4,650	173,200	7,062	N/A
2	3-Jul-14	67.0	8,027	6,441	5,338	257,480	6,807	N/A
3	4-Jul-14	70.0	7,613	6,282	4,733	254,900	6,857	N/A
4	4-Jul-14	72.0	7,760	6,310	4,941	207,730	6,784	N/A
5	5-Jul-14	68.0	7,781	6,049	4,979	256,550	7,155	N/A
6	7-Jul-14	68.0	8,013	6,030	5,451	254,210	7,074	N/A
7	7-Jul-14	71.0	7,927	6,386	4,874	249,475	6,754	N/A
8	7-Jul-14	69.0	8,015	6,778	4,964	225,760	6,392	N/A
9	8-Jul-14	71.0	8,019	5,908	5,474	132,020	6,017	N/A
10	8-Jul-14	72.0	7,792	6,350	5,981	252,425	6,673	N/A
11	8-Jul-14	70.0	7,739	6,304	6,474	250,700	6,835	N/A
12	8-Jul-14	70.0	7,454	6,181	6,217	249,560	6,650	N/A
13	9-Jul-14	73.3	7,679	6,585	4,762	255,440	6,636	N/A
14	9-Jul-14	71.6	7,572	6,379	5,193	244,580	6,976	N/A
15	9-Jul-14	69.0	7,690	6,425	5,643	249,780	6,598	N/A
16	10-Jul-14	72.0	7,717	6,162	5,051	252,620	7,019	N/A
17	10-Jul-14	68.0	7,526	6,310	5,799	190,180	6,826	N/A
18	11-Jul-14	70.5	7,896	6,032	5,010	191,325	6,641	N/A
19	12-Jul-14	65.4	7,705	6,524	5,329	162,550	6,360	N/A
20	13-Jul-14	65.5	8,098	6,376	5,459	70,595	6,886	N/A
21	13-Jul-14	68.0	7,647	6,557	5,117	109,775	5,952	N/A
22	14-Jul-14	70.3	7,428	6,130	5,225	255,350	6,538	N/A
23	14-Jul-14	74.0	7,710	6,489	5,056	252,920	6,445	N/A
24	14-Jul-14	73.2	7,712	6,170	5,262	255,300	6,405	N/A
25	14-Jul-14	73.0	7,485	6,163	4,846	254,700	6,320	N/A
26	15-Jul-14	75.5	7,484	6,141	5,908	253,720	6,322	N/A
27	15-Jul-14	75.4	7,439	6,102	6,073	256,540	6,329	N/A
28	15-Jul-14	71.0	7,570	6,131	5,626	251,580	6,252	N/A
29	15-Jul-14	74.0	7,618	6,071	4,844	253,040	6,445	N/A
30	16-Jul-14	74.8	7,465	6,140	5,134	179,610	6,292	N/A
31	16-Jul-14	62.6	7,606	6,327	4,778	166,870	6,720	N/A
32	16-Jul-14	74.0	7,484	6,026	4,951	248,650	6,319	N/A
33	17-Jul-14	76.0	7,432	5,976	5,045	234,800	6,701	N/A
34	17-Jul-14	72.8	7,397	5,995	5,807	251,500	6,351	N/A
35	17-Jul-14	73.4	7,338	6,093	4,612	221,600	5,849	N/A
36	17-Jul-14	55.2	7,359	5,847	5,070	22,640	6,648	N/A
37	18-Jul-14	72.9	7,037	6,184	5,048	249,950	6,203	N/A
38	18-Jul-14	77.0	7,203	5,945	5,419	252,800	6,071	N/A
39	18-Jul-14	71.0	7,063	5,714	5,410	246,450	6,648	N/A
40	19-Jul-14	73.9	6,779	5,668	5,529	252,380	6,150	N/A
41	19-Jul-14	76.1	7,165	5,962	4,824	251,520	6,135	N/A
42	19-Jul-14	76.0	7,093	5,899	4,789	251,800	6,085	N/A
43	19-Jul-14	75.0	6,978	5,971	4,753	250,300	6,016	N/A
44	20-Jul-14	71.0	7,000	6,112	5,059	252,300	6,054	N/A
45	20-Jul-14	72.7	7,423	6,238	4,749	251,490	6,131	N/A
46	20-Jul-14	68.7	6,905	5,996	5,141	189,170	6,469	N/A
47	20-Jul-14	76.0	7,170	6,091	4,695	249,800	6,025	N/A
48	20-Jul-14	76.0	7,041	5,740	4,977	251,200	5,940	N/A
49	21-Jul-14	76.0	6,954	6,181	5,716	253,300	6,027	N/A
	AVG=	71.3	7,512	6,171	5,220	11,052,135	316,844	TOTAL

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EXHIBIT 3

LITHOLOGY/ FORMATION	TOP DEPTH (TVD)	BOTTOM DEPTH (TVD)	TOP DEPTH (MD)	BOTTOM DEPTH (MD)
	From Surface	From Surface	From Surface	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	2,029	est 1766	2,029
Big Lime	2,029	2,121	2,029	2,121
Big Injun	2,121	2,461	2,121	2,461
Gantz Sand	2,461	2,601	2,461	2,601
Fifty Foot Sandstone	2,601	2,684	2,601	2,684
Gordon	2,684	2,859	2,684	2,859
Fifth Sandstone	2,859	2,897	2,859	2,897
Bayard	2,897	3,374	2,897	3,375
Warren	3,374	3,580	3,375	3,582
Speechley	3,580	3,897	3,582	3,899
Baltown	3,897	4,392	3,899	4,394
Bradford	4,392	4,982	4,394	4,984
Benson	4,982	5,288	4,984	5,290
Alexander	5,288	5,442	5,290	5,444
Elk	5,442	6,072	5,444	6,074
Rhinestreet	6,072	6,594	6,074	6,575
Sycamore	6,594	6,791	6,575	6,835
Middlesex	6,791	6,939	6,835	7,059
Burkett	6,939	6,964	7,059	7,104
Tully	6,964	7,108	7,104	7,444
Marcellus	7,108	NA	7,444	NA

*Please note Antero determines shallow formation tops based on mud and/or wireline logs that are only run on one well on a multi-well pad (Please reference Wireline Logs submitted for the Ruth Unit 1H API# 47-017-06164). The measured depth (MD) data on subsequent wells may be slightly different due to the well's unique departure.

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Hydraulic Fracturing Fluid Product Component Information Disclosure

Job Start Date:	7/3/2014
Job End Date:	7/21/2014
State:	West Virginia
County:	Doddridge
API Number:	47-017-06377-00-00
Operator Name:	Antero Resources Corporation
Well Name and Number:	Caswell 2H
Longitude:	-80.56815000
Latitude:	39.24472200
Datum:	NAD83
Federal/Tribal Well:	NO
True Vertical Depth:	7,214
Total Base Water Volume (gal):	13,307,448
Total Base Non Water Volume:	562,129



Hydraulic Fracturing Fluid Composition:

Trade Name	Supplier	Purpose	Ingredients	Chemical Service Abstract 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	90.58426	
Sand	J.S. Well Services, LLC	Proppant	Crystalline Silica, quartz	14808-60-7	100.00000	9.09260	
LGC-15	J.S. Well Services, LLC	Gelling Agents	Guar Gum	9000-30-0	50.00000	0.05634	
			Petroleum Distillates	64742-47-8	60.00000	0.05336	
			Suspending agent (solid)	14808-60-7	3.00000	0.00862	
			Surfactant	68439-51-0	3.00000	0.00338	
HCL Acid (12.6%-18.0%)	J.S. Well Services, LLC	Bulk Acid	Water	7732-18-5	87.50000	0.08330	
			Hydrogen Chloride	7641-01-1	18.00000	0.01990	
WFRA-405	J.S. Well Services, LLC	Friction Reducer	Anionic Polyacrylamide	Proprietary		0.02575	
			Water	7732-18-5	40.00000	0.02575	
			Petroleum Distillates	64742-47-8	22.00000	0.02073	
			Crystalline Salt	12125-02-9	5.00000	0.00322	

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SI-1000	U.S. Well Services, LLC	Scale Inhibitor	Ethoxylated alcohol blend	Proprietary	5.00000	0.00322
			Anionic Copolymer	Proprietary		0.00399
			Ethylene Glycol	107-21-1	20.00000	0.00360
			Water	7732-18-5	30.00000	0.00301
K-BAC 1020	U.S. Well Services, LLC	Anti-Bacterial Agent				
			2,2-dibromo-3-nitripropionamide	10222-01-2	20.00000	0.00443
			Deionized Water	7732-18-5	28.00000	0.00253
AP One	U.S. Well Services, LLC	Gel Breakers				
			Ammonium Persulfate	7727-54-0	100.00000	0.00151
AI-300	U.S. Well Services, LLC	Acid Corrosion Inhibitors				
			Ethylene Glycol	107-21-1	31.00000	0.00022
			N,N-Dimethylformamide	68-12-2	15.00000	0.00007
			Cinnamaldehyde	104-55-2	5.00000	0.00006
			Tar bases, quinoline derivs, benzyl chloride-quaternized	72480-70-7	13.00000	0.00006
			2-Butoxyethanol	111-76-2	7.00000	0.00005
			Ethoxylated Nonylphenol	68412-54-4	5.00000	0.00002
			Water	7732-18-5	20.00000	0.00002
			Triethyl Phosphate	78-40-0	3.00000	0.00001
			Isopropyl Alcohol	67-63-0	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)

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

Tax Map 5 Parcels			
Par	Owner	DB/Pq	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			
Par	Owner	DB/Pq	Acres
9	5.4	Ralph D. Brown	1277/869 38.13
10	22.1	Earl Dixon	1062/878 3.17
11	21	Dave & Jennifer Lohman	1369/196 44.0
12	5.5	Ralph D. & Barbara Brown	1219/935 38.13
13	-	Not Assigned	- -
14	12.2	Layman Foundation	1300/641 4.81
15	3	Francis & Edith Marinaro	1348/836 19.28
16	3.1	Francis & Edith Marinaro	1461/310 3.75
17	13	Linda S. Lunsford	1219/947 33.0
18	4.4	Gordon & Kerry Edgell	1466/590 0.78
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	12.1	Layman Foundation	1307/743 4.80
23	33	James L. Jenkins	1345/1059 28.14
24	32	James L. Jenkins	1345/1059 12.10
25	22	James P. & Anna Taylor	1188/435 61.53

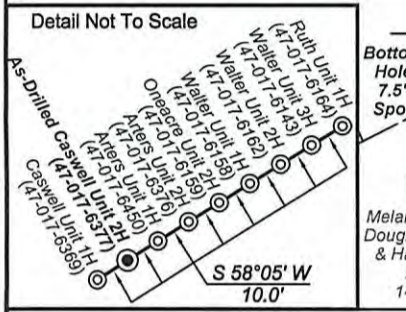
Line	Bearing	Distance
L1	N 87°43' E	870.9'
L2	N 84°23' W	1250.0'
L3	N 64°13' W	1517.1'
L4	N 18°54' E	1863.2'

7,575' to Top Hole
 10,998' to Bottom Hole
 BOTTOM HOLE LATITUDE 39 - 17 - 30
 TOP HOLE LATITUDE 39 - 15 - 00

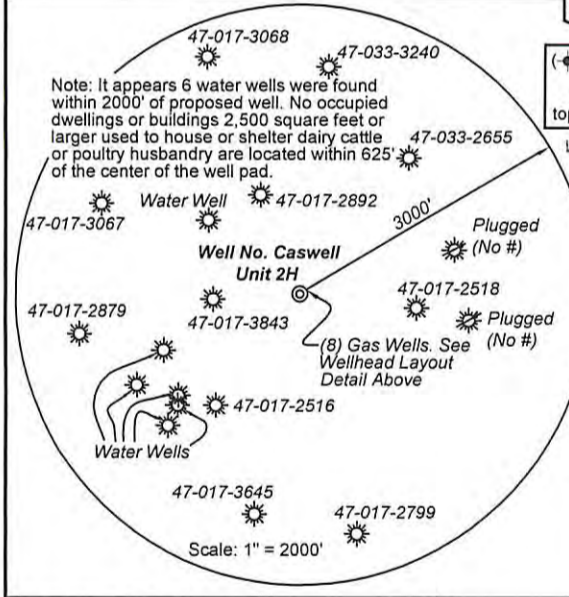
Notes:
 West Virginia Coordinate System of 1927, North Zone based upon Differential GPS Measurements.
 Well No. Caswell Unit 2H Top Hole coordinates are N: 273,011.53 Latitude: 39°14'40.70" E: 1,697,430.96 Longitude: 80°34'06.00"
 Bottom Hole coordinates are N: 282,679.65 Latitude: 39°16'15.87" E: 1,694,184.08 Longitude: 80°34'48.75"
UTM Zone 17, NAD 1983
 Top Hole Coordinates: N: 4,344,023.575m E: 537,265.202m
 Bottom Hole Coordinates: N: 4,346,952.495m E: 536,226.949m
 Plat orientation and corner and well references are based upon the grid north meridian.
 Well location references are based upon the magnetic meridian.

Legend

- ⊙ Proposed gas well
- ⊙ Found corner, as noted
- Surface boundary (approx.)
- - - Interior surface tracts (approx.)
- - - Existing Road
- - - Creek or Drain



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.



(⊙) Denotes location of well on United States topographic maps



FILE NO: 356-30-G-12
 DRAWING NO: Caswell 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 25 2015
 OPERATOR'S WELL NO. Caswell Unit 2H
 API WELL NO: 47 - 017 - 06377
 STATE RECEIVED 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
 ROYALTY OWNER: D. L. Louchery; Valma L. Arters, et vir; Kenneth O. Bailey, et ux; Jacob Ford
 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 ESTIMATED DEPTH: TVD 7,214' MD 17,280'

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

MAY 18 2015
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 Office of Oil and Gas
 WV Department of Environmental Protection
 ACREAGE: 172; 55; 27.12; 20; 42