

# APPROVED

WR-35  
Rev. 8/23/13

Page \_\_\_ of \_\_\_

NAME: [Signature]

DATE: 11/1/17

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  
Environmental Protection

API 47 - 017 - 06692 County Doddridge District Central  
Quad West Union 7.5' Pad Name Dotson-Holland Pad Field/Pool Name ----  
Farm name Robert L. Holland Jr. Well Number Alder 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 4347123m Easting 510971m  
Landing Point of Curve Northing 4347404.259m Easting 511369.758m  
Bottom Hole Northing 4350616m Easting 510313m

Elevation (ft) 989' 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 01/15/2015 Date drilling commenced 11/18/2015 Date drilling ceased 01/29/2016  
Date completion activities began 01/27/2017 Date completion activities ceased 04/09/2017  
Verbal plugging (Y/N) N/A Date permission granted N/A Granted by N/A

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Please note: Operator is required to submit a plugging application within 5 days of verbal permission to plug SEP 21 2017

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Freshwater depth(s) ft 56' Open mine(s) (Y/N) depths No  
Salt water depth(s) ft 1527' Void(s) encountered (Y/N) depths No  
Coal depth(s) ft 381', 941', 1701' Cavern(s) encountered (Y/N) depths No  
Is coal being mined in area (Y/N) No

Reviewed by:

11/10/2017

API 47-017 - 06692 Farm name Robert L. Holland Jr. Well number Alder 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	30"	20"	40'	New	94#, J-55	N/A	Y
Surface	17-1/2"	13-3/8"	458'	New	48#, J-55	N/A	Y
Coal							
Intermediate 1	12-1/4"	9-5/8"	2531'	New	36#, J-55	N/A	Y
Intermediate 2							
Intermediate 3							
Production	8-3/4"/8-1/2"	5-1/2"	18197'	New	23#, P-110	N/A	Y
Tubing		2-3/8"	6788'		4.7#, N-80		
Packer type and depth set		N/A					

Comment Details \_\_\_\_\_

CEMENT DATA	Class/Type of Cement	Number of Sacks	Slurry wt (ppg)	Yield (ft <sup>3</sup> /sks)	Volume (ft <sup>3</sup> )	Cement Top (MD)	WOC (hrs)
Conductor	Class A	400 sx	15.6	1.19	476	0'	8 Hrs.
Surface	Class A	531 sx	15.6	1.19	632	0'	8 Hrs.
Coal							
Intermediate 1	Class A	943 sx	15.6	1.18	1113	0'	8 Hrs.
Intermediate 2							
Intermediate 3							
Production	Class H	902 sx (Lead) 1791 sx (Tail)	13.5 (Lead), 15.2 (Tail)	1.44 (Lead), 1.83 (Tail)	4576	-500' into Intermediate Casing	8 Hrs.
Tubing							

Drillers TD (ft) 18197' MD, 6419' TVD (BHL); 6444' TVD (Deepest Point Drilled) Loggers TD (ft) 18149' MD  
 Deepest formation penetrated Marcellus Plug back to (ft) N/A  
 Plug back procedure N/A

Kick off depth (ft) 6278'

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

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

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WAS WELL COMPLETED AS SHOT HOLE  Yes  No DETAILS \_\_\_\_\_

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WAS WELL COMPLETED OPEN HOLE?  Yes  No DETAILS \_\_\_\_\_

WERE TRACERS USED  Yes  No TYPE OF TRACER(S) USED N/A



API 47- 017 - 06692 Farm name Robert L. Holland Jr. Well number Alder Unit 2H

<u>PRODUCING FORMATION(S)</u>	<u>DEPTHS</u>	
<u>Marcellus</u>	<u>6404' (TOP)</u> TVD	<u>6915' (TOP)</u> 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 4383 mcfpd Oil --- bpd NGL --- bpd Water 439 bpd GAS MEASURED BY  Estimated  Orifice  Pilot

LITHOLOGY/ FORMATION	TOP	BOTTOM	TOP	BOTTOM	DESCRIBE ROCK TYPE AND RECORD QUANTITY AND TYPE OF FLUID (FRESHWATER, BRINE, OIL, GAS, H <sub>2</sub> S, ETC)
	DEPTH IN FT NAME TVD	DEPTH IN FT TVD	DEPTH IN FT MD	DEPTH IN FT MD	

**\*PLEASE SEE ATTACHED EXHIBIT 3**


Please insert additional pages as applicable.

Drilling Contractor Precision Drilling Company, LP  
Address 2640 Reach Road City Williamsport State PA Zip 17701

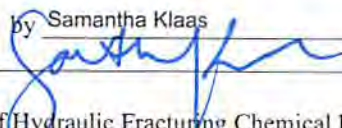
Logging Company Allied Horizontal Wireline Services  
Address 380 Bedford Rd. City North Huntingdon State PA Zip 15642

Cementing Company Nabors Completion & Production Services, Co.  
Address 1650 Hackers Creek City Jane Lew State WV Zip 26378

Stimulating Company US Well Services  
Address 533 Industrial Park Dr. City Jane Lew State WV Zip 26378

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Please insert additional pages as applicable.

Completed by Samantha Klaas Telephone 303-357-6759  
Signature  Title Permitting Agent Date 09/20/2017

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

11/10/2017

**EXHIBIT 1**

Stage No.	Perforation Date	Perforated from MD ft.	Perforated to MD ft.	Number of Perforations	Formations
1	1/27/2017	17897	18065	60	Marcellus
2	3/5/2017	17698	17866	60	Marcellus
3	3/5/2017	17499	17667	60	Marcellus
4	3/6/2017	17300	17468	60	Marcellus
5	3/6/2017	17101	17269	60	Marcellus
6	3/7/2017	16902	17070	60	Marcellus
7	3/7/2017	16703	16871	60	Marcellus
8	3/8/2017	16504	16672	60	Marcellus
9	3/8/2017	16305	16473	60	Marcellus
10	3/9/2017	16106	16274	60	Marcellus
11	3/9/2017	15907	16075	60	Marcellus
12	3/10/2017	15708	15876	60	Marcellus
13	3/10/2017	15509	15677	60	Marcellus
14	3/11/2017	15311	15478	60	Marcellus
15	3/11/2017	15112	15279	60	Marcellus
16	3/12/2017	14913	15080	60	Marcellus
17	3/12/2017	14714	14881	60	Marcellus
18	3/13/2017	14515	14682	60	Marcellus
19	3/13/2017	14316	14484	60	Marcellus
20	3/14/2017	14117	14285	60	Marcellus
21	3/14/2017	13918	14086	60	Marcellus
22	3/15/2017	13719	13887	60	Marcellus
23	3/16/2017	13520	13688	60	Marcellus
24	3/16/2017	13321	13489	60	Marcellus
25	3/16/2017	13122	13290	60	Marcellus
26	3/17/2017	12923	13091	60	Marcellus
27	3/17/2017	12724	12892	60	Marcellus
28	3/18/2017	12525	12693	60	Marcellus
29	3/18/2017	12326	12494	60	Marcellus
30	3/19/2017	12127	12295	60	Marcellus
31	3/19/2017	11928	12096	60	Marcellus
32	3/19/2017	11729	11897	60	Marcellus
33	3/20/2017	11530	11698	60	Marcellus
34	3/20/2017	11331	11499	60	Marcellus
35	3/21/2017	11132	11300	60	Marcellus
36	3/21/2017	10933	11101	60	Marcellus
37	3/21/2017	10734	10902	60	Marcellus
38	3/22/2017	10535	10703	60	Marcellus
39	3/22/2017	10337	10504	60	Marcellus
40	3/23/2017	10138	10305	60	Marcellus
41	3/23/2017	9939	10106	60	Marcellus
42	3/23/2017	9740	9907	60	Marcellus
43	3/24/2017	9541	9708	60	Marcellus
44	3/24/2017	9342	9510	60	Marcellus
45	3/24/2017	9143	9311	60	Marcellus
46	3/24/2017	8944	9112	60	Marcellus
47	3/25/2017	8745	8913	60	Marcellus
48	3/25/2017	8546	8714	60	Marcellus
49	3/25/2017	8347	8515	60	Marcellus
50	3/25/2017	8148	8316	60	Marcellus
51	3/25/2017	7949	8117	60	Marcellus
52	3/26/2017	7750	7918	60	Marcellus
53	3/26/2017	7551	7719	60	Marcellus
54	3/26/2017	7352	7520	60	Marcellus
55	3/26/2017	7153	7321	60	Marcellus
56	3/26/2017	6954	7122	60	Marcellus

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EXHIBIT 2							
API 47-017-06692 Farm Name Robert L. Holland Jr. Well Number Alder Unit 2H							
Stage No.	Stimulations Date	Avg Pump Rate	Avg Treatment Pressure (PSI)	Max Breakdown Pressure (PSI)	ISIP (PSI)	Amount of Proppant (lbs)	Amount of Nitrogen/other (units)
1	3/4/2017	75.1	7869	5436	4216	353900	7660
2	3/5/2017	78.1	8001	5536	4821	351900	7705
3	3/5/2017	76.2	7898	5629	4653	352100	7645
4	3/6/2017	78.1	7890	5461	5018	351900	7680
5	3/6/2017	79.3	7916	5583	5093	352900	7623
6	3/7/2017	78.3	7819	5250	4982	353300	7500
7	3/7/2017	79.8	7941	5143	5232	352900	7517
8	3/8/2017	79.8	7910	5153	4506	352600	7632
9	3/8/2017	80.8	7889	5414	5039	352900	7524
10	3/9/2017	79.5	7864	5261	4817	353000	7497
11	3/9/2017	80.3	7995	5987	4792	352600	7450
12	3/10/2017	79.1	7672	5339	4742	353300	7440
13	3/10/2017	80.4	7669	5475	4771	352400	7432
14	3/11/2017	79.8	7632	5361	3676	351700	7427
15	3/11/2017	77.6	8100	5422	4263	352200	9093
16	3/12/2017	78.7	7807	5597	4903	351700	8711
17	3/12/2017	80.4	7768	5586	4485	352600	7398
18	3/13/2017	79.4	7473	5515	3955	353000	7402
19	3/13/2017	78.9	7879	5490	4249	347000	8432
20	3/14/2017	80.0	7574	5486	5053	353200	8630
21	3/14/2017	80.4	7518	5170	5318	353000	7364
22	3/15/2017	79.1	7496	5150	4749	354500	7966
23	3/16/2017	79.9	7522	4896	5722	352600	7422
24	3/16/2017	80.3	7325	5207	4213	353000	7440
25	3/16/2017	80.0	7303	5525	4714	351200	7385
26	3/17/2017	80.3	7428	6137	5239	350900	7459
27	3/17/2017	81.0	7520	6033	4710	351800	7424
28	3/18/2017	80.0	7972	6065	4978	352500	9807
29	3/18/2017	80.1	7571	6005	5404	352800	7431
30	3/19/2017	80.4	7362	5361	5686	353200	7323
31	3/19/2017	79.9	7264	5370	5089	351400	7384
32	3/19/2017	80.8	7481	5186	4992	353900	7458
33	3/20/2017	79.0	7313	5289	4109	353200	8812
34	3/20/2017	80.0	7213	5232	4989	353700	8982
35	3/21/2017	80.3	7066	5461	5586	354300	7414
36	3/21/2017	80.7	6871	5311	4982	352900	7340
37	3/21/2017	80.0	6890	5286	4553	351900	7283
38	3/22/2017	80.4	6965	5386	4960	351700	7322
39	3/22/2017	79.7	6884	5250	4849	353100	7312
40	3/23/2017	80.3	7080	5507	4721	347900	7530
41	3/23/2017	79.6	7004	5400	4796	354200	10039
42	3/23/2017	80.8	6934	5608	5404	352800	7356
43	3/24/2017	80.1	6625	5325	5152	354300	7299
44	3/24/2017	79.6	6650	5332	4857	354400	7283
45	3/24/2017	80.0	6977	6334	4739	354800	7284
46	3/24/2017	80.1	6772	5962	5153	354600	7274
47	3/25/2017	79.9	6724	5518	5143	354900	7161
48	3/25/2017	79.8	6688	5347	5143	352200	7259
49	3/25/2017	80.0	6689	5672	5136	352700	7264
50	3/25/2017	79.9	6859	5786	5447	351800	7290
51	3/25/2017	80.2	6990	5740	5468	352800	7112
52	3/26/2017	80.5	6948	5726	4907	351800	7280
53	3/26/2017	80.2	6784	5364	5182	351200	7198
54	3/26/2017	79.9	6857	5744	5218	351700	8398
55	3/26/2017	79.9	6800	6176	5615	353400	7319
56	3/26/2017	80.3	6926	5929	4796	355000	7394
AVG=						19,749,200	429,466
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
Fresh Water	56'	N/A	56'	N/A
Shale/ Siltstone	0	221	0	221
Sandstone	est. 221	241	est. 221	241
Shale/ Siltstone	est. 241	381	est. 241	381
Coal	est. 381	401	est. 381	401
Siltstone	est. 401	441	est. 401	441
Shale/ Limestone	est. 441	561	est. 441	561
Sandstone/ Siltstone	est. 561	621	est. 561	621
Shale/ Siltstone	est. 621	761	est. 621	761
Limestone	est. 761	941	est. 761	941
Siltstone / Trace Coal/ Shale	est. 941	1381	est. 941	1381
Sandstone	est. 1381	1401	est. 1381	1401
Shale/ Siltstone/ Trace Coal	est. 1401	1621	est. 1401	1621
Sandstone/ Siltstone	est. 1621	1701	est. 1621	1701
Shale/ Siltstone/ Trace Coal	est. 1701	1741	est. 1701	1741
Shale/ Siltstone	est. 1741	1930	est. 1741	1931
Big Lime	1930	2422	1931	2423
Gantz	2422	2551	2423	2553
Fifty Foot Sandstone	2551	2661	2553	2662
Gordon	2661	2838	2662	2840
Fifth Sandstone	2838	2992	2840	2994
Bayard	2992	3310	2994	3316
Speechley	3310	4024	3316	4086
Baltown	4024	4472	4086	4586
Bradford	4472	4725	4586	4867
Benson	4725	5149	4867	5335
Alexander	5149	5318	5335	5521
Elk	5318	5846	5521	6099
Rhinestreet	5846	6072	6099	6356
Sycamore	6072	6233	6356	6556
Middlesex	6233	6345	6556	6742
Burkett	6345	6376	6742	6816
Tully	6376	6404	6816	6915
Marcellus	6404	NA	6915	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.

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# Hydraulic Fracturing Fluid Product Component Information Disclosure

Job Start Date:	3/4/2017
Job End Date:	3/26/2017
State:	West Virginia
County:	Doddridge
API Number:	47-017-06692-00-00
Operator Name:	Antero Resources Corporation
Well Name and Number:	Alder 2H
Latitude:	39.27330000
Longitude:	-80.87298889
Datum:	NAD83
Federal Well:	NO
Indian Well:	NO
True Vertical Depth:	6,441
Total Base Water Volume (gal):	18,919,576
Total Base Non Water Volume:	0



## 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	Carrier/Base Fluid	Water	7732-18-5	100.00000	88.67763	
Sand	U.S. Well Services, LLC	Proppant	Crystalline Silica, quartz	14808-60-7	100.00000	11.09906	
HCL Acid (12.6%-17.5%)	U.S. Well Services, LLC	Bulk Acid	Water	7732-18-5	87.40000	0.13096	
			Hydrogen Chloride	7647-01-0	17.50000	0.03045	
WFRA-500	U.S. Well Services, LLC	Friction Reducer	2-Propenoic acid, polymer with 2-propenamide	9003-06-9	30.00000	0.01679	
			Hydrated light distillate (petroleum)	64742-47-8	30.00000	0.01351	
LGC-15	U.S. Well Services, LLC	Gelling Agents	Guar Gum	9000-30-0	50.00000	0.00766	
			Petroleum Distillates	64742-47-8	60.00000	0.00726	
			Suspending agent (solid)	14808-60-7	3.00000	0.00117	
			Surfactant	68439-51-0	3.00000	0.00046	

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SI-1100	U.S. Well Services, LLC	Scale Inhibitor					
			Ethylene Glycol	107-21-1	40.00000	0.00549	
			Copolymer of Maleic and Acrylic acid	52255-49-9	10.00000	0.00113	
			Potassium salt of diethylene triamine penta (methylene phosphonic acid)	15827-60-8	3.00000	0.00039	
			Phosphino carboxylic acid polymer	71050-62-9	3.00000	0.00037	
			Hexamethylene tramine penta (methylene phosphonic acid)	34690-00-1	3.00000	0.00037	
Bioclear 2000	U.S. Well Services, LLC	Anti-Bacterial Agent					
			2,2-dibromo-3-nitropropionamide	10222-01-2	20.00000	0.00399	
			Deionized Water	7732-18-5	28.00000	0.00228	
SI-1100s	U.S. Well Services, LLC	Scale Inhibitor					
			Copolymer of Maleic and Acrylic acid	52255-49-9	10.00000	0.00034	
			Potassium salt of diethylene triamine penta (methylene phosphonic acid)	15827-60-8	3.00000	0.00012	
			Phosphino carboxylic acid polymer	71050-62-9	3.00000	0.00011	
			Hexamethylene tramine penta (methylene phosphonic acid)	34690-00-1	3.00000	0.00011	
AP One	U.S. Well Services, LLC	Gel Breakers					
			Ammonium Persulfate	7727-54-0	100.00000	0.00025	
AI-303	U.S. Well Services, LLC	Acid Corrosion Inhibitors					
			Ethylene glycol	107-21-1	40.00000	0.00004	
			Cinnamaldehyde	104-55-2	20.00000	0.00002	
			Formic acid	64-18-6	20.00000	0.00002	
			Butyl cellosolve	111-76-2	20.00000	0.00001	
			Polyether	60828-78-6	10.00000	0.00001	
			Acetophenone, thiourea, formaldehyde polymer	68527-49-1	5.00000	0.00000	

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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LATITUDE 39°17'30"

11,226'

LATITUDE 39°20'00" 1,572' TO BOTTOM HOLE

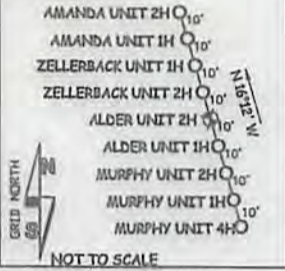
Antero Resources Corporation  
Well No. Alder Unit 2H  
API 47-017-06692

AS DRILLED DATA:  
WELL 2H TOP HOLE INFORMATION:  
N: 284,622ft E: 1,611,314ft  
LAT: 39°16'23.89" LON: 80°52'22.75"  
BOTTOM HOLE INFORMATION:  
N: 236,122ft E: 1,609,348ft  
LAT: 39°18'17.24" LON: 80°52'50.00"  
WEST VIRGINIA COORDINATE SYSTEM OF 1927 NORTH ZONE. ZONE WAS DERIVED FROM MEASUREMENTS TAKEN WITH TRIMBLE GEOXT SUBMETER MAPPING GRADE GPS UNIT. PLAT ORIENTATION, CORNER, AND WELL REFERENCE TIE LINES ARE BASED ON GRID NORTH.

(NAD) 83 (UTM) ZONE 17 COORDS:  
WELL 2H TOP HOLE INFORMATION:  
N: 4,347,123m E: 510,971m  
BOTTOM HOLE INFORMATION:  
N: 4,350,616m E: 510,313m

WV NORTH ZONE  
GRID NORTH

PAD LAYOUT



JOB # 13-020WA  
DRAWING # ALDER2HADR  
SCALE 1" = 1000'  
MINIMUM DEGREE OF ACCURACY SUBMETER  
PROVEN SOURCE OF ELEV. SUBMETER MAPPING GRADE GPS  
API WELL # 47 - 017 - 06692  
STATE COUNTY PERMIT

\*I, THE UNDERSIGNED, HEREBY CERTIFY THAT THIS PLAT IS CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF AND SHOWS ALL THE INFORMATION REQUIRED BY LAW AND THE RULES ISSUED AND PRESCRIBED BY THE DEPARTMENT OF ENVIRONMENTAL PROTECTION.

STATE OF WEST VIRGINIA  
DEPARTMENT OF ENERGY  
DIVISION OF OIL AND GAS

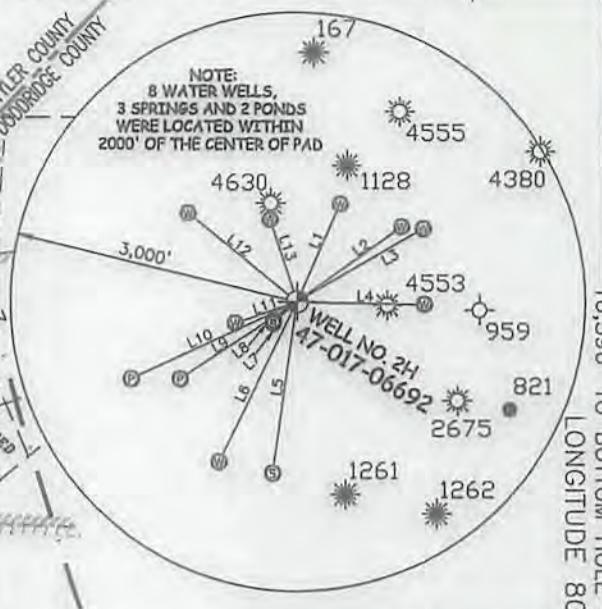
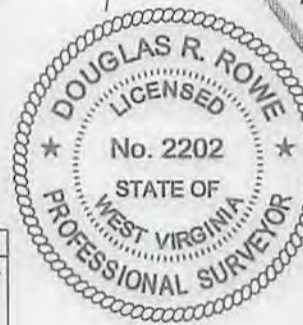
LEGEND  
- - - Surface Owner Boundary Lines +/-  
- - - Interior Surface Tracts +/-  
X Existing Fence  
⊕ Found monument, as noted

DOUGLAS R. ROWE P.S. 2202  
DATE 08/24/17  
OPERATOR'S WELL # ALDER UNIT #2H



STATE OF WEST VIRGINIA, DIVISION OF ENVIRONMENTAL PROTECTION, OFFICE OF OIL AND GAS  
WILLOW LAND SURVEYING PLLC  
220 MASONIC AVE. PENNSBORO WEST VIRGINIA 26415

WELL TYPE: OIL GAS  LIQUID INJECTION \_\_\_\_\_ WASTE DISPOSAL \_\_\_\_\_  
(IF "GAS") PRODUCTION  STORAGE \_\_\_\_\_ DEEP \_\_\_\_\_ SHALLOW   
LOCATION: ELEVATION 989' AS BUILT \_\_\_\_\_ WATERSHED NORTH FORK HUGHES RIVER  
QUADRANGLE WEST UNION 7.5' TH; PENNSBORO 7.5' BH DISTRICT CENTRAL COUNTY DODDRIDGE  
SURFACE OWNER ROBERT L. HOLLAND JR. ACREAGE 6.60 ACRES +/-  
OIL & GAS ROYALTY OWNER ANNA BARKER ET AL; WYVONIA DUCKWORTH CEMETERY; KATE MASON ET AL; LEASE ACREAGE 127 AC.; 301.10 AC.; 3.29 AC.; 90 AC.;  
JAMES C. RIDDLE ET AL; ARNOLD LYLE STUART ET AL; HARRY WILLIAMSON; MAYNIE REED; PHYLLIS BOYCE; ROBERT POSEY; DAVID ROBINSON ET AL 78 AC.; 101 AC.; 78 AC.; 22 AC.; 1AC.; 138.15 AC.;  
PROPOSED WORK: DRILL \_\_\_\_\_ CONVERT \_\_\_\_\_ DRILL DEEPER \_\_\_\_\_ REDRILL \_\_\_\_\_ FRACTURE OR STIMULATE \_\_\_\_\_  
PLUG OFF OLD FORMATION \_\_\_\_\_ PERFORATE NEW FORMATION \_\_\_\_\_ OTHER PHYSICAL CHANGE IN WELL \_\_\_\_\_  
(SPECIFY) AS-DRILLED \_\_\_\_\_ PLUG & ABANDON \_\_\_\_\_ CLEAN OUT & REPLUG \_\_\_\_\_  
TARGET FORMATION MARCELLUS ESTIMATED DEPTH 8,419' TVD 18,197' MD  
DIANNA STAMPER  
WELL OPERATOR ANTERO RESOURCES CORP. DESIGNATED AGENT CT CORPORATION SYSTEM  
ADDRESS 1615 WYNKOOP STREET ADDRESS 5400 D BIG TYLER ROAD  
FORM WW-6 DENVER, CO 80202 CHARLESTON, WV 25313



- NOTE
- 1. NO OCCUPIED DWELLINGS OR BUILDINGS TWO THOUSAND FIVE HUNDRED (2,500) SQUARE FEET OR LARGER USED TO HOUSE OR SHELTER DAIRY CATTLE OR POULTRY HUSBANDRY ARE LOCATED WITHIN SIX HUNDRED TWENTY-FIVE (625) FEET OF THE CENTER OF THE WELL PAD.
  - 2. TOP HOLE DATA SHOWN HEREON WAS PROVIDED BY ALLEGHENY SURVEYS, INC.
  - 3. AS DRILLED DATA WAS PROVIDED BY ANTERO RESOURCES CORPORATION.
  - 4. WLS IS NOT CERTIFYING THE DATA AND INFORMATION PROVIDED LISTED IN NOTES 2 AND 3, ONLY THE RELATIONSHIP TO THE DATA AND INFORMATION PROVIDED TO THE LEASE BOUNDARIES.
  - 5. WLS IS BY NO MEANS RESPONSIBLE FOR ANY ERRORS OR INACCURACIES WITH THE DATA AND INFORMATION THAT HAS BEEN PROVIDED.

LINE	BEARING	DISTANCE
L1	N 82°31' E	1132.0'
L2	N 83°19' E	1348.9'
L3	N 80°11' E	1527.2'
L4	N 82°05' E	1311.1'
L5	S 09°50' W	1771.1'
L6	S 22°02' W	1851.4'
L7	S 62°30' W	310.2'
L8	S 07°30' W	304.1'
L9	S 12°05' W	1318.0'
L10	S 06°54' W	508.2'
L11	S 72°20' W	588.0'
L12	N 80°20' W	1488.4'
L13	N 18°10' W	592.2'

6,689'  
10,396' TO BOTTOM HOLE  
LONGITUDE 80°52'30"  
LONGITUDE 80°50'00"



