

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

API 47 - 017 - 06844 County Doddridge District West Union  
 Quad West Union 7.5' Pad Name Strickling Pad Field/Pool Name ----  
 Farm name John Paul Strickling, et al Well Number Smithers 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 4353672m Easting 518469m  
 Landing Point of Curve Northing 4353580m Easting 518212m  
 Bottom Hole Northing 4356445m Easting 517083m

Elevation (ft) 1065' 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 7/13/2017 Date drilling commenced 9/5/2017 Date drilling ceased 5/1/2018  
 Date completion activities began 7/20/2018 Date completion activities ceased 10/16/2018  
 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 None Identified Open mine(s) (Y/N) depths No  
 Salt water depth(s) ft None Identified Void(s) encountered (Y/N) depths No  
 Coal depth(s) ft None Identified Cavern(s) encountered (Y/N) depths No  
 Is coal being mined in area (Y/N) No

Reviewed by:

WR-35  
Rev. 8/23/13

API 47-017 - 06844 Farm name John Paul Strickling, et al Well number Smithers 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"	95'	New	94#, H-40	N/A	Y
Surface	17-1/2"	13-3/8"	363'	New	54.5#, J-55	N/A	Y
Coal							
Intermediate 1	12-1/4"	9-5/8"	2568'	New	36#, J-55	N/A	Y
Intermediate 2							
Intermediate 3							
Production	8-3/4"/8-1/2"	5-1/2"	17458'	New	23#, P-110	N/A	Y
Tubing		2-3/8"	6966'		4.7#, P-110		
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	284 sx	15.6	1.18	335	0'	8 Hrs.
Surface	Class A	320 sx	15.6	1.2	384	0'	8 Hrs.
Coal							
Intermediate 1	Class A	890 sx	15.6	1.18	1050	0'	8 Hrs.
Intermediate 2							
Intermediate 3							
Production	Class H	768 sx (Lead) 1651 sx (Tail)	14(Lead), 15.2 (Tail)	1.45 (Lead), 1.83 (Tail)	4135	~500' into Intermediate Casing	8 Hrs.
Tubing							

Drillers TD (ft) 17458' MD, 6668' TVD (BHL), 6719' (Deepest Point Drilled) Loggers TD (ft) 17458' MD

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

Plug back procedure N/A

Kick off depth (ft) 6351'

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

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 N/A



WR-35  
Rev. 8/23/13

API 47- 017 - 06844 Farm name John Paul Strickling, et al Well number Smithers Unit 2H

PRODUCING FORMATION(S)	DEPTHS		
Marcellus	6657' (TOP)	TVD	7047' (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 10797 mcfpd Oil 161 bpd NGL --- bpd Water 535 bpd GAS MEASURED BY  Estimated  Orifice  Pilot

LITHOLOGY/ FORMATION	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.

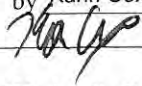
Drilling Contractor Frontier Drilling LLC  
Address 207 Carlton Drive City Eighty Four State PA Zip 15330

Logging Company Nine Energy Service  
Address 125 Museum Rd City Washington State PA Zip 15301

Cementing Company C&J Energy Services  
Address 1650 Hackers Creek City Lane Jew State WV Zip 26378

Stimulating Company US Well Services  
Address 533 Industrial Park Road City Lane Jew State WV Zip 26378

Please insert additional pages as applicable.

Completed by Karin Cox Telephone 303-357-6820  
Signature  Title Permitting Agent Date 2/1/2019

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

API 47-017-06844 Farm Name John Paul Strickling, et al Well Number Smithers Unit 2H

**EXHIBIT 1**

Stage No.	Perforation Date	Perforated from MD ft.	Perforated to MD ft.	Number of Perforations	Formations
1	7/20/2018	17109.748	17278.708	48	Marcellus
2	7/21/2018	16909.396	17078.356	48	Marcellus
3	7/21/2018	16709.044	16878.004	48	Marcellus
4	7/22/2018	16508.692	16677.652	48	Marcellus
5	7/22/2018	16308.34	16477.3	48	Marcellus
6	7/22/2018	16107.988	16276.948	48	Marcellus
7	7/22/2018	15907.636	16076.596	48	Marcellus
8	7/23/2018	15707.284	15876.244	48	Marcellus
9	7/23/2018	15506.932	15675.892	48	Marcellus
10	7/23/2018	15306.58	15475.54	48	Marcellus
11	7/24/2018	15106.228	15275.188	48	Marcellus
12	7/24/2018	14905.876	15074.836	48	Marcellus
13	7/25/2018	14705.524	14874.484	48	Marcellus
14	7/25/2018	14505.172	14674.132	48	Marcellus
15	7/25/2018	14304.82	14473.78	48	Marcellus
16	7/25/2018	14104.468	14273.428	48	Marcellus
17	7/26/2018	13904.116	14073.076	48	Marcellus
18	7/26/2018	13703.764	13872.724	48	Marcellus
19	7/27/2018	13503.412	13672.372	48	Marcellus
20	7/27/2018	13303.06	13472.02	48	Marcellus
21	7/27/2018	13102.708	13271.668	48	Marcellus
22	7/27/2018	12902.356	13071.316	48	Marcellus
23	7/28/2018	12702.004	12870.964	48	Marcellus
24	7/28/2018	12501.652	12670.612	48	Marcellus
25	7/28/2018	12301.3	12470.26	48	Marcellus
26	7/29/2018	12100.948	12269.908	48	Marcellus
27	7/29/2018	11900.596	12069.556	48	Marcellus
28	7/29/2018	11700.244	11869.204	48	Marcellus
29	7/30/2018	11499.892	11668.852	48	Marcellus
30	7/30/2018	11299.54	11468.5	48	Marcellus
31	7/30/2018	11099.188	11268.148	48	Marcellus
32	7/30/2018	10898.836	11067.796	48	Marcellus
33	7/31/2018	10698.484	10867.444	48	Marcellus
34	7/31/2018	10498.132	10667.092	48	Marcellus
35	7/31/2018	10297.78	10466.74	48	Marcellus
36	8/1/2018	10097.428	10266.388	48	Marcellus
37	8/1/2018	9897.076	10066.036	48	Marcellus
38	8/1/2018	9696.724	9865.684	48	Marcellus
39	8/1/2018	9496.372	9665.332	48	Marcellus
40	8/2/2018	9296.02	9464.98	48	Marcellus
41	8/2/2018	9095.668	9264.628	48	Marcellus
42	8/2/2018	8895.316	9064.276	48	Marcellus
43	8/3/2018	8694.964	8863.924	48	Marcellus
44	8/3/2018	8494.612	8663.572	48	Marcellus
45	8/3/2018	8294.26	8463.22	48	Marcellus
46	8/3/2018	8093.908	8262.868	48	Marcellus
47	8/4/2018	7893.556	8062.516	48	Marcellus
48	8/4/2018	7693.204	7862.164	48	Marcellus
49	8/4/2018	7492.852	7661.812	48	Marcellus
50	8/4/2018	7292.5	7461.46	48	Marcellus
51	8/5/2018	7092.148	7261.108	48	Marcellus

API 47-017-06844 Farm Name John Paul Strickling, et al Well Number Smithers 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	7/20/2018	66.4	7843.9	6059	4298	271080	8995	N/A
2	7/21/2018	77.7877	8382.373	5411	4549	402700	8522	N/A
3	7/21/2018	78.3293	8599.731	6160	4243	402100	8255	N/A
4	7/21/2018	78.8	8452.5	5651	3955	405350	8217	N/A
5	7/22/2018	76.5	8048.3	5898	4237	404250	8085	N/A
6	7/22/2018	76.9369	8097.414	5407	4089	401500	8247	N/A
7	7/22/2018	76.4266	8308.604	6273	4073	402200	8146	N/A
8	7/22/2018	72.5	8049.7	5994	4356	404230	8060	N/A
9	7/23/2018	75.8309	8203.906	5677	4585	402200	8125	N/A
10	7/23/2018	74.3805	8095.164	6355	4403	402200	8021	N/A
11	7/23/2018	76.9	8128.5	5541	4964	402080	7960	N/A
12	7/24/2018	77.8317	7962.019	5584	4112	402350	8127	N/A
13	7/24/2018	78.2408	7823.128	5863	4834	403570	8058	N/A
14	7/25/2018	78.7	8076.9	6357	4614	404060	7934	N/A
15	7/25/2018	77.9625	8009.954	6353	4222	401100	7999	N/A
16	7/25/2018	78.6261	7985.574	6265	4012	401200	7999	N/A
17	7/25/2018	79.1	7972.8	6147	4095	402710	7964	N/A
18	7/26/2018	77.9672	7806.886	6132	3830	404300	7919	N/A
19	7/26/2018	79.3	7939.1	6018	4128	401750	7821	N/A
20	7/27/2018	79.4554	7852.712	6138	4021	402050	7926	N/A
21	7/27/2018	79.4682	7955.315	5751	4054	402010	7981	N/A
22	7/27/2018	79.3	7605.6	5535	4188	403180	7822	N/A
23	7/27/2018	79.1	7938.8	5341	3995	403500	7844	N/A
24	7/28/2018	79.805	7984.299	6077	4201	401650	8031	N/A
25	7/28/2018	77.8959	7729.002	5955	4427	402620	7944	N/A
26	7/28/2018	79.3	7922.8	6117	4321	402750	7832	N/A
27	7/29/2018	79.22	7746.777	6041	4018	400750	7925	N/A
28	7/29/2018	78.3979	7971.656	6392	4030	401790	7976	N/A
29	7/29/2018	78.8	7901.6	5858	4005	404130	7803	N/A
30	7/30/2018	78.8	7862.3	6238	4641	401710	7827	N/A
31	7/30/2018	79.1822	7755.413	6193	4161	401000	7875	N/A
32	7/30/2018	78.6244	7542.82	6456	3964	403400	7860	N/A
33	7/30/2018	79.2783	7682.682	6408	4299	404600	7751	N/A
34	7/31/2018	79.3678	7632.229	6345	3983	401600	7848	N/A
35	7/31/2018	79.3062	7524.668	5950	4129	400900	7824	N/A
36	7/31/2018	78.7648	7623.458	6760	4102	400200	7839	N/A
37	8/1/2018	78.8321	7747.179	6283	4004	400200	7799	N/A
38	8/1/2018	79.1768	7696.349	6213	4222	402000	7702	N/A
39	8/1/2018	78.8416	7506.149	6574	3969	402400	7848	N/A
40	8/1/2018	79.547	7593.156	6290	3987	402100	7841	N/A
41	8/2/2018	78.8158	7550.024	6478	3998	403400	7643	N/A
42	8/2/2018	79.15	7809.443	6434	4073	402900	7800	N/A
43	8/2/2018	78.4036	7487.874	6412	4158	402100	7675	N/A
44	8/3/2018	79.2059	7645.202	6083	4520	401500	7682	N/A
45	8/3/2018	79.2079	7535.603	6251	0	401800	7624	N/A
46	8/3/2018	79.2619	7531.787	6374	4718	403050	7667	N/A
47	8/3/2018	77.8121	7398.8	6358	5080	401900	7868	N/A
48	8/4/2018	79.7001	7216.355	5995	5111	401500	7781	N/A
49	8/4/2018	79.5153	7548.385	6321	4132	402650	7581	N/A
50	8/4/2018	79.5985	7461.22	6177	5029	399500	8567	N/A
51	8/4/2018	79.5131	7350.436	6416	4490	403100	7605	N/A
52	8/5/2018	79.3324	7219.956	6063	4555	401850	7593	N/A
	AVG=	78	7,813	6,105	4,194	20,519,640	403,643	TOTAL

API 47-017-06844 Farm Name John Paul Strickling, et al Well Number Smithers Unit 2H

**EXHIBIT 3**

LITHOLOGY/ FORMATION	TOP DEPTH (TVD)	BOTTOM DEPTH (TVD)	TOP DEPTH (MD)	BOTTOM DEPTH (MD)
	From Surface	From Surface	From Surface	From Surface
Sandstone	0	187	0	187
Sandstone tr coal	est 187	267	est 187	267
Sandy shale	est 267	807	est 267	807
Calcareous Shale	est 807	1,187	est 807	1,187
Shale tr coal	est 1187	1,207	est 1187	1,207
Sandy Shale	est 1207	1,527	est 1207	1,527
Sandstone	est 1527	1,567	est 1527	1,567
Silty shale	est 1567	1,667	est 1567	1,667
Sandstone	est 1667	1,787	est 1667	1,787
Sandy shale	est 1787	1,937	est 1787	1,957
Big Lime	1,937	2,514	1,957	2,557
Fifty Foot Sandstone	2,514	2,723	2,557	2,775
Gordon	2,723	2,931	2,775	2,990
Fifth Sandstone	2,931	2,994	2,990	3,056
Bayard	2,994	3,795	3,056	3,890
Speechley	3,795	4,083	3,890	4,190
Balltown	4,083	4,577	4,190	4,702
Bradford	4,577	5,027	4,702	5,170
Benson	5,027	5,284	5,170	5,437
Alexander	5,284	6,278	5,437	6,479
Sycamore	6,278	6,449	6,479	6,688
Middlesex	6,449	6,583	6,688	6,892
Burkett	6,583	6,611	6,892	6,944
Tully	6,611	6,657	6,944	7,047
Marcellus	6,657	N/A	7,047	N/A

\*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:	7/20/2018
Job End Date:	8/5/2018
State:	West Virginia
County:	Doddridge
API Number:	47-017-06844-00-00
Operator Name:	Antero Resources Corporation
Well Name and Number:	Smithers 2H
Latitude:	39.33218100
Longitude:	-80.78379200
Datum:	NAD83
Federal Well:	NO
Indian Well:	NO
True Vertical Depth:	6,719
Total Base Water Volume (gal):	18,362,675
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	87.87880	
Sand	J.S. Well Services, LLC	Proppant	Crystalline Silica, quartz	14808-60-7	100.00000	11.93031	
HCL Acid (12.6%-17.5%)	J.S. Well Services, LLC	Bulk Acid	Water	7732-18-5	87.40000	0.12327	
WFRA-405	J.S. Well Services, LLC	Friction Reducer	Hydrogen Chloride	7647-01-0	17.50000	0.02866	
LGC-15	J.S. Well Services, LLC	Gelling Agents	2-Propanoic acid, polymer with propanamide Hydrated light distillate (petroleum)	29003-06-9 64742-47-8	30.00000 30.00000	0.01322 0.01064	
	J.S. Well Services, LLC		Guar Gum	9000-30-0	50.00000	0.00344	
			Petroleum Distillates	64742-47-8	60.00000	0.00326	
			Suspending agent (solid)	14808-60-7	3.00000	0.00053	
			Surfactant	68439-51-0	3.00000	0.00021	

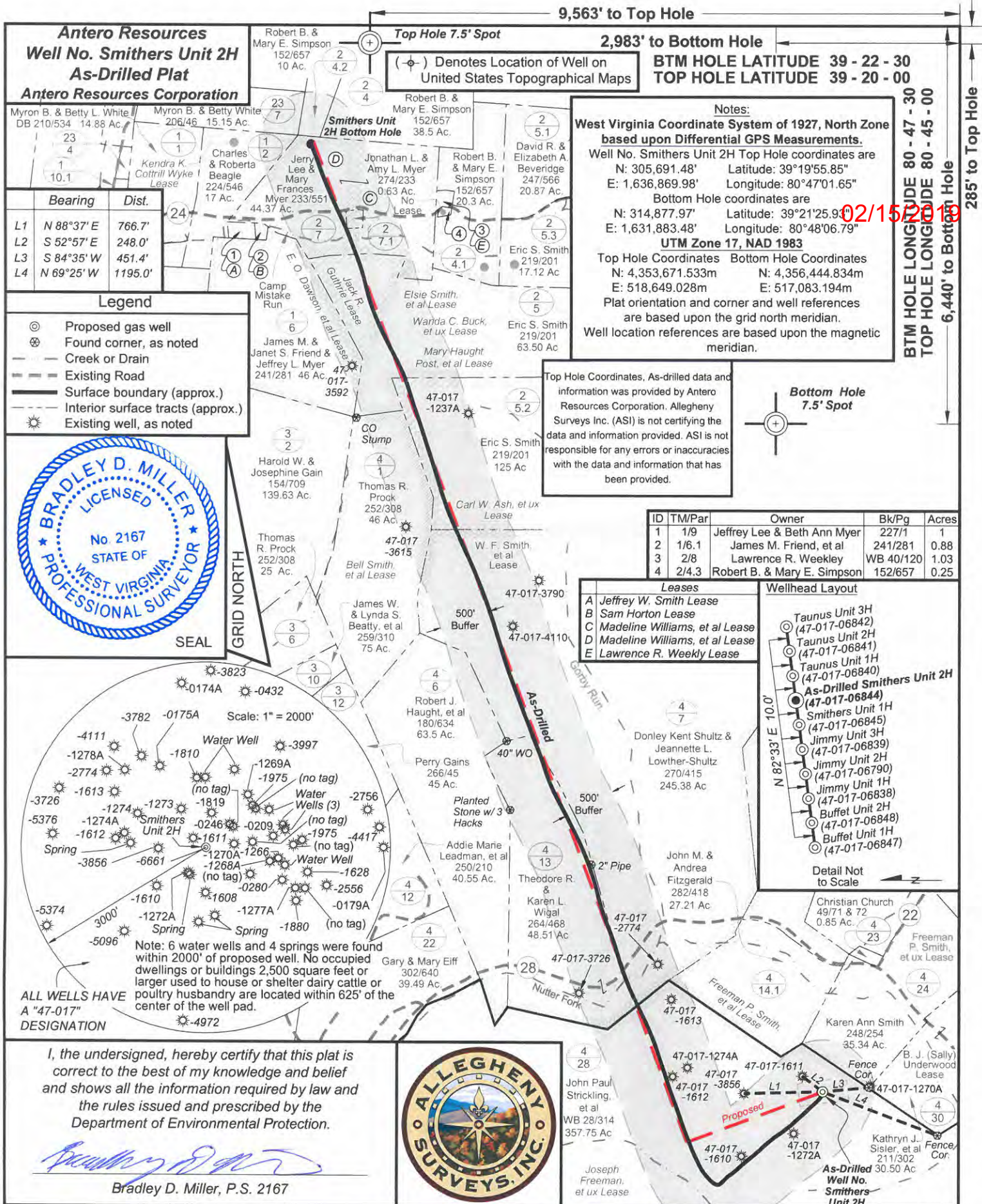


Bioclear 2000	J.S. Well Services, LLC	Anti-Bacterial Agent							
			2,2-dibromo-3-nitripropionamide	10222-01-2		20.00000		0.00399	
			Deionized Water	7732-18-5		28.00000		0.00228	
SI-1200s	J.S. Well Services, LLC	Scale Inhibitor							
			Proprietary Scale Inhibitor	Proprietary		10.00000		0.00122	
AI-303	J.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		0.00001	
			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	
AP One	J.S. Well Services, LLC	Gel Breakers							
			Ammonium Persulfate	7727-54-0		100.00000		0.00008	

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)

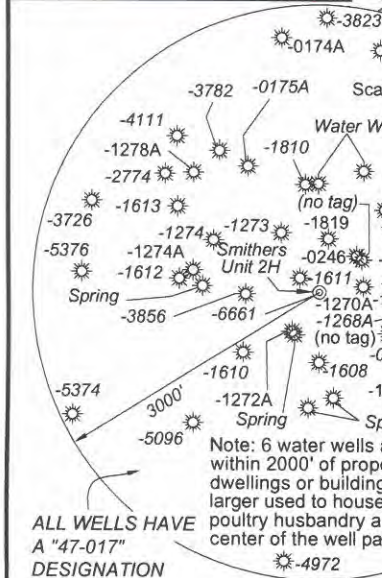


**Antero Resources**  
**Well No. Smithers Unit 2H**  
**As-Drilled Plat**  
**Antero Resources Corporation**

	Bearing	Dist.
L1	N 88°37' E	766.7'
L2	S 52°57' E	248.0'
L3	S 84°35' W	451.4'
L4	N 69°25' W	1195.0'

**Legend**

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



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.

*Bradley D. Miller*  
 Bradley D. Miller, P.S. 2167

**Top Hole 7.5' Spot**  
 2,983' to Bottom Hole

(⊙) Denotes Location of Well on United States Topographical Maps

**Notes:**  
**West Virginia Coordinate System of 1927, North Zone based upon Differential GPS Measurements.**  
 Well No. Smithers Unit 2H Top Hole coordinates are  
 N: 305,691.48' Latitude: 39°19'55.85"  
 E: 1,636,869.98' Longitude: 80°47'01.65"  
 Bottom Hole coordinates are  
 N: 314,877.97' Latitude: 39°21'25.93"  
 E: 1,631,883.48' Longitude: 80°48'06.79"  
**UTM Zone 17, NAD 1983**  
 Top Hole Coordinates Bottom Hole Coordinates  
 N: 4,353,671.533m N: 4,356,444.834m  
 E: 518,649.028m E: 517,083.194m  
 Plat orientation and corner and well references are based upon the grid north meridian.  
 Well location references are based upon the magnetic meridian.

**BTM HOLE LATITUDE 39 - 22 - 30**  
**TOP HOLE LATITUDE 39 - 20 - 00**

**BTM HOLE LONGITUDE 80 - 47 - 30**  
**TOP HOLE LONGITUDE 80 - 45 - 00**

**285' to Top Hole**  
**6,440' to Bottom Hole**

Top Hole Coordinates, 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.

ID	TM/Par	Owner	Bk/Pg	Acres
1	1/9	Jeffrey Lee & Beth Ann Myer	227/1	1
2	1/6.1	James M. Friend, et al	241/281	0.88
3	2/8	Lawrence R. Weekly	WB 40/120	1.03
4	2/4.3	Robert B. & Mary E. Simpson	152/657	0.25

**Leases**

- A Jeffrey W. Smith Lease
- B Sam Horton Lease
- C Madeline Williams, et al Lease
- D Madeline Williams, et al Lease
- E Lawrence R. Weekly Lease

**Wellhead Layout**

- Taurus Unit 3H (47-017-06842)
- Taurus Unit 2H (47-017-06841)
- Taurus Unit 1H (47-017-06840)
- As-Drilled Smithers Unit 2H (47-017-06844)
- Smithers Unit 1H (47-017-06845)
- Jimmy Unit 3H (47-017-06839)
- Jimmy Unit 2H (47-017-06790)
- Jimmy Unit 1H (47-017-06838)
- Buffer Unit 2H (47-017-06848)
- Buffer Unit 1H (47-017-06847)

FILE NO: 44-30-WU-14 DRAWING NO: Smithers 2H Well Plat 6-16 SCALE: 1" = 1200' MINIMUM DEGREE OF ACCURACY: Submeter PROVEN SOURCE OF ELEVATION: WVDOT, Harrisville, WV	<p><b>STATE OF WEST VIRGINIA</b>          DEPARTMENT OF ENVIRONMENTAL PROTECTION  <b>OIL AND GAS DIVISION</b></p>	DATE: December 27 2018 OPERATOR'S WELL NO. Smithers Unit 2H API WELL NO 47 - 017 - 06844 STATE COUNTY PERMIT
---	---	--

WELL TYPE:  OIL  GAS  LIQUID INJECTION  WASTE DISPOSAL  
 (IF GAS) PRODUCTION:  STORAGE  DEEP  SHALLOW

LOCATION: ELEVATION: As-Drilled - 1065' WATERSHED: Headwaters Middle Island Creek QUADRANGLE: West Union  
 DISTRICT: West Union COUNTY: Doddridge

SURFACE OWNER: John Paul Strickling, et al Madeline Williams, et al (2); Jack R. Guthrie  
 ROYALTY OWNER: Joseph Freeman, et ux; W. F. Smith, et al; Carl W. Ash, et ux LEASE NO: ACREAGE: 357.75 23; 11; 23  
 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: 6,668' TVD 17,458' MD

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

