

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

API 47-095 - 02560 County Tyler District Meade
Quad Middlebourne 7.5' Pad Name Rush Fork Pad Field/Pool Name -----
Farm name Joseph R. Rymer Jr. Well Number Forrest Fenn Unit 1H
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 4363038m Easting 5026286m
Landing Point of Curve Northing 4362894.07m Easting 502373.85m
Bottom Hole Northing 4367721m Easting 501119m

Elevation (ft) 986' 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 11/9/2018 Date drilling commenced 1/25/2019 Date drilling ceased 6/6/2019
Date completion activities began 9/30/2019 Date completion activities ceased 12/7/2019
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 30, 81 Open mine(s) (Y/N) depths No
Salt water depth(s) ft 1461, 1485, 1510 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:

API 47-095 - 02560

Farm name Joseph R. Rymer Jr.

Well number Forrest Fenn Unit 1H

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"	105'	New	94#, H-40	N/A	Y
Surface	17-1/2"	13-3/8"	389'	New	54.5#, J-55	N/A	Y
Coal							
Intermediate 1	12-1/4"	9-5/8"	2591'	New	36#, J-55	N/A	Y
Intermediate 2							
Intermediate 3							
Production	8-3/4"/8-1/2"	5-1/2"	20580'	New	23#, HCP-110	N/A	Y
Tubing		2-3/8"	7154'		4.7#, P-110		
Packer type and depth set <u>N/A</u>							

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	300 sx	15.6	1.18	241	0'	8 Hrs.
Surface	Class A	332 sx	15.6	1.20	635	0'	8 Hrs.
Coal							
Intermediate 1	Class A	895 sx	15.6	1.19	1082	0'	8 Hrs.
Intermediate 2							
Intermediate 3							
Production	Class H	792 sx (Lead) 3620 sx (Tail)	14.5 (Lead), 15.2(Tail)	1.4 (Lead), 1.6 (Tail)	3003	-500' into Intermediate Casing	8 Hrs.
Tubing							

Drillers TD (ft) 22522' MD, 6168' TVD (BHL), 6169' (Deepest Point Drilled)

Loggers TD (ft) 22522' MD

Deepest formation penetrated Marcellus

Plug back to (ft) N/A

Plug back procedure N/A

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Kick off depth (ft) 5500'

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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

API 47-095-025560 Farm Name Joseph R. Rymer, Jr., Well Number Forest Fenn Unit 1H						
Stage No.	Perforation Date	Perforated from MD ft.	Perforated to MD ft.	Number of Perforations	Formations	
1	9/30/2019	20473	20429	60	Marcellus	
2	10/1/2019	20391.37	20225.22	60	Marcellus	
3	10/1/2019	20189.59	20023.44	60	Marcellus	
4	10/2/2019	19987.81	19821.66	60	Marcellus	
5	10/2/2019	19786.03	19619.88	60	Marcellus	
6	10/3/2019	19584.25	19418.1	60	Marcellus	
7	10/3/2019	19382.47	19216.32	60	Marcellus	
8	10/4/2019	19180.69	19014.54	60	Marcellus	
9	10/4/2019	18978.91	18812.76	60	Marcellus	
10	10/5/2019	18777.13	18610.98	60	Marcellus	
11	10/6/2019	18575.35	18409.2	60	Marcellus	
12	10/7/2019	18373.57	18207.42	60	Marcellus	
13	10/8/2019	18171.79	18005.64	60	Marcellus	
14	10/11/2019	17970.01	17803.86	60	Marcellus	
15	10/12/2019	17768.23	17602.08	60	Marcellus	
16	10/12/2019	17566.45	17400.3	60	Marcellus	
17	10/13/2019	17364.67	17198.52	60	Marcellus	
18	10/13/2019	17162.89	16996.74	60	Marcellus	
19	10/13/2019	16961.11	16794.96	60	Marcellus	
20	10/14/2019	16759.33	16593.18	60	Marcellus	
21	10/15/2019	16557.55	16391.4	60	Marcellus	
22	10/16/2019	16355.77	16189.62	60	Marcellus	
23	10/16/2019	16153.99	15987.84	60	Marcellus	
24	10/16/2019	15952.21	15786.06	60	Marcellus	
25	10/17/2019	15750.43	15584.28	60	Marcellus	
26	10/16/2019	15548.65	15382.5	60	Marcellus	
27	10/18/2019	15346.87	15180.72	60	Marcellus	
28	10/19/2019	15145.09	14978.94	60	Marcellus	
29	10/19/2019	14943.31	14777.16	60	Marcellus	
30	10/20/2019	14741.53	14575.38	60	Marcellus	
31	10/20/2019	14539.75	14373.6	60	Marcellus	
32	10/21/2019	14337.97	14171.82	60	Marcellus	
33	10/21/2019	14136.19	13970.04	60	Marcellus	
34	10/21/2019	13934.41	13768.26	60	Marcellus	
35	10/22/2019	13732.63	13566.48	60	Marcellus	
36	10/23/2019	13530.85	13364.7	60	Marcellus	
37	10/23/2019	13329.07	13162.92	60	Marcellus	
38	10/24/2019	13127.29	12961.14	60	Marcellus	
39	10/24/2019	12925.51	12759.36	60	Marcellus	
40	10/24/2019	12723.73	12557.58	60	Marcellus	
41	10/25/2019	12521.95	12355.8	60	Marcellus	
42	10/25/2019	12320.17	12154.02	60	Marcellus	
43	10/26/2019	12118.39	11952.24	60	Marcellus	
44	10/27/2019	11916.61	11750.46	60	Marcellus	
45	10/27/2019	11714.83	11548.68	60	Marcellus	
46	10/28/2019	11513.05	11346.9	60	Marcellus	
47	10/28/2019	11311.27	11145.12	60	Marcellus	
48	10/28/2019	11109.49	10943.34	60	Marcellus	
49	10/29/2019	10907.71	10741.56	60	Marcellus	
50	10/29/2019	10705.93	10539.78	60	Marcellus	
51	10/30/2019	10504.15	10338	60	Marcellus	
52	10/30/2019	10302.37	10136.22	60	Marcellus	
53	10/31/2019	10100.59	9934.44	60	Marcellus	
54	10/31/2019	9898.81	9732.66	60	Marcellus	
55	11/1/2019	9697.03	9530.88	60	Marcellus	
56	11/1/2019	9495.25	9329.1	60	Marcellus	
57	11/2/2019	9293.47	9127.32	60	Marcellus	
58	11/2/2019	9091.69	8925.54	60	Marcellus	
59	11/2/2019	8889.91	8723.76	60	Marcellus	
60	11/3/2019	8688.13	8521.98	60	Marcellus	
61	11/3/2019	8486.35	8320.2	60	Marcellus	
62	11/3/2019	8284.57	8118.42	60	Marcellus	
63	11/4/2019	8082.79	7916.64	60	Marcellus	
64	11/3/2019	7881.01	7714.86	60	Marcellus	
65	11/5/2019	7679.23	7513.08	60	Marcellus	
66	11/5/2019	7477.45	7311.3	60	Marcellus	
67	11/6/2019	7275.67	7109.52	60	Marcellus	
68	11/6/2019	7073.89	6907.74	60	Marcellus	
69	11/6/2019	6872.11	6705.96	60	Marcellus	
70	11/7/2019	6670.33	6504.18	60	Marcellus	

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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	9/30/2019	80.51402	9752.751	6695	3247	160960	4221.376	N/A
2	10/1/2019	82.3	10019	5241	3823	404740	9029.886	N/A
3	10/1/2019	80.5879	9415.581	5369	3300	400500	8882.98	N/A
4	10/2/2019	85.1	9695	5198	3711	404780	8908.28	N/A
5	10/2/2019	76.25338	8824.488	5252	3320	402680	8846.983	N/A
6	10/3/2019	79.38474	10018.59	5793	3593	404160	8924.409	N/A
7	10/3/2019	81.97231	9786.205	5655	3790	401280	8783.365	N/A
8	10/4/2019	82.28335	9989.215	5418	3915	396020	9044.905	N/A
9	10/4/2019	80.79033	10619.2	5841	2965	405900	8990.325	N/A
10	10/6/2019	80.24008	9927.922	6059	3895	405040	8841.365	N/A
11	10/6/2019	75.54686	8578.724	6034	4585	411160	13618.51	N/A
12	10/7/2019	80.08638	9866.3	5766	3537	405660	8822.975	N/A
13	10/8/2019	78.21484	9679.131	6789	4158	409540	11631.88	N/A
14	10/11/2019	79.74286	10043.14	5539	4905	405160	9855.19	N/A
15	10/12/2019	82.78857	10124.15	5638	3740	404460	8756.39	N/A
16	10/12/2019	80.88462	9591.846	5499	4805	408202	8798.19	N/A
17	10/13/2019	85.2014	8914.233	5412	3399	406580	8755.86	N/A
18	10/13/2019	88.26902	10138.28	5822	4393	404220	8888.62	N/A
19	10/13/2019	79.7	8531.615	5310	4006	401580	8751.19	N/A
20	10/14/2019	82.13764	9173.934	5694	3350	406140	8916.72	N/A
21	10/15/2019	89.79572	9123.009	5623	3641	402920	8778	N/A
22	10/15/2019	87.4	9705	5636	3852	402440	8795.38	N/A
23	10/16/2019	88	9010	5998	3572	405160	8707.99	N/A
24	10/16/2019	89.42537	9607.762	5944	5061	371560	8951.681	N/A
25	10/17/2019	88.09624	9434.357	6293	3780	405780	8710.36	N/A
26	10/18/2019	83.25792	9575.294	6019	4151	398740	10725.08	N/A
27	10/18/2019	87	9493	5697	3548	401480	8705.79	N/A
28	10/19/2019	87.50817	9675.281	5523	3616	403100	8611.59	N/A
29	10/19/2019	88.18478	9069.237	6037	3364	406280	8699.87	N/A
30	10/20/2019	88.04523	8746.68	5281	3351	410180	8615.61	N/A
31	10/20/2019	88.56026	8693.029	5318	3653	403040	8671.09	N/A
32	10/21/2019	86.85567	8322.361	5616	3618	406880	8599.18	N/A
33	10/21/2019	89.76649	8375.456	6567	3348	402140	8552.38	N/A
34	10/21/2019	82.37491	8228.415	5416	3944	405560	8990.88	N/A
35	10/22/2019	89.81022	8306.195	5222	3616	404180	8649.01	N/A
36	10/23/2019	84.66449	7890.311	5184	3674	404520	8651.68	N/A
37	10/23/2019	86.37188	8127.022	5148	3686	403300	8532.28	N/A
38	10/24/2019	85.87931	8018.116	5172	3779	404500	8446.27	N/A
39	10/24/2019	84.453	7368.524	5333	3762	402680	8571.57	N/A
40	10/24/2019	85.70014	7558.297	5853	3609	410100	8661.07	N/A
41	10/25/2019	85.99314	7899.537	6030	3591	403000	8947.59	N/A
43	10/26/2019	83.49679	7449.036	5369	3717	403460	10265.96	N/A
44	10/27/2019	85.08333	8605.956	5274	3771	400840	8449.84	N/A
45	10/27/2019	84.28551	8094.045	5855	3758	397960	8490.19	N/A
46	10/28/2019	85.74889	9033.295	5666	5009	398840	8507.49	N/A
47	10/28/2019	82.59953	7259.603	5114	4461	407160	8587.68	N/A
48	10/28/2019	84.35781	7674.369	5322	3553	405960	8596.14	N/A
49	10/29/2019	84.82672	7671.907	5992	3863	400300	8407.26	N/A
50	10/29/2019	87.36876	7906.174	5543	4706	403380	8539.14	N/A
51	10/30/2019	83.87364	7363.102	5052	4055	404760	8538.49	N/A
53	10/31/2019	84.50879	7202.085	4963	4595	394460	8670.49	N/A
54	10/31/2019	86.95697	7580.597	5399	3726	402140	9105.33	N/A
55	11/1/2019	86.6726	6909.048	5246	3820	396480	8376.06	N/A
56	11/1/2019	87.22419	7126.958	6112	3732	404980	8445.36	N/A
57	11/2/2019	89.91673	7275.102	5832	3426	405180	8569.2	N/A
58	11/2/2019	86.63249	7235.17	6044	3583	409560	8460.95	N/A
59	11/2/2019	83.39176	6722.915	5985	3764	402940	8517.93	N/A
60	11/3/2019	86.02044	7046.245	5476	4106	402460	8462.11	N/A
61	11/3/2019	86.90668	6714.829	5650	3878	400040	8372.68	N/A
62	11/3/2019	86.21114	7118.961	5956	4161	399200	8310.78	N/A
63	11/4/2019	85.54293	6959.106	5915	4134	404000	8990.35	N/A
64	11/3/2019	86.69657	7036.337	5420	3546	400600	8451.89	N/A
65	11/5/2019	86.18103	6571.384	5311	4849	398260	8483.39	N/A
66	11/5/2019	85.54843	7217.799	4876	3715	404760	8736.29	N/A
67	11/6/2019	84	6375	5512	3894	400280	8325.5	N/A
68	11/6/2019	87.35831	6503.438	5027	3851	404180	8360.94	N/A
69	11/6/2019	83.89136	6127.386	5942	3774	403420	8259.1	N/A
70	11/7/2019	87.15502	7610.245	4961	3917	402780	7981.65	N/A
	AVG=	84	9,440	5,745	3,788	13,017,982	296,399	TOTAL

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EXHIBIT 3

LITHOLOGY/ FORMATION	TOP DEPTH (TVD)		BOTTOM DEPTH (TVD)		BOTTOM DEPTH (MD)	
	From Surface		From Surface		From Surface	
Sandstone	0		215		0	215
Sandy Siltstone	215		385		215	385
Shaly Siltstone	385		585		385	585
Silty sandstone	585		625		585	625
Shaly Siltstone	625		745		625	745
Silty sandstone	745		805		745	805
Sandy Siltstone	805		865		805	865
Shaly Siltstone	865		985		865	985
Silty Shale	985		1,185		985	1,185
Silty Sandstone	1,185		1,475		1,185	1,475
Sandstone	1,475		1,645		1,475	1,645
Sandy Siltstone	1,645		1,745		1,645	1,745
Silty sandstone	1,745		1,792		1,745	1,808
Big Lime	1,807		2,649		1,783	2,650
Fifty Foot Sandstone	2,649		2,734		2,625	2,734
Gordon	2,734		3,087		2,709	3,090
Fifth Sandstone	3,087		3,352		3,065	3,359
Bayard	3,352		4,009		3,334	4,036
Speechley	4,009		4,288		4,011	4,325
Balltown	4,288		4,486		4,300	4,529
Bradford	4,486		4,731		4,504	4,783
Benson	4,731		4,870		4,758	4,927
Alexander	4,870		6,063		4,902	6,230
Sycamore	5,940		6,038		6,067	6,205
Middlesex	6,038		6,129		6,205	6,384
Burkett	6,129		6,147		6,384	6,437
Tully	6,147		6,154		6,437	6,457
Marcellus	6,154		NA		6,457	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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	0.07675	1.00000	471-34-1	Calcite
	0.03345	1.00000	12173-60-3	Illite
	0.01675	60.00000	64742-46-7	Distillates (petroleum), hydrotreated middle
	0.01675	60.00000	9000-30-0	Guar gum
	0.01504	30.00000	69418-26-4	Copolymer of 2- propanamide
	0.01102	0.10000	1310-14-1	Goethite
	0.01102	0.10000	1302-27-8	Biotite
	0.01102	0.10000	64476-38-6	Apatite
	0.01003	20.00000	64742-47-8	Distillates (petroleum), hydrotreated light
	0.00590	54.50000	25322-68-3	Polyethylene glycol mixture
	0.00401	8.00000	12125-02-9	Ammonium chloride
	0.00334	0.10000	98072-94-7	Ilmenite
	0.00216	20.00000	10222-01-2	2,2-Dibromo-3- Nitriopropanamide
	0.00140	5.00000	68953-58-2	Quaternary ammonium compounds, bis (hydrogenated tallow alkyl)dimethyl, salts with bentonite
	0.00100	2.00000	93-83-4	Oleic Acid Diethanolamide
	0.00061	100.00000	7727-54-0	Ammonium Persulfate
	0.00043	4.00000	7647-15-6	Sodium bromide
	0.00042	1.50000	37251-67-5	Oxirane, 2-methyl-, polymer with oxirane, monodecyl ether
	0.00039	60.00000	77-92-9	Citric acid
	0.00032	3.00000	3252-43-5	Dibromoacetoneitrile
	0.00012	20.00000	25038-72-6	Vinylidene chloride- methyl acrylate copolymer
	0.00005	40.00000	107-21-1	Ethylene Glycol
	0.00003	20.00000	34590-94-8	Diethylene glycol, monomethyl ether

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			104-55-2	10.00000	0.00001
			Formic acid	10.00000	0.00001
			Tar bases, quinolone derivs, benzyl chloride- quatenized	10.00000	0.00001
			67-63-0	5.00000	0.00001
			68131-39-5	10.00000	0.00001
			Ethoxylated Alcohols	10.00000	0.00001

* Total Water Volume sources may include various types of water including fresh water, produced water, and recycled water
 ** Information is based on the maximum potential for concentration and thus the total may be over 100%
 *** If you are calculating a percentage of total ingredients do not add the water volume below the green line to the water volume above the green line

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)

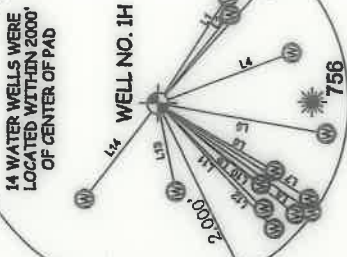
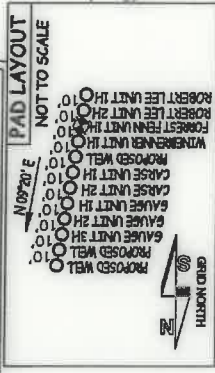
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Antero Resources Corporation
Well No. Forrest Fenn Unit 1H

AS DRILLED DATA:
WELL 1H TOP HOLE INFORMATION:
N: 337,307ft E: 1,584,803ft
LAT: 39°25'00.42" N ON: 80°58'10.78"
BOTTOM HOLE INFORMATION:
N: 352,758ft E: 1,580,113ft
LAT: 39°27'32.35" N ON: 80°59'13.79"
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 1H TOP HOLE INFORMATION:
N: 4,363,038m E: 502,626m
BOTTOM HOLE INFORMATION:
N: 4,367,721m E: 501,119m



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 PERSCRIBED BY THE DEPARTMENT OF ENVIRONMENTAL PROTECTION.

STATE OF WEST VIRGINIA, DIVISION OF ENVIRONMENTAL PROTECTION, OFFICE OF OIL AND GAS

WILLOW LAND SURVEYING PLLC
220 MASONIC AVE. PENNSBORO
WEST VIRGINIA 26415



JOB # 18-026WA

DRAWING # FORRESTFENYAD

SCALE 1" = 2000'

MINIMUM DEGREE OF ACCURACY

SUBMETER

PROVEN SOURCE OF ELEV.

SUBMETER MAPPING GRADE GPS

STATE OF WEST VIRGINIA

DEPARTMENT OF ENERGY

DIVISION OF OIL AND GAS

WELL TYPE: OIL GAS X LIQUID INJECTION

(IF "GAS") PRODUCTION X STORAGE ___ DEEP ___ SHALLOW X

LOCATION: ELEVATION 986'-AS BUILT WATERSHED

QUADRANGLE MIDDLEBOURNE 7.5

SURFACE OWNER JOSEPH R. RYMER JR.

OIL & GAS ROYALTY OWNER HOWARD H. HARCHA III- JAMES DOUGLAS WHITE- JAMES T. STINSON ET UX;

TERRIA A. GLOAD- CHESTER L. BAKER ET AL- NANCY LEE BRADFORD ET VIR; THE DALE E. WISE TRUST UTD- NORMA JEAN SWARTZ ET VIR;

LONNIE JAMES JANIE DENON TRUST- NANCY P. BAILEY- HOWARD O. FLESHER ET UX; LARRY D. MCMULLEN- CATHY E. EDDY

PROPOSED WORK: DRILL CONVERT ___ PERFORATE NEW FORMATION ___ REDRILL DEEPER ___ OTHER PHYSICAL CHANGE IN WELL (SPECIFY) AS DRILLED

TARGET FORMATION MARCELLUS

WELL OPERATOR ANTERO RESOURCES CORP.

ADDRESS 1615 WYNNCOOP ST.

FORM WW-6 DENVER, CO 80202

LATITUDE 39°27'30"

8,141' TO BOTTOM HOLE

LATITUDE 39°30'00"

3,201'

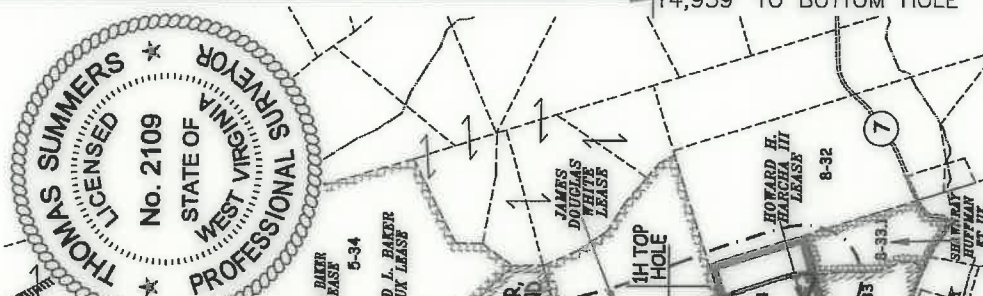
LONGITUDE 80°57'30"

15,134'

LONGITUDE 80°57'30"

14,939' TO BOTTOM HOLE

TH/PT/AR	SURFACE OWNER	DB/PG	ACREAGE
1-1.1	Howard Fletcher	334/281	0.94 AC
1-1.2	Envy Whitley	270/263	42 AC
1-02	Howard Fletcher	334/281	91 AC
1-03	George Post	321/59	110 AC
1-05	Nancy Fletcher	334/284	73.82 AC
1-07	Michael Roberts	309/281	8.82 AC
1-7.1	Cathy Eddy	328/439	34.36 AC
1-7.2	Cathy Eddy	309/287	8.83 AC
1-7.3	Kevin Roberts	309/284	8.82 AC
1-7.4	Melvia Fox	309/290	8.82 AC
4-01	WSD Properties LLC	443/451	44.24 AC
4-1.1	Nancy Fletcher	334/284	44.25 AC
4-1.2	WSD Properties LLC	463/451	39 AC
4-07	Steven Anderson	405/388	106 AC
4-18	Terrill Tallman	405/388	106 AC
4-25	Terrill Starkey	372/332	42.21 AC
4-28	Terrill Starkey	332/346	84.13 AC
5-02	Steven Anderson	ANM/343	79.87 AC
5-03	Dennis Sole Trust	463/369	189.71 AC
5-34	David Stevens	WB9/492	173.65 AC
5-35	Nancy Bradford	323/251	59.05 AC
5-36	The Valley View Trust	472/810	13.73 AC
5-37	The Valley View Trust	472/810	19.5 AC
5-39	James Stinson	472/810	5 AC
8-02	Charles Mosser	376/001	80.11 AC
8-32	WSD Properties LLC	330/138	103.99 AC
8-33	WSD Properties LLC	463/438	282.2 AC
8-35	Richard Brightwell	383/669	84.25 AC
8-34	Shawn Huffman	541/760	15 AC
8-51	Joseph Byrner	336/238	44.33 AC
8-51	Charles Mosser	343/605	39.85 AC



LINE	BEARING	DISTANCE
L1	S 89°15' E	1331.7
L2	S 89°15' E	1160.9
L3	S 89°14' E	1001.9
L4	S 20°46' E	488.9
L5	S 10°14' W	1781.2
L6	S 29°24' W	1011.9
L7	S 22°14' W	1011.9
L8	S 38°06' W	1011.9
L9	S 34°43' W	1281.3
L10	S 44°37' W	1574.9
L11	S 41°58' W	1011.2
L12	S 78°10' W	945.7
L13	S 78°10' W	945.7
L14	N 63°07' W	1286.7

LEGEND

----- Surface Owner Boundary Lines +/-

----- Interior Surface Tracts +/-

Proposed Well Path

As drilled Well Path

THOMAS SUMMERS P.S. 2109

DATE 09/09/20

OPERATOR'S WELL # FORREST FENN UNIT #1H

WASTE DISPOSAL

QUADRANGLE MIDDLEBOURNE 7.5

DISTRICT MEADE COUNTY TYLER

ACREAGE 44.33 ACRES +/-

STATE COUNTY PERMIT

47 095 02560

LEASE ACREAGE 44.33 AC +/- 134.53 AC +/- 80.11 AC +/-

84.3 AC +/- 38.23 AC +/- 59.05 AC +/- 106 AC +/- 52 AC +/-

54.46 AC +/- 620.45 AC +/- 127.67 AC +/- 116.59 AC +/- 42 AC +/- 142.31 AC +/-

FRACURE OR STIMULATE

CLEAN OUT & REPLUG

6.166' TVD 22.522' MD

DIANNA STAMPER - CT CORPORATION SYSTEM

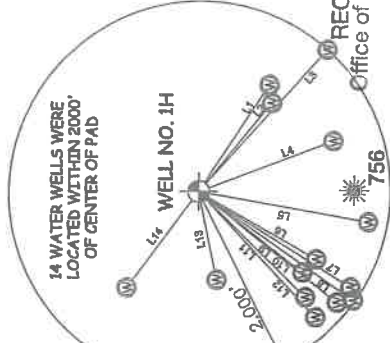
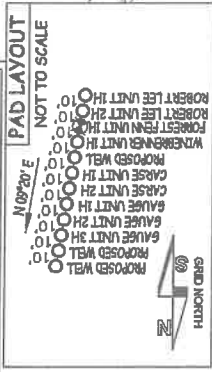
5400 D BIG TYLER ROAD

CHARLESTON, WV 25313

- 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.
- TOP HOLE DATA SHOWN HEREON WAS PROVIDED BY ANTERO RESOURCES CORPORATION.
- THIS IS NOT CERTIFYING THE DATA AND INFORMATION PROVIDED TO THE DATA AND INFORMATION PROVIDED TO THE LEASE BOUNDARIES. THIS IS BY NO MEANS RESPONSIBLE FOR ANY ERRORS OR INACCURACIES WITH THE DATA AND INFORMATION THAT HAS BEEN PROVIDED.

Antero Resources Corporation
Well No. Forrest Fenn Unit 1H

AS DRILLED DATA:
WELL 1H TOP HOLE INFORMATION:
N: 337,307ft E: 1,584,803ft
LAT: 39°25'00.42" N; LONG: 80°58'10.78"
BOTTOM HOLE INFORMATION:
N: 392,758ft E: 1,580,113ft
LAT: 39°27'32.35" N; LONG: 80°59'13.79"
WEST VIRGINIA COORDINATE SYSTEM OF 1927 NORTH ZONE. ZONE WAS DERIVED FROM MEASUREMENTS TAKEN WITH TRIANGLE GEOMET 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 1H TOP HOLE INFORMATION:
N: 4,363,038m E: 502,626m
BOTTOM HOLE INFORMATION:
N: 4,367,721m E: 501,119m



RECEIVED
Office of Oil and Gas
AUG 31 2020
WV Department of Environmental Protection

I, THE UNDERSIGNED, HEREBY CERTIFY THAT THIS PLAN 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, DIVISION OF ENVIRONMENTAL PROTECTION, OFFICE OF OIL AND GAS
WILLOW LAND SURVEYING PLLC
220 MASONIC AVE. PENNSBORO WEST VIRGINIA 26415

JOB # 18-028WA
DRAWING # FORRESTFENN1H
SCALE 1" = 2000'
MINIMUM DEGREE OF ACCURACY SUBMETER
PROVEN SOURCE OF ELEV. SUBMETER MAPPING GRADE GPS
STATE OF WEST VIRGINIA DEPARTMENT OF ENERGY DIVISION OF OIL AND GAS

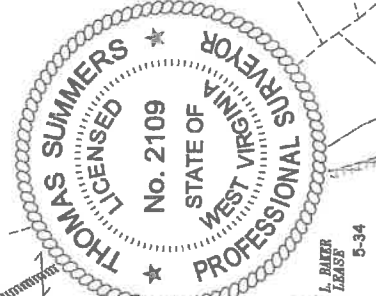
LEGEND
- - - - - Surface Owner Boundary Lines +/-
- - - - - Interior Surface Tracts +/-
O - - - - - Proposed Well Path
O - - - - - As Drilled Well Path
THOMAS SUMMERS P.S. 2 109
DATE 03/09/20
OPERATOR'S WELL # FORREST FENN UNIT #1H

WELL TYPE: OIL GAS LIQUID INJECTION WASTE DISPOSAL
(IF "GAS") PRODUCTION STORAGE DEEP SHALLOW
LOCATION: ELEVATION 986' - AS BUILT WATERSHED QUADRANGLE MIDDLEBOURNE 7.5
SURFACE OWNER JOSEPH R. RYMER JR. ACREAGE 44.33 ACRES +/-
OIL & GAS ROYALTY OWNER HOWARD H. HARGCHA III; JAMES DOUGLAS WHITE; JAMES T. STINSON ET UX; LEASE ACREAGE 44.33 AC +/- 134.53 AC +/- 80.11 AC +/-
TERRI A. GLOAD; CHESTER L. BAKER ET AL; NANCY LEE BRADFORD ET VIR; THE DALE E. WISE TRUST LTD; NORMA JEAN SWARTZ ET VIR;
LONNIE JAMES; JANIE DENON TRUST; NANCY P. BAILEY; HOWARD O. FLESHER ET UX; LARRY D. MCMULLEN; CATHY L.E. EDDY 84.3 AC +/- 38.23 AC +/- 59.05 AC +/- 106 AC +/- 62 AC +/-
54.46 AC +/- 620.45 AC +/- 127.67 AC +/- 116.59 AC +/- 42 AC +/- 142.31 AC +/-
PROPOSED WORK: DRILL CONVERT PERFORATE NEW FORMATION REDRILL FRACTURE OR STIMULATE
PLUG OFF OLD FORMATION CONVERT OTHER PHYSICAL CHANGE IN WELL CLEAN OUT & REPLUG
(SPECIFY) AS DRILLED
TARGET FORMATION MARCELLUS ESTIMATED DEPTH 6,168' TVD 22,522' MD
WELL OPERATOR ANTERO RESOURCES CORP. DESIGNATED AGENT DIANNA STAMPER - CT CORPORATION SYSTEM
ADDRESS 1815 WYNKOOP ST. ADDRESS 5400 D BIG TYLER ROAD
FORM WW-6 DENVER, CO 80202

COUNTY NAME ISLAND CREEK PERMIT 02560
STATE 47 COUNTY 095
DISTRICT MEADE COUNTY TYLER
ACREAGE 44.33 ACRES +/-

LATITUDE 39°27'30" LONGITUDE 80°57'30"

TN-PAR	SURFACE OWNER	DB/P#	ACREAGE
1-1.1	Howard Fletcher	354/281	0.94 AC
1-1.2	Gony Whitely	270/263	42 AC
1-2	Howard Fletcher	354/281	91 AC
1-03	George Post	321/99	110 AC
1-05	Nancy Fletcher	334/284	73.82 AC
1-07	Michael Roberts	309/281	8.82 AC
1-7.1	Cathy Eddy	368/459	34.36 AC
1-7.2	Cathy Eddy	309/287	8.83 AC
1-7.3	Kevin Roberts	309/284	8.82 AC
1-7.4	Melvia Fox	309/290	8.82 AC
4-01	WSD Properties LLC	463/481	44.24 AC
4-1.1	Nancy Fletcher	334/284	44.25 AC
4-1.2	WSD Properties LLC	463/481	39 AC
4-07	Steven Anderson	4845/342	51.75 AC
4-18	Trevor Tallman	405/388	106 AC
4-25	Tennell Starkey	372/352	42.21 AC
4-28	Terri Gload	332/346	84.13 AC
5-02	Steven Anderson	4845/342	79.487 AC
5-34	David Stevens	463/559	169.71 AC
5-36	Nancy Bradford	WR18/492	173.65 AC
5-37	The Valley View Trust	323/281	69.05 AC
5-38	The Valley View Trust	472/810	33.73 AC
5-39	The Valley View Trust	472/810	19.5 AC
8-02	Charles Messer	376/001	5 AC
8-32	WSD Properties LLC	330/138	103.99 AC
8-33	Richard Brightwell	463/438	282.2 AC
8-33.1	Shawn Hartman	983/659	64.25 AC
8-34	Joseph Hymer	544/760	15 AC
8-51	Charles Messer	338/238	44.33 AC
8-51	Charles Messer	343/505	39.85 AC



LONGITUDE 80°57'30" 14,939' TO BOTTOM HOLE

- NO DRILLED 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.
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- AS DRILLED DATA WAS PROVIDED BY ANTERO RESOURCES CORPORATION.
- WELLS IS NOT CERTIFYING THE DATA AND INFO HAS BEEN PROVIDED IN NOTES 2 AND 3, ONLY THE DATA SHOWN TO THIS DATA AND INFORMATION PROVIDED TO THE DATA AND WELLS.
- WELLS IS BY NO MEANS RESPONSIBLE FOR ANY ERRORS OR DISCREPANCIES WITH THE DATA AND INFORMATION THAT HAS BEEN PROVIDED.

COUNTY NAME PERMIT