

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

API 47-095-02579 County Tyler District Ellsworth
Quad Middlebourne 7.5' Pad Name Ferrell Pad Field/Pool Name -----
Farm name Antero Resources Midstream LLC Well Number Remo 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 4369215.503m Easting 507025.891m
Landing Point of Curve Northing 4369240.30m Easting 506783.88m
Bottom Hole Northing 4373079.685m Easting 505461.078m

Elevation (ft) 731.4' 757' 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

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Mud - Polymer WV Department of Environmental Protection

Date permit issued 3/5/2019 1/25/2019 Date drilling commenced 5/25/2019 Date drilling ceased 9/21/2019
Date completion activities began 12/19/2019 Date completion activities ceased 1/29/2020
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 194', 243' Open mine(s) (Y/N) depths No
Salt water depth(s) ft 1224', 1347' Void(s) encountered (Y/N) depths No
Coal depth(s) ft 770' Cavern(s) encountered (Y/N) depths No
Is coal being mined in area (Y/N) No

Reviewed by:
CEB
1/10/15/2020

API 47- 095 - 02579 Farm name Antero Resources Midstream LLC Well number Remo 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"	395'	New	54#, J-55	N/A	Y
Coal							
Intermediate 1	12-1/4"	9-5/8"	2602'	New	36#, H-40	N/A	Y
Intermediate 2							
Intermediate 3							
Production	8-3/4"/8-1/2"	5-1/2"	19880'	New	23#, P-110	N/A	Y
Tubing		2-3/8"	6232'		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 ³ /sks)	Volume (ft ³)	Cement Top (MD)	WOC (hrs)
Conductor	Class A	204 sx	15.6	1.18	244	0'	8 Hrs.
Surface	Class A	350 sx	15.6	1.19	402	0'	8 Hrs.
Coal							
Intermediate 1	Class A	905 sx	15.6	1.18	1047	0'	8 Hrs.
Intermediate 2							
Intermediate 3							
Production	Class H	798 sx (Lead) 3083 sx (Tail)	13.5 (Lead), 15.2 (Tail)	1.53 (Lead), 1.83 (Tail)	2819	-500' into Intermediate Casing	8 Hrs.
Tubing							

Drillers TD (ft) 19900' MD, 6025' TVD (BHL), 6027' (Deepest Point Drilled) Loggers TD (ft) 19900' MD
 Deepest formation penetrated Marcellus Plug back to (ft) N/A
 Plug back procedure N/A

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Kick off depth (ft) 5325'

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

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PERFORATION RECORD

Stage No.	Perforation date	Perforated from MD ft.	Perforated to MD ft.	Number of Perforations	Formation(s)
*PLEASE 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)
*PLEASE SEE ATTACHED EXHIBIT 2								

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Please insert additional pages as applicable.

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<u>PRODUCING FORMATION(S)</u>	<u>DEPTHS</u>		
<u>Marcellus</u>	<u>6020' (TOP)</u>	<u>TVD</u>	<u>6282' (TOP)</u> <u>MD</u>
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____

Please insert additional pages as applicable.

GAS TEST Build up Drawdown Open Flow OIL TEST Flow Pump

SHUT-IN PRESSURE Surface 2800 psi Bottom Hole --- psi DURATION OF TEST --- hrs

OPEN FLOW Gas 1354 mcfpd Oil 626 bpd NGL --- bpd Water 1378 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 ₂ S, ETC)
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***PLEASE SEE ATTACHED EXHIBIT 3**

Please insert additional pages as applicable.

Drilling Contractor Frontier Drilling LLC
Address 562 Spring Run Road City Pennsboro State WV Zip 26415

Logging Company Nine Energy Services
Address 125 Museum Road City Washington State PA Zip 15301

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

Stimulating Company Baker Hughes
Address 837 Philippi Pike City Clarksburg State WV Zip 26301

Please insert additional pages as applicable.

Completed by Megan Griffith Telephone 303-357-7223
Signature  Title Permitting Agent Date 6/19/20

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

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EXHIBIT 1

Stage No.	Perforation Date	Perforated from MD ft.	Perforated to MD ft.	Number of Perforations	Formations
1	12/7/2019	19781	19736	60	Marcellus
2	12/7/2019	19697.16414	19529.9848	60	Marcellus
3	12/8/2019	19494.14899	19326.9697	60	Marcellus
4	12/8/2019	19291.13384	19123.9545	60	Marcellus
5	12/8/2019	19088.11869	18920.9394	60	Marcellus
6	12/9/2019	18885.10354	18717.9242	60	Marcellus
7	12/9/2019	18682.08838	18514.9091	60	Marcellus
8	12/10/2019	18479.07323	18311.8939	60	Marcellus
9	12/10/2019	18276.05808	18108.8788	60	Marcellus
10	12/10/2019	18073.04293	17905.8636	60	Marcellus
11	12/10/2019	17870.02778	17702.8485	60	Marcellus
12	12/11/2019	17667.01263	17499.8333	60	Marcellus
13	12/11/2019	17463.99747	17296.8182	60	Marcellus
14	12/11/2019	17260.98232	17093.803	60	Marcellus
15	12/12/2019	17057.96717	16890.7879	60	Marcellus
16	12/12/2019	16854.95202	16687.7727	60	Marcellus
17	12/12/2019	16651.93687	16484.7576	60	Marcellus
18	12/12/2019	16448.92172	16281.7424	60	Marcellus
19	12/13/2019	16245.90657	16078.7273	60	Marcellus
20	12/13/2019	16042.89141	15875.7121	60	Marcellus
21	12/13/2019	15839.87626	15672.697	60	Marcellus
22	12/14/2019	15636.86111	15469.6818	60	Marcellus
23	12/14/2019	15433.84596	15266.6667	60	Marcellus
24	12/15/2019	15230.83081	15063.6515	60	Marcellus
25	12/15/2019	15027.81566	14860.6364	60	Marcellus
26	12/15/2019	14824.80051	14657.6212	60	Marcellus
27	12/15/2019	14621.78535	14454.6061	60	Marcellus
28	12/16/2019	14418.7702	14251.5909	60	Marcellus
29	12/16/2019	14215.75505	14048.5758	60	Marcellus
30	12/16/2019	14012.7399	13845.5606	60	Marcellus
31	12/17/2019	13809.72475	13642.5455	60	Marcellus
32	12/17/2019	13606.7096	13439.5303	60	Marcellus
33	12/17/2019	13403.69444	13236.5152	60	Marcellus
34	12/18/2019	13200.67929	13033.5	60	Marcellus
35	12/18/2019	12997.66414	12830.4848	60	Marcellus
36	12/18/2019	12794.64899	12627.4697	60	Marcellus
37	12/18/2019	12591.63384	12424.4545	60	Marcellus
38	12/19/2019	12388.61869	12221.4394	60	Marcellus
39	12/19/2019	12185.60354	12018.4242	60	Marcellus
40	12/19/2019	11982.58838	11815.4091	60	Marcellus
41	12/19/2019	11779.57323	11612.3939	60	Marcellus
42	12/20/2019	11576.55808	11409.3788	60	Marcellus
43	12/20/2019	11373.54293	11206.3636	60	Marcellus
44	12/20/2019	11170.52778	11003.3485	60	Marcellus
45	12/20/2019	10967.51263	10800.3333	60	Marcellus
46	12/20/2019	10764.49747	10597.3182	60	Marcellus
47	12/21/2019	10561.48232	10394.303	60	Marcellus
48	12/22/2019	10358.46717	10191.2879	60	Marcellus
49	12/23/2019	10155.45202	9988.27273	60	Marcellus
50	12/23/2019	9952.436869	9785.25758	60	Marcellus
51	12/23/2019	9749.421717	9582.24242	60	Marcellus
52	12/23/2019	9546.406566	9379.22727	60	Marcellus
53	12/24/2019	9343.391414	9176.21212	60	Marcellus
54	12/24/2019	9140.376263	8973.19697	60	Marcellus
55	12/24/2019	8937.361111	8770.18182	60	Marcellus
56	12/24/2019	8734.34596	8567.16667	60	Marcellus
57	12/24/2019	8531.330808	8364.15152	60	Marcellus
58	12/25/2019	8328.315657	8161.13636	60	Marcellus
59	12/25/2019	8125.300505	7958.12121	60	Marcellus
60	12/25/2019	7922.285354	7755.10606	60	Marcellus
61	12/25/2019	7719.270202	7552.09091	60	Marcellus
62	12/26/2019	7516.255051	7349.07576	60	Marcellus
63	12/26/2019	7313.239899	7146.06061	60	Marcellus
64	12/26/2019	7110.224747	6943.04545	60	Marcellus
65	12/26/2019	6907.209596	6740.0303	60	Marcellus
66	12/27/2019	6704.194444	6537.01515	60	Marcellus
67	12/27/2019	6501.179293	6334	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	12/7/2019	70.7081	7287.172	5581	3796	186960	6416	N/A
2	12/7/2019	71.08923	7945.867	5498	4159	402040	9287.836	N/A
3	12/8/2019	72.71457	7898.225	6082	3972	403000	7377.09	N/A
4	12/8/2019	80.89333	7967.55	5757	4442	401140	7780.821	N/A
5	12/8/2019	82.41881	8383.139	5499	3981	401480	7351.19	N/A
6	12/9/2019	83.73968	8219.116	5521	4591	401760	10518.69	N/A
7	12/9/2019	79.50274	8559.708	5865	3441	408400	7578.02	N/A
8	12/10/2019	79.76418	8443.344	5888	3562	405980	7356.12	N/A
9	12/10/2019	80.27019	8342.648	5995	3552	401820	7227.26	N/A
10	12/10/2019	78.37148	8367.279	5808	3580	398280	7169.5	N/A
11	12/10/2019	81.83915	8556.188	6056	3911	405760	7301.04	N/A
12	12/11/2019	81.11626	8499.129	5881	3871	400740	7227.78	N/A
13	12/11/2019	81.26444	8591.918	5722	3895	407640	7105.8	N/A
14	12/11/2019	80.69246	8325.976	5633	3783	398900	7150.83	N/A
15	12/12/2019	80.01718	8386.676	5619	3881	402820	7253.96	N/A
16	12/12/2019	73.65455	8509.364	5438	4992	401080	7961.2	N/A
17	12/12/2019	73.74622	8030.094	5452	4439	400400	9103.22	N/A
18	12/12/2019	74.3601	7935.71	5572	4381	409540	7967.16	N/A
19	12/13/2019	80.8164	8348.388	5636	4134	401700	7110.49	N/A
20	12/13/2019	85.24326	8077.021	4423	4715	409900	7125.92	N/A
21	12/13/2019	82.06439	8236.112	5320	4618	401760	7049.8	N/A
22	12/14/2019	80.49967	8105.057	5410	4742	408240	9489.73	N/A
23	12/14/2019	85.03942	8109.265	4387	4323	407140	7124.4	N/A
24	12/15/2019	83.27181	8457.339	4853	3716	406240	7156.19	N/A
25	12/15/2019	83.33438	8421.387	5021	3895	409440	7142	N/A
26	12/15/2019	82.98169	8084.671	5033	3403	406060	6947.37	N/A
27	12/15/2019	83.99156	8274.041	5182	3579	410200	7145.76	N/A
28	12/16/2019	75.51692	8344.858	5847	3191	408960	7061.97	N/A
29	12/16/2019	81.44069	7915.331	4906	3483	408180	6987.4	N/A
30	12/16/2019	84.57092	8172.934	5350	3338	406410	6995.21	N/A
31	12/17/2019	85.53364	7996.806	5665	3286	404080	7002.28	N/A
32	12/17/2019	85.22469	7913.758	5350	3293	402640	6942.84	N/A
33	12/17/2019	82.04029	7925.224	5046	3573	407300	6965.95	N/A
34	12/18/2019	83.4494	7836.952	5459	3838	410540	6977.22	N/A
35	12/18/2019	83.04939	7624.194	4851	3749	407020	7031.69	N/A
36	12/18/2019	82.53199	7828.206	5130	3609	404100	6931.48	N/A
37	12/18/2019	81.25223	7567.726	5467	3558	405640	6983.97	N/A
38	12/19/2019	80.5911	7541.003	4115	3636	406180	6967.45	N/A
39	12/19/2019	85.37005	8033.248	5410	3464	402140	6880.42	N/A
40	12/19/2019	86.62624	8117.49	5873	3524	405620	6899.45	N/A
41	12/19/2019	83.23305	7777.999	5826	3751	407770	6993.03	N/A
42	12/20/2019	81.61261	7639.484	5756	3690	399660	6885.5	N/A
43	12/20/2019	83.45965	7751.501	5481	3841	403080	6903.12	N/A
44	12/20/2019	83.8828	7758.041	5691	3739	406480	7017.93	N/A
45	12/20/2019	83.36838	7597.117	5598	3906	409120	7023.49	N/A
46	12/20/2019	83.53577	7560.429	5335	3454	408160	6969.03	N/A
47	12/21/2019	70.07537	8235.137	5453	3970	409780	7422.59	N/A
48	12/22/2019	80.25997	7559.721	5291	3436	405920	6965.27	N/A
49	12/23/2019	83.04195	7667.756	5721	3790	408080	6977.88	N/A
50	12/23/2019	74.27209	8479.511	5169	3800	411400	7082.66	N/A
51	12/23/2019	85.29518	7629.11	5095	3602	407960	6947.17	N/A
52	12/23/2019	86.0644	7603.66	5566	3764	413620	6969.11	N/A
53	12/24/2019	86.8896	7549.349	5281	3895	411860	6994.34	N/A
54	12/24/2019	84.46634	7281.065	5112	3889	409340	6912.94	N/A
55	12/24/2019	82.6335	7268.253	5511	3612	407800	6939.27	N/A
56	12/24/2019	84.01927	7249.404	5464	3751	409580	6938.01	N/A
57	12/24/2019	84.60295	6968.082	3915	3841	409640	6922.29	N/A
58	12/25/2019	84.09221	7139.365	4315	3308	407680	6886.19	N/A
59	12/25/2019	85.62591	7267.966	5932	3604	410580	6837.51	N/A
60	12/25/2019	84.92574	7032.17	5153	4189	412000	6808.39	N/A
61	12/25/2019	85.07527	7090.552	5250	3745	409560	6990.66	N/A
62	12/26/2019	80.17439	6843.467	4661	3785	411860	6920.2	N/A
63	12/26/2019	85.32689	7099.689	4688	3733	411760	6836.38	N/A
64	12/26/2019	85.86233	7152.476	4096	3653	410660	6764.62	N/A
65	12/26/2019	84.53388	6797.378	4698	3532	408120	6837.55	N/A
66	12/27/2019	83.86792	6807.416	3913	3712	407980	6790.59	N/A
67	12/27/2019	86.92989	6725.624	4905	3404	408780	6803.53	N/A
	AVG=	80.5	8,164	5,437	3,909	14,357,650	268,321	TOTAL

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LITHOLOGY/ FORMATION	TOP DEPTH (TVD) From Surface	BOTTOM DEPTH (TVD) From Surface	TOP DEPTH (MD) From Surface	BOTTOM DEPTH (MD) From Surface
Silty Sandstone	75	175	75	175
Siltstone	175	275	175	275
Shaly Siltstone	275	335	275	335
Silty Shale	335	555	335	555
Silty Sandstone	555	575	555	575
Shale	575	955	575	955
Shaly Sandstone	955	1,035	955	1,035
Sandstone	1,035	1,215	1,035	1,215
Sandy Shale	1,215	1,255	1,215	1,255
Shaly Siltstone	1,255	1,315	1,255	1,315
Sandstone	1,315	1,435	1,315	1,435
Shaly Sandstone	1,435	1,515	1,435	1,515
Sandy Shale	1,515	1,541	1,515	N/A
Big Lime	1,556	2,118	1,547	2,129
Fifty Foot Sandstone	2,118	2,348	2,114	2,361
Gordon	2,348	2,657	2,346	2,672
Fifth Sandstone	2,657	2,750	2,657	2,765
Bayard	2,750	3,587	2,750	3,609
Speechley	3,587	3,727	3,594	3,751
Balltown	3,727	4,225	3,736	4,252
Bradford	4,225	4,521	4,237	4,551
Benson	4,521	4,898	4,536	4,932
Alexander	4,898	5,920	4,917	6,031
Sycamore	5,793	5,890	5,881	6,001
Middlesex	5,890	5,976	6,016	6,160
Burkett	5,976	6,000	6,175	6,221
Tully	6,000	6,020	6,236	6,282
Marcellus	6,020	NA	6,282	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:	12/7/2019
Job End Date:	12/27/2019
State:	West Virginia
County:	Tyler
API Number:	47-095-02579-00-00
Operator Name:	Antero Resources Corporation
Well Name and Number:	Remo 2H
Latitude:	39.47241940
Longitude:	-80.91848611
Datum:	NAD83
Federal Well:	NO
Indian Well:	NO
True Vertical Depth:	6,084
Total Base Water Volume (gal):	21,351,460
Total Base Non Water Volume:	0

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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	Supplied by Operator	Base Fluid	Water	7732-18-5	100.00000	86.52750	
DynaRate 6522	CWS	Friction Reducer					
				Listed Below			

Hydrochloric Acid	CWS	Clean Perforations								
					Listed Below					
Calbreak 5501	CWS	Breaker								
					Listed Below					
Sand (Proppant)	CWS	Propping Agent								
					Listed Below					
CI-9100G	CWS	Corrosion Inhibitor								
					Listed Below					
CalGel 4000	CWS	Gel Slurry								
					Listed Below					
SaniFrac 8123	CWS	Microbiocide								
					Listed Below					
Other Chemical (s)	Listed Above	See Trade Name (s) List								
					Listed Below					
Items above are Trade Names with the exception of Base Water. Items below are the individual ingredients.										
			Crystalline silica (Quartz)	14808-60-7		100.00000		13.12016		
			Illite	12173-60-3		1.00000		0.13119		
			Hydrochloric acid	7647-01-0		37.00000		0.11119		
			Copolymer of 2-propenamide	69418-26-4		30.00000		0.01732		
			Ilmenite	98072-94-7		0.10000		0.01312		

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						64476-38-6	0.10000	0.01312	
						Apatite	0.10000	0.01312	
						1310-14-1	0.10000	0.01312	
						Goethite	0.10000	0.01312	
						1302-27-8	0.10000	0.01312	
						Biotite	0.10000	0.01312	
						64742-47-8	20.00000	0.01155	
						Distillates (petroleum), hydrotreated light	20.00000	0.01155	
						64742-46-7	60.00000	0.00963	
						Distillates (petroleum), hydrotreated middle	60.00000	0.00963	
						9000-30-0	60.00000	0.00963	
						Guar gum	60.00000	0.00963	
						12125-02-9	8.00000	0.00462	
						Ammonium chloride	8.00000	0.00462	
						111-30-8	14.00000	0.00120	
						Glutaraldehyde	14.00000	0.00120	
						93-83-4	2.00000	0.00115	
						Oleic Acid	2.00000	0.00115	
						Diethanolamide	2.00000	0.00115	
						68953-58-2	5.00000	0.00080	
						Quaternary ammonium compounds, bis (hydrogenated tallow alkyl)dimethyl, salts with bentonite	5.00000	0.00080	
						7727-54-0	100.00000	0.00034	
						Ammonium Persulfate	100.00000	0.00034	
						64-17-5	3.00000	0.00026	
						Ethanol	3.00000	0.00026	
						68424-85-1	3.00000	0.00026	
						Alkyl dimethyl benzyl ammonium chloride	3.00000	0.00026	
						7173-51-5	3.00000	0.00026	
						Didecyl dimethyl ammonium chloride	3.00000	0.00026	
						37251-67-5	1.50000	0.00024	
						Oxirane, 2-methyl-, polymer with oxirane, monodecyl ether	1.50000	0.00024	
						25038-72-6	20.00000	0.00007	
						Vinylidene chloride-methyl acrylate copolymer	20.00000	0.00007	
						107-21-1	40.00000	0.00006	
						Ethylene Glycol	40.00000	0.00006	
						34590-94-8	20.00000	0.00003	
						Diethylene glycol, monomethyl ether	20.00000	0.00003	
						72480-70-7	10.00000	0.00002	
						Tar bases, quinolone derivs, benzyl chloride-quatenized	10.00000	0.00002	
						68131-39-5	10.00000	0.00002	
						Ethoxylated Alcohols	10.00000	0.00002	
						104-55-2	10.00000	0.00002	
						Cinnamaldehyde	10.00000	0.00002	
						64-18-6	10.00000	0.00002	
						Formic acid	10.00000	0.00002	

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			Isopropyl alcohol	67-63-0	5.00000	0.00001
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* 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



Location: Tyler County, WV
 Facility: Ferrell North Pad

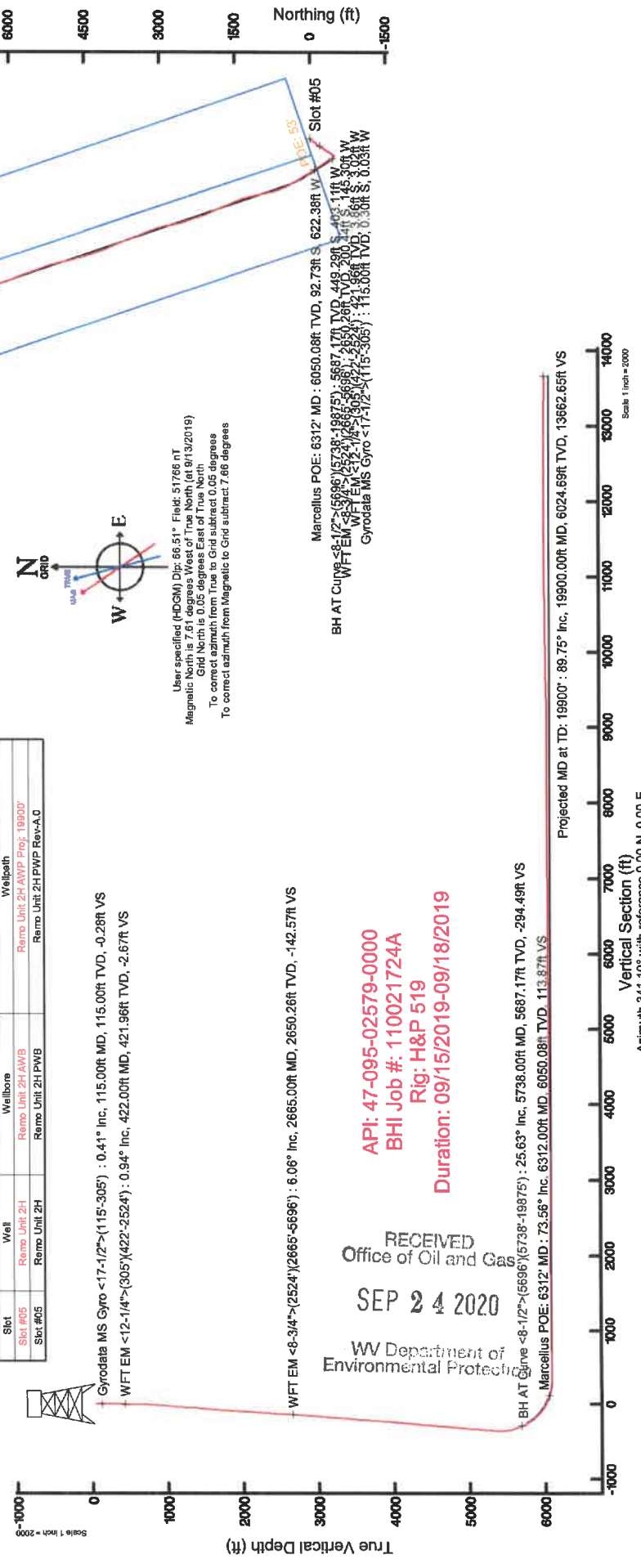
Slot: Slot #05
 Well: Remo Unit 2H
 Wellbore: Remo Unit 2H PWB

Photo reference wellbore is Remo Unit 2H PWB Rev-A.0	
True vertical depths are referenced to H&P 519 (RKB)	
Measured depths are referenced to H&P 519 (RKB)	
H&P 519 (RKB) to Mean Sea Level: 787 feet	
Mean Sea Level to Ground level (At Slot Slot #05): -757 feet	
Coordinates are in feet referenced to Sial	

Location Information			
Facility Name	Grid East (US ft)	Grid North (US ft)	Longitude
Ferrell North Pad	1463420.830	3922820.410	80°55'08.640"W
Slot	Local E (ft)	Local N (ft)	Local S (ft)
Slot #05	30.35	1863420.017	14333953.843
H&P 519 (RKB) to Ground level (At Slot Slot #05)	-0.81		
Mean Sea Level to Ground level (At Slot Slot #05)		-757 ft	
H&P 519 (RKB) to Mean Sea Level		787 ft	

Well Profile Data						
Design Comment	MD (ft)	Inc (°)	Az (°)	TVD (ft)	Local E (ft)	Local N (ft)
Title On	5898.00	23.300	323.160	5648.92	-464.21	10.54
Proj. To Bottom	5796.00	30.330	325.150	5711.36	-411.99	10.54
End of 3D Arc	5607.32	32.518	323.623	5746.62	-420.27	7.79
POE	8306.52	71.252	328.000	6049.00	-99.40	7.79
Landing PL	6540.87	90.000	328.000	6057.00	-95.81	8.00
On Azimuth	6977.64	90.000	341.103	6097.00	-946.40	3.00
BHL	19874.64	90.000	341.103	12691.23	-5123.31	0.00
VS (ft)						
						-311.45
						-281.01
						-260.24
						112.34
						336.54
						769.52
						13968.92

Well Data		
Slot	Well	Wellbore
Slot #05	Remo Unit 2H	Remo Unit 2H PWB
Slot #05	Remo Unit 2H	Remo Unit 2H PWB
Slot #05	Remo Unit 2H	Remo Unit 2H PWB



User specified (HDGM) Dip: 66.51° Field: 51766 nT
 Magnetic North is 7.51 degrees West of True North (at 9/13/2019)
 Grid North is 0.05 degrees East of True North
 To correct azimuth from True to Grid subtract 0.05 degree
 To correct azimuth from Magnetic to Grid subtract 7.66 degrees

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 SEP 24 2020
 WV Department of
 Environmental Protection

API: 47-095-02579-0000
 BHI Job #: 110021724A
 Rig: H&P 519
 Duration: 09/15/2019-09/18/2019

BH AT Curve <math>\lt; -1.2^\circ \times (5696^\circ \times 5738^\circ - 19875^\circ) < /math>: 5687.17\text{ft TVD, } -294.49\text{ft VS}< /math>
 WFT EM <math>\lt; -1.2^\circ \times (252^\circ \times 422^\circ - 252^\circ) < /math>: 0.94^\circ \text{ Inc, } 422.00\text{ft MD, } 421.96\text{ft TVD, } -2.67\text{ft VS}< /math>
 Gyrodata MS Gyro <math>\lt; -1.72^\circ \times (115^\circ - 305^\circ) < /math>: 0.41^\circ \text{ Inc, } 115.00\text{ft MD, } 115.00\text{ft TVD, } -0.28\text{ft VS}< /math>
 Marcellus POE: 6312' MD : 6050.08ft TVD, 92.73ft S, 622.38ft W, LINE 53

Projected MD at TD: 19900' : 89.75° Inc, 19900.00ft MD, 6024.69ft TVD, 13662.65ft VS
 Scale 1 inch = 2000

Vertical Section (ft)
 Azimuth 341.10° with reference 0.00 N, 0.00 E

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

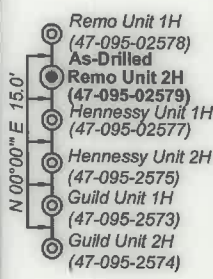
I, the undersigned, hereby certify that this plat is correct to the best of my knowledge and belief and shows all the information required by law and the rules issued and prescribed by the Department of Environmental Protection.

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



Note: 1 spring was 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. There were no gas wells found or documented within 3000' of the proposed well.

Wellhead Layout (NTS)



Notes:
 West Virginia Coordinate System of 1927, North Zone based upon Differential GPS Measurements.
 Well No. Remo Unit 2H Top Hole coordinates are
 N: 357,336.70' Latitude: 39°28'20.71"
 E: 1,599,579.70' Longitude: 80°55'06.55"
 Bottom Hole coordinates are
 N: 370,102.84' Latitude: 39°30'26.10"
 E: 1,594,656.39' Longitude: 80°56'11.93"
 UTM Zone 17, NAD 1983
 Top Hole Coordinates Bottom Hole Coordinates
 N: 4,369,215.503m N: 4,373,079.685m
 E: 507,025.891m E: 505,461.078m
 Plat orientation and corner and well references are based upon the grid north meridian.
 Well location references are based upon the magnetic meridian.

FILE NO: 17-54-E-17
 DRAWING NO: Remo 2H As-Drilled
 SCALE: 1" = 1500'
 MINIMUM DEGREE OF ACCURACY: Submeter
 PROVEN SOURCE OF ELEVATION: WVDOT, Harrisville, WV

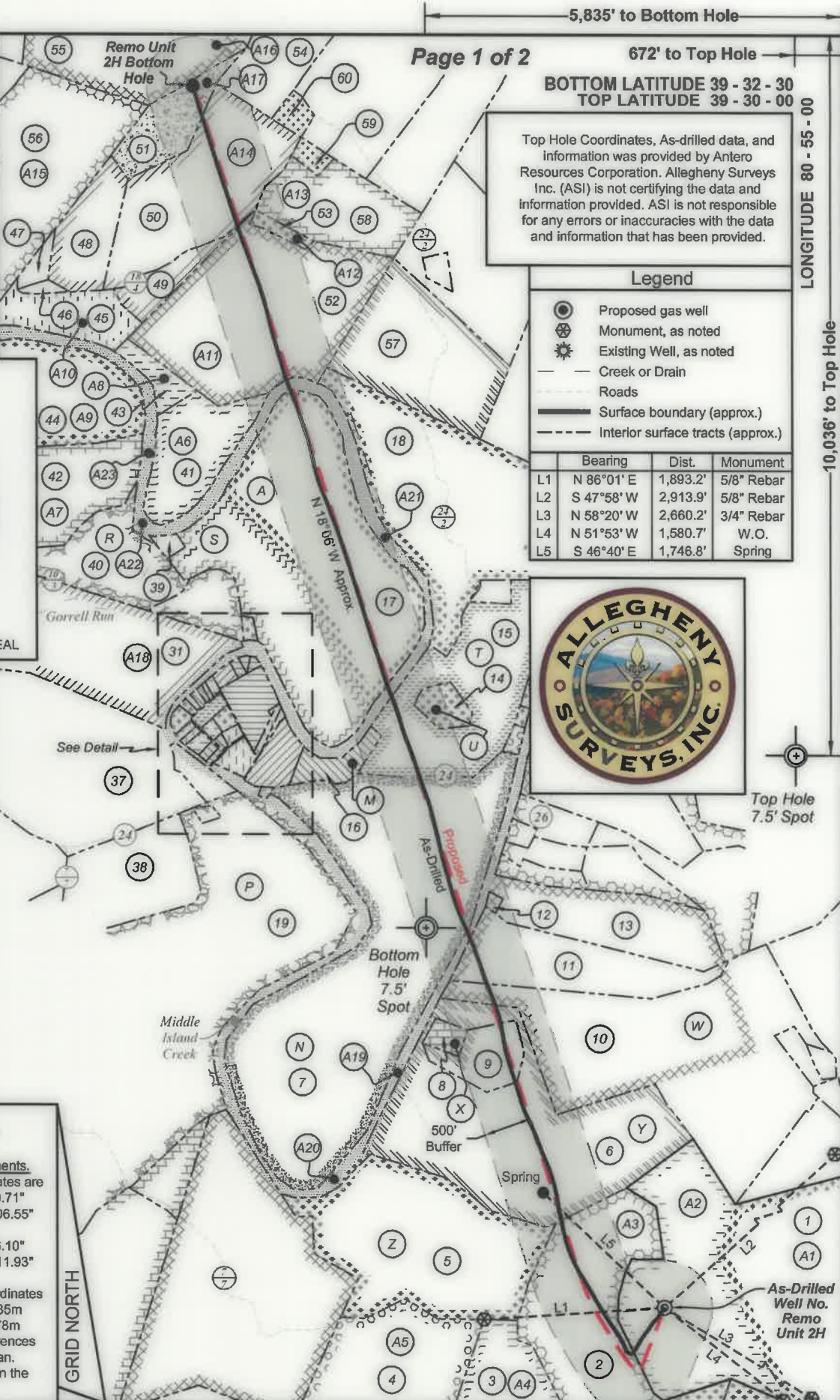
STATE OF WEST VIRGINIA
 DEPARTMENT OF ENVIRONMENTAL PROTECTION
OIL AND GAS DIVISION

DATE: May 8 2020
 OPERATOR'S WELL NO. Remo Unit 2H
 API WELL NO
 47 - 095 - 02579
 STATE COUNTY PERMIT

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

LOCATION: ELEVATION: As-Built 757.5' WATERSHED: Outlet Middle Island Creek QUADRANGLE: Middlebourne 13.919; 22.3;
 DISTRICT: Ellsworth Bounty Minerals, LLC; J. Howard Hassig & Teresa A. Hassig; Larry R. Henthom, et ux; COUNTY: Tyler 15.9; 61.71875;
 SURFACE OWNER: Antero Midstream LLC Richard J. Mathisen & Lisa M. Beane; John P.L. Hennessy; Hilda Steen; Robert Earl Pitts; CHK-MAC; Richard Addy Scales; ACREAGE: 203.59 99.413; 63.02;
 ROYALTY OWNER: West Virginia Division of Natural Resources (2); Richard L. Clark LEASE NO: ACREAGE: 70.89; 39.757;
 PROPOSED WORK: DRILL CONVERT DRILL DEEPER FRACTURE OR STIMULATE PLUG OFF OLD FORMATION
 PERFORATE NEW FORMATION OTHER PHYSICAL CHANGE IN WELL (SPECIFY) As-Drilled 6.025' TVD
 PLUG AND ABANDON CLEAN OUT AND REPLUG TARGET FORMATION: Marcellus Shale ESTIMATED DEPTH: 19,900' 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



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.

Legend

- Proposed gas well
- Monument, as noted
- Existing Well, as noted
- Creek or Drain
- Roads
- Surface boundary (approx.)
- Interior surface tracts (approx.)

	Bearing	Dist.	Monument
L1	N 86°01' E	1,893.2'	5/8" Rebar
L2	S 47°58' W	2,913.9'	5/8" Rebar
L3	N 58°20' W	2,660.2'	3/4" Rebar
L4	N 51°53' W	1,580.7'	W.O.
L5	S 46°40' E	1,746.8'	Spring



LONGITUDE 80 - 55 - 00
 10,036' to Top Hole
 12,444' to Bottom Hole

Page 1 of 2

5,835' to Bottom Hole
 672' to Top Hole
 BOTTOM LATITUDE 39 - 32 - 30
 TOP LATITUDE 39 - 30 - 00

**Antero Resources Well
No. Remo Unit 2H
As-Drilled**

Antero Resources Corporation

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

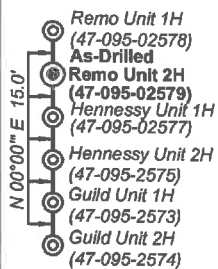
Bradley D. Miller, P.S. 2167



SEAL

Note: 1 spring was 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. There were no gas wells found or documented within 3000' of the proposed well.

Wellhead Layout (NTS)



Notes:

West Virginia Coordinate System of 1927, North Zone based upon Differential GPS Measurements.
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E: 1,594,656.39' Longitude: 80°56'11.93"
UTM Zone 17, NAD 1983
Top Hole Coordinates Bottom Hole Coordinates
N: 4,369,215.603m N: 4,373,079.685m
E: 507,025.891m E: 505,461.078m
Plat orientation and corner and well references are based upon the grid north meridian.
Well location references are based upon the magnetic meridian.

5,835' to Bottom Hole
672' to Top Hole
BOTTOM LATITUDE 39 - 32 - 30
TOP LATITUDE 39 - 30 - 00

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.

Legend

- Proposed gas well
- ⊗ Monument, as noted
- ⊙ Existing Well, as noted
- Creek or Drain
- Roads
- Surface boundary (approx.)
- - - Interior surface tracts (approx.)

	Bearing	Dist.	Monument
L1	N 86°01' E	1,893.2'	5/8" Rebar
L2	S 47°58' W	2,913.9'	5/8" Rebar
L3	N 58°20' W	2,660.2'	3/4" Rebar
L4	N 51°53' W	1,580.7'	W.O.
L5	S 46°40' E	1,746.8'	Spring



Top Hole 7.5' Spot

GRID NORTH

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SEP 24 2020

WV Department of Environmental Protection

FILE NO: 17-54-E-17
DRAWING NO: Remo 2H As-Drilled
SCALE: 1" = 1500'
MINIMUM DEGREE OF ACCURACY: Submeter
PROVEN SOURCE OF ELEVATION: WVDOT, Harrisville, WV

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



DATE: May 8 2020
OPERATOR'S WELL NO. Remo Unit 2H
API WELL NO
47 - 095 - 02579
STATE COUNTY PERMIT

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

LOCATION: ELEVATION: As-Built 757.5' WATERSHED: Outlet Middle Island Creek QUADRANGLE: Middlebourne 13.919; 22.3;
DISTRICT: Ellsworth Bounty Minerals; LLC; COUNTY: Tyler 15.9; 61.71875;
SURFACE OWNER: Antero Midstream LLC J. Howard Hassig & Teresa A. Hassig; Larry R. Henthorn, et ux; 99.413; 63.02;
ROYALTY OWNER: West Virginia Division of Natural Resources (2); Richard L. Clark Richard J. Mathisen & Lisa M. Beane; John P.L. Hennessy; ACREAGE: 203.59 140; 84.724;
PROPOSED WORK: DRILL CONVERT DRILL DEEPER FRACTURE OR STIMULATE PLUG OFF OLD FORMATION 70.89; 39.757;
 PERFORATE NEW FORMATION OTHER PHYSICAL CHANGE IN WELL (SPECIFY) As-Drilled LEASE NO: ACREAGE: 70.509; 78;
 PLUG AND ABANDON CLEAN OUT AND REPLUG TARGET FORMATION: Marcellus Shale ESTIMATED DEPTH: 19,900' MD 6,025' TVD

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

LONGITUDE 80 - 55 - 00
10,036' to Top Hole
12,444' to Bottom Hole

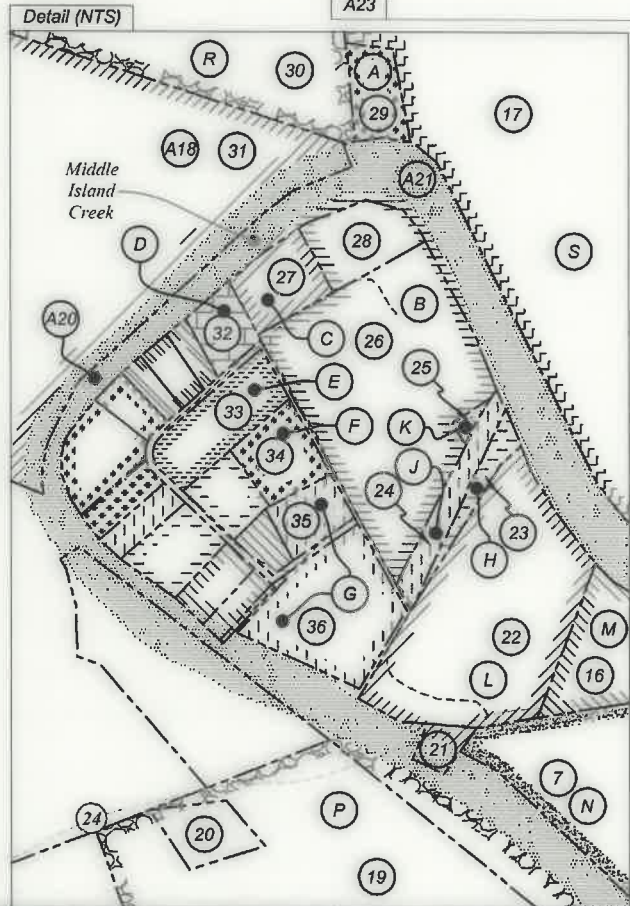
**Antero Resources Well
No. Remo Unit 2H
As-Drilled**
Antero Resources Corporation



60	14-12	393 / 260	2.58	Lawrence Oraton Evens Jr.
59	14-28	393 / 260	2.00	Lawrence Oraton Evens Jr.
58	14-29	478 / 280	26.00	Boor Family Trust
57	14-37	447 / 112	41.90	Theresa L. Hutton
56	15-17	191 / 12	127.39	Earl & Donna Smith
55	13-1	330 / 931	150.00	James L. & Martha Jo Stewart
54	13-2	113 / 6	35.00	Lawrence Oraton Evens Jr.
53	13-5.1	342 / 553	2.00	Richard Scales
52	13-5	393 / 473	78.00	Mildred Scales
51	13-3.1	350 / 388	13.919	Earnley H. & Donna J. Owens
50	13-3.3	349 / 563	70.509	Richard J. Mathisen
49	13-3.4	415 / 733	7.505	Justin L. & Jessica Carpenter
48	13-3.5	406 / 668	17.648	Lisa M. Beane
47	13-3.2	342 / 509	2.433	Marshall J. & Peggy S. Dalrymple
46	13-4	267 / 209	1.03	Marshall J. Dalrymple
45	13-3	387 / 671	8.62	Robert D. & Sherry A. Ball
44	13-8	WB43 / 425	56.98	Larry Moore & James Moore
43	13-7	387 / 671	6.04	Robert D. & Sherry A. Ball
42	13-8.1	371 / 36	35.11	Leon B. & Deanna N. Ammons
41	13-6	387 / 671	21.42	Robert D. & Sherry A. Ball
40	19-56	390 / 553	23.56	Mark L. & Ellen Van Dyne
39	19-4	388 / 260	1.20	Harry Wayne Pixter
38	19-35	WB30 / 315	29.00	Rebecca Haught
37	19-34	318 / 636	95.60	Chauncy P. & Ruth Archer
36	19-19	226 / 266	2.308	Keith V. & Barbara Frum
35	19-25.2	334 / 117	0.631	Keith & Barbara Frum
34	19-25.3	334 / 117	0.631	Keith & Barbara Frum
33	19-25.1	303 / 105	1.288	Bill & Patricia Lemasters
32	19-8	357 / 127	0.60	Robert G. & Pamela R. Gorby
31	19-33	308 / 18	60.12	Mark L. & Ellen W. Van Dyne
30	19-55	333 / 208	9.55	Mark & Ellen Van Dyne
29	19-5	471 / 812	0.89	Ruth A. McDonald
28	19-7	337 / 653	0.77	Jerry E. Jessie K. Tracy
27	19-26	326 / 86	0.60	Jack & Margaret M. Henthorn
26	19-6	245 / 651	8.05	James E. & Jessie K. Tracy
25	19-27	39 / 506	0.08	Gloria L. Lowther
24	19-28	39 / 506	0.083	Gloria L. Lowther
23	19-29	39 / 506	0.39	Gloria L. Lowther
22	19-30	WB30 / 315	5.40	Rebecca A. Haught
21	19-31	334 / 603	0.25	WV Department of Highways
20	19-52.1	369 / 434	1.00	Hope Fellowship in Christ's Church
19	19-52	WB43 / 425	188.36	Larry Moore, et al
18	20-2	282 / 506	68.05	Larry Allen & Ronald Wayne Anderson
17	20-1	210 / 37	126.90	Mark L. & Ellen W. Van Dyne
16	20-34	344 / 268	7.75	Michael P. & Deborah G. Haught
15	20-12	264 / 127	39.76	Hilda Steen
14	20-12.4	282 / 435	4.493	Ross L. & Marion Elizabeth Keller
13	20-83.6	WB40 / 335	30.034	Cynthia Heather & Thomas Hall
12	20-83.2	311 / 390	0.545	Ernest D. & Karen S. Helmick
11	20-83.7	400 / 592	30.353	Ernest D. & Karen S. Helmick
10	20-83	WB40 / 335	99.413	Larry S. & Dianna L. Helmick
9	20-98.2	417 / 303	10.493	Charles D. & Crystal D. Price
8	20-98.1	353 / 386	2.576	Samuel M. Brookover
7	20-35	181 / 376	140.00	Robert C. Sellers, et al
6	20-98	247 / 7	74.231	John P.L. Hennessy
5	20-97	314 / 699	66.84	Dennis J. & Connie S. Moore
4	26-1	448 / 216	61.78	Dennis James Moore, et al
3	26-2	314 / 701	63.40	Larry G. & Betsy E. Moore
2	26-3	448 / 216	63.02	Dennis James Moore, et al
1	20-102	575/69	203.59	Antero Midstream, LLC
No.	TM - Par.	Bk / Pg	Acres	Owner(s)

Tag	Lease Owner(s)
A	CHK-MAC
B	Jerry E. & Jessie K. Tracy
C	Jack & Margaret M. Henthorn
D	Robert G. Gorby
E	Bill & Patricia Lemasters
F	Michael T. Fluharty
G	Keith V. & Barbara Frum
H	
J	Gloria L. Lowther
K	
L	Rebecca A. Haught
M	Michael P. & Deborah G. Haught
N	Robert Earl Pitts
P	Ruth E. Moore, widow
R	Mark & Ellen VanDyne
S	Mark & Ellen VanDyne
T	Hilda Steen
U	Hilda Steen
W	J. Howard & Teresa A. Hassig
X	Samuel M. Brookover
Y	John P.L. Hennessy
Z	Richard L. Clark

Tag	Lease Owner(s)
A1	The Swan Living Trust
A2	Lary R. Henthorn, et ux
A3	
A4	Richard L. Clark
A5	
A6	Phyllis Roth Tobias
A7	Leon D. Ammons, et ux
A8	Phyllis Roth Tobias
A9	James Moore
A10	Phyllis Roth Tobias
A11	Richard Addy Scales
A12	Richard A. Scales
A13	Ronald E. Boor
A14	Richard J. Mathisen & Lisa M. Beane
A15	Donna Smith
A16	Mark Starkey
A17	Bounty Minerals, LLC
A18	Ridgetop Capital, IV, LP, a WV Limited Partnership
A19	
A20	
A21	West Virginia Division of Natural Resources
A22	
A23	



FILE NO: 17-54-E-17
DRAWING NO: Remo 2H As-Drilled
SCALE: 1" = 1500'
MINIMUM DEGREE OF ACCURACY:
Submeter
PROVEN SOURCE OF ELEVATION:
WVDOT, Harrisville, WV

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

DATE: May 8 2020
OPERATOR'S WELL NO. Remo Unit 2H
API WELL NO
47 - 095 - 02579
STATE COUNTY PERMIT

WELL TYPE: OIL GAS LIQUID INJECTION WASTE DISPOSAL
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ROYALTY OWNER: West Virginia Division of Natural Resources (2); Richard L. Clark LEASE NO: ACREAGE: 70.89; 39.757;
70.89; 39.757; 70.89; 39.757;

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: 6,025' TVD
19,900' MD

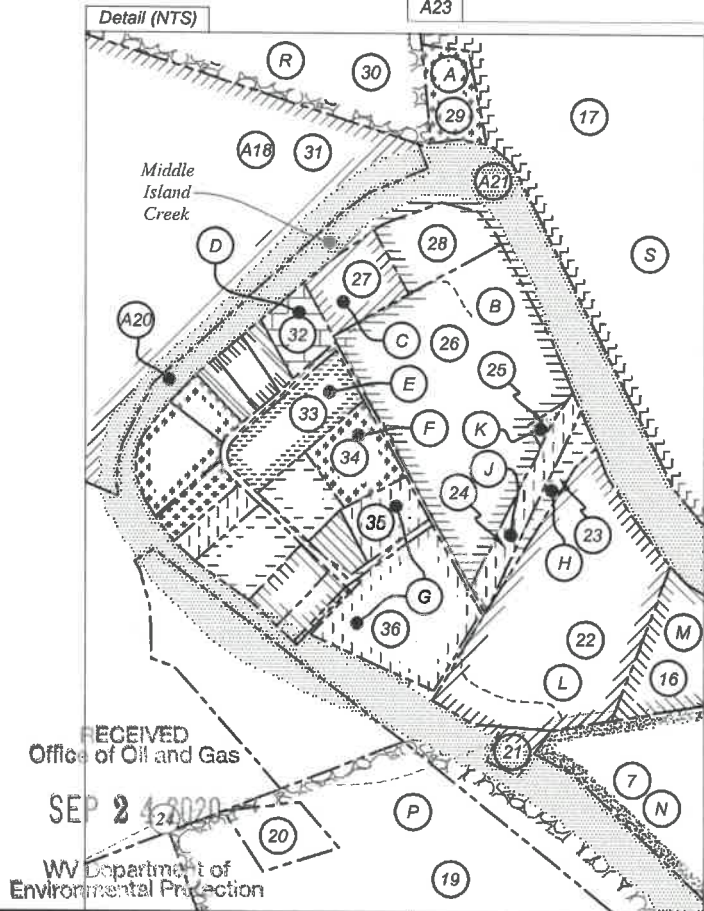
WELL OPERATOR: Antero Resources Corporation DESIGNATED AGENT: Dianna Stamper - CT Corporation System
ADDRESS: 1615 Wynkoop Street ADDRESS: 5400 D Big Tyler Road
Denver, CO 80202 Charleston, WV 25313



No.	TM - Par.	Bk / Pg	Acres	Owner(s)
60	14 - 12	393 / 260	2.58	Lawrence Oraton Evens Jr.
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57	14 - 37	447 / 112	41.90	Theresa L. Hutton
56	15 - 17	191 / 12	127.39	Earl & Donna Smith
55	13 - 1	330 / 931	150.00	James L. & Martha Jo Stewart
54	13 - 2	113 / 6	35.00	Lawrence Oraton Evens Jr.
53	13 - 5.1	342 / 553	2.00	Richard Scales
52	13 - 5	393 / 473	78.00	Mildred Scales
51	13 - 3.1	350 / 388	13.919	Earnley H. & Donna J. Owens
50	13 - 3.3	349 / 563	70.509	Richard J. Mathisen
49	13 - 3.4	415 / 733	7.505	Justin L. & Jessica Carpenter
48	13 - 3.5	406 / 668	17.648	Lisa M. Beane
47	13 - 3.2	342 / 509	2.433	Marshall J. & Peggy S. Dalrymple
46	13 - 4	267 / 209	1.03	Marshall J. Dalrymple
45	13 - 3	387 / 671	8.62	Robert D. & Sherry A. Ball
44	13 - 8	WB43 / 425	56.98	Larry Moore & James Moore
43	13 - 7	387 / 671	6.04	Robert D. & Sherry A. Ball
42	13 - 8.1	371 / 36	35.11	Leon B. & Deanna N. Ammons
41	13 - 6	387 / 671	21.42	Robert D. & Sherry A. Ball
40	19 - 56	390 / 553	23.56	Mark L. & Ellen Van Dyne
39	19 - 4	388 / 250	1.20	Harry Wayne Pixter
38	19 - 35	WB30 / 315	29.00	Rebecca Haught
37	19 - 34	318 / 636	95.60	Chauncy P. & Ruth Archer
36	19 - 19	226 / 266	2.308	Keith V. & Barbara Frum
35	19 - 25.2	334 / 117	0.631	Keith & Barbara Frum
34	19 - 25.3	334 / 117	0.631	Keith & Barbara Frum
33	19 - 25.1	303 / 105	1.288	Bill & Patricia Lemasters
32	19 - 8	357 / 127	0.60	Robert G. & Pamela R. Gorby
31	19 - 33	308 / 18	60.12	Mark L. & Ellen W. Van Dyne
30	19 - 55	333 / 208	9.55	Mark & Ellen Van Dyne
29	19 - 5	471 / 812	0.89	Ruth A. McDonald
28	19 - 7	337 / 653	0.77	Jerry E. Jessie K. Tracy
27	19 - 26	326 / 86	0.60	Jack & Margaret M. Henthorn
26	19 - 6	245 / 651	8.05	James E. & Jessie K. Tracy
25	19 - 27	39 / 506	0.08	Gloria L. Lowther
24	19 - 28	39 / 506	0.083	Gloria L. Lowther
23	19 - 29	39 / 506	0.39	Gloria L. Lowther
22	19 - 30	WB30 / 315	5.40	Rebecca A. Haught
21	19 - 31	334 / 603	0.25	WV Department of Highways
20	19 - 52.1	369 / 434	1.00	Hope Fellowship in Christ's Church
19	19 - 52	WB43 / 425	188.36	Larry Moore, et al
18	20 - 2	282 / 506	68.05	Larry Allen & Ronald Wayne Anderson
17	20 - 1	210 / 37	126.90	Mark L. & Ellen W. VanDyne
16	20 - 34	344 / 268	7.75	Michael P. & Deborah G. Haught
15	20 - 12	264 / 127	39.76	Hilda Steen
14	20 - 12.4	282 / 435	4.493	Ross L. & Marion Elizabeth Keller
13	20 - 83.6	WB40 / 335	30.034	Cynthia Heather & Thomas Hall
12	20 - 83.2	311 / 390	0.545	Ernest D. & Karen S. Helmick
11	20 - 83.7	400 / 592	30.353	Ernest D. & Karen S. Helmick
10	20 - 83	WB40 / 335	99.413	Larry S. & Dianna L. Helmick
9	20 - 98.2	417 / 303	10.493	Charles D. & Crystal D. Price
8	20 - 98.1	353 / 386	2.576	Samuel M. Brookover
7	20 - 35	181 / 376	140.00	Robert C. Sellers, et al
6	20 - 98	247 / 7	74.231	John P.L. Hennessy
5	20 - 97	314 / 699	66.84	Dennis J. & Connie S. Moore
4	26 - 1	448 / 216	61.78	Dennis James Moore, et al
3	26 - 2	314 / 701	63.40	Larry G. & Betsy E. Moore
2	26 - 3	448 / 216	63.02	Dennis James Moore, et al
1	20 - 102	575 / 69	203.59	Antero Midstream, LLC

Tag	Lease Owner(s)
A	CHK-MAC
B	Jerry E. & Jessie K. Tracy
C	Jack & Margaret M. Henthorn
D	Robert G. Gorby
E	Bill & Patricia Lemasters
F	Michael T. Fluharty
G	Keith V. & Barbara Frum
H	
J	Gloria L. Lowther
K	
L	Rebecca A. Haught
M	Michael P. & Deborah G. Haught
N	Robert Earl Pitts
P	Ruth E. Moore, widow
R	Mark & Ellen VanDyne
S	Mark & Ellen VanDyne
T	Hilda Steen
U	Hilda Steen
W	J. Howard & Teresa A. Hassig
X	Samuel M. Brookover
Y	John P.L. Hennessy
Z	Richard L. Clark

Tag	Lease Owner(s)
A1	The Swan Living Trust
A2	Larry R. Henthorn, et ux
A3	
A4	Richard L. Clark
A5	
A6	Phyllis Roth Tobias
A7	Leon D. Ammons, et ux
A8	Phyllis Roth Tobias
A9	James Moore
A10	Phyllis Roth Tobias
A11	Richard Addy Scales
A12	Richard A. Scales
A13	Ronald E. Boor
A14	Richard J. Mathisen & Lisa M. Beane
A15	Donna Smith
A16	Mark Starkey
A17	Bounty Minerals, LLC
A18	Ridgetop Capital, IV, LP, a WV Limited Partnership
A19	
A20	West Virginia Division of Natural Resources
A21	
A22	
A23	



FILE NO: 17-54-E-17
DRAWING NO: Remo 2H As-Drilled
SCALE: 1" = 1500'
MINIMUM DEGREE OF ACCURACY:
Submeter
PROVEN SOURCE OF ELEVATION:
WVDOT, Harrisville, WV

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

DATE: May 8 2020
OPERATOR'S WELL NO. Remo Unit 2H
API WELL NO
47 - 095 - 02579
STATE COUNTY PERMIT

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

LOCATION: ELEVATION: As-Built 757.5' WATERSHED: Outlet Middle Island Creek QUADRANGLE: Middlebourne 13.919; 22.3;
DISTRICT: Ellsworth Bounty Minerals, LLC; J. Howard Hassig & Teresa A. Hassig; Larry R. Henthorn, et ux; COUNTY: Tyler 15.9; 61.71875;
SURFACE OWNER: Antero Midstream LLC Richard J. Mathisen & Lisa M. Beane; John P.L. Hennessy; ACREAGE: 203.59 99.413; 63.02;
ROYALTY OWNER: West Virginia Division of Natural Resources (2); Richard L. Clark LEASE NO: Hilda Steen; Robert Earl Pitts; CHK-MAC; Richard Addy Scales; ACREAGE: 70.89; 39.757;
PROPOSED WORK: DRILL CONVERT DRILL DEEPER FRACTURE OR STIMULATE PLUG OFF OLD FORMATION
 PERFORATE NEW FORMATION OTHER PHYSICAL CHANGE IN WELL (SPECIFY) As-Drilled 6,025' TVD
 PLUG AND ABANDON CLEAN OUT AND REPLUG TARGET FORMATION: Marcellus Shale ESTIMATED DEPTH: 19,900' 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