

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

API 47-103-03459 County Wetzel District Green
Quad TOP Hole: Pine Grove -- BTM Hole: Porter Falls Pad Name Journeyman Field/Pool Name -----
Farm name Antero Resources Corporation Well Number Trader 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 4377654m Easting 522020m
Landing Point of Curve Northing 4378116.57m Easting 521948.14m
Bottom Hole Northing 4382611m Easting 520413m

Elevation (ft) 1154' GL Type of Well New Existing Type of Report Interim Final
Permit Type Deviated Horizontal Horizontal 6A Vertical Depth Type Deep Shallow
Type of Operation Convert Deepen Drill Plug Back Redrilling Rework Stimulate
Well Type Brine Disposal CBM Gas Oil Secondary Recovery Solution Mining Storage Other _____
Type of Completion Single Multiple Fluids Produced Brine Gas NGL Oil Other _____
Drilled with Cable Rotary

Drilling Media Surface hole Air Mud Fresh Water Intermediate hole Air Mud Fresh Water Brine
Production hole Air Mud Fresh Water Brine
Mud Type(s) and Additive(s)
Air - Foam & 4% KCL
Mud - Polymer

Date permit issued 10/29/2021 Date drilling commenced 12/10/2021 Date drilling ceased 2/6/2022
Date completion activities began 5/25/2022 Date completion activities ceased 9/6/2022
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 1088' Open mine(s) (Y/N) depths No
Salt water depth(s) ft 502' Void(s) encountered (Y/N) depths No
Coal depth(s) ft 960' Cavern(s) encountered (Y/N) depths No
Is coal being mined in area (Y/N) No

APPROVED

Reviewed by: [Signature]
03/17/2023

API 47-103 - 03459 Farm name Antero Resources Corporation Well number Trader Unit 1H

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	28"	20"	130'	New	78.67#, X-60	N/A	Y
Surface	17-1/2"	13-3/8"	372'	New	54.5#, J-55	N/A	Y
Coal							
Intermediate 1	12-1/4"	9-5/8"	2593'	New	36#, J-55	N/A	Y
Intermediate 2							
Intermediate 3							
Production	8-3/4"/8-1/2"	5-1/2"	22859'	New	23#, P-110cy	N/A	Y
Tubing		2-3/8"	7084'		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 ³ /sks)	Volume (ft ³)	Cement Top (MD)	WOC (hrs)
Conductor	Class A	319 sx	15.6	1.18	376	0'	8 Hrs.
Surface	Class A	330 sx	15.8	1.20	396	0'	8 Hrs.
Coal							
Intermediate 1	Class C	895 sx	15.8	1.16	1038	0'	8 Hrs.
Intermediate 2							
Intermediate 3							
Production	Class H	3969 sx (Tail)	8.3 (Lead), 15.2(Tail)	1.18 (Tail)	4683	-500' into Intermediate Casing	8 Hrs.
Tubing							

Drillers TD (ft) 22859' MD, 6884' TVD (BHL), 6948' (Deepest Point Drilled) Loggers TD (ft) 22859' MD
 Deepest formation penetrated Marcellus Plug back to (ft) N/A
 Plug back procedure N/A

Kick off depth (ft) 6892'

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

03/17/2023
 5:00 PM
 2/13/23

API 47- 103 - 03459 Farm name Antero Resources Corporation Well number Trader Unit 1H

<u>PRODUCING FORMATION(S)</u>	<u>DEPTHS</u>		
<u>Marcellus</u>	<u>6855' (TOP)</u>	<u>TVD</u>	<u>7239' (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 1513 psi Bottom Hole --- psi DURATION OF TEST --- hrs

OPEN FLOW Gas 8491 mcfpd Oil 303 bpd NGL --- bpd Water 1023 bpd GAS MEASURED BY Estimated Orifice Pilot

<u>LITHOLOGY/ FORMATION</u>	<u>TOP</u>		<u>BOTTOM</u>		<u>DESCRIBE ROCK TYPE AND RECORD QUANTITY AND TYPE OF FLUID (FRESHWATER, BRINE, OIL, GAS, H₂S, ETC)</u>
	<u>DEPTH IN FT</u>	<u>DEPTH IN FT</u>	<u>DEPTH IN FT</u>	<u>DEPTH IN FT</u>	
	<u>NAME</u>	<u>TVD</u>	<u>MD</u>	<u>MD</u>	

***PLEASE SEE ATTACHED EXHIBIT 3**

Please insert additional pages as applicable.

Drilling Contractor H & P Drilling
Address 912 N Eagle Valley Rd City Howard State PA Zip 16841

Logging Company Nine Energy Services
Address 6500 West Fwy City Fort Worth State TX Zip 76116

Cementing Company Halliburton Energy Services
Address 3000 W. Sam Houston Pkwy City Houston State TX Zip 76114

Stimulating Company Halliburton
Address 3000 W. Sam Houston Pkwy City Houston State TX Zip 76114

Please insert additional pages as applicable.

Completed by Carly Marvel Telephone 303-357-7373
Signature Carly Marvel Title Permitting Agent Date 1/3/2023

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

03/17/2023
500 Mox
2/15/23

Exhibit 1

Stage No.	Perforation Date	Perforated from MD ft.	Perforated to MD ft.	Number of Perforations	Formations
1	05/25/2022	22737.0	22691.0	60	Marcellus
2	05/26/2022	22652.7	22488.0	60	Marcellus
3	05/26/2022	22452.7	22288.1	60	Marcellus
4	05/26/2022	22252.8	22088.1	60	Marcellus
5	05/27/2022	22052.8	21888.2	60	Marcellus
6	05/27/2022	21852.8	21688.2	60	Marcellus
7	05/27/2022	21652.9	21488.2	60	Marcellus
8	05/28/2022	21452.9	21288.3	60	Marcellus
9	05/28/2022	21252.9	21088.3	60	Marcellus
10	05/28/2022	21053.0	20888.4	60	Marcellus
11	05/28/2022	20853.0	20688.4	60	Marcellus
12	05/29/2022	20653.1	20488.4	60	Marcellus
13	05/29/2022	20453.1	20288.5	60	Marcellus
14	05/30/2022	20253.1	20088.5	60	Marcellus
15	05/30/2022	20053.2	19888.5	60	Marcellus
16	05/30/2022	19853.2	19688.6	60	Marcellus
17	05/30/2022	19653.3	19488.6	60	Marcellus
18	05/31/2022	19453.3	19288.7	60	Marcellus
19	05/31/2022	19253.3	19088.7	60	Marcellus
20	05/31/2022	19053.4	18888.7	60	Marcellus
21	06/01/2022	18853.4	18688.8	60	Marcellus
22	06/01/2022	18653.5	18488.8	60	Marcellus
23	06/01/2022	18453.5	18288.9	60	Marcellus
24	06/02/2022	18253.5	18088.9	60	Marcellus
25	06/02/2022	18053.6	17888.9	60	Marcellus
26	06/02/2022	17853.6	17689.0	60	Marcellus
27	06/03/2022	17653.6	17489.0	60	Marcellus
28	06/03/2022	17453.7	17289.1	60	Marcellus
29	06/03/2022	17253.7	17089.1	60	Marcellus
30	06/03/2022	17053.8	16889.1	60	Marcellus
31	06/03/2022	16853.8	16689.2	60	Marcellus
32	06/04/2022	16653.8	16489.2	60	Marcellus
33	06/04/2022	16453.9	16289.2	60	Marcellus
34	06/04/2022	16253.9	16089.3	60	Marcellus
35	06/05/2022	16054.0	15889.3	60	Marcellus
36	06/05/2022	15854.0	15689.4	60	Marcellus
37	06/05/2022	15654.0	15489.4	60	Marcellus
38	06/05/2022	15454.1	15289.4	60	Marcellus
39	06/07/2022	15254.1	15089.5	60	Marcellus
40	06/08/2022	15054.2	14889.5	60	Marcellus
41	06/08/2022	14854.2	14689.6	60	Marcellus
42	06/08/2022	14654.2	14489.6	60	Marcellus
43	06/09/2022	14454.3	14289.6	60	Marcellus
44	06/09/2022	14254.3	14089.7	60	Marcellus
45	06/09/2022	14054.3	13889.7	60	Marcellus
46	06/09/2022	13854.4	13689.8	60	Marcellus
47	06/11/2022	13654.4	13489.8	60	Marcellus
48	06/11/2022	13454.5	13289.8	60	Marcellus
49	06/11/2022	13254.5	13089.9	60	Marcellus
50	06/11/2022	13054.5	12889.9	60	Marcellus
51	06/12/2022	12854.6	12689.9	60	Marcellus
52	06/12/2022	12654.6	12490.0	60	Marcellus
53	06/12/2022	12454.7	12290.0	60	Marcellus
54	06/12/2022	12254.7	12090.1	60	Marcellus
55	06/13/2022	12054.7	11890.1	60	Marcellus
56	06/13/2022	11854.8	11690.1	60	Marcellus
57	06/13/2022	11654.8	11490.2	60	Marcellus
58	06/13/2022	11454.9	11290.2	60	Marcellus
59	06/13/2022	11254.9	11090.3	60	Marcellus
60	06/14/2022	11054.9	10890.3	60	Marcellus
61	06/14/2022	10855.0	10690.3	60	Marcellus
62	06/14/2022	10655.0	10490.4	60	Marcellus
63	06/14/2022	10455.0	10290.4	60	Marcellus
64	06/20/2022	10255.1	10090.5	60	Marcellus
65	06/21/2022	10055.1	9890.5	60	Marcellus
66	06/21/2022	9855.2	9690.5	60	Marcellus
67	06/22/2022	9655.2	9490.6	60	Marcellus
68	06/22/2022	9455.2	9290.6	60	Marcellus
69	06/22/2022	9255.3	9090.6	60	Marcellus
70	06/23/2022	9055.3	8890.7	60	Marcellus
71	06/24/2022	8855.4	8690.7	60	Marcellus
72	06/24/2022	8655.4	8490.8	60	Marcellus
73	06/24/2022	8455.4	8290.8	60	Marcellus
74	06/25/2022	8255.5	8090.8	60	Marcellus
75	06/25/2022	8055.5	7890.9	60	Marcellus
76	06/25/2022	7855.6	7690.9	60	Marcellus
77	06/25/2022	7655.6	7491.0	60	Marcellus
78	06/25/2022	7455.6	7291.0	60	Marcellus

03/17/2023
 Steven Cox
 2/13/23

EXHIBIT 2

Stage No.	Stimulations Date	Avg Pump Rate	Avg Treatment Pressure (PSI)	Max Breakdown Pressure (PSI)	(SIP (PSI))	Amount of Proppant (lbs)	Amount of Water (bbls)	Amount of Nitrogen/ other (units)
1	05/25/2022	81.4	9,655	9,655	3,394	172,680	230,313	N/A
2	05/26/2022	91.2	10,290	5,866	4,187	393,500	329,521	N/A
3	05/26/2022	88.9	9,544	5,873	3,981	403,006	506,978	N/A
4	05/26/2022	94.8	10,264	6,491	3,851	394,074	368,936	N/A
5	05/27/2022	92.5	10,179	6,138	4,446	411,252	357,362	N/A
6	05/27/2022	89.4	9,923	5,998	4,876	407,954	345,932	N/A
7	05/27/2022	88.8	10,246	9,328	3,973	396,953	353,986	N/A
8	05/28/2022	81.1	10,160	9,287	4,835	396,056	345,086	N/A
9	05/28/2022	86.5	9,821	6,341	4,927	405,225	307,875	N/A
10	05/28/2022	89.0	9,525	6,317	4,572	402,976	378,425	N/A
11	05/28/2022	91.9	9,796	9,485	4,711	402,571	303,775	N/A
12	05/29/2022	89.5	9,915	7,026	4,147	377,170	291,765	N/A
13	05/29/2022	87.3	9,821	9,772	4,181	396,067	314,951	N/A
14	05/30/2022	88.3	9,826	9,720	4,423	411,058	322,679	N/A
15	05/30/2022	93.5	9,623	6,097	5,028	402,593	295,765	N/A
16	05/30/2022	92.2	9,449	6,451	4,858	408,064	366,608	N/A
17	05/30/2022	84.9	9,834	9,539	4,740	408,215	324,500	N/A
18	05/31/2022	83.8	9,694	9,802	4,702	402,896	512,387	N/A
19	05/31/2022	93.5	9,431	5,896	4,798	404,514	314,313	N/A
20	05/31/2022	91.7	9,382	6,433	4,857	390,398	346,950	N/A
21	06/01/2022	78.3	10,106	9,716	4,394	395,104	444,062	N/A
22	06/01/2022	94.1	9,804	6,150	4,996	401,620	310,725	N/A
23	06/01/2022	96.0	10,081	6,169	4,906	404,020	305,094	N/A
24	06/02/2022	93.8	9,800	9,389	5,787	402,832	308,485	N/A
25	06/02/2022	95.1	9,908	7,218	4,642	396,440	308,386	N/A
26	06/02/2022	95.4	9,664	7,298	4,838	406,280	328,778	N/A
27	06/03/2022	96.0	9,621	9,537	4,791	396,478	310,917	N/A
28	06/03/2022	93.5	9,437	9,552	4,882	411,483	311,109	N/A
29	06/03/2022	97.4	9,292	6,711	4,922	407,200	357,210	N/A
30	06/03/2022	95.5	9,262	6,850	4,958	392,704	327,063	N/A
31	06/03/2022	95.2	9,173	9,437	4,835	392,460	310,256	N/A
32	06/04/2022	95.3	9,458	9,536	4,617	392,680	293,798	N/A
33	06/04/2022	96.8	9,445	7,067	4,693	406,790	294,791	N/A
34	06/04/2022	88.6	9,595	6,887	4,602	393,492	301,480	N/A
35	06/05/2022	97.6	9,343	9,450	4,890	398,964	298,306	N/A
36	06/05/2022	97.1	9,156	9,473	4,672	384,453	308,390	N/A
37	06/05/2022	95.7	8,969	6,609	4,843	389,900	292,417	N/A
38	06/05/2022	97.8	9,447	10,010	4,467	408,440	318,835	N/A
39	06/07/2022	85.6	8,383	6,720	5,083	397,260	582,500	N/A
40	06/08/2022	95.3	9,915	6,710	4,758	392,625	334,136	N/A
41	06/08/2022	89.3	9,365	6,215	4,805	389,510	322,312	N/A
42	06/08/2022	89.3	9,228	7,131	4,866	390,192	315,408	N/A
43	06/09/2022	95.1	9,609	7,072	4,899	398,558	295,813	N/A
44	06/09/2022	94.6	8,998	6,663	4,740	400,738	287,102	N/A
45	06/09/2022	94.8	8,801	6,611	5,152	410,024	299,176	N/A
46	06/09/2022	99.3	9,190	7,143	4,969	391,726	287,079	N/A
47	06/11/2022	95.3	9,044	6,964	5,017	405,706	318,126	N/A
48	06/11/2022	93.3	8,579	7,336	4,829	396,997	299,224	N/A
49	06/11/2022	90.4	8,450	6,642	5,206	396,515	297,941	N/A
50	06/11/2022	97.3	8,762	7,091	4,936	398,210	321,554	N/A
51	06/12/2022	97.5	8,680	7,331	5,101	395,255	297,254	N/A
52	06/12/2022	94.7	8,224	6,664	5,200	397,130	292,680	N/A
53	06/12/2022	93.9	8,146	5,802	4,706	395,600	286,436	N/A
54	06/12/2022	94.5	8,605	7,201	5,036	393,620	333,292	N/A
55	06/13/2022	94.5	8,572	7,383	4,928	397,430	285,695	N/A
56	06/13/2022	97.7	8,460	7,352	4,823	399,220	287,709	N/A
57	06/13/2022	96.1	8,560	6,963	4,592	402,910	289,085	N/A
58	06/13/2022	96.6	8,611	7,058	4,926	392,739	275,350	N/A
59	06/13/2022	93.0	9,013	8,126	4,765	389,310	277,910	N/A
60	06/14/2022	97.6	8,230	6,392	4,676	395,070	284,145	N/A
61	06/14/2022	97.9	8,488	7,497	4,961	400,860	287,643	N/A
62	06/14/2022	97.2	8,136	7,061	4,753	389,040	268,228	N/A
63	06/14/2022	98.0	8,079	6,797	4,804	406,440	277,832	N/A
64	06/20/2022	93.2	7,890	6,966	4,366	407,060	298,575	N/A
65	06/21/2022	97.7	7,806	6,623	4,259	392,410	359,624	N/A
66	06/21/2022	96.4	7,716	7,177	4,565	393,730	283,545	N/A
67	06/22/2022	96.1	7,501	6,039	4,208	404,680	283,313	N/A
68	06/22/2022	96.6	7,664	7,643	4,239	396,930	278,627	N/A
69	06/22/2022	96.5	7,561	6,743	4,437	405,560	295,630	N/A
70	06/23/2022	96.9	7,688	6,979	4,564	400,012	348,445	N/A
71	06/24/2022	97.2	7,658	6,441	4,477	391,411	340,030	N/A
72	06/24/2022	94.1	7,269	6,542	4,523	392,238	329,458	N/A
73	06/24/2022	96.6	7,207	7,077	4,467	409,383	366,270	N/A
74	06/25/2022	95.7	7,099	5,668	4,530	410,570	301,926	N/A
75	06/25/2022	97.1	7,508	5,292	4,859	395,005	342,917	N/A
76	06/25/2022	95.3	7,419	6,816	4,193	403,821	282,012	N/A
77	06/25/2022	97.3	7,205	6,763	4,551	398,491	327,553	N/A
78	06/25/2022	94.9	7,347	6,155	4,052	409,155	303,858	N/A
	AVG=	93	8,956	7,326	4,680	30,901,703	25,093,622	TOTAL

Summary
 03/17/2023

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	75	210	75	210
Silty Sandstone	210	240	210	240
Shaly sandstone	240	270	240	270
Silty Sandstone	270	420	270	420
Shaly sandstone	420	490	420	490
Silty Sandstone	490	600	490	600
Shale	600	810	600	810
Silty Sandstone	810	1,070	810	1,070
Shale w/coal interbeds	1,070	1,230	1,070	1,230
Sandy shale	1,230	1,320	1,230	1,320
Shale	1,320	1,410	1,320	1,410
Sandy shale	1,410	1,710	1,410	1,710
Shaly sandstone	1,710	2,074	1,710	2,074
Big Lime	2,104	2,576	2,074	2,576
Fifty Foot Sandstone	2,576	2,720	2,546	2,720
Gordon	2,720	2,960	2,690	2,961
Fifth Sandstone	2,960	3,015	2,931	3,016
Bayard	3,015	3,938	2,986	3,974
Speechley	3,938	4,067	3,944	4,109
Balltown	4,067	4,553	4,079	4,619
Bradford	4,553	5,109	4,589	5,206
Benson	5,109	5,546	5,176	5,666
Alexander	5,546	6,679	5,636	6,883
Sycamore	6,524	6,649	6,703	6,853
Middlesex	6,649	6,749	6,853	6,991
Burkett	6,749	6,777	6,991	7,040
Tully	6,777	6,855	7,040	7,239
Marcellus	6,855	NA	7,239	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.

03/17/2023

Steve May
2/13/23

Hydraulic Fracturing Fluid Product Component Information Disclosure

Job Start Date:	5/25/2022
Job End Date:	6/25/2022
State:	West Virginia
County:	Wetzel
API Number:	47-103-03459-00-00
Operator Name:	Antero Resources Corporation
Well Name and Number:	TRADER UNIT 1H
Latitude:	39.54820000
Longitude:	-80.74389000
Datum:	WGS84
Federal Well:	NO
Indian Well:	NO
True Vertical Depth:	6,959
Total Base Water Volume (gal):	26,521,188
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
Produced Water	Halliburton	Base Fluid					
			Water	7732-18-5	100.00000	87.75022	Density = 8.50
Ingredients	Listed Above	Listed Above					
			Water	7732-18-5	100.00000	0.16603	

*Steve M
2/13/23*

EXCELERATE LX-16	Halliburton	Friction Reducer					
				Listed Below			
WG-36 GELLING AGENT	Halliburton	Gelling Agent					
				Listed Below			
MC B-8614A	MultiChem	Biocide					
				Listed Below			
FDP-S1443-21	Halliburton	Corrosion Inhibitor					
				Listed Below			
Sand-Common White-100 Mesh, SSA-2	Halliburton	Proppant					
				Listed Below			
OPTIFLO-II DELAYED RELEASE BREAKER	Halliburton	Breaker					
				Listed Below			
Excelerate LX-15	Halliburton	Friction Reducer					
				Listed Below			
HYDROCHLORIC ACID, 22 BAUME	Halliburton	Solvent					
				Listed Below			

D-AIR 3000L	Halliburton	Defoamer					
				Listed Below			
Sand-Premium White-30/70	Halliburton	Proppant					
				Listed Below			
Sand-Premium White-30/50	Halliburton	Proppant					
				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	12.02880	
			Hydrochloric acid	7647-01-0	30.00000	0.03664	
			Complex Amine Compound	Proprietary	60.00000	0.03561	
			Guar gum	9000-30-0	100.00000	0.02978	
			Hydrotreated light petroleum distillate	64742-47-8	30.00000	0.01781	
			Sodium chloride	7647-14-5	10.00000	0.00381	
			Glutaraldehyde	111-30-8	30.00000	0.00249	
			Amine	Proprietary	5.00000	0.00191	
			Ethoxylated alcohol	Proprietary	5.00000	0.00191	
			Surfactant	Proprietary	5.00000	0.00106	
			Sobitan, mono-9-octadecenoate, (Z)	1338-43-8	5.00000	0.00106	
			Ammonium persulfate	7727-54-0	100.00000	0.00098	
			Alkyl (C12-16) dimethylbenzyl ammonium chloride	68424-85-1	5.00000	0.00042	
			Alkenes	Proprietary	100.00000	0.00032	
			Oxylated phenolic resin	Proprietary	30.00000	0.00029	
			Ethoxylated alcohols	Proprietary	30.00000	0.00028	
			Methanol	67-56-1	100.00000	0.00027	

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			Alkoxylated polyhydric alcohol	Proprietary	1.00000	0.00021	
			Organic chloride compound	Proprietary	1.00000	0.00021	
			Siloxanes and Silicones, di-Me, reaction products with silica	67762-90-7	30.00000	0.00009	
			Polypropylene glycol	25322-69-4	30.00000	0.00009	
			Ethanol	64-17-5	1.00000	0.00008	
			Sodium bisulphite	7681-57-4	0.10000	0.00004	
			Potassium formate	590-29-4	0.10000	0.00004	
			Diethanolamine	111-42-2	0.10000	0.00004	
			Modified thiourea polymer	Proprietary	10.00000	0.00002	
			Aldehyde	Proprietary	5.00000	0.00001	
			Mixture of dimer and trimer fatty acids of indefinite composition derived from tall oil	61790-12-3	5.00000	0.00001	
			C.I. pigment Orange 5	3468-63-1	1.00000	0.00001	
			Sodium hydroxide	1310-73-2	0.01000	0.00001	
			Acetaldehyde	75-07-0	0.01000	0.00000	
			1,4-Dioxane	123-91-1	0.01000	0.00000	
			Nitrotriacetic acid, trisodium salt monohydrate	5064-31-3	0.01000	0.00000	
			Hydroquinone monomethyl ether	150-76-5	0.01000	0.00000	
			Ethylenediaminetetraacetic acid, tetrasodium salt	64-02-8	0.01000	0.00000	
			Ethylene oxide	75-21-8	0.01000	0.00000	
			1-Octadecene	112-88-9	1.00000	0.00000	
			1-Hexadecene	629-73-2	1.00000	0.00000	
			Sodium glycolate	2836-32-0	0.01000	0.00000	
			Organic salt #2	Proprietary	0.01000	0.00000	
			Acrylamide	79-06-1	0.01000	0.00000	

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			Formaldehyde	50-00-0	0.01000	0.00000	
			Nitrated acetate salt	Proprietary	0.01000	0.00000	
			Organic salt #1	Proprietary	0.01000	0.00000	

* 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)

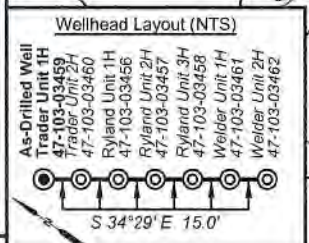
Antero Resources
Well No. Trader 1H
As-Drilled
 Antero Resources Corporation



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.

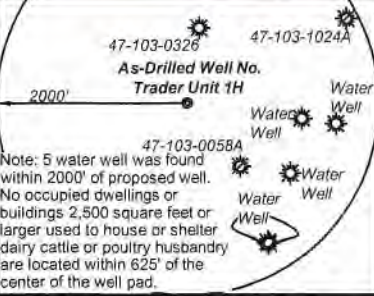
I, the undersigned, hereby certify that this plat is correct to the best of my knowledge and belief and shows all the information required by law and the rules issued and prescribed by the Department of Environmental Protection.

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



Legend

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



10,028' to Top Hole

3,506' to Bottom Hole

TOP HOLE LATITUDE 39 - 35 - 00
 BTM HOLE LATITUDE 39 - 37 - 30

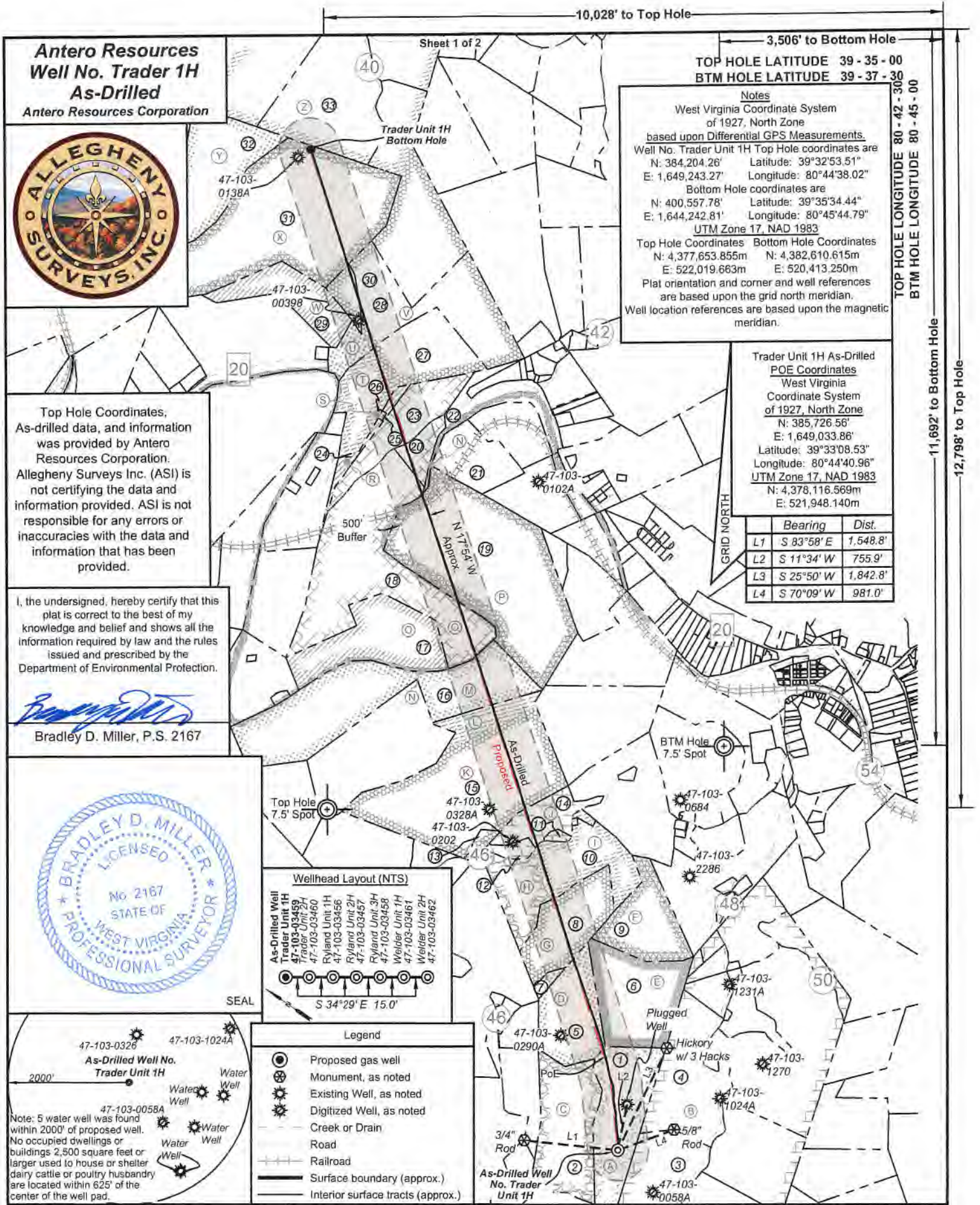
Notes
 West Virginia Coordinate System of 1927, North Zone based upon Differential GPS Measurements.
 Well No. Trader Unit 1H Top Hole coordinates are
 N: 384,204.26' Latitude: 39°32'53.51"
 E: 1,649,243.27' Longitude: 80°44'38.02"
 Bottom Hole coordinates are
 N: 400,557.78' Latitude: 39°35'34.44"
 E: 1,644,242.81' Longitude: 80°45'44.79"
 UTM Zone 17, NAD 1983
 Top Hole Coordinates: Bottom Hole Coordinates
 N: 4,377,653.855m N: 4,382,610.615m
 E: 522,019.663m E: 520,413.250m
 Plat orientation and corner and well references are based upon the grid north meridian.
 Well location references are based upon the magnetic meridian.

TOP HOLE LONGITUDE 80 - 42 - 30
 BTM HOLE LONGITUDE 80 - 45 - 00

Trader Unit 1H As-Drilled POE Coordinates
 West Virginia Coordinate System of 1927, North Zone

N: 385,726.56'
 E: 1,649,033.86'
 Latitude: 39°33'08.53"
 Longitude: 80°44'40.96"
 UTM Zone 17, NAD 1983
 N: 4,378,116.569m
 E: 521,948.140m

	Bearing	Dist.
L1	S 83°58' E	1,548.8'
L2	S 11°34' W	755.9'
L3	S 25°50' W	1,842.8'
L4	S 70°09' W	981.0'



FILE NO: 133-34-G-18
 DRAWING NO: Trader 1H As-Drilled
 SCALE: 1" = 2000'
 MINIMUM DEGREE OF ACCURACY: Submeter
 PROVEN SOURCE OF ELEVATION: CORS, Monroe County, OH

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

DATE: December 6 20 22
 OPERATOR'S WELL NO. Trader Unit 1H
 API WELL NO
 47 - 103 - 03459
 STATE COUNTY PERMIT

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

LOCATION: ELEVATION: As-Built 1,154' WATERSHED: Fishing Creek QUADRANGLE: TOP Hole: Pine Grove
 BTM Hole: Porter Falls

DISTRICT: Green Antero Resources Larrison Brothers, LLC; Bounty Minerals, LLC; Chesapeake Appalachia, LLC COUNTY: Wetzel
 SURFACE OWNER: Corporation BRC Appalachian Minerals I, LLC (2); WVDNR; Chaplik Family Trust; ACREAGE: 47.5
 P&P Fujimo, LLC; Black Rock Enterprises; Shiben Estates, Inc. 123.8; 119; 140;
 ROYALTY OWNER: Pamela Ann Palmer Emch; Dianne K. Howell; Melinda Debner; Acropolis, Inc. (2) LEASE NO: ACREAGE: 113.53; 130; 33;
 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: 6,884' TVD
 22,859' MD

WELL OPERATOR: Antero Resources Corporation DESIGNATED AGENT: Kevin Ellis
 ADDRESS: 1615 Wynkoop Street ADDRESS: 535 White Oaks Blvd.
 Denver, CO 80202 Bridgeport, WV 26330

11,692' to Bottom Hole
 12,798' to Top Hole

031712023

Antero Resources
Well No. Trader 1H
As-Drilled
 Antero Resources Corporation



Leases	
A	Pamela Ann Palmer Emch
B	William R. Stalnaker
C	BRC Appalachian Minerals I, LLC
D	Dianne K. Howell
E	David E. Bowyer
F	Acropolis, Inc.
G	Melinda Debner
H	Acropolis, Inc.
I	Acropolis, Inc.
J	Acropolis, Inc.
K	P & P Fujimo, LLC
L	Black Rock Enterprises
M	Shiben Estates, Inc.
N	WVDNR
O	Chesapeake Appalachia, LLC
P	BRC Appalachian Minerals I, LLC
Q	Bounty Minerals, LLC
R	Chaplik Family Trust
S	Wetzel County Public Service District No. 1
T	Larrison Brothers, LLC
U	Joyce A. Roberts
V	BRC Appalachian Minerals I, LLC
W	John S. Starkey
X	Chesapeake Appalachia, LLC
Y	Bernard E. Willey, et ux
Z	Linda Headlee Malone, et vir

ID	TM/Par	Owner	Bk/Pg	Acres
1	16-26	Antero Resources Corporation	474/713	47.50
2	16-25	Antero Resources Corporation	474/713	39.00
3	17-22	Perry D. Bucher	411/759	37.65
4	17-58	Pennie Baker	411/735	42.41
5	16-15	Donald L. Smith II, et ux	451/925	36.45
6	16-16	Donald L. Smith II, et ux	451/925	60.75
7	16-12	Donald L. Smith II, et ux	451/925	2.30
8	16-4	Donald L. Smith II, et ux	451/925	38.00
9	16-13	Donald L. Smith II, et ux	451/925	35.00
10	13-67	Gerold F. & Debra D. Richard	398/544	63.27
11	13-67.3	Dana Stuart Straight	368/19	1.42
12	13-67.2	Floyd M. Amos Est.	W66/309	5.00
13	13-41.1	Albert D. & Michelle D. Hornbeck	357/701	2.92
14	13-67.5	Julie A. & Aaron E. Hinderman	398/322	16.44
15	13-41	Shari D. Burgess	432/665	95.08
16	13-27	Donald P. Vandyke & Mark L. Vandyke	410/241	123.80
17	12-58	Donald P. Vandyke & Mark L. Vandyke	425/472	46.00
18	12-33	Kevin E. & Carol L. Cunningham	397/533	84.68
19	13-18	Coastal Forest Resources Co.	444/105	119.00
20	13-1	Randy W. LeMasters	406/16	4.25
21	13-2	Dwain Ray Brown	421/897	19.75
22	8-38.9	H. Dorn Higginbotham & Janet L. Workman Higginbotham	363/197	5.00
23	12-33.2	Kevin E. & Carol L. Cunningham	411/185	28.61
24	12-13	John & Barbara Chaplik	410/256	8.61
25	12-33.1	Wetzel County Public Service District	362/207	0.24
26	12-13.1	Wetzel County Public Service District	362/209	0.15
27	8-47	Larrison Brothers, LLC	417/100	53.62
28	8-29	James L. Scott, Sr., et al	431/50	64.76
29	8-45	John Gregory Starkey	450/315	28.00
30	8-29.1	E.G. Morgan	180/136	6.00
31	8-25	Jody Kay Rine, et al	435/542	130.00
32	8-24	Bernard Ely & Carolyn S. Willey	347/42	47.50
33	8-20.3	Brent A. & Amy S. Boram	427/802	62.60

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03/17/2023

Handwritten signature or initials.