

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

API 47-103-03630 County Wetzel District Green
Quad Porter Falls 7.5' Pad Name Fluharty Field/Pool Name -----
Farm name Antero Resources Corporation Well Number Cargo 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 4380202m Easting 515957m
Landing Point of Curve Northing 4380700m Easting 516683m
Bottom Hole Northing 4385428m Easting 515073m

Elevation (ft) 1181' 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 and Brine
Production hole ☐ Air ☒ Mud ☐ Fresh Water ☐ Brine
Mud Type(s) and Additive(s)
Air - Foam & 4% KCL
Mud - Polymer

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Date permit issued 1/2/2024 Date drilling commenced 1/31/2024 Date drilling ceased 5/18/2024
Date completion activities began 6/15/2024 Date completion activities ceased 9/5/2024
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 307' Open mine(s) (Y/N) depths No
Salt water depth(s) ft 2289' Void(s) encountered (Y/N) depths No
Coal depth(s) ft N/A Cavern(s) encountered (Y/N) depths No
Is coal being mined in area (Y/N) No

APPROVED
Reviewed by: [Signature]
03/28/2025

API 47- 103 - 03630

Farm name Antero Resources Corporation Well number Cargo 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	28"	20"	125.5'	New	94#, J-55	N/A	Y
Surface	17-1/2"	13-3/8"	422'	New	54.5#, J-55	N/A	Y
Coal							
Intermediate 1	12-3/8"	9-5/8"	3333'	New	36#, J-55	N/A	Y
Intermediate 2							
Intermediate 3							
Production	8-3/4" /8-1/2"	5-1/2"	24629'	New	23#, P-110	N/A	Y
Tubing		2-3/8"	7429'		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	250 sx	15.6	1.18	295	0'	8 Hrs.
Surface	Class A	368 sx	15.6	1.19	438	0'	8 Hrs.
Coal							
Intermediate 1	Class A	1182 sx	15.6	1.18	1395	0'	8 Hrs.
Intermediate 2							
Intermediate 3							
Production	Class H	4174 sx (Tail)	13.5 (Spacer), 15.2(Tail)	1.26 (Tail)	5259	-500' into Intermediate Casing	8 Hrs.
Tubing							

Drillers TD (ft) 24629' MD, 6783' TVD (BHL), 6868' TVD (Deepest Point Drilled)

Loggers TD (ft) 24598' MD

Deepest formation penetrated Marcellus

Plug back to (ft) N/A

Plug back procedure N/A

Kick off depth (ft) 6757'

Check all wireline logs run

☐ caliper ☐ density ☐ deviated/directional ☐ induction
☐ neutron ☐ resistivity ☐ gamma ray ☐ temperature ☐ sonic

Well cored ☐ Yes ☒ No

Conventional Sidewall

Were cuttings collected ☐ Yes ☒ No

DESCRIBE THE CENTRALIZER PLACEMENT USED FOR EACH CASING STRING _____

Conductor - 0

Surface - 1 above guide shoe, 1 above insert float, 1 every 4th joint to surface

Intermediate - 1 above float joint, 1 above float collar, 1 every 4th joint to surface

Production - 1 above float joint, 1 below float collar, 1 every 3rd joint to top of cement

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WAS WELL COMPLETED AS SHOT HOLE ☐ Yes ☒ No DETAILS _____

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WAS WELL COMPLETED OPEN HOLE? ☐ Yes ☒ No DETAILS _____

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

03/28/2025

API 47- 103 - 03630 Farm name Antero Resources Corporation Well number Cargo Unit 2H

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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DEPTHS

Please insert additional pages as applicable.

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 QUANTITYAND TYPE OF FLUID (FRESHWATER, BRINE, OIL, GAS, H ₂ S, ETC)

***PLEASE SEE ATTACHED EXHIBIT 3**

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Please insert additional pages as applicable.

Stimulating Company Halliburton
Address 3000 N Sam Houston Pkwy E. City Houston State TX Zip 77032

Please insert additional pages as applicable.

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

03/28/2025

API 47-103-03630 Farm Name Antero Resources Corporation Well Number Cargo Unit 2H					
EXHIBIT 1					
Stage No.	Perforation Date	Perforated from MD ft.	Perforated to MD ft.	Number of Perforations	Formations
1	6/15/2024	24544	24500	36	Marcellus
2	7/1/2024	24461.78373	24297.7024	36	Marcellus
3	7/1/2024	24262.48611	24098.4048	36	Marcellus
4	7/1/2024	24063.18849	23899.1071	36	Marcellus
5	7/1/2024	23863.89087	23699.8095	36	Marcellus
6	7/1/2024	23664.59325	23500.5119	36	Marcellus
7	7/1/2024	23465.29563	23301.2143	36	Marcellus
8	7/2/2024	23265.99802	23101.9167	36	Marcellus
9	7/2/2024	23066.7004	22902.619	36	Marcellus
10	7/2/2024	22867.40278	22703.3214	36	Marcellus
11	7/2/2024	22668.10516	22504.0238	36	Marcellus
12	7/2/2024	22468.80754	22304.7262	36	Marcellus
13	7/2/2024	22269.50992	22105.4286	36	Marcellus
14	7/3/2024	22070.2123	21906.131	36	Marcellus
15	7/3/2024	21870.91468	21706.8333	36	Marcellus
16	7/3/2024	21671.61706	21507.5357	36	Marcellus
17	7/3/2024	21472.31944	21308.2381	36	Marcellus
18	7/3/2024	21273.02183	21108.9405	36	Marcellus
19	7/4/2024	21073.72421	20909.6429	36	Marcellus
20	7/4/2024	20874.42659	20710.3452	36	Marcellus
21	7/4/2024	20675.12897	20511.0476	36	Marcellus
22	7/4/2024	20475.83135	20311.75	36	Marcellus
23	7/4/2024	20276.53373	20112.4524	36	Marcellus
24	7/5/2024	20077.23611	19913.1548	36	Marcellus
25	7/5/2024	19877.93849	19713.8571	36	Marcellus
26	7/5/2024	19678.64087	19514.5595	36	Marcellus
27	7/5/2024	19479.34325	19315.2619	36	Marcellus
28	7/5/2024	19280.04563	19115.9643	36	Marcellus
29	7/5/2024	19080.74802	18916.6667	36	Marcellus
30	7/6/2024	18881.4504	18717.369	36	Marcellus
31	7/6/2024	18682.15278	18518.0714	36	Marcellus
32	7/6/2024	18482.85516	18318.7738	36	Marcellus
33	7/6/2024	18283.55754	18119.4762	36	Marcellus
34	7/6/2024	18084.25992	17920.1786	36	Marcellus
35	7/6/2024	17884.9623	17720.881	36	Marcellus
36	7/7/2024	17685.66468	17521.5833	36	Marcellus
37	7/7/2024	17486.36706	17322.2857	36	Marcellus
38	7/7/2024	17287.06944	17122.9881	36	Marcellus
39	7/7/2024	17087.77183	16923.6905	36	Marcellus
40	7/7/2024	16888.47421	16724.3929	36	Marcellus
41	7/7/2024	16689.17659	16525.0952	36	Marcellus
42	7/7/2024	16489.87897	16325.7976	36	Marcellus
43	7/8/2024	16290.58135	16126.5	36	Marcellus
44	7/8/2024	16091.28373	15927.2024	36	Marcellus
45	7/8/2024	15891.98611	15727.9048	36	Marcellus
46	7/8/2024	15692.68849	15528.6071	36	Marcellus
47	7/8/2024	15493.39087	15329.3095	36	Marcellus
48	7/8/2024	15294.09325	15130.0119	36	Marcellus
49	7/9/2024	15094.79563	14930.7143	36	Marcellus
50	7/9/2024	14895.49802	14731.4167	36	Marcellus
51	7/9/2024	14696.2004	14532.119	36	Marcellus
52	7/9/2024	14496.90278	14332.8214	36	Marcellus
53	7/9/2024	14297.60516	14133.5238	36	Marcellus
54	7/9/2024	14098.30754	13934.2262	36	Marcellus
55	7/9/2024	13899.00992	13734.9286	36	Marcellus
56	7/9/2024	13699.7123	13535.631	36	Marcellus
57	7/10/2024	13500.41468	13336.3333	36	Marcellus
58	7/10/2024	13301.11706	13137.0357	36	Marcellus
59	7/10/2024	13101.81944	12937.7381	36	Marcellus
60	7/10/2024	12902.52183	12738.4405	36	Marcellus
61	7/10/2024	12703.22421	12539.1429	36	Marcellus
62	7/10/2024	12503.92659	12339.8452	36	Marcellus
63	7/11/2024	12304.62897	12140.5476	36	Marcellus
64	7/11/2024	12105.33135	11941.25	36	Marcellus
65	7/11/2024	11906.03373	11741.9524	36	Marcellus
66	7/11/2024	11706.73611	11542.6548	36	Marcellus
67	7/11/2024	11507.43849	11343.3571	36	Marcellus
68	7/11/2024	11308.14087	11144.0595	36	Marcellus
69	7/11/2024	11108.84325	10944.7619	36	Marcellus
70	7/12/2024	10909.54563	10745.4643	36	Marcellus
71	7/12/2024	10710.24802	10546.1667	36	Marcellus
72	7/12/2024	10510.9504	10346.869	36	Marcellus
73	7/12/2024	10311.65278	10147.5714	36	Marcellus
74	7/12/2024	10112.35516	9948.27381	36	Marcellus
75	7/12/2024	9913.05754	9748.97619	36	Marcellus
76	7/12/2024	9713.759921	9549.67857	36	Marcellus
77	7/13/2024	9514.462302	9350.38095	36	Marcellus
78	7/13/2024	9315.164683	9151.08333	36	Marcellus
79	7/13/2024	9115.867063	8951.78571	36	Marcellus
80	7/13/2024	8916.569444	8752.4881	36	Marcellus
81	7/13/2024	8717.271825	8553.19048	36	Marcellus
82	7/13/2024	8517.974206	8353.89286	36	Marcellus
83	7/13/2024	8318.676587	8154.59524	36	Marcellus
84	7/14/2024	8119.378968	7955.29762	36	Marcellus
85	7/14/2024	7920.081349	7756	36	Marcellus

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API 47-103-09530 Farm Name Antero Resources Corporation, Well Number Cargo Unit 2H								
EXHIBIT 2								
Stage No.	Stimulations Date	Avg Pump Rate	Avg Treatment Pressure (PSI)	max Breakdown Pressure (PSI)	ISIP (PSI)	Amount of Proppant (lbs)	Amount of Water (bbls)	Amount of Nitrogen/ other (units)
1	6/15/2024	79.8797	8402.456	4529.9	3331.609	167200	5646.8095	N/A
2	7/1/2024	94.88657	9930.448	5129.34	4239.044	420120	7372.3571	N/A
3	7/1/2024	94.78613	9994.423	6617.87	4173.613	418620	7494.7381	N/A
4	7/1/2024	91.17803	9930.562	7061.99	4109	399270	7218.8571	N/A
5	7/1/2024	91.21029	9595.066	7925.65	4212.422	423080	7361.0714	N/A
6	7/1/2024	92.4766	9614.248	6757.6	4464	420660	7370.119	N/A
7	7/1/2024	95.70394	9837.458	6877.49	4207.743	418720	7479.3571	N/A
8	7/2/2024	95.09231	9847.891	7093.95	4325.685	421120	7364.119	N/A
9	7/2/2024	94.54866	9608.115	6675.3	4504.145	423260	7410.5476	N/A
10	7/2/2024	94.75494	9594.409	7385.84	4701	426080	7442.7143	N/A
11	7/2/2024	89.23178	9303.883	6572.2	4565.408	424400	7372.4286	N/A
12	7/2/2024	83.20828	8784.712	6582.49	4456.46	423560	7345	N/A
13	7/2/2024	94.84649	9836.85	6797.84	4553.19	424100	7392.2143	N/A
14	7/3/2024	95.41813	9552.683	7476.6	4405.831	422380	7343.7857	N/A
15	7/3/2024	95.26839	9897.184	6782.72	4428.431	423220	7323.8333	N/A
16	7/3/2024	94.84321	9876.079	6599.88	4426.525	422620	7376.3571	N/A
17	7/3/2024	86.7204	9003.544	6592.56	4360.995	422780	7263.7619	N/A
18	7/3/2024	94.75671	9852.255	6464.64	4264.073	421480	7295.1429	N/A
19	7/4/2024	95.48531	9898.781	6733.22	4211.067	416800	7263.3333	N/A
20	7/4/2024	94.23461	10024.85	6551.89	4115.154	401680	8207.6905	N/A
21	7/4/2024	95.38046	9594.73	6628.19	4305.282	423860	7341.619	N/A
22	7/4/2024	90.19395	9749.835	6807.87	4308.487	423980	7595.7857	N/A
23	7/4/2024	94.8767	9669.631	5278.15	4225.696	397670	7032.6429	N/A
24	7/5/2024	94.04056	10053.1	6465.97	4082.666	402070	7079.881	N/A
25	7/5/2024	95.2542	9040.395	6160.18	4198.858	418140	7137.9524	N/A
26	7/5/2024	95.05955	10002.76	6517.56	4194.835	400700	7175.5238	N/A
27	7/5/2024	93.69084	9788.889	6431.26	4272.732	414440	7191.5952	N/A
28	7/5/2024	96.8164	10033.97	6288.05	4149.679	398820	7044.8095	N/A
29	7/5/2024	97.83829	9963.413	7087.16	4088.918	402290	6890.9762	N/A
30	7/6/2024	97.27985	9808.39	6492.58	4151.726	403640	6693.3095	N/A
31	7/6/2024	95.74936	9672.889	6582.85	4314.157	397750	6717.3095	N/A
32	7/6/2024	96.87572	9968.424	6805.89	4505.2	398870	6793.2619	N/A
33	7/6/2024	89.31304	9106.596	6721.9	4682.65	395840	6937.4048	N/A
34	7/6/2024	95.52915	9453.828	7312.93	4412.377	400690	6946.2857	N/A
35	7/6/2024	96.52507	9235.522	6985.49	4293.661	400010	6916.3571	N/A
36	7/7/2024	97.32498	9690.255	6549.12	4130.267	398250	7040.5	N/A
37	7/7/2024	96.95669	9776.583	6872.63	4136.04	416800	7240.1905	N/A
38	7/7/2024	96.0257	9085	6661.73	4428.647	396990	7110.5238	N/A
39	7/7/2024	97.017	9577.504	7684.05	4300	403510	7175.2857	N/A
40	7/7/2024	97.62835	9685.66	7001.85	4272.845	400600	7105.2381	N/A
41	7/7/2024	97.76702	9463.831	6732.38	4067.898	402890	6957.5476	N/A
42	7/7/2024	96.73569	9484.043	7474.02	4067.322	405500	6965.1667	N/A
43	7/8/2024	95.58461	9264.613	7184.04	4165.606	414640	7097.6667	N/A
44	7/8/2024	97.57832	9564.507	7558.3	4253.172	399690	6977.9286	N/A
45	7/8/2024	97.00796	9048.281	7028.32	4161.574	394560	6947.1429	N/A
46	7/8/2024	97.24923	9039.256	6998.47	3913.044	402020	6989.7857	N/A
47	7/8/2024	94.25487	8784.564	6881.88	3667	402060	7034.5238	N/A
48	7/8/2024	92.35916	8771.648	6342.93	3943.454	397650	7488.0238	N/A
49	7/9/2024	97.17838	9195.789	6789.53	3848.274	400690	6835.7381	N/A
50	7/9/2024	97.68063	8923.294	6209.65	3804.663	399950	6943.381	N/A
51	7/9/2024	97.10039	8834.335	6827.16	4174	402580	6965.7857	N/A
52	7/9/2024	96.87594	8799.756	6444.2	4207	395400	6977.2143	N/A
53	7/9/2024	97.62789	8966.779	6444.07	4670	400260	7038.2857	N/A
54	7/9/2024	97.77607	9056.849	6519.87	4253	419720	7244.3571	N/A
55	7/9/2024	97.00618	8952.568	6772.92	4212.4	418040	7105.6429	N/A
56	7/9/2024	97.67598	8921.7	6385.66	4200.02	401940	6829.119	N/A
57	7/10/2024	97.84116	9069.764	6372.81	4028.907	415560	6949.6905	N/A
58	7/10/2024	96.43404	8817.431	6549.97	4119.13	422620	6763.8571	N/A
59	7/10/2024	95.88243	9065.137	6605.94	4294	418440	6805.1905	N/A
60	7/10/2024	97.10121	9023.505	7049.15	4055.772	401910	6657.3095	N/A
61	7/10/2024	97.99919	8596.214	6834.26	4192.861	416680	8194.9524	N/A
62	7/10/2024	96.48711	8037.49	6820.46	4187.645	405480	7377.5476	N/A
63	7/11/2024	96.55535	8371.702	6233.88	4328.369	419660	6802.1429	N/A
64	7/11/2024	94.34938	8258.753	6738.94	4551.372	407230	6581.6429	N/A
65	7/11/2024	97.88409	8785.618	6731.15	4214	403820	6546.9048	N/A
66	7/11/2024	97.67083	8575.82	7283.59	4060.834	402470	7066.3571	N/A
67	7/11/2024	97.42408	8663.943	6777.76	3784	419020	6758.9524	N/A
68	7/11/2024	96.62226	8607.31	6505.78	4217.2	417620	6716.8571	N/A
69	7/11/2024	96.70056	8286.895	6518.65	4174.455	406270	6556.5714	N/A
70	7/12/2024	90.29005	7924.554	6690.22	4175.894	418680	6787.9286	N/A
71	7/12/2024	97.14716	8239.244	6384.27	4061.914	399170	6265.5952	N/A
72	7/12/2024	96.428	8603.782	7365.46	4070.817	418500	6496.7143	N/A
73	7/12/2024	96.42849	8630.241	6751.02	4123	403130	6279.7619	N/A
74	7/12/2024	96.25135	8669.396	6565.33	4015.915	395710	6395.7143	N/A
75	7/12/2024	96.47541	8469.745	7321.57	4104.61	418300	6710.4286	N/A
76	7/12/2024	97.02133	8159.287	7034.78	3982.871	402300	6631.3571	N/A
77	7/13/2024	97.31952	8044.886	7359.71	4086.98	403350	6485.4048	N/A
78	7/13/2024	97.73346	7980.65	7089.81	4303.723	419880	6520.2381	N/A
79	7/13/2024	97.66558	7983.897	6405.79	4478	399040	6445.8333	N/A
80	7/13/2024	92.47061	7621.699	7046.45	4300	405040	6543.5	N/A
81	7/13/2024	96.29522	8322.433	7061.26	4494	395340	6522.0952	N/A
82	7/13/2024	95.27517	8153.457	6738.81	4244	402680	6638.2857	N/A
83	7/13/2024	96.3476	7794.82	6512.66	4091.678	340780	5594.1667	N/A
84	7/14/2024	96.17189	7978.972	6680.32	4510	419740	6521.381	N/A
85	7/14/2024	93.00209	7448.824	7378.83	4001.868	420740	6718.2857	N/A
AVERAGE		95.3	9,089	6,736	4,216	34,530,520	593,343	0

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WV Department of
Environmental Protection

03/28/2025

EXHIBIT 3

LITHOLOGY/ FORMATION	TOP DEPTH (TVD)	BOTTOM DEPTH (TVD)	TOP DEPTH (MD)	BOTTOM DEPTH (MD)
	From Surface	From Surface	From Surface	From Surface
Sandy Siltstone, tr Shale	104	204	104	204
Silty Shale	204	354	204	354
Shale, Occ Siltstone, rr Sandstone	354	504	354	504
Shaley Siltstone, occ Sandstone	404	604	404	604
Sandy Siltstone, occ Shale	504	604	504	604
Silty Sandstone	604	804	604	804
Sandstone, tr Siltstone	804	954	804	954
Silty Sanstone, rr Shale	954	1,154	954	1,154
Sandstone, tr Siltstone	1,154	1,354	1,154	1,354
Sandy Siltstone	1,354	1,554	1,354	1,554
Siltstone, rr Sandstone	1,554	1,654	1,554	1,654
Silty Sandstone	1,654	1,854	1,654	1,854
Sandstone, occ Shale	1,854	2,054	1,854	2,054
Sandy Siltstone, occ Shale, tr coal	2,054	2,104	2,054	2,104
Sandy Siltstone, tr Shale	2,104	2,037	2,104	2,159
Big Lime	2,063	2,810	2,159	3,028
Fifty Foot Sandstone	2,810	2,908	3,002	3,136
Gordon	2,908	3,175	3,110	3,426
Fifth Sandstone	3,175	3,401	3,400	3,677
Bayard	3,401	3,887	3,651	4,229
Speechley	3,887	4,126	4,203	4,494
Balltown	4,126	4,579	4,468	4,992
Bradford	4,579	5,098	4,966	5,576
Benson	5,098	5,489	5,550	6,014
Alexander	5,489	6,613	5,988	7,316
Sycamore	6,472	6,587	7,131	7,290
Middlesex	6,587	6,676	7,290	7,448
Burkett	6,676	6,700	7,448	7,499
Tully	6,700	6773	7499	7708
Marcellus	6,773	NA	7708	NA

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LATITUDE 39°35'00"

6,408'

LATITUDE 39°37'30"

9,268' TO BOTTOM HOLE

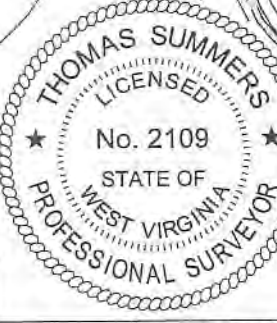
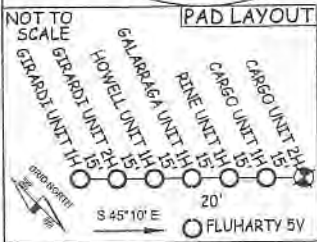
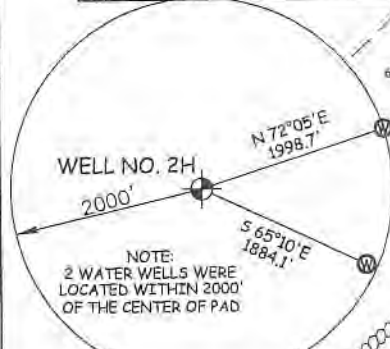
Antero Resources Corporation
Well No. Cargo #2H

1	RICHARD EDWARD TUCKER, SR. AND SHIRLEY D. TUCKER
2	DAVID H. DAVIS
3	SHIRLEY L. PRICE
4	OLIVE MCCREY
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20	WY DNR
21	STONE HILL MINERALS HOLDINGS, LLC
22	CSI TRANSPORTATION, INC.
23	ANTERO MINERALS, LLC
24	KRISTEN E. MCCORMACK AND SHIRLEY L. MCCORMACK
25	BOE GREEN DISTRICT, WETZEL COUNTY
26	RICHARD WAD
27	AMP IV, LP
28	ANTHONY J. O'NEIL
29	JOSHUA CURRY CAMP
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44	DAVID LEE SMITH
45	MICHAEL RICHARD SMITH
46	DAVID LEE SMITH
47	COASTAL FOREST RESOURCES COMPANY
48	DAVID H. BOYER

AS DRILLED DATA:
WELL 2H TOP HOLE INFORMATION:
N: 392,899ft E: 1,629,487ft
LAT: 39°34'16.66" LON: 80°48'51.84"
BOTTOM HOLE INFORMATION:
N: 410,095ft E: 1,626,874ft
LAT: 39°37'06.23" LON: 80°49'28.44"
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 LINE
ARE BASED ON GRID NORTH.

(NAD) 83 (UTM) ZONE 17 COORDS:
WELL 2H TOP HOLE INFORMATION:
N: 4,380,202m E: 515,957m
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1-29	DAVID SHREEVE
6-9	DAVID SHREEVE
6-19.1	BENJAMIN YOH
6-43	DANNYBOOHER
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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 # 21-011WA
DRAWING # CARGO2HAD
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 +/-
○ Proposed Well Path
⊗ As Drilled Well Path

THOMAS SUMMERS P.S. 2109
DATE 11/22/24
OPERATOR'S WELL# CARGO UNIT #2H
47 — 103 — 03630
STATE COUNTY PERMIT

WELL TYPE: OIL	GAS ☒	LIQUID INJECTION	WASTE DISPOSAL
(IF "GAS") PRODUCTION	☒	STORAGE	DEEP
LOCATION: ELEVATION 1,181'		WATERSHED FISHING CREEK	
QUADRANGLE PORTER FALLS 7.5'		DISTRICT GREEN	COUNTY WETZEL
SURFACE OWNER ANTERO RESOURCES CORPORATION		ACREAGE 46.95 ACRES±	
OIL & GAS ROYALTY OWNER DAVID L. SMITH		LEASE ACREAGE 67 ACRES±	
PROPOSED WORK: DRILL	CONVERT	DRILL DEEPER	REDRILL
PLUG OFF OLD FORMATION	PERFORATE NEW FORMATION	OTHER PHYSICAL CHANGE IN WELL	
(SPECIFY) AS DRILLED		PLUG & ABANDON	CLEAN OUT & REPLUG
TARGET FORMATION MARCELLUS		ESTIMATED DEPTH 6,783' TVD 24,629' MD	
WELL OPERATOR ANTERO RESOURCES CORP.		DESIGNATED AGENT KEVIN ELLIS	
ADDRESS 1615 WYNKOOP ST.		ADDRESS 535 WHITE OAK BLVD.	
DENVER, CO 80202		BRIDGEPORT, WV 26330	

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

03/28/2025

COUNTY NAME PERMIT

LATITUDE 39°35'00"

6,408'

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9,268' TO BOTTOM HOLE

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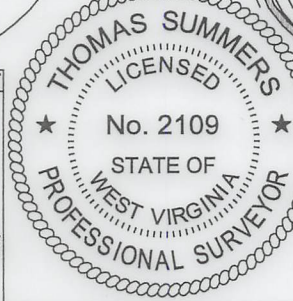
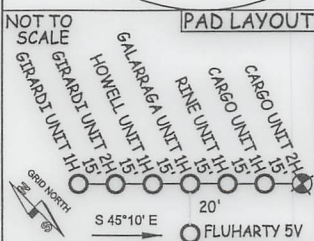
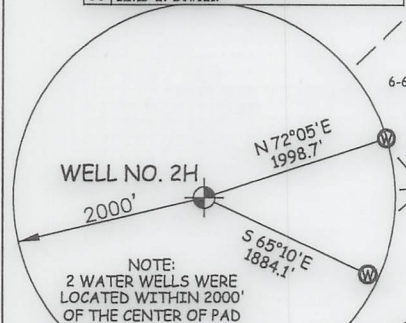
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OFFICE OF OIL AND GASWILLOW LAND SURVEYING PLLC
220 MASONIC AVE. PENNSBORO
WEST VIRGINIA 26415

JOB # 21-011WA

DRAWING # CARGO2HAD

SCALE 1" = 2000'

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ACCURACY SUBMETERPROVEN SOURCE OF ELEV.
SUBMETER MAPPING GRADE GPSSTATE OF WEST VIRGINIA
DEPARTMENT OF ENERGY
DIVISION OF OIL AND GAS

LEGEND

- Surface Owner Boundary Lines +/-
- Interior Surface Tracts +/-
- Proposed Well Path
- As Drilled Well Path

THOMAS SUMMERS P.S. 2109

DATE 11/22/24

OPERATOR'S WELL# CARGO UNIT#2H

47 - 103 - 03630

STATE COUNTY PERMIT

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

LOCATION: ELEVATION 1,181' WATERSHED FISHING CREEK

QUADRANGLE PORTER FALLS 7.5'

DISTRICT GREEN COUNTY WETZEL

SURFACE OWNER ANTERO RESOURCES CORPORATION

ACREAGE 46.95 ACRES±

OIL & GAS ROYALTY OWNER DAVID L. SMITH

LEASE ACREAGE 67 ACRES±

PROPOSED WORK: DRILL ☐ CONVERT ☐ DRILL DEEPER ☐ REDRILL ☐ FRACTURE OR STIMULATE ☐PLUG OFF OLD FORMATION ☐ PERFORATE NEW FORMATION ☐ OTHER PHYSICAL CHANGE IN WELL ☐

(SPECIFY) AS DRILLED

PLUG & ABANDON ☐ CLEAN OUT & REPLUG ☐

TARGET FORMATION MARCELLUS

ESTIMATED DEPTH 6,783' TVD 24,629' MD

WELL OPERATOR ANTERO RESOURCES CORP.

DESIGNATED AGENT KEVIN ELLIS

ADDRESS 1615 WYNKOOP ST.

ADDRESS 535 WHITE OAK BLVD.

DENVER, CO 80202

BRIDGEPORT, WV 26330

Hydraulic Fracturing Fluid Product Component Information Disclosure

Job Start Date:	06/15/2024
Job End Date:	07/14/2024
State:	West Virginia
County:	Wetzel
API Number:	47-103-03630-00-00
Operator Name:	Antero Resources Corporation
Well Name and Number:	CARGO UNIT 2H
Latitude:	39.571372
Longitude:	-80.814218
Datum:	WGS84
Federal Well:	NO
Indian Well:	NO
True Vertical Depth:	6868
Total Base Water Volume (gal)*:	26192244
Total Base Non Water Volume:	0



Water Source	Percent
Produced Water	100.00%

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
Excelerate LX-21	Halliburton	Friction Reducer					
FDP-S1470-23	Halliburton	Friction Reducer					
FDP-S1489-23	Halliburton	Friction Reducer					
HAI-501	Halliburton	Acid Corrosion Inhibitor					
HYDROCHLORIC ACID, 22 BAUME	Halliburton	Solvent					
MC B-8123	MultiChem	Biocide					
OPTIFLO-II DELAYED RELEASE BREAKER	Halliburton	Breaker					
Produced Water (Density 8.8)	Operator	Base Fluid					
Sand-Common White-100 Mesh,	Halliburton	Proppant					

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WV Department of
Environmental Protection

03/28/2025

40

SSA-2							
WG-36 GELLING AGENT	Halliburton	Gelling Agent					
Items above are Trade Names. Items below are the individual ingredients.							
			Water	7732-18-5	100.00000	86.80930	None
			Crystalline silica, quartz	14808-60-7	100.00000	13.00512	None
			Water	7732-18-5	100.00000	0.15293	None
			Hydrochloric acid	7647-01-0	30.00000	0.03715	None
			Complex amine compound	Proprietary	60.00000	0.01879	None
			Ethanaminium, N,N,N-trimethyl-2-(1-oxo-2-propen-1-yl)oxy-, chloride (1:1), polymer with 2-propenamide	69418-26-4	60.00000	0.00970	None
			Hydrotreated distillate	Proprietary	30.00000	0.00914	None
			Guar gum	9000-30-0	100.00000	0.00588	None
			Hydrotreated light petroleum distillates	64742-47-8	30.00000	0.00485	None
			Glutaraldehyde	111-30-8	30.00000	0.00241	None
			Ammonium chloride	12125-02-9	5.00000	0.00233	None
			Ethoxylated alcohol	Proprietary	5.00000	0.00157	None
			Fatty nitrogen derived amides	Proprietary	5.00000	0.00152	None
			Amides, tall-oil fatty, N,N-bis(hydroxyethyl)	68155-20-4	5.00000	0.00081	None
			Ethoxylated branched C13 alcohol	78330-21-9	5.00000	0.00081	None
			Sorbitan, mono-9-octadecenoate, (Z)	1338-43-8	1.00000	0.00047	None
			Sorbitan monooleate polyoxyethylene derivative	9005-65-6	1.00000	0.00047	None
			Quaternary ammonium compounds, benzyl-C12-16-alkyldimethyl, chlorides	68424-85-1	5.00000	0.00040	None
			Petroleum distillate	Proprietary	30.00000	0.00026	None
			Methanol	67-56-1	100.00000	0.00023	None
			Ammonium persulfate	7727-54-0	100.00000	0.00015	None
			Citric acid	77-92-9	1.00000	0.00008	None
			Mixture of dimer and trimer fatty acids of indefinite composition derived from tall oil	61790-12-3	30.00000	0.00007	None
			Modified thiourea polymer	Proprietary	30.00000	0.00007	None
			Sodium chloride	7647-14-5	5.00000	0.00004	None
			Ethoxylated fatty acid	Proprietary	5.00000	0.00004	None

03/28/2025

			Amide	Proprietary	5.00000	0.00004	None
			Oxylated phenolic resin	Proprietary	30.00000	0.00004	None
			Propargyl alcohol	107-19-7	5.00000	0.00001	None
			Hexadecene	629-73-2	5.00000	0.00001	None
			Ethoxylated alcohols	Proprietary	5.00000	0.00001	None
			C.I. pigment Orange 5	3468-63-1	1.00000	0.00000	None
			Diethanolamine	111-42-2	0.10000	0.00000	None
			Hydroquinone monomethyl ether	150-76-5	0.10000	0.00000	None
			Ethylenediaminetetraacetic acid, tetrasodium salt	64-02-8	0.10000	0.00000	None
			1,2,4 Trimethylbenzene	95-63-6	0.10000	0.00000	None
			Fatty acid ester	Proprietary	0.10000	0.00000	None
			Inorganic acid salt	Proprietary	0.10000	0.00000	None
			Oleic acids	112-80-1	0.01000	0.00000	None

* 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%

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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Environmental Protection

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