

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

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Office of Oil and Gas

JAN 16 2025

WV Department of
Environmental Protection

API 47 - 085 - 10511 County Ritchie District Clay
Quad Ellenboro 7.5' Pad Name Pinewood Field/Pool Name -----
Farm name Antero Resources Corporation Well Number Cokeley 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 4351026m Easting 497374m
Landing Point of Curve Northing 4351598.72m Easting 497364.55m
Bottom Hole Northing 4355930m Easting 495897m

Elevation (ft) 1066' 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 12/21/2023 Date drilling commenced 4/1/2024 Date drilling ceased 5/31/2024
Date completion activities began 8/4/2024 Date completion activities ceased 9/20/2024
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 200', 378', 878' Open mine(s) (Y/N) depths No
Salt water depth(s) ft 1490' 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:

J.N.
04/04/2025-25

WR-35
Rev. 8/23/13

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API 47- 085 - 10511 Farm name Antero Resources Corporation Well number Cokeley 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	91.59#, J-55	N/A	Y
Surface	17-1/2"	13-3/8"	995'	New	54.5#, J-55	N/A	Y
Coal							
Intermediate 1	12-3/8"	9-5/8"	3136'	New	36#, J-55	N/A	Y
Intermediate 2							
Intermediate 3							
Production	8-3/4" /8-1/2"	5-1/2"	22107'	New	23#, P-110	N/A	Y
Tubing		2-3/8"	6639'		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	204 sx	15.6	1.18	241	0'	8 Hrs.
Surface	Class C	561 sx	15.8	1.16	651	0'	8 Hrs.
Coal							
Intermediate 1	Class C	1240 sx	15.8	1.16	1438	0'	8 Hrs.
Intermediate 2							
Intermediate 3							
Production	Class H	3875 sx (Tail)	13.5 (Spacer), 15.2(Tail)	1.31 (Tail)	5076	~500' into Intermediate Casing	8 Hrs.
Tubing							

Drillers TD (ft) 22,107' MD, 6,178'TVD (BHL), 6266' TVD (Deepest Point Drilled) Loggers TD (ft) 22067' MD
Deepest formation penetrated Marcellus Plug back to (ft) N/A
Plug back procedure N/A

Kick off depth (ft) 6182'

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

04/04/2015

API 47- 085 - 10511 Farm name Antero Resources Corporation Well number Cokeley Unit 1H

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**

Please insert additional pages as applicable.

04/04/2025

API 47- 085 - 10511 Farm name Antero Resources Corporation Well number Cokeley Unit 1H

PRODUCING FORMATION(S)

DEPTHS

Marcellus 6216' (TOP) TVD 6821' (TOP) MD

Please insert additional pages as applicable.

GAS TEST ☐ Build up ☐ Drawdown ☒ Open Flow OIL TEST ☒ Flow ☐ Pump

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

OPEN FLOW Gas 16,994.65 mcfpd Oil 251.24 bpd NGL --- bpd Water 1,201.55 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.

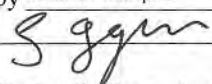
Drilling Contractor H & P Drilling
Address 912 N Eagle Valley Rd City Howard State PA Zip 16841

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

Cementing Company Haliburton
Address 3000 N Sam Houston Pkwy E. City Houston State TX Zip 77032

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

Please insert additional pages as applicable.

Completed by Stefan Gaspar Telephone 303-357-6959
Signature  Title Permitting Agent Date 1/15/25

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

04/04/2025

API 47-085-10511 Farm Name Michael Underwood Et Al Well Number Cokelev Unit 1H					
EXHIBIT 1					
Stage No.	Perforation Date	Perforated from MD ft.	Perforated to MD ft.	Number of Perforations	Formations
1	6/15/2024	22012.3	21968.2	36	Marcellus
2	6/16/2024	21929.39556	21763.3733	36	Marcellus
3	6/17/2024	21727.76889	21561.7467	36	Marcellus
4	6/17/2024	21526.14222	21360.12	36	Marcellus
5	6/18/2024	21324.51556	21158.4933	36	Marcellus
6	6/19/2024	21122.88889	20956.8667	36	Marcellus
7	6/20/2024	20921.26222	20755.24	36	Marcellus
8	6/21/2024	20719.63556	20553.6133	36	Marcellus
9	6/21/2024	20518.00889	20351.9867	36	Marcellus
10	6/22/2024	20316.38222	20150.36	36	Marcellus
11	6/22/2024	20114.75556	19948.7333	36	Marcellus
12	6/23/2024	19913.12889	19747.1067	36	Marcellus
13	6/24/2024	19711.50222	19545.48	36	Marcellus
14	6/25/2024	19509.87556	19343.8533	36	Marcellus
15	6/26/2024	19308.24889	19142.2267	36	Marcellus
16	6/27/2024	19106.62222	18940.6	36	Marcellus
17	6/27/2024	18904.99556	18738.9733	36	Marcellus
18	6/28/2024	18703.36889	18537.3467	36	Marcellus
19	6/29/2024	18501.74222	18335.72	36	Marcellus
20	6/30/2024	18300.11556	18134.0933	36	Marcellus
21	7/1/2024	18098.48889	17932.4667	36	Marcellus
22	7/1/2024	17896.86222	17730.84	36	Marcellus
23	7/2/2024	17695.23556	17529.2133	36	Marcellus
24	7/3/2024	17493.60889	17327.5867	36	Marcellus
25	7/4/2024	17291.98222	17125.96	36	Marcellus
26	7/5/2024	17090.35556	16924.3333	36	Marcellus
27	7/5/2024	16888.72889	16722.7067	36	Marcellus
28	7/6/2024	16687.10222	16521.08	36	Marcellus
29	7/7/2024	16485.47556	16319.4533	36	Marcellus
30	7/8/2024	16283.84889	16117.8267	36	Marcellus
31	7/8/2024	16082.22222	15916.2	36	Marcellus
32	7/9/2024	15880.59556	15714.5733	36	Marcellus
33	7/10/2024	15678.96889	15512.9467	36	Marcellus
34	7/10/2024	15477.34222	15311.32	36	Marcellus
35	7/11/2024	15275.71556	15109.6933	36	Marcellus
36	7/12/2024	15074.08889	14908.0667	36	Marcellus
37	7/13/2024	14872.46222	14706.44	36	Marcellus
38	7/14/2024	14670.83556	14504.8133	36	Marcellus
39	7/14/2024	14469.20889	14303.1867	36	Marcellus
40	7/15/2024	14267.58222	14101.56	36	Marcellus
41	7/15/2024	14065.95556	13899.9333	36	Marcellus
42	7/16/2024	13864.32889	13698.3067	36	Marcellus
43	7/16/2024	13662.70222	13496.68	36	Marcellus
44	7/16/2024	13461.07556	13295.0533	36	Marcellus
45	7/17/2024	13259.44889	13093.4267	36	Marcellus
46	7/18/2024	13057.82222	12891.8	36	Marcellus
47	7/19/2024	12856.19556	12690.1733	36	Marcellus
48	7/19/2024	12654.56889	12488.5467	36	Marcellus
49	7/19/2024	12452.94222	12286.92	36	Marcellus
50	7/20/2024	12251.31556	12085.2933	36	Marcellus
51	7/20/2024	12049.68889	11883.6667	36	Marcellus
52	7/20/2024	11848.06222	11682.04	36	Marcellus
53	7/21/2024	11646.43556	11480.4133	36	Marcellus
54	7/21/2024	11444.80889	11278.7867	36	Marcellus
55	7/21/2024	11243.18222	11077.16	36	Marcellus
56	7/22/2024	11041.55556	10875.5333	36	Marcellus
57	7/22/2024	10839.92889	10673.9067	36	Marcellus
58	7/23/2024	10638.30222	10472.28	36	Marcellus
59	7/23/2024	10436.67556	10270.6533	36	Marcellus
60	7/23/2024	10235.04889	10069.0267	36	Marcellus
61	7/24/2024	10033.42222	9867.4	36	Marcellus
62	7/24/2024	9831.79556	9665.77333	36	Marcellus
63	7/24/2024	9630.16889	9464.14667	36	Marcellus
64	7/25/2024	9428.54222	9262.52	36	Marcellus
65	7/25/2024	9226.91556	9060.89333	36	Marcellus
66	7/26/2024	9025.28889	8859.26667	36	Marcellus
67	7/26/2024	8823.66222	8657.64	36	Marcellus
68	7/26/2024	8622.03556	8456.01333	36	Marcellus
69	7/27/2024	8420.40889	8254.38667	36	Marcellus
70	7/27/2024	8218.78222	8052.76	36	Marcellus
71	7/27/2024	8017.15556	7851.13333	36	Marcellus
72	7/28/2024	7815.52889	7649.50667	36	Marcellus
73	7/28/2024	7613.90222	7447.88	36	Marcellus
74	7/28/2024	7412.27556	7246.25333	36	Marcellus
75	7/29/2024	7210.64889	7044.62667	36	Marcellus
76	7/29/2024	7009.02222	6843	36	Marcellus

04/04/2025

API 47-085-10511 Farm Name, Michael Underwood Et Al. Well Number Cokeley Unit 1H								
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	8/4/2024	79.9217	9215.605	7437.95	3281.455	168340	4581.3571	N/A
2	8/4/2024	96.38458	10015.53	6408.62	4006.931	400300	7543.7857	N/A
3	8/5/2024	94.15529	10243.58	6512.37	3911.399	398500	7243.3095	N/A
4	8/5/2024	97.01936	10308.12	6594.81	4148.907	393030	7159.4286	N/A
5	8/5/2024	92.97829	9961.13	5861.51	3416.52	401980	7574	N/A
6	8/6/2024	93.49237	10022.87	5407.28	3613.769	419420	7300.3095	N/A
7	8/6/2024	95.72689	10054.2	6023.88	3997.073	419440	7278.5	N/A
8	8/6/2024	93.90069	9634.615	6106.25	3511.923	401750	7197.9286	N/A
9	8/6/2024	95.04734	9739.217	6015.17	4180	401280	7101.2381	N/A
10	8/7/2024	98.22729	10045.24	5666.62	4176.175	421140	7408.119	N/A
11	8/7/2024	95.91278	9550.405	5862.69	4139	413600	7288.6429	N/A
12	8/7/2024	97.46471	10069.4	6309.65	4010.913	413870	7336.6429	N/A
13	8/8/2024	97.45509	10050.92	6021.58	4133.033	402380	7101.3571	N/A
14	8/8/2024	96.54954	10006.19	5938.88	4232.183	400860	7204.4048	N/A
15	8/9/2024	95.01089	9721.446	5799.14	3571.927	422240	7258.5714	N/A
16	8/9/2024	97.88489	9824.349	6058.37	3846.125	403560	7273.7619	N/A
17	8/9/2024	97.09657	9871.065	5934.83	4059.772	415840	7385.119	N/A
18	8/10/2024	96.17063	9557.019	6114.43	4158.735	400470	7013.1905	N/A
19	8/10/2024	97.08418	9549.38	5821.26	3792.948	419600	7287.4286	N/A
20	8/10/2024	93.33479	9684.603	6173.88	3618.567	415260	7221.5952	N/A
21	8/10/2024	97.05825	9455.649	6369.26	3751.734	423260	7101.7619	N/A
22	8/11/2024	97.86424	9936.342	6077.83	3578.821	419520	7197.3571	N/A
23	8/11/2024	97.64228	9828.537	6118.91	3224.186	421160	7154.1429	N/A
24	8/11/2024	98.19188	9999.073	6524.28	3634	398710	6926	N/A
25	8/12/2024	96.47636	9817.732	6103.77	3437.193	418720	7119	N/A
26	8/12/2024	96.9842	9958.857	6051.06	3450.496	417580	7241.5952	N/A
27	8/12/2024	97.55325	9696.738	5942.62	2936.819	423780	7284.5476	N/A
28	8/13/2024	98.23087	9795.748	5797.75	3050.937	419680	7247.9048	N/A
29	8/13/2024	96.63267	9597.116	6186.08	3508.477	418620	7364.0238	N/A
30	8/13/2024	97.97499	9827.05	6250.11	3288.502	415568	7212.5476	N/A
31	8/14/2024	97.69209	9825.09	6171.3	3374.657	419880	7107.9286	N/A
32	8/14/2024	95.67189	9894.087	6154.45	3059.837	414480	7043.0238	N/A
33	8/14/2024	97.0155	9576.989	5607.23	3622.993	416020	7080.1429	N/A
34	8/14/2024	97.41099	9708.933	6200.4	3703.385	418200	6968.5476	N/A
35	8/15/2024	97.41379	9671.94	6107.72	3468.037	414000	7018.8333	N/A
36	8/15/2024	97.45204	9514.32	5728.52	3171.467	397640	6973.2143	N/A
37	8/15/2024	97.74217	9539.708	5963.81	3278	394060	6736.6905	N/A
38	8/16/2024	97.13185	9647.127	5873.68	3006.752	399680	6787.8095	N/A
39	8/16/2024	97.13191	9558.68	5973.66	3248.872	399210	6764.3095	N/A
40	8/16/2024	96.12113	9665.231	5613.51	2983.4	399990	6820.881	N/A
41	8/17/2024	97.01858	9003.976	5898.4	3360.845	420960	7102.3333	N/A
42	8/17/2024	97.54063	9096.856	5965.2	3442.986	387970	6733.8571	N/A
43	8/17/2024	97.60746	9086.416	5755.32	3308.658	407520	7119.381	N/A
44	8/18/2024	97.67529	9057.049	5945.99	3785.946	399240	6859.4048	N/A
45	8/18/2024	97.0826	9027.885	6197.18	3598	416260	7104.1667	N/A
46	8/18/2024	97.28363	9069.844	5999.04	3942.385	397680	6871.2619	N/A
47	8/18/2024	97.86081	9142.653	5952.72	3712	418620	7003.6429	N/A
48	8/19/2024	97.50629	8963.86	5539.16	3411.158	403200	6756.3571	N/A
49	8/19/2024	97.69857	8813.309	5859.19	3501.7	418160	7096.4524	N/A
50	8/19/2024	97.10595	9026.55	5867.84	4167	387160	6635	N/A
51	8/20/2024	96.92967	8786.289	5814.06	3563.522	420860	7016	N/A
52	8/20/2024	97.46255	8477.924	5998	3877	418580	7075	N/A
53	8/20/2024	96.42945	8724.055	6000.62	3440.095	418800	6972	N/A
54	8/20/2024	96.69133	8572.094	6207.09	4160	391930	6635	N/A
55	8/21/2024	97.38921	8443.648	5953.26	4124	416480	6942	N/A
56	8/21/2024	96.47002	8728.018	6215.87	3920.582	397180	6717	N/A
57	8/21/2024	96.57185	8820.111	6006.19	3540	422000	6943	N/A
58	8/22/2024	96.58433	8619.002	6353.56	3744.498	394990	6667	N/A
59	8/22/2024	96.65814	8529.124	6494.74	3753	414920	6784	N/A
60	8/22/2024	97.3134	8520.015	5945.12	3775.971	415180	6893	N/A
61	8/22/2024	97.25882	8216.716	5818.02	3665.461	418700	6984	N/A
62	8/23/2024	95.7611	8021.68	5815.65	3620.052	396020	6734	N/A
63	8/23/2024	97.23953	8017.514	5972.22	3835.087	410940	6830	N/A
64	8/23/2024	97.25781	7929.817	5643.75	3956.499	391030	6604	N/A
65	8/24/2024	96.6	8302.542	5910.93	3722.826	420880	6524.5	N/A
66	8/24/2024	97.61392	8225.189	5682.78	4671	391140	6432	N/A
67	8/24/2024	97.80626	8287.398	5928.46	3933.768	418540	6756	N/A
68	8/24/2024	94.38335	8024.915	5928.32	4335	394140	6509	N/A
69	8/25/2024	96.94649	8553.503	6181.85	4181	415640	6702	N/A
70	8/25/2024	97.47587	8041.882	6455.53	3732.359	393270	6424	N/A
71	8/25/2024	97.41049	7849.499	6575.66	3618.089	409220	6480	N/A
72	8/25/2024	97.66361	7605.113	6052.02	4332.5	396500	6616	N/A
73	8/26/2024	97.67131	7517.544	6121.76	4141.51	415880	6647	N/A
74	8/26/2024	97.18255	7374.341	5615.49	3902.893	397490	6390	N/A
75	8/26/2024	96.10801	7261.649	5438.74	3641.967	414860	6586	N/A
76	8/26/2024	98.02734	7166.598	5777.92	3714.784	401630	6480	N/A
AVERAGE		96.6	9,139	6,023	3,707	30,836,188	527,533	0

04/04/2025

API 47-085-10511 Farm Name Michael Underwood Et Al Well Number Cokeley Unit 1H

EXHIBIT 3

LITHOLOGY/ FORMATION	TOP DEPTH (TVD) From Surface	BOTTOM DEPTH (TVD) From Surface	TOP DEPTH (MD) From Surface	BOTTOM DEPTH (MD) From Surface
Silty Sandstone	100	170	100	170
Silty Sandstone, Occ LS	170	370	170	370
Silty Sandstone	370	570	370	570
Sandstone. Scat SLTST, Scat LS	570	770	570	770
Silty Sandstone, tr LS	770	970	770	970
Sandy Siltstone	970	1170	970	1170
Sandy Siltstone	1170	1370	1170	1370
Silty Sandstone, tr MICA	1370	1770	1370	1770
Silty Sandstone, tr LS, tr PYR	1770	1870	1770	1870
Sandy Limestone, rr Shale	1870	1882	1870	1892
Big Lime	1912	2616	1892	2650
Fifty Foot Sandstone	2616	2713	2620	2751
Gordon	2713	2908	2721	2953
Fifth Sandstone	2908	3143	2923	3194
Bayard	3143	4046	3164	4122
Speechley	4046	4259	4092	4344
Balltown	4259	4617	4314	4733
Bradford	4617	4827	4703	4986
Benson	4827	5129	4956	5359
Alexander	5129	6094	5329	6571
Sycamore	5978	6064	6405	6541
Middlesex	6064	6165	6541	6738
Burkett	6165	6186	6738	6791
Marcellus	6186	NA	6791	NA

04/04/2025

LATITUDE 39°20'00"

8,665'

LATITUDE 39°22'30"

1,732' TO BOTTOM HOLE

Antero Resources
Corporation
Well No. Cokeley #1H

AS DRILLED DATA:

WELL 1H TOP HOLE INFORMATION:
N: 298,178ft E: 1,566,911ft
LAT: 39°18'30.76" LON: 81°01'50.25"
BOTTOM HOLE INFORMATION:
N: 314,351ft E: 1,562,331ft
LAT: 39°21'09.82" LON: 81°02'52.05"
WEST VIRGINIA COORDINATE
SYSTEM OF 1927 NORTH ZONE.
ZONE WAS DERIVED FROM
MEASUREMENTS TAKEN WITH
TRIMBLE GEOXT SUBMETER
MAPPING GRADE GPS UNIT.
PLAT ORIENTATION, CORNER,
AND WELL REFERENCE TIE LINES
ARE BASED ON GRID NORTH.

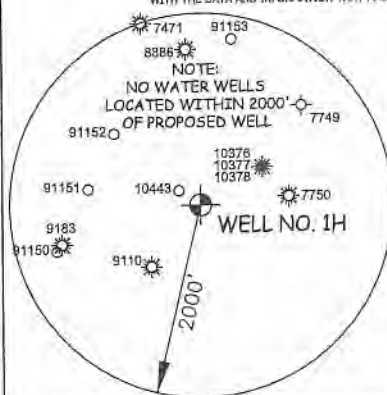
(NAD) 83 (UTM) ZONE 17 COORDS:
WELL 1H TOP HOLE INFORMATION:
N: 4,351,026m E: 497,374m
BOTTOM HOLE INFORMATION:
N: 4,355,930m E: 495,897m

(NAD) 27 (UTM) ZONE 17 COORDS:
WELL 1H TOP HOLE INFORMATION:
N: 14,274,279ft E: 1,631,754ft
POINT OF ENTRY INFORMATION:
N: 14,275,905ft E: 1,631,864ft
BOTTOM HOLE INFORMATION:
N: 14,290,367ft E: 1,626,907ft

LESSOR	
A	THE HEFLIN MINERAL RIGHTS PARTNERSHIP
B	JOHN ROBERT BILLS
C	THE HEFLIN MINERAL RIGHTS PARTNERSHIP
D	IRA M. HAUGHT
E	DONNA MOSSOR
F	THEODORE BUTCHER
G	W.C. BUTCHER ET AL
H	HERITAGE RESOURCES
I	ELLA LOUISE LAFAYE
J	ROBERT W. WARD, JR.
L	RIDGETOP CAPITOL VI, LP.
M	RIDGETOP CAPITOL VI, LP.
N	RIDGETOP CAPITOL VI, LP.
O	RIDGETOP CAPITOL VI, LP.
P	RONNEL L. UNDERWOOD ET AL
Q	RONNEL L. UNDERWOOD ET AL
S	THE BIG CHIEF DRILLING AND PRODUCTION COMPANY, INC.
T	DAVID D. BUXTON
U	STEVEN ALKIRE
V	PAMELA L. NICHOLS
W	ADA WEEKLY ET AL

CLAY DISTRICT RITCHIE COUNTY	
6-7	Kenneth Massor
6-7.1	Kenneth Massor
6-8.1	Rodney Ritchey
6-18	Consolidated Timberlands LLC
11-32	Lorena Mossor Et Al
12-1	David McKinney
12-1.1	Michael Nichols
12-1.2	Adams County Hunt Club LLP
12-1.3	Johnny Cool
12-1.5	David McKinney
12-1.7	Vince Butta
12-2	Lawrence Cokeley
12-2.1	Samuel Haynes
12-2.2	Derek Haynes
12-6.1	Adams County Hunt Club LLP
12-6.2	Adams County Hunt Club LLP
12-6.3	Adams County Hunt Club LLP
12-13	Margo Kiehl Et Al
12-16	Michael Underwood Et Al
12-16.1	Michael Underwood Et Al
12-16.2	Michael Underwood Et Al
12-16.3	Michael Underwood Et Al
12-17	Erma Smith Et Al

- 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.



—8,665'

1,732' TO BOTTOM HOLE

AS DRILLED DATA:

(NAD) 27 (UTM) ZONE 17 COORDS:
WELL 1H TOP HOLE INFORMATION:
N: 14,274,279ft E: 1,631,754ft
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LESSOR

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12-16.2	Michael Underwood Et Al
12-16.3	Michael Underwood Et Al
12-17	Erma Smith Et Al

NOTE

1. NO OCCUPANT DWELLINGS OR BUILDINGS TWO THOUSAND FIVE HUNDRED (2,500) SQUARE FEET OR LESSER USE AS 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,

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7471 91153
8886
NOTE:
NO WATER WELLS
LOCATED WITHIN 2000'
OF PROPOSED WELL 7749

WELL NO. 1H

A circular seal for a professional surveyor. The outer ring contains the text "THOMAS SUMMERS" at the top and "PROFESSIONAL SURVEYOR" at the bottom, separated by two stars. Inside the ring, the word "LICENSED" is at the top, "No. 2109" is in the center, and "STATE OF WEST VIRGINIA" is at the bottom.

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.



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 # 23-025WA
DRAWING # COKELEY1HAD
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 12/12/24

OPERATOR'S WELL # COKELEY UNIT #1H

LAFAYETTE DISTRICT
PLEASANTS COUNTY

10-1	Pamela Palmer Et Al
10-3	Pamela Palmer Et Al
10-26	Mark Hadley
10-26.1	Mark Hadley
10-27	John Bills
10-28	David Meeks
10-29	Frank Horner Jr.
10-35	Donna Mossor
10-36	Donna Mossor
10-37	Donna Mossor
10-38	Paul Riggs
10-38.1	John Bills
10-40	Mark Hadley
10-41	Donna Mossor
10-42	Donna Mossor

PAD LAYOUT

N 89°06' E

COKELEY UNIT 1H
CONKIN UNIT 1H
MCKINNEY UNIT 1H
HANEY UNIT 1H
PROPOSED WELL

NOT TO SCALE

WELL TYPE: OIL GAS X LIQUID INJECTION WASTE DISPOSAL 47 - 085 - 10511
(IF "GAS") PRODUCTION X STORAGE DEEP SHALLOW X STATE COUNTY PERMIT
LOCATION: ELEVATION 1,066' - AS BUILT WATERSHED NORTH FORK HUGHES RIVER
QUADRANGLE ELLENBORO 7.5' DISTRICT CLAY COUNTY RITCHIE
SURFACE OWNER MICHAEL UNDERWOOD ET AL ACREAGE 50 ACRES +/- 04/04/2025
OIL & GAS ROYALTY OWNER RONNEL L. UNDERWOOD ET AL LEASE ACREAGE 266.83 ACRES

PROPOSED WORK: DRILL ☐ CONVERT ☐ DRILL DEEPER ☐ REDRILL ☐ FRACTURE OR STIMULATE ☐			
PLUG OFF OLD FORMATION ☐ PERFORATE NEW FORMATION ☐ OTHER PHYSICAL CHANGE IN WELL ☐			
(SPECIFY) <u>AS DRILLED</u>			
TARGET FORMATION <u>MARCELLUS</u>		ESTIMATED DEPTH <u>6,178' TVD 22,107' MD</u>	
WELL OPERATOR <u>ANTERO RESOURCES CORP.</u>		DESIGNATED AGENT <u>KEVIN ELLIS</u>	
ADDRESS <u>1615 WYNKOOP ST.</u>		ADDRESS <u>535 WHITE OAKS BLVD</u>	
RM. WW-6 <u>DENVER, CO 80202</u>		<u>BRIDGEPORT, WV 26330</u>	

-8,113' TO BOTTOM HOLE

- 670,6 -

LONGITUDE 81°02'30"

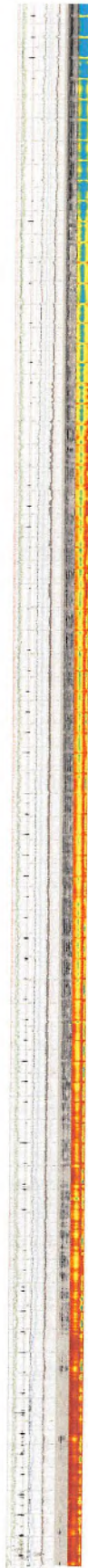
LONGITUDE 81 00 00

COUNTY NAME _____

PERMI



04/04/2025



REPLACEMENT ANALYSIS	
Item	Description
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04/04/2025

	Raw (v)		Calibrated (v)		Results	
	Zero	Cal	Zero	Cal	Gain	Offset
CAL	0.000	0.000	0.699	0.693	1.000	0.000
Air Zero Calibration, performed Sun Jul 7 08:45:51 2024:						
	Raw (v)		Calibrated (v)		Results	
	Zero		Zero		Offset	
3'	0.000		0.000		0.000	
5'	0.000		0.000		0.000	
SUM						
S1	0.000		0.000		0.000	
S2	0.000		0.000		0.000	
S3	0.000		0.000		0.000	
S4	0.000		0.000		0.000	
S5	0.000		0.000		0.000	
S6	0.000		0.000		0.000	
S7	0.000		0.000		0.000	
S8	0.000		0.000		0.000	



Company	ANTERO RESOURCES
Well	COKELEY UNIT 1H
Field	RITCHIE
County	RITCHIE
State	WV

Hydraulic Fracturing Fluid Product Component Information Disclosure

Job Start Date:	08/04/2024
Job End Date:	08/26/2024
State:	West Virginia
County:	Ritchie
API Number:	47-085-10511-00-00
Operator Name:	Antero Resources Corporation
Well Name and Number:	COKELEY UNIT 1H
Latitude:	39.308622
Longitude:	-81.030459
Datum:	WGS84
Federal Well:	NO
Indian Well:	NO
True Vertical Depth:	6266
Total Base Water Volume (gal)*:	23172632
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
Exceletrate LX-21	Halliburton	Friction Reducer					
FDP-S1460-22	Halliburton	Friction Reducer					
FDP-S1470-23	Halliburton	Friction Reducer					
FDP-S1485-23	Halliburton	Friction Reducer					
HAI-501	Halliburton	Acid Corrosion Inhibitor					
HYDROCHLORIC ACID, 22 BAUME	Halliburton	Solvent					
Legend LD-1330	MultiChem	Completion/Stimulation					
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					

04/04/2025

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	86.69775	None
			Crystalline silica, quartz	14808-60-7	100.00000	13.11153	None
			Water	7732-18-5	100.00000	0.15581	None
			Hydrochloric acid	7647-01-0	30.00000	0.03755	None
			Complex amine compound	Proprietary	60.00000	0.01842	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	0.01106	None
			Hydrotreated distillate	Proprietary	30.00000	0.00921	None
			Hydrotreated light petroleum distillates	64742-47-8	30.00000	0.00602	None
			Guar gum	9000-30-0	100.00000	0.00470	None
			Ammonium chloride	12125-02-9	5.00000	0.00246	None
			Glutaraldehyde	111-30-8	30.00000	0.00235	None
			Ethoxylated alcohol	Proprietary	5.00000	0.00162	None
			Fatty nitrogen derived amides	Proprietary	5.00000	0.00154	None
			Complex Alcohol	Proprietary	60.00000	0.00113	None
			Polymer	Proprietary	60.00000	0.00098	None
			Amides, tall-oil fatty, N,N-bis(hydroxyethyl)	68155-20-4	5.00000	0.00092	None
			Ethoxylated branched C13 alcohol	78330-21-9	5.00000	0.00092	None
			Complex Amine Compound	Proprietary	60.00000	0.00070	None
			Sorbitan, mono-9-octadecenoate, (Z)	1338-43-8	1.00000	0.00049	None
			Sorbitan monooleate polyoxyethylene derivative	9005-65-6	1.00000	0.00049	None
			Quaternary ammonium compounds, benzyl-C12-16-alkyldimethyl, chlorides	68424-85-1	5.00000	0.00039	None

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			Petroleum distillate	Proprietary	30.00000	0.00035	None
			Methanol	67-56-1	100.00000	0.00024	None
			Bentonite	1302-78-9	5.00000	0.00009	None
			Quaternary ammonium compounds	Proprietary	5.00000	0.00009	None
			Surfactant	Proprietary	5.00000	0.00009	None
			Alcohol ethoxylates	Proprietary	5.00000	0.00009	None
			Ammonium persulfate	7727-54-0	100.00000	0.00009	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
			Fatty acid ester	Proprietary	5.00000	0.00006	None
			Organic acid	Proprietary	5.00000	0.00006	None
			Oxylated phenolic resin	Proprietary	30.00000	0.00003	None
			Ethoxylated alcohols	Proprietary	5.00000	0.00002	None
			Propargyl alcohol	107-19-7	5.00000	0.00001	None
			Hexadecene	629-73-2	5.00000	0.00001	None
			Alcohols, C12-14, ethoxylated	68439-50-9	1.00000	0.00001	None
			Ethoxylated fatty acid	Proprietary	1.00000	0.00001	None
			Fatty amine salt	Proprietary	1.00000	0.00001	None
			Fatty acid ether	Proprietary	1.00000	0.00001	None
			Ethoxylated alcohols #2	Proprietary	1.00000	0.00001	None
			Organic chloride compound	Proprietary	1.00000	0.00001	None
			Diethylene triaminepentaacetic acid, pentasodiumsalt	140-01-2	0.10000	0.00000	None
			Isopropanol	67-63-0	0.10000	0.00000	None
			Ethylene oxide	75-21-8	0.10000	0.00000	None
			Sodium chloride	7647-14-5	0.10000	0.00000	None
			Acrylamide	79-06-1	0.10000	0.00000	None

04/04/2025

			Ethoxylated alcohols #3	Proprietary	0.10000	0.00000	None
			C.I. pigment Orange 5	3468-63-1	1.00000	0.00000	None
			Ethylene glycol	107-21-1	0.01000	0.00000	None
			Diethylene glycol	111-46-6	0.01000	0.00000	None
			1,4-Dioxane	123-91-1	0.01000	0.00000	None
			Potassium acetate	127-08-2	0.01000	0.00000	None
			Polyethylene glycol	25322-68-3	0.01000	0.00000	None
			Acetic acid	64-19-7	0.01000	0.00000	None
			Chloroacetic acid	79-11-8	0.01000	0.00000	None
			Dichloroacetic acid	79-43-6	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)

04/04/2025