

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

API 47 - 103 - 03637 County Wetzel District Green
Quad Porter Falls 7.5' Pad Name Fluharty Field/Pool Name ----
Farm name Antero Resources Corporation Well Number Rine 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 4380208m Easting 515950m
Landing Point of Curve Northing 4380485m Easting 516216m
Bottom Hole Northing 4385269m Easting 514583m

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 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 1/29/2024 Date drilling ceased 4/21/2024
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: 
02/28/2025

API 47-103 - 03637 Farm name Antero Resources Corporation Well number Rine 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"	125.5'	New	94#, J-55	N/A	Y
Surface	17-1/2"	13-3/8"	440'	New	54.5#, J-55	N/A	Y
Coal							
Intermediate 1	12-3/8"	9-5/8"	3089'	New	36#, J-55	N/A	Y
Intermediate 2							
Intermediate 3							
Production	8-3/4" /8-1/2"	5-1/2"	24081'	New	23#, P-110	N/A	Y
Tubing		2-3/8"	6973'		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	1142 sx	15.6	1.18	1348	0'	8 Hrs.
Intermediate 2							
Intermediate 3							
Production	Class H	4135 sx (Tail)	13.5 (Spacer), 15.2(Tail)	1.26 (Tail)	5210	-500' into Intermediate Casing	8 Hrs.
Tubing							

Drillers TD (ft) 24081' MD, 6798' TVD (BHL), 6846' TVD (Deepest Point Drilled) Loggers TD (ft) 25050' MD

Deepest formation penetrated Marcellus Plug back to (ft) N/A

Plug back procedure N/A

Kick off depth (ft) 6398'

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

02/28/2025

API 47- 103 - 03637 Farm name Antero Resources Corporation Well number Rine Unit 1H

<u>PRODUCING FORMATION(S)</u>	<u>DEPTHS</u>		
<u>Marcellus</u>	<u>6785' (TOP)</u>	<u>TVD</u>	<u>7190' (TOP) MD</u>
_____	_____	_____	_____
_____	_____	_____	_____

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 14487.66 mcfpd Oil 779.46 bpd NGL --- bpd Water 1038.42 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 NAME TVD</u>	<u>DEPTH IN FT TVD</u>	<u>DEPTH IN FT MD</u>	<u>DEPTH IN FT MD</u>	

***PLEASE SEE ATTACHED EXHIBIT 3**

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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 Schlumberger
Address 5599 San Felipe St. Fl 17 City Houston State TX Zip 77056

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 *S Gaspar* Title Permitting Agent Date 12/18/24

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

02/28/2025 

EXHIBIT 1

Stage No.	Perforation Date	Perforated from MD ft.	Perforated to MD ft.	Number of Perforations	Formations
1	6/15/2024	23997	23954	36	Marcellus
2	6/16/2024	23915.38755	23749.3253	36	Marcellus
3	6/17/2024	23713.71285	23547.6506	36	Marcellus
4	6/17/2024	23512.03815	23345.9759	36	Marcellus
5	6/18/2024	23310.36345	23144.3012	36	Marcellus
6	6/19/2024	23108.68876	22942.6265	36	Marcellus
7	6/19/2024	22907.01406	22740.9518	36	Marcellus
8	6/20/2024	22705.39936	22539.2771	36	Marcellus
9	6/21/2024	22503.66466	22337.6024	36	Marcellus
10	6/22/2024	22301.98996	22135.9277	36	Marcellus
11	6/22/2024	22100.31526	21934.253	36	Marcellus
12	6/23/2024	21898.64056	21732.5783	36	Marcellus
13	6/24/2024	21696.96586	21530.9036	36	Marcellus
14	6/25/2024	21495.29116	21329.2289	36	Marcellus
15	6/26/2024	21293.61647	21127.5542	36	Marcellus
16	6/26/2024	21091.94177	20925.8795	36	Marcellus
17	6/27/2024	20890.26707	20724.2048	36	Marcellus
18	6/28/2024	20688.59237	20522.5301	36	Marcellus
19	6/29/2024	20486.91767	20320.8554	36	Marcellus
20	6/30/2024	20285.24297	20119.1807	36	Marcellus
21	6/30/2024	20083.56827	19917.506	36	Marcellus
22	7/1/2024	19881.89357	19715.8313	36	Marcellus
23	7/2/2024	19680.21888	19514.1566	36	Marcellus
24	7/3/2024	19478.54418	19312.4819	36	Marcellus
25	7/4/2024	19276.86948	19110.8072	36	Marcellus
26	7/4/2024	19075.19478	18909.1325	36	Marcellus
27	7/5/2024	18873.52008	18707.4578	36	Marcellus
28	7/6/2024	18671.84538	18505.7831	36	Marcellus
29	7/7/2024	18470.17068	18304.1084	36	Marcellus
30	7/7/2024	18268.49598	18102.4337	36	Marcellus
31	7/8/2024	18066.82129	17900.759	36	Marcellus
32	7/9/2024	17865.14659	17699.0843	36	Marcellus
33	7/10/2024	17663.47189	17497.4096	36	Marcellus
34	7/10/2024	17461.79719	17295.7349	36	Marcellus
35	7/11/2024	17260.12249	17094.0602	36	Marcellus
36	7/12/2024	17058.44779	16892.3855	36	Marcellus
37	7/13/2024	16856.77309	16690.7108	36	Marcellus
38	7/13/2024	16655.09839	16489.0361	36	Marcellus
39	7/14/2024	16453.42369	16287.3614	36	Marcellus
40	7/15/2024	16251.749	16085.6867	36	Marcellus
41	7/15/2024	16050.0743	15884.012	36	Marcellus
42	7/16/2024	15848.3996	15682.3373	36	Marcellus
43	7/16/2024	15646.7249	15480.6627	36	Marcellus
44	7/16/2024	15445.0502	15278.988	36	Marcellus
45	7/17/2024	15243.3755	15077.3133	36	Marcellus
46	7/18/2024	15041.7008	14875.6386	36	Marcellus
47	7/19/2024	14840.0261	14673.9639	36	Marcellus
48	7/19/2024	14638.35141	14472.2892	36	Marcellus
49	7/19/2024	14436.67671	14270.6145	36	Marcellus
50	7/20/2024	14235.00201	14068.9398	36	Marcellus
51	7/20/2024	14033.32731	13867.2651	36	Marcellus
52	7/20/2024	13831.65261	13665.5904	36	Marcellus
53	7/21/2024	13629.97791	13463.9157	36	Marcellus
54	7/21/2024	13428.30321	13262.241	36	Marcellus
55	7/21/2024	13226.62851	13060.5663	36	Marcellus
56	7/22/2024	13024.95382	12858.8916	36	Marcellus
57	7/22/2024	12823.27912	12657.2169	36	Marcellus
58	7/23/2024	12621.60442	12455.5422	36	Marcellus
59	7/23/2024	12419.92972	12253.8675	36	Marcellus
60	7/23/2024	12218.25502	12052.1928	36	Marcellus
61	7/24/2024	12016.58032	11850.5181	36	Marcellus
62	7/24/2024	11814.90562	11648.8434	36	Marcellus
63	7/24/2024	11613.23092	11447.1687	36	Marcellus
64	7/25/2024	11411.55622	11245.494	36	Marcellus
65	7/25/2024	11209.88153	11043.8193	36	Marcellus
66	7/25/2024	11008.20683	10842.1446	36	Marcellus
67	7/26/2024	10806.53213	10640.4699	36	Marcellus
68	7/26/2024	10604.85743	10438.7952	36	Marcellus
69	7/27/2024	10403.18273	10237.1205	36	Marcellus
70	7/27/2024	10201.50803	10035.4458	36	Marcellus
71	7/27/2024	9999.833333	9833.77108	36	Marcellus
72	7/28/2024	9798.158635	9632.09639	36	Marcellus
73	7/28/2024	9596.48936	9430.42169	36	Marcellus
74	7/28/2024	9394.809237	9228.74699	36	Marcellus
75	7/29/2024	9193.134538	9027.07229	36	Marcellus
76	7/29/2024	8991.459839	8825.39759	36	Marcellus
77	7/29/2024	8789.785141	8623.72289	36	Marcellus
78	7/30/2024	8588.110442	8422.04819	36	Marcellus
79	7/30/2024	8386.435743	8220.37349	36	Marcellus
80	7/30/2024	8184.761044	8018.6988	36	Marcellus
81	7/31/2024	7983.086345	7817.0241	36	Marcellus
82	7/31/2024	7781.411647	7615.3494	36	Marcellus
83	7/31/2024	7579.736948	7413.6747	36	Marcellus
84	8/1/2024	7378.062249	7212	36	Marcellus

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EXHIBIT 2

Stage No.	Stimulations Date	Avg Pump Rate	Avg Treatment Pressure (PSI)	Breakdown Pressure (PSI)	ISIP (PSI)	Amount of Proppant (lbs)	Amount of Water (bbls)	Amount of Nitrogen/other (units)
1	6/15/2024	79.0137	10006.3	7175.78	4032.026	168280	5016.5	N/A
2	6/16/2024	85.02867	10220.85	9124.01	4580.499	422440	8184.4046	N/A
3	6/17/2024	84.18539	10159.94	8760.57	4053.444	422720	7550.881	N/A
4	6/17/2024	85.32483	9915.381	7931.7	4181.118	411580	7305.4286	N/A
5	6/18/2024	86.07014	10078.12	7697	4132	423300	8621.2143	N/A
6	6/19/2024	94.05651	10303.8	8203.38	4239.945	420080	7104.1905	N/A
7	6/19/2024	96.32862	10197.54	7612.77	4420	416960	6887.119	N/A
8	6/20/2024	87.66556	9367.808	7171.96	4404	424420	7143.9286	N/A
9	6/21/2024	92.59028	9554.116	6615.86	4031.888	420080	7284.1667	N/A
10	6/22/2024	95.32872	9566.283	6167.22	4605	422880	7413.5	N/A
11	6/22/2024	88.80115	9632.376	7083.19	4167.816	422940	6860.7143	N/A
12	6/23/2024	90.22397	9704.275	7048.09	4215	418020	7155.7381	N/A
13	6/24/2024	90.5177	9501.307	6606	4320.089	411320	7291.6905	N/A
14	6/25/2024	91.84184	9602.083	6425.09	4121.502	421720	7388.3571	N/A
15	6/26/2024	92.57697	9706.288	6688.15	3923.746	422820	7656.9762	N/A
16	6/26/2024	95.77497	9633.008	6435.64	4238.75	416960	7339.3333	N/A
17	6/27/2024	95.43288	9867.13	6397.27	4399	416220	7421.3333	N/A
18	6/28/2024	94.23969	9676.431	7395	4383.992	418260	7460.3333	N/A
19	6/29/2024	93.98391	9665.079	7160.42	4293.362	420200	7460.8095	N/A
20	6/30/2024	95.42278	9544.169	6485.93	4259	418700	7288.1667	N/A
21	6/30/2024	95.94779	9402.543	6449.48	4285.274	419460	7267.7857	N/A
22	7/1/2024	95.38627	9459.317	6626.42	4508	422720	7392.1667	N/A
23	7/2/2024	94.91918	9155.06	6730.01	4406.737	423100	7346.0476	N/A
24	7/3/2024	95.28836	9421.26	6620.09	4382.543	416920	7269	N/A
25	7/4/2024	93.07546	9578.035	7281.73	4279.281	401200	9158.6905	N/A
26	7/4/2024	93.34931	9438.755	6678.66	4265.754	404970	6910.5	N/A
27	7/5/2024	95.69705	10002.08	6771.47	4137.197	417720	7264.619	N/A
28	7/6/2024	96.97322	9829.113	6697.25	4130.041	402438	6933.4286	N/A
29	7/7/2024	94.46182	9447.941	6169.1	4070.329	399590	6930.5476	N/A
30	7/7/2024	96.35654	9598.044	6432.04	4252.34	419260	7283.2619	N/A
31	7/8/2024	89.83297	9017.122	6665.4	4315.872	398500	7037.119	N/A
32	7/9/2024	95.53137	9096.23	6168.99	4654	401860	6985.6667	N/A
33	7/10/2024	91.87905	9088.399	5811.92	4390.058	398160	6999.0952	N/A
34	7/10/2024	96.88088	9022.301	6370.11	4394.97	419160	6947.2619	N/A
35	7/11/2024	95.89826	9911.806	7324.63	4639	394010	6619.8095	N/A
36	7/12/2024	93.06661	9057.787	7204.76	4164.175	399630	6429.119	N/A
37	7/13/2024	95.92965	9399.208	6543.84	4227.45	401210	6824.1667	N/A
38	7/13/2024	93.73712	9097.863	7531.33	4180	420560	6700.119	N/A
39	7/14/2024	96.38964	9726.205	7205.26	4258	418500	6809.0476	N/A
40	7/15/2024	95.89387	9568.158	7259.1	3866.511	415980	6737.0952	N/A
41	7/15/2024	92.958	9334.165	7749.11	3967.111	419460	6866.5	N/A
42	7/16/2024	96.93714	9382.817	6676.86	4318	420080	6458.0238	N/A
43	7/16/2024	93.92472	9321.365	7233.12	3511.926	420200	6795.8095	N/A
44	7/16/2024	97.49845	9080.14	7221.33	3589	420960	6418.9048	N/A
45	7/17/2024	97.37258	9260.834	6869.69	3423.617	417480	6948.881	N/A
46	7/18/2024	96.06052	9221.075	7170.43	3374.886	422720	6612.1667	N/A
47	7/19/2024	97.16879	9150.482	6908.3	3236	426940	6546.2619	N/A
48	7/19/2024	97.03915	9086.266	6177.33	3783	421680	6538.0476	N/A
49	7/19/2024	97.5972	9054.856	6871.76	3730	418220	6573.4048	N/A
50	7/20/2024	96.0918	9071.465	6781.49	3495	421260	6765.6905	N/A
51	7/20/2024	97.50755	8953.889	6821.67	3685	418520	6753.2143	N/A
52	7/20/2024	97.56626	8835.251	6635.89	3484.791	422420	6537.4286	N/A
53	7/21/2024	98.10633	8985.728	6857.39	3459	414440	6683.6905	N/A
54	7/21/2024	98.57623	8970.223	7090.9	3877	422900	6781.1429	N/A
55	7/21/2024	97.36556	8469.927	6317.17	3272.147	418540	6807.881	N/A
56	7/22/2024	97.94397	8661.642	7380.58	3373.102	426720	6828.0952	N/A
57	7/22/2024	98.00488	8449.73	7115.61	3825	417700	6541.0238	N/A
58	7/23/2024	97.65779	8303.237	6761.24	3962.104	421420	6490.8095	N/A
59	7/23/2024	96.60924	8374.013	6845.28	4122	421760	6911.1429	N/A
60	7/23/2024	97.10895	8285.607	6863.48	3685	417960	6801.0476	N/A
61	7/24/2024	97.61313	7977.611	6686.3	3558.792	424140	6549.7143	N/A
62	7/24/2024	97.26571	8072.435	6528.86	3682	421900	6751.0952	N/A
63	7/24/2024	96.75921	7990.376	6697.53	3447.766	418170	6414.4286	N/A
64	7/25/2024	97.61356	8176.902	7161.88	3897	420620	6893.1429	N/A
65	7/25/2024	97.4038	8177.986	6367.85	3986	421340	6847.4762	N/A
66	7/25/2024	94.45	7918	6789.71	3727.344	416040	9050.2857	N/A
67	7/26/2024	97.23423	7858.356	5970.04	4134	425920	6881.381	N/A
68	7/26/2024	95.13924	7838.307	6800.38	3766.107	416840	6725.6667	N/A
69	7/27/2024	97.65297	7706.995	6323.57	5796	424440	6651.3095	N/A
70	7/27/2024	97.10418	7792.888	7118.02	3796.139	419580	6822.2857	N/A
71	7/27/2024	97.6959	7573.491	6420.18	3621	418100	6769.6905	N/A
72	7/28/2024	97.81563	7476.009	5049.19	3592	418360	6643.1667	N/A
73	7/28/2024	97.64652	7522.793	6184.75	3859.032	422220	7095.6429	N/A
74	7/28/2024	95.76891	7895.599	7581.25	3399	417660	6763.6667	N/A
75	7/29/2024	97.02631	7673.511	6823.1	3534	420440	6721.4524	N/A
76	7/29/2024	96.90865	7793.145	6567.71	3926	419120	6850.5714	N/A
77	7/29/2024	96.72422	7550.529	6620.48	3788	423800	6800.0238	N/A
78	7/30/2024	97.25858	7476.728	6388.84	3971.616	417700	6755.619	N/A
79	7/30/2024	97.53495	7412.232	6685.12	3858.29	422020	6737.2857	N/A
80	7/30/2024	97.78288	7222.167	6094.13	3718.876	417100	6695.9286	N/A
81	7/31/2024	97.02605	7216.351	7466.21	3920.116	419420	6859.5	N/A
82	7/31/2024	97.15071	7178.48	7275.11	3981	420180	6787.1667	N/A
83	7/31/2024	95.6454	6970.858	6609.07	3967.28	417140	6701.9048	N/A
84	8/1/2024	97.01828	7054.998	6312.04	3665.578	426380	6759.6429	N/A
AVERAGE		95.0	8,881	6,852	4,007	34,834,858	585,867	0

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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	2,054	2,104	2,061
Big Lime	2,080	2,834	2,061	2,842
Fifty Foot Sandstone	2,834	2,928	2,816	2,936
Gordon	2,928	3,186	2,910	3,194
Fifth Sandstone	3,186	3,409	3,168	3,419
Bayard	3,409	3,899	3,393	3,913
Speechley	3,899	4,143	3,887	4,164
Balltown	4,143	4,602	4,138	4,651
Bradford	4,602	5,096	4,625	5,181
Benson	5,096	5,480	5,155	5,592
Alexander	5,480	6,606	5,566	6,831
Sycamore	6,465	6,580	6,657	6,805
Middlesex	6,580	6,666	6,805	6,939
Burkett	6,666	6,690	6,939	6,982
Tully	6690	6759	6982	7164
Marcellus	6759	NA	7164	NA

RECEIVED
Office of Oil and Gas

DEC 20 2024

WV Department of
Environmental Protection

02/28/2025

LATITUDE 39°35'00"

6,430'

LATITUDE 39°37'30"

10,878' TO BOTTOM HOLE

4,365'

2,924' TO BOTTOM HOLE

LONGITUDE 80°47'30"

LONGITUDE 80°47'30"

COUNTY NAME PERMIT

Antero Resources Corporation Well No. Rine #1H

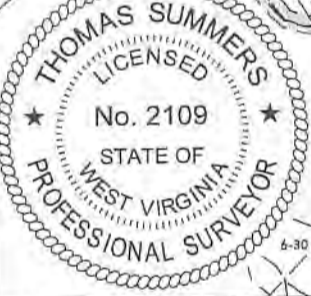
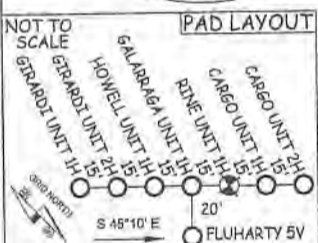
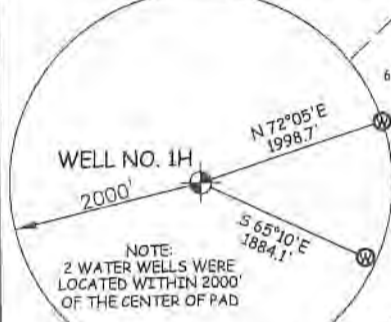
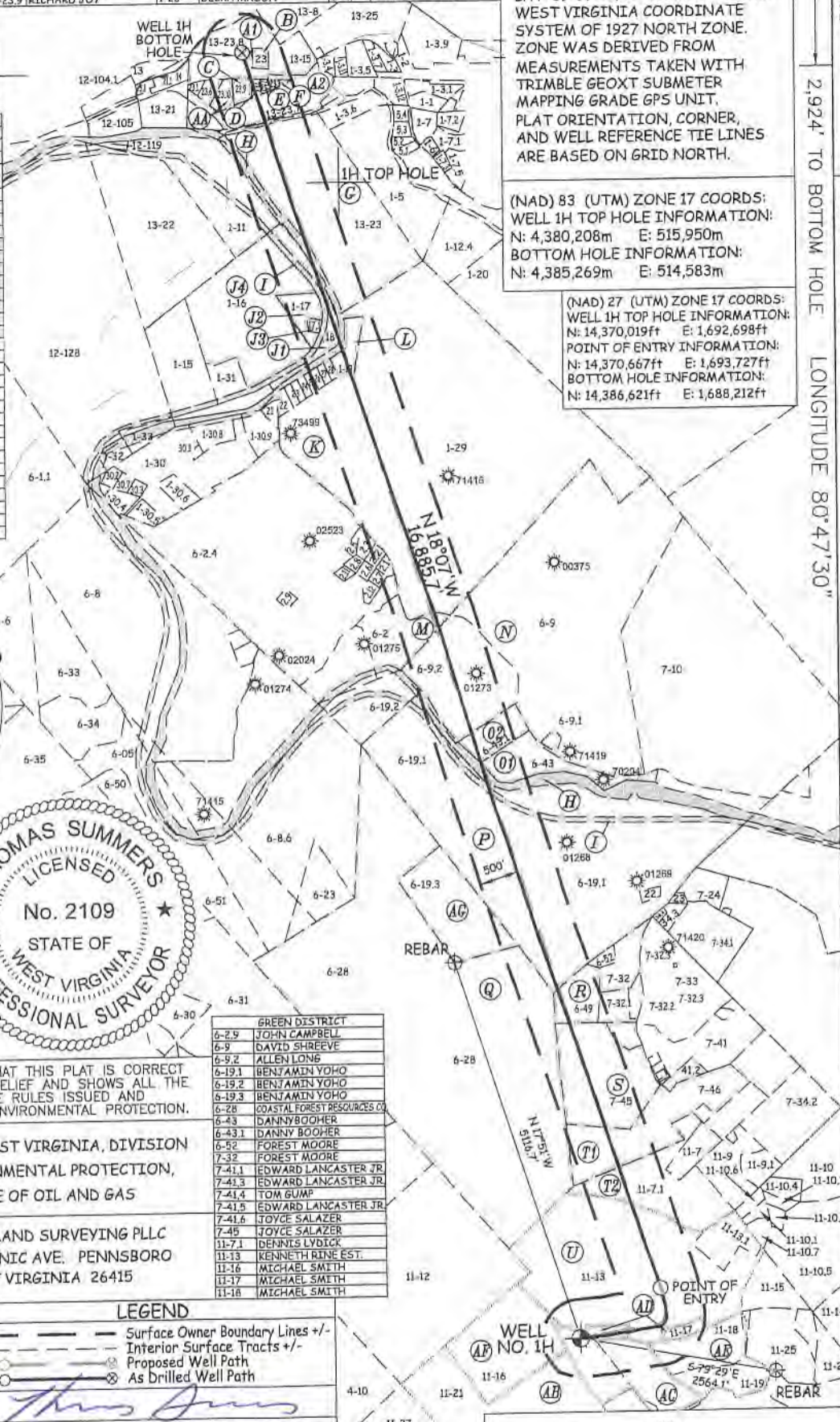
MAGNOLIA DISTRICT	13-23.10	WILLIAM FLETCHER	1-27	LLOYD DENNIS JR.	
13-08	KENNETH BLAKE	GREEN DISTRICT	1-28	VINCENT GREENE	
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13-23.4	NELDA JOY	1-17.1	CHRISTOPHER HOWELL	6-2.2	LAWRENCE LEMON
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AS DRILLED DATA:
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 N: 392,920ft E: 1,629,466ft
 LAT: 39°34'16.86" LON: 80°48'52.11"
 BOTTOM HOLE INFORMATION:
 N: 409,600ft E: 1,625,257ft
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 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: 4,380,208m E: 515,950m
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 N: 4,385,269m E: 514,583m

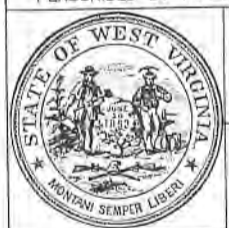
(NAD) 27 (UTM) ZONE 17 COORDS:
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 N: 14,370,019ft E: 1,692,698ft
 POINT OF ENTRY INFORMATION:
 N: 14,370,667ft E: 1,693,727ft
 BOTTOM HOLE INFORMATION:
 N: 14,386,621ft E: 1,688,212ft

A1	LILLIE BLANCHE SMITH TESTAMENTARY TRUST
A2	LILLIE BLANCHE SMITH TESTAMENTARY TRUST
B	THOMAS YATTE SANDS
C	LILLIE BLANCHE SMITH TESTAMENTARY TRUST
D	LILLIE BLANCHE SMITH TESTAMENTARY TRUST
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F	WYATT L. GRAHAM ET UX
G	LILLIE BLANCHE SMITH TESTAMENTARY TRUST
H	WYOMER
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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 # RINE1HAD
 SCALE 1" = 2000'
 MINIMUM DEGREE OF ACCURACY SUBMETER
 PROVEN SOURCE OF ELEV. SUBMETER MAPPING GRADE GPS

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 # RINE UNIT #1H
 47 - 103 - 03637
 STATE COUNTY PERMIT

STATE OF WEST VIRGINIA DEPARTMENT OF ENERGY DIVISION OF OIL AND GAS

WELL TYPE: OIL ___ GAS X LIQUID INJECTION ___ WASTE DISPOSAL ___
 (IF "GAS") PRODUCTION X STORAGE ___ DEEP ___ SHALLOW X
 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 6,798' TVD 24,081' 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
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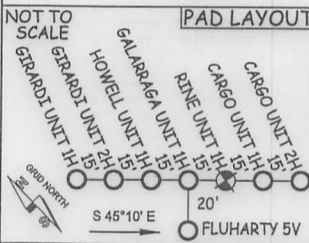
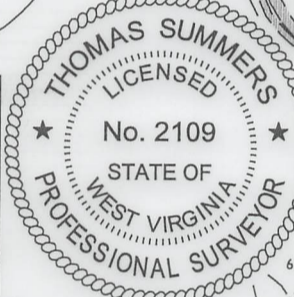
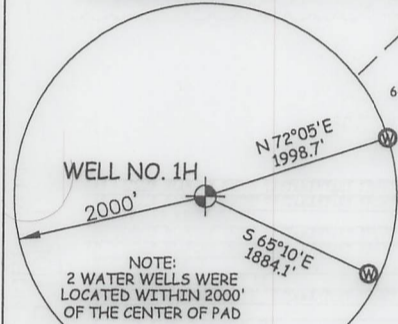
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1H BOTTOM HOLE

1H TOP HOLE



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OPERATOR'S WELL# RINE UNIT #1H
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11/28/2025

Hydraulic Fracturing Fluid Product Component Information Disclosure

Job Start Date:	06/15/2024
Job End Date:	08/01/2024
State:	West Virginia
County:	Wetzel
API Number:	47-103-03637-00-00
Operator Name:	Antero Resources Corporation
Well Name and Number:	RINE UNIT 1H
Latitude:	39.571427
Longitude:	-80.814299
Datum:	WGS84
Federal Well:	NO
Indian Well:	NO
True Vertical Depth:	6846
Total Base Water Volume (gal)*:	25781305
Total Base Non Water Volume:	0



Water Source	Percent
Produced Water	100.00%

RECEIVED
Office of Oil and Gas

DEC 20 2024

WV Department of
Environmental Protection

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					

02/28/2025



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	78.78178	None
			Crystalline silica, quartz	14808-60-7	100.00000	12.09630	None
			Guar gum	9000-30-0	100.00000	8.95424	None
			Water	7732-18-5	100.00000	0.14168	None
			Hydrochloric acid	7647-01-0	30.00000	0.03425	None
			Complex amine compound	Proprietary	60.00000	0.01752	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	0.01004	None
			Hydrotreated distillate	Proprietary	30.00000	0.00858	None
			Hydrotreated light petroleum distillates	64742-47-8	30.00000	0.00502	None
			Ammonium chloride	12125-02-9	5.00000	0.00227	None
			Glutaraldehyde	111-30-8	30.00000	0.00218	None
			Ethoxylated alcohol	Proprietary	5.00000	0.00146	None
			Fatty nitrogen derived amides	Proprietary	5.00000	0.00143	None
			Amides, tall-oil fatty, N,N-bis(hydroxyethyl)	68155-20-4	5.00000	0.00084	None
			Ethoxylated branched C13 alcohol	78330-21-9	5.00000	0.00084	None
			Sorbitan, mono-9-octadecenoate, (Z)	1338-43-8	1.00000	0.00045	None
			Sorbitan monooleate polyoxyethylene derivative	9005-65-6	1.00000	0.00045	None
			Quaternary ammonium compounds, benzyl-C12-16-alkyldimethyl, chlorides	68424-85-1	5.00000	0.00036	None
			Methanol	67-56-1	100.00000	0.00021	None
			Petroleum distillate	Proprietary	30.00000	0.00017	None
			Ammonium persulfate	7727-54-0	100.00000	0.00012	None
			Citric acid	77-92-9	1.00000	0.00007	None
			Mixture of dimer and trimer fatty acids of indefinite composition derived from tall oil	61790-12-3	30.00000	0.00006	None
			Modified thiourea polymer	Proprietary	30.00000	0.00006	None
			Oxylated phenolic resin	Proprietary	30.00000	0.00004	None
			Sodium chloride	7647-14-5	5.00000	0.00003	None

02/28/2025

			Ethoxylated fatty acid	Proprietary	5.00000	0.00003	None
			Amide	Proprietary	5.00000	0.00003	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
			Inorganic acid salt	Proprietary	0.10000	0.00000	None
			Fatty acid ester	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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