

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

API 47 - 103 - 03634 County Wetzel District Green
Quad Porter Falls 7.5' Pad Name Fluharty Field/Pool Name -----
Farm name Antero Resources Corporation Well Number Girardi 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 4380221m Easting 515937m
Landing Point of Curve Northing 4380219m Easting 515244m
Bottom Hole Northing 4384765m Easting 513712m

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 1/25/2024 Date drilling ceased 3/24/2024
Date completion activities began 6/14/2024 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

Reviewed by:

03/28/2025

APPROVED

[Signature]
2/10/25

API 47- 103 - 03634 Farm name Antero Resources Corporation Well number Girardi 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"	409'	New	54.5#, J-55	N/A	Y
Coal							
Intermediate 1	12-3/8"	9-5/8"	3217'	New	36#, J-55	N/A	Y
Intermediate 2							
Intermediate 3							
Production	8-3/4" /8-1/2"	5-1/2"	23417'	New	23#, P-110	N/A	Y
Tubing		2-3/8"	7092'		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	1147 sx	15.6	1.18	1354	0'	8 Hrs.
Intermediate 2							
Intermediate 3							
Production	Class H	3962 sx (Tail)	13.5 (Spacer), 15.2(Tail)	1.26 (Tail)	4992	-500' into Intermediate Casing	8 Hrs.
Tubing							

Drillers TD (ft) 23417' MD, 6729' TVD (BHL), 6771' TVD (Deepest Point Drilled) Loggers TD (ft) 23378' MD
 Deepest formation penetrated Marcellus Plug back to (ft) N/A
 Plug back procedure N/A

Kick off depth (ft) 6395'

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 DEC 20 2024

WAS WELL COMPLETED OPEN HOLE? ☐ Yes ☒ No DETAILS WV Department of Environmental Protection

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

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API 47- 103 - 03634 Farm name Antero Resources Corporation Well number Girardi 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**

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Please insert additional pages as applicable.

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PRODUCING FORMATION(S)	DEPTHS		
Marcellus	6735' (TOP)	TVD	7308' (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 Oil NGL Water GAS MEASURED BY
14543.97 mcfpd 755.14 bpd --- bpd 1038.30 bpd ☐ 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)
*PLEASE SEE ATTACHED EXHIBIT 3					

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					WV Department of Environmental Protection

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  Title Permitting Agent Date 12/19/24

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

03/28/2025

API 47-103-03634 Farm Name Antero Resources Corporation Well Number Girardi Unit 1H					
EXHIBIT 1					
Stage No.	Perforation Date	Perforated from MD ft.	Perforated to MD ft.	Number of Perforations	Formations
1	6/15/2024	23288	23243	36	Marcellus
2	6/15/2024	23204.4346	23038.6076	36	Marcellus
3	6/16/2024	23003.04219	22837.2152	36	Marcellus
4	6/16/2024	22801.64979	22635.8228	36	Marcellus
5	6/16/2024	22600.25738	22434.4304	36	Marcellus
6	6/16/2024	22398.86498	22233.038	36	Marcellus
7	6/17/2024	22197.47257	22031.6456	36	Marcellus
8	6/17/2024	21996.08017	21830.2532	36	Marcellus
9	6/17/2024	21794.68776	21628.8608	36	Marcellus
10	6/18/2024	21593.29536	21427.4684	36	Marcellus
11	6/18/2024	21391.90295	21226.0759	36	Marcellus
12	6/18/2024	21190.51055	21024.6835	36	Marcellus
13	6/18/2024	20989.11814	20823.2911	36	Marcellus
14	6/19/2024	20787.72574	20621.8987	36	Marcellus
15	6/19/2024	20586.33333	20420.5063	36	Marcellus
16	6/19/2024	20384.94093	20219.1139	36	Marcellus
17	6/19/2024	20183.54852	20017.7215	36	Marcellus
18	6/20/2024	19982.15612	19816.3291	36	Marcellus
19	6/20/2024	19780.76371	19614.9367	36	Marcellus
20	6/20/2024	19579.37131	19413.5443	36	Marcellus
21	6/20/2024	19377.9789	19212.1519	36	Marcellus
22	6/21/2024	19176.5865	19010.7595	36	Marcellus
23	6/21/2024	18975.19409	18809.3671	36	Marcellus
24	6/21/2024	18773.80169	18607.9747	36	Marcellus
25	6/21/2024	18572.40928	18406.5823	36	Marcellus
26	6/22/2024	18371.01688	18205.1899	36	Marcellus
27	6/22/2024	18169.62447	18003.7975	36	Marcellus
28	6/22/2024	17968.23207	17802.4051	36	Marcellus
29	6/22/2024	17766.83966	17601.0127	36	Marcellus
30	6/22/2024	17565.44726	17399.6203	36	Marcellus
31	6/22/2024	17364.05485	17198.2278	36	Marcellus
32	6/23/2024	17162.66245	16996.8354	36	Marcellus
33	6/23/2024	16961.27004	16795.443	36	Marcellus
34	6/23/2024	16759.87764	16594.0506	36	Marcellus
35	6/23/2024	16558.48523	16392.6582	36	Marcellus
36	6/23/2024	16357.09283	16191.2658	36	Marcellus
37	6/23/2024	16155.70042	15989.8734	36	Marcellus
38	6/24/2024	15954.30802	15788.481	36	Marcellus
39	6/24/2024	15752.91561	15587.0886	36	Marcellus
40	6/24/2024	15551.52321	15385.6962	36	Marcellus
41	6/24/2024	15350.1308	15184.3038	36	Marcellus
42	6/24/2024	15148.7384	14982.9114	36	Marcellus
43	6/24/2024	14947.34599	14781.519	36	Marcellus
44	6/25/2024	14745.95359	14580.1266	36	Marcellus
45	6/25/2024	14544.56118	14378.7342	36	Marcellus
46	6/25/2024	14343.16878	14177.3418	36	Marcellus
47	6/25/2024	14141.77637	13975.9494	36	Marcellus
48	6/25/2024	13940.38397	13774.557	36	Marcellus
49	6/25/2024	13738.99156	13573.1646	36	Marcellus
50	6/26/2024	13537.59916	13371.7722	36	Marcellus
51	6/26/2024	13336.20675	13170.3797	36	Marcellus
52	6/26/2024	13134.81435	12968.9873	36	Marcellus
53	6/26/2024	12933.42194	12767.5949	36	Marcellus
54	6/26/2024	12732.02954	12566.2025	36	Marcellus
55	6/26/2024	12530.63713	12364.8101	36	Marcellus
56	6/27/2024	12329.24473	12163.4177	36	Marcellus
57	6/27/2024	12127.85232	11962.0253	36	Marcellus
58	6/27/2024	11926.45992	11760.6329	36	Marcellus
59	6/27/2024	11725.06751	11559.2405	36	Marcellus
60	6/27/2024	11523.67511	11357.8481	36	Marcellus
61	6/27/2024	11322.2827	11156.4557	36	Marcellus
62	6/27/2024	11120.8903	10955.0633	36	Marcellus
63	6/28/2024	10919.49789	10753.6709	36	Marcellus
64	6/28/2024	10718.10549	10552.2785	36	Marcellus
65	6/28/2024	10516.71308	10350.8861	36	Marcellus
66	6/28/2024	10315.32068	10149.4937	36	Marcellus
67	6/28/2024	10113.92827	9948.10127	36	Marcellus
68	6/28/2024	9912.535865	9746.70886	36	Marcellus
69	6/29/2024	9711.14346	9545.31646	36	Marcellus
70	6/29/2024	9509.751055	9343.92405	36	Marcellus
71	6/29/2024	9308.35865	9142.53165	36	Marcellus
72	6/29/2024	9106.966245	8941.13924	36	Marcellus
73	6/29/2024	8905.57384	8739.74684	36	Marcellus
74	6/29/2024	8704.181435	8538.35443	36	Marcellus
75	6/29/2024	8502.78903	8336.96203	36	Marcellus
76	6/30/2024	8301.396624	8135.56962	36	Marcellus
77	6/30/2024	8100.004219	7934.17722	36	Marcellus
78	6/30/2024	7898.611814	7732.78481	36	Marcellus
79	6/30/2024	7697.219409	7531.39241	36	Marcellus
80	6/30/2024	7495.827004	7330	36	Marcellus

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EXHIBIT 2								
Stage No.	Stimulations Date	Avg Pump Rate	Avg Treatment Pressure (PSI)	Max Breakdown Pressure (PSI)	ISIP (PSI)	Amount of Proppant (lbs)	Amount of Water (bbls)	Amount of Nitrogen/ other (units)
1	6/15/2024	69.17186	8761.444	5172.11	3921.245	167320	5582.9048	N/A
2	6/15/2024	79.97856	10075.36	7686.68	4319.748	412420	8642.4286	N/A
3	6/16/2024	92.42535	10130.45	6817.68	4040.958	410340	7670.1429	N/A
4	6/16/2024	86.99849	9688.909	6276.18	4242.106	414200	7537.2143	N/A
5	6/16/2024	86.9194	9672.488	6143.83	4236	419280	7433.9524	N/A
6	6/16/2024	90.03421	9824.81	6685.83	4130	413560	7388.9286	N/A
7	6/17/2024	89.91273	10140.1	6136.83	4082	421140	7326	N/A
8	6/17/2024	91	10226.24	6268.38	4319	418780	7352.9762	N/A
9	6/17/2024	95.69223	9967.852	6794.61	4172.241	426220	7320.6905	N/A
10	6/18/2024	96.55684	10243.89	7131.96	4106.681	419920	7636.4286	N/A
11	6/18/2024	96.53337	10260	6845.72	4067	419140	7243.381	N/A
12	6/18/2024	85.59299	9646.548	6966.86	4079.715	377620	7447.1429	N/A
13	6/18/2024	90.48254	10100.46	7278.57	4015	428400	7227.0238	N/A
14	6/19/2024	91.64639	10410.24	7140.51	3944.049	423860	7081.7619	N/A
15	6/19/2024	97.11094	10471.89	7135.08	4233.342	417100	7727.7857	N/A
16	6/19/2024	89.5923	10191.05	7440.09	3997.658	419820	7395.9762	N/A
17	6/19/2024	94.65432	10117.27	6949.43	4010.456	421380	7389.6429	N/A
18	6/20/2024	23.62727	3409.037	6754.93	4502.879	416940	12636.476	N/A
19	6/20/2024	83.41016	8592.481	6090.76	3848.182	418920	7791.8095	N/A
20	6/20/2024	84.51074	9697.565	6692.28	4137.792	417320	7536.7857	N/A
21	6/20/2024	93.41324	9914.054	6789.45	3850.159	418160	7265.4524	N/A
22	6/21/2024	94.41931	10230.97	7442.32	4224.33	397420	7336.5238	N/A
23	6/21/2024	94.09273	9527.652	7025.68	4347.394	420820	7366.5238	N/A
24	6/21/2024	92.53065	9735.095	7131.35	4311	424100	7515.6905	N/A
25	6/21/2024	94.83161	9588.62	6842.98	4325.908	418140	7092.7381	N/A
26	6/22/2024	93.11977	9468.019	6975.18	4447	421080	7225.619	N/A
27	6/22/2024	92.71716	9668.395	6884.44	4194.277	413160	7257.4762	N/A
28	6/22/2024	94.17692	9032.433	6609.26	4389	413160	7227.3333	N/A
29	6/22/2024	89.65927	9176.914	7028.94	4138	409680	7036.119	N/A
30	6/22/2024	88.18701	8344.963	6671.08	4291.131	423740	6886.9524	N/A
31	6/22/2024	89.86495	9254.063	7083.51	4115.089	418480	6995.0476	N/A
32	6/23/2024	94.69941	9506.289	6581.38	4260.774	421500	7711.4524	N/A
33	6/23/2024	89.28341	9012.591	6789.04	4322.368	420420	7311.0714	N/A
34	6/23/2024	95.0188	9430.229	7099.22	4277.927	418860	7168.6667	N/A
35	6/23/2024	92.21379	9301.962	7385.92	4118.548	422440	7153.6667	N/A
36	6/23/2024	87.89954	8769.894	6794.72	4072.168	420820	7147.0238	N/A
37	6/23/2024	94.81911	9455.018	7296.36	4155.097	417940	7192.7143	N/A
38	6/24/2024	94.3599	9271.884	7121.29	4017.703	415380	7014.6905	N/A
39	6/24/2024	91.58721	8975.447	7592.32	4198.703	415260	7211.2857	N/A
40	6/24/2024	92.82663	9109.434	6988.11	4162.267	416480	7085.7857	N/A
41	6/24/2024	91.32089	9017.037	7597.95	4132.531	418640	7225.3333	N/A
42	6/24/2024	94.06547	8999.223	6701.24	4060.882	417680	7181.2857	N/A
43	6/24/2024	94.81329	9004.659	7664.77	3969.479	422100	7051.9048	N/A
44	6/25/2024	95.41358	9056.774	7176.9	3874.283	422900	7087.1905	N/A
45	6/25/2024	94.82202	8978.245	4186.04	3849.782	413560	6960.381	N/A
46	6/25/2024	94.78307	9018.118	7600.54	3894.669	420220	7290.6905	N/A
47	6/25/2024	88.43652	9350.103	7865.53	3441.472	417740	7266.7857	N/A
48	6/25/2024	88.20437	8603.493	6549.69	3670.709	418620	7273.4524	N/A
49	6/25/2024	95.12887	9413.933	7371.03	3993.922	419360	7063.2619	N/A
50	6/26/2024	95.44168	9019.958	7400.76	3739.374	421420	7024.8095	N/A
51	6/26/2024	94.58759	9035.813	7398.06	3832.603	414540	7455.881	N/A
52	6/26/2024	95.38293	9216.994	7620.9	3938.176	414740	7407.2857	N/A
53	6/26/2024	95.44255	8665.687	7249.26	3763.781	421740	7178.119	N/A
54	6/26/2024	95.046	8767.176	7351.74	3888.683	421420	7342.6667	N/A
55	6/26/2024	95.22154	8488.897	7212.04	4121.29	419180	7242.9286	N/A
56	6/27/2024	95.36941	8343.757	7105.47	4165.801	415320	7192.2619	N/A
57	6/27/2024	89.24	8302	7489.9	4076.049	414640	7746.2619	N/A
58	6/27/2024	95.74198	8554.037	7052.16	4203.626	422520	7355.9524	N/A
59	6/27/2024	94.76645	8237.735	7158.8	4136.84	414780	7453.2381	N/A
60	6/27/2024	95.76544	8391.593	7912.92	3947.444	419240	7268.6667	N/A
61	6/27/2024	95.20704	8303.705	6480.36	4163.346	418420	7137.2143	N/A
62	6/27/2024	94.3806	8392.651	5174.42	3881.812	417960	7144.7857	N/A
63	6/28/2024	94.71192	8653	7070.07	4025.417	418940	7212.2381	N/A
64	6/28/2024	94.54472	8310.193	5255.77	3906.62	417000	7102.8571	N/A
65	6/28/2024	96.25607	7859.519	5117.36	4005.613	414380	7201.9048	N/A
66	6/28/2024	96.49246	7910.434	5815.21	4039	418800	7267.8095	N/A
67	6/28/2024	96.04366	7817.611	5470.21	4042.194	417180	7790.3571	N/A
68	6/28/2024	97.82463	7827.528	6121.18	4037.761	418260	7131.6429	N/A
69	6/29/2024	98.4335	7918.801	6395.66	4024.557	420500	7152.119	N/A
70	6/29/2024	97.73367	7733.573	6056.73	3942.985	421140	7144.119	N/A
71	6/29/2024	96.8348	7575.981	6502.68	4184.152	426000	7270.6905	N/A
72	6/29/2024	97.80621	7589.526	6188.92	3859.467	415880	7117.2381	N/A
73	6/29/2024	97.47988	8162.767	6481.79	3922.406	416880	7299.119	N/A
74	6/29/2024	97.60815	8084.57	6514.43	3836.031	421200	7196.4524	N/A
75	6/29/2024	98.41047	8038.771	6054.51	3895.063	420980	6968.7381	N/A
76	6/30/2024	98.61323	7907.26	6651.78	3846.5	421080	7155.6667	N/A
77	6/30/2024	97.99659	7877.576	6836.59	3865.546	420180	7198.2381	N/A
78	6/30/2024	97.39541	7787.23	6544.97	4005.409	424980	7270.4524	N/A
79	6/30/2024	96.90219	7684.208	7721.69	3838.57	413700	7105.2857	N/A
80	6/30/2024	98.83065	7888.71	6970.64	3979.377	419640	7049.7143	N/A
AVERAGE		92.3	8,927	6,795	4,058	33,184,180	586,556	0

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EXHIBIT 3

LITHOLOGY/ FORMATION	TOP DEPTH (TVD) From Surface	BOTTOM DEPTH (TVD) From Surface	TOP DEPTH (MD) From Surface	BOTTOM DEPTH (MD) 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	2,046	2,104	2,123
Big Lime	2,072	2,823	2,123	2,956
Fifty Foot Sandstone	2,823	2,914	2,930	3,052
Gordon	2,914	3,174	3,026	3,326
Fifth Sandstone	3,174	3,400	3,300	3,565
Bayard	3,400	3,890	3,539	4,087
Speechley	3,890	4,131	4,061	4,342
Balltown	4,131	4,607	4,316	4,848
Bradford	4,607	5,074	4,822	5,345
Benson	5,074	5,459	5,319	5,751
Alexander	5,459	6,557	5,725	6,962
Sycamore	6,422	6,531	6,796	6,936
Middlesex	6,531	6,623	6,936	7,076
Burkett	6,623	6,641	7,076	7,111
Tully	6641	6709	7111	7282
Marcellus	6709	NA	7282	NA

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$-6,473$

LATITUDE 39°37'30" 2,001' TO BOTTOM HOLE

B	WYDRA	O	FIVE STAR RESOURCES
K	CHESAPEAKE APPALACHIA LLC.	P	TIMOTHY WAYNE THOMPSON
C	CSI TRANSPORTATION, INC.	Q	SPRING CREEK ENERGY PARTNERS
H	J. WELLS KAHIN, ET AL	R	WVIC, LLC.
HI	J. WELLS KAHIN, ET AL	S	ABRAM C. CANTHROP AND MANCY E. CANTHROP
I	BRIAN L. THOMAS AND TRACEY L. THOMAS	T	DAVID LEE SMITH
II	BRIAN L. THOMAS AND TRACEY L. THOMAS	U	ROBERT BARRY MYERS, SR.
J	DAVID R. THOMAS ET UX	V	VINA M. SNYDER
K	COASTAL FOREST RESOURCES COMPANY	W	JUDICE JOHN D. FOSTER
L	BOUNTY MINERALS, LLC	AA	DAVID LEE SMITH
M	COASTAL FOREST RESOURCES COMPANY	AB	MICHAEL EUGENE SMITH
N	MICHAEL SCOTT WHITEMAN	AC	JOHN MATTHEW STALEY
		AD	FIVE STAR RESOURCES
		AE	PM INVESTMENTS

AS DRILLED DATA:
WELL 1H TOP HOLE INFORMATION:
N: 392,962ft E: 1,629,423ft
LAT: 39°34' 17.28" LON: 80°48' 52.66"
BOTTOM HOLE INFORMATION:
N: 407,997ft E: 1,622,372ft
LAT: 39°36' 44.83" LON: 80°50' 25.57"
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:
1H BOTTOM HOLE
WELL 1H TOP HOLE INFORMATION:
N: 4,380,221m E: 515,937m
BOTTOM HOLE INFORMATION:
N: 4,384,765m E: 513,712m

(NAD) 27 (UTM) ZONE 17 COORDS:
WELL 1H TOP HOLE INFORMATION:
N: 14,370,060ft E: 1,692,655ft
POINT OF ENTRY INFORMATION:
N: 14,369,731ft E: 1,690,545ft
BOTTOM HOLE INFORMATION:
N: 14,384,970ft E: 1,685,356ft

MAGNOLIA DISTRICT	
12-128	JACOB MORGAN
	GREEN DISTRICT
1-30	ROSEMARY YOHO
1-30-2	KENNETH POTTS
2-30-3	PAOLO DI LUCA
1-30-4	KETH RITZ
1-30-5	BETH RITZ
1-30-6	BRAD THOMAS
1-30-7	LEVI MYERS
1-31	JACOB MORGAN
1-32	KENNETH POTTS
1-33	ROSEMARY YOHO
6-2-4	JODELL RITCHEA
6-5	BRIAN THOMAS
6-6	DAVID THOMAS
6-23	COASTAL FOREST RESOURCES CO.
6-28	COASTAL FOREST RESOURCES CO.
6-31	MICHAEL WHITEAMAN
6-39	AMANDA MCPHERSON
5-40	DEBBIE THOMAS
6-41	TIMOTHY THOMSON
6-52	FOREST MOORE
11-1	SORUMMAN FAMILY INV. LLC
11-12	KETH PYLES
11-13	KENNETH RINE EST.
11-16	MAURICE SMITH
11-21	FLUWARTY FAMILY TRUST
	PLYMOUTH YOUNG

1981

NOTE:
WATER WELLS WERE
LOCATED WITHIN 2000
FEET OF THE CENTER OF PAD

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 PERSCRIBED 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 # 21-011WA
DRAWING # GIRARDI1HAD
SCALE 1" = 200'
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

WELL TYPE: OIL GAS X LIQUID INJECTION WASTE DISPOSAL
(IF "GAS") PRODUCTION X STORAGE DEEP SHALLOW X
LOCATION: ELEVATION 1,181' WATERSHED FISHING CREEK

SURFACE OWNER _____ ANTERO RESOURCES CORPORATION
OIL & GAS ROYALTY OWNER _____ DAVID L. SMITH
PROPOSED WORK: DRILL _____ CONVERT _____ DR
PLUG OFF OLD FORMATION _____ PERFORATE NEW
(SPECIFY) _____ AS DRILLED
TARGET FORMATION _____ MARCELLUS
WELL OPERATOR _____ ANTERO RESOURCES CORP.
ADDRESS _____ 1615 WYNKOOP ST.
DENVER, CO 80202

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# GIRARDI UNIT #1H

47	103	03634
STATE	COUNTY	PERMIT

WASTE DISPOSAL
SHALLOW X

WATERSHED FISHING CREEK
DISTRICT GREEN COUNTY WETZEL

ACREAGE 46.95 ACRES±
LEASE ACREAGE 67 ACRES±

PERM _____ REDRILL _____ FRACTURE OR STIMULATE
FORMATION _____ OTHER PHYSICAL CHANGE IN WELL _____

PLUG & ABANDON _____ CLEAN OUT & REPLUG _____
ESTIMATED DEPTH 6320' TVD 23 117' MD

ESTIMATED DEPTH 6,728 TWD 23,411
DESIGNATED AGENT KEVIN ELLIS

ADDRESS 535 WHITE OAK BLVD.
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.
a. AS DRILLED DATA WAS PROVIDED BY ANTERO RESOURCES CORPORATION.
3. a. 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 WITHIN THE DATA PROVIDED.

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COUNTY	NAME	PERMIT

Hydraulic Fracturing Fluid Product Component Information Disclosure

Job Start Date:	06/12/2024
Job End Date:	06/30/2024
State:	West Virginia
County:	Wetzel
API Number:	47-103-03634-00-00
Operator Name:	Antero Resources Corporation
Well Name and Number:	GIRARDI UNIT 1H
Latitude:	39.571544
Longitude:	-80.814451
Datum:	WGS84
Federal Well:	NO
Indian Well:	NO
True Vertical Depth:	6771
Total Base Water Volume (gal)*:	25939242
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					
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, SSA-2	Halliburton	Proppant					

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WG-36 GELLING AGENT	Halliburton	Gelling Agent					
Items above are Trade Names. Items below are the individual ingredients.							
			Water	7732-18-5	100.00000	87.14615	None
			Crystalline silica, quartz	14808-60-7	100.00000	12.66893	None
			Water	7732-18-5	100.00000	0.15066	None
			Hydrochloric acid	7647-01-0	30.00000	0.03547	None
			Complex amine compound	Proprietary	60.00000	0.02336	None
			Hydrotreated distillate	Proprietary	30.00000	0.01168	None
			Guar gum	9000-30-0	100.00000	0.00796	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	0.00676	None
			Hydrotreated light petroleum distillates	64742-47-8	30.00000	0.00338	None
			Ammonium chloride	12125-02-9	5.00000	0.00251	None
			Glutaraldehyde	111-30-8	30.00000	0.00244	None
			Ethoxylated alcohol	Proprietary	5.00000	0.00195	None
			Fatty nitrogen derived amides	Proprietary	5.00000	0.00195	None
			Amides, tall-oil fatty, N,N-bis(hydroxyethyl)	68155-20-4	5.00000	0.00056	None
			Ethoxylated branched C13 alcohol	78330-21-9	5.00000	0.00056	None
			Sorbitan, mono-9-octadecenoate, (Z)	1338-43-8	1.00000	0.00050	None
			Sorbitan monooleate polyoxyethylene derivative	9005-65-6	1.00000	0.00050	None
			Quaternary ammonium compounds, benzyl-C12-16-alkyldimethyl, chlorides	68424-85-1	5.00000	0.00041	None
			Methanol	67-56-1	100.00000	0.00022	None
			Ammonium persulfate	7727-54-0	100.00000	0.00019	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
			Oxylated phenolic resin	Proprietary	30.00000	0.00006	None

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			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

* 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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