

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

API 47 - 095 - 02818 County Tyler/Wetzel District Ellsworth/Magnolia
Quad Porter Falls 7.5' Pad Name Heintzman Field/Pool Name ----
Farm name Dennis & Clista Heintzman Well Number Leap 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 4377055.920m Easting 512400.665m
Landing Point of Curve Northing 4377308.10m Easting 511724.83m
Bottom Hole Northing 4381867.947m Easting 510180.868m

Elevation (ft) 1193' 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

APPROVED Gas
Office of Oil and Gas
AUG 08 2024

WV Department of
Environmental Protection

Date permit issued 9/20/2022 Date drilling commenced 10/31/2022 Date drilling ceased 12/24/2022
Date completion activities began 2/24/2023 Date completion activities ceased 5/4/2023
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 479' Open mine(s) (Y/N) depths No
Salt water depth(s) ft 1774' Void(s) encountered (Y/N) depths No
Coal depth(s) ft 412' Cavern(s) encountered (Y/N) depths No
Is coal being mined in area (Y/N) No

APPROVED

Reviewed by: [Signature]
02/16/2024 / 12-2-23

API 47-095 - 02818 Farm name Dennis & Clista Heintzman Well number Leap Unit 1H

CASING STRINGS	Hole Size	Casing Size	Depth	New or Used	Grade wt/ft	Basket Depth(s)	Did cement circulate (Y/ N) * Provide details below*
Conductor	28"	20"	130'	New	78.67#, X-60	N/A	Y
Surface	17-1/2"	13-3/8"	588'	New	54.5#, J-55	N/A	Y
Coal							
Intermediate 1	12-1/4"	9-5/8"	3539'	New	36#, J-55	N/A	Y
Intermediate 2							
Intermediate 3							
Production	8-3/4"/8-1/2"	5-1/2"	23185'	New	23#, P-110	N/A	Y
Tubing		2-3/8"	6935'		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	266 sx	15.6	1.18	313	0'	8 Hrs.
Surface	Class C	650 sx	15.8	1.17	760	0'	8 Hrs.
Coal							
Intermediate 1	Class C	1220 sx	15.8	1.16	1415	0'	8 Hrs.
Intermediate 2							
Intermediate 3							
Production	Class H	3715 sx (Tail)	13.5 (Lead), 15.2(Tail)	1.25 (Tail)	4643	-500' into Intermediate Casing	8 Hrs.
Tubing							

Drillers TD (ft) 23185' MD, 6577' TVD (BHL), 6624' TVD (Deepest Point Drilled) Loggers TD (ft) 23185' MD
 Deepest formation penetrated Marcellus Plug back to (ft) N/A
 Plug back procedure N/A

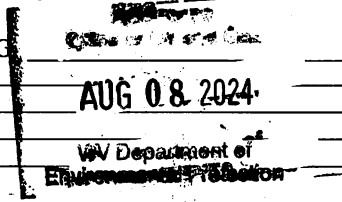
Kick off depth (ft) 6216'

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

02/16/2024 *JMY*

EXHIBIT 1

Stage No.	Perforation Date	Perforated from MD ft.	Perforated to MD ft.	Number of Perforations	Formations
1	2/24/2023	23056	23013	60	Marcellus
2	2/24/2023	22974.57173	22809.4304	60	Marcellus
3	2/24/2023	22774.00211	22608.8608	60	Marcellus
4	2/24/2023	22573.43249	22408.2911	60	Marcellus
5	2/25/2023	22372.86287	22207.7215	60	Marcellus
6	2/25/2023	22172.29325	22007.1519	60	Marcellus
7	2/25/2023	21971.72363	21806.5823	60	Marcellus
8	2/25/2023	21771.15401	21606.0127	60	Marcellus
9	2/25/2023	21570.58439	21405.443	60	Marcellus
10	2/26/2023	21370.01477	21204.8734	60	Marcellus
11	2/26/2023	21169.44515	21004.3038	60	Marcellus
12	2/26/2023	20968.87553	20803.7342	60	Marcellus
13	2/26/2023	20768.30591	20603.1646	60	Marcellus
14	2/26/2023	20567.73629	20402.5949	60	Marcellus
15	2/26/2023	20367.16667	20202.0253	60	Marcellus
16	2/26/2023	20166.59705	20001.4557	60	Marcellus
17	2/27/2023	19966.02743	19800.8861	60	Marcellus
18	2/27/2023	19765.45781	19600.3165	60	Marcellus
19	2/27/2023	19564.88819	19399.7468	60	Marcellus
20	2/27/2023	19364.31857	19199.1772	60	Marcellus
21	2/27/2023	19163.74895	18998.6076	60	Marcellus
22	2/28/2023	18963.17932	18798.038	60	Marcellus
23	2/28/2023	18762.6097	18597.4684	60	Marcellus
24	2/28/2023	18562.04008	18396.8987	60	Marcellus
25	2/28/2023	18361.47046	18196.3291	60	Marcellus
26	2/28/2023	18160.90084	17995.7595	60	Marcellus
27	2/28/2023	17960.33122	17795.1899	60	Marcellus
28	3/1/2023	17759.7616	17594.6203	60	Marcellus
29	3/1/2023	17559.19198	17394.0506	60	Marcellus
30	3/1/2023	17358.62236	17193.481	60	Marcellus
31	3/1/2023	17158.05274	16992.9114	60	Marcellus
32	3/1/2023	16957.48312	16792.3418	60	Marcellus
33	3/1/2023	16756.9135	16591.7722	60	Marcellus
34	3/2/2023	16556.34388	16391.2025	60	Marcellus
35	3/2/2023	16355.77426	16190.6329	60	Marcellus
36	3/2/2023	16155.20464	15990.0633	60	Marcellus
37	3/2/2023	15954.63502	15789.4937	60	Marcellus
38	3/2/2023	15754.0654	15588.9241	60	Marcellus
39	3/2/2023	15553.49578	15388.3544	60	Marcellus
40	3/3/2023	15352.92616	15187.7848	60	Marcellus
41	3/3/2023	15152.35654	14987.2152	60	Marcellus
42	3/3/2023	14951.78692	14786.6456	60	Marcellus
43	3/3/2023	14751.2173	14586.0759	60	Marcellus
44	3/3/2023	14550.64768	14385.5063	60	Marcellus
45	3/3/2023	14350.07806	14184.9367	60	Marcellus
46	3/4/2023	14149.50844	13984.3671	60	Marcellus
47	3/4/2023	13948.93882	13783.7975	60	Marcellus
48	3/4/2023	13748.3692	13583.2278	60	Marcellus
49	3/4/2023	13547.79958	13382.6582	60	Marcellus
50	3/5/2023	13347.22996	13182.0886	60	Marcellus
51	3/5/2023	13146.66034	12981.519	60	Marcellus
52	3/5/2023	12946.09072	12780.9494	60	Marcellus
53	3/5/2023	12745.5211	12580.3797	60	Marcellus
54	3/5/2023	12544.95148	12379.8101	60	Marcellus
55	3/6/2023	12344.38186	12179.2405	60	Marcellus
56	3/6/2023	12143.81224	11978.6709	60	Marcellus
57	3/6/2023	11943.24262	11778.1013	60	Marcellus
58	3/6/2023	11742.673	11577.5316	60	Marcellus
59	3/6/2023	11542.10338	11376.962	60	Marcellus
60	3/6/2023	11341.53376	11176.3924	60	Marcellus
61	3/6/2023	11140.96414	10975.8228	60	Marcellus
62	3/7/2023	10940.39451	10775.2532	60	Marcellus
63	3/7/2023	10739.82489	10574.6835	60	Marcellus
64	3/7/2023	10539.25527	10374.1139	60	Marcellus
65	3/7/2023	10338.68565	10173.5443	60	Marcellus
66	3/7/2023	10138.11603	9972.97468	60	Marcellus
67	3/7/2023	9937.546414	9772.40506	60	Marcellus
68	3/7/2023	9736.976793	9571.83544	60	Marcellus
69	3/7/2023	9536.407173	9371.26582	60	Marcellus
70	3/8/2023	9335.837553	9170.6962	60	Marcellus
71	3/8/2023	9135.267932	8970.12658	60	Marcellus
72	3/8/2023	8934.698312	8769.55696	60	Marcellus
73	3/8/2023	8734.128692	8568.98734	60	Marcellus
74	3/8/2023	8533.559072	8368.41772	60	Marcellus
75	3/8/2023	8332.989451	8167.8481	60	Marcellus
76	3/9/2023	8132.419831	7967.27848	60	Marcellus
77	3/9/2023	7931.850211	7766.70886	60	Marcellus
78	3/9/2023	7731.280591	7566.13924	60	Marcellus
79	3/9/2023	7530.71097	7365.56962	60	Marcellus
80	3/9/2023	7330.14135	7165	60	Marcellus

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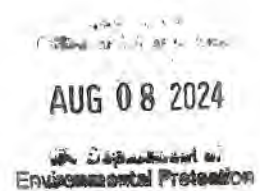
Deposition
 Environmental Protection

02/16/2024

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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	2/24/2023	84.66	8757	5213	4140	176880	5182.7231	N/A
2	2/24/2023	97.14261	9798.562	4587.77	3893.697	401920	7443.0519	N/A
3	2/24/2023	95.7519	9783.209	4782.75	4227.59	393550	6726.165	N/A
4	2/24/2023	95.38085	10251.24	5360.7	4011.815	408490	7201.0945	N/A
5	2/25/2023	95.56393	10071.82	4060.62	4204.037	414760	7285.0583	N/A
6	2/25/2023	96.97151	9914.591	3360.12	3885.223	396140	6749.2102	N/A
7	2/25/2023	98.53282	10024.51	4857.92	3833.168	413430	7044.325	N/A
8	2/25/2023	97.40046	9809.574	5552.51	4087.407	397380	7004.7976	N/A
9	2/25/2023	97.67	9966	4467	4171	406070	7201.6826	N/A
10	2/26/2023	97.41	9975	4308	3928	398140	7385.1098	N/A
11	2/26/2023	97.51778	10079.61	5349.49	4100.748	402050	7015.6217	N/A
12	2/26/2023	97.92816	9919.533	6090.17	3836.042	413160	6921.249	N/A
13	2/26/2023	97.2714	9835.393	5284.14	4143.386	408190	6874.0576	N/A
14	2/26/2023	98.10828	10038.59	5162.2	3984.078	402570	7114.4781	N/A
15	2/26/2023	97.05521	9896.757	5304.18	4258.316	394970	7278.1369	N/A
16	2/26/2023	97.4271	9982.658	4465.91	4035.729	406100	7007.4367	N/A
17	2/27/2023	97.34668	9964.382	4892.05	3807.353	399560	7132.6083	N/A
18	2/27/2023	96.74541	9605.13	5149.04	4168.683	409500	6977.4967	N/A
19	2/27/2023	97.8146	9586.581	5567.41	3964.634	395640	6922.1162	N/A
20	2/27/2023	98.21606	9464.957	5321.75	4307.377	396770	6593.4319	N/A
21	2/27/2023	95.3121	9705.032	4995.57	4151.518	407170	6928.1052	N/A
22	2/28/2023	96.42	9442	4911	3960	396570	7137.2924	N/A
23	2/28/2023	97.1406	9031.756	4763.76	4239.259	395740	6944.5755	N/A
24	2/28/2023	97.5666	9251.022	5592.66	4235.708	395430	6825.4424	N/A
25	2/28/2023	94.78706	8980.669	5089	4223.491	405240	7639.5814	N/A
26	2/28/2023	95.15872	8993.327	6055.34	4115.68	405360	7308.755	N/A
27	2/28/2023	95.07	9065	5124	4048	405720	6774.8238	N/A
28	3/1/2023	97.28538	8960.909	5698.96	3827.264	407491	6719.349	N/A
29	3/1/2023	97.90263	9094.009	5124.34	4240.722	414360	7044.7245	N/A
30	3/1/2023	98.31854	9047.7	5002.6	4064.465	411790	6886.4931	N/A
31	3/1/2023	97.17299	9060.162	5516.58	4378.29	414350	6973.494	N/A
32	3/1/2023	96.25763	9435.62	5427.68	4208.831	402190	6764.0198	N/A
33	3/1/2023	93.26	9024	5311	4376	406830	7114.1457	N/A
34	3/2/2023	94.92818	9016.19	4805.48	4470.425	400990	7062.345	N/A
35	3/2/2023	96.6055	8927.364	4130.25	4463.771	398620	6651.8162	N/A
36	3/2/2023	95.9	9038	5598	4612	394470	6574.5279	N/A
37	3/2/2023	97.73	9111	5066	4378	411410	7115.0621	N/A
38	3/2/2023	96.93	9110	4542	4443	412520	7062.4955	N/A
39	3/2/2023	96.90994	9017.124	5540.99	4189.123	399590	6885.8514	N/A
40	3/3/2023	97.61	8779	5038	4119	416450	6715.4645	N/A
41	3/3/2023	97.89997	9011.239	4474.31	3636.409	411380	6852.614	N/A
42	3/3/2023	98.29	8980	5669	4572	393130	6631.7964	N/A
43	3/3/2023	98.19831	8943.049	5288.83	4404.097	409400	6757.5274	N/A
44	3/3/2023	96.54906	8889.768	5464.05	4381.05	409050	6931.529	N/A
45	3/3/2023	96.88642	8784.041	5467.32	4187.239	401080	6686.491	N/A
46	3/4/2023	72.8	7459	5327	3707	397830	7646.9381	N/A
47	3/4/2023	98.46195	8707.476	5657.06	4384.112	399020	6585.2755	N/A
48	3/4/2023	98.15	8901	5664	4038	411990	6937.2186	N/A
49	3/4/2023	97.91706	8752.482	5599.85	4199.399	405770	6762.3769	N/A
50	3/5/2023	95.9	8415	5385	4129	394510	6697.052	N/A
51	3/5/2023	97.88592	8613.79	5515.6	3994.367	406780	6826.1824	N/A
52	3/5/2023	98.56489	8503.313	5757.04	4159.379	398240	6686.3379	N/A
53	3/5/2023	98.19	8399	5807	3775	406700	6724.5824	N/A
54	3/5/2023	96.93551	8285.892	5358.4	4028.694	418031	7406.8583	N/A
55	3/6/2023	97.14	8432	5821	4051	406600	7186.9357	N/A
56	3/6/2023	97.55	8329	4837	3792	410370	7101.7336	N/A
57	3/6/2023	98.27376	8316.746	5951.88	3831.947	408080	7061.5436	N/A
58	3/6/2023	98.17	8176	3889	4070	401360	6789.8462	N/A
59	3/6/2023	97.79	8303	5559	3968	401970	6969.2379	N/A
60	3/6/2023	97.27946	8120.799	5689.41	3985.147	411382	7196.8695	N/A
61	3/6/2023	97.26	7970	5480	4143	401210	7119.645	N/A
62	3/7/2023	97.41	7993	5600	4025	406350	7096.6371	N/A
63	3/7/2023	97.58981	7920.735	5007.73	4236.858	393480	7090.1776	N/A
64	3/7/2023	99.00863	7830.473	3628.64	3890.003	403750	7070.9876	N/A
65	3/7/2023	96.37799	7745.471	5162.13	3783.515	411900	7950.0955	N/A
66	3/7/2023	99.04	7821	4428	4004	410590	7206.9174	N/A
67	3/7/2023	99.02863	7760.95	4875.27	3947.011	406610	6985.1586	N/A
68	3/7/2023	97.73	7627	5415	4087	406470	7651.2005	N/A
69	3/7/2023	97.02	7468	5053	3923	402020	7206.8486	N/A
70	3/8/2023	96.13	7401	5332	4247	409940	8567.6488	N/A
71	3/8/2023	97.29762	7506.47	4699.22	3587.48	413312	7330.785	N/A
72	3/8/2023	99.22	7328	4392	3594	415428	7192.7479	N/A
73	3/8/2023	98.72968	7358.547	5240.28	3727.275	415940	8147.4879	N/A
74	3/8/2023	99.2	7185	4966	3822	398670	8054.054	N/A
75	3/8/2023	98.64358	7257.534	5653.15	3591.488	410147	8139.6421	N/A
76	3/9/2023	99.02	7134	5225	3918	413510	8303.7814	N/A
77	3/9/2023	99.3	7182	4775	3919	397100	7847.6602	N/A
78	3/9/2023	99.28347	7121.967	4805.59	4230.097	394900	7878.7814	N/A
79	3/9/2023	99.18989	6924.942	5078.02	4059.051	415510	8098.4133	N/A
80	3/9/2023	97.62265	6924.852	4806.55	4353.293	397140	7807.8681	N/A
AVERAGE		96.9	8,732	5,128	4,076	32,164,211	569,374	0



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02/16/2024
 

EXHIBIT 3

LITHOLOGY/ FORMATION	TOP DEPTH (TVD)	BOTTOM DEPTH (TVD)	TOP DEPTH (MD)	BOTTOM DEPTH (MD)
	From Surface	From Surface	From Surface	From Surface
Shaley Siltstone	70	190	70	190
Shaley Sandstone	190	280	190	280
Shaley Siltstone	280	360	280	360
Limestone, Tr Shale	360	490	360	490
Sandstone	490	580	490	580
Limestone, Tr Shale	580	790	580	790
Shaley Sandstone	790	880	790	880
Shale, Tr Sandstone	880	1,130	880	1,130
Sandy Shale, Limestone	1,130	1,240	1,130	1,240
Sandy Shale	1,240	1,480	1,240	1,480
Sandstone, Tr Shale	1,480	1,660	1,480	1,660
Silty Shale, tr SS	1,660	1,750	1,660	1,750
Shale, Tr Sst	1,750	2,000	1,750	2,060
Big Lime	2,030	2,827	2,060	2,945
Fifty Foot Sandstone	2,827	2,888	2,915	3,009
Gordon	2,888	3,121	2,979	3,255
Fifth Sandstone	3,121	3,206	3,225	3,345
Bayard	3,206	4,035	3,315	4,220
Speechley	4,035	4,306	4,190	4,510
Balltown	4,306	4,756	4,480	4,998
Bradford	4,756	5,165	4,968	5,431
Benson	5,165	5,373	5,401	5,652
Alexander	5,373	6,432	5,622	6,823
Sycamore	6,294	6,402	6,650	6,793
Middlesex	6,402	6,489	6,793	6,941
Burkett	6,489	6,507	6,941	6,976
Tully	6,507	6,558	6,976	7,113
Marcellus	6,558	NA	7,113	NA

02/16/2024

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



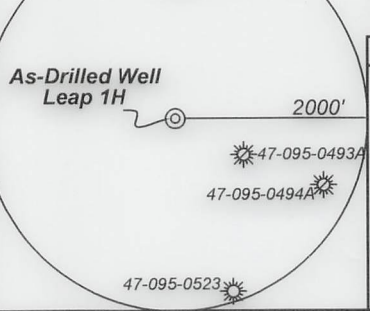
Top Hole Coordinates, As-drilled data, and information was provided by Antero Resources Corporation. Allegheeny Surveys Inc. (ASI) is not certifying the data and information provided. ASI is not responsible for any errors or inaccuracies with the data and information that has been provided.

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

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



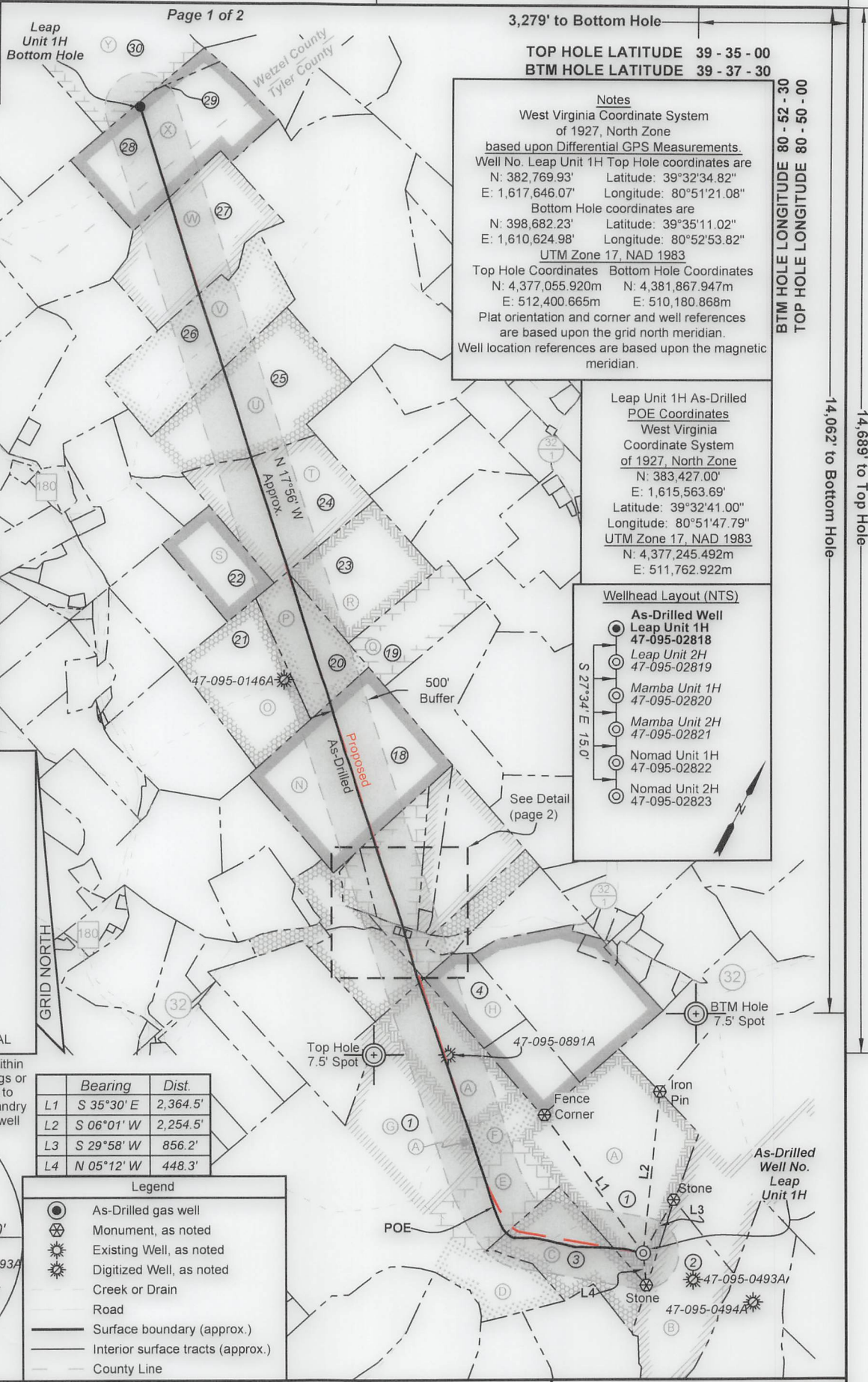
Note: 0 water wells or springs were found within 2000' of proposed well. No occupied dwellings or buildings 2,500 square feet or larger used to house or shelter dairy cattle or poultry husbandry are located within 625' of the center of the well pad.



	Bearing	Dist.
L1	S 35°30' E	2,364.5'
L2	S 06°01' W	2,254.5'
L3	S 29°58' W	856.2'
L4	N 05°12' W	448.3'

Legend

- As-Drilled gas well
- Monument, as noted
- Existing Well, as noted
- Digitized Well, as noted
- Creek or Drain
- Road
- Surface boundary (approx.)
- Interior surface tracts (approx.)
- County Line



Notes
 West Virginia Coordinate System of 1927, North Zone based upon Differential GPS Measurements.
 Well No. Leap Unit 1H Top Hole coordinates are
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 E: 1,617,646.07' Longitude: 80°51'21.08"
 Bottom Hole coordinates are
 N: 398,682.23' Latitude: 39°35'11.02"
 E: 1,610,624.98' Longitude: 80°52'53.82"
 UTM Zone 17, NAD 1983
 Top Hole Coordinates Bottom Hole Coordinates
 N: 4,377,055.920m N: 4,381,867.947m
 E: 512,400.665m E: 510,180.868m
 Plat orientation and corner and well references are based upon the grid north meridian.
 Well location references are based upon the magnetic meridian.

Leap Unit 1H As-Drilled POE Coordinates
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 N: 383,427.00'
 E: 1,615,563.69'
 Latitude: 39°32'41.00"
 Longitude: 80°51'47.79"
 UTM Zone 17, NAD 1983
 N: 4,377,245.492m
 E: 511,762.922m

Wellhead Layout (NTS)

- As-Drilled Well Leap Unit 1H 47-095-02818
- Leap Unit 2H 47-095-02819
- Mamba Unit 1H 47-095-02820
- Mamba Unit 2H 47-095-02821
- Nomad Unit 1H 47-095-02822
- Nomad Unit 2H 47-095-02823

FILE NO: 77-54-E-22
 DRAWING NO: Leap Unit 1H As-Drilled
 SCALE: 1" = 2000'
 MINIMUM DEGREE OF ACCURACY: Submeter
 PROVEN SOURCE OF ELEVATION: WVDOT, Harrisville, WV

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

DATE: July 28 2022
 OPERATOR'S WELL NO. Leap Unit 1H
API WELL NO
 47 - 095 - 02818
 STATE COUNTY PERMIT

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

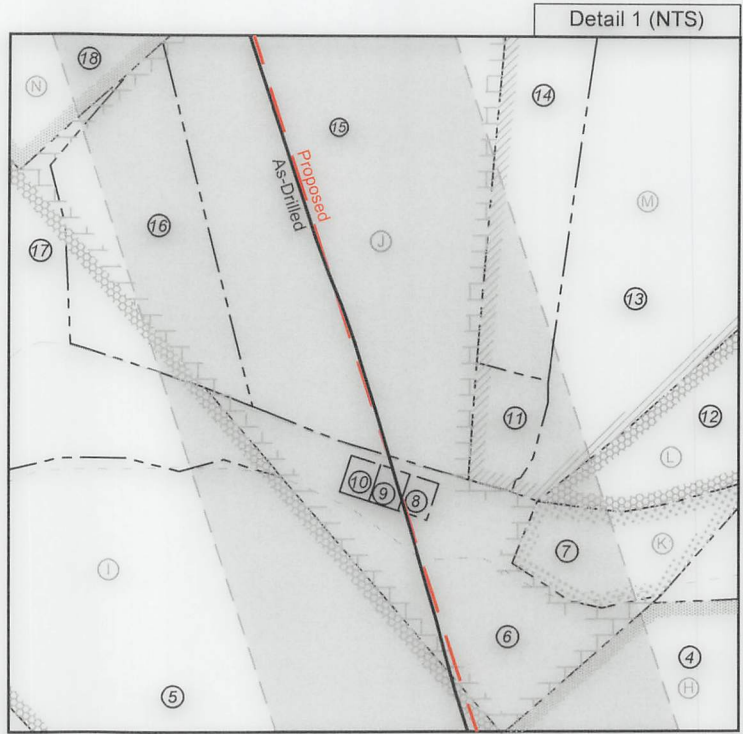
LOCATION: ELEVATION: As-Built: 1,193' WATERSHED: Outlet Middle Island Creek QUADRANGLE: TH:Porter Falls BH:Paden City

DISTRICT: Ellsworth/Magnolia SURFACE OWNER: Dennis & Clista Heintzman ROYALTY OWNER: BRC Appalachian Minerals I, LLC (2); Dennis R. & Clista Heintzman; LEASE NO: COUNTY: Tyler/Wetzel ACREAGE: 417.6 28.8375; 9.1875; 60; 48; 38; 100; 38.09; 66.5; 63.3125; 67

PROPOSED WORK: DRILL CONVERT DRILL DEEPER FRACTURE OR STIMULATE PLUG OFF OLD FORMATION
 PERFORATE NEW FORMATION OTHER PHYSICAL CHANGE IN WELL (SPECIFY) As-Drilled
 PLUG AND ABANDON CLEAN OUT AND REPLUG TARGET FORMATION: Marcellus Shale ESTIMATED DEPTH: 23,185' MD 6,577' TVD

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


02/16/2024



Leases	
A	BRC Appalachian Minerals I, LLC
B	Rose Enterprises, LLC
C	Dennis R. & Clista A. Heintzman
D	Nina A. Whitefield
E	Larry R. and Kim M. Henthorn
F	Waco Oil and Gas Co. Inc.
G	BRC Appalachian Minerals I, LLC
H	Judy P. Meyers
I	Antero Minerals, LLC
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K	Michael L. West, et ux
L	Linda J. & Jack E. Mason
M	Paula Sue Porfeli
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S	Linda Allen
T	Will E. Morris Heirs Trust
U	Gary A. Midcap, et ux
V	Lowmax R. Kunkel
W	Joel Potts III
X	Robert D. Wetzel
Y	Bounty Minerals, LLC

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1	6-36	Dennis & Clista Heintzman	297/640	417.60
2	10-4	Stefan L. & Alberta B. Smolski	356/467	56.08
3	6-49	Dennis & Clista A. Heintzman	297/637	45.00
4	6-26	Ronnie L. VanCamp, et al	670/641	23.00
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6	6-17.3	Tracy Postlethwait	354/74	3.00
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FILE NO: 77-54-E-22
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 Submeter
 PROVEN SOURCE OF ELEVATION:
 WVDOT, Harrisville, WV


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

DATE: July 28 2022
 OPERATOR'S WELL NO. Leap Unit 1H
API WELL NO
 47 -- 095 -- 02818
 STATE COUNTY PERMIT

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

LOCATION: ELEVATION: As-Built: 1,193' WATERSHED: Outlet Middle Island Creek QUADRANGLE: TH:Porter Falls BH:Paden City

DISTRICT: Ellsworth/Magnolia COUNTY: Tyler

SURFACE OWNER: Dennis & Clista Heintzman ACREAGE: 417.6

ROYALTY OWNER: BRC Appalachian Minerals I, LLC (2); Dennis R. & Clista Heintzman; LEASE NO: ACREAGE: 66.5; 63.3125; 67

PROPOSED WORK: DRILL CONVERT DRILL DEEPER FRACTURE OR STIMULATE PLUG OFF OLD FORMATION

PERFORATE NEW FORMATION OTHER PHYSICAL CHANGE IN WELL (SPECIFY) As-Drilled

PLUG AND ABANDON CLEAN OUT AND REPLUG TARGET FORMATION: Marcellus Shale ESTIMATED DEPTH: 6,577' TVD 23,185' MD

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

**Antero Resources
Well No. Leap 1H
As-Drilled**
Antero Resources Corporation



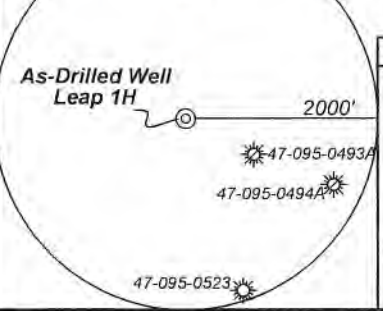
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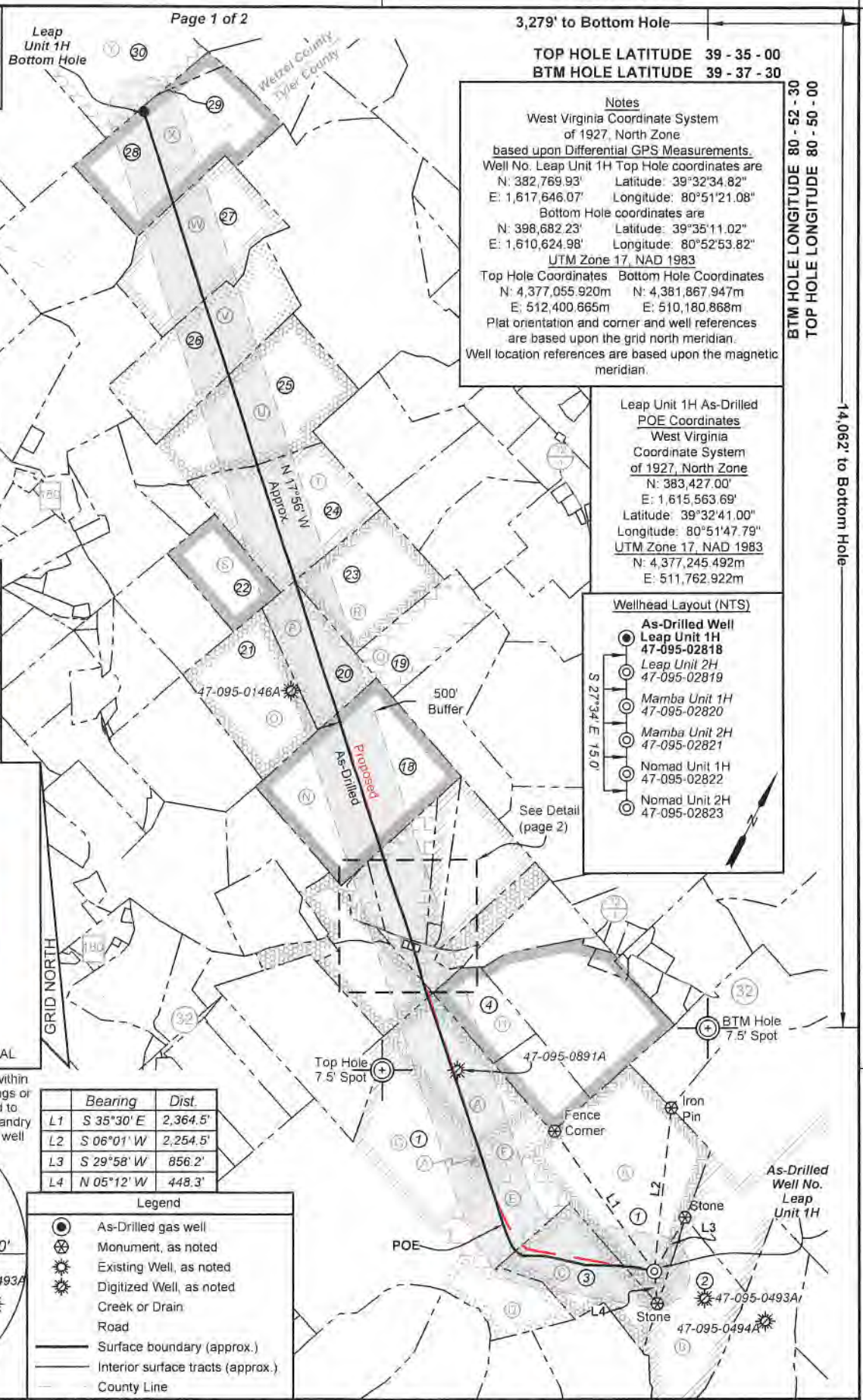


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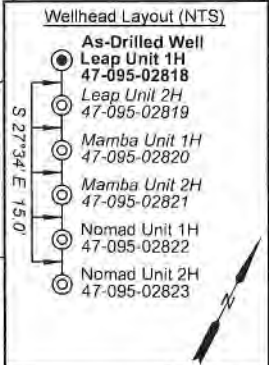
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STATE OF WEST VIRGINIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
OIL AND GAS DIVISION

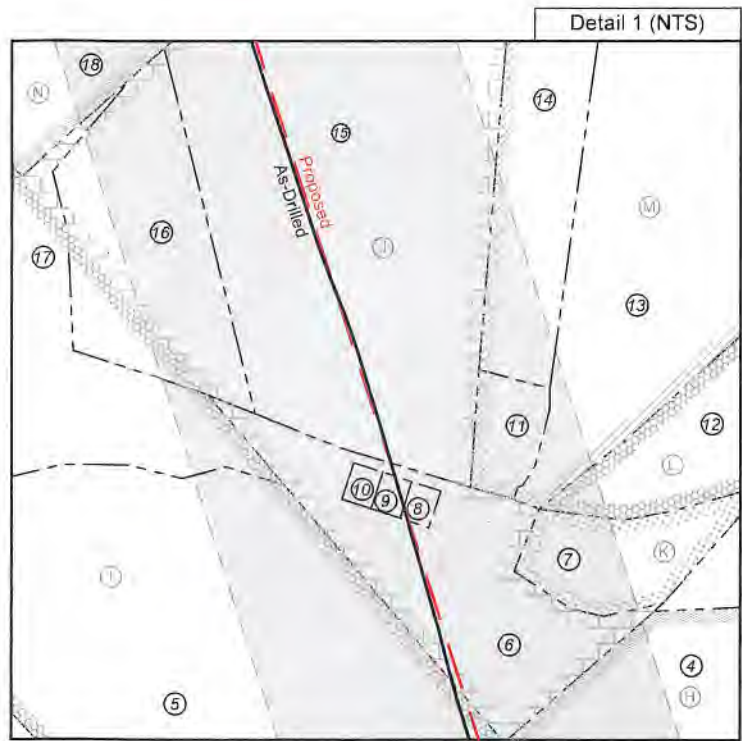
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API WELL NO
47 - 095 - 02818
STATE COUNTY PERMIT

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DISTRICT: Ellsworth/Magnolia COUNTY: Tyler
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ROYALTY OWNER: BRC Appalachian Minerals I, LLC (2); Dennis R. & Clista Heintzman; ACRES: 417.6 28 8375; 9,1875; 60;
PROPOSED WORK: DRILL CONVERT DRILL DEEPER FRACTURE OR STIMULATE PLUG OFF OLD FORMATION
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WELL OPERATOR: Antero Resources Corporation DESIGNATED AGENT: Kevin Ellis
ADDRESS: 1615 Wynkoop Street ADDRESS: 535 White Oaks Blvd.
Denver, CO 80202 Bridgeport WV, 26330

02/16/2024

14,062' to Bottom Hole
14,689' to Top Hole



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FILE NO: 77-54-E-22
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Submeter
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WVDOT, Harrisville, WV

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

DATE: July 28 2022
 OPERATOR'S WELL NO. Leap Unit 1H
 API WELL NO
47 — 095 — 02818
 STATE COUNTY PERMIT

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

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DISTRICT: Ellsworth/Magnolia COUNTY: Tyler 02/16/2024

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PROPOSED WORK: DRILL CONVERT DRILL DEEPER FRACTURE OR STIMULATE PLUG OFF OLD FORMATION
 PERFORATE NEW FORMATION OTHER PHYSICAL CHANGE IN WELL (SPECIFY) As-Drilled 6,577' TVD

PLUG AND ABANDON CLEAN OUT AND REPLUG TARGET FORMATION: Marcellus Shale ESTIMATED DEPTH: 23,185' MD

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

Hydraulic Fracturing Fluid Product Component Information Disclosure

Job Start Date:	2/24/2023
Job End Date:	3/9/2023
State:	West Virginia
County:	Tyler
API Number:	47-095-02818-00-00
Operator Name:	Antero Resources Corporation
Well Name and Number:	Leap Unit 1H
Latitude:	39.54301000
Longitude:	-80.85560000
Datum:	WGS84
Federal Well:	NO
Indian Well:	NO
True Vertical Depth:	6,623
Total Base Water Volume (gal):	25,177,966
Total Base Non Water Volume:	0



Hydraulic Fracturing Fluid Composition:

Trade Name	Supplier	Purpose	Ingredients	Chemical Abstract Service Number (CAS #)	Maximum Ingredient Concentration in Additive (% by mass)**	Maximum Ingredient Concentration in HF Fluid (% by mass)**	Comments
Produced Water	Halliburton	Base Fluid					
			Water	7732-18-5	100.00000	86.79918	Density = 8.50
Ingredients	Listed Above	Listed Above					
			Water	7732-18-5	100.00000	0.17117	

OK

MC B-8614A	MultiChem	Biocide					
				Listed Below			
HAI-501	Halliburton	Acid Corrosion Inhibitor					
				Listed Below			
Sand-Common White-100 Mesh, SSA-2	Halliburton	Proppant					
				Listed Below			
Chemstream StimSTREAM FR 2800	Chemstream, Inc.	Friction Reducer					
				Listed Below			
OPTIFLO-II DELAYED RELEASE BREAKER	Halliburton	Breaker					
				Listed Below			
WG-36 GELLING AGENT	Halliburton	Gelling Agent					
				Listed Below			
HYDROCHLORIC ACID, 22 BAUME	Halliburton	Solvent					
				Listed Below			
Items above are Trade Names with the exception of Base Water . Items below are the individual ingredients.							
			Crystalline silica, quartz	14808-60-7	100.00000	12.96360	
			Hydrochloric acid	7647-01-0	30.00000	0.04889	

			Distillates, (petroleum), hydrotreated light	64742-47-8	25.00000	0.01533	
			Guar gum	9000-30-0	100.00000	0.00441	
			Alcohols, C11-14-iso, C-13-rich, ethoxylated	78330-21-9	5.00000	0.00307	
			Glutaraldehyde	111-30-8	30.00000	0.00246	
			Alkyl (C12-16) dimethylbenzyl ammonium chloride	68424-85-1	5.00000	0.00041	
			Methanol	67-56-1	100.00000	0.00024	
			Ammonium persulfate	7727-54-0	100.00000	0.00009	
			Ethanol	64-17-5	1.00000	0.00008	
			Mixture of dimer and trimer fatty acids of indefinite composition derived from tall oil	61790-12-3	30.00000	0.00007	
			Modified thiourea polymer	Proprietary	30.00000	0.00007	
			Oxylated phenolic resin	Proprietary	30.00000	0.00003	
			Hexadecene	629-73-2	5.00000	0.00001	
			Ethoxylated alcohols	Proprietary	5.00000	0.00001	
			Propargyl alcohol	107-19-7	5.00000	0.00001	
			C.I. pigment Orange 5	3468-63-1	1.00000	0.00000	

* Total Water Volume sources may include various types of water including fresh water, produced water, and recycled water

** Information is based on the maximum potential for concentration and thus the total may be over 100%

*** If you are calculating a percentage of total ingredients do not add the water volume below the green line to the water volume above the green line

Note: For Field Development Products (products that begin with FDP), MSDS level only information has been provided.

Ingredient information for chemicals subject to 29 CFR 1910.1200(i) and Appendix D are obtained from suppliers Material Safety Data Sheets (MSDS)