

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

API 47-095-02642 County Tyler District Ellsworth
Quad Paden City Pad Name Gamehenge Pad Field/Pool Name -----
Farm name Barbara Kay Turner Well Number Possum Unit 2H
Operator (as registered with the OOG) Antero Resources Corporation
Address 1615 Wynkoop Street City Denver State CO Zip 80202

As Drilled location NAD 83/UTM Attach an as-drilled plat, profile view, and deviation survey
Top hole Northing 4373350m Easting 509788m
Landing Point of Curve Northing 4373302.57m Easting 509122.89m
Bottom Hole Northing 4377762m Easting 507606m

Elevation (ft) 1,061' 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 8/20/2019 Date drilling commenced 11/8/2019 Date drilling ceased 2/2/2020
Date completion activities began 6/21/2020 Date completion activities ceased 7/25/2020
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 363' Open mine(s) (Y/N) depths No
Salt water depth(s) ft 1093' Void(s) encountered (Y/N) depths No
Coal depth(s) ft 550' Cavern(s) encountered (Y/N) depths No
Is coal being mined in area (Y/N) No

APPROVED

RECEIVED
Office of Oil and Gas
APR 03 2023
WV Department of
Environmental Protection

Reviewed by:
SJA
06/02/2023

API 47-095 - 02642 Farm name Barbara Kay Turner Well number Possum Unit 2H

CASING STRINGS	Hole Size	Casing Size	Depth	New or Used	Grade wt/ft	Basket Depth(s)	Did cement circulate (Y/N) * Provide details below*
Conductor	24"	20"	80'	New	94#, H-40	N/A	Y
Surface	17-1/2"	13-3/8"	481'	New	54.5#, J-55	N/A	Y
Coal							
Intermediate 1	12-1/4"	9-5/8"	2638'	New	36#, J-55	N/A	Y
Intermediate 2							
Intermediate 3							
Production	8-3/4"/8-1/2"	5-1/2"	22796'	New	20#, P-110	N/A	Y
Tubing		2-3/8"	7069'		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	43	0'	8 Hrs.
Surface	Class A	398 sx	15.8	1.20	85	0'	8 Hrs.
Coal							
Intermediate 1	Class A	981 sx	15.8	1.17	209	0'	8 Hrs.
Intermediate 2							
Intermediate 3							
Production	Class H	792 sx (Lead) 3990 sx (Tail)	13.5 (Lead), 15.2(Tail)	1.4 (Lead), 1.26 (Tail)	824	~500' into Intermediate Casing	8 Hrs.
Tubing							

Drillers TD (ft) 22845' MD, 6334' TVD (BHL), 6469' (Deepest Point Drilled) Loggers TD (ft) 22845' MD
 Deepest formation penetrated Marcellus Plug back to (ft) N/A
 Plug back procedure N/A

Kick off depth (ft) 6469'

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

RECEIVED
Office of Oil and Gas

WAS WELL COMPLETED AS SHOT HOLE Yes No DETAILS _____

APR 03 2023

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

06/02/2023 *JM*

API 47-095 - 02642 Farm name Barbara Kay Turner Well number Possum Unit 2H

PERFORATION RECORD

Stage No.	Perforation date	Perforated from MD ft.	Perforated to MD ft.	Number of Perforations	Formation(s)
*PLEASE SEE ATTACHED EXHIBIT 1					

Please insert additional pages as applicable.

STIMULATION INFORMATION PER STAGE

Complete a separate record for each stimulation stage.

Stage No.	Stimulations Date	Ave Pump Rate (BPM)	Ave Treatment Pressure (PSI)	Max Breakdown Pressure (PSI)	ISIP (PSI)	Amount of Proppant (lbs)	Amount of Water (bbls)	Amount of Nitrogen/other (units)
*PLEASE SEE ATTACHED EXHIBIT 2								

RECEIVED
Office of Oil and Gas
APR 03 2023

Please insert additional pages as applicable.

06/02/2023 *JV*

API 47- 095 - 02642 Farm name Barbara Kay Turner Well number Possum Unit 2H

<u>PRODUCING FORMATION(S)</u>	<u>DEPTHS</u>		
<u>Marcellus</u>	<u>6408' (TOP)</u>	<u>TVD</u>	<u>7105' (TOP)</u> <u>MD</u>
_____	_____	_____	_____
_____	_____	_____	_____

Please insert additional pages as applicable.

GAS TEST Build up Drawdown Open Flow OIL TEST Flow Pump

SHUT-IN PRESSURE Surface 2800 psi Bottom Hole --- psi DURATION OF TEST --- hrs

OPEN FLOW Gas 9854 mcfpd Oil 479 bpd NGL --- bpd Water -1 bpd GAS MEASURED BY Estimated Orifice Pilot

LITHOLOGY/ FORMATION	TOP	BOTTOM	TOP	BOTTOM	DESCRIBE ROCK TYPE AND RECORD QUANTITY AND TYPE OF FLUID (FRESHWATER, BRINE, OIL, GAS, H ₂ S, ETC)
	DEPTH IN FT NAME TVD	DEPTH IN FT TVD	DEPTH IN FT MD	DEPTH IN FT MD	

***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 Halliburton Energy Services
Address 3000 W. Sam Houston Pkwy City Houston State TX Zip 76114

Stimulating Company Halliburton Energy Services
Address 3000 W. Sam Houston Pkwy City Houston State TX Zip 76114

Please insert additional pages as applicable.

Completed by Carly Marvel Telephone 303-357-7373
Signature Carly Marvel Title Permitting Agent Date 3/31/2023

RECEIVED
Office of Oil and Gas
APR 03 2023

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

WV Department of
Environmental Protection
06/02/2023
JM

Exhibit 1

Stage No.	Perforation Date	Perforated from MD ft.	Perforated to MD ft.	Number of Perforations	Formations
1	6/21/2020	22728	22685	36	Marcellus
2	6/21/2020	22646.19654	22480.1792	36	Marcellus
3	6/22/2020	22444.57576	22278.5584	36	Marcellus
4	6/22/2020	22242.95498	22076.9377	36	Marcellus
5	6/22/2020	22041.3342	21875.3169	36	Marcellus
6	6/23/2020	21839.71342	21673.6961	36	Marcellus
7	6/23/2020	21638.09264	21472.0753	36	Marcellus
8	6/24/2020	21436.47186	21270.4545	36	Marcellus
9	6/24/2020	21234.85108	21068.8338	36	Marcellus
10	6/26/2020	21033.2303	20867.213	36	Marcellus
11	6/26/2020	20831.60952	20665.5922	36	Marcellus
12	6/26/2020	20629.98874	20463.9714	36	Marcellus
13	6/27/2020	20428.36797	20262.3506	36	Marcellus
14	6/27/2020	20226.74719	20060.7299	36	Marcellus
15	6/28/2020	20025.12641	19859.1091	36	Marcellus
16	6/28/2020	19823.50563	19657.4883	36	Marcellus
17	6/28/2020	19621.88485	19455.8675	36	Marcellus
18	6/28/2020	19420.26407	19254.2468	36	Marcellus
19	6/28/2020	19218.64329	19052.626	36	Marcellus
20	6/29/2020	19017.02251	18851.0052	36	Marcellus
21	6/29/2020	18815.40173	18649.3844	36	Marcellus
22	6/29/2020	18613.78095	18447.7636	36	Marcellus
23	6/29/2020	18412.16017	18246.1429	36	Marcellus
24	6/30/2020	18210.53939	18044.5221	36	Marcellus
25	6/30/2020	18008.91861	17842.9013	36	Marcellus
26	7/1/2020	17807.29784	17641.2805	36	Marcellus
27	7/1/2020	17605.67706	17439.6597	36	Marcellus
28	7/1/2020	17404.05628	17238.039	36	Marcellus
29	7/1/2020	17202.4355	17036.4182	36	Marcellus
30	7/1/2020	17000.81472	16834.7974	36	Marcellus
31	7/2/2020	16799.19394	16633.1766	36	Marcellus
32	7/2/2020	16597.57316	16431.5558	36	Marcellus
33	7/2/2020	16395.95238	16229.9351	36	Marcellus
34	7/2/2020	16194.3316	16028.3143	36	Marcellus
35	7/2/2020	15992.71082	15826.6935	36	Marcellus
36	7/3/2020	15791.09004	15625.0727	36	Marcellus
37	7/3/2020	15589.46926	15423.4519	36	Marcellus
38	7/3/2020	15387.84848	15221.8312	36	Marcellus
39	7/3/2020	15186.22771	15020.2104	36	Marcellus
40	7/4/2020	14984.60693	14818.5896	36	Marcellus
41	7/4/2020	14782.98615	14616.9688	36	Marcellus
42	7/4/2020	14581.36537	14415.3481	36	Marcellus
43	7/4/2020	14379.74459	14213.7273	36	Marcellus
44	7/4/2020	14178.12381	14012.1065	36	Marcellus
45	7/5/2020	13976.50303	13810.4857	36	Marcellus
46	7/5/2020	13774.88225	13608.8649	36	Marcellus
47	7/5/2020	13573.26147	13407.2442	36	Marcellus
48	7/5/2020	13371.64069	13205.6234	36	Marcellus
49	7/6/2020	13170.01991	13004.0026	36	Marcellus
50	7/6/2020	12968.39913	12802.3818	36	Marcellus
51	7/6/2020	12766.77835	12600.761	36	Marcellus
52	7/6/2020	12565.15758	12399.1403	36	Marcellus
53	7/7/2020	12363.5368	12197.5195	36	Marcellus
54	7/7/2020	12161.91602	11995.8987	36	Marcellus
55	7/7/2020	11960.29524	11794.2779	36	Marcellus
56	7/7/2020	11758.67446	11592.6571	36	Marcellus
57	7/7/2020	11557.05368	11391.0364	36	Marcellus
58	7/8/2020	11355.4329	11189.4156	36	Marcellus
59	7/8/2020	11153.81212	10987.7948	36	Marcellus
60	7/8/2020	10952.19134	10786.174	36	Marcellus
61	7/8/2020	10750.57056	10584.5532	36	Marcellus
62	7/8/2020	10548.94978	10382.9325	36	Marcellus
63	7/9/2020	10347.329	10181.3117	36	Marcellus
64	7/9/2020	10145.70823	9979.69091	36	Marcellus
65	7/9/2020	9944.087446	9778.07013	36	Marcellus
66	7/9/2020	9742.466667	9576.44935	36	Marcellus
67	7/10/2020	9540.845887	9374.82857	36	Marcellus
68	7/10/2020	9339.225108	9173.20779	36	Marcellus
69	7/10/2020	9137.604329	8971.58701	36	Marcellus
70	7/10/2020	8935.98355	8769.96623	36	Marcellus
71	7/10/2020	8734.362771	8568.34545	36	Marcellus
72	7/11/2020	8532.741991	8366.72468	36	Marcellus
73	7/11/2020	8331.121212	8165.1039	36	Marcellus
74	7/11/2020	8129.500433	7963.48312	36	Marcellus
75	7/11/2020	7927.879654	7761.86234	36	Marcellus
76	7/12/2020	7726.258874	7560.24156	36	Marcellus
77	7/12/2020	7524.638095	7358.62078	36	Marcellus
78	7/12/2020	7323.017316	7157	36	Marcellus

RECEIVED
Office of Oil and Gas

APR 03 2023

WV Department of
Environmental Protection

06/02/2023

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 (bbbls)	Amount of Nitrogen/ other (units)
1	6/21/2020	72.24	8745	5545	3520	185120	5726.167	N/A
2	6/21/2020	86.79	9462	5807	4098	264930	7188.19	N/A
3	6/22/2020	85.95	9256	5084	4256	266080	7192.524	N/A
4	6/22/2020	90.65	9974	5062	4296	264320	7276.833	N/A
5	6/22/2020	87.92	9353	5103	4108	264390	10052.9	N/A
6	6/23/2020	84.26	9393	5127	4200	263900	7283.952	N/A
7	6/23/2020	88.3	9838	4393	3855	264920	7410.19	N/A
8	6/24/2020	90.56	10359	5405	3625	263690	7411.738	N/A
9	6/24/2020	93.47	9972	5334	3856	266030	7284.833	N/A
10	6/26/2020	92.67	10046	4099	3978	264580	7305	N/A
11	6/26/2020	94.81	9908	5291	3694	264810	7407.31	N/A
12	6/26/2020	90.82	10137	5370	3948	263820	7119.429	N/A
13	6/27/2020	92.23	10202	4220	4215	264500	7006.238	N/A
14	6/27/2020	84	10383	5082	4599	264280	9275.929	N/A
15	6/28/2020	92.36	9875	4781	4148	263610	7145.5	N/A
16	6/28/2020	93.06	10228	5234	4037	263290	7073.238	N/A
17	6/28/2020	90.85	9481	4127	4113	263960	7138.714	N/A
18	6/28/2020	83.88	9917	5628	4041	264150	7275.381	N/A
19	6/28/2020	92.93	9655	5249	4081	264730	7072.905	N/A
20	6/29/2020	94.4	9724	9249	4096	263580	7064.333	N/A
21	6/29/2020	94.32	9482	3850	3934	264190	7109.31	N/A
22	6/29/2020	93.34	9911	5133	3853	266620	7074.452	N/A
23	6/29/2020	87.72	9186	5261	4131	266630	7154.833	N/A
24	6/30/2020	86.78	9736	5128	3966	265630	7245.19	N/A
25	6/30/2020	89.85	9806	5254	3909	265170	7029	N/A
26	7/1/2020	88.9	10000	5427	3716	264770	7062.667	N/A
27	7/1/2020	90.12	9672	3972	3648	263700	7076.786	N/A
28	7/1/2020	95.15	9394	4051	3958	263660	7117.262	N/A
29	7/1/2020	90.37	9931	3837	4010	262960	7055.833	N/A
30	7/1/2020	84.79	9706	5302	4065	262950	7024.452	N/A
31	7/2/2020	95.23	9067	5324	4136	263800	7007.786	N/A
32	7/2/2020	94.74	9616	4097	3955	264050	6977.071	N/A
33	7/2/2020	94.04	8984	5352	3978	264500	7122.19	N/A
34	7/2/2020	95.49	9048	5147	3976	265350	7081.833	N/A
35	7/2/2020	96.25	8989	6042	4065	264890	6993.048	N/A
36	7/3/2020	93.1	8947	5393	3971	265110	6977.976	N/A
37	7/3/2020	96.7	9020	4713	3982	264790	7055.69	N/A
38	7/3/2020	95.69	9051	5520	4078	266270	7047.857	N/A
39	7/3/2020	96.17	9006	5612	4086	264210	7529.31	N/A
40	7/4/2020	94.91	8700	5301	3928	265740	9168.381	N/A
41	7/4/2020	95.43	8928	5519	3972	265600	6944.405	N/A
42	7/4/2020	95.89	8970	5791	3648	266290	7040.405	N/A
43	7/4/2020	96.2	8965	5543	4037	267320	6793	N/A
44	7/4/2020	95.38	8552	5126	4089	265970	6866.405	N/A
45	7/5/2020	96.99	8857	5756	4076	264740	7052.571	N/A
46	7/5/2020	97.87	8937	4505	3848	264760	6995.476	N/A
47	7/5/2020	98.33	9017	4261	3711	266020	6990.476	N/A
48	7/5/2020	95.37	8952	5832	4904	266580	6882.214	N/A
49	7/6/2020	52.44	10035	5630	6778	266010	11293.05	N/A
50	7/6/2020	93.11	8536	4914	3507	264900	7158.214	N/A
51	7/6/2020	93.61	8460	5557	3728	265440	7009.833	N/A
52	7/6/2020	96.2	8537	6207	4615	263430	8181.048	N/A
53	7/7/2020	97.46	8803	5740	3896	263900	6881.119	N/A
54	7/7/2020	96	8855	5979	3892	265180	6869.095	N/A
55	7/7/2020	97.42	8985	5985	4005	265000	6942.81	N/A
56	7/7/2020	97.22	8919	5506	3814	264280	6880.143	N/A
57	7/7/2020	96.97	8866	8862	3746	263270	6721.857	N/A
58	7/8/2020	97.7	8906	5706	3847	264050	6768.214	N/A
59	7/8/2020	96.07	8727	5614	3734	262880	6822.048	N/A
60	7/8/2020	96.27	8957	5834	3703	267480	7320.857	N/A
61	7/8/2020	95.44	8951	5694	4225	266400	6846.548	N/A
62	7/8/2020	98.17	8888	5633	3814	267120	6803.643	N/A
63	7/9/2020	96.85	8576	5400	4011	264600	6830.071	N/A
64	7/9/2020	97.16	8741	5934	3968	265270	6737.524	N/A
65	7/9/2020	96.17	8486	5821	4049	264490	6801.762	N/A
66	7/9/2020	97.03	8473	6054	3887	265090	6742.357	N/A
67	7/10/2020	96.77	8336	5438	3855	266240	6680.929	N/A
68	7/10/2020	96.67	8189	5316	3969	265130	6833.167	N/A
69	7/10/2020	95.02	8274	5350	3952	263940	6790	N/A
70	7/10/2020	95.55	8191	5553	3843	264210	6753.667	N/A
71	7/10/2020	98.01	8368	5734	3892	265510	6703.69	N/A
72	7/11/2020	97.24	8278	5474	4002	264860	6652.643	N/A
73	7/11/2020	97.72	8459	5606	4011	263580	6680.286	N/A
74	7/11/2020	97.3	8335	4740	4030	264860	7037.19	N/A
75	7/11/2020	98.08	8209	5481	4094	264610	6685.857	N/A
76	7/12/2020	97.84	7751	5053	4119	264150	6660.833	N/A
77	7/12/2020	97.59	7764	5644	4061	264440	6632.31	N/A
78	7/12/2020	96.07	7664	5137	4205	262870	6652.857	N/A
	AVG=	93	9,114	5,357	4,021	20,574,150	557,501	TOTAL

RECEIVED
Office of Oil and Gas

APR 03 2023

WV Department of
Environmental Protection

06/02/2023 *JM*

EXHIBIT 3

LITHOLOGY/ FORMATION	TOP DEPTH (TVD)	BOTTOM DEPTH (TVD)	TOP DEPTH (MD)	BOTTOM DEPTH (MD)
	From Surface	From Surface	From Surface	From Surface
Siltstone	85	185	85	185
Shaly Siltstone	185	485	185	485
Siltstone w/ trace coal	485	645	485	645
Sandstone	565	705	565	705
Shaly Siltstone	645	705	645	705
Sandstone	705	765	705	765
Shaly Siltstone	765	965	765	965
Shale	965	1,145	965	1,145
Siltstone	1,145	1,265	1,145	1,265
Sandstone	1,265	1,425	1,265	1,425
Shaly Siltstone	1,425	1,465	1,425	1,465
Sandstone w/ trace coal	1,465	1,545	1,465	1,545
Siltstone	1,545	1,725	1,545	1,725
Silty Sandstone	1,725	1,785	1,725	1,785
Sandstone	1,785	1,912	1,785	1,957
Big Lime	1,927	2,573	1,942	2,674
Fifty Foot Sandstone	2,573	2,668	2,644	2,776
Gordon	2,668	2,967	2,746	3,101
Fifth Sandstone	2,967	3,052	3,071	3,194
Bayard	3,052	3,943	3,164	4,159
Speechley	3,943	4,218	4,129	4,455
Balltown	4,218	4,579	4,425	4,846
Bradford	4,579	5,028	4,816	5,332
Benson	5,028	5,232	5,302	5,554
Alexander	5,232	6,297	5,524	6,810
Sycamore	6,162	6,267	6,612	6,780
Middlesex	6,267	6,352	6,780	6,950
Burkett	6,352	6,372	6,950	6,996
Tully	6,372	6,408	6,996	7,105
Marcellus	6,408	NA	7,105	NA

*Please note Antero determines formation tops based on mud logs that are only run on one well on a multi-well pad. The measured depth (MD) data on subsequent wells may be slightly different due to the well's unique departure.

Antero Resources
Well No. Possum Unit 2H
 As-Drilled
 Antero Resources Corporation

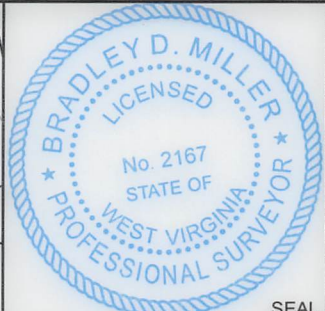
10,519' to Bottom Hole

3,371' to Top Hole
 TOP HOLE LATITUDE 39 - 32 - 30
 BTM HOLE LATITUDE 39 - 35 - 00



	Bearing	Dist.
L1	N 03°51' W	1,437.3'
L2	N 58°06' E	2,743.7'
L3	S 62°03' E	2,059.1'
L4	S 27°24' E	1,077.2'

Notes:
 West Virginia Coordinate System of 1927, North Zone based upon Differential GPS Measurements.
 Well No. Possum Unit 2H Top Hole coordinates are
 N: 370,755.16' Latitude: 39°30'34.76"
 E: 1,608,870.49' Longitude: 80°53'10.72"
 Bottom Hole coordinates are
 N: 385,350.17' Latitude: 39°32'57.93"
 E: 1,601,953.15' Longitude: 80°54'41.90"
 UTM Zone 17, NAD 1983
 Top Hole Coordinates Bottom Hole Coordinates
 N: 4,373,350.832m N: 4,377,762.061m
 E: 509,788.139m E: 507,606.640m
 Plat orientation and corner and well references are based upon the grid north meridian.
 Well location references are based upon the magnetic meridian.

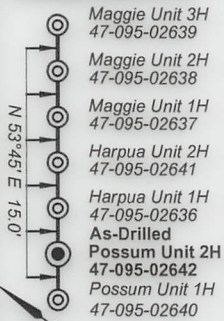


I, the undersigned, hereby certify that this plat is correct to the best of my knowledge and belief and shows all the information required by law and the rules issued and prescribed by the Department of Environmental Protection.
 Bradley D. Miller, P.S. 2167

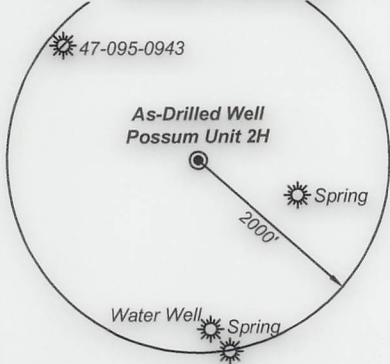
Legend

- Proposed gas well
- Monument, as noted
- Existing Well, as noted
- Digitized Well, as noted
- Creek or Drain
- Surface boundary (approx.)
- Interior surface tracts (approx.)

Wellhead Layout (NTS)



Note: 1 water wells and 2 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.



FILE NO: 39-54-E-16
 DRAWING NO: Possum 2H Well Plat
 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: March 29 20 23
 OPERATOR'S WELL NO. Possum 2H
 API WELL NO
 47 - 095 - 02642
 STATE COUNTY PERMIT

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

LOCATION: ELEVATION: As-Drilled 1,061' WATERSHED: Outlet Middle Island Creek QUADRANGLE: Paden City
 DISTRICT: Ellsworth/Lincoln Sandra L. Baumgardner; COUNTY: Boone
 SURFACE OWNER: Barbara Kay Turner Jean Cline; Diane W. Kestle; Kathryn L. Watkins; ACREAGE: 26.18 62.84375; 64.18;
 ROYALTY OWNER: Naomi V. Beagle; Linda L. Newbrough; Sarah A. Midcap (2); LEASE NO: ACREAGE: 109.48; 46.43;
 PROPOSED WORK: DRILL CONVERT DRILL DEEPER FRACTURE OR STIMULATE PLUG OFF OLD FORMATION
 PERFORATE NEW FORMATION OTHER PHYSICAL CHANGE IN WELL (SPECIFY) As-Drilled 6,334' TVD
 PLUG AND ABANDON CLEAN OUT AND REPLUG TARGET FORMATION: Marcellus Shale ESTIMATED DEPTH: 22,845' MD

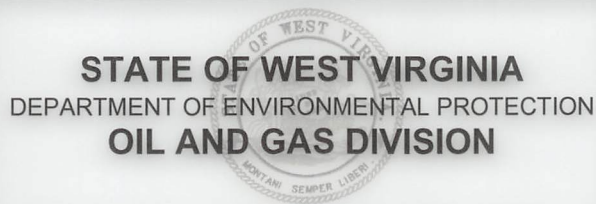
WELL OPERATOR: Antero Resources Corporation DESIGNATED AGENT: Dianna Stamper - CT Corporation System
 ADDRESS: 1615 Wynkoop Street ADDRESS: 5400 D Big Tyler Road
 Denver, CO 80202 Charleston, WV 25313

ID	TM/Par	Owner	Bk/Pg	Acres
1	15-18	Barbara Kay Turner	398/670	26.18
2	15-19	David Mendenhall, et al	282/723	45.00
3	14-27	Ridgetop Capital LP	372/299	64.96
4	14-60.2	Douglas & Tricia Long	333/872	24.47
5	14-60	James A. Jr. & Angela K. Long	333/188	23.99
6	14-58	Linda Newbrough	WB 36/617	10.31
7	14-57	Danny Eugene Cochran	344/251	40.30
8	14-56.1	Boyd M. & Patricia L. Parr	358/643	35.33
9	14A-29	Victor A. & Lorraine Weekley	299/300	13.00
10	14A-29.1	Mensore J.C. Distributors	285/213	1.00
11	14-23	Jackie R. Brookover II	321/749	6.88
12	14-20.1	Jackie R. Brookover II	346/29	13.46
13	14-24	Ridgetop Capital LP	372/299	124.76
14	14-26	Barbara Kay Turner	398/670	26.34
15	14-25	Stanley M. & Irene E. Koterba, et al	331/32	126.05
16	14-18	Terry W. & Carolyn Sue Tracy	193/473	37.00
17	14-9	Robert L. Keller	299/379	116.90
18	14-8	Christine Connell, et al	---/---	37.00
19	14-25.2	Andrew B. & Angela M. Negie	489/577	3.00
20	14-25.1	Roy F. Gorrell	447/180	2.00
21	14-10	Sarah A. Midcap	342/568	40.00
22	14-9.1	John W. & Ida L. Murner	338/162	6.00
23	9-36.2	Ron & Charlene Vancamp	296/390	28.79
24	9-39	Tyler County Board of Education	290/88	65.00
25	9-40.1	Tyler County Board of Education	290/88	9.17
26	9-40	Sarah A. Midcap	168/3	16.83
27	9-31	Sarah A. Midcap	168/3	74.00
28	9-30	Heartwood Forestland Fund II LP	326/547	144.31
29	9-15	Heartwood Forestland Fund II LP	326/547	225.64
30	9-20	Heartwood Forestland Fund II LP	326/547	57.61
31	9-14	Leroy Kent Morris, et al	480/311	93.63
32	13-8	D.H. Jr., & Janice K. Lancaster	351/288	52.84
33	13-3	Mark E. Heintzman	221/635	51.96
34	13-4	William Franklin Ferrell	207/417	10.75
35	9-44	Diane W. Clark	WB 39/544	40.68
36	9-1	Linda L. Stemple	369/9	24.24
37	9-2	William & Margaret Garrett	284/41	22.19
38	9-36	Diane W. Clark	WB 39/544	59.00
39	9-28	Constance Heintzman	WB 43/505	104.50
40	9-29	Russell D. & Mary A. Adams	190/300	1.00
41	9-28.1	Ervin L. & Betty M. Bassett	299/158	4.35
42	9-30	Ervin L. & Betty M. Bassett	309/391	19.57
43	9-30.4	Ervin L. & Betty M. Bassett	337/119	0.34
44	9-30.5	Georgeanna & Scott Michael	414/470	1.53
45	9-30.6	Georgeanna & Scott Michael	423/709	0.58
46	9-30.3	Ervin L. & Betty M. Bassett	337/119	0.23
47	9-30.2	Mark B. Hubbard, Jr.	309/388	1.27
48	9-30.1	Mark B. Hubbard, Jr.	423/709	1.38
49	9-35	Mark E. Heintzman	246/532	19.75
50	9-31.2	Ralph & Sylvia Harter	347/178	4.57
51	9-31	Russell L. & Mary E. Myers	347/263	31.45
52	9-27	Robert Livio Bolner	226/593	59.00
53	9-31.1	Russell L. & Mary E. Myers	340/654	38.04
54	9-24	Ethan A. & Marsha L. Riffle	299/26	82.00
55	9-19	Russell L. & Mary E. Myers	337/26	93.17

Lessor	
A	Linda L. Newbrough
B	Jack Russell Folger, et ux
C	Naomi V. Beagle
D	Douglas H. Long, et ux
E	James A. Long, Jr., et ux
F	Linda L. Newbrough
G	Nathaniel Hendricks
H	Scott Denomme, et ux
I	Scott Denomme, et ux
J	Stanley M. & Irene E. Koterba
K	Sarah A. Midcap
L	Sarah A. Midcap
M	David E. Bowyer
N	Waco Oil & Gas Co. Inc.
O	BRC Appalachian Minerals I, LLC
P	Marilyn S. Parkinson
Q	Sandra L. Baumgardner
R	Donald Lancaster, Jr., et ux
S	Thomas Goodwin, et ux
T	Kathryn L. Watkins
U	Diane W. Kestle
V	Melodee Matheny
W	BRC Appalachian Minerals I, LLC
X	Jean Cline
Y	Mark E. Heintzman
Z	Martha Hayes, et vir
AA	Richard L. Clark
AB	Michael D. Reynolds
AC	Timothy L. Vancamp



FILE NO: 39-54-E-16
 DRAWING NO: Possum 2H Well Plat
 SCALE: 1" = 2000'
 MINIMUM DEGREE OF ACCURACY:
 Submeter
 PROVEN SOURCE OF ELEVATION:
 WVDOT, Harrisville, WV



DATE: March 29 20 23
 OPERATOR'S WELL NO. Possum 2H
 API WELL NO
 47 - 095 - 02642
 STATE COUNTY PERMIT

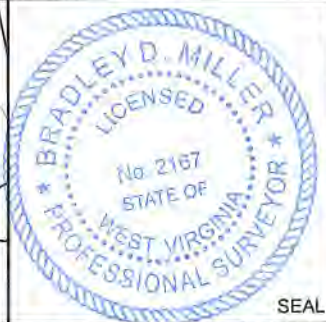
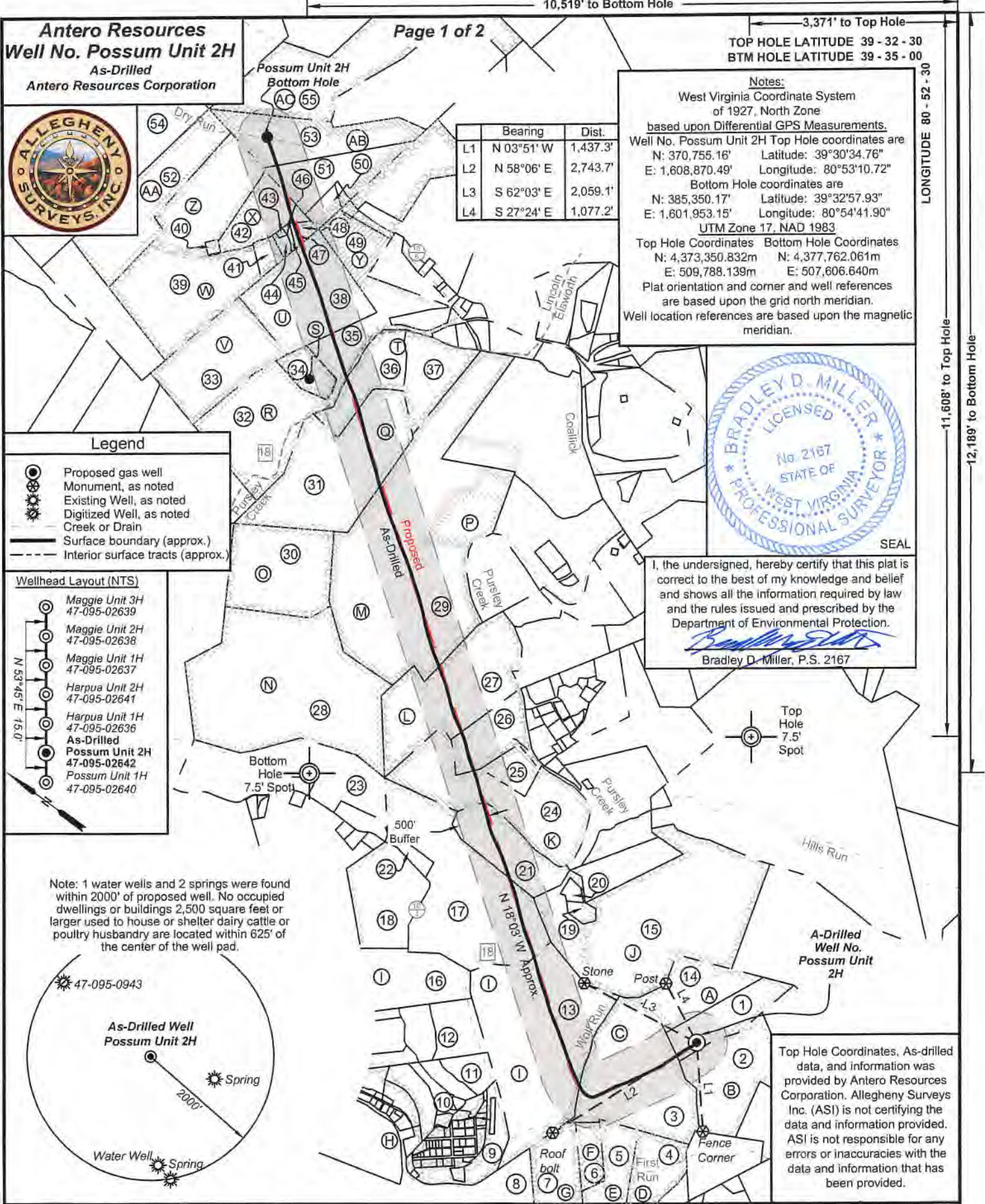
WELL TYPE: OIL GAS LIQUID INJECTION WASTE DISPOSAL
 (IF GAS) PRODUCTION: STORAGE DEEP SHALLOW

LOCATION: ELEVATION: As-Drilled 1,061' WATERSHED: Outlet Middle Island Creek QUADRANGLE: Paden City

DISTRICT: Ellsworth/Lincoln SURFACE OWNER: Barbara Kay Turner ROYALTY OWNER: Naomi V. Beagle; Linda L. Newbrough; Sarah A. Midcap (2); LEASE NO: ACREAGE: 109.48; 46.43;

PROPOSED WORK: DRILL CONVERT DRILL DEEPER FRACTURE OR STIMULATE PLUG OFF OLD FORMATION
 PERFORATE NEW FORMATION OTHER PHYSICAL CHANGE IN WELL (SPECIFY) As-Drilled 6,334' TVD
 PLUG AND ABANDON CLEAN OUT AND REPLUG TARGET FORMATION: Marcellus Shale ESTIMATED DEPTH: 22,845' MD

WELL OPERATOR: Antero Resources Corporation DESIGNATED AGENT: Dianna Stamper - CT Corporation System
 ADDRESS: 1615 Wynkoop Street ADDRESS: 5400 D Big Tyler Road
 Denver, CO 80202 Charleston, WV 25313



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

FILE NO: 39-54-E-16
DRAWING NO: Possum 2H Well Plat
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: March 29 20 23
OPERATOR'S WELL NO. Possum 2H
API WELL NO
47 - 095 - 02642
STATE COUNTY PERMIT

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

LOCATION: ELEVATION: As-Drilled 1,061' WATERSHED: Outlet Middle Island Creek QUADRANGLE: Paden City
DISTRICT: Ellsworth/Lincoln COUNTY: Boone
SURFACE OWNER: Barbara Kay Turner LEASE NO: ACREAGE: 26.18
ROYALTY OWNER: Naomi V. Beagle; Linda L. Newbrough; Sarah A. Midcap (2); ACREAGE: 109.48; 46.43;

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: 6,334' TVD 22,845' MD

WELL OPERATOR: Antero Resources Corporation DESIGNATED AGENT: Dianna Stamper - CT Corporation System
ADDRESS: 1615 Wynkoop Street ADDRESS: 5400 D Big Tyler Road
Denver, CO 80202 Charleston, WV 25313

ID	TM/Par	Owner	Bk/Pg	Acres
1	15-18	Barbara Kay Turner	398/670	26.18
2	15-19	David Mendenhall, et al	282/723	45.00
3	14-27	Ridgetop Capital LP	372/299	64.96
4	14-60.2	Douglas & Tricia Long	333/872	24.47
5	14-60	James A. Jr. & Angela K. Long	333/188	23.99
6	14-58	Linda Newbrough	WB 36/617	10.31
7	14-57	Danny Eugene Cochran	344/251	40.30
8	14-56.1	Boyd M. & Patricia L. Parr	358/643	35.33
9	14A-29	Victor A. & Lorraine Weekley	299/300	13.00
10	14A-29.1	Mensore J.C. Distributors	285/213	1.00
11	14-23	Jackie R. Brookover II	321/749	6.88
12	14-20.1	Jackie R. Brookover II	348/29	13.46
13	14-24	Ridgetop Capital LP	372/299	124.76
14	14-26	Barbara Kay Turner	398/670	26.34
15	14-25	Stanley M. & Irene E. Koterba, et al	331/32	126.05
16	14-18	Terry W. & Carolyn Sue Tracy	193/473	37.00
17	14-9	Robert L. Keller	299/379	116.90
18	14-8	Christine Connell, et al	---/---	37.00
19	14-25.2	Andrew B. & Angela M. Negie	489/577	3.00
20	14-25.1	Roy F. Gorrell	447/180	2.00
21	14-10	Sarah A. Midcap	342/568	40.00
22	14-9.1	John W. & Ida L. Murner	338/162	6.00
23	9-36.2	Ron & Charlene Vancamp	296/390	28.79
24	9-39	Tyler County Board of Education	290/88	65.00
25	9-40.1	Tyler County Board of Education	290/88	9.17
26	9-40	Sarah A. Midcap	168/3	16.83
27	9-31	Sarah A. Midcap	168/3	74.00
28	9-30	Heartwood Forestland Fund II LP	326/547	144.31
29	9-15	Heartwood Forestland Fund II LP	326/547	225.64
30	9-20	Heartwood Forestland Fund II LP	326/547	57.61
31	9-14	Leroy Kent Morris, et al	480/311	93.63
32	13-8	D.H. Jr., & Janice K. Lancaster	351/288	52.84
33	13-3	Mark E. Heintzman	221/635	51.96
34	13-4	William Franklin Ferrell	207/417	10.75
35	9-44	Diane W. Clark	WB 39/544	40.68
36	9-1	Linda L. Stemple	369/9	24.24
37	9-2	William & Margaret Garrett	284/41	22.19
38	9-36	Diane W. Clark	WB 39/544	59.00
39	9-28	Constance Heintzman	WB 43/505	104.50
40	9-29	Russell D. & Mary A. Adams	190/300	1.00
41	9-28.1	Ervin L. & Betty M. Bassett	299/158	4.35
42	9-30	Ervin L. & Betty M. Bassett	309/391	19.57
43	9-30.4	Ervin L. & Betty M. Bassett	337/119	0.34
44	9-30.5	Georgeanna & Scott Michael	414/470	1.53
45	9-30.6	Georgeanna & Scott Michael	423/709	0.58
46	9-30.3	Ervin L. & Betty M. Bassett	337/119	0.23
47	9-30.2	Mark B. Hubbard, Jr.	309/388	1.27
48	9-30.1	Mark B. Hubbard, Jr.	423/709	1.38
49	9-35	Mark E. Heintzman	246/532	19.75
50	9-31.2	Ralph & Sylvia Harter	347/178	4.57
51	9-31	Russell L. & Mary E. Myers	347/263	31.45
52	9-27	Robert Livio Bolner	226/593	59.00
53	9-31.1	Russell L. & Mary E. Myers	340/654	38.04
54	9-24	Ethan A. & Marsha L. Riffle	299/26	82.00
55	9-19	Russell L. & Mary E. Myers	337/26	93.17

Lessor	
A	Linda L. Newbrough
B	Jack Russell Folger, et ux
C	Naomi V. Beagle
D	Douglas H. Long, et ux
E	James A. Long, Jr., et ux
F	Linda L. Newbrough
G	Nathaniel Hendricks
H	Scott Denomme, et ux
I	Scott Denomme, et ux
J	Stanley M. & Irene E. Koterba
K	Sarah A. Midcap
L	Sarah A. Midcap
M	David E. Bowyer
N	Waco Oil & Gas Co. Inc.
O	BRC Appalachian Minerals I, LLC
P	Marylin S. Parkinson
Q	Sandra L. Baumgardner
R	Donald Lancaster, Jr., et ux
S	Thomas Goodwin, et ux
T	Kathryn L. Watkins
U	Diane W. Kestle
V	Melodee Matheny
W	BRC Appalachian Minerals I, LLC
X	Jean Cline
Y	Mark E. Heintzman
Z	Martha Hayes, et vir
AA	Richard L. Clark
AB	Michael D. Reynolds
AC	Timothy L. Vancamp



FILE NO: 39-54-E-16
 DRAWING NO: Possum 2H Well Plat
 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: March 29 20 23
 OPERATOR'S WELL NO. Possum 2H
 API WELL NO
 47 - 095 - 02642
 STATE COUNTY PERMIT

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

LOCATION: ELEVATION: As-Drilled 1,061' WATERSHED: Outlet Middle Island Creek QUADRANGLE: Paden City
 DISTRICT: Ellsworth/Lincoln SURFACE OWNER: Barbara Kay Turner ROYALTY OWNER: Naomi V. Beagle; Linda L. Newbrough; Sarah A. Midcap (2);
 COUNTY: Putnam ACREAGE: 26.18 LEASE NO: ACREAGE: 109.48; 46.43;
 SURFACE OWNER: Sandra L. Baumgardner; Jean Cline; Diane W. Kestle; Kathryn L. Watkins; Scott Denomme, et ux; David E. Bowyer; Michael D. Reynolds;
 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: 22,845' MD

WELL OPERATOR: Antero Resources Corporation DESIGNATED AGENT: Dianna Stamper - CT Corporation System
 ADDRESS: 1615 Wynkoop Street ADDRESS: 5400 D Big Tyler Road
 Denver, CO 80202 Charleston, WV 25313

Hydraulic Fracturing Fluid Product Component Information Disclosure

Job Start Date:	6/21/2020
Job End Date:	7/12/2020
State:	West Virginia
County:	Tyler
API Number:	47-095-02642-00-00
Operator Name:	Antero Resources Corporation
Well Name and Number:	Possum Unit 2H
Latitude:	39.50966000
Longitude:	-80.88632000
Datum:	NAD83
Federal Well:	NO
Indian Well:	NO
True Vertical Depth:	6,468
Total Base Water Volume (gal):	24,621,256
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					
Ingredients	Listed Above	Listed Above	Water	7732-18-5	100.00000	86.71888	Density = 8.50
			Water	7732-18-5	100.00000	0.15276	

RECEIVED
 Office of Oil and Gas
 APR 03 2023
 WV Department of Environmental Protection

Legend LD-2555	MultiChem	Additive					
				Listed Below			
MC B-8614	Halliburton	Biocide					
				Listed Below			
Excelerate LX-15	Halliburton	Friction Reducer					
				Listed Below			
OPTIFLO-II DELAYED RELEASE BREAKER	Halliburton	Breaker					
				Listed Below			
HYDROCHLORI C ACID, 22 BAUME	Halliburton	Solvent					
				Listed Below			
Sand-Common White-100 Mesh, SSA-2	Halliburton	Proppant					
				Listed Below			
HAI-501	Halliburton	Acid Corrosion Inhibitor					
				Listed Below			
WG-36 GELLING AGENT	Halliburton	Gelling Agent					
				Listed Below			

RECEIVED
 Office of Oil and Gas
 Department of
 Environmental Protection
 APR 3 2023

Enviro Energy Solutions EES 2800	EnviroEnergy Solutions	Additive					
				Listed Below			
Legend LD-2990	MultiChem	Friction Reducer					
				Listed Below			
SAND-COMMON WHITE 40/70	Halliburton	Proppant					
				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	13.06896	
			Hydrochloric acid	7647-01-0	30.00000	0.03949	
			Distillates (petroleum), hydrotreated light	64742-47-8	30.00000	0.01355	
			Complex Amine Compound	Proprietary	60.00000	0.00721	
			Guar gum	9000-30-0	100.00000	0.00663	
			Hydrotreated light petroleum distillate	64742-47-8	30.00000	0.00541	
			Complex Amine Compound	Proprietary	60.00000	0.00361	
			Glutaraldehyde	111-30-8	30.00000	0.00244	
			Alcohols, C11-14-iso, C-13-rich, ethoxylated	78330-21-9	5.00000	0.00226	
			Sorbitan, mono-9-octadecenoate, (Z)	1338-43-8	5.00000	0.00090	
			Polyethoxylated fatty amine salt	61791-26-2	30.00000	0.00064	
			Surfactant	Proprietary	5.00000	0.00060	
			Quaternary ammonium compounds, benzyl-C12-16-alkyldimethyl chlorides	68424-85-1	5.00000	0.00041	
			Methanol	67-56-1	100.00000	0.00033	

RECEIVED
 Office of Oil and Gas
 WV Department of Environmental Protection
 APR 03 2023

			Surfactant	Proprietary	5.00000	0.00030	
			Ammonium persulfate	7727-54-0	100.00000	0.00015	
			Alkoxylated polyhydric alcohol	Proprietary	1.00000	0.00012	
			Ethoxylated alcohols	Proprietary	1.00000	0.00012	
			Organic chloride compound	Proprietary	1.00000	0.00012	
			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	
			Ethoxylated alcohols	Proprietary	5.00000	0.00007	
			Organic chloride compound	Proprietary	1.00000	0.00006	
			Alkoxylated polyhydric alcohol	Proprietary	1.00000	0.00006	
			Oxylated phenolic resin	Proprietary	30.00000	0.00004	
			Acrylamide	79-06-1	0.10000	0.00001	
			Propargyl alcohol	107-19-7	5.00000	0.00001	
			Hexadecene	629-73-2	5.00000	0.00001	
			Organic salt #1	Proprietary	0.10000	0.00001	
			Phosphoric acid	7664-38-2	0.10000	0.00001	
			Formaldehyde	50-00-0	0.01000	0.00000	
			Sodium hydroxide	1310-73-2	0.01000	0.00000	
			C.I. pigment Orange 5	3468-63-1	1.00000	0.00000	
			Sodium glycollate	2836-32-0	0.01000	0.00000	
			Organic salt #2	Proprietary	0.01000	0.00000	
			Organic salt #3	Proprietary	0.01000	0.00000	
			Nitrated acetate salt	Proprietary	0.01000	0.00000	
			Nitrated acetate salt	Proprietary	0.01000	0.00000	
			Organic salt #2	Proprietary	0.01000	0.00000	
			Sodium glycolate	2836-32-0	0.01000	0.00000	

RECEIVED
 Office of Oil and Gas
 APR 03 2023
 W/ Department of
 Environmental Protection

			Organic salt #1	Proprietary	0.01000	0.00000	
			Ethylene oxide	75-21-8	0.01000	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)

RECEIVED
Office of Oil and Gas
APR 03 2023
WV Department of
Environmental Protection