

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

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NOV 1 2021

WV Department of
Environmental Protection

API 47-095-02721 County Wetzel District Ellsworth/Magnolia
Quad Porter Falls/ Paden City Pad Name Elk Fork Field/Pool Name ----
Farm name Patricia Ann Heintzman Well Number Tygart 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 4376854m Easting 511121m
Landing Point of Curve Northing 4377055.51m Easting 510466.98m
Bottom Hole Northing 4381171m Easting 509086m

Elevation (ft) 1126' GL Type of Well New Existing Type of Report Interim Final
Permit Type Deviated Horizontal Horizontal 6A Vertical Depth Type Deep Shallow
Type of Operation Convert Deepen Drill Plug Back Redrilling Rework Stimulate
Well Type Brine Disposal CBM Gas Oil Secondary Recovery Solution Mining Storage Other _____
Type of Completion Single Multiple Fluids Produced Brine Gas NGL Oil Other _____
Drilled with Cable Rotary

Drilling Media Surface hole Air Mud Fresh Water Intermediate hole Air Mud Fresh Water Brine
Production hole Air Mud Fresh Water Brine

Mud Type(s) and Additive(s)

Air - Foam & 4% KCL

Mud - Polymer

Date permit issued 12/16/2020 Date drilling commenced 1/17/2021 Date drilling ceased 1/29/2021
Date completion activities began 4/2/2021 Date completion activities ceased 6/5/2021
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 408' Open mine(s) (Y/N) depths No
Salt water depth(s) ft 1703' Void(s) encountered (Y/N) depths No
Coal depth(s) ft 58' Cavern(s) encountered (Y/N) depths No
Is coal being mined in area (Y/N) No

Reviewed by:

DCN
12/21/21
12/31/2021

API 47-095 - 02721 Farm name Patricia Ann Heintzman Well number Tygart 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	24"	20"	80'	New	94#, H-40	N/A	Y
Surface	17-1/2"	13-3/8"	343'	New	54.5#, J-55	N/A	Y
Coal							
Intermediate 1	12-1/4"	9-5/8"	2560'	New	36#, J-55	N/A	Y
Intermediate 2							
Intermediate 3							
Production	8-3/4"/8-1/2"	5-1/2"	21759'	New	23#, P-110	N/A	Y
Tubing		2-3/8"	7065'		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	56	0'	8 Hrs.
Surface	Class A	429 sx	15.6	1.19	93	0'	8 Hrs.
Coal							
Intermediate 1	Class A	884 sx	15.6	1.19	187	0'	8 Hrs.
Intermediate 2							
Intermediate 3							
Production	Class H	792 sx (Lead) 2877 sx (Tail)	13.5 (Lead), 15.2(Tail)	1.4 (Lead), 1.26 (Tail)	765	-500' into Intermediate Casing	8 Hrs.
Tubing							

Drillers TD (ft) 21803' MD, 6445' TVD (BHL), 6518' (Deepest Point Drilled) Loggers TD (ft) 21803' MD

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

Plug back procedure N/A

Kick off depth (ft) 6251'

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

API 47- 095 - 02721 Farm name Patricia Ann Heintzman Well number Tygart Unit 1H

<u>PRODUCING FORMATION(S)</u>	<u>DEPTHS</u>		
Marcellus	6460' (TOP)	TVD	7124' (TOP) MD

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 9671 mcfpd Oil 483 bpd NGL --- bpd Water 1980 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 Schlumberger Oilfield Services
Address 300 Schlumberger Dr City Sugarland State TX Zip 77478

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

Please insert additional pages as applicable.

Completed by Brandi Hankins Telephone 303-357-7223
Signature  Title Completions Technician Date 10/27/2021

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

12/31/2021

API 47-095-02721 Farm Name Patricia Ann Heintzman Well Number Tygart Unit 1H

Stage No.	Perforation Date	Perforated from MD ft.	Perforated to MD ft.	Number of Perforations	Formations
1	4/2/2021	21692.7	21651.8	36	Marcellus
2	4/2/2021	21613.08935	21447.5361	36	Marcellus
3	4/2/2021	21412.02546	21246.4722	36	Marcellus
4	4/3/2021	21210.96157	21045.4083	36	Marcellus
5	4/3/2021	21009.89769	20844.3444	36	Marcellus
6	4/3/2021	20808.8338	20643.2806	36	Marcellus
7	4/3/2021	20607.76991	20442.2167	36	Marcellus
8	4/3/2021	20406.70602	20241.1528	36	Marcellus
9	4/4/2021	20205.64213	20040.0889	36	Marcellus
10	4/4/2021	20004.57824	19839.025	36	Marcellus
11	4/4/2021	19803.51435	19637.9611	36	Marcellus
12	4/4/2021	19602.45046	19436.8972	36	Marcellus
13	4/4/2021	19401.38657	19235.8333	36	Marcellus
14	4/5/2021	19200.32269	19034.7694	36	Marcellus
15	4/5/2021	18999.2588	18833.7056	36	Marcellus
16	4/5/2021	18798.19491	18632.6417	36	Marcellus
17	4/5/2021	18597.13102	18431.5778	36	Marcellus
18	4/5/2021	18396.06713	18230.5139	36	Marcellus
19	4/6/2021	18195.00324	18029.45	36	Marcellus
20	4/6/2021	17993.93935	17828.3861	36	Marcellus
21	4/7/2021	17792.87546	17627.3222	36	Marcellus
22	4/7/2021	17591.81157	17426.2583	36	Marcellus
23	4/7/2021	17390.74769	17225.1944	36	Marcellus
24	4/7/2021	17189.6838	17024.1306	36	Marcellus
25	4/8/2021	16988.61991	16823.0667	36	Marcellus
26	4/8/2021	16787.55602	16622.0028	36	Marcellus
27	4/8/2021	16586.49213	16420.9389	36	Marcellus
28	4/8/2021	16385.42824	16219.875	36	Marcellus
29	4/8/2021	16184.36435	16018.8111	36	Marcellus
30	4/9/2021	15983.30046	15817.7472	36	Marcellus
31	4/9/2021	15782.23657	15616.6833	36	Marcellus
32	4/9/2021	15581.17269	15415.6194	36	Marcellus
33	4/13/2021	15380.1088	15214.5556	36	Marcellus
34	4/13/2021	15179.04491	15013.4917	36	Marcellus
35	4/13/2021	14977.98102	14812.4278	36	Marcellus
36	4/13/2021	14776.91713	14611.3639	36	Marcellus
37	4/13/2021	14575.85324	14410.3	36	Marcellus
38	4/13/2021	14374.78935	14209.2361	36	Marcellus
39	4/14/2021	14173.72546	14008.1722	36	Marcellus
40	4/14/2021	13972.66157	13807.1083	36	Marcellus
41	4/14/2021	13771.59769	13606.0444	36	Marcellus
42	4/14/2021	13570.5338	13404.9806	36	Marcellus
43	4/14/2021	13369.46991	13203.9167	36	Marcellus
44	4/15/2021	13168.40602	13002.8528	36	Marcellus
45	4/15/2021	12967.34213	12801.7889	36	Marcellus
46	4/15/2021	12766.27824	12600.725	36	Marcellus
47	4/15/2021	12565.21435	12399.6611	36	Marcellus
48	4/15/2021	12364.15046	12198.5972	36	Marcellus
49	4/16/2021	12163.08657	11997.5333	36	Marcellus
50	4/16/2021	11962.02269	11796.4694	36	Marcellus
51	4/16/2021	11760.9588	11595.4056	36	Marcellus
52	4/16/2021	11559.89491	11394.3417	36	Marcellus
53	4/16/2021	11358.83102	11193.2778	36	Marcellus
54	4/16/2021	11157.76713	10992.2139	36	Marcellus
55	4/17/2021	10956.70324	10791.15	36	Marcellus
56	4/17/2021	10755.63935	10590.0861	36	Marcellus
57	4/17/2021	10554.57546	10389.0222	36	Marcellus
58	4/17/2021	10353.51157	10187.9583	36	Marcellus
59	4/18/2021	10152.44769	9986.89444	36	Marcellus
60	4/18/2021	9951.383796	9785.83056	36	Marcellus
61	4/18/2021	9750.319907	9584.76667	36	Marcellus
62	4/18/2021	9549.256019	9383.70278	36	Marcellus
63	4/18/2021	9348.19213	9182.63889	36	Marcellus
64	4/18/2021	9147.128241	8981.575	36	Marcellus
65	4/19/2021	8946.064352	8780.51111	36	Marcellus
66	4/19/2021	8745.000463	8579.44722	36	Marcellus
67	4/19/2021	8543.936574	8378.38333	36	Marcellus
68	4/19/2021	8342.872685	8177.31944	36	Marcellus
69	4/19/2021	8141.808796	7976.25556	36	Marcellus
70	4/19/2021	7940.744907	7775.19167	36	Marcellus
71	4/20/2021	7739.681019	7574.12778	36	Marcellus
72	4/20/2021	7538.61713	7373.06389	36	Marcellus
73	4/20/2021	7337.553241	7172	36	Marcellus

12/31/2021

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	4/2/2021	72.53	9535.86	6808.1	3188.32	160360	269755	N/A
2	4/2/2021	84.17	9709.15	6185.29	3405.15	403260	313021	N/A
3	4/2/2021	83.06	9562	5450	3445.11	409160	307855	N/A
4	4/3/2021	84.71	9596	5083	3865.61	400720	306666	N/A
5	4/3/2021	89.08	9688.62	5210.99	3822.9	409420	310288	N/A
6	4/3/2021	88.4	9715.82	5503.92	4020.86	410100	307485	N/A
7	4/3/2021	91.66	9927.7	5611.74	4104.44	401520	300159	N/A
8	4/3/2021	88.02	9728	4622	4222	412580	308453	N/A
9	4/4/2021	89.71	9823	5488	4396	407400	303070	N/A
10	4/4/2021	89.32	9890	5398	4074	402440	301982	N/A
11	4/4/2021	89.82	9784	5811	4047	402390	294884	N/A
12	4/4/2021	90.17	9937	5534	4101	406040	296333	N/A
13	4/4/2021	89.92	9849	5614	4636	418780	309590	N/A
14	4/5/2021	89.86	9754	5337	4684	411500	303497	N/A
15	4/5/2021	93.17	9816	5240	4207	408020	295779	N/A
16	4/5/2021	87.4	9652	4972	4097	408920	322960	N/A
17	4/5/2021	85.11	9569	6042	4516	409640	295936	N/A
18	4/5/2021	86.81	9346.26	5402.94	4150.8	411140	298365	N/A
19	4/6/2021	93.02	9746	5443	4525	406620	298680	N/A
20	4/6/2021	93.82	9788	5507	4029	417940	294437	N/A
21	4/7/2021	92.95	9724	4952	4156	406660	300801	N/A
22	4/7/2021	90.55	9918	5572	3797	402160	295369	N/A
23	4/7/2021	90.65	9869	4475	4346	410700	299418	N/A
24	4/7/2021	88.44	9703	5579	3918	413740	298627	N/A
25	4/8/2021	93.59	9772	5470	3819	406210	294458	N/A
26	4/8/2021	94.07	9853	5492	4034	409100	286993	N/A
27	4/8/2021	90.11	9383	5665	4107	404540	288075	N/A
28	4/8/2021	93.99	9522	5486	4475	413660	291181	N/A
29	4/8/2021	94.91	9675	5356	4123	408620	294547	N/A
30	4/9/2021	94.09	9491	5554	3816	403300	295353	N/A
31	4/9/2021	94.24	9451	5399	3822	400060	292646	N/A
32	4/9/2021	93.99	9358	5211	3785	416980	294824	N/A
33	4/13/2021	93.56	9408	5533	3960	399900	291464	N/A
34	4/13/2021	93.07	9230	5778	3831	408660	295016	N/A
35	4/13/2021	94.11	9011	5625	3829	404080	291539	N/A
36	4/13/2021	93.72	8912	5291	3946	412660	294499	N/A
37	4/13/2021	94.3	8964	5947	3940	411060	287466	N/A
38	4/13/2021	93.99	9005	5784	4170	408600	286927	N/A
39	4/14/2021	93.86	9007	5401	3941	411300	286701	N/A
40	4/14/2021	94.05	9023	5592	4571	411340	285079	N/A
41	4/14/2021	94.06	8878	5722	4375	409760	284299	N/A
42	4/14/2021	94.53	9011	5301	4777	414720	286469	N/A
43	4/14/2021	95.12	8684	5551	3913	418600	290960	N/A
44	4/15/2021	95.39	8899	5433	3776	402340	290476	N/A
45	4/15/2021	95.16	8793	5730	3818	408740	285657	N/A
46	4/15/2021	95.18	8632	5297	3760	400700	287742	N/A
47	4/15/2021	95.17	8788	5493	3743	413480	293314	N/A
48	4/15/2021	95.46	8715	5783	3562	419720	301866	N/A
49	4/16/2021	95.71	8673	5595	3595	415200	290303	N/A
50	4/16/2021	95.14	8580.57	5859.53	4188.66	403320	283599	N/A
51	4/16/2021	95.56	8588	5237	3735	405400	286078	N/A
52	4/16/2021	95.23	8175	5450	3475	406700	289009	N/A
53	4/16/2021	95.37	8657	5775	3704	407380	289204	N/A
54	4/16/2021	95.29	8471	5690	3361	414940	290319	N/A
55	4/17/2021	95.92	8779	5808	3646	409900	284206	N/A
56	4/17/2021	95.84	8668	5829	3823	406710	284234	N/A
57	4/17/2021	95.71	8415	5522	3415	416380	289668	N/A
58	4/17/2021	94.31	8609	5975	3704	397580	304488	N/A
59	4/18/2021	93.25	7800	5700	3877	403480	357038	N/A
60	4/18/2021	93.96	7708	3868	4028	403580	285336	N/A
61	4/18/2021	94.69	8091	6240	3965	411080	289377	N/A
62	4/18/2021	94.72	8029	5440	4237	415480	288744	N/A
63	4/18/2021	94.66	7471	5247	4425	414900	284175	N/A
64	4/18/2021	95.1	7560	5665	3717	414340	369414	N/A
65	4/19/2021	92.85	7762	5407	3836	413280	287290	N/A
66	4/19/2021	94.55	7745	6395	3804	408300	285838	N/A
67	4/19/2021	95.74	7536	5977	4415	406680	288003	N/A
68	4/19/2021	94.97	7250	5357	4057	411380	287183	N/A
69	4/19/2021	95.93	7421	5524	4156	410140	286771	N/A
70	4/19/2021	95.43	7757	5445	4146	400260	282733	N/A
71	4/20/2021	95.48	7499	5959	3501	407600	281901	N/A
72	4/20/2021	95.62	7470	5487	3933	403950	280731	N/A
73	4/20/2021	95.94	7277	5199	3825	412620	291892	N/A
	AVG=	93	8,946	5,526	3,975	29,587,930	21,548,495	TOTAL

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	74	194	74	194
Shaley Sandstone	194	284	194	284
Shaley Siltstone	284	364	284	364
Limestone, Tr Shale	364	494	364	494
Sandstone	494	584	494	584
Limestone, Tr Shale	584	794	584	794
Shaley Sandstone	794	884	794	884
Shale, Tr Sandstone	884	1,134	884	1,134
Sandy Shale, Limestone	1,134	1,244	1,134	1,244
Sandy Shale	1,244	1,484	1,244	1,484
Sandstone, Tr Shale	1,484	1,664	1,484	1,664
Silty Shale, tr SS	1,664	1,754	1,664	1,754
Shale, Tr Sst	1,754	1,935	1,754	1,940
Big Lime	1,961	2,621	1,940	2,627
Fifty Foot Sandstone	2,621	2,700	2,601	2,705
Gordon	2,700	3,052	2,679	3,061
Fifth Sandstone	3,052	3,144	3,035	3,156
Bayard	3,144	3,959	3,130	4,058
Speechley	3,959	4,225	4,032	4,357
Balltown	4,225	4,667	4,331	4,858
Bradford	4,667	5,081	4,832	5,333
Benson	5,081	5,317	5,307	5,605
Alexander	5,317	6,343	5,579	6,812
Sycamore	6,212	6,317	6,630	6,786
Middlesex	6,317	6,404	6,786	6,954
Burkett	6,404	6,422	6,954	7,000
Tully	6,422	6,460	7,000	7,124
Marcellus	6,460	NA	7,124	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.

Hydraulic Fracturing Fluid Product Component Information Disclosure

Job Start Date:	4/2/2021
Job End Date:	4/20/2021
State:	West Virginia
County:	Tyler
API Number:	47-095-02721-00-00
Operator Name:	Antero Resources Corporation
Well Name and Number:	TYGART 1H
Latitude:	39.54120800
Longitude:	-80.87075000
Datum:	NAD83
Federal Well:	NO
Indian Well:	NO
True Vertical Depth:	6,518
Total Base Water Volume (gal):	22,542,290
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 Mixture	Halliburton	Base Fluid					
			Water	7732-18-5	100.00000	86.24039	Density = 8.34
Ingredients	Listed Above	Listed Above					
			Water	7732-18-5	100.00000	0.16558	

Excelerate LX-15	Halliburton	Friction Reducer					
				Listed Below			
OPTIFLO-II DELAYED RELEASE BREAKER	Halliburton	Breaker					
				Listed Below			
MC B-8614A	MultiChem	Biocide					
				Listed Below			
HYDROCHLORIC ACID, 22 BAUME	Halliburton	Solvent					
				Listed Below			
HAI-501	Halliburton	Acid Corrosion Inhibitor					
				Listed Below			
Sand-Common White-100 Mesh, SSA-2	Halliburton	Proppant					
				Listed Below			
WG-36 GELLING AGENT	Halliburton	Gelling Agent					
				Listed Below			
MC B-8614	Halliburton	Biocide					
				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	13.57255
		Hydrochloric acid	7647-01-0	30.00000	0.03924
		Complex Amine Compound	Proprietary	60.00000	0.02649
		Hydrotreated light petroleum distillate	64742-47-8	30.00000	0.01324
		Guar gum	9000-30-0	100.00000	0.00350
		Glutaraldehyde	111-30-8	30.00000	0.00249
		Surfactant	Proprietary	5.00000	0.00221
		Sorbitan, mono-9-octadecenoate, (Z)	1338-43-8	5.00000	0.00221
		Ethoxylated alcohols	Proprietary	5.00000	0.00045
		Organic chloride compound	Proprietary	1.00000	0.00044
		Alkoxylated polyhydric alcohol	Proprietary	1.00000	0.00044
		Methanol	67-56-1	100.00000	0.00028
		Alkyl (C12-16) dimethylbenzyl ammonium chloride	68424-85-1	5.00000	0.00024
		Quaternary ammonium compounds, benzyl-C12-16-alkyldimethyl chlorides	68424-85-1	5.00000	0.00017
		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
		Propargyl alcohol	107-19-7	5.00000	0.00001
		Organic salt #1	Proprietary	0.01000	0.00000
		Sodium glycolate	2836-32-0	0.01000	0.00000

			Acrylamide	79-06-1	0.01000	0.00000	
			Nitrated acetate salt	Proprietary	0.01000	0.00000	
			Organic salt #2	Proprietary	0.01000	0.00000	
			Formaldehyde	50-00-0	0.01000	0.00000	
			Sodium hydroxide	1310-73-2	0.01000	0.00000	
			Phosphoric acid	7664-38-2	0.10000	0.00000	
			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)

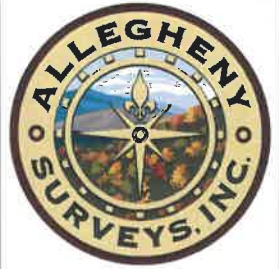
10,552' to Top Hole

5,458' to Bottom Hole

167' to Top Hole
1,168' to Bottom Hole

Page 1 of 2

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



Notes
West Virginia Coordinate System of 1927, North Zone based upon Differential GPS Measurements.
Well No. Tygarts Unit 1H Top Hole coordinates are
N: 382,179.76' Latitude: 39°32'28.36"
E: 1,613,436.17' Longitude: 80°52'14.70"
Bottom Hole coordinates are
N: 396,455.92' Latitude: 39°34'48.46"
E: 1,606,997.31' Longitude: 80°53'39.71"
UTM Zone 17, NAD 1983
Top Hole Coordinates Bottom Hole Coordinates
N: 4,376,854.674m N: 4,381,171.204m
E: 511,121.095m E: 509,086.980m
Plat orientation and corner and well references are based upon the grid north meridian.
Well location references are based upon the magnetic meridian.

Top Hole Coordinates, As-drilled data, and information was provided by Antero Resources Corporation. Allegheny 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.

Tygart Unit 1H As-Drilled POE Coordinates
West Virginia Coordinate System of 1927, North Zone
N: 382,515.26'
E: 1,611,479.48'
Latitude: 39°32'31.38"
Longitude: 80°52'39.74"
UTM Zone 17, NAD 1983
N: 4,376,946.918m
E: 510,523.276m

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

Wellhead Layout (NTS)

- Yough Unit 1H 47-095-02723
- Cheat Unit 2H 47-095-02720
- Cheat Unit 1H 47-095-02719
- Tygart Unit 2H 47-095-02722
- As-Drilled Tygart Unit 1H 47-095-02721



Legend

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

Water Well
As-Drilled Tygart 1H

2000'

Spring
Spring
Spring
Spring

Note: 1 water wells and 4 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 62°40' E	1,388.8'
L2	N 03°11' E	1,289.1'
L3	N 60°21' E	502.4'
L4	N 88°41' E	654.8'

FILE NO: 82-54-E-19
DRAWING NO: Tygart 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: August 30 2021
OPERATOR'S WELL NO. Tygart 1H
API WELL NO
47 - 095 - 02721
STATE COUNTY PERMIT

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

LOCATION: ELEVATION: As-Built 1,126' WATERSHED: Outlet Middle Island Creek QUADRANGLE: Top Hole:Porter Falls
DISTRICT: Ellsworth BTM Hole:Paden City 76.25; 48.5; 100; 33.8125; 42.24; 16; 52.186; 98.2; 107.188; 29.75; 29.51; 151.08; 40.68; 24; 23.87; 62.875; 42.3; 15.3262; 101.5; 208.00; 100;

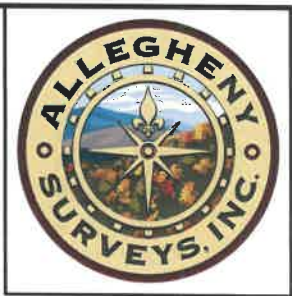
SURFACE OWNER: Patricia Ann Heintzman Kay Christen; Victor Herbert Boyd, II; Sherry Lynn Chehren; Sybil Mae Gorby; Kerry Lemasters, et ux; James D. Vancamp, et ux (3); James D. VanCamp, et al (4); Elizabeth B. Trosch; BRC Appalachian Minerals I, LLC (2); Richard A. Mercer; ACREAGE: 7.28

ROYALTY OWNER: Patricia Ann Heintzman (2); John E. Roberts; Norma Smith; Michael Scott Mercer, et ux; LEASE NO: ACREAGE:

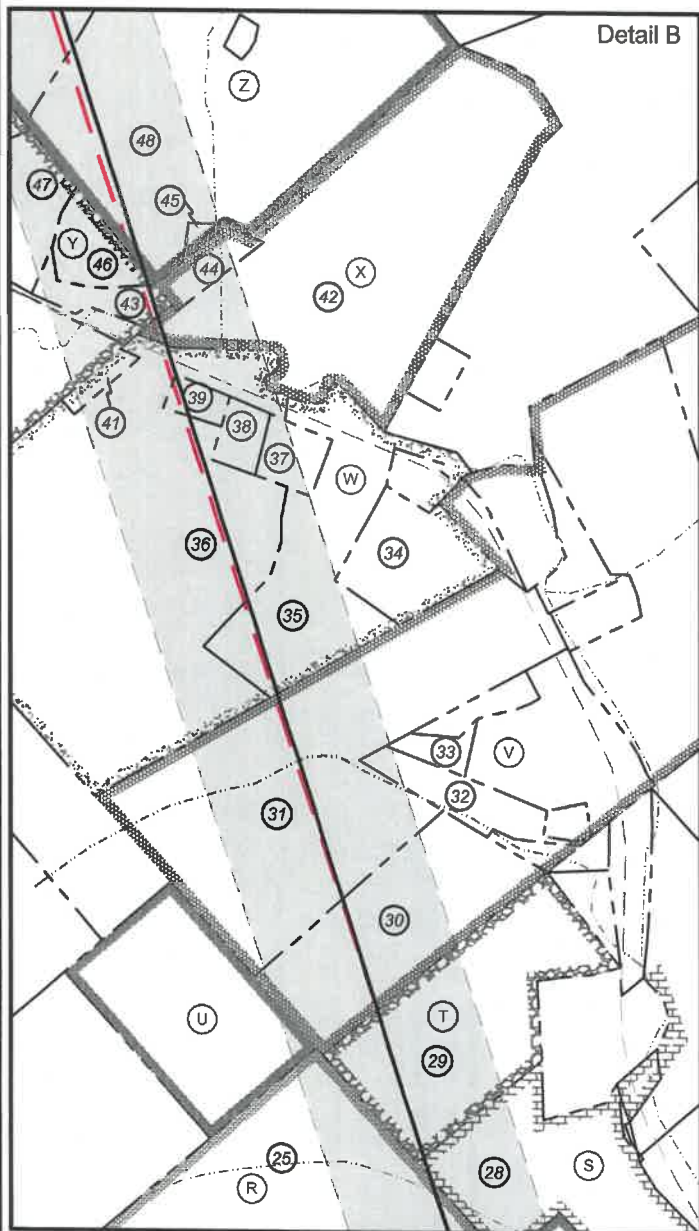
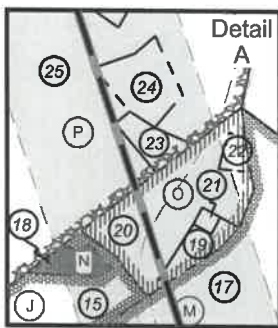
PROPOSED WORK: DRILL CONVERT DRILL DEEPER FRACTURE OR STIMULATE PLUG OFF OLD FORMATION
 PERFORATE NEW FORMATION OTHER PHYSICAL CHANGE IN WELL (SPECIFY) As-Drilled 6,445' TVD
 PLUG AND ABANDON CLEAN OUT AND REPLUG TARGET FORMATION: Marcellus Shale ESTIMATED DEPTH: 21,803' MD

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

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



Leases			
A	Patricia Ann Heintzman	O	James D. VanCamp, et al
B	Norma Smith	P	Kay Christen
C	Patricia Ann Heintzman	Q	James D. VanCamp, et ux
D	John E. Roberts	R	James D. VanCamp, et ux
E	Michael Scott Mercer, et ux	S	James D. VanCamp, et al
F	Richard A. Mercer	T	Sybil Mae Gorby
G	Dennis R. Heintzman, et ux	U	OPEN
H	Elizabeth B. Troesch	V	James D. VanCamp, et al
I	BRC Appalachian Minerals I, LLC	W	BRC Appalachian Minerals I, LLC
J	James D. VanCamp, et al	X	James D. VanCamp, et ux
K	Waco Oil & Gas Company, Inc.	Y	Victor Herbert Boyd, II
L	James D. VanCamp, et al	Z	Sherry Lynn Cheffren
M	Kerry Lemasters, et ux	AA	OPEN
N	James D. VanCamp, et al		



ID	TM/Par	Owner	Bk/Pg	Acres
1	10-2	Patricia Ann Heintzman	W13/384	73.26
2	10-1	Patricia Ann Heintzman	150/15	48.50
3	10-64	John E Roberts	W30/108	100.00
4	6-40	Alan D. Wyke	W40/195	42.20
5	9-13	Richard A. Mercer	321/197	16.00
6	6-36	Dennis & Clista Heintzman	297/640	417.60
7	6-41	Donald E. Forrester	125/421	20.05
8	6-39	Donald E. Forrester	242/39	30.00
9	6-35	Donald E. Forrester	343/381	25.75
10	6-34	John Stanley Starkey	39/200	6.11
11	6-35.1	Stephen & Andria Knowlton	289/20	13.32
12	6-35.2	Stephen & Andria Knowlton	224/77	29.02
13	6-35.3	Stephen & Andria Knowlton	224/77	3.00
14	6-23.2	Larry R. Henthorn	584/138	1.27
15	6-23	Randall Dennis, et al	W70/660	42.30
16	6-16.2	Stephen J. & Andria Knowlton	211/375	13.30
17	6-16	Kerry & Barbara Lemasters	215/548	33.76
18	6-23.1	Jeffery & Tarina Morris	346/47	1.06
19	6-16.7	Terry Andrew Jackson	388/271	1.23
20	6-16.1	James W. & Geneva Lancaster	443/639	3.44
21	6-16.6	Terry Andrew Jackson	388/271	0.25
22	6-16.8	James W. & Geneva Lancaster	443/639	0.55
23	6-22.1	Charles E. Dennis	348/160	1.25
24	6-22.3	Roger & Nadine Greathouse	334/770	2.61
25	6-22	Patricia Ann Greathouse	W38/671	169.90
26	6-22.3	Lucinda J. Greathouse	350/674	10.00
27	6-14	James D. VanCamp, et al	W38/144	24.00
28	6-3	James D. VanCamp, et al	W38/144	23.87
29	6-1	Sybil Gorby	175/265	17.26
30	5-1	James D. VanCamp, et al	W38/144	39.00
31	2-11	Rosalie B. Henry	W35/616	61.54
32	3-44.4	Tylor D. Hostuttler	592/109	4.00
33	3-44.3	Wm J. & Melissa A. Buckhanan	299/515	1.88
34	3-47	Donna & Matthew Cecil	462/582	8.61
35	2-8.4	Jonathan & Mary Belle Pittman	186/170	21.14
36	2-8	Jonathan & Mary Belle Pittman	186/170	70.93
37	2-8.5	Stanley G. Pittman	327/751	3.68
38	2-8.3	Teresa A. Morris	343/390	1.82
39	2-8.2	Martha A. Pittman	345/745	1.26
40	5-63.2	Jesse D. King & Melinda A. King	343/812	33.97
41	2-8.1	Mary Belle & Jonathan Pittman	164/352	0.92
42	3-48	Linda Hoover	356/233	45.00
43	2-6.1	Mera Lynn & William Kunkel	369/064	2.55
44	2-9	Linda L. Hoover	356/233	1.57
45	2-1.2	Donald E. Virden Jr.	421/281	0.41
46	2-6	Lou Ann & Donald E. Virden Jr.	421/281	3.42
47	2-5	Cindy L. & Charles T. White Jr.	309/25	9.52
48	2-1.1	Donald E. Virden, Jr.	421/281	68.20
49	2-4.2	Larry H. Kimble	W36/539	5.87
50	2-3.1	Dawn M. & Howard F. Myers Jr.	328/701	1.58
51	2-2	John William & Rhonda L. Burton	380/341	7.20
52	2-1	Donald E. Virden, Jr.	421/281	30.84
53	5-64	Ridgetop Capital II, LP	382/399	80.38

FILE NO: 82-54-E-19
DRAWING NO: Tygart Unit 1H As-Drilled
SCALE: 1" = 2000'
MINIMUM DEGREE OF ACCURACY:
Submeter
PROVEN SOURCE OF ELEVATION:
WVDOT, Harrisville, WV



DATE: August 30 20 21
OPERATOR'S WELL NO. Tygart 1H
API WELL NO
47 - 095 - 02721
STATE COUNTY PERMIT

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DISTRICT: Ellsworth COUNTY: Tyler Bottom Hole:Paden City
SURFACE OWNER: Patricia Ann Heintzman Kay Christen; Victor Herbert Boyd, II; Sherry Lynn Cheffren; Sybil Mae Gorby;
ROYALTY OWNER: Patricia Ann Heintzman (2); John E. Roberts; Norma Smith; Michael Scott Mercer, et ux; Elizabeth B. Troesch; BRC Appalachian Minerals I, LLC (2); Richard A. Mercer; ACREAGE: 78.24
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