

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

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Office Of Oil and Gas

APR 30 2024

API 47-085-10483 County Ritchie District Clay WV Department of Environmental Protection
Quad Pennsboro 7.5' Pad Name Jackson Pad Field/Pool Name -----
Farm name Daniel R. Christian Well Number Hazelbaker 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 4348874m Easting 501426m
Landing Point of Curve Northing 4347969.03m Easting 501445.20m
Bottom Hole Northing 4346284m Easting 502031m

Elevation (ft) 1035' 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 5/30/2023 Date drilling commenced 6/7/2023 Date drilling ceased 7/23/2023
Date completion activities began 11/28/2023 Date completion activities ceased 2/13/2024
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 101, 192' Open mine(s) (Y/N) depths No
Salt water depth(s) ft 1703' Void(s) encountered (Y/N) depths No
Coal depth(s) ft 665' Cavern(s) encountered (Y/N) depths No
Is coal being mined in area (Y/N) No

APPROVED

Reviewed by: J.N.

06/14/2024

API 47-085 - 10483 Farm name Daniel R. Christian Well number Hazelbaker 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"	130'	New	94#, H-40	N/A	Y
Surface	17-1/2"	13-3/8"	379'	New	54.5#, J-55	N/A	Y
Coal							
Intermediate 1	12-1/4"	9-5/8"	3378'	New	36#, J-55	N/A	Y
Intermediate 2							
Intermediate 3							
Production	8-3/4"/8-1/2"	5-1/2"	13264'	New	20#, P-100	N/A	Y
Tubing		2-3/8"	6626'		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	254 sx	15.6	1.18	300	0'	8 Hrs.
Surface	Class C	330 sx	15.8	1.16	383	0'	8 Hrs.
Coal							
Intermediate 1	Class C	1214 sx	15.8	1.16	1408	0'	8 Hrs.
Intermediate 2							
Intermediate 3							
Production	Class H	(Lead) sx (Tail)	13.5 (Lead), 15.2(Tail)	1.25 (Tail)		~500' into Intermediate Casing	8 Hrs.
Tubing							

Drillers TD (ft) 13264' MD, 6334' TVD (BHL), 6339' (Deepest Point Drilled) Loggers TD (ft) 13264' MD
 Deepest formation penetrated Marcellus Plug back to (ft) N/A
 Plug back procedure N/A

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Kick off depth (ft) 6125'

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Check all wireline logs run caliper density deviated/directional induction neutron resistivity gamma ray temperature sonic

WV Department of Environmental Protection

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

06/14/2024

API 47- 085 - 10483 Farm name Daniel R. Christian Well number Hazelbaker Unit 1H

PRODUCING FORMATION(S)	DEPTHS		
	6264' (TOP)	TVD	6917' (TOP) MD
Marcellus			

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Please insert additional pages as applicable.

GAS TEST Build up Drawdown Open Flow OIL TEST Flow Pump

SHUT-IN PRESSURE Surface 1925 psi Bottom Hole --- psi DURATION OF TEST --- hrs

OPEN FLOW Gas 12318 mcfpd Oil 190 bpd NGL --- bpd Water 517 bpd GAS MEASURED BY Estimated Orifice Pilot

LITHOLOGY/ FORMATION	TOP		BOTTOM		DESCRIBE ROCK TYPE AND RECORD QUANTITY AND TYPE OF FLUID (FRESHWATER, BRINE, OIL, GAS, H ₂ S, ETC)
	DEPTH IN FT	DEPTH IN FT	DEPTH IN FT	DEPTH IN FT	
	NAME TVD	TVD	MD	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
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 4/10/2024

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

06/14/2024

LATITUDE 39°17'30"

7,161'

LATITUDE 39°17'30"

5,180' TO BOTTOM HOLE

917'

9,417' TO BOTTOM HOLE

LONGITUDE 80°57'30"

LONGITUDE 80°57'30"

Antero Resources Corporation Well No. Hazelbaker Unit 1H

Pensboro Corporation	
03-1.1	Daniel R. Christian
03-11	Michael Sedesse Jr.
03-12	Alfred Rodriguez
03-13	James Richards
03-20	Ezara Holdings LLC
03-21	Ezara Holdings LLC
03-23.1	Larry Gregory
03-31	Melissa Carmichael
03-33	Generation Holdings LLC
03-33.1	Brian Bartlett
03-33.2	CM Properties Pensboro LLC
03-44	Robert Wright Jr. et al
03-45	Alfred Rodriguez
6-01	Russell Lanham
11-04	Summit Community Bank Inc.
09-05	Ritchie County Fairgrounds Inc.
09-06	Carl Short
09-6.1	Ritchie County Fairgrounds Inc.
09-12	Louanna Merritt
09-14	Mount Harmony Cemetery Assoc.
09-15	Mount Harmony Cemetery Co.
09-17	John Meyer III
12-01	Timothy Shultz et al
12-03	Frank Butler et al
16-02	Larry Horner Jr.
Clay District	
19-31	Joshua Hilvers
19-41	Joseph Davis
19-41.1	Edgar Davis Jr.
19-41.2	Joseph Davis
19-41.3	Edgar Davis Jr.
19-44	Daniel R. Christian
19-44.1	Daniel R. Christian
19-44.2	Daniel R. Christian
25-04	Donald McCullough
25-4.1	Donald McCullough
25-11	Alfred Rodriguez
25-11.1	Alfred Rodriguez
25-29	Archie Carpenter
25-30	Stonewall Property Holdings LLC
25-32.1	Stonewall Property Holdings LLC
25-45.2	Dennis Markwith
25-46	Stonewall Property Holdings LLC
30-4.1	Stonewall Property Holdings LLC

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.
3. AS DRILLED DATA WAS PROVIDED BY ANTERO RESOURCES CORPORATION.
4. 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 WITH THE DATA AND INFORMATION THAT HAS BEEN PROVIDED.

AS DRILLED DATA:

WELL 1H TOP HOLE INFORMATION:
 N: 290,892ft E: 1,580,088ft
 LAT: 39°17'20.94" LON: 80°59'01.09"

BOTTOM HOLE INFORMATION:
 N: 282,360ft E: 1,581,932ft
 LAT: 39°15'56.93" LON: 80°58'35.86"

WEST VIRGINIA COORDINATE SYSTEM OF 1927 NORTH ZONE. ZONE WAS DERIVED FROM MEASUREMENTS TAKEN WITH TRIMBLE GEOXT SUBMETER MAPPING GRADE GPS UNIT. PLAT ORIENTATION, CORNER, AND WELL REFERENCE TIE LINES ARE BASED ON GRID NORTH.

(NAD) 83 (UTM) ZONE 17 COORDS:

WELL 1H TOP HOLE INFORMATION:
 N: 4,348,874m E: 501,426m

BOTTOM HOLE INFORMATION:
 N: 4,346,284m E: 502,031m

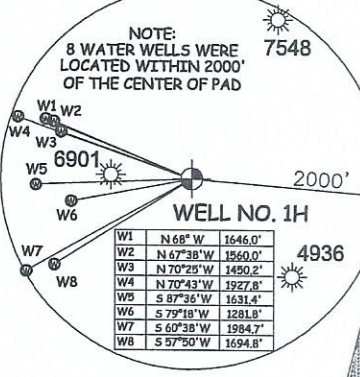
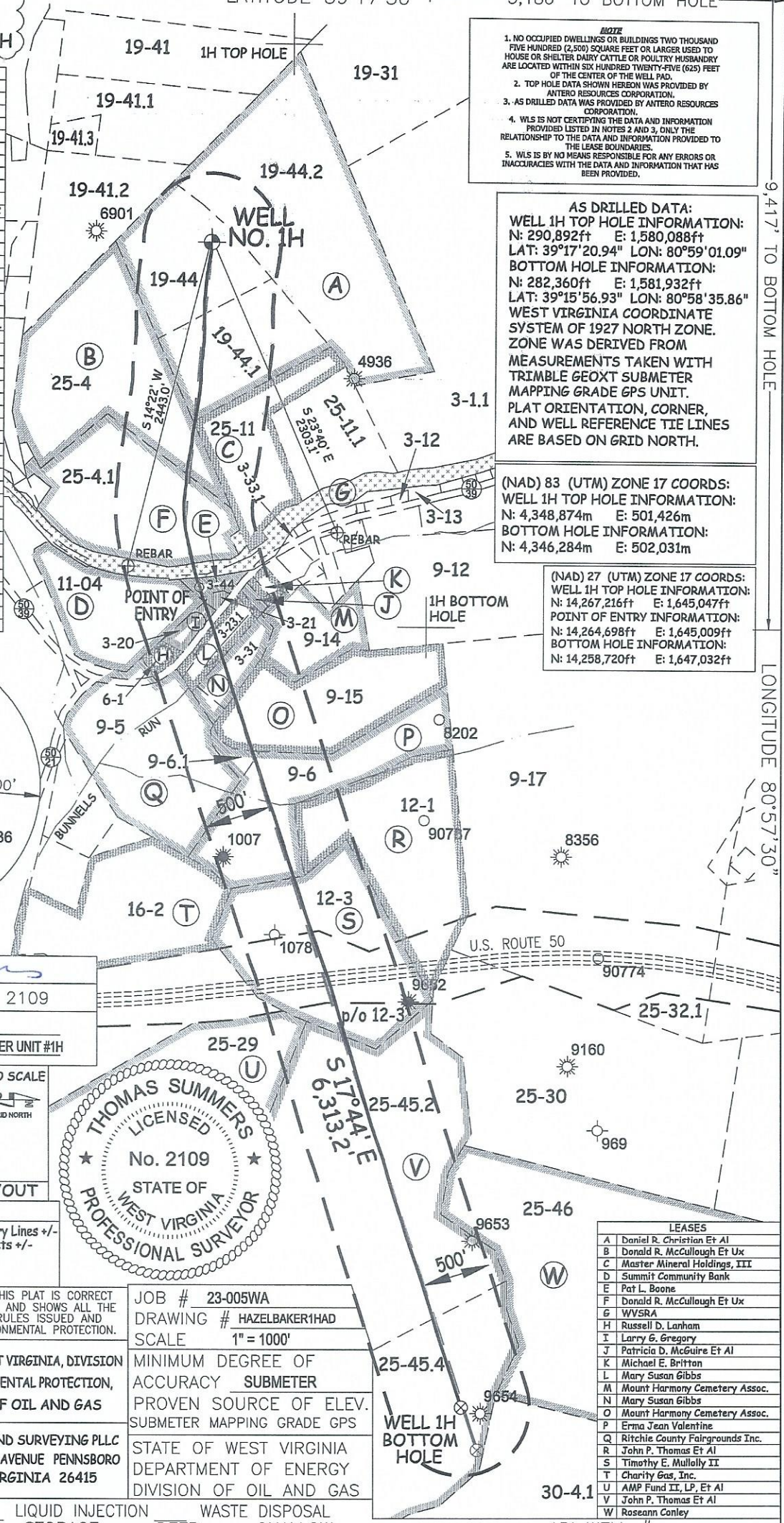
(NAD) 27 (UTM) ZONE 17 COORDS:

WELL 1H TOP HOLE INFORMATION:
 N: 14,267,216ft E: 1,645,047ft

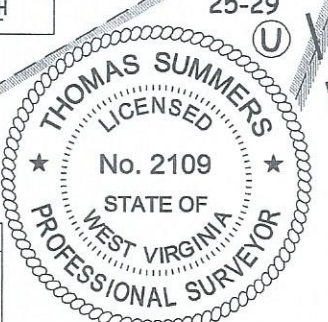
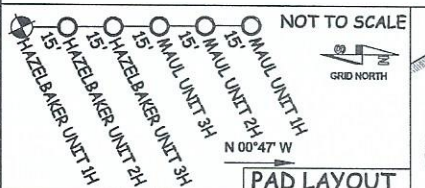
POINT OF ENTRY INFORMATION:
 N: 14,264,698ft E: 1,645,009ft

BOTTOM HOLE INFORMATION:
 N: 14,258,720ft E: 1,647,032ft

WV NORTH ZONE GRID NORTH



Thomas Summers
 THOMAS SUMMERS P.S. 2109
 DATE 04/12/24
 OPERATOR'S WELL# HAZELBAKER UNIT #1H



LEASES

A	Daniel R. Christian Et Al
B	Donald R. McCullough Et Ux
C	Master Mineral Holdings, III
D	Summit Community Bank
E	Pat L. Boone
F	Donald R. McCullough Et Ux
G	WVSR
H	Russell D. Lanham
I	Larry G. Gregory
J	Patricia D. McGuire Et Al
K	Michael E. Britton
L	Mary Susan Gibbs
M	Mount Harmony Cemetery Assoc.
N	Mary Susan Gibbs
O	Mount Harmony Cemetery Assoc.
P	Erma Jean Valentine
Q	Ritchie County Fairgrounds Inc.
R	John P. Thomas Et Al
S	Timothy E. Mullally II
T	Charity Gas, Inc.
U	AMP Fund II, LP, Et Al
V	John P. Thomas Et Al
W	Roseann Conley

I, THE UNDERSIGNED, HEREBY CERTIFY THAT THIS PLAN 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 AVENUE PENNSBORO WEST VIRGINIA 26415

JOB # 23-005WA
 DRAWING # HAZELBAKER1HAD
 SCALE 1" = 1000'

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 API WELL # 47-085-08114/2024
 LOCATION: ELEVATION 1,035' AS BUILT WATERSHED NORTH FORK HUGHES RIVER DISTRICT CLAY COUNTY RITCHIE STATE COUNTY PERMIT
 QUADRANGLE PENNSBORO 7.5' SURFACE OWNER DANIEL R. CHRISTIAN ACREAGE 17.36 ACRES +/- LEASE ACREAGE 76.11 AC±
 OIL & GAS ROYALTY OWNER DANIEL R. CHRISTIAN ET UX

PROPOSED WORK: DRILL CONVERT DRILL DEEPER REDRILL FRACTURE OR STIMULATE
 PLUG OFF OLD FORMATION PERFORATE NEW FORMATION OTHER PHYSICAL CHANGE IN WELL
 (SPECIFY) AS DRILLED PLUG & ABANDON CLEAN OUT & REPLUG
 TARGET FORMATION MARCELLUS ESTIMATED DEPTH 6,334' TVD 13,264' MD
 WELL OPERATOR ANTERO RESOURCES CORPORATION DESIGNATED AGENT KEVIN ELLIS
 ADDRESS 1615 WYNKOOP STREET ADDRESS 554 WHITE OAKS BLVD
 FORM WW-6 DENVER, CO 80202 BRIDGEPORT, WV 26330

API 47-085-10483 Farm Name Daniel R. Christian Well Number Hazelbaker Unit 1H

Exhibit 1

Stage No.	Perforation Date	Perforated from MD ft.	Perforated to MD ft.	Number of Perforations	Formations
1	11/28/2023	13136	13091	36	Marcellus
2	11/28/2023	13053.10215	12890.6129	36	Marcellus
3	11/28/2023	12855.71505	12693.2258	36	Marcellus
4	11/29/2023	12658.32796	12495.8387	36	Marcellus
5	11/29/2023	12460.94086	12298.4516	36	Marcellus
6	11/29/2023	12263.55376	12101.0645	36	Marcellus
7	11/30/2023	12066.16667	11903.6774	36	Marcellus
8	11/30/2023	11868.77957	11706.2903	36	Marcellus
9	11/30/2023	11671.39247	11508.9032	36	Marcellus
10	11/30/2023	11474.00538	11311.5161	36	Marcellus
11	12/1/2023	11276.61828	11114.129	36	Marcellus
12	12/1/2023	11079.23118	10916.7419	36	Marcellus
13	12/1/2023	10881.84409	10719.3548	36	Marcellus
14	12/2/2023	10684.45699	10521.9677	36	Marcellus
15	12/2/2023	10487.06989	10324.5806	36	Marcellus
16	12/2/2023	10289.6828	10127.1935	36	Marcellus
17	12/3/2023	10092.2957	9929.80645	36	Marcellus
18	12/4/2023	9894.908602	9732.41935	36	Marcellus
19	12/4/2023	9697.521505	9535.03226	36	Marcellus
20	12/4/2023	9500.134409	9337.64516	36	Marcellus
21	12/5/2023	9302.747312	9140.25806	36	Marcellus
22	12/5/2023	9105.360215	8942.87097	36	Marcellus
23	12/5/2023	8907.973118	8745.48387	36	Marcellus
24	12/6/2023	8710.586022	8548.09677	36	Marcellus
25	12/6/2023	8513.198925	8350.70968	36	Marcellus
26	12/6/2023	8315.811828	8153.32258	36	Marcellus
27	12/6/2023	8118.424731	7955.93548	36	Marcellus
28	12/7/2023	7921.037634	7758.54839	36	Marcellus
29	12/7/2023	7723.650538	7561.16129	36	Marcellus
30	12/7/2023	7526.263441	7363.77419	36	Marcellus
31	12/7/2023	7328.876344	7166.3871	36	Marcellus
32	12/8/2023	7131.489247	6969	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	11/28/2023	77.0	9008.848	10447.2	3928.9	171520	4538.4	N/A
2	11/28/2023	92.6	8691.861	5257.53	3766.4	410800	7287.1	N/A
3	11/28/2023	93.1	9045.666	4967.71	3098.8	411020	6998.8	N/A
4	11/29/2023	95.6	9314.923	5385.97	3432.4	416740	6727.1	N/A
5	11/29/2023	96.0	9691.023	5281.7	3263.2	415660	6760.2	N/A
6	11/29/2023	96.7	9358.074	4908.1	2912.4	419360	6654.6	N/A
7	11/30/2023	94.6	8853.992	5088.56	3017.9	398160	7196.6	N/A
8	11/30/2023	94.8	8741.453	5022.81	3273.1	418820	6872.3	N/A
9	11/30/2023	95.8	8811.139	5055.55	3397.5	422180	7140.7	N/A
10	11/30/2023	96.1	8473.432	5199.91	3445.3	418180	7105.4	N/A
11	12/1/2023	77.1	9435.578	5174.53	3006.0	413680	8961.0	N/A
12	12/1/2023	95.3	8194.036	5315.34	3818.6	421620	7594.9	N/A
13	12/1/2023	95.9	8215.834	5093.79	3643.3	418740	7101.1	N/A
14	12/2/2023	96.2	8278.782	4954.49	3440.8	407720	6900.1	N/A
15	12/2/2023	95.0	7974.639	5174.36	3596.0	419220	6972.1	N/A
16	12/2/2023	95.4	8006.002	5391.81	3420.8	414960	7015.0	N/A
17	12/3/2023	95.0	8382.841	5573.79	3309.8	420800	7229.8	N/A
18	12/4/2023	95.7	8287.392	5831.56	3007.0	416440	7155.8	N/A
19	12/4/2023	95.0	8558.856	5537.93	3317.1	418520	7030.8	N/A
20	12/4/2023	95.8	8228.801	4926.02	4783.3	414340	6847.5	N/A
21	12/5/2023	96.4	8055.64	5136.78	4127.1	411240	6928.4	N/A
22	12/5/2023	95.5	7978.168	5252.53	3580.8	418480	7154.4	N/A
23	12/5/2023	97.0	8041.41	5025.99	3589.0	409780	6881.6	N/A
24	12/6/2023	94.9	8232.103	5288.02	3054.2	420060	6895.3	N/A
25	12/6/2023	96.3	8073.94	5551.89	3256.3	415100	6820.7	N/A
26	12/6/2023	96.1	7765.072	5196.61	3118.5	418900	6851.0	N/A
27	12/6/2023	97.0	7824.939	5259.23	3137.3	416040	6386.9	N/A
28	12/7/2023	97.0	7654.941	5491.32	3328.0	416660	6430.0	N/A
29	12/7/2023	95.6	7411.866	5222.59	3390.0	415540	6507.5	N/A
30	12/7/2023	96.0	7425.044	5700.59	3255.6	413600	6293.0	N/A
31	12/7/2023	96.1	7433.205	6139.45	3409.8	412300	6295.6	N/A
32	12/8/2023	96.9	7546.294	5170.86	3506.1	413420	6456.5	N/A
	AVERAGE	94	8,344	5,438	3,426	13,049,600	219,991	TOTAL

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EXHIBIT 3

LITHOLOGY/ FORMATION	TOP DEPTH (TVD)	BOTTOM DEPTH (TVD)	TOP DEPTH (MD)	BOTTOM DEPTH (MD)
	From Surface	From Surface	From Surface	From Surface
Sandstone	120	200	120	200
Shale	200	340	200	340
Siltstone/ Shale	340	380	340	380
Trace Coal	380	640	380	640
Siltstone	640	610	640	610
Shaly Siltstone	610	760	610	760
Shale/ Limestone	760	800	760	800
Siltstone	800	980	800	980
Shale/ limestone	980	1,240	980	1,240
Siltstone/ shale	1,240	1,340	1,240	1,340
Sandstone	1,340	1,560	1,340	1,560
Sandstone	1,560	1,890	1,560	1,976
Big Lime	1,920	2,753	1,976	2,899
Fifty Foot Sandstone	2,753	2,908	2,869	3,063
Gordon	2,908	3,223	3,033	3,396
Fifth Sandstone	3,223	3,270	3,366	3,447
Bayard	3,270	3,821	3,417	4,057
Speechley	3,821	4,039	4,027	4,295
Balltown	4,039	4,464	4,265	4,748
Bradford	4,464	4,869	4,718	5,185
Benson	4,869	5,148	5,155	5,486
Alexander	5,148	6,152	5,456	6,615
Sycamore	6,029	6,122	6,452	6,585
Middlesex	6,122	6,227	6,585	6,794
Burkett	6,227	6,251	6,794	6,867
Tully	6,251	6,264	6,867	6,917
Marcellus	6,264	NA	6,917	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.

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Hydraulic Fracturing Fluid Product Component Information Disclosure

Job Start Date:	11/27/2023
Job End Date:	12/08/2023
State:	West Virginia
County:	Ritchie
API Number:	47-085-10483-00-00
Operator Name:	Antero Resources Corporation
Well Name and Number:	HAZELBAKER UNIT 1H
Latitude:	39.2892
Longitude:	-80.9834
Datum:	WGS84
Federal Well:	NO
Indian Well:	NO
True Vertical Depth:	6339
Total Base Water Volume (gal)*:	9507357.5
Total Base Non Water Volume:	0



Water Source	Percent
Produced Water	100.00%

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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
FDP-S1464-22	Halliburton	Friction Reducer					
HAI-501	Halliburton	Acid Corrosion Inhibitor					
HYDROCHLORIC ACID, 22 BAUME	Halliburton	Solvent					
MC B-8614A	MultiChem	Biocide					
OPTIFLO-II DELAYED RELEASE BREAKER	Halliburton	Breaker					
Produced Water (Density 10.0)	Operator	Base Fluid					
Sand-Common White-100 Mesh, SSA-2	Halliburton	Proppant					
WG-36 GELLING AGENT	Halliburton	Gelling Agent					

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Items above are Trade Names. Items below are the individual ingredients.

06/14/2024

			Water	7732-18-5	100.00000	87.76956	None
			Crystalline silica, quartz	14808-60-7	100.00000	12.04709	None
			Water	7732-18-5	100.00000	0.15864	None
			Hydrochloric acid	7647-01-0	30.00000	0.03865	None
			Complex amine compound	Proprietary	60.00000	0.02254	None
			Hydrotreated distillate	Proprietary	30.00000	0.01127	None
			Guar gum	9000-30-0	100.00000	0.00924	None
			Glutaraldehyde	111-30-8	30.00000	0.00218	None
			Ammonium chloride	12125-02-9	5.00000	0.00188	None
			Ethoxylated alcohol	Proprietary	5.00000	0.00188	None
			Fatty nitrogen derived amides	Proprietary	5.00000	0.00188	None
			Sorbitan, mono-9-octadecenoate, (Z)	1338-43-8	1.00000	0.00038	None
			Sorbitan monooleate polyoxyethylene derivative	9005-65-6	1.00000	0.00038	None
			Alkyl (C12-16) dimethylbenzyl ammonium chloride	68424-85-1	5.00000	0.00036	None
			Methanol	67-56-1	100.00000	0.00024	None
			Ammonium persulfate	7727-54-0	100.00000	0.00022	None
			Ethanol	64-17-5	1.00000	0.00007	None
			Mixture of dimer and trimer fatty acids of indefinite composition derived from tall oil	61790-12-3	30.00000	0.00007	None
			Modified thiourea polymer	Proprietary	30.00000	0.00007	None
			Oxylated phenolic resin	Proprietary	30.00000	0.00007	None
			Propargyl alcohol	107-19-7	5.00000	0.00001	None
			Hexadecene	629-73-2	5.00000	0.00001	None
			Ethoxylated alcohols	Proprietary	5.00000	0.00001	None
			C.I. pigment Orange 5	3468-63-1	1.00000	0.00000	None

* 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.

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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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