



west virginia department of environmental protection

Office of Oil and Gas
601 57th Street, S.E.
Charleston, WV 25304
(304) 926-0450
fax: (304) 926-0452

Harold D. Ward, Cabinet Secretary
www.dep.wv.gov

Thursday, November 2, 2023
PERMIT MODIFICATION APPROVAL
Horizontal 6A / New Drill

ANTERO RESOURCES CORPORATION
1615 WYNKOOP STREET

DENVER, CO 80202

Re: Permit Modification Approval for PRESLEY UNIT 1H
47-095-02869-00-00

EXTENDED LATERAL LENGTH

ANTERO RESOURCES CORPORATION

The Office of Oil and Gas has reviewed the attached permit modification for the above referenced permit. The attached modification has been approved and well work may begin. Please be reminded that the oil and gas inspector is to be notified twenty-four (24) hours before permitted well work is commenced.

If there are any questions, please feel free to contact me at (304) 926- 0450.

James A. Martin
Chief

Operator's Well Number: PRESLEY UNIT 1H
Farm Name: HAROLD S & CALANTHA A YOST
U.S. WELL NUMBER: 47-095-02869-00-00
Horizontal 6A New Drill
Date Modification Issued: 11/2/2023

Promoting a healthy environment.

11/03/2023

STATE OF WEST VIRGINIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION, OFFICE OF OIL AND GAS
WELL WORK PERMIT APPLICATION

1) Well Operator: Antero Resources Corporation 494507062 095- Tyler Ellsworth Porters Falls 7.5'
Operator ID County District Quadrangle

2) Operator's Well Number: Presley Unit 1H MOD Well Pad Name: Big Run Pad

3) Farm Name/Surface Owner: Harold S. & Calantha A. Yost Public Road Access: Wetzel Tyler Ridge Road

4) Elevation, current ground: 1250' - AS BUILT Elevation, proposed post-construction: _____

5) Well Type (a) Gas Oil _____ Underground Storage _____

Other _____

(b) If Gas Shallow Deep _____

Horizontal _____

6) Existing Pad: Yes or No Yes

7) Proposed Target Formation(s), Depth(s), Anticipated Thickness and Expected Pressure(s):
Marcellus Shale: 7310' TVD, Anticipated Thickness- 55 feet, Associated Pressure- 2850#

8) Proposed Total Vertical Depth: 7310' TVD

9) Formation at Total Vertical Depth: Marcellus

10) Proposed Total Measured Depth: 29710' MD

11) Proposed Horizontal Leg Length: 20610'

12) Approximate Fresh Water Strata Depths: 31'

13) Method to Determine Fresh Water Depths: 47095027130000 Offset well records

14) Approximate Saltwater Depths: 2311'


15) Approximate Coal Seam Depths: None Anticipated

16) Approximate Depth to Possible Void (coal mine, karst, other): None Anticipated

17) Does Proposed well location contain coal seams directly overlying or adjacent to an active mine? Yes _____ No

(a) If Yes, provide Mine Info: Name: _____
Depth: _____
Seam: _____
Owner: _____

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18)

CASING AND TUBING PROGRAM

TYPE	Size (in)	New or Used	Grade	Weight per ft. (lb/ft)	FOOTAGE: For Drilling (ft)	INTERVALS: Left in Well (ft)	CEMENT: Fill-up (Cu. Ft.)/CTS
Conductor	20"	New	J-55	94#	100'	100'	CTS, 96 Cu. Ft.
Fresh Water	13-3/8"	New	J-55	54.5#	300'	300'	CTS, 313 Cu. Ft.
Coal	9-5/8"	New	J-55	36#	3350'	3350'	CTS, 1364 Cu. Ft.
Intermediate							
Production	5-1/2"	New	P-110 ICY	23#	29710'	29710'	CTS, 6559 Cu. Ft.
Tubing	2-3/8"	New	N-80	4.7#			
Liners							

TYPE	Size (in)	Wellbore Diameter (in)	Wall Thickness (in)	Burst Pressure (psi)	Anticipated Max. Internal Pressure (psi)	Cement Type	Cement Yield (cu. ft./k)
Conductor	20"	24"	0.375"	2250	50	Class A/L	~1.18
Fresh Water	13-3/8"	17-1/2"	0.38"	2730	1000	Class A/L	~1.18
Coal	9-5/8"	12-1/4"	0.352"	3520	1500	Class A/L	~1.18
Intermediate							
Production	5-1/2"	8-3/4" & 8-1/2"	0.415"	14,360	2500	Class G/H	~1.8
Tubing	2-3/8"	4.778"	0.19"	11,200			
Liners							

PACKERS

Kind:	N/A			
Sizes:	N/A			
Depths Set:	N/A			

DMG
 11/03/2023
 10-17-23

19) Describe proposed well work, including the drilling and plugging back of any pilot hole:

Drill a new horizontal shallow well into the Marcellus Shale.

*Antero will be air drilling the fresh water string which makes it difficult to determine when fresh water is encountered. Therefore, we have built in a buffer for the casing setting depth which helps to ensure that all fresh water zones are covered.

20) Describe fracturing/stimulating methods in detail, including anticipated max pressure and max rate:

Antero plans to pump Slickwater into the Marcellus Shale formation in order to ready the well for production. The fluid will be comprised of approximately 99 percent water and sand, with less than 1 percent special-purpose additives as shown in the attached "List of Anticipated Additives Used for Fracturing or Stimulating Well."

Anticipated Max Pressure - 9300 lbs
Anticipated Max Rate - 80 bpm

21) Total Area to be disturbed, including roads, stockpile area, pits, etc., (acres): 15.91 acres

22) Area to be disturbed for well pad only, less access road (acres): 9.35 acres

23) Describe centralizer placement for each casing string:

Conductor: no centralizers

Surface Casing: one centralizer 10' above the float shoe, one on the insert float collar and one every 4th joint spaced up the hole to surface.

Intermediate Casing: one centralizer above float joint, one centralizer 5' above float collar and one every 4th collar to surface.

Production Casing: one centralizer at shoe joint and one every 3 joints to top of cement in intermediate casing.

24) Describe all cement additives associated with each cement type:

Conductor: no additives, Class A/L cement.

Surface: Class A/L cement with 2-3% calcium chloride and 1/4 lb of flake

Intermediate: Class A/L cement with 1/4 lb of flake, 5 gallons of clay treat

Production: Lead cement- 50/50 Class H/Poz + 1.5% salt + 1% C-45 + 0.5% C-16a + 0.2% C-12 + 0.45% C-20 + 0.05% C-51

Production: Tail cement- Class G/H + 45 PPS Calcium Carbonate + 1.0% FL-160 + 0.2% ACGB-47 + 0.05% ACSA-51 + 0.2% ACR-20

25) Proposed borehole conditioning procedures:

Conductor: blowhole clean with air, run casing, 10 bbls fresh water.

Surface: blowhole clean with air, trip to conductor shoe, trip to bottom, blowhole clean with air, trip out, run casing, circulate pipe capacity + 40 bbls fresh water followed by 25 bbls bentonite mud, 10 bbls fresh water spacer.

Intermediate: blowhole clean with air, trip to surface casing shoe, trip to bottom, blowhole clean with air, trip out, run casing, circulate 40 bbls brine water followed by 10 bbls fresh water and 25 bbls bentonite mud, pump 10 bbls fresh water.

Production: circulate with 14 lb/gal NaCl mud, trip to middle of lateral, circulate, pump high viscosity sweep, trip to base of curve, pump high viscosity sweep, trip to top of curve, trip to bottom, circulate, pump high viscosity sweep, trip out, run casing, circulate 10 bbls fresh water, pump 48 bbls barite pill, pump 10 bbls fresh water followed by 48 bbls mud flush and 10 bbls water.

*Note: Attach additional sheets as needed.

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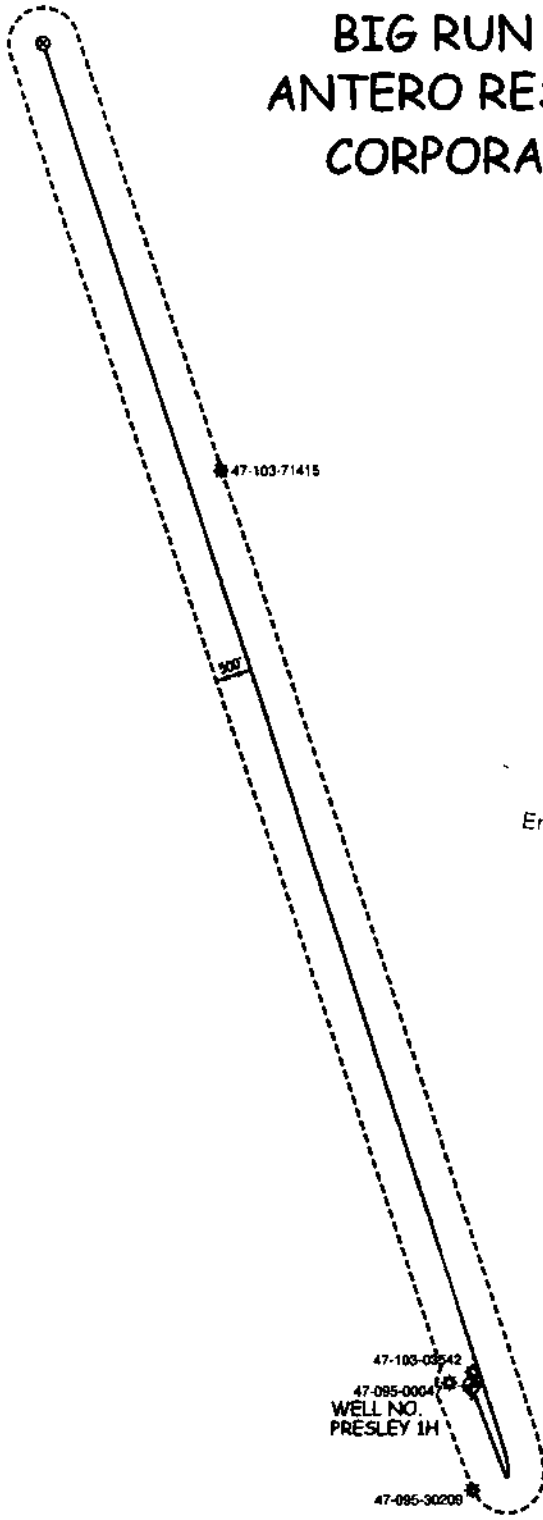
WV Department of
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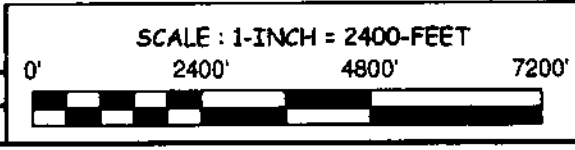
BIG RUN PAD ANTERO RESOURCES CORPORATION



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WV Department of Environmental Protection

WILLOW LAND SURVEYING, PLLC
P.O. BOX 17, PENNSBORO, WV 26415
(304) 659-1717

JOB #: 23-011WA
FILE: PRESLEY1HAOR.DWG



DATE: 08/23/23

DRAWN BY: D.R.R.

11/03/2023

UWI (APINum)	Well Name	Well Number	Operator	Historical Operator	TD	Perforated interval (shallowest, deepest)	Perforated Formation(s)	Producible Formation(s) not per'd
47095302090000	C E HELSLEY	1	UNKNOWN	UNKNOWN				
47095000470000	WILEY MIDCAP	1	UNKNOWN	UNKNOWN	3,027			Keener
47103035420000	BIG RUN UNIT	5V	ANTERO RESOURCES CORP	ANTERO RESOURCES CORP				
47103714150000	T J J SNODGRASS	1	MCCORMICK O&G CORP	MCCORMICK O&G CORP	2,957		Gordon	Benson, Alexander

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LATITUDE 39°35'00"

7,690'

LATITUDE 39°37'30"

2,091' TO BOTTOM HOLE

Antero Resources Corporation Well No. Presley #1H

NOTE
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.

5 WATER WELLS WERE LOCATED WITHIN 2000' OF THE CENTER OF PAD

3542 WELL NO. 1H



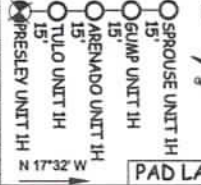
NOTES:

WELL 1H TOP HOLE INFORMATION:
N: 386,894ft E: 1,628,118ft
LAT: 39°33'17.12" LON: 80°49'08.19"
BOTTOM HOLE INFORMATION:
N: 405,733ft E: 1,621,198ft
LAT: 39°36'22.44" LON: 80°50'27.35"
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.

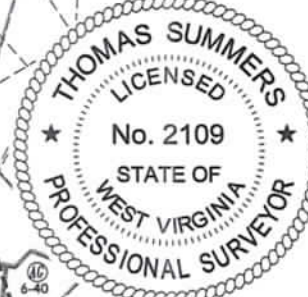
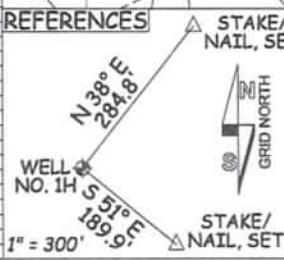
(NAD) 83 (UTM) ZONE 17 COORDS:
WELL 1H TOP HOLE INFORMATION:
N: 4,378,366m E: 515,570m
BOTTOM HOLE INFORMATION:
N: 4,384,075m E: 513,671m

(NAD) 27 (UTM) ZONE 17 COORDS:
WELL 1H TOP HOLE INFORMATION:
N: 14,363,974ft E: 1,691,452ft
POINT OF ENTRY INFORMATION:
N: 14,363,211ft E: 1,691,888ft
BOTTOM HOLE INFORMATION:
N: 14,382,705ft E: 1,685,220ft

Magnolia District - Wetzel County	
12-125	Barbara McAdams
12-128	Jacob Morgan
12-134	M B Investments
12-136	Jacob Morgan
Green District - Wetzel County	
1-30.4	Keith Ritz
6-01	Mark Loy
6-11	M B Investments
6-03	Daniel Witschey
6-04	Daniel Witschey
6-05	Charles White
6-06	M B Investments
6-08	Brian Thomas
6-8.6	David Thomas
6-10	Christel Steele
6-10.1	John Steele
6-10.2	Sven Rabel
6-11	William Brookover
6-12	Michael Whiteman
6-15	Michael Hurley
6-17	Michael Hurley
6-18	Brian Thomas
6-20	Anthony Thomas
6-20.1	William Thomas
6-21	Brian Thomas
6-22	Brian Thomas
6-24	Michael Whiteman
6-25	Michael Whiteman
6-27	Michael Whiteman
6-30	Michael Whiteman
6-31	Michael Whiteman
6-32	Benjamin McPherson
6-33	M B Investments
6-34	William Brookover
6-35	Elsie Taylor
6-36	Timothy Thompson
6-37	Timothy Thompson
6-38	Timothy Thompson
6-39	Amanda McPherson
6-40	Debbie Thomas
6-41	Timothy Thompson
6-50	Mary Wable
6-51	Brian Thomas
6-53	Christina Thomas
11-11	Schrumman Family Inv. LLC
11-12	Keith Pyles
11-27	Raymond Young
11-28	Raymond Young
11-30	Gregory Fisharty
11-33	Raymond Young
11-34	Zachary Thomas
11-35	Timothy Lancaster
11-41	Charles Gump
11-42	Benjamin McPherson
11-43	Melissa White
11-44	Inez Buck



Ellsworth District - Tyler County	
1-04	Daniel Witschey
1-05	Daniel Witschey
1-5.1	Mark Loy
1-5.2	Mark Loy
1-5.3	Mark Loy
3-07	Joyce Morris
3-7.1	John Brosky
3-7.2	Jeffrey Shade
3-16	JCW Inc.
3-17	Witschey Realty Inc.
3-17.1	Angel Hines
3-23.1	Daniel Miller
3-31	Robert McNamee
3-31.1	Danny Tanley
4-01	Debra Lay
4-1.1	Melissa White
4-02	Delbert Neely
4-2.1	Helen Earley
4-03	Cary Wilson
4-04	Gary Law
4-05	Roy Litton
4-06	Douglas Marksch
4-07	Roger Antill
4-08	Paul Strickland
4-09	Gary Law
4-10	Douglas Marksch
4-11	David Staab
4-11.1	Truman Dawson
4-12	Nancy Mercer
7-02	Nancy Mercer
7-03	Myron Nottingham
7-04	Charles Gump
7-4.1	Terry Gump
7-05	Antero Resources
7-06	Harold Yost
7-07	Charles Gump
7-18	Lucille Galley
7-18.4	Myron Nottingham
7-19	Albert Rice
7-20	Wash Beatty
7-21	Blady Conley
7-22	Charles Gump
7-22.1	Charles Gump
7-23	Harold Yost



I, THE UNDERSIGNED, HEREBY CERTIFY THAT THIS PLAT IS CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF AND SHOWS ALL THE INFORMATION REQUIRED BY LAW AND THE RULES ISSUED AND PERSCRIBED BY THE DEPARTMENT OF ENVIRONMENTAL PROTECTION.



STATE OF WEST VIRGINIA, DIVISION OF ENVIRONMENTAL PROTECTION, OFFICE OF OIL AND GAS
WILLOW LAND SURVEYING PLLC
220 MASONIC AVE. PENNSBORO WEST VIRGINIA 26415

JOB # 21-011WA
DRAWING # PRESLEY1H
SCALE 1" = 2000'
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

LEGEND		
---	Surface Owner Boundary Lines +/-	Adjoining Surface Tracts +/-
⊕	Found monument, as noted	
THOMAS SUMMERS P.S. 2109		
DATE 10/02/23		
OPERATOR'S WELL# PRESLEY UNIT #1H		
47	095	02869
STATE	COUNTY	PERMIT

A	M B INVESTMENTS
B	ACROPOLIS, INC.
C	PENNIE RAY REBER
D	DRAY L. THOMAS & TRACY L. THOMAS
E	DAVID A. THOMAS ET UX
F	KUCKER RAY WHITE
G	COUNTY MINERALS, LLC
H	CERSAPRARE APPALACHIA, LLC
I	COUNTY MINERALS, LLC
J	CERSAPRARE APPALACHIA, LLC
K	CERSAPRARE APPALACHIA, LLC
L	NICHOLAS SCOTT WHITEMAN
M	MARY E. MIDCAP & THOMAS THOMPSON
N	FIVE STAR RESOURCES
O	SPRING CREEK ENERGY PARTNERS
P	ROY LEE LITTON II
Q	TYNC, LLC
R	ARMANIAN C. GAYTHORP ET UX
S	DAVID Z. STAAB
T	TINA M. SNYDER
U	THOMAS W. LINS ET UX
V	PINKY HOLDINGS, INC.
W	TIMOTHY L. BANCHESTER
X	CHARLES E. GUMP & MARTHA A. GUMP
Y	CHARLES E. GUMP ET UX
Z	BLACKROCK ENTERPRISES, LLC
AA	IBC APPALACHIAN MINERALS
AB	MARY E. MIDCAP
AC	HAROLD S. YOST ET UX
AD	RYA CREEK TAYLOR
AE	MICHAEL SCOTT WHITEMAN
AF	MICHAEL SCOTT WHITEMAN
AG	INER W. BUCK
AH	FIVE STAR RESOURCES
AI	COUNTY MINERALS, LLC
AJ	IFPDR

WELL TYPE: OIL ___ GAS LIQUID INJECTION ___ WASTE DISPOSAL ___
(IF "GAS") PRODUCTION STORAGE ___ DEEP ___ SHALLOW
LOCATION: ELEVATION AS BUILT - 1250.0' WATERSHED OUTLET MIDDLE ISLAND CREEK 11/03/2023
QUADRANGLE PORTER FALLS 7.5' DISTRICT ELLSWORTH COUNTY TYLER
SURFACE OWNER ANTERO RESOURCES CORPORATION ACREAGE 50 ACRES +/-
OIL & GAS ROYALTY OWNER MARY E. MIDCAP LEASE ACREAGE 50 ACRES+
PROPOSED WORK: DRILL ___ CONVERT ___ DRILL DEEPER REDRILL ___ FRACTURE OR STIMULATE
PLUG OFF OLD FORMATION ___ PERFORATE NEW FORMATION OTHER PHYSICAL CHANGE IN WELL (SPECIFY) MOD-BHL ___ PLUG & ABANDON ___ CLEAN OUT & REPLUG ___
TARGET FORMATION MARCELLUS ESTIMATED DEPTH 7,310' TVD 29,710' MD
WELL OPERATOR ANTERO RESOURCES CORP. DESIGNATED AGENT KEVIN ELLIS
ADDRESS 1615 WYNKOOP ST. ADDRESS 535 WHITE OAK BLVD.
DENVER, CO 80202 BRIDGEPORT, WV 26330

INFORMATION SUPPLIED UNDER WEST VIRGINIA CODE
Chapter 22, Article 6A, Section 5(a)(5)
IN LIEU OF FILING LEASE(S) AND OTHER CONTINUING CONTRACT(S)

Under the oath required to make the verification on page 1 of this Notice and Application, I depose and say that I am the person who signed the Notice and Application for the Applicant, and that –

- (1) the tract of land is the same tract described in this Application, partly or wholly depicted in the accompanying plat, and described in the Construction and Reclamation Plan;
- (2) the parties and recordation data (if recorded) for lease(s) or other continuing contract(s) by which the Applicant claims the right to extract, produce or market the oil or gas are as follows:

Grantor, lessor, etc.	Grantee, lessee, etc.	Royalty	Book/Page
<u>AA: Mary E. Midcap Lease</u> Mary E. Midcap	Antero Resources Corporation	1/8+	0555/0175
<u>AB: Harold S. Yost Et Ux Lease</u> Harold S. Yost Et Ux Harrison Energy Services LLC	Harrison Energy Services LLC Antero Resources Corporation	1/8+ Assignment	0569/0426 0584/0437
<u>AA: Mary E. Midcap Lease</u> Mary E. Midcap	Antero Resources Corporation	1/8+	0555/0175
<u>Z: BRC Appalachian Minerals Lease</u> BRC Appalachian Minerals Lease BRC Working Interest Company LLC Chesapeake Appalachia LLC Statoil USA Onshore Properties Inc. EQT Production Company	BRC Working Interest Company LLC Chesapeake Appalachia LLC Statoil USA Onshore Properties Inc. EQT Production Company Antero Resources Corporation	1/8 Assignment Assignment Assignment Assignment	0369/0300 0369/0784 0423/0165 0539/0239 0663/0001
<u>Y: Blackrock Enterprises, LLC Lease</u> Blackrock Enterprises, LLC	Antero Resources Corporation	1/8+	186A/0593
<u>W: Charles E. Gump & Martha A. Gump Lease</u> Charles E. Gump & Martha A. Gump	Antero Resources Corporation	1/8+	216A/0831
<u>X: Charles E. Gump Et Ux Lease</u> Charles E. Gump Et Ux	Antero Resources Corporation	1/8+	0626/0333
<u>W: Charles E. Gump & Martha A. Gump Lease</u> Charles E. Gump & Martha A. Gump	Antero Resources Corporation	1/8+	216A/0831
<u>V: Timothy L. Lancaster Lease</u> Timothy L. Lancaster	Antero Resources Corporation	1/8+	263A/0616
<u>U: Piney Holdings, Inc. Lease</u> Piney Holdings, Inc.	Antero Resources Corporation	1/8+	186A/0922
<u>T: Thomas W. Lins Et Ux Lease</u> Thomas W. Lins Et Ux	Antero Resources Corporation	1/8+	175A/0515
<u>S: Tina M. Snyder Lease</u> Tina M. Snyder	Antero Resources Corporation	1/8+	0186/0747
<u>R: David J. Staab Lease</u> David J. Staab	Antero Resources Corporation	1/8+	0228/0170
<u>Q: Abraham C. Gawthrop Et Ux Lease</u> Abraham C. Gawthrop Et Ux	Antero Resources Corporation	1/8+	138A/0441
<u>P: WVMC, LLC Lease</u> WVMC, LLC Lease	Antero Resources Corporation	1/8+	288A/0455

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Grantor, lessor, etc.	Grantee, lessee, etc.	Royalty	Book/Page
<u>N: Spring Creek Energy Partners Lease</u> Spring Creek Energy Partners	Antero Resources Corporation	1/8+	0208/0732
<u>L: Nancy L. Thompson & Timothy Thompson Lease</u> Nancy L. Thompson & Timothy Thompson TH Exploration LLC	TH Exploration LLC Antero Resources Corporation	1/8 Assignment	200A/0407 Agreement
<u>K: Michael Scott Whiteman Lease</u> Michael Scott Whiteman	Antero Resources Corporation	1/8+	287A/0210
<u>Chesapeake Appalachia, LLC Lease</u> Chesapeake Appalachia, LLC SWN Production Company Antero Exchange Properties LLC	SWN Production Company Antero Exchange Properties LLC Antero Resources Corporation	1/8 Assignment Merger	157A/0640 177A/0533 0013/0311
<u>H: Bounty Minerals, LLC Lease</u> Bounty Minerals, LLC	Antero Resources Corporation	1/8+	286A/0775
<u>AI: WVDNR Lease</u> WVDNR	Antero Resources Corporation	1/8+	323A/0531
<u>E: Eugene Ray White Lease</u> Eugene Ray White	Antero Resources Corporation	1/8+	319A/0139
<u>D1: Brian L. Thomas & Tracy L. Thomas Lease</u> Brian L. Thomas & Tracy L. Thomas	Antero Resources Corporation	1/8+	335A/0918
<u>A: MB Investments Lease</u> MB Investments	Antero Resources Corporation	1/8+	341A/0117

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WV Department of
Environmental Protection

*Partial Assignments to Antero Resources Corporation include 100% rights to extract, produce and market the oil and gas from the Marcellus and any other formations completed with this well.

*Co-tenancy utilization – Antero is utilizing the Co-tenancy Modernization and Majority Protection Act to proceed with development of certain royalty owners' interests in this tract.

**Pooling/Unitization – Antero has filed a horizontal well unitization application with the West Virginia Oil and Gas Conservation Commission that seeks to pool certain owners in this tract.

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Chapter 22, Article 6A, Section 5(a)(5)
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Lease Name or Number	Grantor, Lessor, etc.	Grantee, Lessee, etc.	Royalty	Book/Page
B: Acropolis, Inc. Lease				
	Acropolis, Inc.	Antero Resources Corporation	1/8+	289A/0491

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**Acknowledgement of Possible Permitting/Approval
In Addition to the Office of Oil and Gas**

The permit applicant for the proposed well work addressed in this application hereby acknowledges the possibility of the need for permits and/or approvals from local, state, or federal entities in addition to the DEP, Office of Oil and Gas, including but not limited to the following:

- WV Division of Water and Waste Management
- WV Division of Natural Resources WV Division of Highways
- U.S. Army Corps of Engineers
- U.S. Fish and Wildlife Service
- County Floodplain Coordinator

The applicant further acknowledges that any Office of Oil and Gas permit in no way overrides, replaces, or nullifies the need for other permits/approvals that may be necessary and further affirms that all needed permits/approvals should be acquired from the appropriate authority before the affected activity is initiated.

Well Operator: Antero Resources Corporation
 By: Tim Rady
 Its: Senior Vice President of Land

Execution Version



October 13, 2023

Cory C. Peck
EQT Corporation
400 Woodcliff Drive
Canonsburg, PA 15317

Via Email: cpeck@eqt.com

RE: Amended & Restated Drill Letter –Wetzel Co., WV

Dear Mr. Peck:

1. The Parties previously entered into (a) that certain Drill Letter from EQT to ARC, dated July 28, 2023 and (b) that certain Drill Letter from EQT to ARC, dated September 6, 2023 (the "**Original Drill Letters**"), in each case, with respect to certain EQT oil and gas leases. The Parties wish to combine and replace the Original Drill Letters in their entirety with this Amended & Restated Drill Letter.

2. Per our discussions, EQT Production Company, a Pennsylvania corporation ("**EQT Production**"), EQT TGH Exploration LLC (f/k/a TH Exploration, LLC) ("**EQT TGH**"), ET Blue Grass, LLC ("**ET Blue Grass**"), and collectively with EQT Production and EQT TGH, "**EQT**"), and Antero Resources Corporation ("**ARC**") (ARC and EQT may be referred to individually as a "**Party**" and collectively as the "**Parties**"), are currently negotiating a potential transaction for the exchange, assignment and/or granting of certain oil and gas leases in Wetzel County, West Virginia (the "**Potential Transaction**"), to facilitate each of their respective drilling and development needs.

3. The Parties anticipate that in the Potential Transaction, ARC would assign and/or grant to EQT certain oil and gas leases in exchange for EQT (i) assigning and/or granting to ARC certain oil and gas leases and (ii) leasing to ARC certain fee interest oil and gas properties. The specific properties and amounts of properties to be exchanged will be specified in a definitive written agreement (if any) containing terms and conditions mutually acceptable to the Parties in their respective sole and absolute discretion (a "**Definitive Agreement**").

4. The Parties anticipate that among the EQT oil and gas leases and fee interest oil and gas properties that may be included in the Potential Transaction are the Drilling Leases (as defined in the Original Drill Letters). As used in this letter agreement, "**NRI Acres**" shall have the definition set forth on **Schedule 1**.

5. The Parties desire to accommodate ARC's drilling and development of certain ARC units during the pendency of discussions and negotiations on, and in advance of the execution of, a Definitive Agreement and the closing of the Potential Transaction. Therefore, EQT hereby grants to ARC and/or its designated affiliates, effective as of the date of the Original Drill Letters, the right to drill, complete, produce, and obtain all necessary permits and governmental approvals, in order to drill, complete and

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produce one (1) or more wellbore laterals (“*Wells*”) through and in the Marcellus Formation of the lands covered by the Drilling Leases; **provided, however**, that EQT hereby expressly withholds to itself and its successors and assigns and does not grant to ARC (a) the right to complete in any formation covered by the Drilling Leases other than the Marcellus Formation (**provided** that ARC may drill through such formations) or (b) the right to access the surface of or to conduct surface operations on the lands covered by the Drilling Leases unless ARC enters into a separate agreement with the surface owner(s). As used in this letter agreement, “*Marcellus Formation*” shall have the definition set forth on **Schedule I**.

6. ARC hereby agrees to indemnify, defend and hold harmless EQT and its affiliates, equity holders, subsidiaries or related companies (the “*Indemnified Parties*”) for, from and against any and all Claims (as defined below) sustained by the Indemnified Parties resulting from or in connection with ARC’s and/or its designated affiliates’ activities with respect to the Drilling Leases, including, without limitation, the drilling of the Wells and ARC’s development and operation of the Drilling Leases, that arise on or after the date of this letter agreement. “*Claims*” shall mean any and all losses, suits, proceedings, actions, causes of action, in law or at equity, demands, penalties, fines, fees, charges, assessments, liabilities (including environmental liabilities), damages (including environmental and natural resources damages), claims, judgments, executions, costs and expenses of any kind (including, without limitation, attorney’s fees, expert’s fees, court costs and other out-of-pocket fees and disbursements), fines, taxes, and interest, whether existing or incurred or asserted in the future, in connection with (a) any such claim or the defense thereof, (b) amounts paid in settlement, orders, liens, or decrees, or (c) any injury or damage of any kind and nature to persons (including sickness, illness and death), mines, wells, or property claims or to the Drilling Lease, or natural resources, and with respect to any of the foregoing, whether sustained or brought by or against ARC or any third party. Notwithstanding any of the foregoing, ARC shall have no obligation to indemnify the Indemnified Parties for any Claim to the extent arising out of an Indemnified Party’s gross negligence or willful misconduct. The indemnity obligation set forth in this section shall survive (a) any execution of a Definitive Agreement or assignment of the Drilling Leases or other mutually agreed transaction pursuant to which ARC acquired any of the Drilling Leases, or (b) any termination of all or any part of this letter agreement; **provided**, that if the parties hereto enter into a JOA pursuant to this letter agreement, then this paragraph shall terminate and be of no further force and effect (with the terms and conditions of the JOA to govern the respective liability of the parties thereunder).

7. In the event that the Parties execute a Definitive Agreement on or before August 28, 2024 (the “*Execution Deadline*”), subject to Section 8 below, the Drilling Leases, limited to the Marcellus Formation, shall be included in and assigned at the closing of the Potential Transaction in accordance with the terms and conditions set forth in the Definitive Agreement; **provided, however**, that even if a Definitive Agreement is executed, the Drilling Leases shall be conveyed on an “as is, where is” basis and without representations or warranties of any kind whatsoever other than those expressly set forth in the applicable Definitive Agreement, and EQT hereby expressly disclaims any and all other representations and warranties with respect to the Drilling Leases. Further, ARC may not assert any title defects associated with net acres or Net Revenue Interest under the terms of the Definitive Agreement for the Drilling Leases. The foregoing provisions shall survive the execution of a Definitive Agreement or assignment of the Drilling Leases. The Parties may extend the Execution Deadline by mutual written agreement in order to continue to pursue the Potential Transaction discussions while reasonably accommodating each Party’s ongoing development needs.

8. The Parties acknowledge that, as of the date hereof, they have entered into certain JOAs (as defined below) governing certain of the initial Wells. Prior to spudding any additional initial Well, ARC shall send to EQT an AFE (as defined in the JOA) for such initial Well that ARC desires to drill. Promptly thereafter (and in any event within five (5) business days of EQT’s receipt of such AFE), the Parties shall enter into a Joint Operating Agreement (the “*JOA*”), the form of which is attached hereto as **Exhibit A**, with the applicable contract area(s) determined in ARC’s sole discretion and to be effective as

of the spud date of such initial Well. In addition, in the event that the Parties do not execute a Definitive Agreement on or before the Execution Deadline or in the event that a Definitive Agreement is executed but the Potential Transaction does not close on or before the Execution Deadline, then the Parties shall promptly (and in any event within five (5) business days after the Execution Deadline) enter into one or more JOAs covering the remaining initial Wells not then subject to a JOA, with the contract area(s) for each to be determined in ARC's sole discretion and each to be effective as of the spud date of the applicable initial Well. EQT shall without additional consideration execute and deliver or use reasonable efforts to cause to be executed and delivered such other instruments of conveyance and take such other actions as ARC reasonably may request to otherwise give effect to the JOA. EQT has hereby elected to be deemed to be a non-consenting party under each JOA (which shall be a non-consent election with respect to any and all wells governed by each JOA, whether or not covered by the AFE for the initial Well(s)). Where EQT is deemed to be a non-consenting party pursuant to the foregoing, then, contemporaneously with the execution of the JOA(s), ARC and EQT shall enter into an imbalance agreement covering those Drilling Leases subject to the JOA, the form of which attached hereto as **Exhibit B**. From the date on which ARC spuds any Well as contemplated herein through the date the Parties actually execute and deliver to each other the JOA applicable to such Well as provided in this **Section 8**, the terms and provisions of the form JOA attached hereto as **Exhibit A** shall be deemed to apply to such Well.

9. If any assignment of the acreage is made, such properties shall be assigned and/or granted, as the case may be, free and clear of (a) all gathering or midstream dedications or commitments, and (b) all other senior mortgages, liens and encumbrances for which pre-closing waivers, releases or subordinations are customarily sought in transactions similar to the Potential Transaction.

10. If any assignment of the acreage is made, the assigning or leasing Party shall make available to the other Party, electronically on a digital file-sharing service, electronic copies of its lease and payment files pertaining to such acreage (the "**Records**").

11. Nothing in this letter agreement shall require the Parties to consummate a Potential Transaction, it being understood that any such Potential Transaction is subject to negotiation of a Definitive Agreement and approval by the Parties' respective senior management and boards of directors, as applicable, each in their sole and absolute discretion; **provided, however**, that in the absence of a Definitive Agreement, the Parties' respective obligations under **Sections 5** through **12** hereof shall be fully enforceable.

12. Except as otherwise provided herein, this letter agreement and the rights and obligations of the Parties hereunder shall terminate if and when the Parties execute and deliver a Definitive Agreement and close the Potential Transaction thereunder. This letter agreement shall be governed by Pennsylvania law excluding any choice-of-law rules which would refer the matter to the laws of another jurisdiction. This letter agreement may be executed in any number of counterparts, each of which shall be considered an original for all purposes, and all of which, when taken together, shall constitute one and the same instrument, provided that this letter agreement but shall not be binding on any Party until fully executed by all Parties.

[Signature page follows]

If the above meets your approval, please execute in the space provided below and return one signed copy to my attention. Should you have any questions, please contact Jared Hurst at (720) 539-6854.

Sincerely,

ANTERO RESOURCES CORPORATION

Name: Aaron Merrick
Title: Chief Administrative Officer

Acknowledged, accepted and agreed to on _____, 2023.

EQT PRODUCTION COMPANY

DocuSigned by:

B89B4A94E0C646A
Name: Corey C. Peck
Title: Vice President - Land

ET BLUE GRASS, LLC

DocuSigned by:

B89B4A94E0C646A
Name: Corey C. Peck
Title: Vice President - Land

EQT TGHL EXPLORATION LLC (F/K/A TH EXPLORATION, LLC)

DocuSigned by:

B89B4A94E0C646A
Name: Corey C. Peck
Title: Vice President - Land

Signature Page to Drill Letter

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