



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

Wednesday, February 26, 2025
PERMIT MODIFICATION APPROVAL
Horizontal 6A / New Drill

ANTERO RESOURCES CORPORATION
1615 WYNKOOP STREET

DENVER, CO 80202


Re: Permit Modification Approval for Shipe Unit 1H
47-085-10539-00-00

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: Shipe Unit 1H
Farm Name: Richard E Blouir ET UX
U.S. WELL NUMBER: 47-085-10539-00-00
Horizontal 6A New Drill
Date Modification Issued: 2/26/2025

Promoting a healthy environment.

02/28/2025

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

1) Well Operator: Antero Resources Corporation 494507062 085 - Ritchie Clay Ellenboro 7.5'
Operator ID County District Quadrangle

2) Operator's Well Number: Shipe Unit 1H MOD Well Pad Name: Husher Pad

3) Farm Name/Surface Owner: Richard E. Blouir Et Ux Public Road Access: Lamberton Rd

4) Elevation, current ground: 1,007' 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: 7600' TVD, Anticipated Thickness- 55 feet, Associated Pressure- 2850#

8) Proposed Total Vertical Depth: 7600' TVD

9) Formation at Total Vertical Depth: Marcellus

10) Proposed Total Measured Depth: 29100' MD

11) Proposed Horizontal Leg Length: 18008' *Open to modification at a later date

12) Approximate Fresh Water Strata Depths: 147', 406'

13) Method to Determine Fresh Water Depths: 47085015510000, 47085088820000 Offset well records. Depths have been adjusted according to surface elevations.

14) Approximate Saltwater Depths: 1654'

15) Approximate Coal Seam Depths: N/A

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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WV Department of
Environmental Protection

James [Signature]
2-12-25

WW-6B
(04/15)

API NO. 47- 085 - 10539
 OPERATOR WELL NO. Shipe Unit 1H MOD
 Well Pad Name: Husher Pad

18)

CASING AND TUBING PROGRAM

| TYPE | <u>Size (in)</u> | <u>New or Used</u> | <u>Grade</u> | <u>Weight per ft. (lb/ft)</u> | <u>FOOTAGE: For Drilling (ft)</u> | <u>INTERVALS: Left in Well (ft)</u> | <u>CEMENT: Fill-up (Cu. Ft.)/CTS</u> |
|--------------|------------------|--------------------|--------------|-------------------------------|-----------------------------------|-------------------------------------|--------------------------------------|
| Conductor | 20" | New | J-55 | 94# | 100' | 100' | CTS, 96 Cu. Ft. |
| Fresh Water | 13-3/8" | New | J-55 | 54.5# | 456' | 456' | CTS, 475 Cu. Ft. |
| Coal | 9-5/8" | New | J-55 | 36# | 6500' | 6500' | CTS, 2646 Cu. Ft. |
| Intermediate | | | | | | | |
| Production | 5-1/2" | New | P110-ICY | 23# | 29100' | 29100' | CTS, 6405 Cu. Ft. |
| Tubing | 2-3/8" | New | N-80 | 4.7# | | | |
| Liners | | | | | | | |

| TYPE | <u>Size (in)</u> | <u>Wellbore Diameter (in)</u> | <u>Wall Thickness (in)</u> | <u>Burst Pressure (psi)</u> | <u>Anticipated Max. Internal Pressure (psi)</u> | <u>Cement Type</u> | <u>Cement Yield (cu. ft./k)</u> |
|--------------|------------------|-------------------------------|----------------------------|-----------------------------|---|--------------------|---------------------------------|
| 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 | | | |

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Jerry Hunt
2-12-25

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): 20.13 acres

22) Area to be disturbed for well pad only, less access road (acres): 9.66 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:

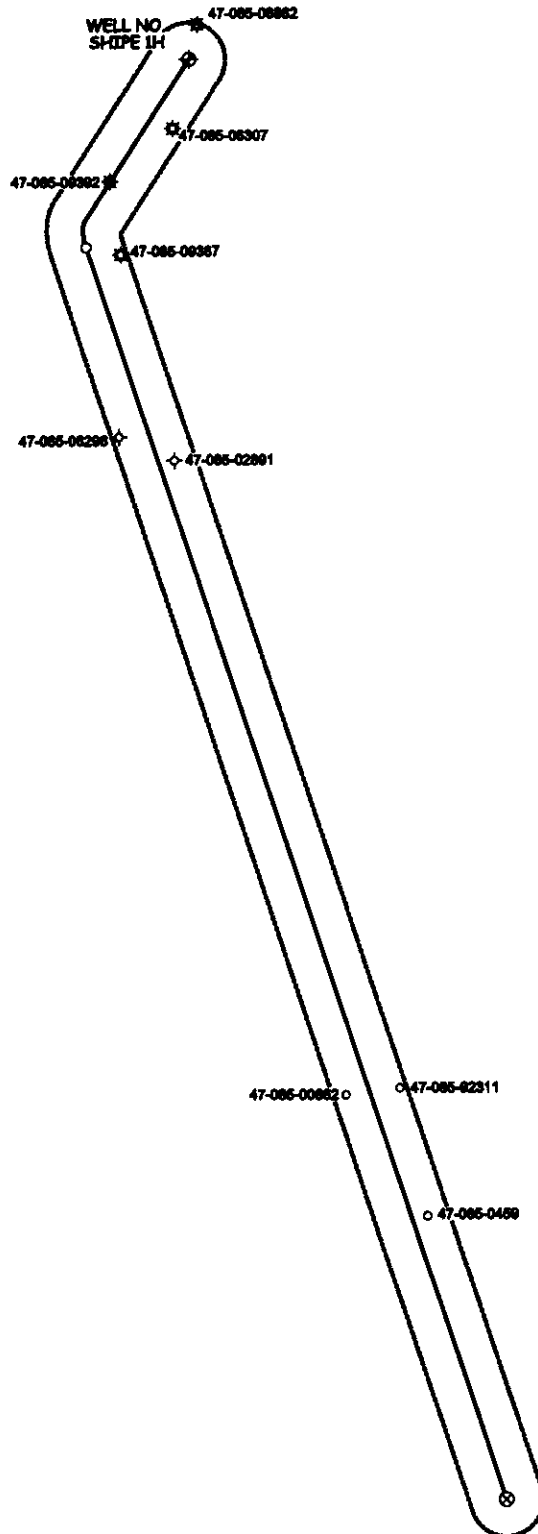
Conductor: blowhole clean with air, run casing, 10 bbls fresh water.
Surface: blowhole clean with air, trip to conductor shoe, trip to bottom, blowhole clean with air, trip out, run casing, circulate pipe capacity + 40 bbls fresh water followed by 25 bbls bentonite mud, 10 bbls fresh water spacer.
Intermediate: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

January 21st
2-12-25

HUSHER PAD ANTERO RESOURCES CORPORATION



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

JOB #: 23-010WA

FILE: SHIPE1HAOR.DWG

DATE: 01/22/25

DRAWN BY: D.L.P.

SCALE: 1-INCH = 2000-FEET

0' 2000' 4000' 6000'



02/28/2025

| UWI (APIum) | Well Name | Well Number | Operator | Historical Operator | TD | Perforated Interval (shallowest, deepest) | Perforated Formation(s) | Producible Formation(s) not perf'd |
|----------------|--------------------|-------------|----------------------------|---------------------|-------|---|---------------------------------------|------------------------------------|
| 47085088820000 | HAYHURST | 1 | ANJA RESOURCES | ANJA RESOURCES | 3,072 | 1210 - 2879 | Salt Sands, Big Injun, Tiona | Weir, Benson, Alexander |
| 47085063070000 | BLOUIR R E & M L | 3 | MUTSCHELKNAUS CLARENCE W | JENKINS ENERGY | 5,815 | 4632 - 5704 | Big Injun, Riley, Benson, Rhinestreet | Weir, Alexander |
| 47085093920000 | | | | | | | | |
| 47085093870000 | STRICKLER | 6 | RITCHIE PETROLEUM CORP INC | JAY-BEE OIL & GAS | 2,910 | 1968 - 2859 | Big Injun, Weir | Benson, Alexander |
| 47085062960000 | SHIELDS FREDRICK H | H-1399 | DEEM J F OIL & GAS LLC | HAUGHT INC | 5,015 | 2862 - 4933 | Java | Benson, Alexander |
| 47085028910000 | SHIELDS F H | 1 | DEEM J F OIL & GAS LLC | GRUSS JOSEPH S | 2,949 | | Big Injun | Benson, Alexander |
| 47085006620000 | ALICE MCGINNIS HRS | 11 | CHALMERS OIL & GAS | CHALMERS OIL & GAS | 2,054 | | Big Injun | Benson, Alexander |
| 47085923110000 | | | | | | | | |
| 47085004590000 | ALICE V MCGINNIS | 10 | CHALMERS OIL & GAS | CHALMERS OIL & GAS | 2,243 | | | |

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>Z: Agnes L. Rogers Lease</u> | | | |
| Agnes L. Rogers | Jenkins Energy Corporation | 1/8 | 0204/0778 |
| Jenkins Energy Corporation | Clarence W. Mutschelknaus | Assignment | 0273/0692 |
| Clarence W. Mutschelknaus | Antero Resources Corporation | Assignment | 0274/1002 |
| <u>AC: F. Robert Hayhurst Lease</u> | | | |
| F. Robert Hayhurst | Antero Resources Corporation | 1/8+ | 0298/0401 |
| <u>AD: F. Robert Hayhurst Lease</u> | | | |
| F. Robert Hayhurst | Antero Resources Corporation | 1/8+ | 0298/0401 |
| <u>AF: Clarence J. McCullough, Et Ux Lease</u> | | | |
| Clarence J. McCullough, Et Ux | Antero Resources Corporation | 1/8+ | 0294/0920 |
| <u>AE: Tom G. Strickler, Jr., Et Ux Lease</u> | | | |
| Tom G. Strickler, Jr., Et Ux | Palmer Hill | 1/8 | 0119/0405 |
| Palmer Hill | Clyde Kelly | Assignment | 0130/0048 |
| Clyde Kelly | Ira M. Jones & Clyde Kelly | Assignment | 0131/0224 |
| Ira M. Jones & Clyde Kelly | R.L. Zickefoose & W.F. Zickefoose | Assignment | 0201/0659 |
| R.L. Zickefoose & W.F. Zickefoose | Antero Resources Corporation | Assignment | 0294/0971 |
| <u>AL: WV Division of Multimodal Transportation Facilities Lease</u> | | | |
| WV Division of Multimodal Transportation Facilities | Antero Resources Corporation | 1/8+ | 0336/0335 |
| <u>A: Tom G. Strickler, Jr., Et Ux Lease</u> | | | |
| Tom G. Strickler, Jr., Et Ux | Palmer Hill | 1/8 | 0119/0405 |
| Palmer Hill | Clyde Kelly | Assignment | 0130/0048 |
| Clyde Kelly | Ira M. Jones & Clyde Kelly | Assignment | 0131/0224 |
| Ira M. Jones & Clyde Kelly | R.L. Zickefoose & W.F. Zickefoose | Assignment | 0201/0659 |
| R.L. Zickefoose & W.F. Zickefoose | Antero Resources Corporation | Assignment | 0294/0971 |
| <u>B: Franklin Owens and Annie I. Owens Lease</u> | | | |
| Franklin Owens and Annie I. Owens | Antero Resources Corporation | 1/8 | 0336/0413 |
| <u>C: Laura Gail Groves Lease</u> | | | |
| Laura Gail Groves | Antero Resources Corporation | Assignment | Pooled Tract |
| <u>D: Ronald Lane Lease</u> | | | |
| Ronald Lane | Antero Resources Corporation | 1/8+ | 0348/0454 |
| <u>E: Ronald Lane Lease</u> | | | |
| Ronald Lane | Antero Resources Corporation | 1/8+ | 0348/0454 |
| <u>G: Bruceton Farm Service, LLC Lease</u> | | | |
| Bruceton Farm Service, LLC | Antero Resources Corporation | 1/8+ | 0354/0467 |
| <u>H: Terry Lynn Spencer Lease</u> | | | |
| Terry Lynn Spencer | Antero Resources Corporation | 1/8+ | 0338/0801 |

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|--|---|---|--|
| J: WVDOT, DOH Lease WVDOT, DOH | Antero Resources Corporation | 1/8+ | 0336/0196 |
| M: Hall's W.VA Welding Equipment, Inc. Lease Hall's W. VA. Welding Equipment, Inc. | Antero Resources Corporation | 1/8+ | 0348/0108 |
| J: WVDOT, DOH Lease WVDOT, DOH | Antero Resources Corporation | 1/8+ | 0336/0196 |
| Q5: William Moore and Melvina Moore Lease William Moore and Melvina Moore Pittsburgh & West Virginia Gas Company A.W. Barnhart H.G. Hardbarger Mossor Enterprises, Inc. J. Frank Deem et al J. F. Deem Oil & Gas, LLC CHK Louisiana, LLC Chesapeake Appalachia, LLC SWN Production Company, LLC | Pittsburgh & West Virginia Gas Company A.W. Barnhart H.G. Hardbarger Mossor Enterprises, Inc. J. Frank Deem et al J. F. Deem Oil & Gas, LLC CHK Louisiana, LLC Chesapeake Appalachia, LLC SWN Production Company, LLC Antero Resources Corporation | 1/8 Assignment Assignment Assignment Assignment Assignment Assignment Assignment Assignment Assignment | 0045/0163 0046/0329 0083/0248 0198/0193 0201/0163 0228/0230 0247/0624 0247/0933 0280/0707 0348/0780 |
| Q4: William Moore and Melvina Moore Lease William Moore and Melvina Moore Pittsburgh & West Virginia Gas Company A.W. Barnhart H.G. Hardbarger Mossor Enterprises, Inc. J. Frank Deem et al J. F. Deem Oil & Gas, LLC CHK Louisiana, LLC Chesapeake Appalachia, LLC SWN Production Company, LLC | Pittsburgh & West Virginia Gas Company A.W. Barnhart H.G. Hardbarger Mossor Enterprises, Inc. J. Frank Deem et al J. F. Deem Oil & Gas, LLC CHK Louisiana, LLC Chesapeake Appalachia, LLC SWN Production Company, LLC Antero Resources Corporation | 1/8 Assignment Assignment Assignment Assignment Assignment Assignment Assignment Assignment Assignment | 0045/0163 0046/0329 0083/0248 0198/0193 0201/0163 0228/0230 0247/0624 0247/0933 0280/0707 0348/0780 |
| Q3: William Moore and Melvina Moore Lease William Moore and Melvina Moore Pittsburgh & West Virginia Gas Company A.W. Barnhart H.G. Hardbarger Mossor Enterprises, Inc. J. Frank Deem et al J. F. Deem Oil & Gas, LLC CHK Louisiana, LLC Chesapeake Appalachia, LLC SWN Production Company, LLC | Pittsburgh & West Virginia Gas Company A.W. Barnhart H.G. Hardbarger Mossor Enterprises, Inc. J. Frank Deem et al J. F. Deem Oil & Gas, LLC CHK Louisiana, LLC Chesapeake Appalachia, LLC SWN Production Company, LLC Antero Resources Corporation | 1/8 Assignment Assignment Assignment Assignment Assignment Assignment Assignment Assignment Assignment | 0045/0163 0046/0329 0083/0248 0198/0193 0201/0163 0228/0230 0247/0624 0247/0933 0280/0707 0348/0780 |

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| Grantor, lessor, etc. | Grantee, lessee, etc. | Royalty | Book/Page |
|---|--|------------|-----------|
| Q2: William Moore and Melvina Moore Lease | | | |
| William Moore and Melvina Moore | Pittsburgh & West Virginia Gas Company | 1/8 | 0045/0163 |
| Pittsburgh & West Virginia Gas Company | A.W. Barnhart | Assignment | 0046/0329 |
| A.W. Barnhart | H.G. Hardbarger | Assignment | 0083/0248 |
| H.G. Hardbarger | Mossor Enterprises, Inc. | Assignment | 0198/0193 |
| Mossor Enterprises, Inc. | J. Frank Deem et al | Assignment | 0201/0163 |
| J. Frank Deem et al | J. F. Deem Oil & Gas, LLC | Assignment | 0228/0230 |
| J. F. Deem Oil & Gas, LLC | CHK Louisiana, LLC | Assignment | 0247/0624 |
| CHK Louisiana, LLC | Chesapeake Appalachia, LLC | Assignment | 0247/0933 |
| Chesapeake Appalachia, LLC | SWN Production Company, LLC | Assignment | 0280/0707 |
| SWN Production Company, LLC | Antero Resources Corporation | Assignment | 0348/0780 |
| S1: Ridgetop Ten, LLC Lease | | | |
| Ridgetop Ten, LLC | Antero Resources Corporation | 1/8+ | 0348/0102 |
| T1: Ridgewood Development, LLC Lease | | | |
| Ridgewood Development, LLC | Antero Resources Corporation | 1/8+ | 0346/0138 |
| S2: Ridgetop Ten, LLC Lease | | | |
| Ridgetop Ten, LLC | Antero Resources Corporation | 1/8+ | 0348/0102 |
| V: Craig Lee Seth and Linda Eve Seth Lease | | | |
| Craig Lee Seth and Linda Eve Seth | Antero Resources Corporation | 1/8+ | 0349/0227 |

*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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| Lease Name or Number | Grantor, Lessor, etc. | Grantee, Lessee, etc. | Royalty | Book/Page |
|--------------------------------------|-----------------------|------------------------------|---------|-----------|
| X: Janet Riddle-Stanley Lease | | | | |
| | Janet Riddle-Stanley | Antero Resources Corporation | 1/8+ | 0352/0092 |

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**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.

**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

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LATITUDE 39°17'30"

6,009'

LATITUDE 39°15'00"

1,439' TO BOTTOM HOLE

1,753' LONGITUDE 81°00'00"

6,165' TO BOTTOM HOLE LONGITUDE 81°00'00"

Antero Resources Corporation Well No. Shipe #1H

| CLAY DISTRICT - RITCHIE COUNTY | |
|--------------------------------|-----------------------------------|
| 18-14.2 | RONALD HAYHURST |
| 18-17.1 | CAROL SPANGLER |
| 18-20.2 | MICHAEL REED |
| 24-02 | KEVIN MINOR |
| 24-04 | DAVID LAWRENCE |
| 24-4.1 | ROGER HART |
| 24-05 | RICHARD BLOUIR |
| 24-5.2 | FREDERICK WANSTREET |
| 24-21 | FRANKLIN OWENS |
| 24-21.1 | RODNEY WEBBER |
| 24-22 | CHARLES THOMAS |
| 24-22.1 | TRIPLE B TRUCKING INC |
| 24-23 | CLARENCE MCCULLOUGH |
| 24-23.1 | CLARENCE MCCULLOUGH |
| 24-24 | KIMBERLY BARNES |
| 24-24.1 | MATTHEW BLOUIR |
| 24-32 | ANNA WILLIAMSON |
| 24-36.1 | RONALD LANE INC. |
| 24-37 | RONALD LANE INC. |
| 24-37.1 | PARKS PERKINS PROPERTIES LLC |
| 24-40.1 | WVDOT |
| 24-40.2 | PARKS PERKINS PROPERTIES LLC |
| 24-40.3 | MICHAEL HALL |
| 24-40.5 | HALL'S WVA WELDING EQUIPMENT INC. |
| 24-40.6 | MICHAEL HALL |
| 24-41 | HALL FAMILY TRUST |
| 24-44.3 | MICHAEL HALL |
| 24-45.1 | MICHAEL HALL |
| 24-59 | RONALD LANE INC. |
| 29-04 | ROBERT SHIPE |
| 29-4.1 | ROBERT SHIPE |
| 29-4.2 | ROBERT SHIPE |
| 29-4.3 | ROBERT SHIPE |
| 29-4.4 | ROBERT SHIPE |
| 29-05 | THE NATURE CONSERVANCY |
| 29-09 | ROBERT KOCH |
| 29-10 | JOHNNIE BOSTON |
| 29-13 | RICKY KOCH |
| 29-20 | THE NATURE CONSERVANCY |
| 29-29 | MARK MOSSOR |
| 29-30 | ERICA DEEM |
| 29-31 | LORRAINE RANKIN |
| 29-31.1 | CURTIS SEESE |
| 29-47 | ROBERT KOCH |
| 29-48 | RICKY KOCH |
| 29-49 | ERICA DEEM |
| 29-50 | ERICA DEEM |
| 29-52 | ERICA DEEM |
| 29-55 | ERICA DEEM |
| 29-56 | TRISTAN RAY |

NOTES:
 WELL 1H TOP HOLE INFORMATION:
 N: 290,234ft E: 1,569,435ft
 LAT: 39°17'12.68" LON: 81°01'16.42"
 BOTTOM HOLE INFORMATION:
 N: 270,572ft E: 1,573,678ft
 LAT: 39°13'59.07" LON: 81°00'18.28"
 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.

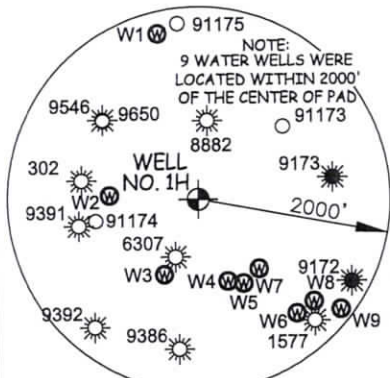
(NAD) 83 (UTM) ZONE 17 COORDS:
 WELL 1H TOP HOLE INFORMATION:
 N: 4,348,619m E: 498,184m
 BOTTOM HOLE INFORMATION:
 N: 4,342,651m E: 499,576m

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.

(NAD) 27 (UTM) ZONE 17 COORDS:
 WELL 1H TOP HOLE INFORMATION:
 N: 14,266,391ft E: 1,634,410ft
 POINT OF ENTRY INFORMATION:
 N: 14,263,791ft E: 1,633,033ft
 BOTTOM HOLE INFORMATION:
 N: 14,246,800ft E: 1,638,979ft

| | |
|----|--|
| A | TOM G. STRICKLER, JR., ET UX |
| B | FRANKLIN OWENS AND ANNIE L OWENS |
| C | LAURA GAIL GROVES |
| D | RONALD LANE |
| E | RONALD LANE |
| F | BRUCETON FARM SERVICE, LLC |
| G | BRUCETON FARM SERVICE, LLC |
| H | TERRY LYNN SPENCER |
| I | PARKS & PERKINS PROPERTIES, LLC |
| J | WVDOT, DOH |
| K | LYNN C. WELLS AND CAROL SUE WELLS |
| L | MICHAEL T. HALL |
| M | HALL'S WVA WELDING EQUIPMENT, INC. |
| O | NORMAN LLOYD JACKSON |
| P | WILLIAM MOORE AND MELVINA MOORE |
| Q1 | WILLIAM MOORE AND MELVINA MOORE |
| Q2 | WILLIAM MOORE AND MELVINA MOORE |
| Q3 | WILLIAM MOORE AND MELVINA MOORE |
| Q4 | WILLIAM MOORE AND MELVINA MOORE |
| Q5 | WILLIAM MOORE AND MELVINA MOORE |
| R | MINNIE L. HILEY |
| S1 | RIDGETOP TEN, LLC. |
| S2 | RIDGETOP TEN, LLC. |
| T1 | RIDGEWOOD DEVELOPMENT, LLC. |
| T2 | RIDGEWOOD DEVELOPMENT, LLC. |
| T3 | RIDGEWOOD DEVELOPMENT, LLC. |
| U | THE NATURE CONSERVANCY |
| V | CRAIG LEE BETH AND LINDA EVE BETH |
| W1 | INA W. BARNARD, ET AL |
| W2 | INA W. BARNARD, ET AL |
| X | JANET RIDDLE-STANLEY |
| Y | VIRGINIA L. CONNORS |
| Z | AGNES L. ROGERS |
| AA | F. ROBERT HAYHURST FAMILY TRUST |
| AB | F. ROBERT HAYHURST FAMILY TRUST |
| AC | F. ROBERT HAYHURST |
| AD | F. ROBERT HAYHURST |
| AE | TOM G. STRICKLER, JR., ET UX |
| AF | CLARENCE J. MCCULLOUGH ET UX |
| AG | CLARENCE J. MCCULLOUGH ET UX |
| AH | TOM G. STRICKLER, JR., ET UX |
| AI | RICHARD BLOUIR ET AL |
| AJ | WILLIAM MOORE ET UX |
| AK | CHARLES A. BROADWATER |
| AL | WEST VIRGINIA DIVISION OF MULTIMODAL TRANSPORTATION FACILITIES |

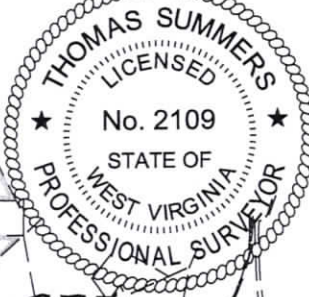
| WATER WELLS | | |
|-------------|------------|---------|
| W1 | S 13°36' E | 1772.1' |
| W2 | N 87°26' W | 929.2' |
| W3 | S 24°40' W | 864.4' |
| W4 | S 19°28' E | 906.8' |
| W5 | S 27°55' E | 993.1' |
| W6 | S 40°30' E | 1566.5' |
| W7 | N 40°45' W | 960.8' |
| W8 | S 48°22' E | 1604.4' |
| W9 | S 52°09' E | 1872.9' |



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 # 23-010WA
 DRAWING # SHIPE1HR2
 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 01/29/25
 OPERATOR'S WELL# SHIPE UNIT #1H
 47 - 085 - 10539
 STATE COUNTY PERMIT

WELL TYPE: OIL ___ GAS X LIQUID INJECTION ___ WASTE DISPOSAL
 (IF "GAS") PRODUCTION ___ STORAGE ___ DEEP ___ SHALLOW
 LOCATION: ELEVATION PROPOSED -1,007' WATERSHED NORTH FORK HUGHES RIVER
 QUADRANGLE ELLENBORO 7.5' DISTRICT CLAY COUNTY RITCHIE
 SURFACE OWNER RICHARD E. BLOUIR ET UX ACREAGE 53.682 ACRES +/-
 OIL & GAS ROYALTY OWNER AGNES L. ROGERS LEASE ACREAGE 57 ACRES±
 PROPOSED WORK: DRILL ___ CONVERT ___ DRILL DEEPER X REDRILL ___
 FRACTURE OR STIMULATE X 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 7,600' TVD 29,100' MD
 WELL OPERATOR ANTERO RESOURCES CORP. DESIGNATED AGENT KEVIN ELLIS
 ADDRESS 1615 WYNKOOP ST. ADDRESS 535 WHITE OAKS BLVD
 DENVER, CO 80202 BRIDGEPORT, WV 26330

