



---

west virginia department of environmental protection

---

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

Earl Ray Tomblin, Governor  
Randy C. Huffman, Cabinet Secretary  
www.dep.wv.gov

## PERMIT MODIFICATION APPROVAL

June 04, 2015

ANTERO RESOURCES CORPORATION  
1615 WYNKOOP STREET  
DENVER, CO 80202

Re: Permit Modification Approval for API Number 8510199, Well #: MCNABB UNIT 4H

### Extend Lateral

Oil and Gas Operator:

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.

Please call James Martin at 304-926-0499, extension 1654 if you have any questions.

Sincerely,

A handwritten signature in blue ink that reads "Gene Smith".

Gene Smith  
Assistant Chief of Permitting  
Office of Oil and Gas

Promoting a healthy environment.

06/05/2015

47 08510199 M&D



May 29, 2015

Antero Resources  
1615 Wynkoop Street  
Denver, CO 80202  
Office 303.357.7310  
Fax 303.357.7315

West Virginia Department of Environmental Protection  
Office of Oil and Gas  
Attn: Ms. Melanie Hankins  
601 57<sup>th</sup> Street  
Charleston, WV 25304

Ms. Hankins:

Antero Resources Corporation (Antero) would like to submit the following permit modifications for four approved wells on the Mackay Pad. We are requesting to extend the horizontal lateral lengths which will change the bottom hole locations of the McNabb Unit 1H (API# 47-085-10196), McNabb Unit 2H (API# 47-085-10197), McNabb Unit 3H (API# 47-085-10198 ) and McNabb Unit 4H (API# 47-085-10199).

Attached you will find the following documents:

- REVISED Form WW-6B, which shows the revised MD and Production Casing/Cement program
- REVISED Form WW-6A1, which shows the new leases we will be drilling into
- REVISED Mylar Plat, which shows the new bottom hole location

If you have any questions please feel free to contact me at (303) 357-7323.

Thank you in advance for your consideration.

Sincerely,

A handwritten signature in cursive script that reads "Ashlie Steele".

Ashlie Steele  
Permitting Supervisor  
Antero Resources Corporation

Enclosures

RECEIVED  
Office of Oil and Gas

JUN 02 2015

WV Department of  
Environmental Protection

06/05/2015

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

1) Well Operator: Antero Resources Corporal 494488557 085-Ritchie Clay Pullman 7.5'  
Operator ID County District Quadrangle

2) Operator's Well Number: McNabb Unit 4H Well Pad Name: Mackay Pad

3) Farm Name/Surface Owner: Mackay, Jack D. et al Public Road Access: CR 19/3

4) Elevation, current ground: ~ 1128' Elevation, proposed post-construction: 1099'

5) Well Type (a) Gas X Oil Underground Storage  
Other

(b) If Gas Shallow Deep X  
Horizontal X

6) Existing Pad: Yes or No No

7) Proposed Target Formation(s), Depth(s), Anticipated Thickness and Expected Pressure(s):  
Marcellus Shale: 6700' TVD, Anticipated Thickness- 50 feet, Associated Pressure- 3000#

8) Proposed Total Vertical Depth: 6700' TVD

9) Formation at Total Vertical Depth: Marcellus Shale

10) Proposed Total Measured Depth: 19,600' MD

11) Proposed Horizontal Leg Length: 12,439'

12) Approximate Fresh Water Strata Depths: 177', 225', 437'

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

14) Approximate Saltwater Depths: 1991', 2053', 2057'

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 X

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

RECEIVED  
Office of Oil and Gas  
JUN 02 2015  
WV Department of  
Environmental Protection

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         | H-40      | 94#                    | 40'                        | 40'                          | CTS, 38 Cu. Ft.               |
| Fresh Water  | 13-3/8"   | New         | J-55/H-40 | 54.5#/48#              | 490'                       | 490'* See #19                | CTS, 681 Cu. Ft.              |
| Coal         | 9-5/8"    | New         | J-55      | 36#                    | 2400'                      | 2400'                        | CTS, 977 Cu. Ft.              |
| Intermediate |           |             |           |                        |                            |                              |                               |
| Production   | 5-1/2"    | New         | P-110     | 20#                    | 19,600'                    | 19,600'                      | 5012 Cu. Ft.                  |
| Tubing       | 2-3/8"    | New         | N-80      | 4.7#                   |                            | 7100'                        |                               |
| Liners       |           |             |           |                        |                            |                              |                               |

*MWA* 6/4/15

| 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    | 30"       | 24"                    | 0.438"              | 1530                 | 50                                       | Class A               | 1.18                     |
| Fresh Water  | 13-3/8"   | 17-1/2"                | 0.38"/0.33"         | 2730/1730            | 1000                                     | Class A               | 1.18                     |
| Coal         | 9-5/8"    | 12-1/4"                | 0.352"              | 3520                 | 1500                                     | Class A               | 1.18                     |
| Intermediate |           |                        |                     |                      |  |                       |                          |
| Production   | 5-1/2"    | 8-3/4" & 8-1/2"        | 0.361"              | 12,630               | 2500                                     | Lead-H/POZ & Tail - H | H/POZ-1.44 & H-1.8       |
| Tubing       | 2-3/8"    | 4.778"                 | 0.19"               | 11,200               |  |                       |                          |
| Liners       |           |                        |                     |                      |  |                       |                          |

**PACKERS**

|             |     |  |  |   |
|-------------|-----|--|--|---|
| Kind:       | N/A |  |  | <b>RECEIVED</b><br>Office of Oil and Gas<br>JUN 02 2015<br>WV Department of<br>Environmental Protection |
| Sizes:      | N/A |  |  |   |
| Depths Set: | N/A |  |  |   |

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

Drill, perforate, fracture a new horizontal shallow well and complete 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): 35.10 acres

22) Area to be disturbed for well pad only, less access road (acres): 3.95 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 cement.

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

Intermediate: Class A 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 H + 45 PPS Calcium Carbonate + 1.0% FL-160 + 0.2% ACGB-47 + 0.05% ACSA-51 + 0.2% ACR-20

RECEIVED  
Office of Oil and Gas

JUN 02 2015

WV Department of  
Environmental Protection

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.

LATITUDE 39°15'00"

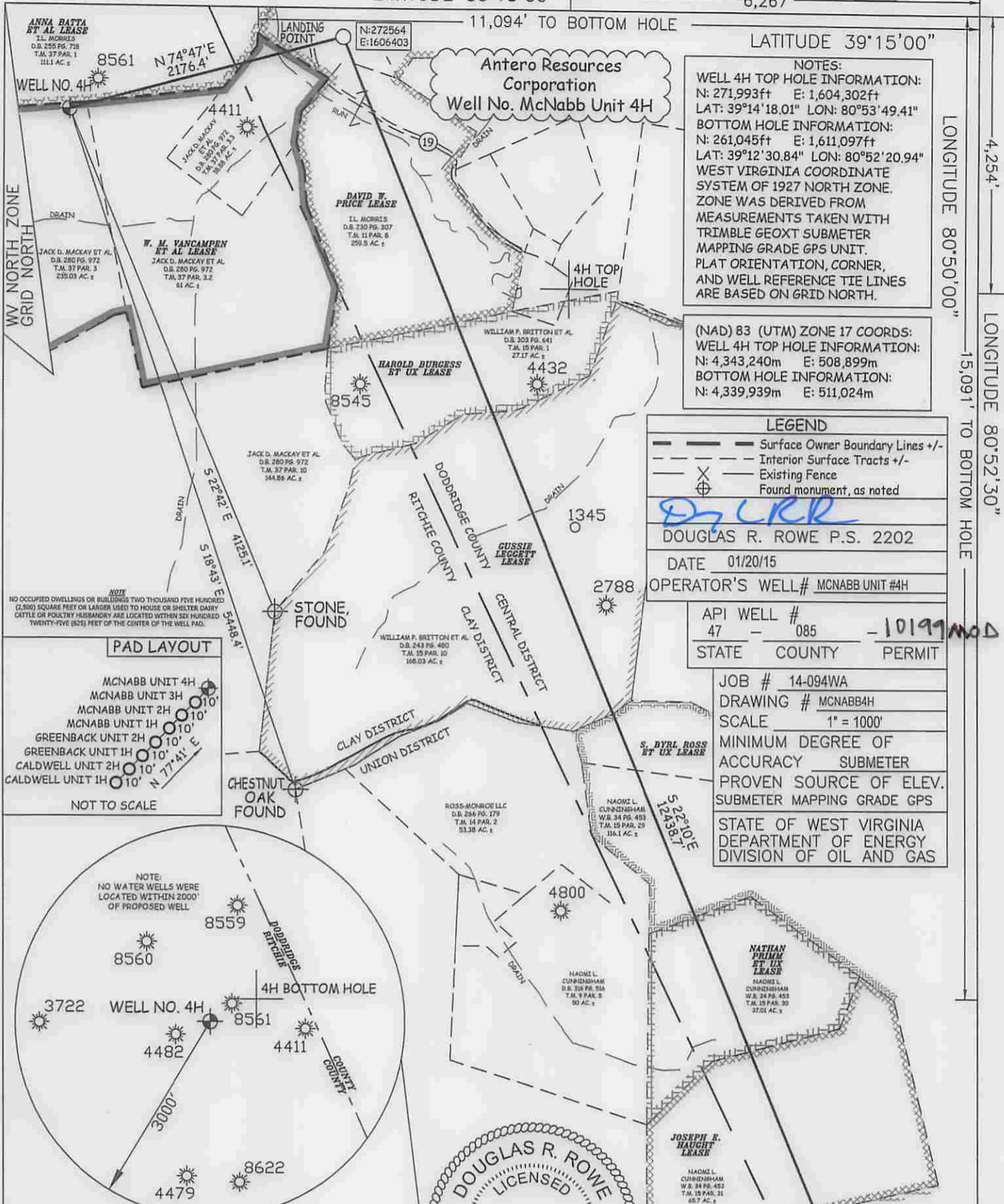
6,267'

LATITUDE 39°15'00"

LONGITUDE 80°50'00"

LONGITUDE 80°52'30"

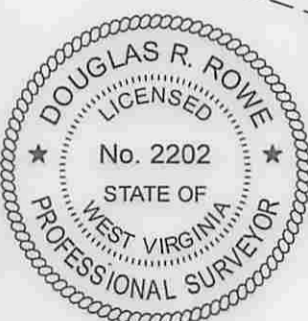
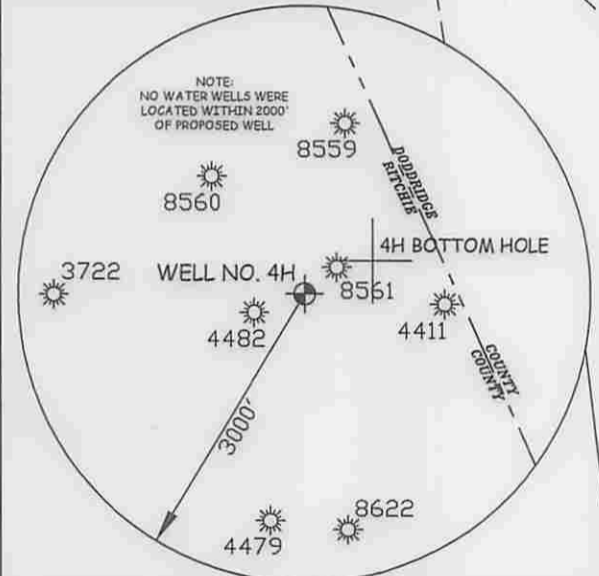
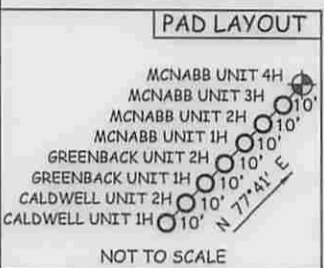
COUNTY NAME PERMIT



NOTES:  
 WELL 4H TOP HOLE INFORMATION:  
 N: 271,993ft E: 1,604,302ft  
 LAT: 39°14'18.01" LON: 80°53'49.41"  
 BOTTOM HOLE INFORMATION:  
 N: 261,045ft E: 1,611,097ft  
 LAT: 39°12'30.84" LON: 80°52'20.94"  
 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 TIE.

(NAD) 83 (UTM) ZONE 17 COORDS:  
 WELL 4H TOP HOLE INFORMATION:  
 N: 4,343,240m E: 508,899m  
 BOTTOM HOLE INFORMATION:  
 N: 4,339,939m E: 511,024m

| LEGEND  |                                  |             |
|---|----------------------------------|-------------|
|   | Surface Owner Boundary Lines +/- |             |
|   | Interior Surface Tracts +/-      |             |
|   | Existing Fence                   |             |
|   | Found monument, as noted         |             |
| <b>DOUGLAS R. ROWE P.S. 2202</b>  |                                  |             |
| DATE 01/20/15   |                                  |             |
| OPERATOR'S WELL# MCNABB UNIT #4H  |                                  |             |
| API WELL #  | 47 - 085                         | - 10199 MOD |
| STATE   | COUNTY                           | PERMIT      |
| JOB #   | 14-094WA                         |             |
| DRAWING #   | MCNABB4H                         |             |
| SCALE   | 1" = 1000'                       |             |
| MINIMUM DEGREE OF ACCURACY  | SUBMETER                         |             |
| PROVEN SOURCE OF ELEV.  | SUBMETER MAPPING GRADE GPS       |             |
| STATE OF WEST VIRGINIA<br>DEPARTMENT OF ENERGY<br>DIVISION OF OIL AND GAS |                                  |             |



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

WELL TYPE: OIL  GAS  LIQUID INJECTION  WASTE DISPOSAL   
 (IF "GAS") PRODUCTION  STORAGE  DEEP  SHALLOW   
 LOCATION: ELEVATION 1,099' WATERSHED CABIN RUN  
 QUADRANGLE PULLMAN 7.5 (TH); OXFORD 7.5 (BH) DISTRICT CLAY COUNTY RITCHIE  
 SURFACE OWNER JACK D. MACKAY ET AL ACREAGE 253.03 ACRES +/-  
 OIL & GAS ROYALTY OWNER W.M. VANCAMPEN ET AL/ANNA BATTA ET AL: LEASE ACREAGE 312 AC±; 111 AC±;  
 DAVID W PRICE; HAROLD BURGESS ET UX; GUSSIE LEGGETT: 105 AC±; 29 AC±; 169 AC±;  
 S BYRL ROSS ET UX; NATHAN PRIMM ET UX; JOSEPH E HAUGHT: 195 AC±; 37 AC±; 66 AC±;  
 BRICE M BYHAM ET VIR; RUSSEL GRAY ET AL 41 AC±; 225 AC±  
 PROPOSED WORK: DRILL  CONVERT  DRILL DEEPER  REDRILL  FRACTURE OR STIMULATE   
 PLUG OFF OLD FORMATION  PERFORATE NEW FORMATION  OTHER PHYSICAL CHANGE IN WELL   
 (SPECIFY) MOD-BH PLUG & ABANDON CLEAN OUT & REPLUG  
 TARGET FORMATION MARCELLUS ESTIMATED DEPTH 6,700' TVD 19,600' MD  
 WELL OPERATOR ANTERO RESOURCES CORP. DESIGNATED AGENT DIANNA STAMPER  
 ADDRESS 1615 WYNKOOP STREET ADDRESS 5400 D BIG TYLER ROAD  
 DENVER, CO 80202 CHARLESTON, WV 25313



06/05/2015

WW-6A1

Operator's Well Number McNabb Unit 4H

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 |
|---|---|-------------|-----------|
| <b><u>Anna Batta et al Lease</u></b>  |   |             |           |
| Anna S. Batta et vir  | Northeastern Operating Company, Inc.      | 1/8         | 0225/0699 |
| Northeastern Operating Company, Inc.  | Key Oil Company                           | Assignment  | 0226/0163 |
| Key Oil Company   | Antero Resources Appalachian Corporation  | Assignment  | 0253/0747 |
| Antero Resources Appalachian Corporation                                    | Antero Resources Corporation              | Name Change | Exhibit 1 |
| <b><u>WM VanCampen, et al Lease</u></b>                                     |   |             |           |
| William Charles VanCampen   | Warren R. Haught, et al                   | 1/8         | 0122/0565 |
| Warren R. Haught, et al   | Haught, Inc.                              | Assignment  | 0124/0296 |
| Haught, Inc.  | Mountaineer 1979-A                        | Assignment  | 0129/0449 |
| Mountaineer 1979-A  | Mountain V Oil and Gas Co.                | Assignment  | 0230/0253 |
| Mountain V Oil and Gas Co.  | Robert Matheny, Jr. & HMS Resources, Inc. | Assignment  | 0243/0911 |
| Robert Matheny, Jr. & HMS Resources, Inc.                                   | Genesis Exploration & Production          | Assignment  | 0244/1079 |
| Genesis Exploration & Production  | Antero Resources Appalachian Corporation  | Assignment  | 0260/1028 |
| HMS Resources   | Antero Resources Appalachian Corporation  | Assignment  | 0260/1035 |
| Robert Matheny, Jr. & HMS   | Antero Resources Appalachian Corporation  | Assignment  | 0260/1042 |
| Antero Resources Appalachian Corporation                                    | Antero Resources Corporation              | Name Change | Exhibit 1 |
| <b><u>David W. Price Lease</u></b>  |   |             |           |
| David W. Price  | Antero Resources Corporation              | 1/8+        | 0348/0729 |
| <b><u>Harold Burgess, et ux Lease</u></b>                                   |   |             |           |
| Harold R. Burgess, et ux  | Key Oil Company                           | 1/8         | 0181/0267 |
| Key Oil Company   | Antero Resources Appalachian Corporation  | Assignment  | 0256/0285 |
| Key Oil Company   | Antero Resources Appalachian Corporation  | Assignment  | 0276/0526 |
| Antero Resources Appalachian Corporation                                    | Antero Resources Corporation              | Name Change | Exhibit 1 |
| <b><u>Gussie Leggett Lease</u></b>  |   |             |           |
| Gussie Leggett  | Alton Skinner                             | 1/8         | 0107/0480 |
| Alton Skinner II, et al as Co-Administrator for the Estate of Alton Skinner | Desari S. Garrett, et al                  | Assignment  | 0169/0193 |
| Desari S. Garrett, et al  | DC Petroleum, Inc.                        | Assignment  | 0170/0583 |
| DC Petroleum, Inc. & Chase Petroleum, Inc.                                  | Antero Resources Appalachian Corporation  | Assignment  | 0257/0062 |
| Antero Resources Appalachian Corporation                                    | Antero Resources Corporation              | Name Change | Exhibit 1 |
| <b><u>L.L. Moss, et ux Lease</u></b>  |   |             |           |
| L.L. Moss, et ux  | Alton Skinner                             | 1/8         | 0112/0178 |
| Alton Skinner II, et al as Co-Administrator for the Estate of Alton Skinner | Desari S. Garrett et al                   | Assignment  | 0169/0193 |
| Desari S. Garrett, et al  | DC Petroleum, Inc.                        | Assignment  | 0170/0583 |
| DC Petroleum, Inc. & Chase Petroleum, Inc.                                  | Antero Resources Appalachian Corporation  | Assignment  | 0257/0062 |
| Antero Resources Appalachian Corporation                                    | Antero Resources Corporation              | Name Change | Exhibit 1 |

\*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.

WW-6A1

Operator's Well Number McNabb Unit 4H

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    |
|--|--|-------------|--------------|
| <b>S. Byrl Ross, et ux Lease</b>   |  |             |              |
| S. Byrl Skinner, et al   | Alton Skinner  | 1/8         | 0128/0386    |
| Alton Skinner, II, et al as Co-Administrators for the Estate of Alton Skinner                        | Desari S. Garrett, et al   | Assignment  | 0169/0193    |
| Desari S. Garrett, et al   | DC Petroleum, Inc.   | Assignment  | 0170/0583    |
| DC Petroleum, Inc. & Chase Petroleum, Inc.   | Antero Resources Appalachian Corporation                                     | Assignment  | 0257/0062    |
| Antero Resources Appalachian Corporation   | Antero Resources Corporation   | Name Change | Exhibit 1    |
| <b>Nathan R. Primm, et ux Lease</b>  |  |             |              |
| Nathan R. Primm and Thelma Primm, his wife   | C.A. Stricklin   | 1/8         | 0067/0190    |
| C.A. Stricklin   | Alton Skinner  | Assignment  | 0118/0536    |
| Alton Skinner and Chase Petroleum, Inc., a WV corporation wholly owned by Alton L. Skinner, deceased | Desari S. Garrett, Alton L. Skinner, II and Crystal G. Skinner, Heirs at Law | Assignment  | AP 0025/0684 |
| Alton Skinner, II  | Desari S. Garret and Crystal G. Skinner                                      | Assignment  | DB 0222/0266 |
| Desari S. Garrett and Crystal G. Skinner   | DC Petroleum Inc.  | Assignment  | DB 0224/0140 |
| DC Petroleum, Inc. & Chase Petroleum, Inc.   | Antero Resources Appalachian Corporation                                     | Assignment  | 0254/0133    |
| Antero Resources Appalachian Corporation   | Antero Resources Corporation   | Name Change | Exhibit 1    |
| <b>Joseph E. Haught Lease</b>  |  |             |              |
| Joseph E. Haught and Carolyn B. Haught, his wife   | Alton Skinner  | 1/8         | 0112/0154    |
| Alton Skinner and Chase Petroleum, Inc., a WV corporation wholly owned by Alton L. Skinner           | Desari Garrett, Alton L. Skinner, II and Crystal G. Skinner, Heirs at Law    | Assignment  | AP 0025/0684 |
| Alton L. Skinner, II   | Desari S. Garrett and Crystal G. Skinner                                     | Assignment  | DB 0222/0266 |
| Crystal G. Skinner & Desari S. Garrett   | DC Petroleum, Inc.   | Assignment  | DB 0224/0140 |
| DC Petroleum, Inc and Chase Petroleum, Inc.  | Antero Resources Appalachian Corporation                                     | Assignment  | 0257/0062    |
| Antero Resources Appalachian Corporation   | Antero Resources Corporation   | Name Change | Exhibit 1    |
| <b>Brice M. Byham, et vir Lease</b>  |  |             |              |
| Brice M. Byham and Edgar W. Byham, her husband   | Alton Skinner  | 1/8         | 0116/0437    |
| Alton Skinner and Chase Petroleum, Inc., a WV corporation wholly owned by Alton L. Skinner           | Desari Garrett, Alton L. Skinner, II and Crystal G. Skinner, Heirs at Law    | Assignment  | AP 0025/0684 |
| Alton L. Skinner, II   | Desari S. Garrett and Crystal G. Skinner                                     | Assignment  | DB 0222/0266 |
| Crystal G. Skinner & Desari S. Garrett   | DC Petroleum, Inc.   | Assignment  | DB 0224/0140 |
| DC Petroleum, Inc and Chase Petroleum, Inc.  | Antero Resources Appalachian Corporation                                     | Assignment  | 0257/0062    |
| Antero Resources Appalachian Corporation   | Antero Resources Corporation   | Name Change | Exhibit 1    |

RECEIVED  
Office of Oil and Gas  
0116/0437

JUN 02 2015  
AP 0025/0684

WV Department of  
Environmental Protection  
DB 0222/0266  
DB 0224/0140  
0257/0062  
Exhibit 1

\*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.

\*\*CONTINUED ON NEXT PAGE\*\*

06/05/2015



WW-6A1  
(5/13)

Operator's Well No. McNabb Unit 4H

**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:

| Lease Name or Number            | Grantor, Lessor, etc.  | Grantee, Lessee, etc.  | Royalty  | Book/Page   |
|---------------------------------|--|--|--|---|
| <b>Russel Gray, et al Lease</b> | Russel H. Gray and Edith Gray, his wife, et ux<br>Alton Skinner and Chase Petroleum, Inc., a WV Corporation Wholly Owned by Alton L. Skinner<br>Alton L. Skinner, II<br>Crystal G. Skinner & Desari S. Garrett<br>DC Petroleum, Inc. and Chase Petroleum, Inc.<br>Antero Resources Appalachian Corporation | Alton Skinner<br>Desari Garrett, Alton L. Skinner, and<br>Crystal G. Skinner, Heirs at Law<br>Desari S. Garrett and Crystal G. Skinner<br>DC Petroleum, Inc.<br>Antero Resources Appalachian Corporation<br>Antero Resources Corporation | 1/8<br>Assignment<br>Assignment<br>Assignment<br>Assignment<br>Name Change | 0121/0123<br>AP 0025/0684<br>DB 0222/0266<br>DB 0224/0140<br>0257/0062<br>Exhibit 1 |

\*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.

**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

**RECEIVED**  
Office of Oil and Gas

JUN 02 2015

WV Department of  
Environmental Protection

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: Kevin Kilstrom  
Its: VP of Production

FORM WV-6A1  
EXHIBIT 1

FILED

JUN 10 2013

Natalie E. Tennant  
Secretary of State  
1900 Kanawha Blvd E  
Bldg 1, Suite 157-K  
Charleston, WV 25305



Penney Barker, Manager  
Corporations Division  
IN THE OFFICE OF  
SECRETARY OF STATE  
Tel: (304)558-8000  
Fax: (304)558-8381  
Website: [www.wvsec.com](http://www.wvsec.com)  
E-mail: [business@wvsec.com](mailto:business@wvsec.com)

FILE ONE ORIGINAL  
(Two if you want a filed  
stamped copy returned to you)  
FEE: \$25.00

APPLICATION FOR  
AMENDED CERTIFICATE  
OF AUTHORITY

Office Hours: Monday - Friday  
8:30 a.m. - 5:00 p.m. ET

\*\*\*\* In accordance with the provisions of the West Virginia Code, the undersigned corporation hereby \*\*\*\*  
applies for an Amended Certificate of Authority and submits the following statement:

- Name under which the corporation was authorized to transact business in WV: Antero Resources Appalachian Corporation
  - Date Certificate of Authority was issued in West Virginia: 6/26/2008
  - Corporate name has been changed to: Antero Resources Corporation  
(Attach one Certified Copy of Name Change as filed in home State of incorporation.)
  - Name the corporation elects to use in WV: Antero Resources Corporation  
(due to home state name not being available)
  - Other amendments:  
(attach additional pages if necessary)
6. Name and phone number of contact person. (This is optional; however, if there is a problem with the filing, listing a contact person and phone number may avoid having to return or reject the document.)
- |                        |                       |
|------------------------|-----------------------|
| <u>Alvyn A. Schopp</u> | <u>(303) 367-7310</u> |
| Contact Name           | Phone Number          |
7. Signature Information (See below \*Important Legal Notice Regarding Signature\*):
- Print Name of Signer: Alvyn A. Schopp Title/Capacity: Authorized Person
- Signature: [Handwritten Signature] Date: June 10, 2013

**\*Important Legal Notice Regarding Signature:** Per West Virginia Code §31D-1-129, Penalty for signing false document. Any person who signs a document he or she knows is false in any material respect and knows that the document is to be delivered to the secretary of state for filing is guilty of a misdemeanor and, upon conviction thereof, shall be fined not more than one thousand dollars or confined in the county or regional jail not more than one year, or both.

Form CP-4

Issued by the Office of the Secretary of State

RECEIVED  
Office of Oil and Gas

JUN 02 2013

WV Department of Environmental Protection  
06/05/2015