



---

west virginia department of environmental protection

---

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

Harold D. Ward, Cabinet Secretary  
[www.dep.wv.gov](http://www.dep.wv.gov)

Wednesday, December 18, 2024  
PERMIT MODIFICATION APPROVAL  
Horizontal 6A / New Drill

ANTERO RESOURCES CORPORATION  
1615 WYNKOOP STREET

DENVER, CO 80202

Re: Permit Modification Approval for OSBORNE UNIT 1H  
47-017-06972-00-00

**Lateral Extension/ New Leases**

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.

A blue ink signature of James A. Martin, Chief.

James A. Martin  
Chief

Operator's Well Number: OSBORNE UNIT 1H  
Farm Name: ANTERO RESOURCES CORPORATION  
U.S. WELL NUMBER: 47-017-06972-00-00  
Horizontal 6A New Drill  
Date Modification Issued: 12/18/2024

Promoting a healthy environment.

12/20/2024

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

1) Well Operator: Antero Resources Corporation 494507062 017 - Dodd South Oxford 7.5'  
Operator ID County District Quadrangle

2) Operator's Well Number: Osborne Unit 1H MOD Well Pad Name: Locke Pad

3) Farm Name/Surface Owner: Antero Resources Corporation Public Road Access: Taylor Drain Road

4) Elevation, current ground: 1100.5' - 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: 7000' TVD, Anticipated Thickness- 55 feet, Associated Pressure- 2850#

8) Proposed Total Vertical Depth: 7000' TVD

9) Formation at Total Vertical Depth: Marcellus

10) Proposed Total Measured Depth: 21800' MD

11) Proposed Horizontal Leg Length: 13251' \*Open to modification at a later date

12) Approximate Fresh Water Strata Depths: 236', 260', 320', 326'

13) Method to Determine Fresh Water Depths: 4701703390000, 47017000980000 Offset well records. Depths have been adjusted according to surface elevations.

14) Approximate Saltwater Depths: 1733', 1750'

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: \_\_\_\_\_

CK# 4037218  
\$7500.00  
12/5/2024

RECEIVED  
Office of Oil and Gas  
DEC 16 2024  
WV Department of  
Environmental Protection

*Shaw 107*  
12-13-2024  
**12/20/2024**

WW-6B  
(04/15)

API NO. 47- 017 - 06972

OPERATOR WELL NO. Osborne Unit 1H MOD

Well Pad Name: Locke Pad

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#	376'	376'	CTS, 392 Cu. Ft.
Coal	9-5/8"	New	J-55	36#	2750'	2750'	CTS, 1120 Cu. Ft.
Intermediate							
Production	5-1/2"	New	P110-ICY	23#	21800'	21800'	CTS, 4565 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			

RECEIVED  
Office of Oil and Gas

DEC 16 2024

WV Department of  
Environmental Protection

*Shawn Kij*  
12-13-2024

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): 27.54 acres

22) Area to be disturbed for well pad only, less access road (acres): 13.31 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:

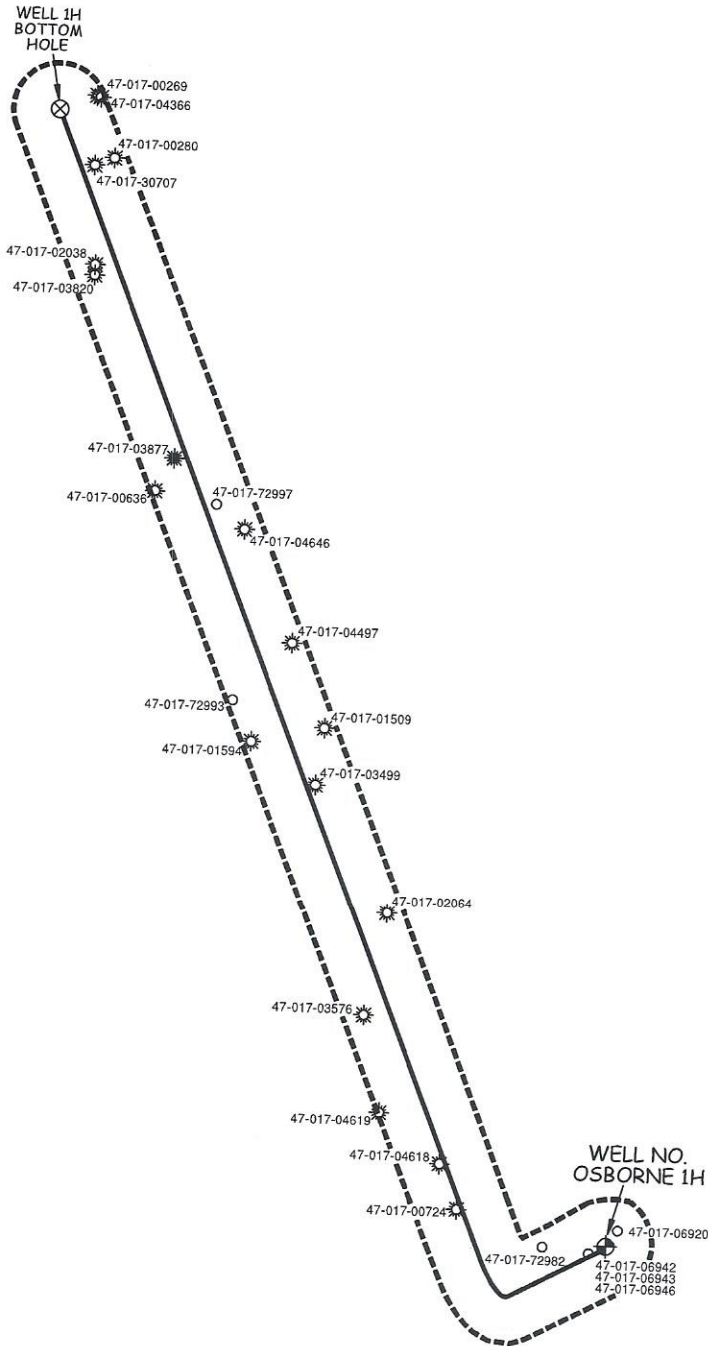
Conductor: blowhole clean with air, run casing, 10 bbls fresh water.  
Surface: blowhole clean with air, trip to conductor shoe, trip to bottom, blowhole clean with air, trip out, run casing, circulate pipe capacity + 40 bbls fresh water followed by 25 bbls bentonite mud, 10 bbls fresh water spacer.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

RECEIVED  
Office of Oil and Gas  
DEC 16 2024

*Shawn King*  
12-13-24  
12/20/2024

# LOCKE PAD ANTERO RESOURCES CORPORATION



RECEIVED  
Office of Oil and Gas  
**DEC 09 2024**  
WV Department of  
Environmental Protection

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

JOB #: 23-019WA

FILE: OSBORNE1HAOR.DWG

SCALE : 1-INCH = 2000-FEET



DATE: 12/5/2024

DRAWN BY: D.L.P.

12/20/2024

UWI (API Num)	Well Name	Well Number	Operator	Historical Operator	TD	Perforated Interval (shallowest, deepest)	Perforated Formation(s)	Producing Formation(s) not perf'd
47017069200000	LOCKE UNIT	5V	ANTERO RESOURCES CORP	ANTERO RESOURCES CORP				
47017069420000	JENKINS UNIT	1H	ANTERO RESOURCES CORP	ANTERO RESOURCES CORP				
47017069430000	JENKINS UNIT	2H	ANTERO RESOURCES CORP	ANTERO RESOURCES CORP	16,348	6937 - 16227	Marcellus	
47017069460000	SHOTTER UNIT	2H	ANTERO RESOURCES CORP	ANTERO RESOURCES CORP	16,754	7122 - 16620	Marcellus	
47017729820000	E W OSBORNE	1	UNKNOWN	UNKNOWN	16,978	6926 - 16847	Marcellus	
47017007240000	E W OSBURN	1	UNKNOWN	UNKNOWN				
47017046180000	WHITEHAIR	5	TRIO OIL & GAS	TRIO PETROLEUM INC	1,880			
47017046190000	WHITEHAIR	6	KEY OIL	KEY OIL	5,266		Big Injun	
47017035760000	WEST HAZEL N	6-ID	TERM ENERGY	KEY OIL	5,263	3210 - 5077	Balltown, Riley, Benson, Alexander	Weir, Benson, Alexander
47017020640000	MYRTLE R WILSON	4705	EQUITABLE GAS CO	TERM ENERGY	5,348	3240 - 5102	Balltown, Riley, Benson, Alexander	Weir
47017034990000	GRAY M B HEIRS	2288	DIVERSIFIED PRODUCTION LLC	EQUITABLE GAS CO	2,101	5195 - 5237	Big Injun, Riley, Alexander	Weir
47017015940000	GRAY M B	11285	DIVERSIFIED PRODUCTION LLC	CNG DEVELOPMENT CO	5,368		Maxton, Big Injun	Weir, Benson
47017015090000	GRAY M B		TARGA DEVELOPMENT INC	CONSOL GAS SUPPLY CRP	2,061	5136 - 5186	Big Injun, Gordon, Speechley, Alexander	Weir, Benson, Alexander
47017729930000	M B GRAY		UNKNOWN	DILMUR OIL	2,060	1913 - 1952	Big Injun	Weir, Benson
47017044970000	SCOTT	1	KEY OIL	UNKNOWN			Big Injun	Weir, Benson, Alexander
47017046460000	SCOTT	3	KEY OIL	KEY OIL	5,248			Weir, Benson, Alexander
47017729970000	SARAH D & R SCOTT HRS	1	UNKNOWN	KEY OIL	5,170	3211 - 5077	Warren, Speechley, Balltown, Riley, Benson, Elk, Alexander	Weir
47017006360000	S D & ROSCOE SCOTT HRS	2	TARGA DEVELOPMENT INC	UNKNOWN		3156 - 5026	Speechley, Riley, Benson, Alexander	Weir
47017038770000	STANSBERRY GEORGE J ETAL	1	HARPER CROSBY HOLDINGS LLC	MURPHY OIL PENN	1,910			
47017038200000	STINESPRING W L	4	HARPER CROSBY HOLDINGS LLC	FLUHARTY ENTERPRISES	5,224		Big Injun	
47017020380000	STINESPRING	4541	EQUITABLE GAS CO	FLUHARTY ENTERPRISES	5,378	4065 - 4996	Riley, Benson, Alexander	Weir, Benson, Alexander
47017307070000	G L NUTTER 1	4569	PITTSBURGH&W VA GAS	EQUITABLE GAS CO		4221 - 5140	Bradford, Riley, Benson, Alexander	Weir
47017002800000	N H LEGGETT	4	DIVERSIFIED PRODUCTION LLC	PITTSBURGH&W VA GAS	1,908			Weir
47017043660000	LEGGETT ROY ET AL	1	DIVERSIFIED PRODUCTION LLC	HUNTER R J	1,952		Maxton, Big Injun	
47017002690000	N H LEGGETT	1	HUNTER R J	DACCORP	5,292		Big Injun	Weir, Benson, Alexander
				HUNTER R J	1,883	4155 - 5064	Riley, Alexander	Weir, Benson, Alexander
							Big Injun	Weir, Benson
								Weir, Benson, Alexander

**RECEIVED**  
 Office of Oil and Gas  
**DEC 09 2024**  
 WV Department of  
 Environmental Protection

LATITUDE 39°12'30"

11,718'

LATITUDE 39°15'00"

6,415' TO BOTTOM HOLE

Antero Resources Corporation  
Well No. Osborne #1H

NOTES:  
WELL 1H TOP HOLE INFORMATION:  
N: 249,765ft E: 1,622,119ft  
LAT: 39°10'41.00" LON: 80°49'58.80"  
BOTTOM HOLE INFORMATION:  
N: 261,907ft E: 1,615,789ft  
LAT: 39°12'40.06" LON: 80°51'21.50"  
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.

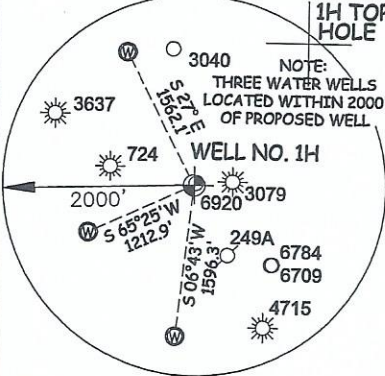
(NAD) 83 (UTM) ZONE 17 COORDS:  
WELL 1H TOP HOLE INFORMATION:  
N: 4,336,559m E: 514,439m  
BOTTOM HOLE INFORMATION:  
N: 4,340,225m E: 512,449m

(NAD) 27 (UTM) ZONE 17 COORDS:  
WELL 1H TOP HOLE INFORMATION:  
N: 14,226,812ft E: 1,687,742ft  
POINT OF ENTRY INFORMATION:  
N: 14,226,633ft E: 1,686,353ft  
BOTTOM HOLE INFORMATION:  
N: 14,238,842ft E: 1,681,213ft

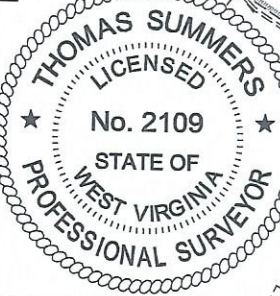
NOTE  
NO OCCUPIED DWELLINGS OR BUILDINGS TWO THOUSAND FIVE HUNDRED (2,500) SQUARE FEET OR LARGER USED TO HOUSE OR SHELTER DAIRY CATTLE OR POULTRY HUSBANDRY ARE LOCATED WITHIN SIX HUNDRED TWENTY-FIVE (625) FEET OF THE CENTER OF THE WELL PAD.

WV NORTH ZONE  
GRID NORTH

SOUTHWEST DIST. DODDRIDGE CO.	
1-1	JEFFREY POLAN
4-2	CEVASCO FAMILY TRUST
4-4	JUANITA LEGGETT
4-5	I L MORRIS
4-18	JAMES WEBB
4-19.5	DANA HURST
4-19.6	THONON SWICK
4-19.7	JAMES WEBB
4-19.8	JAMES WEBB
4-19.9	JAMES WEBB
4-21	ANTHONY AYERS
4-24	I L MORRIS
4-26	ANTHONY AYERS
4-27	ANTHONY AYERS
4-28	STEVEN SMITH
4-28.1	STANLEY WEBB
4-28.2	DEPT. OF HIGHWAYS
4-28.3	CHRIS FARLEY
4-30	RICHARD PARSONS
4-31	VECKI MOORE
4-32	JOHN HEWINS
4-32.1	NICOLAS WEBB
4-33	TINA OSBORNE
8-01	RICHARD BROWN
8-03	RANDALL RUSSELL
8-04	JOHN GRAY HRS.
8-05	LARRY GANDER
9-1.1	TINA OSBORNE
9-2.1	BRIAN PRIM
9-3.2	JUANITA LEGGETT
9-07	BRIAN PRIM
9-08	ROBERT LEE BROWNFIELD JR.
9-09	ANTERO RESOURCES CORP.
9-10	DELBERT OSBORNE
9-14	KERRY JUNKINS
9-15	ROBERT LEE BROWNFIELD JR.
12-01	DAVID BALL JR.
15-05	LARRY GANDER



A	N.H. LEGGETT ET AL
C	W.L. STINESPRING ET UX
D	SHARON WICK
E	OWEN T. WISE ET UX
F	SARAH D. SCOTT AND ROSCOE SCOTT
G	LINDA SUE BEACH
H	M.B. GRAY ET AL
J	FLOYD LARRY WHEELER
K	BILLIE L. BARTEE
L	SOPHIA HILEMAN ET AL
N	HAZEL N. WEST ET AL
O	E.W. OSBURN ET AL
P	CHARLES J. DENNISON
Q	J. S. BRITTON ET UX
R	MARY ZINN
S	MILDRED RIDDLE ET VIR



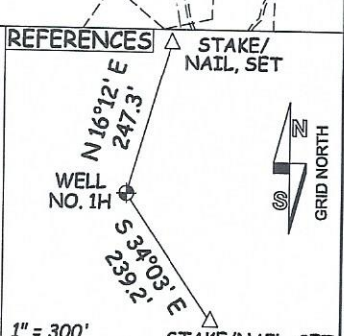
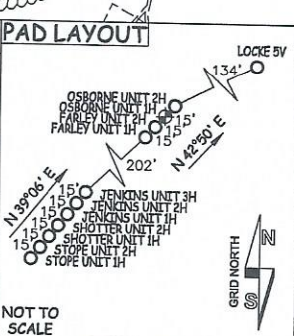
I THE UNDERSIGNED, HEREBY CERTIFY THAT THIS PLAT IS CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF AND SHOWS ALL THE INFORMATION REQUIRED BY LAW AND THE RULES ISSUED AND PERSCRIBED BY THE DEPARTMENT OF ENVIRONMENTAL PROTECTION.



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 # 23-019WA  
DRAWING # OSBORNE1HPR  
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 01/16/24  
OPERATOR'S WELL# OSBORNE UNIT #1H



WELL TYPE: OIL \_\_\_ GAS  LIQUID INJECTION \_\_\_ WASTE DISPOSAL \_\_\_  
(IF "GAS") PRODUCTION  STORAGE \_\_\_ DEEP \_\_\_ SHALLOW  STATE 47 COUNTY 017 PERMIT 06972  
LOCATION: ELEVATION 1,100.5' - AS BUILT WATERSHED SOUTH FORK HUGHES RIVER  
QUADRANGLE OXFORD 7.5' DISTRICT SOUTHWEST COUNTY DODDRIDGE  
SURFACE OWNER ANTERO RESOURCES CORPORATION ACREAGE 59.74 ACRES +/- LEASE ACREAGE 180 AC±  
OIL & GAS ROYALTY OWNER E. W. OSBORNE ET AL DATE 12/20/2024

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 7,000' TVD 21,800' MD  
WELL OPERATOR ANTERO RESOURCES CORP. DESIGNATED AGENT KEVIN ELLIS  
ADDRESS 1615 WYNKOOP ST. ADDRESS 535 WHITE OAKS BLVD  
FORM WW-6 DENVER, CO 80202 BRIDGEPORT, WV 26330

11,028'  
14,159' TO BOTTOM HOLE  
LONGITUDE 80°50'00"  
LONGITUDE 80°47'30"

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>O: E.W. Osbourne Et Al Lease</b>			
E.W. Osbourne Et Al	Hope Natural Gas	1/8	0057/0132
Hope Natural Gas	Trio Oil and Gas Company	Assignment	0072/0496
Trio Oil and Gas Company	Charter D. Stinespring, Paul B. Davis & G.W. Hill	Assignment	0131/0687
Charter D. Stinespring, Paul B. Davis & G.W. Hill	J & J Enterprises, Inc.	Assignment	0131/0762
J & J Enterprises, Inc.	Eastern American Energy Corporation	Assignment	0159/0139
Eastern American Energy Corporation	Energy Corporation of America	Merger	0006/0450
Energy Corporation of America	Antero Resources Appalachian Corporation	Assignment	0272/0307
Antero Resources Appalachian Corporation	Antero Resources Corporation	Name Change	0046/0523
<b>N: Hazel N. West Et Al Lease</b>			
Hazel N. West, Et Al	Hugh Spencer	1/8	0128/0114
Hugh Spencer	Trustees of the Hugh K. Spencer Revocable Trust	Assignment	0032/0107
Trustees of the Hugh K. Spencer Revocable Trust	Spencer Enterprises, LLC	Assignment	0199/0534
Spencer Enterprises, LLC	Antero Resources Appalachian Corporation	Assignment	0264/0099
Antero Resources Appalachian Corporation	Antero Resources Corporation	Name Change	0046/0523
<b>K: Billie L. Bartee Lease</b>			
Billie L. Bartee	Antero Resources Corporation	1/8+	0477/0021
<b>J: Floyd Larry Wheeler Lease</b>			
Floyd Larry Wheeler	Antero Resources Corporation	1/8+	0521/0044
<b>H: M.B. Gray Et Al Lease</b>			
M.B. Gray and Mary Gray, Et Al	Hope Natural Gas Company	1/8	0057/0372
Hope Natural Gas Company	Consolidated Gas Supply Corporation	Assignment	0143/0345
Consolidated Gas Supply Corporation	Consolidated Gas Transmission Corporation	Assignment	0135/0583
Consolidated Gas Transmission Corporation	CNG Development	Assignment	0139/0041
CNG Development	Dominion Exploration and Production Inc.	Merger	WVSOS
Dominion Exploration and Production Inc.	Dominion Transmission Inc.	Assignment	0244/0528
Dominion Transmission Inc.	Consol Energy Holdings LLC XVI	Assignment	0245/0001
Consol Energy Holdings LLC XVI	Consol Gas Company	Merger	0293/0352
Consol Gas Company	CNX Gas Company	Merger	0293/0352
CNX Gas Company	Antero Resources Corporation	Assignment	0332/0303

RECEIVED  
Office of Oil and Gas  
DEC 09 2024  
WV Department of  
Environmental Protection

12/20/2024



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>F: Sarah D. Scott and Roscoe Scott Lease</b>			
Sarah D. and Roscoe Scott E.E. Zinn, W.C. Broadwater, & E.M. Nutter	E.E. Zinn, W.C. Broadwater, & E.M. Nutter E.E. Zinn, Juna Broadwater, E.M. Nutter, L.R. Boyce, F. Zinn, P.M. Broadwater Rowena S Black, B.W. Foley, J.W. Dotson, Zana Nutter, N.H. Leggett, Charles Bee, O.P. Broadwater, F.B. Zinn, Reed A Zinn, O.O. Wise, Lee Prunty, Willis Calhoun, Eli Nutter, Ocal Gray, R.J. Broadwater, E.O. Wilson, & Gary Zinn	1/8 Assignment	0040/0245 0001/0048
E.E. Zinn, Juna Broadwater, E.M. Nutter, L.R. Boyce, F. Zinn, P.M. Broadwater Rowena S Black, B.W. Foley, J.W. Dotson, Zana Nutter, N.H. Leggett, Charles Bee, O.P. Broadwater, F.B. Zinn, Reed A Zinn, O.O. Wise, Lee Prunty, Willis Calhoun, Eli Nutter, Ocal Gray, R.J. Broadwater, E.O. Wilson, & Gary Zinn	E.E. Zinn & E.M. Nutter, as true and lawful Attorneys in Fact	Assignment	0001/0048
E.E. Zinn & E.M. Nutter, as true and lawful Attorneys in Fact Murphy Oil Company Dilmur Oil Company Targa Development Inc Antero Resources Appalachian Corporation	Murphy Oil Company Dilmur Oil Company Targa Development Inc Antero Resources Appalachian Corporation Antero Resources Corporation	Assignment Assignment Assignment Assignment Name Change	0047/0469 0091/0734 0165/0436 0257/0362 0046/0523
<b>E: Owen T. Wise Et Ux Lease</b>			
Owen T. Wise, Et Ux Mountaineer Enterprises Dolphin Petroleum, Inc. Tri-County Oil & Gas May Gas, Inc. Hayhurst Company Piney Holdings, Inc.	Mountaineer Enterprises Dolphin Petroleum, Inc. Tri-County Oil & Gas May Gas, Inc. Hayhurst Company Piney Holdings, Inc. Antero Resources Corporation	1/8 Assignment Assignment Assignment Assignment Assignment Assignment	0162/0210 0162/0337 0209/0448 0219/0013 0229/0467 0253/0146 0362/0589
<b>D: Sharon Wick Lease</b>			
Sharon Wick	Antero Resources Corporation		Pooled Tract
<b>C: W.L. Stinespring Et Ux Lease</b>			
W.L. Stinespring, Et Ux Philadelphia Company of West Virginia Oil & Gas Pittsburgh & West Virginia Gas Company Equitable Gas Company Equitrans, Inc. Equitrans LP Equitable Production-Eastern States Inc. Equitable Production Company EQT Production Company	Philadelphia Company of West Virginia Oil & Gas Pittsburgh & West Virginia Gas Company Equitable Gas Company Equitrans, Inc. Equitrans LP Equitable Production-Eastern States Inc. Equitable Production Company EQT Production Company Antero Resources Corporation	1/8 Assignment Assignment Assignment Merger Assignment Merger Name Change Assignment	0026/0345 0032/0253 0121/0303 0154/0475 0329/0645 0192/0019 0281/0346 0281/0346 0371/0270

RECEIVED  
Office of Oil and Gas  
DEC 09 2024  
WV Department of  
Environmental Protection

12/20/2024

**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
<u>A: N.H. Leggett Et Al Lease</u>	N.H. Leggett Et Al Alton Skinner Chase Petroleum Inc. Antero Resources Appalachian Corporation	Alton Skinner Chase Petroleum Inc. Antero Resources Appalachian Corporation Antero Resources Corporation	1/8 Assignment Assignment Name Change	0118/0330 0123/0277 0260/0117 0046/0523

\*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 the 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.

**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
- U.S. Army Corps of Engineers
- U.S. Fish and Wildlife Service
- County Floodplain Coordinator

RECEIVED  
Office of Oil and Gas

DEC 09 2024

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: Tim Rady  
 Its: Senior Vice President of Land