



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

Tuesday, July 1, 2025
PERMIT MODIFICATION APPROVAL
Horizontal 6A / New Drill

ANTERO RESOURCES CORPORATION
1615 WYNKOOP STREET

DENVER, CO 80202

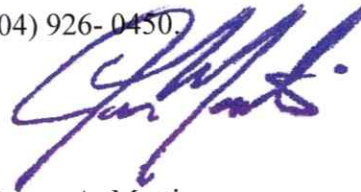
Re: Permit Modification Approval for Eleanor Unit 2H
47-095-02933-00-00

Lateral Extension

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: Eleanor Unit 2H
Farm Name: Robert F & Rita K Scardina
U.S. WELL NUMBER: 47-095-02933-00-00
Horizontal 6A New Drill
Date Modification Issued: 07/01/2025

Promoting a healthy environment.

07/04/2025

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

CK# 4041958
b 7500

1) Well Operator: Antero Resources Corporation 494507062 095 - Tyler Lincoln Paden City
Operator ID County District Quadrangle

2) Operator's Well Number: Eleanor Unit 2H MOD Well Pad Name: Starkey Pad

3) Farm Name/Surface Owner: Robert F. Scardina & Rita K. Scardina Public Road Access: Hamilton Drive

4) Elevation, current ground: 1092' Elevation, proposed post-construction: _____

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

Other _____

(b) If Gas Shallow X Deep _____

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- 55 feet, Associated Pressure- 2800#

8) Proposed Total Vertical Depth: 6700' TVD

9) Formation at Total Vertical Depth: Marcellus

10) Proposed Total Measured Depth: 20700' MD

11) Proposed Horizontal Leg Length: 11018'

12) Approximate Fresh Water Strata Depths: 464

13) Method to Determine Fresh Water Depths: 47-095-00275

14) Approximate Saltwater Depths: 1522

15) Approximate Coal Seam Depths: None

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: _____

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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	H-40	94#	100	100 ✓	CTS, 96 Cu. Ft.
Fresh Water	13-3/8"	New	J-55	54.5#	514	514 ✓	CTS, 536 Cu. Ft. ✓
Coal	9-5/8"	New	J-55	36#	2500	2500 ✓	CTS, 1018 Cu. Ft.
Intermediate							
Production	5-1/2"	New	P-110	23#	20700	20700 ✓	4288 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"	0.438"	1530	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"	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			
Sizes:	N/A			
Depths Set:	N/A			

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Page 2 of 3
Digitally signed by
Stephen Mccoy
Date: 2025.06.13 10:17:27
-04'00'

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

Drill, perforate, fracture a new shallow well and complete Marcellus Shale.

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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): 35.27 acres

22) Area to be disturbed for well pad only, less access road (acres): 14.87 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 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.

UWI (APINum)	Well Name	Well Number	Operator	Historical Operator	TD	Perforated Interval (shallowest, deepest)	Perforated Formation(s)	Producible Formation(s) not perf'd
47095010920000	MIKE DORA & RALPH	84-5	PIN OAK OPERATING LLC	APPLIED MECHANICS	3,200	2030 - 3038	Big Injun, Gordon	Weir, Benson, Alexander

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LEGEND

- Proposed gas well
- Existing Well, as noted
- Digitized Well, as noted

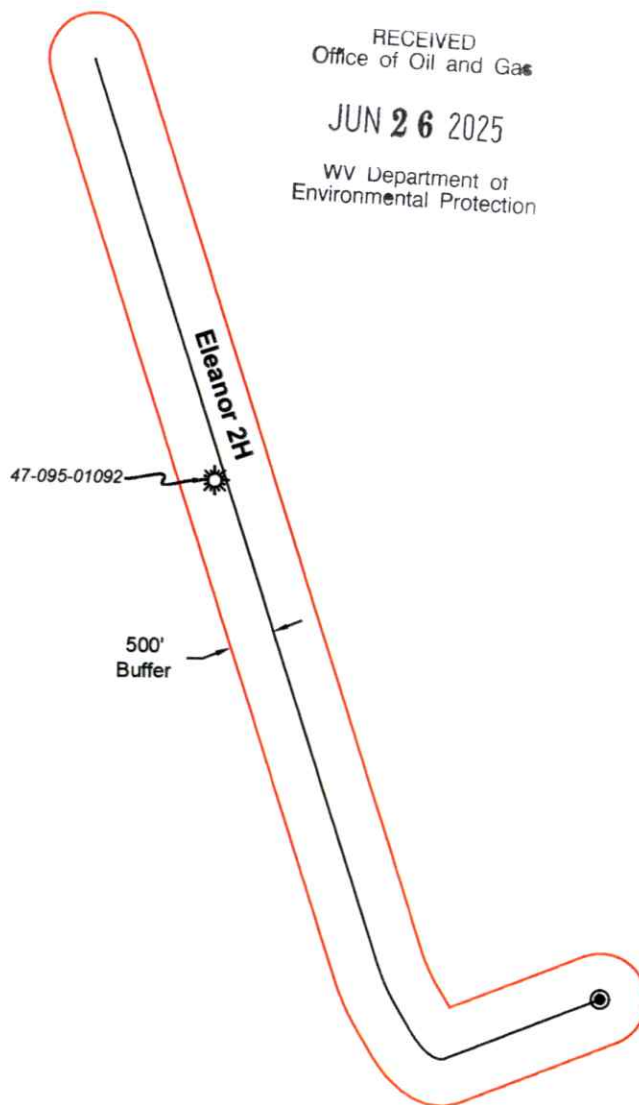


The orientation of this survey is Grid North, and its coordinate base is the West Virginia Coordinate System of 1927, North Zone

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Bridgeport Office
Phone: (304) 848-5035
Fax: (304) 848-5037

172 Thompson Drive
Bridgeport, WV 26330



PARTY CHIEF: C. Lynch

DRAWN BY: C. Robinson

RESEARCH: J. Miller

PREPARED: June 13, 2025

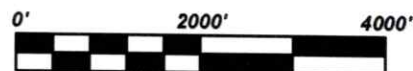
SURVEYED: Dec. 2016

PROJECT NO: 157-54-L-23

FIELD CREW: C.L., K.M.

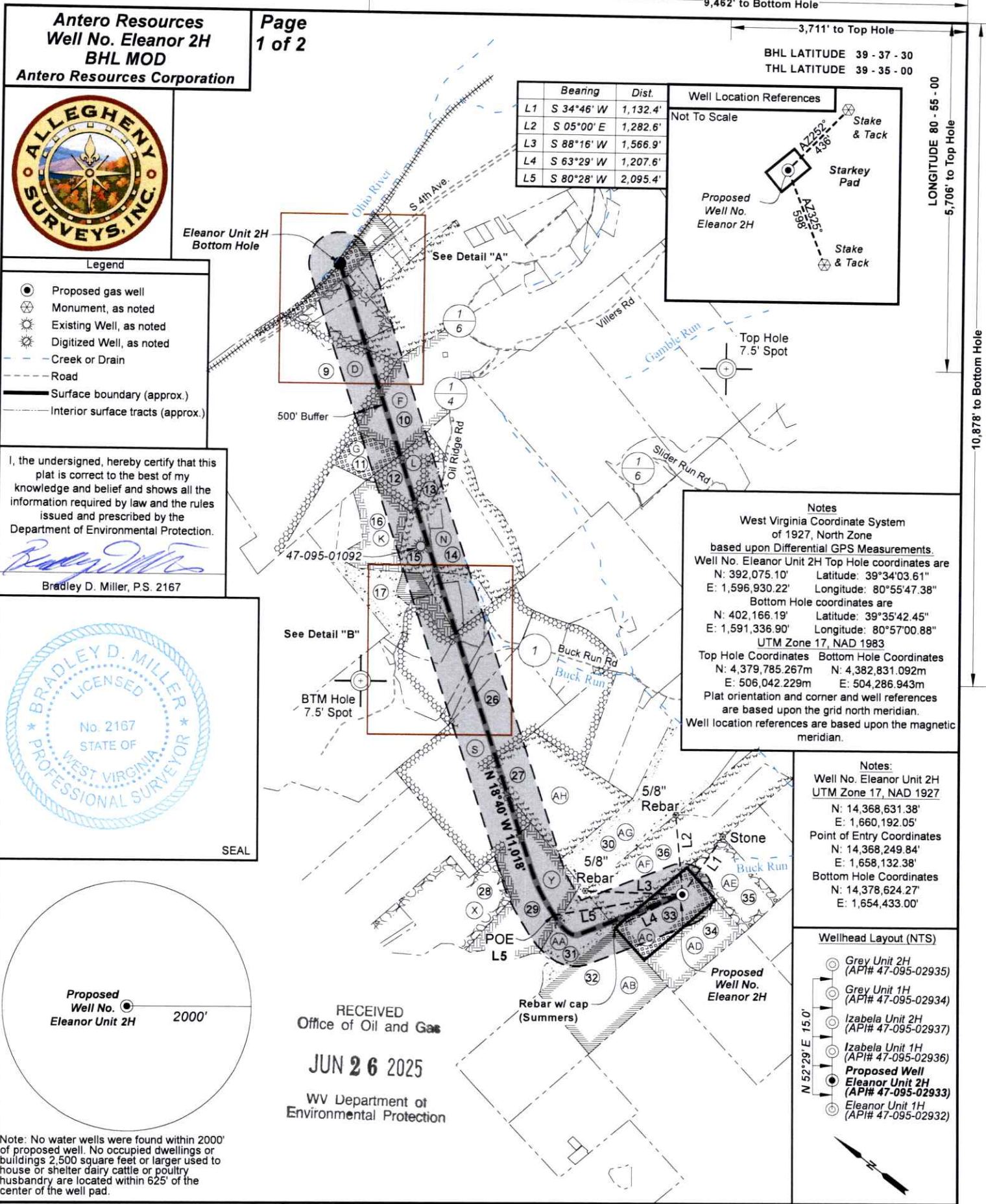
Sheet 1 of 1

DRAWING NO: Eleanor 2H AOR



Scale: 1 inch = 2000 feet

07/04/2025



FILE NO: 157-54-L-23

DRAWING NO: Eleanor Unit 2H Well Plat

SCALE: 1" = 2000'

MINIMUM DEGREE OF ACCURACY: Submeter

PROVEN SOURCE OF ELEVATION: WVDOT, Harrisville, WV

STATE OF WEST VIRGINIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
OIL AND GAS DIVISION

DATE: June 18 2025

OPERATOR'S WELL NO. Eleanor Unit 2H

API WELL NO

47 - 095 - 02933

STATE COUNTY PERMIT

WELL TYPE: ☐ OIL ☒ GAS ☐ LIQUID INJECTION ☐ WASTE DISPOSAL

(IF GAS) PRODUCTION: ☐ STORAGE ☐ DEEP ☒ SHALLOW

LOCATION: ELEVATION: As-Built 1,092' WATERSHED: Outlet Middle Island Creek QUADRANGLE: Paden City

DISTRICT: Lincon COUNTY: Tyler 07/04/2025

SURFACE OWNER: Robert F. Scardina & Rita K. Scardina ACREAGE: 25.00

ROYALTY OWNER: Robert F. Scardina & Rita K. Scardina LEASE NO: ACREAGE: 25

PROPOSED WORK: ☐ DRILL ☐ CONVERT ☒ DRILL DEEPER ☐ FRACTURE OR STIMULATE ☐ PLUG OFF OLD FORMATION

☐ PERFORATE NEW FORMATION ☒ OTHER PHYSICAL CHANGE IN WELL (SPECIFY) BHL MOD

☐ PLUG AND ABANDON ☐ CLEAN OUT AND REPLUG TARGET FORMATION: Marcellus Shale ESTIMATED DEPTH: 20,700' MD

WELL OPERATOR: Antero Resources Corporation DESIGNATED AGENT: Conrad Baston

ADDRESS: 1615 Wynkoop Street ADDRESS: 535 White Oaks Blvd.

Denver, CO 80202 Bridgeport, WV 26330



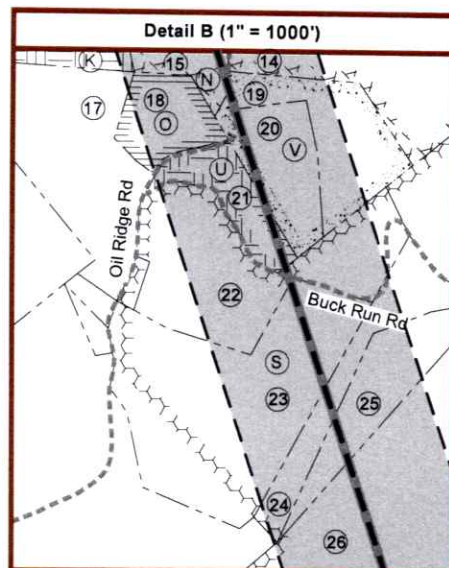
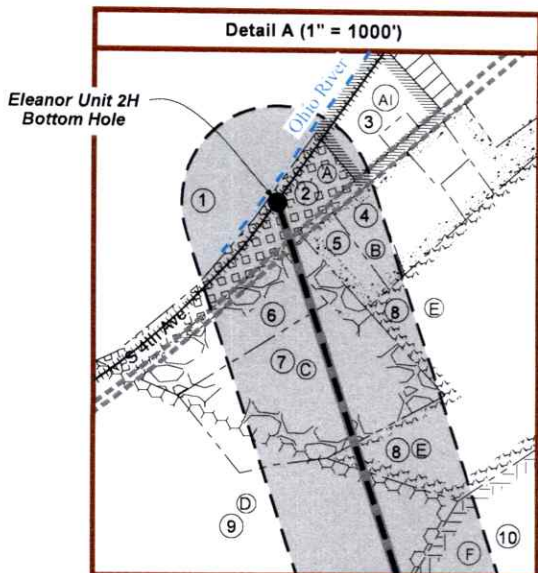
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Leases	
A	Paul Wissmach Glass Company
B	T&D Corporation, et al
C	Albert Merton & Barbara Jo Mohrman
D	Golden Eagle Resources II, LLC
E	Stanley E. Dennis & Edith L. Dennis, JTWROS
F	Henry P. Snyder, et al
G	Stanley E. Dennis & Edith L. Dennis, h/w
K	OCTO Energy
L	Eagle Investments, LLC
N	Ralph Mikes or Dora Mikes, h/w
O	Virgil L. Cooper & Tracie J. Cooper
S	John L. Renner, II
U	Maxine Ankrom
V	Alice M. Bungard
X	Shirley Myers
Y	Moore Self Storage, North Carolina, LLC
AA	Robert F. & Rita K. Scardina
AB	Robert F. Scardina, et ux
AC	Robert F. Scardina, et ux
AD	Robert F. Scardina, et ux
AE	Robert F. Scardina, et ux
AF	AMP IV, LP
AG	Ralph David & Sophia Judge
AH	Robert W. Cross & Jean A. Cross, JTWROS
AI	Joseph D. Giovinazzo

ID	TM-Par	Owner	Bk/Pg	Acres
1	xx-xx	Owner	xx/xx	x.xx
2	3-157	Paul Wissmach Glass Co.	224/252	7.00
3	3-155	Joseph Giovinazzo, et al	WB87/748	6.07
4	1-20.4	Timothy B. & Carolyn R. Hizer	311/682	2.03
5	1-20.5	John T. Daugherty	330/854	1.91
6	1-2	Albert Merton & Barbara Jo Mohrman	399/329	5.18
7	1-3	Albert Merton & Barbara Jo Mohrman	399/329	17.50
8	1-20.1	Stanley E. & Edith L. Dennis	350/414	49.97
9	1-4	Haessly Hardwood Lumber Co.	290/457	166.20
10	1-21	Stanley E. & Edith L. Dennis	350/414	77.71
11	4-56	Stanley E. & Edith L. Dennis	394/61	11.75
12	4-63	Eagle Hardwood Inc.	345/195	16.79
13	4-62	Stephanie D. & Terrance D. Francis	537/521	3.75
14	4-65	Carl D. O'Neil	248/117	45.90
15	4-65.1	Carl D. O'Neil	WB36/381	13.26
16	4-61	Carl D. O'Neil	133/175	18.81
17	4-82.4	Virgil L. & Tracie J. Cooper	444/521	13.00
18	4-82.2	Virgil L. & Tracie J. Cooper	333/220	4.46
19	4-80	Alice M., Harley R. & Judy Bungard	352/104	8.34
20	4-81	Alice M., Harley R. & Judy Bungard	352/104	7.00
21	4-82.1	Ricky & Barbra Keys	416/328	5.80
22	4-82	Virgil E. Cooper	199/41	10.90
23	4-84	Virgil E. Cooper Jr. & Barbra J. Cooper	264/182	19.98
24	4-78.1	Earl Snider	220/11	6.63
25	4-78	Lesley J. Snider	220/13	6.83
26	4-76	Scott & Jeffery Grim	387/119	90.00
27	4-92	Robert W. & Jean A. Cross	342/751	53.00
28	4-90.1	Gary B. & Melinda J. Lewis	473/1	47.33
29	4-91	Donna K. Johnston	184/133	54.06
30	5-4	Ralph D. & Sophia Judge	306/681	60.77
31	8-12	Donna Kathy Johnston	184/133	86.89
32	8-14	Robert F. Scardina, et ux	320/646	72.79
33	5-11	Robert F. Scardina, et ux	320/646	25.00
34	5-10	Robert F. Scardina, et ux	320/646	25.00
35	5-12	Robert F. Scardina, et ux	320/646	25.00
36	5-9.4	Neil R. Stebbins	366/436	51.48



FILE NO: 157-54-L-23
DRAWING NO: Eleanor Unit 2H Well Plat
SCALE: 1" = 2000'
MINIMUM DEGREE OF ACCURACY:
Submeter
PROVEN SOURCE OF ELEVATION:
WV DOT, Harrisville, WV

STATE OF WEST VIRGINIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
OIL AND GAS DIVISION

DATE: June 18 2025
OPERATOR'S WELL NO: Eleanor Unit 2H
API WELL NO
47 - 095 - 02933
STATE COUNTY PERMIT

WELL TYPE: ☐ OIL ☒ GAS ☐ LIQUID INJECTION ☐ WASTE DISPOSAL
(IF GAS) PRODUCTION: ☐ STORAGE ☐ DEEP ☒ SHALLOW
LOCATION: ELEVATION: As-Built 1,092' WATERSHED: Outlet Middle Island Creek QUADRANGLE: Paden City
DISTRICT: Lincon COUNTY: Tyler 07/04/2025
SURFACE OWNER: Robert F. Scardina & Rita K. Scardina ACREAGE: 25.00
ROYALTY OWNER: Robert F. Scardina & Rita K. Scardina LEASE NO: ACREAGE: 25
PROPOSED WORK: ☐ DRILL ☐ CONVERT ☒ DRILL DEEPER ☐ FRACTURE OR STIMULATE ☐ PLUG OFF OLD FORMATION
☐ PERFORATE NEW FORMATION ☒ OTHER PHYSICAL CHANGE IN WELL (SPECIFY) BHL MOD 6,700' TVD
☐ PLUG AND ABANDON ☐ CLEAN OUT AND REPLUG TARGET FORMATION: Marcellus Shale ESTIMATED DEPTH: 20,700' MD

WELL OPERATOR: Antero Resources Corporation DESIGNATED AGENT: Conrad Baston
ADDRESS: 1615 Wynkoop Street ADDRESS: 535 White Oaks 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>AC: Robert F. Scardina, et ux Lease</u> Robert F. Scardina, et ux	Antero Resources Corporation	1/8+	235/654
<u>AF: AMP IV, LP Lease</u> AMP IV, LP	Antero Resources Corporation	1/8+	231/747
<u>AA: Robert F. & Rita K. Scardina Lease</u> Robert F. & Rita K. Scardina	Antero Resources Corporation	1/8+	235/654
<u>Y: Moore Self Storage, North Carolina, LLC Lease</u> Moore Self Storage, North Carolina, LLC	Antero Resources Corporation	1/8+	261/175
<u>S: John L. Renner, II Lease</u> John L. Renner, II	Antero Resources Corporation	1/8+	332/730
<u>AH: Robert W. Cross & Jean A. Cross, JTWROS Lease</u> Robert W. Cross & Jean A. Cross, JTWROS	Antero Resources Corporation	1/8+	190/433
<u>S: John L. Renner, II Lease</u> John L. Renner, II	Antero Resources Corporation	1/8+	332/730
<u>U: Maxine Ankrom Lease</u> Maxine Ankrom SEP Exploration, LLC	SEP Exploration, LLC Antero Resources Corporation	1/8+ Agreement	257/520 358/294
<u>V: Alice M. Bungard Lease</u> Alice M. Bungard	Antero Resources Corporation	1/8+	211/494
<u>N: Ralph Mikes or Dora Mikes, h/w Lease</u> Ralph Mikes or Dora Mikes, h/w Charlie Stout Applied Mechanics Corporation Triad Hunter, LLC	Charlie Stout Applied Mechanics Corporation Triad Hunter, LLC Antero Resources Corporation	1/8 Assignment Assignment Assignment	248/117 286/376 385/566 496/776
<u>L: Eagle Investments, LLC Lease</u> Eagle Investments, LLC	Antero Resources Corporation	1/8+	276/784
<u>G: Stanley E. Dennis & Edith L. Dennis, h/w Lease</u> Stanley E. Dennis & Edith L. Dennis, h/w	Antero Resources Corporation	1/8+	260/443
<u>F: Henry P. Snyder, et al Lease</u> Henry P. Snyder, et al Charles L. Stout Applied Mechanics Corporation Triad Hunter LLC	Charles L. Stout Applied Mechanics Corporation Triad Hunter LLC Antero Resources Corporation	1/8 Assignment Assignment Assignment	282/338 385/100 385/566 56/718

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Grantor, lessor, etc.	Grantee, lessee, etc.	Royalty	Book/Page
✓ <u>D: Golden Eagle Resources II, LLC Lease</u> Golden Eagle Resources II, LLC	Antero Resources Corporation	1/8+	325/464
✓ <u>E: Stanley E. Dennis & Edith L. Dennis, JTWROS Lease</u> Stanley E. Dennis & Edith L. Dennis, JTWROS	Antero Resources Corporation	1/8+	220/733
✓ <u>C: Albert Merton & Barbara Jo Mohrman Lease</u> Albert Merton & Barbara Jo Mohrman	Antero Resources Corporation	1/8+	324/464

***Cotenancy 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

*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.

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Lease Name or Number	Grantor, Lessor, etc.	Grantee, Lessee, etc.	Royalty	Book/Page
<u>/ A: Paul Wissmach Glass Company Lease</u>				
	Paul Wissmach Glass Company	Antero Resources Corporation	1/8+	329/620

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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