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west virginia department of environmental protection

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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)

Monday, November 21, 2022  
PERMIT MODIFICATION APPROVAL  
Horizontal 6A / New Drill

ANTERO RESOURCES CORPORATION  
1615 WYNKOOP STREET

DENVER, CO 80202

Re: Permit Modification Approval for LITTLE UNIT 2H  
47-095-02812-00-00

**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.

A handwritten signature in blue ink, appearing to read 'James A. Martin', is positioned above the printed name and title.

James A. Martin  
Chief

Operator's Well Number: LITTLE UNIT 2H  
Farm Name: SHIRLEY J WELLS & SUSIE CUNNINGHAM  
U.S. WELL NUMBER: 47-095-02812-00-00  
Horizontal 6A New Drill  
Date Modification Issued: 11/21/2022

Promoting a healthy environment.

11/25/2022

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

1) Well Operator: Antero Resources Corporation 494507062 095-Tyler Meade Bens Run 7.5'  
Operator ID County District Quadrangle

2) Operator's Well Number: Little Unit 2H MOD Well Pad Name: Wrigley Pad

3) Farm Name/Surface Owner: Shirley Wells/Susie Cunningham Public Road Access: Rock Run Rd

4) Elevation, current ground: 964' Elevation, proposed post-construction: ~937'

5) Well Type (a) Gas  Oil  Underground Storage

Other \_\_\_\_\_

(b) If Gas Shallow  Deep

Horizontal  \_\_\_\_\_

6) Existing Pad: Yes or No No

7) Proposed Target Formation(s), Depth(s), Anticipated Thickness and Expected Pressure(s):  
Marcellus Shale: 6400' TVD, Anticipated Thickness- 55 feet, Associated Pressure- 2850#

8) Proposed Total Vertical Depth: 6400' TVD

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9) Formation at Total Vertical Depth: Marcellus

10) Proposed Total Measured Depth: 21300'

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11) Proposed Horizontal Leg Length: 11630'

WV Department of  
Environmental Protection

12) Approximate Fresh Water Strata Depths: 397'

13) Method to Determine Fresh Water Depths: 47095025930000 Offset well records. Depths have been adjusted according to surface elevations.

14) Approximate Saltwater Depths: 1436', 1847'

15) Approximate Coal Seam Depths: None Anticipated

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

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

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

*IMR 11/17/22*  
**11/25/2022**

WW-6B  
(04/15)

API NO. 47-095 - 02812  
 OPERATOR WELL NO. Little Unit 2H MOD  
 Well Pad Name: Wigley Pad

18)

**CASING AND TUBING PROGRAM**

<b>TYPE</b>	<b>Size (in)</b>	<b>New or Used</b>	<b>Grade</b>	<b>Weight per ft. (lb/ft)</b>	<b>FOOTAGE: For Drilling (ft)</b>	<b>INTERVALS: Left in Well (ft)</b>	<b>CEMENT: Fill-up (Cu. Ft.)/CTS</b>
Conductor	20"	New	X-60	78.67#	100'	100'	CTS, 96 Cu. Ft.
Fresh Water	13-3/8"	New	J-55	54.5#	555'	555'	CTS, 578 Cu. Ft.
Coal	9-5/8"	New	J-55	36#	3100'	3100'	CTS, 1262 Cu. Ft.
Intermediate							
Production	5-1/2"	New	P-110HP	20#	21300'	21300'	CTS, 4439 Cu. Ft.
Tubing	2-3/8"	New	N-80	4.7#			
Liners							

<b>TYPE</b>	<b>Size (in)</b>	<b>Wellbore Diameter (in)</b>	<b>Wall Thickness (in)</b>	<b>Burst Pressure (psi)</b>	<b>Anticipated Max. Internal Pressure (psi)</b>	<b>Cement Type</b>	<b>Cement Yield (cu. ft./k)</b>
Conductor	20"	24"	0.375"	2250	50	Class A	~1.18
Fresh Water	13-3/8"	17-1/2"	0.38"	2730	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"	0.415"	14,360	2500	Class G/H	~1.8
Tubing	2-3/8"	4.778"	0.19"	11,200			
Liners							

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**PACKERS**

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Kind:	N/A			WV Department of Environmental Protection
Sizes:	N/A			
Depths Set:	N/A			

*IMR*  
11/14/22 11/25/2022

WW-6B  
(10/14)

API NO. 47-095 - 02812  
OPERATOR WELL NO. Little Unit 2H MOD  
Well Pad Name: Wrigley Pad

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): 28.45 acres

22) Area to be disturbed for well pad only, less access road (acres): 10.35 acres

23) Describe centralizer placement for each casing string:

Conductor: no centralizers

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

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

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

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

Conductor: no additives, Class A 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

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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.

IMR  
11/17/22 11/25/2022



UWI (API Num)	Well Name	Well Number	Operator	Historical Operator	ID	Perforated Interval (shallowest, deepest)	Perforated Formation(s)	Producing Formation(s) not perf'd
47095020730000	TYL HENDERSON CHARLES	8H	CHESAPEAKE APPALACHI	CHESAPEAKE APPALACHI				

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11/25/2022

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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>A: Greenbrier Royalty Fund II, LLC Lease</u></b>			
Greenbrier Royalty Fund II, LLC	Antero Resources Corporation	1/8+	0108/0631
<b><u>C: Mary C. Robinson Living Trust Lease</u></b>			
Mary C. Robinson Living Trust	Antero Resources Corporation	1/8+	0590/0141
<b><u>B: Harry E. West, Jr. Lease</u></b>			
Harry Edward West, Jr.	Antero Resources Corporation	1/8+	0046/0125
<b><u>D: Shirley Smith Lease</u></b>			
Shirley Smith, widow	Chesapeake Appalachia, LLC	1/8	0399/0082
Chesapeake Appalachia, LLC	SWN Production Company	Assignment	0465/0463
SWN Production Company	Antero Exchange Properties LLC	Assignment	0544/0242
Antero Exchange Properties LLC	Antero Resources Corporation	Merger	0552/0315
<b><u>E: Thereasa L. Wilson Lease</u></b>			
Thereasa L. Wilson	Antero Resources Corporation	1/8+	580/413
<b><u>F: Shirley Ann Smith Lease</u></b>			
Shirley Ann Smith	Antero Resources Corporation	1/8+	644/344
<b><u>G: David C. Henderson Lease</u></b>			
David C. Henderson	Antero Resources Corporation	1/8+	83/667
<b><u>H: Ronald Grimes et ux Lease</u></b>			
Ronald Grimes et ux	Antero Resources Corporation	1/8+	493/371
<b><u>I: Antero Minerals LLC Lease</u></b>			
Antero Minerals LLC	Antero Resources Corporation	1/8+	184/780
<b><u>G: David C Henderson Lease</u></b>			
David C. Henderson	Antero Resources Corporation	1/8+	83/667
<b><u>J: Vickie Gorrell et al Lease</u></b>			
Vickie Gorrell et al	Marcellus Energy Consultants LLC	1/8+	433/45
Marcellus Energy Consultants LLC	Antero Resources Corporation	Assignment	435/415
<b><u>K: John E grimes Jr et ux Lease</u></b>			
John E Grimes Jr et ux	Antero Resources Corporation	1/8+	145/65
<b><u>L: Diane Whitehill Lease</u></b>			
Diane Whitehill	Antero Resources Corporation	1/8+	617/841
<b><u>M: Steven L. &amp; Jeral A. McGowan Lease</u></b>			
Steven L. & Jeral A. McGowan	Antero Resources Corporation	1/8+	640/818

\*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. 11/25/2022

**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>Q: Scott L. &amp; Bernadine Jackson Lease</u>				
	Scott L. & Bernadine Jackson	Antero Resources Corporation	1/8+	446/601

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Environmental Protection

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

**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



7,660' to Bottom Hole

2,017' to Top Hole  
TOP HOLE LATITUDE 39 - 27 - 30  
BTM HOLE LATITUDE 39 - 25 - 00

TOP HOLE LONGITUDE 81 - 00 - 00  
BTM HOLE LONGITUDE 80 - 57 - 30

10,245' to Bottom Hole  
13,552' to Top Hole

**Antero Resources**  
**Well No. Little 2H**  
**BHL MOD**  
Antero Resources Corporation



Proposed Well No. Little Unit 2H

Capped Rebar

47-095-0617

2" Pipe

POE L5

47-095-0489

47-095-02073

BTM Hole 7.5' Spot

500' Buffer

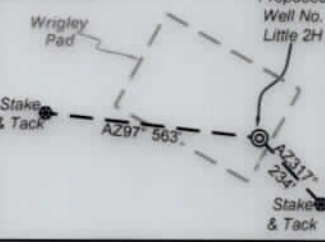
**Notes**  
West Virginia Coordinate System of 1927, North Zone based upon Differential GPS Measurements.  
Well No. Little Unit 2H Top Hole coordinates are  
N: 339,064.62' Latitude: 39°25'16.06"  
E: 1,574,243.02' Longitude: 81°00'25.70"  
Bottom Hole coordinates are  
N: 327,094.84' Latitude: 39°23'18.74"  
E: 1,580,177.55' Longitude: 80°59'07.57"  
UTM Zone 17, NAD 1983  
Top Hole Coordinates Bottom Hole Coordinates  
N: 4,363,519.774m N: 4,359,903.379m  
E: 499,399.976m E: 501,268.827m  
Plat orientation and corner and well references are based upon the grid north meridian.  
Well location references are based upon the magnetic meridian.

**Notes:**  
Well No. Little Unit 2H  
UTM Zone 17, NAD 1927  
Top Hole Coordinates  
N: 14,315,267.85'  
E: 1,638,400.53'  
Point of Entry Coordinates  
N: 14,314,358.63'  
E: 1,640,640.43'  
Bottom Hole Coordinates  
N: 14,303,402.96'  
E: 1,644,531.94'



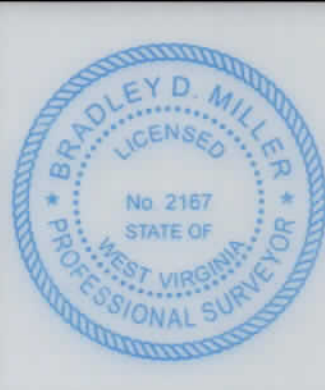
Well Location References

Not To Scale

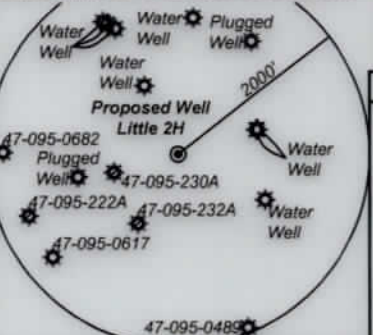


I, the undersigned, hereby certify that this plat is correct to the best of my knowledge and belief and shows all the information required by law and the rules issued and prescribed by the Department of Environmental Protection.

Bradley D. Miller, P.S. 2167



Note: 8 water wells were found within 2000' of proposed well. No occupied dwellings or buildings 2,500 square feet or larger used to house or shelter dairy cattle or poultry husbandry are located within 625' of the center of the well pad.



	Bearing	Dist.
L1	S 78°02' E	2,465.3'
L2	S 05°17' W	1,452.7'
L3	N 19°16' W	1,795.3'
L4	N 56°28' E	1,732.4'
L5	S 66°57' E	2,418.2'

- Legend**
- Proposed gas well
  - Monument, as noted
  - Existing Well, as noted
  - Digitized Well, as noted
  - Creek or Drain
  - Road
  - Surface boundary (approx.)
  - Interior surface tracts (approx.)
  - County Line

FILE NO: 125-54-M-22  
DRAWING NO: Little 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: October 27 2022  
OPERATOR'S WELL NO. Little Unit 2H  
API WELL NO  
47 - 095 - 02812  
STATE COUNTY PERMIT

WELL TYPE:  OIL  GAS  LIQUID INJECTION  WASTE DISPOSAL  
(IF GAS) PRODUCTION:  STORAGE  DEEP  SHALLOW  
LOCATION: ELEVATION: Existing 964' Proposed 937' WATERSHED: Middle Island Creek Outlet TH: Bens Run  
DISTRICT: Meade COUNTY: Tyler  
SURFACE OWNER: Shirley J. Wells & John E. Grimes, Jr., et ux; Diane Whitehall; Steven L. & Jeral A. McGowan; David C. Henderson; Antero Minerals, LLC; Ronald Grimes, et ux; COUNTY: Tyler  
ROYALTY OWNER: Greenbrier Royalty Fund II, LLC; Mary C. Robinson Living Trust; Harry E. West, Jr. LEASE NO: ACREAGE: 53.85  
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: 21,300' MD 6,400' TVD

WELL OPERATOR: Antero Resources Corporation DESIGNATED AGENT: Dianna Stamper - CT Corporation System  
ADDRESS: 1615 Wynkoop Street ADDRESS: 5400 D Big Tyler Road  
Denver, CO 80202 Charleston, WV 25313

11/25/2022

**Antero Resources**  
**Well No. Little 2H**  
**BHL MOD**  
 Antero Resources Corporation

2,017' to Top Hole  
 TOP HOLE LATITUDE 39 - 27 - 30  
 BTM HOLE LATITUDE 39 - 25 - 00

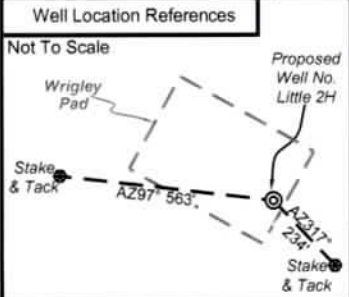


Proposed Well No. Little Unit 2H

Capped Rebar

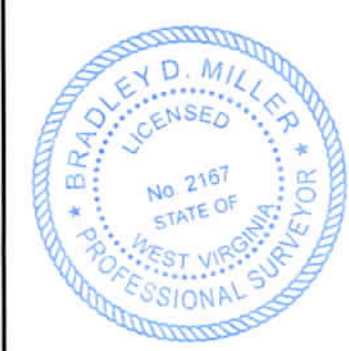
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 Bradley D. Miller, P.S. 2167



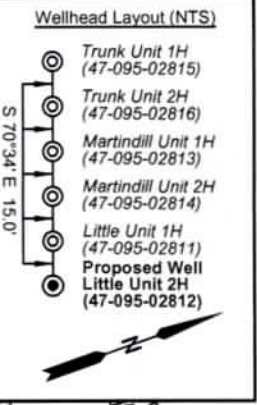
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 Point of Entry Coordinates N: 14,314,358.63' E: 1,640,640.43'  
 Bottom Hole Coordinates N: 14,303,402.96' E: 1,644,531.94'



GRID NORTH

BTM Hole 7.5' Spot

500' Buffer

Top Hole 7.5' Spot

Little Unit 2H Bottom Hole

FILE NO: 125-54-M-22  
 DRAWING NO: Little 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: October 27 2022  
 OPERATOR'S WELL NO. Little Unit 2H  
 API WELL NO  
 47 - 095 - 02812  
 STATE COUNTY PERMIT

WELL TYPE:  OIL  GAS  LIQUID INJECTION  WASTE DISPOSAL  
 (IF GAS) PRODUCTION:  STORAGE  DEEP  SHALLOW  
 LOCATION: ELEVATION: Proposed 937' Existing 964' WATERSHED: Outlet Middle Island Creek QUADRANGLE: TH:Bens Run BH:Middlebourne 57.375; 77.09; 86.325; 20.77; 86.325; 20.77; 50; 26.38; 42.81; 61.3875; 71.18  
 DISTRICT: Meade COUNTY: Tyler  
 SURFACE OWNER: Shirley J. Wells & Suise Cunningham Scott L. & Bernadine Jackson; John E. Grimes, Jr., et ux; Diane Whitehall; Steven L. & Jeral A. McGowan; David C. Henderson; Antero Minerals, LLC; Ronald Grimes, et ux; ACREAGE: 53.85 8.47; 228.798; 2.821;  
 ROYALTY OWNER: Greenbrier Royalty Fund II, LLC; Mary C. Robinson Living Trust; Harry E. West, Jr. LEASE NO: SHIRLEY SMITH; THEREASA L. WILSON; VICKIE GORRELL, et al; SHIRLEY ANN SMITH; ACRES: 50; 26.38; 42.81; 61.3875; 71.18  
 PROPOSED WORK:  DRILL  CONVERT  DRILL DEEPER  FRACTURE OR STIMULATE  PLUG OFF OLD FORMATION  
 PERFORATE NEW FORMATION  OTHER PHYSICAL CHANGE IN WELL (SPECIFY) BHL MOD  
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WELL OPERATOR: Antero Resources Corporation DESIGNATED AGENT: Dianna Stamper - CT Corporation System  
 ADDRESS: 1615 Wynkoop Street ADDRESS: 5400 D Big Tyler Road  
 Denver, CO 80202 Charleston, WV 25313

TOP HOLE LONGITUDE 81 - 00 - 00  
 BTM HOLE LONGITUDE 80 - 57 - 30  
 10,245' to Bottom Hole  
 13,552' to Top Hole

11/25/2022



ID	TM/Par	Owner	Bk/Pg	Acres
1	7-2	Shirley J. Wells & Susie Cunningham	W41/317	53.85
2	7-3	Harry E., Jr. & Noreen M. West	328/530	88.00
3	7-8	John Wells	428/412	52.39
4	7-4	Marcia A. Hill	506/479	74.50
5	7-23	David Henderson & Sharley Shortridge	W47/263	16.07
6	7-9	Russell G. & Ruth M. Smith Family Trust	541/608	66.85
7	7-9.1	Russell E. & Janice Smith	332/234	1.65
8	7-13	Russell E. & Janice Smith	328/867	6.00
9	7-13.1	Russell E. & Janice Smith	328/867	2.60
10	7-19	Darlene Henderson	W47/263	122.83
11	7-24	Ronald Wayne & Frances A. Grimes	335/304	50.00
12	7-24.1	Lloyd C. & Charlene R. Adams	335/309	2.00
13	7-24.2	Lloyd C. & Charlene R. Adams	218/258	0.82
14	7-15	Elizabeth Gorrell	321/360	242.50
15	10-38	John E. Jr. & Mary Catherine Grimes	335/312	26.38
16	10-8	David Henderson & Sharley Shortridge	W47/263	44.28
17	10-10	Mark Layne & Lori Helmick	262/135	42.81
18	10-9	Charles L. & Laura McGowan, et al	348/320	61.51
19	10-23	BB Farm Investments LLC	594/417	66.69
20	10-18	Lyle A. Jackson, et al	348/697	18.31
21	10-17	Lyle A. Jackson, et al	348/697	18.00
22	10-16	Lyle A. Jackson, et al	355/311	71.18
23	10-20	Lyle A. Jackson, et al	348/697	56.88

Leases	
A	Greenbrier Royalty Fund II LLC
B	Harry E. West, Jr.
C	Mary C. Robinson Living Trust
D	Shirley Smith
E	Thereasa L. Wilson
F	Shirley Ann Smith
G	David C. Henderson
H	Ronald Grimes, et ux
I	Antero Minerals, LLC
J	Vickie Gorrell, et al
K	John E. Grimes, Jr., et ux
L	Diane Whitehall
M	Steven L. & Jeral A. McGowan
N	Arnold L. Schulberg Oil & Gas Trust
O	Scott L. & Bernadine Jackson
P	Edith Ulrich Smith

FILE NO: 125-54-M-22  
 DRAWING NO: Little 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: October 27 2022  
 OPERATOR'S WELL NO. Little Unit 2H  
 API WELL NO  
47 - 095 - 02812  
 STATE COUNTY PERMIT

WELL TYPE:  OIL  GAS  LIQUID INJECTION  WASTE DISPOSAL  
 (IF GAS) PRODUCTION:  STORAGE  DEEP  SHALLOW

LOCATION: ELEVATION: Proposed 937' Existing 964' WATERSHED: Outlet Middle Island Creek QUADRANGLE: TH:Bens Run BH:Middlebourne

DISTRICT: Meade SURFACE OWNER: Shirley J. Wells & Susie Cunningham COUNTY: Tyler ACREAGE: 53.85 8.47, 228.798, 2.821, 66.03, 125, 234.74,

ROYALTY OWNER: Greenbrier Royalty Fund II, LLC; Mary C. Robinson Living Trust; Harry E. West, Jr. LEASE NO: \_\_\_\_\_ ACREAGE: 50; 26.38; 42.81; 61.3875; 71.18

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: 21,300' MD 6,400' TVD

WELL OPERATOR: Antero Resources Corporation DESIGNATED AGENT: Dianna Stamper - CT Corporation System  
 ADDRESS: 1615 Wynkoop Street ADDRESS: 5400 D Big Tyler Road  
Denver, CO 80202 Charleston, WV 25313

11/25/2022



October 31, 2022

West Virginia Department of Environmental Protection  
Office of Oil and Gas  
601 57<sup>th</sup> Street  
Charleston, WV 25304

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

Mr. Taylor Brewer:

Antero Resources Corporation (Antero) would like to submit the following permit modification for approved well on the Wrigley Pad. We are requesting to extend the bottom hole for the Little Unit 2H (API# 47-095-02812).

Attached you will find the following documents:

- REVISED Form WW-6B
- REVISED Form WW-6A1
- REVISED Mylar Plat

If you have any questions please feel free to contact me at (303) 357-7182.

Thank you in advance for your consideration.

Sincerely,

A handwritten signature in black ink that reads "Mallory Turco".

Mallory Turco  
Permitting Manager  
Antero Resources Corporation

Enclosures

RECEIVED  
Office of Oil and Gas  
NOV 02 2022  
WV Department of  
Environmental Protection

11/25/2022