



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

Monday, January 8, 2024
PERMIT MODIFICATION APPROVAL
Horizontal 6A / New Drill

ANTERO RESOURCES CORPORATION
1615 WYNKOOP STREET

DENVER, CO 80202

Re: Permit Modification Approval for Wilma Unit 1H
47-103-03613-00-00

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.

A blue ink signature of James A. Martin, written in a cursive style.

James A. Martin
Chief

Operator's Well Number: Wilma 1H
Farm Name: Kenneth E & Vicky A VanDyne
U.S. WELL NUMBER: 47-103-03613-00-00
Horizontal 6A New Drill
Date Modification Issued: 01/08/2024

Promoting a healthy environment.

01/12/2024

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

1) Well Operator: Antero Resources Corpora 494507062 103 - Wetzel Green Pine Grove 7.5'
Operator ID County District Quadrangle

2) Operator's Well Number: Wilma Unit 1H MOD Well Pad Name: Cedar Pad

3) Farm Name/Surface Owner: Kenneth E. & Vicky A. Vandyne Public Road Access: CR 52

4) Elevation, current ground: 1276' Elevation, proposed post-construction: 1248'

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: 7600' TVD, Anticipated Thickness- 55 feet, Associated Pressure- 2850#

8) Proposed Total Vertical Depth: 7600' TVD

9) Formation at Total Vertical Depth: Marcellus

10) Proposed Total Measured Depth: 30,700' MD

11) Proposed Horizontal Leg Length: 21,353'

12) Approximate Fresh Water Strata Depths: 612'

13) Method to Determine Fresh Water Depths: 47103308970000 Offset well records. Depths have been adjusted according to surface elevations.

14) Approximate Saltwater Depths: 2193'

15) Approximate Coal Seam Depths: 1010'

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 # 4026588
7500
12/14/2023*

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Office of Oil and Gas
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Environmental Protection

[Handwritten Signature]
1-4-2024

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#	662'	662' ✓	CTS, 690 Cu. Ft.
Coal	9-5/8"	New	J-55	36#	3450'	3450' ✓	CTS, 1405 Cu. Ft.
Intermediate							
Production	5-1/2"	New	P110-ICY	23#	30700'	30700' ✓	CTS, 6808Cu. 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			RECEIVED Office of Oil and Gas
Depths Set:	N/A			JAN 08 2024

WV Department of
Environmental Protection

Handwritten signature: O.K. 1-4-23

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): 71.85 acres

22) Area to be disturbed for well pad only, less access road (acres): 18.45 acres

23) Describe centralizer placement for each casing string:

Conductor: no centralizers

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

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

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

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

Conductor: no additives, Class A/L cement.

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

Intermediate: Class A/L cement with 1/4 lb of flake, 5 gallons of clay treat

Production: Lead cement- 50/50 Class H/Poz + 1.5% salt + 1% C-45 + 0.5% C-16a + 0.2% C-12 + 0.45% C-20 + 0.05% C-51

Production: Tail cement- Class G/H + 45 PPS Calcium Carbonate + 1.0% FL-160 + 0.2% ACGB-47 + 0.05% ACSA-51 + 0.2% ACR-20

25) Proposed borehole conditioning procedures:

Conductor: blowhole clean with air, run casing, 10 bbls fresh water.

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

Intermediate: blowhole clean with air, trip to surface casing shoe, trip to bottom, blowhole clean with air, trip out, run casing, circulate 40 bbls brine water followed by 10 bbls fresh water and 25 bbls bentonite mud, pump 10 bbls fresh water.

Production: circulate with 14 lb/gal NaCl mud, trip to middle of lateral, circulate, pump high viscosity sweep, trip to base of curve, pump high viscosity sweep, trip to top of curve, trip to bottom, circulate, pump high viscosity sweep, trip out, run casing, circulate 10 bbls fresh water, pump 48 bbls barite pill, pump 10 bbls fresh water followed by 48 bbls mud flush and 10 bbls water.

*Note: Attach additional sheets as needed.

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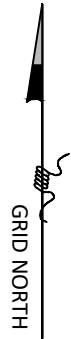
Page 3 of 3

01/12/2024

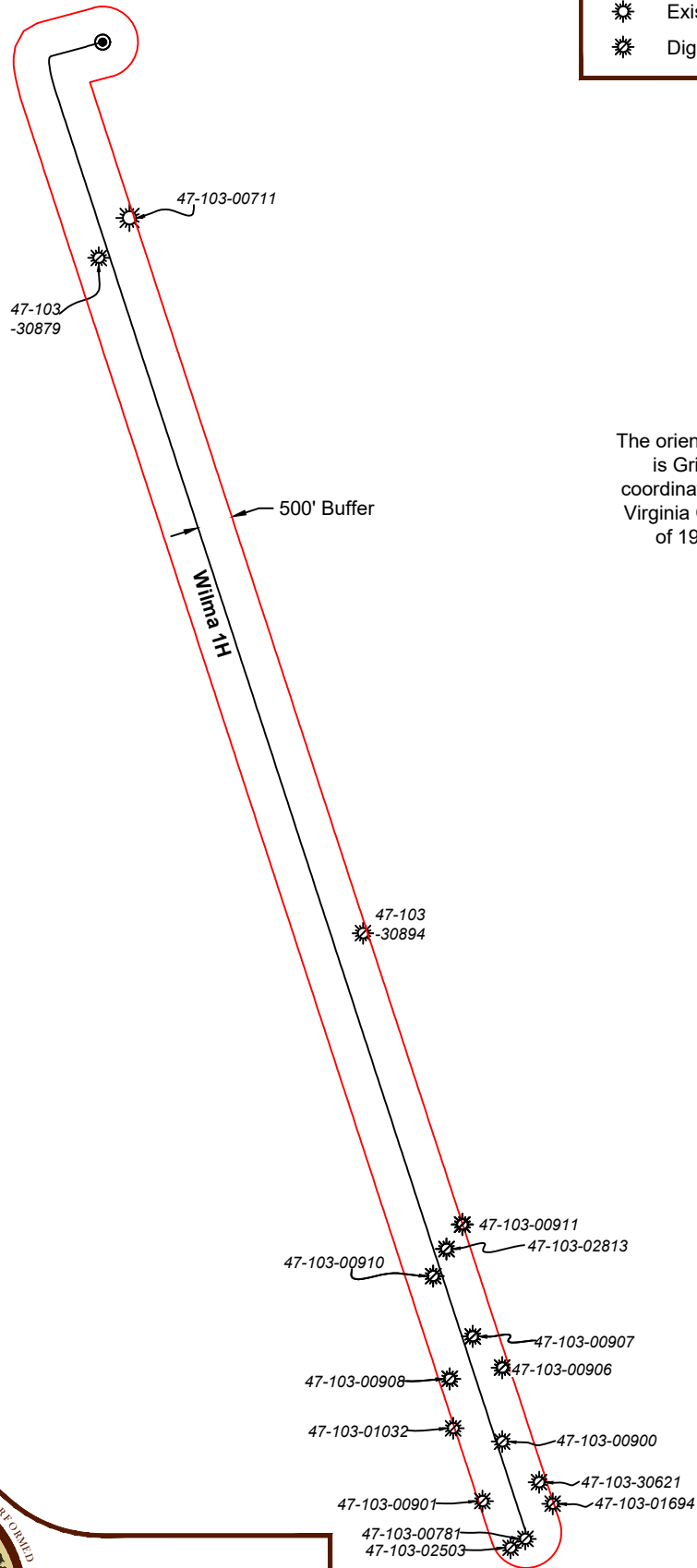
UWI (APINum)	Well Name	Well Number	Operator	Historical Operator	TD	Perforated Interval (shallowest, deepest)	Perforated Formation(s)	Producible Formation(s) not perf'd
47103007110000	J MILLER	5221	DIVERSIFIED PRODUCTION LLC	CONSOL GAS SUPPLY CRP	2,615		Gordon	Weir, Benson, Alexander
47103308790000	C A LONG	5232	HOPE NATURAL GAS	HOPE NATURAL GAS	2,811		Big Injun, Gordon	Weir, Benson, Alexander
47103308940000	A E BRAST	4932	HOPE NATURAL GAS	HOPE NATURAL GAS	2,879		2nd Salt, Gordon Stray, Gordon	Weir, Benson, Alexander
47103009110000	L J FLUHARTY	3	TRIBUNE RESOURCES LLC	PENNZOIL CO INC	2,620		Gordon Stray, Gordon	Weir, Benson, Alexander
47103028130000	FLUHARTY L J	7	TRIBUNE RESOURCES LLC	HG ENERGY LLC	2,840	2606 - 2621	Big Injun, Gordon	Weir, Benson, Alexander
47103009100000	L J FLUHARTY	2	TRIBUNE RESOURCES LLC	PENNZOIL CO INC	2,765		Gordon	Weir, Benson, Alexander
47103009070000	RACHEL WRIGHT	5	EAST RESOURCES	SOUTH PENN OIL	2,737	2620 - 2720	Gordon	Weir, Benson, Alexander
47103009060000	RACHEL WRIGHT	3	EAST RESOURCES	SOUTH PENN OIL	2,697		Gordon	Weir, Benson, Alexander
47103009000000	C P MCCOY HEIRS	4	TRIBUNE RESOURCES LLC	SOUTH PENN OIL	2,940		Gordon	Weir, Benson, Alexander
47103306210000	RACHEL WRIGHT	4	SOUTH PENN OIL	SOUTH PENN OIL	2,700		Gordon	Weir, Benson, Alexander
47103016940000	COASTAL LUMBER COMPANY	H-27	PENNZOIL PRODUCNG CO	PENNZOIL PRODUCNG CO	3,027	2890 - 2896	Gordon	Weir, Benson, Alexander
47103009080000	RACHEL WRIGHT	6	SOUTH PENN OIL	SOUTH PENN OIL	2,563			Weir, Benson, Alexander
47103010320000	ISRAEL MILLER	3	TRIBUNE RESOURCES LLC	SOUTH PENN OIL	2,640		Gordon	Weir, Benson, Alexander
47103009010000	MCCOY HEIRS	5	EAST RESOURCES	PENNZOIL CO INC	2,940		Gordon	Weir, Benson, Alexander
47103007810000	MCCOY HEIRS	9	PENNZOIL PRODUCNG CO	PENNZOIL CO INC				
47103025030000	MCCOY HEIRS	16	ASCENT RESOURCES-MARCELLUS LLC	EAST RESOURCES	3,410		Gordon	Weir, Benson, Alexander

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

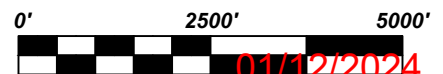


Bridgeport Office
 Phone: (304) 848-5035
 Fax: (304) 848-5037

172 Thompson Drive
 Bridgeport, WV 26330

PARTY CHIEF: C. Lynch	DRAWN BY: J. Smith
RESEARCH: J. Miller	PREPARED: January 3, 2024
SURVEYED: Dec. 2016	PROJECT NO: 231-34-G-23
FIELD CREW: C.L., K.M.	DRAWING NO: Wilma 1H AOR

Sheet 1 of 1



Scale: 1 inch = 2500 feet

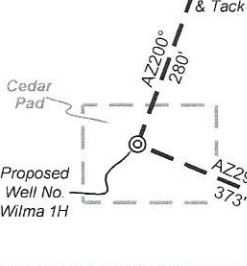
Antero Resources
Well No. Wilma 1H
BHL MOD
Antero Resources Corporation

Page 1 of 2



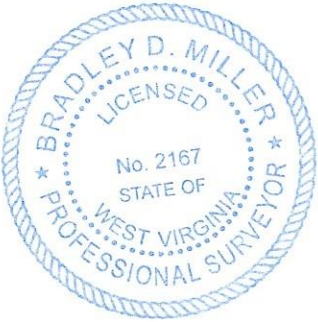
Well Location References

Not To Scale



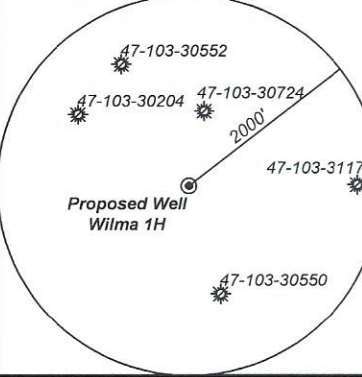
I, the undersigned, hereby certify that this plat is correct to the best of my knowledge and belief and shows all the information required by law and the rules issued and prescribed by the Department of Environmental Protection.

Bradley D. Miller
 Bradley D. Miller, P.S. 2167



SEAL

Note: 0 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	N 83°27' E	1,579.8'
L2	N 46°36' W	2,742.8'
L3	N 08°43' W	2,508.4'
L4	N 16°10' E	2,426.0'
L5	S 42°04' W	974.8'

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

7,100' to Bottom Hole

1,597' to Top Hole

TOP HOLE LATITUDE 39 - 35 - 00
 BTM HOLE LATITUDE 39 - 32 - 30

Notes
 West Virginia Coordinate System of 1927, North Zone based upon Differential GPS Measurements.
 Well No. Wilma Unit 1H Top Hole coordinates are
 N: 391,156.53' Latitude: 39°34'03.38"
 E: 1,657,769.03' Longitude: 80°42'50.39"
 Bottom Hole coordinates are
 N: 370,132.47' Latitude: 39°30'36.38"
 E: 1,663,739.28' Longitude: 80°41'30.59"
 UTM Zone 17, NAD 1983
 Top Hole Coordinates Bottom Hole Coordinates
 N: 4,379,815.351m N: 4,373,440.591m
 E: 524,581.871m E: 526,507.438m
 Plat orientation and corner and well references are based upon the grid north meridian.
 Well location references are based upon the magnetic meridian.

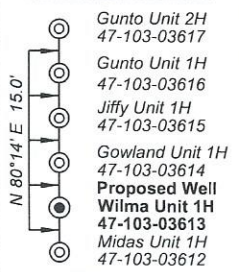
TOP HOLE LONGITUDE 80 - 42 - 30
 BTM HOLE LONGITUDE 80 - 40 - 00
 5,729' to Top Hole

11,496' to Bottom Hole



Notes:
 Well No. Wilma Unit 1H
 UTM Zone 17, NAD 1927
 Top Hole Coordinates
 N: 14,368,728.53'
 E: 1,721,017.15'
 Point of Entry Coordinates
 N: 14,367,994.20'
 E: 1,720,376.50'
 Bottom Hole Coordinates
 N: 14,342,814.02'
 E: 1,727,335.35'

Wellhead Layout (NTS)



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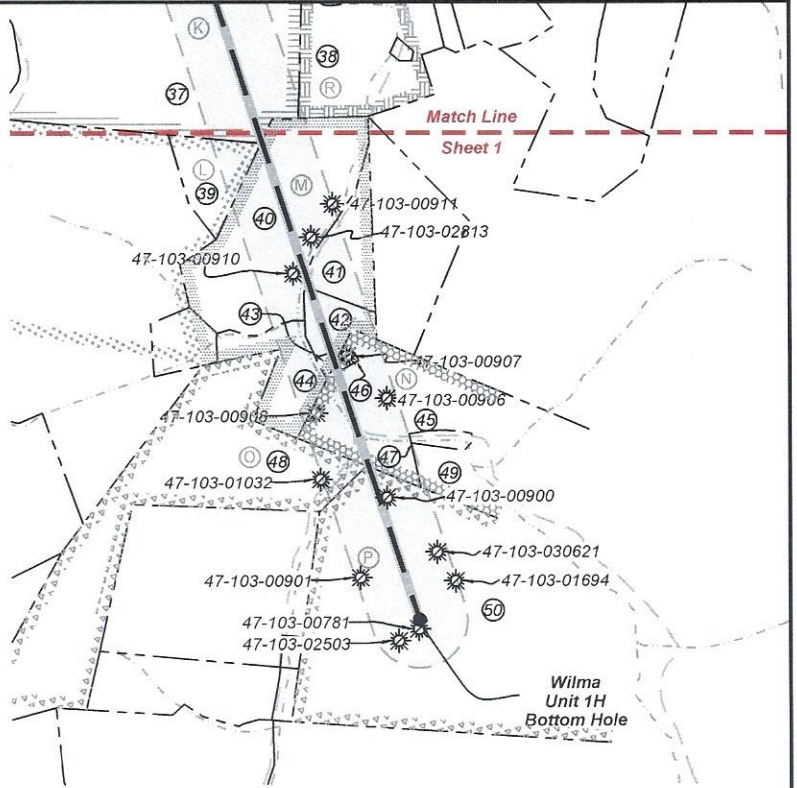
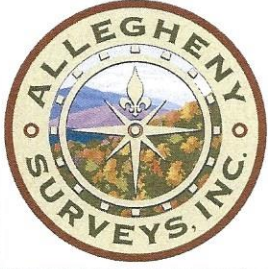
FILE NO: 231-34-G-23
 DRAWING NO: Wilma 1H BHL MOD Plat
 SCALE: 1" = 2000'
 MINIMUM DEGREE OF ACCURACY: Submeter
 PROVEN SOURCE OF ELEVATION: WVDOT, Harrisville, WV

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

DATE: January 3 2024
 OPERATOR'S WELL NO. Wilma 1H
 API WELL NO
 47 - 103 - 03613
 STATE COUNTY PERMIT

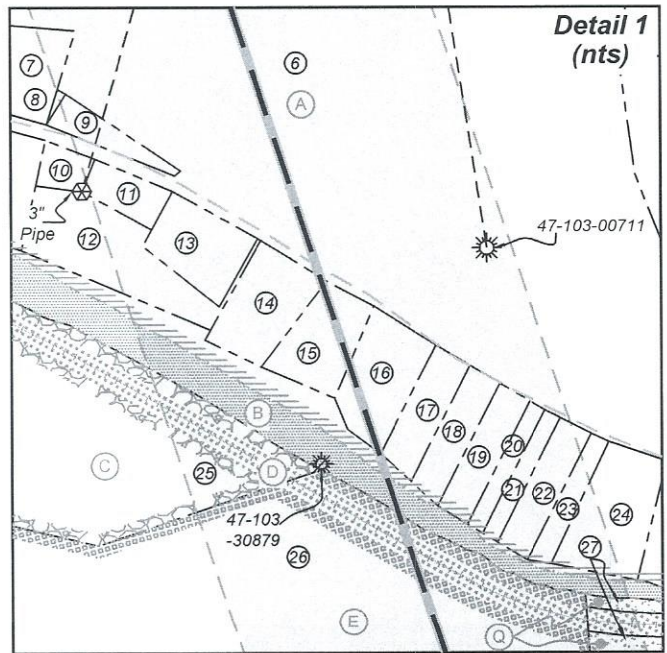
WELL TYPE: OIL GAS LIQUID INJECTION WASTE DISPOSAL
 (IF GAS) PRODUCTION: STORAGE DEEP SHALLOW
 LOCATION: ELEVATION: Proposed: 1,248' WATERSHED: Fishing Creek QUADRANGLE: Pine Grove
 DISTRICT: Green COUNTY: Wetzel
 SURFACE OWNER: Vicky A. VanDyne ACREAGE: 42.33
 ROYALTY OWNER: Antero Minerals, LLC LEASE NO: ACREAGE: 629.58633
 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: 7,600' TVD
 30,700' MD

WELL OPERATOR: Antero Resources Corporation DESIGNATED AGENT: Kevin Ellis
 ADDRESS: 1615 Wynkoop Street ADDRESS: 535 White Oaks Blvd.
 Denver, CO 80202 Bridgeport, WV 26330



ID	TM-Par	Owner	Bk/Pg	Acres
1	13-40	Kenneth E. & Vicky A. VanDyne	357/204	42.33
2	14-19	Dallison Lumber Company	357/267	51.50
3	13-34	Kenneth E. & Vicky A. VanDyne	357/204	14.50
4	13-39	Ruth E. Staley	256/283	3.12
5	13-54	Loraine Highley	WB81/258	20.17
6	13-83	Emma Virginia Miller	133/455	58.00
7	13-76	Edward G. Stewart	317/678	1.30
8	13-75	Edward G. Stewart	317/678	0.03
9	13-77	Gilbert H. Miller	WB32/145	0.72
10	13-80	Nathaniel L. & Lisa D. Yoho	402/4	0.33
11	13-81.1	Nathaniel L. & Lisa D. Yoho	402/4	0.48
12	13-81.4	First Baptist Church of Pine Grove	431/168	1.94
13	13-81.3	First Baptist Church of Pine Grove	431/168	1.05
14	13-89	First Baptist Church of Pine Grove	352/533	1.18
15	13-81	Eathel Irene Nolan	266/619	1.10
16	13-82	Amy Watts Warnick	488/705	1.34
17	14-51	Dennis J. & Alex C. Hayse	477/508	0.75
18	14-52	Michael T. & Mildred L. Quinn	483/885	0.75
19	14-53	David Jack & Tonya Michelle Stout	370/158	0.75
20	14-54	David Jack & Tonya Michelle Stout	370/158	0.48
21	14-55	James Allen & Andrea N. Sell	333/134	0.50
22	14-56	James Allen & Andrea N. Sell	333/134	0.73
23	14-57	James Allen & Andrea N. Sell	333/134	0.31
24	17-6	Phillip Dennison	442/24	1.71
25	13-78	Sebastian, Jr. & Marcella Harrison	281/94	25.37
26	17-5	Coastal Forest Resources	444/105	90.00
27	17-10	Coastal Forest Resources	444/105	90.00
28	17-21	Pauline E. Hayes	420/626	83.30
29	17-20	Heartland Forest Land Fund VII LP	431/936	123.50
30	17-32	Pauline E. Hayes	420/626	79.25
31	17-31	Heartland Forest Land Fund VII LP	431/936	120.33
32	17-40	Heartland Forest Land Fund VII LP	431/936	120.00
33	18-4	Barbara D. Cunningham	291/112	212.80
34	17-51	Linda K. Ice & Harry G. Whitcerman Jr.	WB66/545	156.00
35	20-46	Sara Ruth Cool & Peggy Ann Dawson Supplemental Needs Trust	471/207	107.1
36	20-48	Charles R. Kuhn & William J. Shrum	411/688	30.00
37	20-15	Coastal Forest Resources Co.	444/105	198.00
38	21-9	Kyle R. & Lauren Fluharty	439/308	45.90
39	20-22	Coastal Forest Resources Co.	444/105	12.20
40	21-15	Douglas & Debra Williams	385/159	57.06
41	21-16.2	Ascent Resources Marcellus	448/247	14.56
42	21-16	Christopher & Kimberly Campbell	405/756	6.71
43	21-18	Christopher & Kimberly Campbell	478/169	0.72
44	21-15.1	Debra Williams	398/447	2.00
45	21-21	Santford Joe Haught	423/709	83.00
46	21-19	Roger L. & Karon S. Fluharty	342/175	0.46
47	23-40	Cecil Fisher	337/471	2.52
48	23-1	Susan Henderson	417/744	100.00
49	23-40.5	Joseph A. Bassett	474/485	10.91
50	23-4	Coastal Forest Resources Co.	491/498	154.51

Leases			
A	Jenkins Miller	K	Shiben Estates Inc.
B	WVDNR	L	Josephine Brast, et al
C	Marcella K. Harrison	M	Louisa J. Fluharty
D	CSX Transportation, Inc.	N	Rachel Wright, et al
E	Tribune Resources Minerals, LLC	O	Israel Miller, et ux
F	Jeffrey T. Hayes	P	John R. McCoy, et al
G	Shiben Estates Inc.	Q	Antero Minerals, LLC
H	Tribune Resources Minerals, LLC	R	Antero Minerals, LLC
I	Tribune Resources Minerals, LLC	S	Coastal Forest Resources Co.
J	Thomas Cunningham, et ux	T	Shiben Estates Inc.



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WELL OPERATOR: Antero Resources Corporation DESIGNATED AGENT: Kevin Ellis
 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>Q: Antero Minerals, LLC Lease</u>			
Antero Minerals, LLC	Antero Resources Corporation	1/8+	250A/0847
<u>A: Jenkins Miller Lease</u>			
Jenkins Miller	Hope Natural Gas Company	1/8	0107/0056
Hope Natural Gas Company	Consolidated Gas Supply Corporation	Assignment	0233/0387
Consolidated Gas Supply Corporation	Consolidated Gas Transmission Corporation	Assignment	066A/0069
Consolidated Gas Transmission Corporation	Eastern States Oil & Gas Inc.	Assignment	076A/0232
Eastern States Oil & Gas Inc.	Blazer Energy Corp.	Merger	0012/0253
Blazer Energy Corp.	Eastern States Oil & Gas Inc.	Name Change	0012/0259
Eastern States Oil & Gas Inc.	Equitable Production – Eastern States Inc.	Name Change	WVSOS
Equitable Production – Eastern States Inc.	Appalachian Natural Gas Trust	Assignment	079A/0244
Appalachian Natural Gas Trust	EQT Production Company	Merger	0096/0505
EQT Production Company	Antero Resources Corporation	Assignment	230A/0801
<u>B: WVDNR Lease</u>			
WVDNR	Antero Resources Corporation	1/8+	323A/541
<u>D: CSX Transportation Inc Lease</u>			
CSX Transportation Inc	Antero Resources Corporation	1/8+	275A/895
<u>E: Tribune Resources Minerals, LLC Lease</u>			
Tribune Resources Minerals, LLC	Antero Resources Corporation	1/8+	248A/634
<u>F: Jeffrey T. Hayes Lease</u>			
Jeffrey T. Hayes	Antero Resources Corporation	1/8+	327A/836
<u>G: Shiben Estates Inc Lease</u>			
Shiben Estates Inc	Antero Resources Corporation	1/8+	202A/794
<u>H: Tribune Resources Minerals LLC Lease</u>			
Tribune Resources Minerals LLC	Antero Resources Corporation	1/8+	218A/794
<u>J: Thomas Cunningham et ux Lease</u>			
Thomas Cunningham et ux	L.G Robinson	1/8	48/569
L.G Robinson	South Penn Oil Company	Assignment	49/659
South Penn Oil Company	Hope Natural Gas Company	Assignment	9A/230
Hope Natural Gas Company	Consolidated Gas Supply Corporation	Assignment	233/387
Consolidated Gas Supply Corporation	Consolidated Gas Transmission Corporation	Assignment	66A/69
Consolidated Gas Transmission Corporation	CNG Transmission Corporation	Name Change	13/151
CNG Transmission Corporation	Eastern States Oil & Gas Inc	Assignment	76A/232
Eastern States Oil & Gas Inc	Equitable Production Eastern States Inc	Name Change	13/14
Equitable Production Eastern States Inc	Equitable Production Company	Merge	13/14
Equitable Production Company	EQT Production Company	Name Change	13/14
EQT Production Company	Antero Resources Corporation	Assignment	230A/801

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>K; Shiben Estates Inc Lease</u>			
Shiben Estates Inc	Antero Resources Corporation	1/8+	197A/825
<u>L: Josephine Brast et al Lease</u>			
Josephine Brast et al	South Penn Oil Company	1/8	49/591
South Penn Oil Company	Hope Natural Gas Company	Assignment	9A/230
Hope Natural Gas Company	Consolidated Gas Supply Corporation	Assignment	233/387
Consolidated Gas Supply Corporation	Consolidated Gas Transmission Corporation	Assignment	66A/69
Consolidated Gas Transmission Corporation	CNG Transmission Corporation	Name Change	13/151
CNG Transmission Corporation	Eastern States Oil & Gas Inc	Assignment	76A/232
Eastern States Oil & Gas Inc	Equitable Production Eastern States Inc	Name Change	13/14
Equitable Production Eastern States Inc	Equitable Production Company	Merge	13/14
Equitable Production Company	EQT Production Company	Name Change	13/14
EQT Production Company	Tribune Resources LLC	Assignment	179A/653
Tribune Resources LLC	Antero Resources Corporation	Assignment	219A/322
<u>M: Louisa J. Fluharty Lease</u>			
Louisa J. Fluharty	South Penn Oil Company	1/8	49/44
South Penn Oil Company	Pennzoil Company	Name Change	WV SOS
Pennzoil Company	Pennzoil Products Company	Assignment	319/397
Pennzoil Products Company	Pennzoil Exploration & Production Company	Assignment	363/384
Pennzoil Exploration & Production Company	PennzEnergy Exploration & Production Company	Merge	12/177
PennzEnergy Exploration & Production Company	Devon Energy Production Company LP	Merge	12/278
Devon Energy Production Company LP	East Resources Inc	Assignment	370/580
East Resources Inc	American Energy-Marcellus LLC	Assignment	153A/238
American Energy-Marcellus LLC	Ascent Resources-Marcellus LLC	Name Change	13/304
Ascent Resources-Marcellus LLC	Tribune Resources LLC	Name Change	13/421
Tribune Resources LLC	Antero Resources Corporation	Partial Assignment	310A/473
<u>N: Rachel Wright et al Lease</u>			
Rachel Wright et al	South Penn Oil Company	1/8	51/460
South Penn Oil Company	Pennzoil Company	Name Change	WV SOS
Pennzoil Company	Pennzoil Products Company	Assignment	319/397
Pennzoil Products Company	Pennzoil Exploration & Production Company	Assignment	363/384
Pennzoil Exploration & Production Company	PennzEnergy Exploration & Production Company	Merge	12/177
PennzEnergy Exploration & Production Company	Devon Energy Production Company LP	Merge	12/278
Devon Energy Production Company LP	East Resources Inc	Assignment	370/580
East Resources Inc	American Energy-Marcellus LLC	Assignment	153A/238
American Energy-Marcellus LLC	Ascent Resources-Marcellus LLC	Name Change	13/304
Ascent Resources-Marcellus LLC	Tribune Resources LLC	Name Change	13/421
Tribune Resources LLC	Antero Resources Corporation	Partial Assignment	310A/473
<u>O: Israel Miller et ux Lease</u>			
Israel Miller et ux	South Penn Oil Company	1/8	49/52
South Penn Oil Company	Pennzoil Company	Name Change	WV SOS
Pennzoil Company	Pennzoil Products Company	Assignment	319/397
Pennzoil Products Company	Pennzoil Exploration & Production Company	Assignment	363/384
Pennzoil Exploration & Production Company	PennzEnergy Exploration & Production Company	Merge	12/177
PennzEnergy Exploration & Production Company	Devon Energy Production Company LP	Merge	12/278
Devon Energy Production Company LP	East Resources Inc	Assignment	370/580

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Grantor, lessor, etc.	Grantee, lessee, etc.	Royalty	Book/Page
East Resources Inc	American Energy-Marcellus LLC	Assignment	153A/238
American Energy-Marcellus LLC	Ascent Resources-Marcellus LLC	Name Change	13/304
Ascent Resources-Marcellus LLC	Tribune Resources LLC	Name Change	13/421
Tribune Resources LLC	Antero Resources Corporation	Partial Assignment	310A/473

***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.**

**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)**

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- (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>P: John R. McCoy et al Lease</u>				
	John R. McCoy et al	J. F Guffey	1/8	48/445
	J. F Guffey	W.M Graham	Assignment	48/445
	W.M Graham	W.H Nimick	Assignment	48/445
	W.H Nimick	South Penn Oil Company	Assignment	48/445
	South Penn Oil Company	Pennzoil Company	Name Change	WV SOS
	Pennzoil Company	Pennzoil Exploration & Production Company	Assignment	363/384
	Pennzoil Exploration & Production Company	PennzEnergy Exploration & Production Company	Merge	12/177
	PennzEnergy Exploration & Production Company	Devon Energy Production Company LP	Merge	12/278
	Devon Energy Production Company LP	East Resources Inc	Assignment	370/580
	East Resources Inc	American Energy Marcellus LLC	Assignment	153A/238
	American Energy Marcellus LLC	Ascent Resources Marcellus LLC	Name Change	13/304
	Ascent Resources Marcellus LLC	Tribune Resources LLC	Name Change	13/421
	Tribune Resources LLC	Antero Resources Corporation	Partial Assignment	310A/473

*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.

Office of Oil and Gas, including but not limited to the following:

- WV Division of Water and Waste Management
- WV Division of Natural Resources WV Division of Highways
- U.S. Army Corps of Engineers
- U.S. Fish and Wildlife Service
- County Floodplain Coordinator

The applicant further acknowledges that any Office of Oil and Gas permit in no way overrides, replaces, or nullifies the need for other permits/approvals that may be necessary and further affirms that all needed permits/approvals should be acquired from the appropriate authority before the affected activity is initiated.

Well Operator: Antero Resources Corporation
 By: Tim Rady
 Its: Senior Vice President of Land

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Office of Oil and Gas
JAN 02 2024
WV Department of
Environmental Protection