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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)

Thursday, March 10, 2022  
PERMIT MODIFICATION APPROVAL  
Horizontal 6A / New Drill

ANTERO RESOURCES CORPORATION  
1615 WYNKOOP STREET

DENVER, CO 80202

Re: Permit Modification Approval for JED UNIT 1H  
47-095-02778-00-00

**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: JED UNIT 1H  
Farm Name: ROBERT D & VIRGINIA A NALLEY  
U.S. WELL NUMBER: 47-095-02778-00-00  
Horizontal 6A New Drill  
Date Modification Issued: 3/10/2022

Promoting a healthy environment.

03/18/2022

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 Lincoln Paden City 7.5'  
Operator ID County District Quadrangle

2) Operator's Well Number: Jed Unit 1H Well Pad Name: Nalley Pad

3) Farm Name/Surface Owner: Robert D. Nalley et ux Public Road Access: WV-18 Tyler Highway

4) Elevation, current ground: 972' 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: 6600' TVD, Anticipated Thickness- 55 feet, Associated Pressure- 2850#

8) Proposed Total Vertical Depth: 6600' TVD

9) Formation at Total Vertical Depth: Marcellus

10) Proposed Total Measured Depth: 23,800'

11) Proposed Horizontal Leg Length: 14,999'

12) Approximate Fresh Water Strata Depths: 158'

13) Method to Determine Fresh Water Depths: 47-095-00912-0000

14) Approximate Saltwater Depths: 1678'

15) Approximate Coal Seam Depths: 483'

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: \_\_\_\_\_

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Office of Oil and Gas

MAR 07 2022

WV Department of  
Environmental Protection

*DCW  
2-28-2022*

WW-6B  
(04/15)

API NO. 47- 095 - 02778 MOD  
 OPERATOR WELL NO. Jed Unit 1H  
 Well Pad Name: Nalley 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	H-40	79#	80'	80' ✓	CTS, 77 Cu. Ft.
Fresh Water	13-3/8"	New	J/K-55	54.5#	300'	300' ✓	CTS, 313Cu. Ft.
Coal	9-5/8"	New	J-/K55	36#	2500'	2500' ✓	CTS, 1018 Cu. Ft.
Intermediate							
Production	5-1/2"	New	P-110CY	20#	23,800'	23,800' ✓	CTS, 5069 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	~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							

**PACKERS**

Kind:	N/A			
Sizes:	N/A			
Depths Set:	N/A			

*DCW  
2-29-2022*

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Environmental Protection

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): 34.58 acres

22) Area to be disturbed for well pad only, less access road (acres): 6.43 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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FEB 18 2022

WV Department of  
Environmental Protection

25) Proposed borehole conditioning procedures:

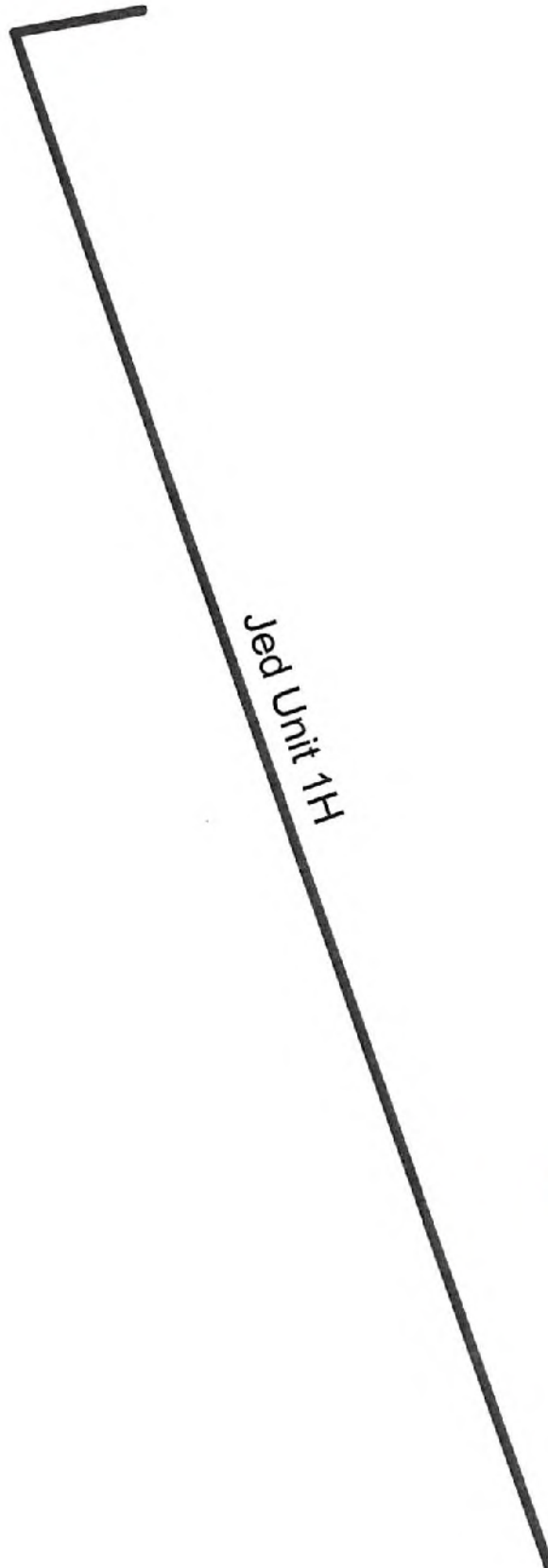
Conductor: blowhole clean with air, run casing, 10 bbls fresh water.

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

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

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

\*Note: Attach additional sheets as needed.



Jed Unit 1H

CR# 4065042  
Amt \$2500  
Date 2/17/22



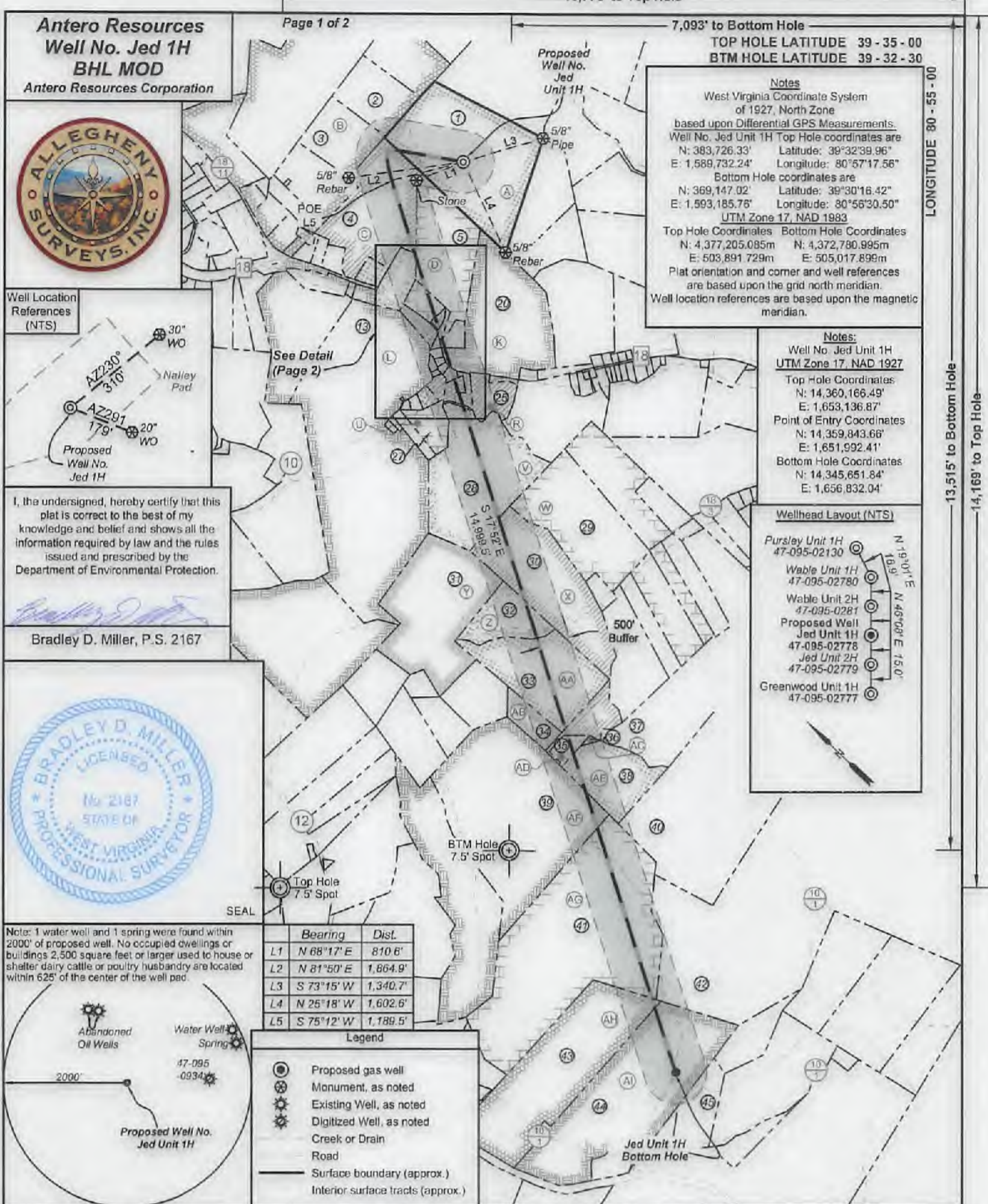
Antero Resources Corporation

Jed Unit 1H - AOR

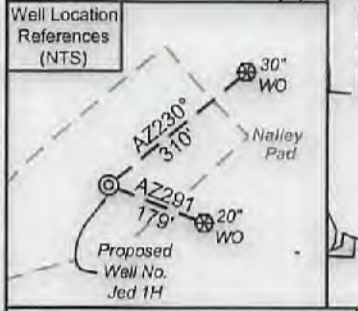


February 11, 2022

03/18/2022



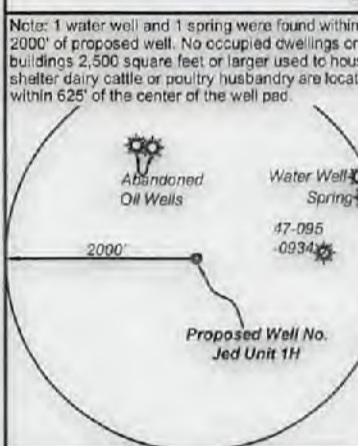
**Antero Resources**  
**Well No. Jed 1H**  
**BHL MOD**  
 Antero Resources Corporation



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



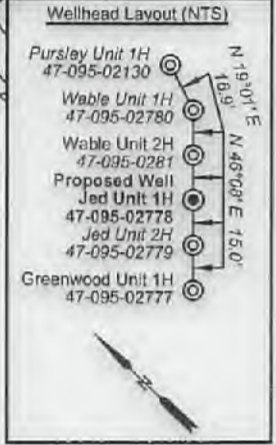
	Bearing	Dist.
L1	N 68°17' E	810.6'
L2	N 81°50' E	1,864.9'
L3	S 73°15' W	1,340.7'
L4	N 25°18' W	1,602.6'
L5	S 75°12' W	1,189.5'

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

10,776' to Top Hole  
 7,093' to Bottom 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. Jed Unit 1H Top Hole coordinates are  
 N: 383,726.33' Latitude: 39°32'39.96"  
 E: 1,589,732.24' Longitude: 80°57'17.56"  
 Bottom Hole coordinates are  
 N: 369,147.02' Latitude: 39°30'16.42"  
 E: 1,593,185.76' Longitude: 80°56'30.50"  
 UTM Zone 17, NAD 1983  
 Top Hole Coordinates Bottom Hole Coordinates  
 N: 4,377,205.085m N: 4,372,780.995m  
 E: 503,891.729m E: 505,017.899m  
 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. Jed Unit 1H UTM Zone 17, NAD 1927  
 Top Hole Coordinates  
 N: 14,360,166.49'  
 E: 1,653,136.87'  
 Point of Entry Coordinates  
 N: 14,359,843.66'  
 E: 1,651,992.41'  
 Bottom Hole Coordinates  
 N: 14,345,651.84'  
 E: 1,656,832.04'



FILE NO: 34-54-L-17  
 DRAWING NO: Jed Unit 1H 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: February 14 2022  
 OPERATOR'S WELL NO. Jed Unit 1H  
 API WELL NO  
 47 - 095 - 02778 M  
 STATE COUNTY PERMIT

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

LOCATION: ELEVATION: As-Built 971.8' WATERSHED: Outlet Middle Island Creek QUADRANGLE: Paden City 0.68; 48.1; 80; 53.7; 0.922; 9.4; 3.16563; 6.444; 2.44; 71.99; 69.15; 50.0; 17.0; 3.33; 205.862; 71.93152; 25; 127.39

DISTRICT: Lincoln Robert D. & SURFACE OWNER: Virginia A. Nalley COUNTY: Tyler

ROYALTY OWNER: Robert D. Nalley, et ux (3); George E. Miller, et ux; Thomas D. Butterfield, et ux. LEASE NO: ACREAGE: 80.00

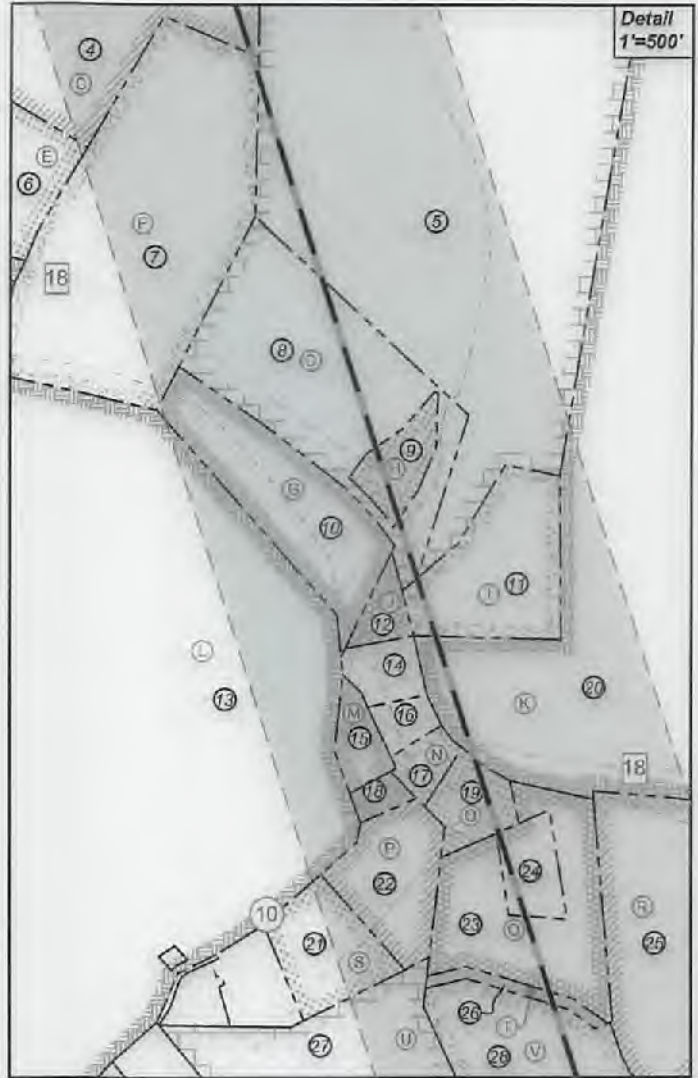
PROPOSED WORK:  DRILL  CONVERT  DRILL DEEPER  FRACTURE OR STIMULATE  PLUG OFF OLD FORMATION  
 PERFORATE NEW FORMATION  OTHER PHYSICAL CHANGE IN WELL (SPECIFY) BHL MOD  
 PLUG AND ABANDON  CLEAN OUT AND REPLUG TARGET FORMATION: Marcellus Shale ESTIMATED DEPTH: 23,800' MD

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

02/18/2022

**Antero Resources  
Well No. Jed 1H**

Antero Resources Corporation



ID	TMPAr	Owner	Bk/Pg	Acres
1	8-54	Robert D. & Virginia A. Nalley	198/41	30.00
2	8-38.3	Joann & Howard L. Schupbach Jr.	467/383	21.17
3	8-38.5	Donald D. & Alice J. Haught	300/583	21.17
4	8-53	Robert D. & Virginia A. Nalley	200/53	48.10
5	12-13	Robert D. & Virginia A. Nalley	183/452	38.75
6	12-11	Kenneth R. & Mary Joanne Hunt	231/387	3.00
7	12-12	George & Mary Jo Miller	195/44	9.33
8	12-14	Robert D. Nalley	393/662	7.35
9	12-14.1	Robert D. & Virginia Nalley	424/382	0.85
10	12-28	Warren C. & Erica N. Conklin	400/261	3.75
11	12-15	Pursley Cemetery	97/2	3.16
12	12A-1	Donald B. & Barbara S. Stokes	270/372	0.43
13	12-27	William P. & Jo Anne Ingram	156/175	183.16
14	12A-2	Church of Christ	85/552	0.66
15	12A-4	Eric J. Fletcher	666/526	0.44
16	12A-3	Pursley Church of Christ	358/83	0.42
17	12A-5	Stephen M. Johnson	AR51/1229	0.68
18	12A-6	Eric J. Fletcher	666/526	0.29
19	12A-7	Michael A. & Cheryl A. Mars	619/130	0.83
20	12-16	Harry Huff	230/546	45.11
21	12-32.1	Kay K. & Donald L. Steward	311/676	1.66
22	12-32	David R. & Nancy J. Goodfellow	311/618	1.94
23	12-34	Ronald L. & Donna L. George	372/167	5.13
24	12-33	Ronald L. & Donna L. George	372/167	0.85
25	12-35	Dale E. Berisford	307/443	9.21
26	12-34.1	Stacey Lynn Carney, et al	W53/701	0.90
27	12-38	Dena Grimes	W35/150	9.64
28	12-39	Stacey Carney, et al	W53/701	71.99
29	12-53.4	Walter J. West	359/617	52.95
30	12-52	Leslie Ray Tennant	382/603	68.15
31	12-51	Rickie Lee Littleton	281/193	61.23
32	12-61	Melinda A. King	568/757	17.00
33	12-62	Leslie Ray Tennant, et al	282/305	50.00
34	12-63	Melinda A. King	568/757	8.66
35	12-84	Ridgetop Capital, LP	375/206	3.33
36	12-85	GR Meckley Family Trust	OR50/28	0.50
37	12-67	Leslie R. Tennant, et al	283/574	54.07
38	12-66	Eugene W. & Leah M. Gilmore	286/7	25.00
39	15-9	Ridgetop Capital, LP	375/206	120.00
40	15-20	James L. & Martha Jo Stewart	330/936	76.10
41	15-13	B. F., Ben H. & Ida M. Kile	174/412	140.00
42	13-1	James L. & Martha Jo Stewart	330/931	194.04
43	15-16	Mary Ann Devine, et al	W36/282	81.67
44	15-17	Earl & Donna Smith	191/12	127.39
45	13-3.5	Lisa M. Beane	408/688	17.84

Leases			
A	Robert D. Nalley, et ux	S	Donald L. Steward, et ux
B	Robert L. Keller	T	Stacey Lynn Carney, et vir
C	Robert D. Nalley, et ux	U	Dena Raye Grimes
D	Robert D. Nalley, et ux	V	Matthew Goodfellow
E	Kenneth R. Hunt	W	Walter J. West
F	George E. Miller, et ux	X	Leslie R. Tennant
G	Warren C. Conklin, et ux	Y	Larry Folger, et ux
H	Thomas D. Butterfield, et ux	Z	BRC Appalachian Minerals I, LLC
I	Pursley Cemetery	AA	BRC Appalachian Minerals I, LLC
J	Donald B. & Barbara S. Stokes	AB	BRC Appalachian Minerals I, LLC
K	Harry H. Huff, et ux	AC	Gerald Meckley
L	William P. Ingram	AD	Ridgetop Capital, LP
M	Kimberly Wilcox	AE	Central Trinity Methodist Church
N	Stephen M. Johnson	AF	Ridgetop Capital, LP
O	Michael A. Mars, et ux	AG	Donald H. Lancaster, Jr.
P	Lisa J. York	AH	Debra Lynn Warner
Q	Ronald L. George et ux	AI	Donna Smith
R	Dale E. Berisford		

FILE NO: 34-54-L-17  
 DRAWING NO: Jed Unit 1H 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: February 14 2022  
 OPERATOR'S WELL NO. Jed Unit 1H  
 API WELL NO  
 47 - 095 - 02778 H  
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 (IF GAS) PRODUCTION:  STORAGE  DEEP  SHALLOW

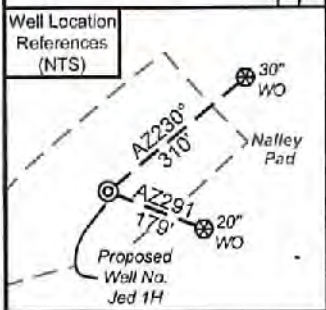
LOCATION: ELEVATION: As-Built 971.8' WATERSHED: Middle Island Creek QUADRANGLE: Paden City 0.68; 48.1;  
 Outlet: 80; 53.7; 0.922; 9.4-  
 DISTRICT: Lincoln Robert D. & Virginia A. Nalley SURFACE OWNER: Virginia A. Nalley COUNTY: Tyler 0.68; 48.1;  
 SURFACE OWNER: Virginia A. Nalley COUNTY: Tyler 0.68; 48.1;  
 ROYALTY OWNER: Robert D. Nalley, et ux (3); George E. Miller, et ux; Thomas D. Butterfield, et ux; LEASE NO: ACREAGE: 80.00 3.16563; 6.444; 2.44;  
 ROYALTY OWNER: Robert D. Nalley, et ux (3); George E. Miller, et ux; Thomas D. Butterfield, et ux; LEASE NO: ACREAGE: 71.93152; 25; 127.39 17.0; 3.33; 205.862;

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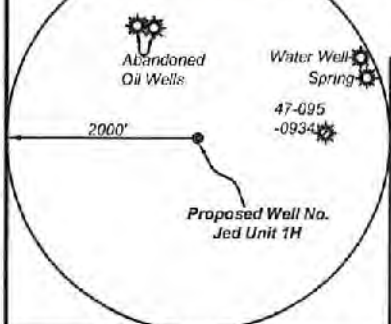


I, the undersigned, hereby certify that this plat is correct to the best of my knowledge and belief and shows all the information required by law and the rules issued and prescribed by the Department of Environmental Protection.

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



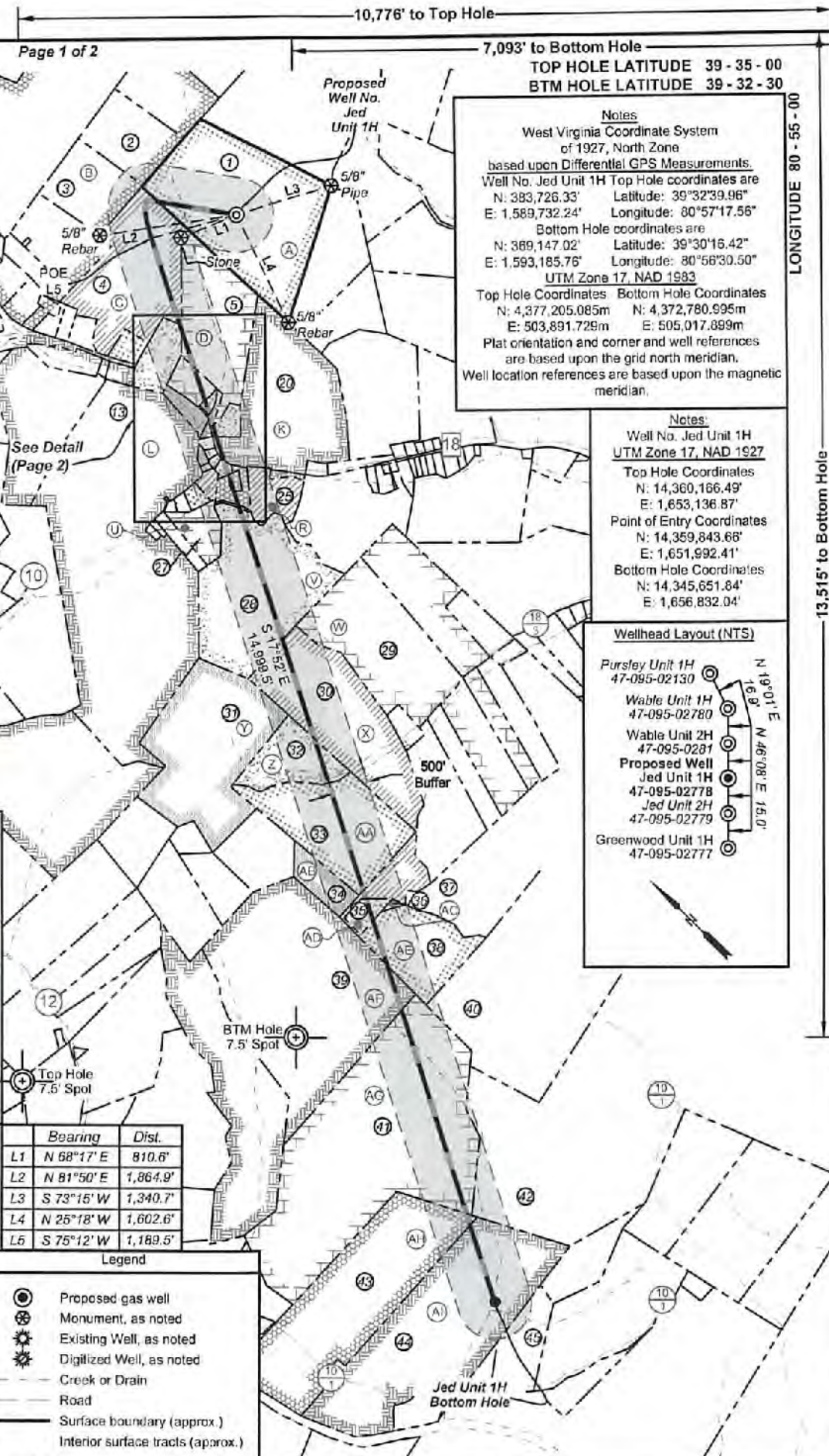
Note: 1 water well and 1 spring were found within 2000' of proposed well. No occupied dwellings or buildings 2,500 square feet or larger used to house or shelter dairy cattle or poultry husbandry are located within 625' of the center of the well pad.



	Bearing	Dist.
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L3	S 73°15' W	1,340.7'
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**Legend**

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



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 DISTRICT: Lincoln Robert D. & Ridgecap Capital, LP (2); Central Trinity Methodist Church; Stephen M. Johnson; COUNTY: Tyler 03; 18; 2022  
 SURFACE OWNER: Virginia A. Nalley Leslie R. Tennant; Debra Lynn Warner; BRC Appalachian Minerals I, LLC (2); 3.16563; 6.444; 2.44;  
 ROYALTY OWNER: Robert D. Nalley, et ux (3); George E. Miller, et ux; Thomas D. Butterfield, et ux; Donald L. George, et ux; Stacey Lynn Carney, et vir; Matthew Goodfellow; ACREAGE: 80.00 71.99; 69.15; 50.0;  
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 PERFORATE NEW FORMATION  OTHER PHYSICAL CHANGE IN WELL (SPECIFY) BHL MOD 17.0; 3.33; 205.862;  
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 ADDRESS: 1815 Wynkoop Street ADDRESS: 5400 D Big Tyler Road  
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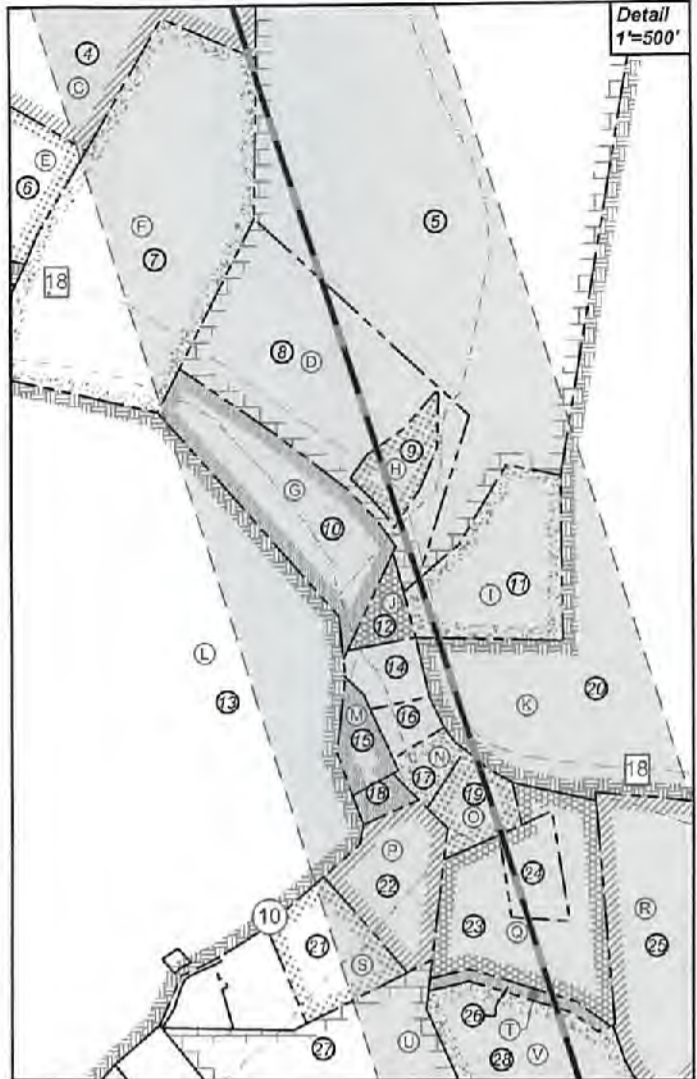


**Antero Resources  
Well No. Jed 1H**

Antero Resources Corporation



ID	TM/Par	Owner	Bk/Pg	Acres
1	8-54	Robert D. & Virginia A. Nalley	196/41	80.00
2	8-38.3	Joann & Howard L. Schupbach Jr.	467/383	21.17
3	8-38.5	Donald D. & Alice J. Haught	300/583	21.17
4	8-53	Robert D. & Virginia A. Nalley	200/53	48.10
5	12-13	Robert D. & Virginia A. Nalley	163/452	38.75
6	12-11	Kenneth R. & Mary Joanna Hunt	231/387	3.00
7	12-12	George & Mary Jo Miller	195/44	9.33
8	12-14	Robert D. Nalley	393/862	7.35
9	12-14.1	Robert D. & Virginia Nalley	424/382	0.85
10	12-28	Warren C. & Erica N. Conklin	400/261	3.75
11	12-15	Pursley Cemetery	97/2	3.16
12	12A-1	Donald B. & Barbara S. Stokes	270/372	0.43
13	12-27	William P. & Jo Anne Ingram	156/175	183.18
14	12A-2	Church of Christ	85/552	0.66
15	12A-4	Eric J. Fletcher	666/526	0.44
16	12A-3	Pursley Church of Christ	356/83	0.42
17	12A-5	Stephen M. Johnson	AR51/1229	0.68
18	12A-8	Eric J. Fletcher	666/526	0.29
19	12A-7	Michael A. & Cheryl A. Mars	619/130	0.83
20	12-16	Harry Huff	230/546	45.11
21	12-32.1	Kay K. & Donald L. Steward	311/676	1.66
22	12-32	David R. & Nancy J. Goodfellow	311/618	1.94
23	12-34	Ronald L. & Donna L. George	372/167	5.13
24	12-33	Ronald L. & Donna L. George	372/167	0.85
25	12-35	Dale E. Berisford	307/443	9.21
26	12-34.1	Stacey Lynn Carney, et al	W53/701	0.90
27	12-38	Dena Grimes	W35/150	9.64
28	12-39	Stacey Carney, et al	W53/701	71.99
29	12-83.4	Walter J. West	359/817	52.95
30	12-52	Leslie Ray Tennant	382/603	69.15
31	12-51	Rickie Lee Littleton	281/193	61.23
32	12-61	Melinda A. King	568/757	17.00
33	12-62	Leslie Ray Tennant, et al	282/305	50.00
34	12-63	Melinda A. King	568/757	8.66
35	12-64	Ridgetop Capital, LP	375/206	3.33
36	12-65	GR Meckley Family Trust	OR50/28	0.50
37	12-67	Leslie R. Tennant, et al	283/574	54.07
38	12-66	Eugene W. & Leah M. Gilmore	286/7	25.00
39	15-9	Ridgetop Capital, LP	375/206	120.00
40	15-20	James L. & Martha Jo Stewart	330/936	76.10
41	15-13	B. F., Ben H. & Ida M. Kile	174/412	140.00
42	13-1	James L. & Martha Jo Stewart	330/931	194.04
43	15-16	Mary Ann Davine, et al	W36/282	81.67
44	15-17	Earl & Donna Smith	191/12	127.39
45	13-3.5	Lisa M. Beane	406/668	17.64



Leases			
A	Robert D. Nalley, et ux	S	Donald L. Steward, et ux
B	Robert L. Keller	T	Stacey Lynn Carney, et vir
C	Robert D. Nalley, et ux	U	Dena Raye Grimes
D	Robert D. Nalley, et ux	V	Matthew Goodfellow
E	Kenneth R. Hunt	W	Walter J. West
F	George E. Miller, et ux	X	Leslie R. Tennant
G	Warren C. Conklin, et ux	Y	Larry Folger, et ux
H	Thomas D. Butterfield, et ux	Z	BRC Appalachian Minerals I, LLC
I	Pursley Cemetery	AA	BRC Appalachian Minerals I, LLC
J	Donald B. & Barbara S. Stokes	AB	BRC Appalachian Minerals I, LLC
K	Harry H. Huff, et ux	AC	Gerald Meckley
L	William P. Ingram	AD	Ridgetop Capital, LP
M	Kimberly Wilcox	AE	Central Trinity Methodist Church
N	Stephen M. Johnson	AF	Ridgetop Capital, LP
O	Michael A. Mars, et ux	AG	Donald H. Lancaster, Jr.
P	Lisa J. York	AH	Debra Lynn Warner
Q	Ronald L. George et ux	AI	Donna Smith
R	Dale E. Berisford		

FILE NO: 34-54-L-17  
 DRAWING NO: Jed Unit 1H 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: February 14 2022  
 OPERATOR'S WELL NO. Jed Unit 1H  
 API WELL NO  
 47 - 095 - 02778 M  
 STATE COUNTY PERMIT

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

LOCATION: ELEVATION: As-Built 971.8' WATERSHED: Outlet Middle Island Creek QUADRANGLE: Paden City 0.68; 46.1;  
 DISTRICT: Lincoln Robert D. & Virginia A. Nalley Michael A. Mars, et ux; Ridgetop Capital, LP (2); Central Trinity Methodist Church; Stephen M. Johnson; 89; 63.7; 0.522; 9.1  
 SURFACE OWNER: Virginia A. Nalley Leslie R. Tennant; Debra Lynn Warner; BRC Appalachian Minerals I, LLC (2); 3.16563; 6.444; 2.44;  
 ROYALTY OWNER: Robert D. Nalley, et ux (3); George E. Miller, et ux; Thomas D. Butterfield, et ux; Donald H. Lancaster, Jr.; Harry H. Huff, et ux; Pursley Cemetery; Donna Smith; 71.99; 69.15; 50.0;  
 LEASE NO: ACREAGE: 80.00 17.0; 3.33; 205.862;  
 ACREAGE: 71.93152; 25; 127.39

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: 23,800' MD 8,600' 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

03/18/2022

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:

	Grantor, lessor, etc.	Grantee, lessee, etc.	Royalty	Book/Page
A	<u>Robert D. Nalley et ux Lease</u> Robert D. Nalley and Virginia A. Nalley husband and wife	Antero Resources Corporation	1/8+	0134/0010
C	<u>Robert D. Nalley et ux Lease</u> Robert D. Nalley and Virginia A Nalley Husband and Wife	Antero Resources Corporation	1/8+	587/120
F	<u>George E Miller et ux Lease</u> George E Miller et ux	Antero Resources Corporation	1/8+	639/823
D	<u>Robert D Nalley et ux Lease</u> Robert D. Nalley and Virginia A Nalley Husband and wife	Antero Resources Corporation	1/8+	587/120
H	<u>Thomas D Butterfield et ux Lease</u> Thomas D Butterfield et ux Antero Resources Appalachian Corporation	Antero Resources Appalachian Corporation Antero Resources Corporation	1/8+ Assignment	403/703 557/430
I	<u>Pursley Cemetery Lease</u> Pursley Cemetery	Antero Resources Corporation	1/8+	577/488
K	<u>Harry H Huff et ux Lease</u> Harry H Huff et ux	Antero Resources Corporation	1/8+	138/7
O	<u>Michael A Mars et ux Lease</u> Michael A Mars et ux	Antero Resources Corporation	1/8+	668/354
Q	<u>Ronald L George et ux Lease</u> Ronald L George et ux Antero Resources Appalachian Corporation	Antero Resources Appalachian Corporation Antero Resources Corporation	1/8+ Assignment	408/472 557/430
T	<u>Stacey Lynn Carney et vir Lease</u> Stacey Lynn Carney et vir	Antero Resources Corporation	1/8+	619/651
✓	<u>Matthew Goodfellow Lease</u> Matthew Goodfellow	Antero Resources Corporation	1/8+	148/167
X	<u>Leslie R Tennant Lease</u> Leslie R Tennant	Antero Resources Corporation	1/8+	516/796
Z	<u>BRC Appalachian Minerals I LLC Lease</u> BRC Appalachian Minerals I LLC BRC Working Interest Company LLC Chesapeake Appalachia LLC Statoil USA Onshore Properties Inc SWN Exchange Titleholder LLC SWN Production Company LLC	BRC Working Interest Company LLC Chesapeake Appalachia LLC Statoil USA Onshore Properties Inc SWN Exchange Titleholder LLC SWN Production Company LLC Antero Exchange Properties LLC	1/8 Assignment Assignment Assignment Merger Assignment	369/300 369/784 378/764 470/668 9/404 544/242

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Office of Oil and Gas  
FEB 18 2022  
WV Department of  
Environmental Protection

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Grantor, lessor, etc.	Grantee, lessee, etc.	Royalty	Book/Page
Antero Exchange Properties LLC	Antero Resources Corporation	Merger	552/315
<b>AA</b> <u>BRC Appalachian Minerals I LLC Lease</u>			
BRC Appalachian Minerals I LLC	BRC Working Interest Company LLC	1/8	369/300
BRC Working Interest Company LLC	Chesapeake Appalachia LLC	Assignment	369/784
Chesapeake Appalachia LLC	Statoil USA Onshore Properties Inc	Assignment	378/764
Statoil USA Onshore Properties Inc	SWN Exchange Titleholder LLC	Assignment	470/668
SWN Exchange Titleholder LLC	SWN Production Company LLC	Merger	9/404
SWN Production Company LLC	Antero Exchange Properties LLC	Assignment	544/242
Antero Exchange Properties LLC	Antero Resources Corporation	Merger	552/315
<b>AC</b> <u>Gerald Meckley Lease</u>			
Gerald Meckley	Triad Hunter LLC	1/8+	9/590
Triad Hunter LLC	Blue Ridge Mountain Resources	Merger	104/354
Blue Ridge Mountain Resources	Eclipse Resources I LP	Merger	104/357
Eclipse Resources I LP	SWN Production LLC	Merger	WVSOS
SWN Production LLC	Antero Resources Corporation	Assignment	147/1
<b>AD</b> <u>Ridgetop Capital LP Lease</u>			
Ridgetop Capital LP	Antero Resources Corporation	1/8+	437/618
<b>AE</b> <u>Central Trinity Methodist Church</u>			
Central Trinity Methodist Church	Triad Hunter LLC	1/8+	418/845
Triad Hunter LLC	Antero Resources Corporation	Assignment	56/718
<b>AF</b> <u>Ridgetop Capital LP Lease</u>			
Ridgetop Capital LP	Antero Resources Corporation	1/8+	567/332
<b>AG</b> <u>Donald H Lancaster Jr Lease</u>			
Donald H Lancaster Jr	Antero Resources Corporation	1/8+	595/617
<b>AH</b> <u>Debra Lynn Warner Lease</u>			
Debra Lynn Warner	Antero Resources Corporation	1/8+	127/334

\*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. 03/18/2022

\*CONTINUED ON NEXT PAGE\*

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Lease Name or Number	Grantor, Lessor, etc.	Grantee, Lessee, etc.	Royalty	Book/Page
<u>AL</u> Donna Smith Lease	Donna Smith	Antero Resources Corporation	1/8 +	552/608

\*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

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Office of Oil and Gas

FEB 18 2022

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: VP of Land



Stansberry, Wade A &lt;wade.a.stansberry@wv.gov&gt;

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**Modification Horizontal H6A Well Work Permit API: 47-095-02776, 02777, 02778, 02780)**

1 message

**Stansberry, Wade A** <wade.a.stansberry@wv.gov>

Tue, Mar 15, 2022 at 10:25 AM

To: Mallory Stanton &lt;mstanton@anteroresources.com&gt;, Diane Blair &lt;d Blair@anteroresources.com&gt;, Dani DeVito &lt;ddevito@shalepro.com&gt;, Douglas Newlon &lt;douglas.c.newlon@wv.gov&gt;, ljackson@wvassessor.com

I have attached a copy of the newly issued well [permit](#) number. This will serve as your copy.

**47-095-02776 - CLUTTER UNIT 1H**  
**47-095-02777 - GREENWOOD UNIT 1H**  
**47-095-02778 - JED UNIT 1H**  
**47-095-02780 - WABLE UNIT 1H**

If you have any questions, then [please](#) contact us here at the Office of Oil and Gas.

Thank you,

**Wade A. Stansberry**  
Environmental Resource Specialist 3  
West Virginia Department of Environmental Protection  
Office of Oil & Gas  
601 57th St. SE  
Charleston, WV 25304  
(304) 926-0499 ext. 41115  
(304) 926-0452 fax  
[Wade.A.Stansberry@wv.gov](mailto:Wade.A.Stansberry@wv.gov)

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**4 attachments**

-  **47-095-02776 - mod.pdf**  
1233K
-  **47-095-02777 - mod.pdf**  
1501K
-  **47-095-02780 - moc.pdf**  
1441K
-  **47-095-02778 - mod.pdf**  
1467K

**03/18/2022**