



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

Wednesday, December 6, 2023
PERMIT MODIFICATION APPROVAL
Horizontal 6A / New Drill

ANTERO RESOURCES CORPORATION
1615 WYNKOOP STREET

DENVER, CO 80202

Re: Permit Modification Approval for LYLE UNIT 2H
47-017-06961-00-00

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.

James A. Martin
Chief

Operator's Well Number: LYLE UNIT 2H
Farm Name: ANTERO RESOURCES CORPORATION
U.S. WELL NUMBER: 47-017-06961-00-00
Horizontal 6A New Drill
Date Modification Issued: 12/6/2023

Promoting a healthy environment.

12/08/2023

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

1) Well Operator: Antero Resources Corporat 494507062 017-Doddrid W. Union West Union 7.5'
Operator ID County District Quadrangle

2) Operator's Well Number: Lyle Unit 2H MOD Well Pad Name: Genevieve Pad

3) Farm Name/Surface Owner: Antero Resources, Corp. Public Road Access: WV Route 18 N

4) Elevation, current ground: 886' Elevation, proposed post-construction: _____

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

Other _____

(b) If Gas Shallow Deep _____

Horizontal _____

CR# 4025750
CR# 7502.00

6) Existing Pad: Yes or No Yes

7) Proposed Target Formation(s), Depth(s), Anticipated Thickness and Expected Pressure(s):
Marcellus Shale: 7000' TVD, Anticipated Thickness- 55 feet, Associated Pressure- 2800#

8) Proposed Total Vertical Depth: 7000' TVD

9) Formation at Total Vertical Depth: Marcellus

10) Proposed Total Measured Depth: 17800' MD

11) Proposed Horizontal Leg Length: 8429.9

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12) Approximate Fresh Water Strata Depths: 414', 501', 516'

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13) Method to Determine Fresh Water Depths: 47-017-02319

WV Department of
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14) Approximate Saltwater Depths: 1468'

15) Approximate Coal Seam Depths: None Identified

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: _____

WW-6B
(04/15)

API NO. 47- 017 - 06961
 OPERATOR WELL NO. Lyle Unit 2H MOD
 Well Pad Name: Genevieve 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	94#	100'	100'	CTS, 96 Cu. Ft.
Fresh Water	13-3/8"	New	J-55	54.5#	566'	566'	CTS, 590 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#	17800'	17800'	CTS, 3558 Cu. Ft.
Tubing	2-3/8"	New	N-80	4.7#			
Liners							

Harold L. Reynolds 11-22-23

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	Class G/H	~1.8
Tubing	2-3/8"	4.778"	0.19"	11,200			
Liners							

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PACKERS

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

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

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

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): 24.86 acres

22) Area to be disturbed for well pad only, less access road (acres): 7.69 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.

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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.

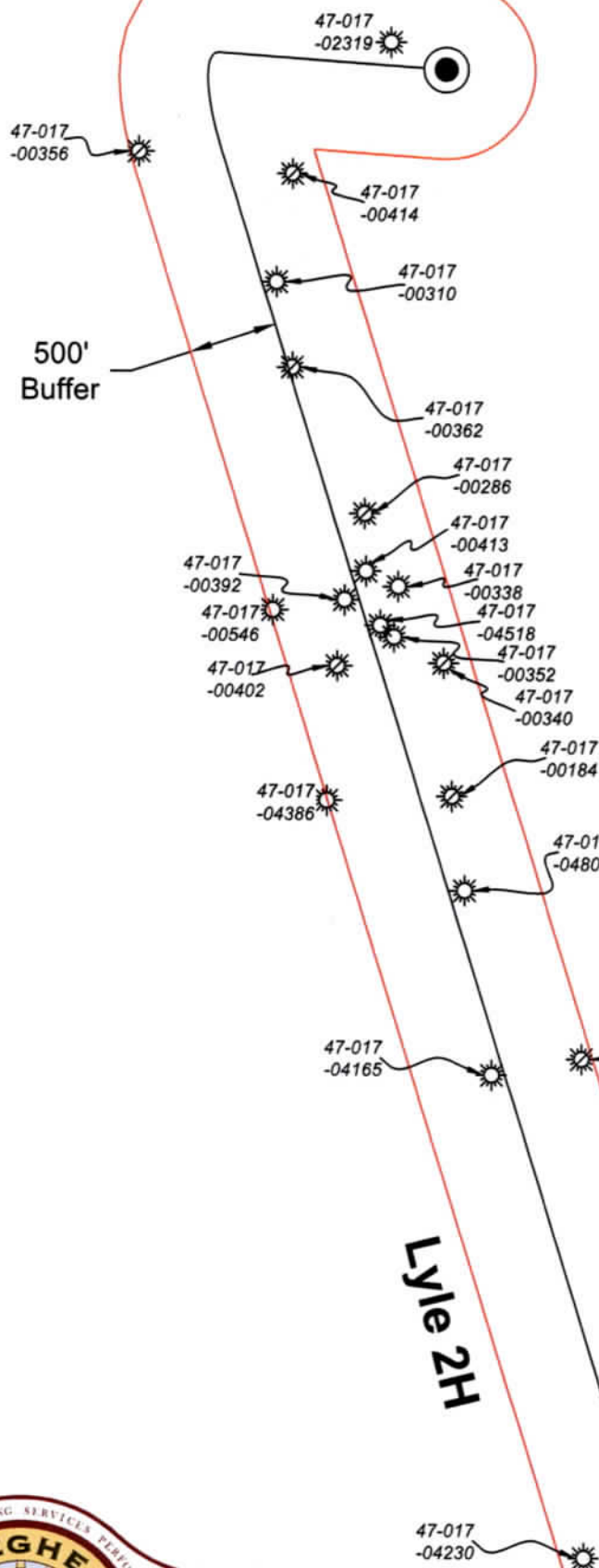
*Note: Attach additional sheets as needed.

LEGEND

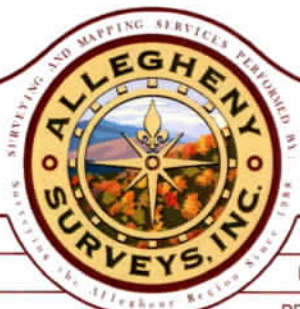
- Proposed gas well
- ☼ Existing Well, as noted
- ☼ Digitized Well, as noted



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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WV Dep. of Environmental Protection



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: November 14, 2023
SURVEYED: Dec. 2016	PROJECT NO: 59-30-WU-14
FIELD CREW: C.L., K.M.	DRAWING NO: Lyle 2H AOR

Sheet 1 of 1



Scale: 1 inch = 1000 feet

12/08/2023

UWI (API#)	Well Name	Well Number	Operator	Historical Operator	TD	Perforated Interval (shallowest, deepest)	Perforated Formation(s)	Produced Formation(s) not perf'd
47017031190000	BETTY JANE LANGRITT	1	PIPLAK ENERGY LLC	KEY OIL INC.	5,241	5080 - 5146	Alexander	Warren, Speechey, Baltimore, Illey, Benson
47017003560000	CLAUDE SMITH ET AL	1	SIBERT & SMITH	SIBERT & SMITH	2,477		Salt Swale, Big Injun, Fish	Warren, Speechey, Baltimore, Illey, Benson
47017003920000	NOVA G FRENCE	1	HUNTER R J	HUNTER R J	1,987		Big Injun, Gordon	Warren, Speechey, Baltimore, Illey, Benson
47017005460000	J M L SMITH	1	SOUTHERN TRIANGLE OIL	SOUTHERN TRIANGLE OIL	2,825		Big Injun, Gordon	Warren, Speechey, Baltimore, Illey, Benson
47017004020000	HOWARD COONITZ ET UX	1	HEASTER PAUL ET AL	HEASTER PAUL ET AL	1,965	3211 - 5138	Warren, Speechey, Illey, Benson, Alexander	Warren, Speechey, Baltimore, Illey, Benson
47017004160000	CLINE HARVEY E & FAIR JOHN C	1	KEY OIL CO	KEY OIL CO	5,277		Warren, Benson, Alexander	Warren, Speechey, Baltimore, Illey, Benson
47017002290000	CHEVON/ORTI HEIRS	4	HEASTER PAUL ET AL	HEASTER PAUL ET AL	1,965		Warren, Benson, Alexander	Warren, Speechey, Baltimore, Illey, Benson
47017004140000	C E & C SMITH 2	11	HABSTER CROSSBY HOLDINGS LLC	BADE EASTH MINERALS	5,350	4436 - 5162	Warren, Benson, Alexander	Warren, Speechey, Baltimore, Illey, Benson
47017003100000	CLAUDE SMITH	1	SIBERT & SMITH	SIBERT & SMITH	1,958		Big Injun	Warren, Speechey, Baltimore, Illey, Benson
47017003620000	CLAUDE SMITH ET AL	2	SIBERT & SMITH	SIBERT & SMITH	1,784		Big Injun	Warren, Speechey, Baltimore, Illey, Benson
47017002660000	FLOYD W SIBERT	1	SIBERT & SMITH	SIBERT & SMITH	1,836		Big Injun	Warren, Speechey, Baltimore, Illey, Benson
47017004110000	E G TOWNSEND	2	DUSTY DRILLING	DUSTY DRILLING	1,929		Big Injun	Warren, Speechey, Baltimore, Illey, Benson
47017003800000	L B CARPENTER	1	HUNTER R J	HUNTER R J	1,871		Maxton, Little Linn, Big Injun	Warren, Speechey, Baltimore, Illey, Benson
47017004510000	CLINE	2	KEY OIL CO	KEY OIL CO	5,158	2080 - 5006	Maxton, Big Injun	Warren, Speechey, Baltimore, Illey, Benson
47017003520000	GRACE M SLAUGHTER	1	BIG INJUN DRUG	BIG INJUN DRUG	1,824		Maxton, Big Injun	Warren, Speechey, Baltimore, Illey, Benson
47017003400000	LETTIE CAMPBELL/EDGE	1	UNION DRILLING CO	UNION DRILLING CO	1,840		Big Injun, Gordon	Warren, Speechey, Baltimore, Illey, Benson
47017004800000	W D GRIBBLE	1	GRIBBLE W D	GRIBBLE W D	2,595	2004 - 2659	Big Injun, Gordon	Warren, Speechey, Baltimore, Illey, Benson
47017004050000	Cline	3	KEY OIL CO	KEY OIL CO	2,847	1991 - 2645	Big Injun, Gordon	Warren, Speechey, Baltimore, Illey, Benson
47017001724000	STUART W S	2	KEY OIL CO	KEY OIL CO	2,834		Big Injun, Gordon	Warren, Speechey, Baltimore, Illey, Benson
47017004250000	CHEVON/ORTI/FAIR	2	KEY OIL CO	KEY OIL CO	2,771	1948 - 2610	Big Injun, Gordon	Warren, Speechey, Baltimore, Illey, Benson

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Antero Resources
Well No. Lyle 2H

Antero Resources Corporation



Sheet 1 of 3

9,032' to Top Hole

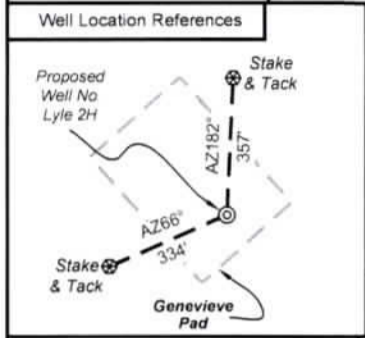
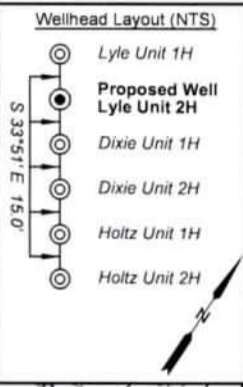
7,711' to Bottom Hole

TOP HOLE LATITUDE 39 - 20 - 00
BTM HOLE LATITUDE 39 - 17 - 30

LONGITUDE 80 - 45 - 00
4,158' to Bottom Hole

Notes
West Virginia Coordinate System of 1927, North Zone based upon Differential GPS Measurements.
Well No. Lyle Unit 2H Top Hole coordinates are
N: 295,264.49' Latitude: 39°18'12.85"
E: 1,637,250.76' Longitude: 80°46'54.91"
Bottom Hole coordinates are
N: 286,753.30' Latitude: 39°16'48.90"
E: 1,638,453.44' Longitude: 80°46'38.07"
UTM Zone 17, NAD 1983
Top Hole Coordinates Bottom Hole Coordinates
N: 4,350,496.870m N: 4,347,910.047m
E: 518,818.025m E: 519,227.671m
Plat orientation and corner and well references are based upon the grid north meridian.
Well location references are based upon the magnetic meridian.

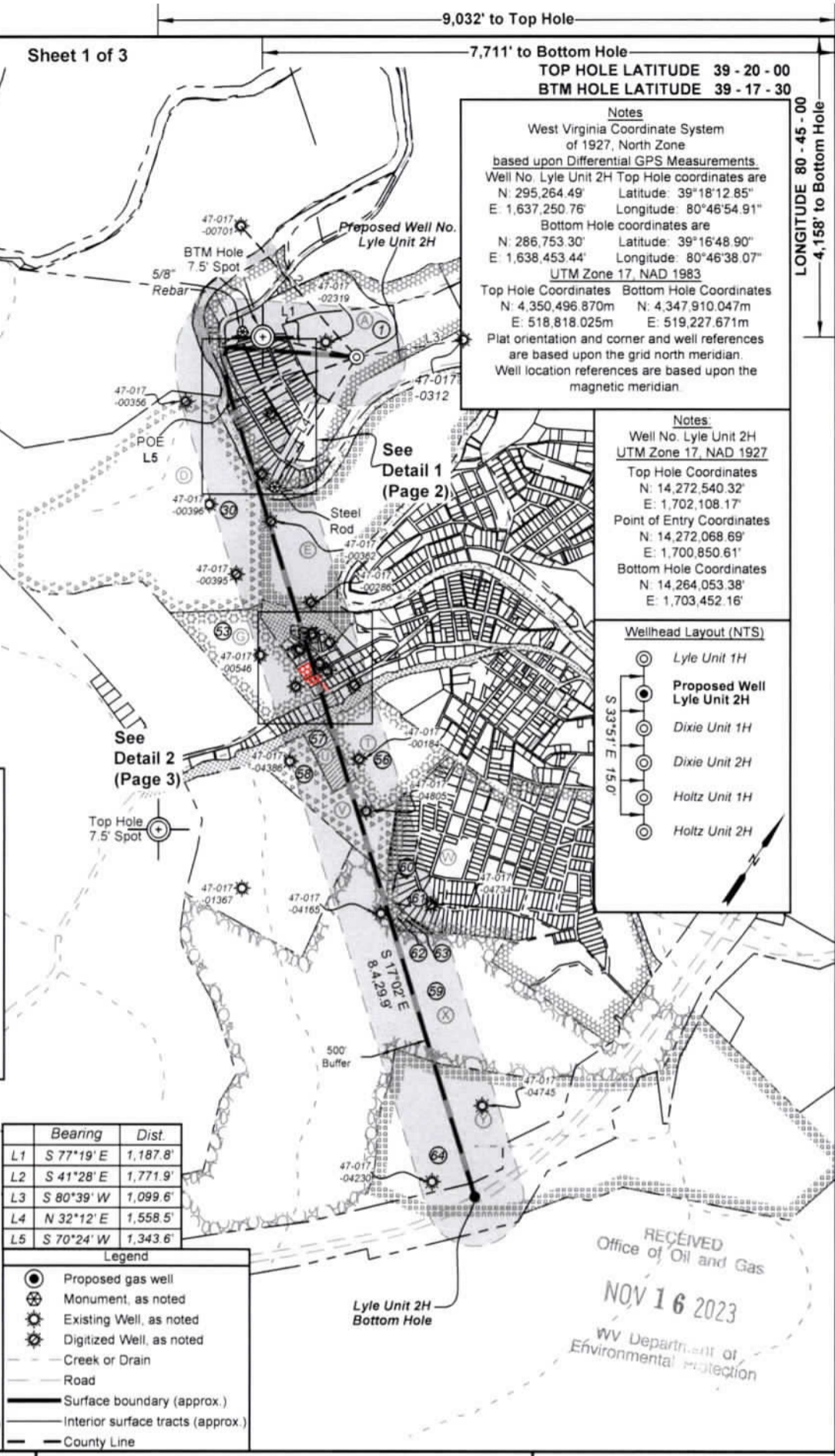
Notes
Well No. Lyle Unit 2H UTM Zone 17, NAD 1927
Top Hole Coordinates
N: 14,272,540.32'
E: 1,702,108.17'
Point of Entry Coordinates
N: 14,272,068.69'
E: 1,700,850.61'
Bottom Hole Coordinates
N: 14,264,053.38'
E: 1,703,452.16'



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.

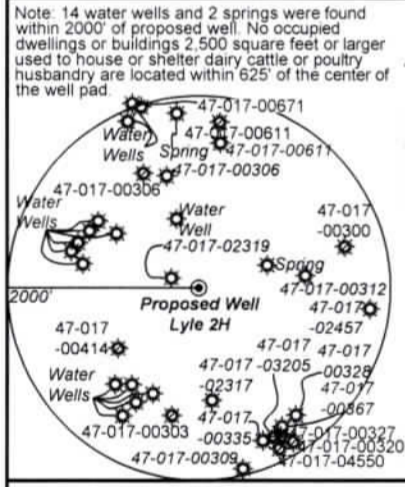
Bradley D. Miller

Bradley D. Miller, P.S. 2167



	Bearing	Dist.
L1	S 77°19' E	1,187.8'
L2	S 41°28' E	1,771.9'
L3	S 80°39' W	1,099.6'
L4	N 32°12' E	1,558.5'
L5	S 70°24' W	1,343.6'

- 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



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FILE NO: 59-30-WU-14
DRAWING NO: Lyle Unit 2H BHL MOD
SCALE: 1" = 1000'
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: September 22 2023
OPERATOR'S WELL NO. Lyle Unit 2H
API WELL NO
47 — 017 —
STATE COUNTY PERMIT

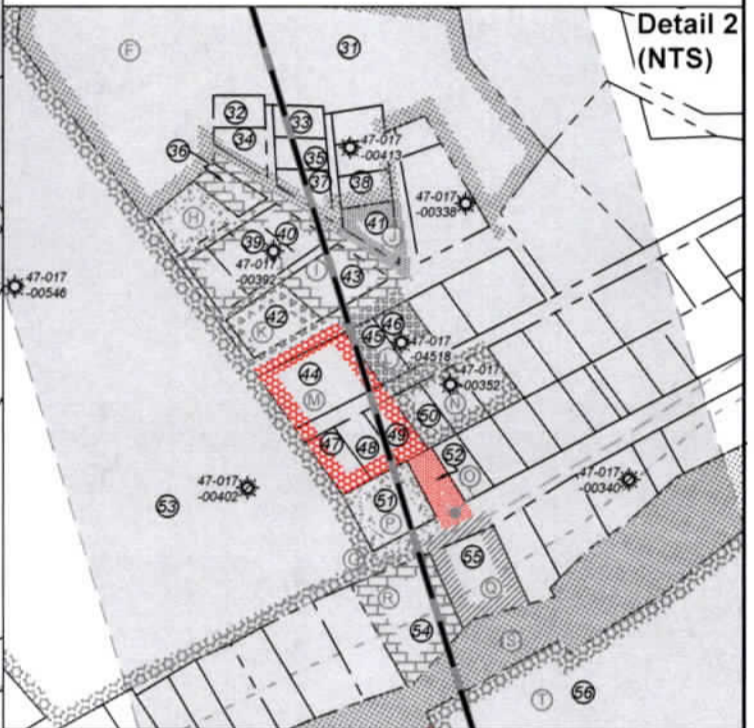
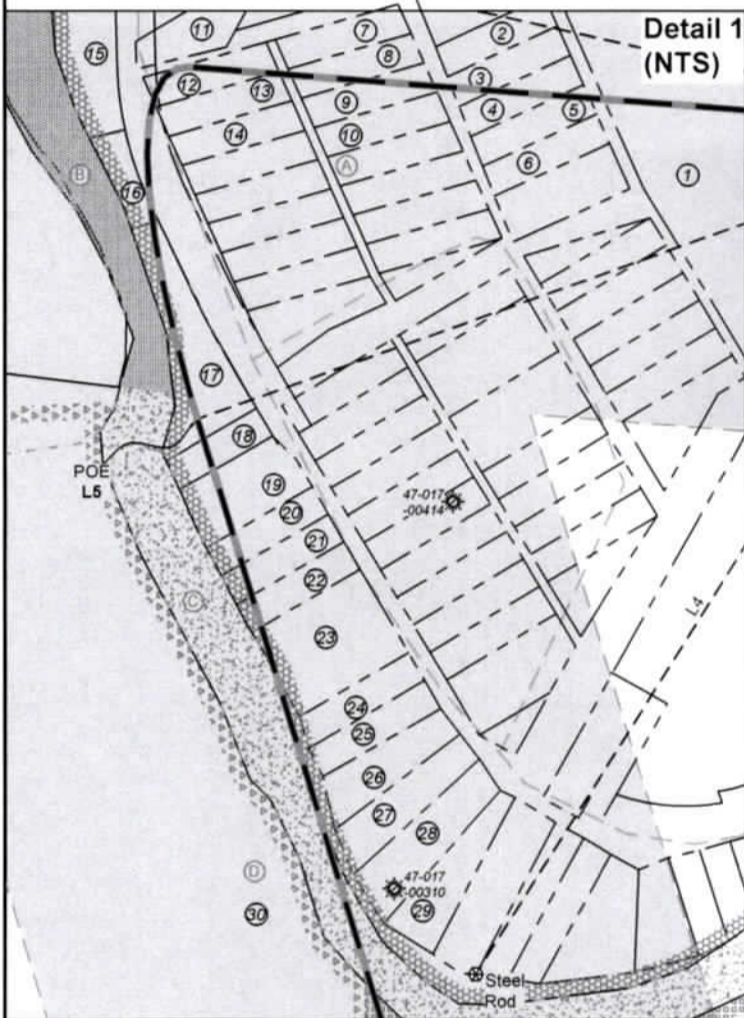
WELL TYPE: OIL GAS LIQUID INJECTION WASTE DISPOSAL
(IF GAS) PRODUCTION: STORAGE DEEP SHALLOW

LOCATION: ELEVATION: As-Built: 886' WATERSHED: Middle Island Creek QUADRANGLE: West Union
DISTRICT: West Union Antero COUNTY: Doddridge
SURFACE OWNER: Resources, Corp. ACREAGE: 16.5
ROYALTY OWNER: Claude F. Smith, et ux. LEASE NO: ACREAGE: 90.

PROPOSED WORK: DRILL CONVERT DRILL DEEPER FRACTURE OR STIMULATE PLUG OFF OLD FORMATION
 PERFORATE NEW FORMATION OTHER PHYSICAL CHANGE IN WELL (SPECIFY) _____ 7,000' TVD
 PLUG AND ABANDON CLEAN OUT AND REPLUG TARGET FORMATION: Marcellus Shale ESTIMATED DEPTH: 17,800' 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

Antero Resources Corporation



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OIL AND GAS DIVISION



DATE: September 22 2023
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47 - 017 -
STATE COUNTY PERMIT

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(IF GAS) PRODUCTION: STORAGE DEEP SHALLOW

LOCATION: ELEVATION: As-Built: 886' WATERSHED: Headwaters Middle Island Creek QUADRANGLE: West Union
DISTRICT: West Union Antero COUNTY: Doddridge
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ROYALTY OWNER: Claude F. Smith, et ux; LEASE NO: ACREAGE: 90;
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ADDRESS: 1615 Wynkoop Street ADDRESS: 535 White Oaks Blvd.
Denver, CO 80202 Bridgeport, WV 26330

Antero Resources Corporation



Leases	
A	Claude F. Smith, et ux
B	WVDNR
C	WVDNR
D	Claude F. Smith, et ux
E	J.M.L. Smith
F	XTO Energy, Inc.
G	TBB Consulting, LLC
H	TBB Consulting, LLC
I	Cheryl Ann Tarbet
J	Nancy Ody
K	Kenneth R. Mason, et ux
L	Paul Lister
M	Pooled Tract
N	Donna R. Campbell, et al
O	Pooled Tract
P	Wilma Smith
Q	Amanda Lin Iden
R	Dennis H. Powell
S	West Virginia State Rail Authority
T	John C. Farr
U	John C. Farr
V	Harry E. Cline
W	Mary A. Stuart, et al
X	Celia Schulte, et al
Y	Joseph Cheuvront & W.S. Stuart

ID	TM-Par	Owner	Bk/Pg	Acres
1	11-3	Antero Resources Corp.	431/528	16.50
2	35-91	Antero Resource Corp	430/666	0.23
3	35-92	Antero Resources Corp.	430/666	0.23
4	35-3	Antero Resources Corp.	430/666	0.23
5	35-93	Antero Resources Corp.	430/666	0.23
6	35-94	Antero Resource Corp.	430/666	0.36
7	35-72	Robert M. Cutright	170/723	0.23
8	35-73	Robert M. Cutright	170/723	0.23
9	35-74	Larry D. Patterson	240/110	0.23
10	35-75	Larry D. Patterson	240/110	0.23
11	11-2.2	Volusia Ventures LLC	476/92	0.30
12	35-51	Danny G. Rowe	256/558	0.23
13	35-14	Danny G. Rowe	256/558	0.23
14	35-52	Danny G. Rowe	256 / 558	0.23
15	35-19	Sharon A. Ferrell & Charles Dale Allen	469/579	0.81
16	35-38	Michael L. Smith & Joseph M. Smith	365/407	0.31
17	35-39	Michael L. Smith & Joseph M. Smith	365/407	0.60
18	35-40	Michael L. Smith & Joseph M. Smith	365/407	0.33
19	35-20	Michael L. Smith & Joseph M. Smith	365/407	0.44
20	35-41	Michael L. Smith & Joseph M. Smith	365/407	0.23
21	35-42	Michael L. Smith & Joseph M. Smith	365/407	0.23
22	35-43	Joshua A. & Kimberly D. Weekley	273/124	0.23
23	35-21	Joshua A. & Kimberly D. Weekley	273/124	0.69
24	35-22	Joshua A. & Kimberly D. Weekley	273/124	0.24
25	35-23	Joshua A. & Kimberly D. Weekley	273/124	0.25
26	35-24	Joshua A. & Kimberly D. Weekley	273/124	0.26
27	35-44	Ralph P. & Shelia R. McCutchan	205/263	0.30
28	35-25	Ralph P. & Shelia R. McCutchan	205/263	0.44
29	35-45	Ralph P. & Shelia R. McCutchan	205/263	0.17
30	11-13.2	Frank E. McGill	429/448	199.30
31	33-1	Russell Franklin & R. Leroy Kinney	236/519	4.94
32	33-66	Franklin R. & R. Leroy Kinney	236/519	0.09
33	33-67	Franklin R. & R. Leroy Kinney	236/519	0.09
34	33-65	Franklin R. & R. Leroy Kinney	236/519	0.11
35	33-68	Franklin R. & R. Leroy Kinney	236/519	0.09
36	33-64	Cheryl Ann Tarbet	W119/228	0.10
37	33-69	Franklin R. & R. Leroy Kinney	236/519	0.11
38	33-70	Franklin R. & R. Leroy Kinney	236/519	0.07
39	33-3	Cheryl Ann Tarbet	W119/228	0.11
40	33-63	Cheryl Ann Tarbet	W119/228	0.11
41	33-6	Ralph Percy	68/317	0.14
42	33-4	Roy L. Smith, et al	W18/117	0.21
43	33-5	Cheryl Ann Tarbet	W119/228	0.24
44	33-60	Steven & James Carpenter	233/556	0.34
45	33-9	Paul Lister, et al	234/531	0.11
46	33-10	Paul Lister, et al	234/531	0.13
47	33-56	Steven & James Carpenter	233/556	0.11
48	33-16	Steven & James Carpenter	233/556	0.11
49	33-57	Steven & James Carpenter	233/556	0.11
50	33-58	Donna R. Campbell	462/328	0.11
51	33-23	Wilma Smith	283/427	0.26
52	33-24	William T. Howell III	510/559	0.10
53	11-20	Nora Summers Est.	113/488	18.31
54	33-51	Dennis H. Powell	279/480	0.53
55	33-52	Amanda Lin Iden	493/453	0.44
56	11-38	John C. Farr	234/91	17.90
57	11-37	John C. Farr	234/91	4.00
58	11-38.1	John C. Farr	234/91	17.90
59	15-3	E Properties LTD	201/396	186.86
60	31-194	George J. Buff III & J. Charles Buff	377/517	0.53
61	31-237	George J. Buff III & J. Charles Buff	377/517	0.22
62	31-238	George J. Buff III & J. Charles Buff	377/517	0.24
63	31-239	George J. Buff III & J. Charles Buff	377/517	0.28
64	15-4	E Properties LTD	201/396	115.03

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FILE NO: 59-30-WU-14
DRAWING NO: Lyle Unit 2H BHL MOD
SCALE: 1" = 1000'
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: September 22 2023

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API WELL NO

47 - 017 -
STATE COUNTY PERMIT

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(IF GAS) PRODUCTION: STORAGE DEEP SHALLOW

LOCATION: ELEVATION: As-Built: 886' WATERSHED: Middle Island Creek QUADRANGLE: West Union

DISTRICT: West Union Antero COUNTY: Doddridge

SURFACE OWNER: Resources, Corp. ACREAGE: 16.5

ROYALTY OWNER: Claude F. Smith, et ux. LEASE NO: ACREAGE: 90.

PROPOSED WORK: DRILL CONVERT DRILL DEEPER FRACTURE OR STIMULATE PLUG OFF OLD FORMATION
 PERFORATE NEW FORMATION OTHER PHYSICAL CHANGE IN WELL (SPECIFY)

PLUG AND ABANDON CLEAN OUT AND REPLUG TARGET FORMATION: Marcellus Shale ESTIMATED DEPTH: 7,000' TVD 17,800' 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

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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Grantor, lessor, etc.	Grantee, lessee, etc.	Royalty	Book/Page
<u>A: Claude F. Smith, et ux Lease</u>			
Claude F. Smith	Key Oil Company	1/8	104/704
Key Oil Company	XOIL Drilling Partners LP	Assignment	105/556
XOIL Drilling Partners LP	XPLOR Corporation	Assignment	146/649
XPLOR Corporation	Venus Exploration Inc	Merger	WV SOS
Venus Exploration Inc	Allegheny Interests Inc	Assignment	184/512
Allegheny Interests Inc	Rubin Resources Inc	Assignment	187/685
Rubin Resources Inc	Petro Edge Energy LLC	Assignment	230/666
Petro Edge Energy LLC	Statoil USA Onshore Properties Inc	Assignment	285/71
Statoil USA Onshore Properties Inc	EQT Production Company	Assignment	428/356
EQT Production Company	Antero Resources Corporation	Assignment	385/268
<u>C: WVDNR Lease</u>			
WVDNR	Antero Resources Corporation	1/8+	448/569
<u>E: J. M. L. Smith Lease</u>			
J.M.L. Smith	Key Oil Company	1/8	104/440
Key Oil Company	Rim Gas Corporation	Name Change	105/566
Rim Gas Corporation	XPLOR Corporation	Assignment	77/155
XPLOR Corporation	Venus Exploration, Inc	Merger	WV SOS
Venus Exploration, Inc	Allegheny Interest, Inc	Assignment	184/512
Allegheny Interest, Inc	Rubin Resources, Inc	Assignment	187/685
Rubin Resources, Inc	PetroEdge Energy, LLC	Assignment	230/666
PetroEdge Energy, LLC	Statoil USA Onshore Properties	Assignment	285/71
Statoil USA Onshore Properties	EQT Production Company	Assignment	428/356
EQT Production Company	Antero Resources Corporation	Assignment	467/165
<u>F: XTO Energy, Inc Lease</u>			
XTO Energy, Inc.	Antero Resources Corporation	1/8+	491/284
<u>I: Cheryl Ann Tarbet Lease</u>			
Cheryl Ann Tarbet	Antero Resources Corporation	1/8+	517/193
<u>L: Paul Lister Lease</u>			
Paul Lister	Antero Resources Corporation	1/8+	500/185
<u>M: POOLED TRACT</u>			
<u>P: Wilma Smith Lease</u>			
Wilma Smith	Antero Resources Corporation	1/8+	515/665
<u>G: TBB Consulting, LLC</u>			
TBB Consulting, LLC	Antero Resources Corporation	1/8+	520/387
<u>R: Dennis H. Powell Lease</u>			
Dennis H. Powell	Antero Resources Corporation	1/8+	471/32
<u>S: West Virginia State Rail Authority Lease</u>			

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Grantor, lessor, etc.	Grantee, lessee, etc.	Royalty	Book/Page
West Virginia State Rail Authority	Antero Resources Corporation	1/8+	253/409
T: John C Farr Lease John C. Farr	Antero Resources Corporation	1/8+	485/350
U: John C Farr Lease John C. Farr	Antero Resources Corporation	1/8+	485/347
V: Harry E. Cline Lease Harry E. Cline Key Oil Company Antero Resources Appalachian Corporation	Key Oil Company Antero Resources Appalachian Corporation Antero Resources Corporation	1/8 Assignment Name Change	179/674 276/526 46/523
X: Celia Schulte, et al Lease Celia Schulte, et al P. Douglass Farr Triangle Oil Company New Triangle Oil Company Professional Oilfield Services, Inc.	P. Douglass Farr Triangle Oil Company New Triangle Oil Company Professional Oilfield Services, Inc. Antero Resources Corporation	1/8 Assignment Assignment Farmout Agreement Assignment	62/485 69/125 149/174 336/456 336/461
W: Mary A. Stuart, et al Lease Mary A. Stuart, et al Lewis Maxwell Southern Carbon Company Empire Oil Company Carolyn E. Farr Trust Antero Resources Appalachian Corporation	Lewis Maxwell Southern Carbon Company Empire Oil Company Carolyn E. Farr Trust Antero Resources Appalachian Corporation Antero Resources Corporation	1/8 Assignment Assignment Company Incorporated Assignment Name Change	19/214 34/391 356/361 216/162 271/541 46/523
X: Celia Schulte, et al Lease Celia Schulte P. Douglass Farr Triangle Oil Company New Triangle Oil Company Professional Oilfield Services, Inc	P. Douglass Farr Triangle Oil Company New Triangle Oil Company Professional Oilfield Services, Inc Antero Resources Corporation	1/8 Assignment Assignment Farmout Agreement Assignment	62/485 69/125 149/174 336/456 336/461

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*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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***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.

e

****Pooling/Unitization** - Antero has filed a horizontal well unitization application with the West Virginia Oil and Gas Conservation Commission that seeks

e

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
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12/08/2023

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Lease Name or Number	Grantor, Lessor, etc.	Grantee, Lessee, etc.	Royalty	Book/Page
<u>Y: Joseph Cheuront & W.S. Stuart Lease:</u>				
	Joseph Cheuront & W.S. Stuart	Lewis Maxwell	1/8	19/216
	Lewis Maxwell	Southern Carbon Company	Assignment	24/477
	Southern Carbon Company	Empire Oil Company, John M. Gribble	Assignment	24/277
	Empire Oil Company, John M. Gribble	WD Gribble	Death	3/067
	WD Gribble	Carolyn E. Farr	Death	4/256
	Carolyn E. Farr	Clarence E. Sigley, Trustee, Carolyn E. Farr Trust	Assignment	220/233
	Clarence E. Sigley, Trustee, Carolyn E. Farr Trust	Tri County Oil & Gas Inc	Assignment	198/670
	Tri County Oil & Gas Inc	May Gas Inc	Assignment	204/43
	May Gas Inc	Harper Crosby Holdings LLC	Assignment	309/238
	Harper Crosby Holdings LLC	Piney Holdings Inc	Assignment	309/275
	Piney Holdings Inc	Antero Resources Corporation	Assignment	400/655

**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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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