



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, April 28, 2021
PERMIT MODIFICATION APPROVAL
Horizontal 6A / New Drill

ANTERO RESOURCES CORPORATION
1615 WYNKOOP STREET

DENVER, CO 80202


Re: Permit Modification Approval for FLEETWOOD 2H
47-095-02731-00-00

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: FLEETWOOD 2H
Farm Name: ANTERO RESOURCES CORP.
U.S. WELL NUMBER: 47-095-02731-00-00
Horizontal 6A New Drill
Date Modification Issued: 4/28/2021

Promoting a healthy environment.

05/07/2021

Check # 228336
4/13/2021
#5600

WW-6B
(04/15)

PERMIT MODIFICATION API # 47-095-02731

API NO. 47-095 - 02731
OPERATOR WELL NO. Fleetwood Unit 2H
Well Pad Name: Roma Lou Pad

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

- 1) Well Operator: Antero Resources Corporation Operator ID: 494507062 County: 095 - Tyler District: Union Quadrangle: Middlebourne 7.5'
- 2) Operator's Well Number: Fleetwood Unit 2H Well Pad Name: Roma Lou Pad
- 3) Farm Name/Surface Owner: Antero Resources Corp. Public Road Access: Pleasant Ridge Road
- 4) Elevation, current ground: 883' 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 DnH
4-23-21
- 7) Proposed Target Formation(s), Depth(s), Anticipated Thickness and Expected Pressure(s):
Marcellus Shale: 6500' TVD, Anticipated Thickness- 55 feet, Associated Pressure- 2850#
- 8) Proposed Total Vertical Depth: 6500' TVD
- 9) Formation at Total Vertical Depth: Marcellus
- 10) Proposed Total Measured Depth: 22500' MD
- 11) Proposed Horizontal Leg Length: 12915'
- 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: _____

WW-6B
(04/15)

API NO. 47- 095 - 02731
 OPERATOR WELL NO. Fleetwood Unit 2H
 Well Pad Name: Roma Lou Pad

18)

CASING AND TUBING PROGRAM

TYPE	<u>Size (in)</u>	<u>New or Used</u>	<u>Grade</u>	<u>Weight per ft. (lb/ft)</u>	<u>FOOTAGE: For Drilling (ft)</u>	<u>INTERVALS: Left in Well (ft)</u>	<u>CEMENT: Fill-up (Cu. Ft.)/CTS</u>
Conductor	20"	New	H-40	94#	80	80	CTS, 77 Cu. Ft.
Fresh Water	13-3/8"	New	J-55	54.5#	300	300	CTS, 574 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#	22500	22500	5779 Cu. Ft
Tubing	2-3/8"	New	N-80	4.7#			
Liners							

DmH
4-23-21

TYPE	<u>Size (in)</u>	<u>Wellbore Diameter (in)</u>	<u>Wall Thickness (in)</u>	<u>Burst Pressure (psi)</u>	<u>Anticipated Max. Internal Pressure (psi)</u>	<u>Cement Type</u>	<u>Cement Yield (cu. ft./k)</u>
Conductor	20"	24"	0.438"	1530	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"	12,630	2500	Lead-H/POZ & Tail - H	H/POZ-1.44 & H-1.8
Tubing	2-3/8"	4.778"	0.19"	11,200			
Liners							

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APR 26 2021

PACKERS

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

WW-6B
(10/14)

API NO. 47- 085 - 02731
OPERATOR WELL NO. Fleetwood Unit 2H
Well Pad Name: Roma Lou Pad

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

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

*DmH
4-23-21*

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): 21.14 acres

22) Area to be disturbed for well pad only, less access road (acres): 12.19 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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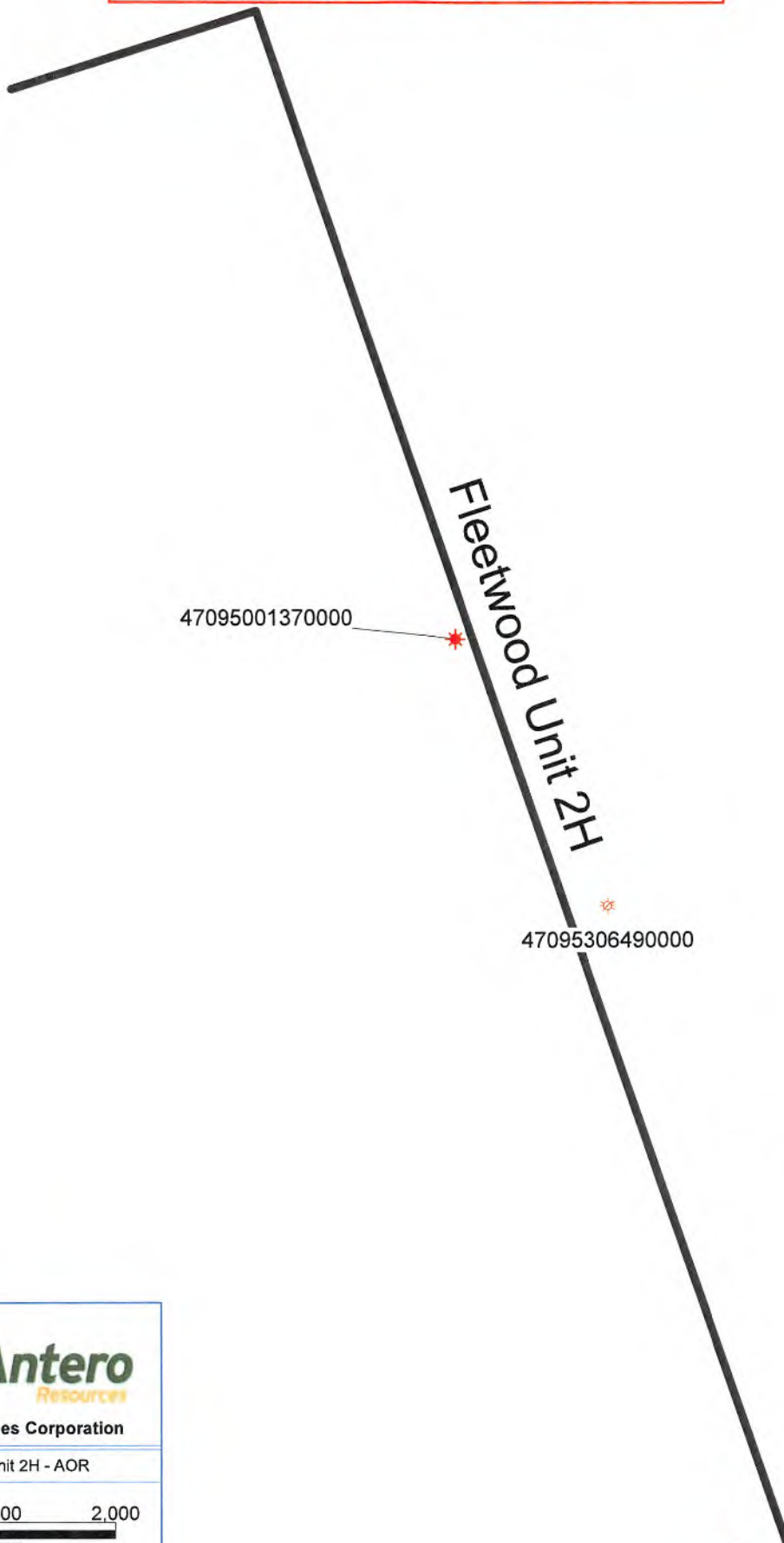
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Environmental Protection

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.

PERMIT MODIFICATION API # 47-095-02731



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Antero Resources Corporation

Fleetwood Unit 2H - AOR



- WELL SYMBOLS
- Gas Well
- Plugged Gas Well

February 17, 2021

47095024610000

05/07/2021

UWI (APINum)	Well Name	Well Number	Operator	Hist Oper	TD	Perforated Interval (shallowest, deepest)	Perforated Formation(s)	Producible Formation(s) not perf'd
47095001370000	DAVE TALLMAN/RENO OIL	2	RENO OIL CO	RENO OIL CO	1,799	Unknown	Mauch Chunk	Alexander, Weir, Berea, Warren
47095306490000	JENNY SHINN	1	BEARDMORE C E	BEARDMORE C E	1,805	Unknown	Maxton	Alexander, Weir, Berea, Warren
47095024610000	JACK UNIT	1H	ANTERO RESOURCES CORPORATION	ANTERO RESOURCES CORPORATION	18,177	6609 - 18084	Marcellus	N/A

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Environmental Protection

]

WW-6A1

Operator's Well Number Fleetwood Unit 2H

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>Berna J. Hammel Lease</u> Berna J. Hammel	Antero Resources Corporation	1/8+	0392/0778
<u>J&N Management Enterprises Lease (TM 10 PCL 5)</u> J&N Management Enterprises	Antero Resources Corporation	1/8+	0591/0235
<u>Leslie W. Potts Lease</u> Leslie W. Potts	Antero Resources Corporation	1/8+	0585/0556
<u>H3 LLC Lease</u> H3 LLC	Antero Resources Corporation	1/8+	0612/0750
<u>Joseph B. Thomas Lease</u> Joseph B. Thomas	Antero Resources Corporation	1/8+	0079/0461
<u>J&N Management Enterprises Lease (TM 10 PCL 5.3)</u> J&N Management Enterprises	Antero Resources Corporation	1/8+	0591/0235
<u>Charlotte A. Weise Lease</u> Charlotte A. Weise	Antero Resources Corporation	1/8+	0670/0421
<u>Lora Keller Thomas Lease</u> Lora Keller Thomas	Antero Resources Corporation	1/8+	0062/0581
<u>Nancy Jo & Jerry Allen Haught Lease</u> Nancy Jo & Jerry Allen Haught	Antero Resources Corporation	1/8+	0579/0810
<u>Recol Inc. Lease</u> Recol Inc.	Antero Resources Corporation	1/8+	0593/0658
<u>Church of Christ Lease</u> Church of Christ	Antero Resources Corporation	1/8+	0665/0601
<u>Donald E. Huffman Lease</u> Donald E. Huffman	Antero Resources Corporation	1/8+	0668/0357
<u>Four Leaf Land Company Lease</u> Four Leaf Land Company	Antero Resources Corporation	1/8+	0583/0338
<u>Patricia Doty Thomas Lease</u> Patricia Doty Thomas	Antero Resources Corporation	1/8+	0626/0593

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APR 20 2021
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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. 05/07/2021

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	Grantor, lessor, etc.	Grantee, lessee, etc.	Royalty	Book/Page
W	<u>Four Leaf Land Company Lease</u> Four Leaf Land Company	Antero Resources Corporation	1/8+	0583/0338
Y	<u>Danny J. Nagle et ux Lease</u> Danny J. Nagle et ux	Antero Resources Corporation	1/8+	0456/0451
Z	<u>Richard B. Stender et ux Lease</u> Richard B. Stender et ux	Antero Resources Corporation	1/8+	0577/0386

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Environmental Protection

WW-6A1
(5/13)

Operator's Well No. Fleetwood Unit 2H

**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>Danny J. Nagle et ux Lease</u>	Danny J. Nagle et ux	Antero Resources Corporation	1/8+	0456/0451

*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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Office of Oil and Gas
APR 20 2021
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Environmental Protection

**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:

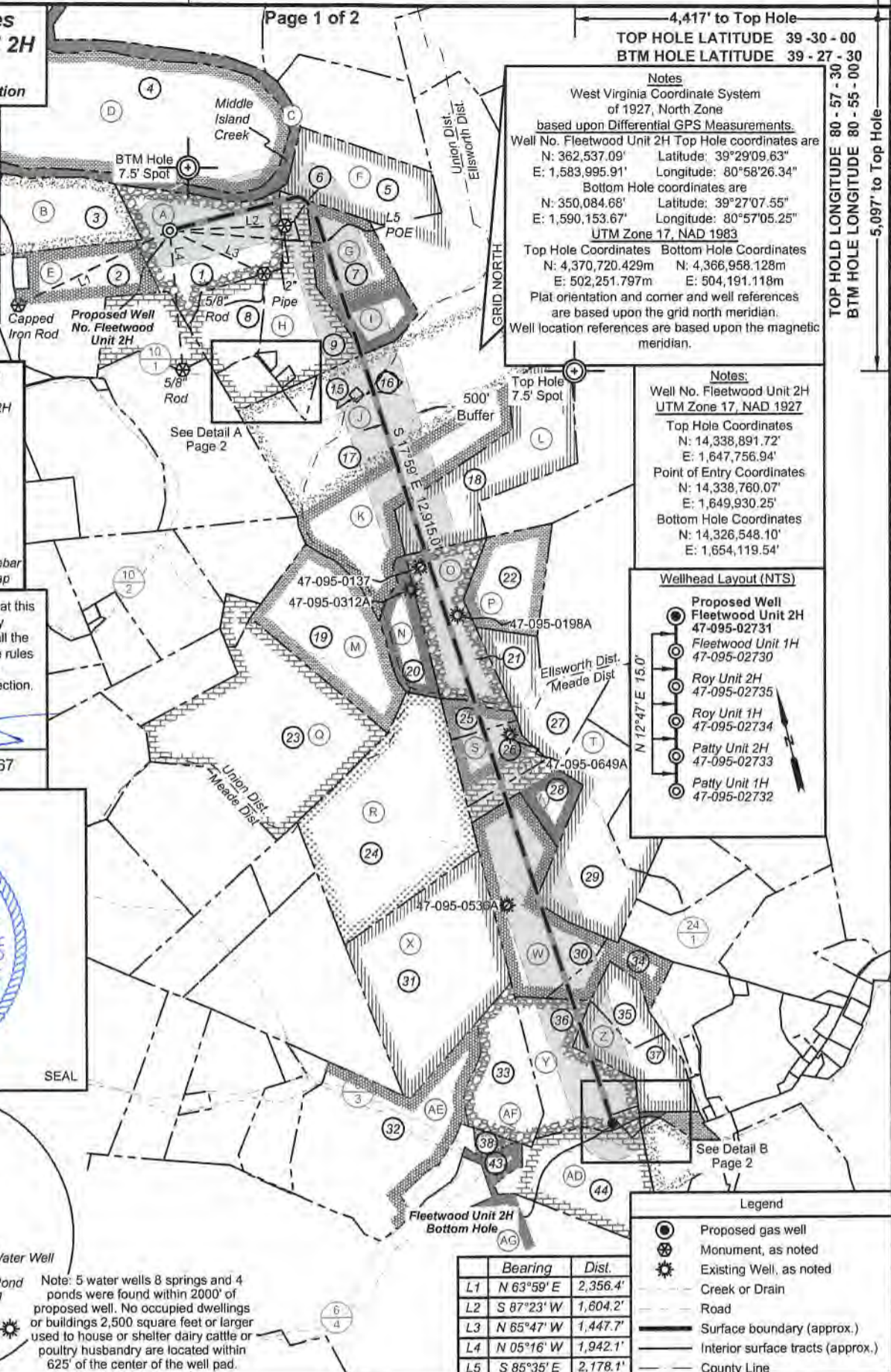
- WV Division of Water and Waste Management
- WV Division of Natural Resources WV Division of Highways
- U.S. Army Corps of Engineers
- U.S. Fish and Wildlife Service
- County Floodplain Coordinator

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: VP of Land

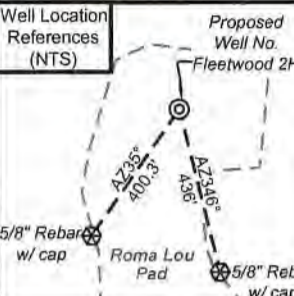
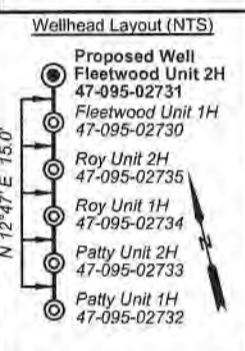
*Co-tenancy utilization – At least 7 mineral owners in tract. At least 75% of the royalty owners have executed a lease on the tract. The interests of the remaining co-tenants were acquired pursuant to the Co-tenancy Modernization and Majority Protection Act

Antero Resources
Well No. Fleetwood 2H
BHL MOD
 Antero Resources Corporation



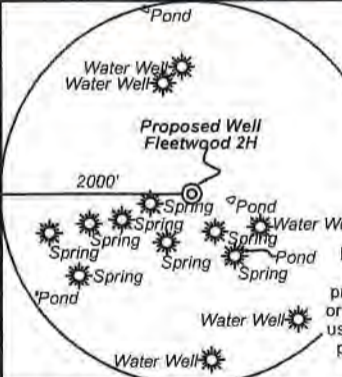
Notes
 West Virginia Coordinate System of 1927, North Zone
 based upon Differential GPS Measurements.
 Well No. Fleetwood Unit 2H Top Hole coordinates are
 N: 362,537.09' Latitude: 39°29'09.63"
 E: 1,583,995.91' Longitude: 80°58'26.34"
 Bottom Hole coordinates are
 N: 350,084.68' Latitude: 39°27'07.55"
 E: 1,590,153.67' Longitude: 80°57'05.25"
 UTM Zone 17, NAD 1983
 Top Hole Coordinates Bottom Hole Coordinates
 N: 4,370,720.429m N: 4,366,958.128m
 E: 502,251.797m E: 504,191.118m
 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. Fleetwood Unit 2H
 UTM Zone 17, NAD 1927
 Top Hole Coordinates
 N: 14,338,891.72'
 E: 1,647,756.94'
 Point of Entry Coordinates
 N: 14,338,760.07'
 E: 1,649,930.25'
 Bottom Hole Coordinates
 N: 14,326,548.10'
 E: 1,654,119.54'



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 63°59' E	2,356.4'
L2 S 87°23' W	1,604.2'
L3 N 65°47' W	1,447.7'
L4 N 05°16' W	1,942.1'
L5 S 85°35' E	2,178.1'

Legend

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

FILE NO: 204-54-E-19
 DRAWING NO: Fleetwood Unit 2H
 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: April 13 2021
 OPERATOR'S WELL NO. Fleetwood 2H
 API WELL NO
 47 - 095 - 02731
 STATE COUNTY PERMIT

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

LOCATION: ELEVATION: As-Built 883' WATERSHED: Outlet Middle Island Creek QUADRANGLE: Middlebourne
 DISTRICT: Ellsworth/Union/Meade COUNTY: Tyler 05/07/2021

SURFACE OWNER: Antero Resources Corp. Danny J. Nagle, et ux; Richard B. Stender, et ux; Reol, Inc. Patricia Doty Thomas; Donald E. Huffman; Four Leaf Land Company; Church of Christ; ACREAGE: 60.38 60; 186.008; 43.46;
 ROYALTY OWNER: Berna J. Hammel; Leslie W. Potts; H3, LLC; J&N Management Enterprises, LLC; Charlotte A. Weise; LEASE NO: ACREAGE: 24; 140; 13; 93.234;
 PROPOSED WORK: DRILL CONVERT DRILL DEEPER FRACTURE OR STIMULATE PLUG OFF OLD FORMATION
 PERFORATE NEW FORMATION OTHER PHYSICAL CHANGE IN WELL (SPECIFY) BHL MOD 6,500' TVD
 PLUG AND ABANDON CLEAN OUT AND REPLUG TARGET FORMATION: Marcellus Shale ESTIMATED DEPTH: 22,500' MD

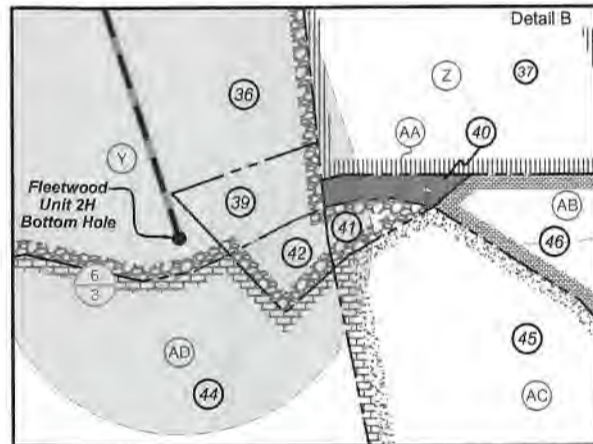
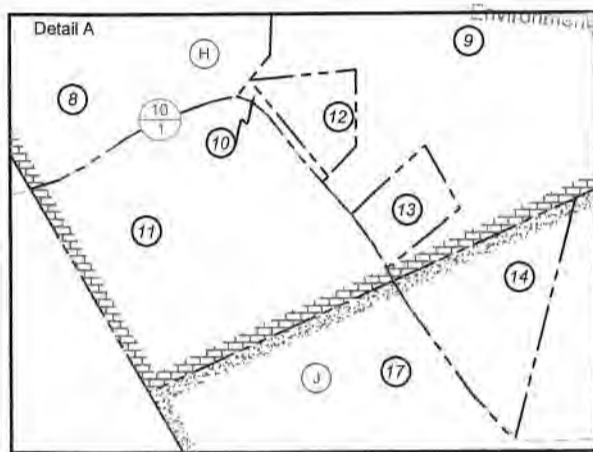
WELL OPERATOR: Antero Resources Corporation DESIGNATED AGENT: Dianna Stamper - CT Corporation System
 ADDRESS: 1615 Wynkoop Street ADDRESS: 5400 D Big Tyler Road
 Denver, CO 80202 Charleston, WV 25313



Leases			
A	Berna J. Hammel	R	Joseph B. Thomas
B	Maurice C. Grove	S	Church of Christ
C	OPEN	T	Patricia Doty Thomas
D	OPEN	U	Donald E. Huffman
E	Sally & Mitchell Dunn	V	Richard C. Kratochvila, et ux
F	Leslie W. Potts	W	Four Leaf Land Company
G	H3 LLC	X	JayBee Production Co.
H	J&N Management Enterprises, LLC	Y	Danny J. Nagle, et ux
I	Joseph B. Thomas, et ux	Z	Richard B. Stender, et ux
J	Charlotte A. Weise	AA	Robert Kastigar, et ux
K	Lora Keller Thomas	AB	Kimberly Ruble
L	Nancy Jo & Jerry Allen Haught	AC	Dale V. Hadley
M	Joseph B. Thomas	AD	Charlotte M. Adams
N	Recol, Inc.	AE	Edwin Ernest Weber, Jr., et ux
O	Recol, Inc.	AF	Heritage Resources- Marcellus Minerals, LLC
P	Lisa Norman, et vir	AG	Jeffery S. Anderson, et ux
Q	Everett Harris		

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 APR 13 2021

ID	TM/Par	Owner	Bk/Pg	Acres
1	10-4.1	Antero Resources Corporation	OR12/739	60.38
2	10-4	Kevin L. & Tammy J. Thomas	OR7/290	32.22
3	9-9.1	Jennifer K. & Diane M. Thomas	AR46/754	40.00
4	9-4	Steven D. Zechman & Linda M. Jensen	348/422	250.00
5	10-2	Mary Elizabeth Potts, et al	126/444	50.00
6	10-5.2	Rainelle M. Pratt, et al	WB56/619	1.01
7	10-3	Joseph B. & Melanie Thomas	173/503	39.00
8	10-5.5	Bowen Family Irrevocable Trust	372/303	22.89
9	10-5	Timothy Brian Bowen, et al	WB56/619	48.36
10	10-5.7	Carolyn S. Bowen	652/440	0.24
11	10-5.4	Richard Daniel Bowen	344/814	9.51
12	10-5.1	Carolyn S. Bowen	WB56/619	1.01
13	10-5.6	Rainelle M. Pratt, et al	530/391	1.00
14	10-10.3	Kenneth O. II & Patricia D. Thomas	345/550	3.08
15	10-12	Lora K. Thomas	168/77	0.51
16	10-10.2	Jon C. & Grace L. Thomas	331/772	2.00
17	10-10	Lora K. & Kenneth Thomas	201/359	307.06
18	19-46	Judy Rine, et al	WB29/643	60.00
19	14-4	Joseph Thomas	WB21/443	51.0
20	19-47	Sharon L. Bland	275/349	18.13
21	19-48	Sharon L. Bland	275/349	43.46
22	19-49	W. Clint Maxwell Estate	WB4/270	35.14
23	14-2	Shirley J. Harris, et al	281/483	109.80
24	2-1	Joseph Ben Thomas	155/439	117.01
25	2-2.2	Mary S. Cline & Kathy A. Lancaster	352/380	8.00
26	2-2	Kenneth & Brenda Lancaster	280/586	22.00
27	2-2.1	Patricia Doty Thomas	192/409	39.25
28	2-3	Richard C. & Laura J. Kratochvila	384/648	17.25
29	2-4.1	Patricia Doty Thomas	316/222	62.00
30	2-12	Richard & Jaura J. Kratochvila	384/648	93.24
31	2-11	Edwin E. Jr. & Kathleen F. Weber	355/268	97.90
32	2-43	Edwin E., Jr. & Kathleen F. Weber	294/578	100.50
33	2-36.1	Orval J. & Flora A. Sizemore	255/51	33.31
34	2-12.1	Richard B. & Nancy L. Stender	359/162	16.16
35	2-31	Richard B. & Nancy L. Stender	359/162	20.00
36	2-36.2	Robert & Sharon Kastigar	232/369	44.21
37	2-30.1	Richard B. & Nancy L. Stender	359/162	31.00
38	2-38	Jason A. Hickman	572/842	2.36
39	2-35	Robert & Sharon Kastigar	243/379	2.00
40	2-28	Robert & Sharon Kastigar	243/379	0.50
41	2-34	Church of Christ	137/498	1.00
42	2-36	David E. & Debra K. Haught	390/588	0.91
43	2-40	Jeffrey S. & Sharon D. Anderson	343/419	54.00
44	2-37	Rhudel V. III & Suzanne W. Burgee	338/30	56.00
45	2-30	Arthur R. Davis III	375/634	10.50
46	2-32	Kimberly Ruble	WB27/601	5.00



FILE NO: 204-54-E-19
 DRAWING NO: Fleetwood Unit 2H
 SCALE: 1" = 2000'
 MINIMUM DEGREE OF ACCURACY:
 Submeter
 PROVEN SOURCE OF ELEVATION:
 WVDOT, Harrisville, WV

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OIL AND GAS DIVISION

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 DISTRICT: Ellsworth/Union/Meade COUNTY: Tyler

SURFACE OWNER: Antero Resources Corp. ACREAGE: 60.38
 ROYALTY OWNER: Berna J. Hammel; Leslie W. Potts; H3, LLC; J&N Management Enterprises, LLC; Charlotte A. Weise; LEASE NO: ACREAGE: 51; 81.74124;

PROPOSED WORK: DRILL CONVERT DRILL DEEPER FRACTURE OR STIMULATE PLUG OFF OLD FORMATION
 PERFORATE NEW FORMATION OTHER PHYSICAL CHANGE IN WELL (SPECIFY) BHL MOD 6,500' TVD
 PLUG AND ABANDON CLEAN OUT AND REPLUG TARGET FORMATION: Marcellus Shale ESTIMATED DEPTH: 22,500' 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

05/07/2021

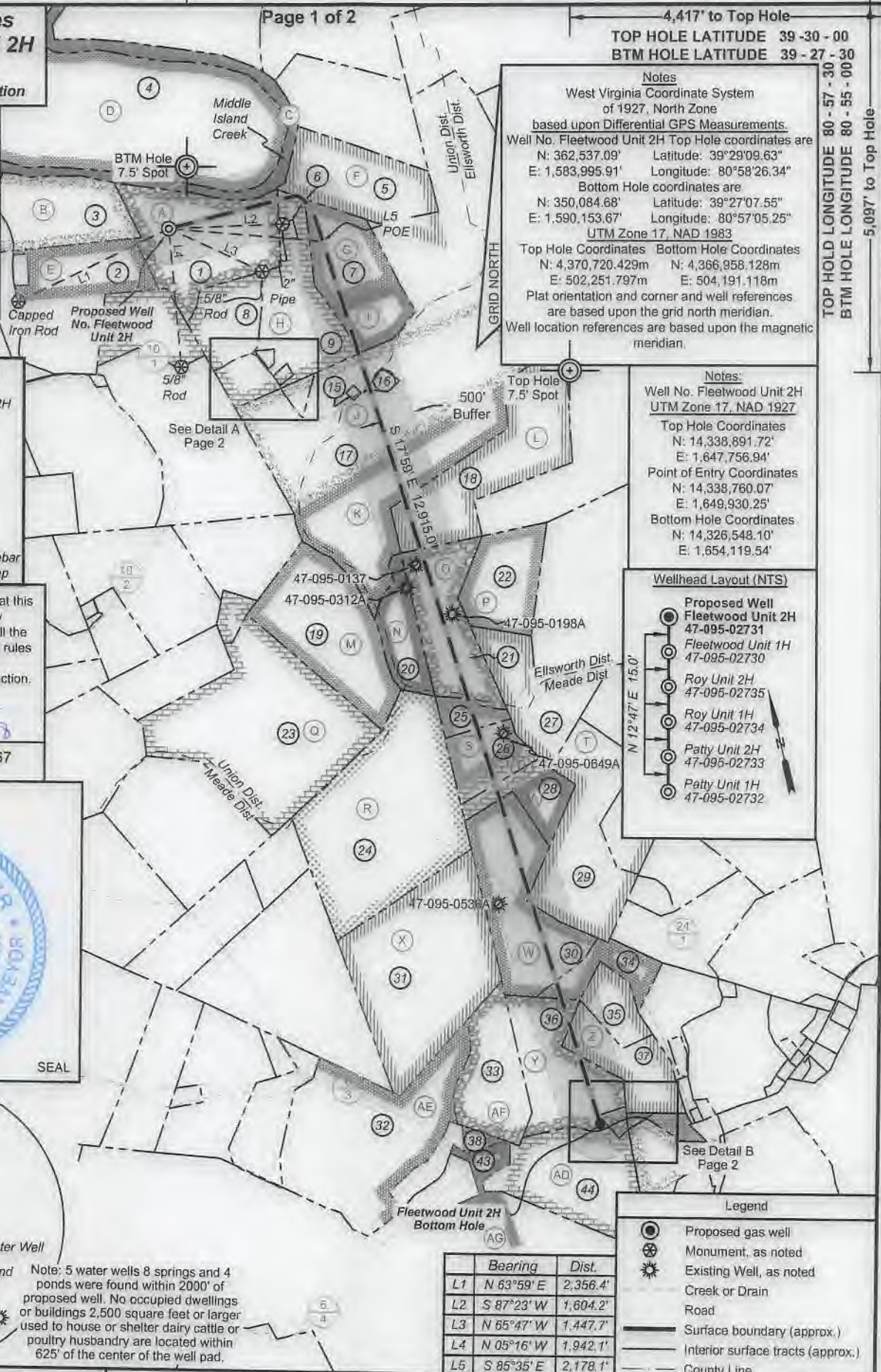
9,824' to Bottom Hole

4,417' to Top Hole

TOP HOLE LATITUDE 39 -30 -00
BTM HOLE LATITUDE 39 -27 -30

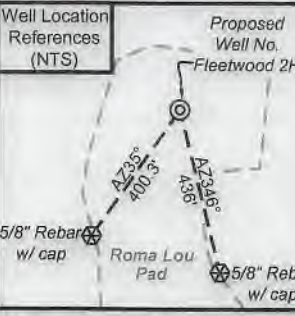
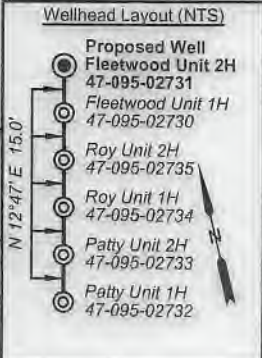
TOP HOLE LONGITUDE 80 -57 -30
BTM HOLE LONGITUDE 80 -55 -00
5,097' to Top Hole
2,271' to Bottom Hole

Antero Resources
Well No. Fleetwood 2H
BHL MOD
Antero Resources Corporation



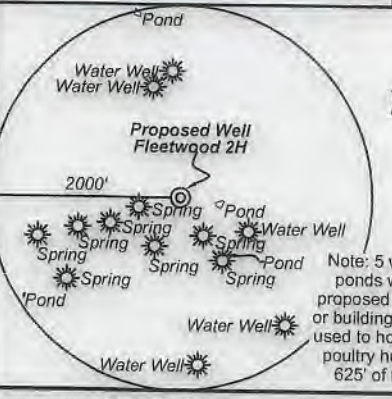
Notes
West Virginia Coordinate System of 1927, North Zone based upon Differential GPS Measurements.
Well No. Fleetwood Unit 2H Top Hole coordinates are
N: 362,537.09' Latitude: 39°29'09.63"
E: 1,583,995.91' Longitude: 80°58'26.34"
Bottom Hole coordinates are
N: 350,084.68' Latitude: 39°27'07.55"
E: 1,590,153.67' Longitude: 80°57'05.25"
UTM Zone 17, NAD 1983
Top Hole Coordinates Bottom Hole Coordinates
N: 4,370,720.429m N: 4,366,958.128m
E: 502,251.797m E: 504,191.118m
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. Fleetwood Unit 2H UTM Zone 17, NAD 1927
Top Hole Coordinates
N: 14,338,891.72'
E: 1,647,756.94'
Point of Entry Coordinates
N: 14,338,760.07'
E: 1,649,930.25'
Bottom Hole Coordinates
N: 14,326,548.10'
E: 1,654,119.54'

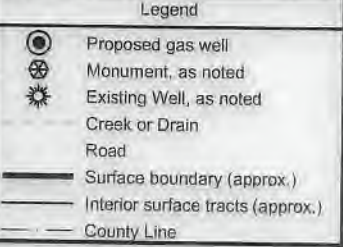


I, the undersigned, hereby certify that this plat is correct to the best of my knowledge and belief and shows all the information required by law and the rules issued and prescribed by the Department of Environmental Protection.

Bradley D. Miller, P.S. 2167



Bearing	Dist.
L1 N 63°59' E	2,356.4'
L2 S 87°23' W	1,604.2'
L3 N 65°47' W	1,447.7'
L4 N 05°16' W	1,942.1'
L5 S 85°35' E	2,178.1'



FILE NO: 204-54-E-19
DRAWING NO: Fleetwood Unit 2H
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: April 13 2021
OPERATOR'S WELL NO. Fleetwood 2H
API WELL NO
47 - 095 - 02731
STATE COUNTY PERMIT

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

LOCATION: ELEVATION: As-Built 883' WATERSHED: Outlet Middle Island Creek QUADRANGLE: Middlebourne
DISTRICT: Ellsworth/Union/Meade COUNTY: Tyler
SURFACE OWNER: Antero Resources Corp. Danny J. Nagle, et ux; Richard B. Stender, et ux; Recol, Inc. Patricia Doty Thomas; Donald E. Huffman; Four Leaf Land Company; Church of Christ; Joseph B. Thomas, et ux; Nancy Jo & Jerry Allen Haught; Lora Keller Thomas; ACREAGE: 60.38
ROYALTY OWNER: Berna J. Hammel; Leslie W. Potts; H3, LLC; J&N Management Enterprises, LLC; Charlotte A. Weise; LEASE NO: ACREAGE: 60.38
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: 22,500' MD

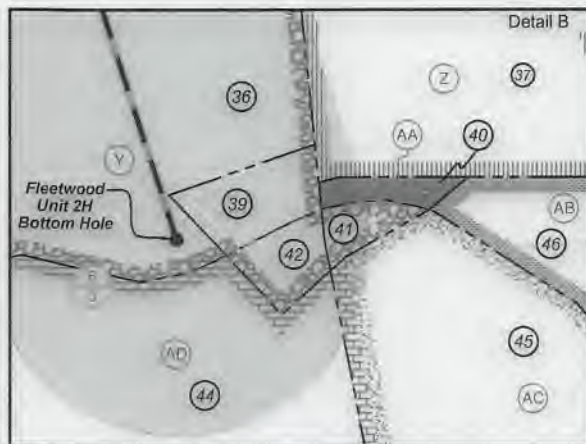
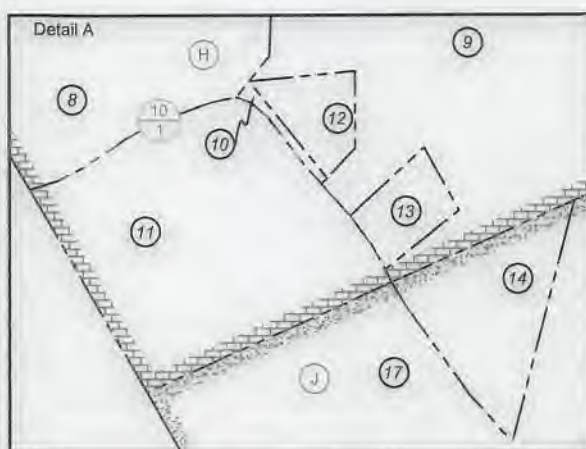
WELL OPERATOR: Antero Resources Corporation
ADDRESS: 1615 Wynkoop Street Denver, CO 80202
DESIGNATED AGENT: Dianna Stamper - CT Corporation System
ADDRESS: 5400 D Big Tyler Road Charleston, WV 25313

05/07/2021



Leases			
A	Berna J. Hammel	R	Joseph B. Thomas
B	Maurice C. Grove	S	Church of Christ
C	OPEN	T	Patricia Doty Thomas
D	OPEN	U	Donald E. Huffman
E	Sally & Mitchell Dunn	V	Richard C. Kratochvila, et ux
F	Leslie W. Potts	W	Four Leaf Land Company
G	H3 LLC	X	JayBee Production Co.
H	J&N Management Enterprises, LLC	Y	Danny J. Nagle, et ux
I	Joseph B. Thomas, et ux	Z	Richard B. Stender, et ux
J	Charlotte A. Weise	AA	Robert Kastigar, et ux
K	Lora Keller Thomas	AB	Kimberly Ruble
L	Nancy Jo & Jerry Allen Haught	AC	Dale V. Hadley
M	Joseph B. Thomas	AD	Charlotte M. Adams
N	Recol, Inc.	AE	Edwin Ernest Weber, Jr., et ux
O	Recol, Inc.		Heritage Resources-Marcellus Minerals, LLC
P	Lisa Norman, et vir	AF	
Q	Everett Harris	AG	Jeffery S. Anderson, et ux

ID	TM/Par	Owner	Bk/Pg	Acres
1	10-4.1	Antero Resources Corporation	OR12/739	60.38
2	10-4	Kevin L. & Tammy J. Thomas	OR7/290	32.22
3	9-9.1	Jennifer K. & Diane M. Thomas	AR46/754	40.00
4	9-4	Steven D. Zechman & Linda M. Jensen	348/422	250.00
5	10-2	Mary Elizabeth Potts, et al	126/444	50.00
6	10-5.2	Rainelle M. Pratt, et al	WB56/619	1.01
7	10-3	Joseph B. & Melanie Thomas	173/503	39.00
8	10-5.5	Bowen Family Irrevocable Trust	372/303	22.89
9	10-5	Timothy Brian Bowen, et al	WB56/619	48.36
10	10-5.7	Carolyn S. Bowen	652/440	0.24
11	10-5.4	Richard Daniel Bowen	344/814	9.51
12	10-5.1	Carolyn S. Bowen	WB56/619	1.01
13	10-5.6	Rainelle M. Pratt, et al	530/391	1.00
14	10-10.3	Kenneth O. II & Patricia D. Thomas	345/550	3.08
15	10-12	Lora K. Thomas	168/77	0.51
16	10-10.2	Jon C. & Grace L. Thomas	331/772	2.00
17	10-10	Lora K. & Kenneth Thomas	201/359	307.06
18	19-46	Judy Rine, et al	WB29/643	60.00
19	14-4	Joseph Thomas	WB21/443	51.0
20	19-47	Sharon L. Bland	275/349	18.13
21	19-48	Sharon L. Bland	275/349	43.46
22	19-49	W. Clint Maxwell Estate	WB4/270	35.14
23	14-2	Shirley J. Harris, et al	281/483	109.80
24	2-1	Joseph Ben Thomas	155/439	117.01
25	2-2.2	Mary S. Cline & Kathy A. Lancaster	352/380	8.00
26	2-2	Kenneth & Brenda Lancaster	280/586	22.00
27	2-2.1	Patricia Doty Thomas	192/409	39.25
28	2-3	Richard C. & Laura J. Kratochvila	384/648	17.25
29	2-4.1	Patricia Doty Thomas	316/222	62.00
30	2-12	Richard & Jaura J. Kratochvila	384/648	93.24
31	2-11	Edwin E. Jr. & Kathleen F. Weber	355/268	97.90
32	2-43	Edwin E., Jr. & Kathleen F. Weber	294/578	100.50
33	2-36.1	Orval J. & Flora A. Sizemore	255/51	33.31
34	2-12.1	Richard B. & Nancy L. Stender	359/162	16.16
35	2-31	Richard B. & Nancy L. Stender	359/162	20.00
36	2-36.2	Robert & Sharon Kastigar	232/369	44.21
37	2-30.1	Richard B. & Nancy L. Stender	359/162	31.00
38	2-38	Jason A. Hickman	572/842	2.36
39	2-35	Robert & Sharon Kastigar	243/379	2.00
40	2-28	Robert & Sharon Kastigar	243/379	0.50
41	2-34	Church of Christ	137/498	1.00
42	2-36	David E. & Debra K. Haught	390/588	0.91
43	2-40	Jeffrey S. & Sharon D. Anderson	343/419	54.00
44	2-37	Rhudel V. III & Suzanne W. Burgee	338/30	56.00
45	2-30	Arthur R. Davis III	375/634	10.50
46	2-32	Kimberly Ruble	WB27/601	5.00



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 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: April 13 20 21
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 ADDRESS: 1615 Wynkoop Street ADDRESS: 5400 D Big Tyler Road
 Denver, CO 80202 Charleston, WV 25313

05/07/2021



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

April 16, 2021

West Virginia Department of Environmental Protection
Office of Oil and Gas
Attn: Ms. Laura Adkins
601 57th Street
Charleston, WV 25304

Ms. Laura Adkins:

Antero Resources Corporation (Antero) would like to submit the following permit modifications for the following approved wells on the existing Roma Lou Pad: Fleetwood Unit 2H (API # 47-095-02731).

Attached you will find the following documents:

- REVISED Form WW-6B, which shows the updated POE & Measured Depth
- REVISED Form WW-6A1, which shows the new leases we will be drilling into
- REVISED Mylar Plat, which shows the new Lateral Length & Estimated Measured Depth
- AOR & As-Built Design

If you have any questions please feel free to contact me at (303) 357-7223.

Thank you in advance for your consideration.

Sincerely,

A handwritten signature in black ink, appearing to read "Megan Griffith", with a long horizontal line extending to the right.

Megan Griffith
Permitting Agent
Antero Resources Corporation

RECEIVED
Office of Oil and Gas

APR 20 2021

WV Department of
Environmental Protection

Enclosures

05/07/2021