

6,091' to Bottom Hole

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



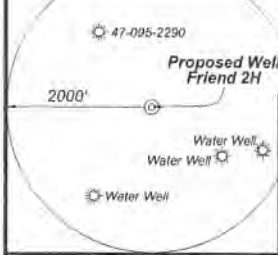
Wellhead Layout

- Vulcan Unit 1H 47-095-02701
- Vulcan Unit 2H 47-095-02702
- Prosper Unit 1H 47-095-02699
- Prosper Unit 2H 47-095-02700
- Friend Unit 1H 47-095-02695
- Proposed Well Friend Unit 2H 47-095-02696
- Seagrave Unit 1H 47-095-02697
- Seagrave Unit 2H 47-095-02698



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: 3 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.



Page 1 of 2

Friend Unit 2H Bottom Hole

1,122' to Top Hole
TOP HOLE LATITUDE 39 - 32 - 30.00
BTM HOLE LATITUDE 39 - 35 - 00.00

Notes:
West Virginia Coordinate System of 1927, North Zone based upon Differential GPS Measurements.
Well No. Friend Unit 2H Top Hole coordinates are
N 368,409.08' Latitude: 39°30'13.64"
E 1,622,863.29' Longitude: 80°50'14.31"
Bottom Hole coordinates are
N 383,556.65' Latitude: 39°32'42.64"
E 1,617,916.03' Longitude: 80°51'17.76"
UTM Zone 17, NAD 1983
Top Hole Coordinates Bottom Hole Coordinates
N 4,372,706.344m N 4,377,296.985m
E 514,002.075m E 512,479.526m
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. Friend Unit 2H
UTM Zone 17, NAD 1927
Top Hole Coordinates
N 14,345,406.15'
E 1,686,307.70'
Point of Entry Coordinates
N 14,345,376.21'
E 1,686,512.07'
Bottom Hole Coordinates
N 14,360,467.27'
E 1,681,311.96'



Bearing	Dist.
L1 S 33°52' E	1,283.3'
L2 S 75°08' W	2,080.1'
L3 N 78°42' W	1,517.6'
L4 N 48°36' E	1,144.5'
L5 S 80°43' E	206.6'

Legend

- Proposed gas well
- Found corner, as noted
- Existing Well, as noted
- Digitized Well
- Existing Road
- Existing Road
- Surface boundary (approx.)
- Interior surface tracts (approx.)

FILE NO: 45-54-E-19
DRAWING NO: Friend Unit 2H Well Plat
SCALE: 1" = 2000'
MINIMUM DEGREE OF ACCURACY: Submeter
PROVEN SOURCE OF ELEVATION: WVDOT, Harrisville, WV

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

DATE June 15 2020
OPERATOR'S WELL NO. Friend 2H
API WELL NO
47 095 02696
STATE COUNTY PERMIT

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

LOCATION: ELEVATION: As-Built 1081' WATERSHED: Outlet Middle Island Creek QUADRANGLE: Porter Falls
DISTRICT: Ellsworth COUNTY: Tyler
SURFACE OWNER: Richard D. Pyles Sharon Rose Fair: Rose Enterprises, LLC, Darrell Sole, Allen Smith, B&C Oil and Gas Company (2), Will E. Morris Trust, Jerry Shoemaker, Haughl Family Trust, Karen J. Wolfe, ACRES: 168.5
ROYALTY OWNER: Richard D. Pyles, et ux; Joseph L. Sisko, et ux; Helen E. Boggs, BRC Appalachia Minerals I, LLC (5) LEASE NO: ACREAGE: 71.283; 13.025; 30; 30; 67
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: 7,100' TVD 24,300' 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

RECEIVED
Office of Oil and Gas
AUG 10 2020
WV Department of Environmental Protection
JCS
8/5/2020

LONGITUDE 80 - 50 - 50

13,797' to Top Hole

13,899' to Bottom Hole



ID	TM/Par	Owner	DB/PG	Acres
1	16-44	Robert A. Pyles, et al	335/482	87.82
2	16-38	Rodney A. & Candis L. Nash	351/701	85.48
3	16-23.1	Bruce Winkelmann	334/195	3.30
4	16-44.1	Carl Straight	543/598	3.70
5	16-42.1	Richard D. Pyles	336/815	4.56
6	16-42	Richard D. Pyles	379/20	168.50
7	16-22	Joseph L. Jr. & Karen Sitko	286/13	81.70
8	16-23	Joseph L. Sitko	314/462	29.7
9	15-30.1	Roger D. Blizzard & Ruth E. Spencer	343/427	101.38
10	16-11	Roger Matthes	318/137	115.47
11	15-10	Antero Midstream, Inc.	617/739	34.13
12	16-1	Antero Midstream, Inc.	617/739	35.25
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18	10-53	Kathy M. & Doug O. Smith	331/220	1.10
19	10-52	Darwin & Shirley Martin	306/537	5.00
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21	10-73	Darwin & Shirley Martin	306/537	1.90
22	10-56	Mary K. Neff	413/731	22.06
23	10-55	Charles & Shirley E. Neff	218/46	1.47
24	10-54	Michael W. & Brenda S. Schmidt	244/409	14.06
25	11-32	Darwin & Shirley Martin	348/344	60.66
26	10-70	Darwin & Shirley Martin	326/490	1.19
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42	6-36	Dennis & Clista A. Heintzman	297/640	417.06
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WVDOT, Harrisville, WV

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

DATE: June 15 2020
OPERATOR'S WELL NO. Friend 2H
API WELL NO
47 - 095 - 02696
STATE COUNTY PERMIT

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(IF GAS) PRODUCTION: STORAGE DEEP SHALLOW

LOCATION: ELEVATION: As-Built 1081' WATERSHED: Outlet Middle Island Creek QUADRANGLE: Porter Falls 81 462; 45; 177;
DISTRICT: Ellsworth Sharon Rose Faini, Rose Enterprises, LLC; 102.75; 35.25; 64.65;
SURFACE OWNER: Richard D. Pyles Darrell Sole, Allen Smith; B&C Oil and Gas Company (2); 36.3625; 70.0; 134;
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 PLUG AND ABANDON CLEAN OUT AND REPLUG TARGET FORMATION: Marcellus Shale ESTIMATED DEPTH: 7,100' TVD
24,300' 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

6,091' to Bottom Hole

1,122' to Top Hole

TOP HOLE LATITUDE 39 - 32 - 30.0

BTM HOLE LATITUDE 39 - 35 - 00.0

LONGITUDE 80 - 50 - 50.0

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

DATE: June 15 2020
OPERATOR'S WELL NO. Friend 2H
API WELL NO Mod1
47 - 095 - 02696
STATE COUNTY PERMIT

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

LOCATION: ELEVATION: As-Built 1081' WATERSHED: Outlet Middle Island Creek QUADRANGLE: Porter Falls 81.482; 45; 177;
DISTRICT: Ellsworth COUNTY: Tyler 102.75; 35.25; 64.65;
SURFACE OWNER: Richard D. Pyles Sharon Rose Faini; Rose Enterprises, LLC; Darrell Sole; Allen Smith; B&C Oil and Gas Company (2); 36.3525; 70.0; 134;
ROYALTY OWNER: Richard D. Pyles, et ux; Joseph L. Sitko, et ux; Helen E. Boggs; BRC Appalachian Minerals I, LLC (5) LEASE NO: ACREAGE: 168.5 71.283; 13.025;
PROPOSED WORK: DRILL CONVERT DRILL DEEPER FRACTURE OR STIMULATE PLUG OFF OLD FORMATION 71.52; 119; 100; 52;
 PERFORATE NEW FORMATION OTHER PHYSICAL CHANGE IN WELL (SPECIFY) BHL MOD 30; 30; 67
 PLUG AND ABANDON CLEAN OUT AND REPLUG TARGET FORMATION: Marcellus Shale ESTIMATED DEPTH: 24,300' MD 7,100' TVD

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Denver, CO 80202 Charleston, WV 25313



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AD	BRC Appalachian Minerals I, LLC
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AJ	BRC Appalachian Minerals I, LLC

FILE NO: 45-54-E-19 DRAWING NO: Friend Unit 2H Well Plat SCALE: 1" = 2000' MINIMUM DEGREE OF ACCURACY: Submeter PROVEN SOURCE OF ELEVATION: WVDOT, Harrisville, WV	<p>STATE OF WEST VIRGINIA DEPARTMENT OF ENVIRONMENTAL PROTECTION OIL AND GAS DIVISION</p>	DATE: June 15 2020 OPERATOR'S WELL NO. Friend 2H API WELL NO <u>Mod1</u> <u>47</u> - <u>095</u> - <u>02696</u> STATE COUNTY PERMIT
WELL TYPE: <input type="checkbox"/> OIL <input checked="" type="checkbox"/> GAS <input type="checkbox"/> LIQUID INJECTION <input type="checkbox"/> WASTE DISPOSAL (IF GAS) PRODUCTION: <input type="checkbox"/> STORAGE <input type="checkbox"/> DEEP <input checked="" type="checkbox"/> SHALLOW		
LOCATION: ELEVATION: <u>As-Built 1081'</u> WATERSHED: <u>Outlet Middle Island Creek</u> QUADRANGLE: <u>Porter Falls</u> DISTRICT: <u>Ellsworth</u> COUNTY: <u>Tyler</u> 81.482; 45; 177; SURFACE OWNER: <u>Richard D. Pyles</u> Sharon Rose Faini; Rosa Enterprises, LLC; Darrell Sole; Allen Smith; B&C Oil and Gas Company (2); Will E. Morris Trust; Jerry Shoemaker; Haught Family Trust; Karen J. Wolfe; 102.75; 35.25; 64.65; ROYALTY OWNER: <u>Richard D. Pyles, et ux; Joseph L. Sitko, et ux; Helen E. Boggs; BRC Appalachian Minerals I, LLC (5)</u> ACREAGE: <u>168.5</u> 36.3625; 70.0; 134; PROPOSED WORK: <input type="checkbox"/> DRILL <input type="checkbox"/> CONVERT <input checked="" type="checkbox"/> DRILL DEEPER <input type="checkbox"/> FRACTURE OR STIMULATE <input type="checkbox"/> PLUG OFF OLD FORMATION 71.283; 13.025; <input type="checkbox"/> PERFORATE NEW FORMATION <input checked="" type="checkbox"/> OTHER PHYSICAL CHANGE IN WELL (SPECIFY) <u>BHL MOD</u> 71.52; 119; 100; 52; <input type="checkbox"/> PLUG AND ABANDON <input type="checkbox"/> CLEAN OUT AND REPLUG TARGET FORMATION: <u>Marcellus Shale</u> ESTIMATED DEPTH: <u>7,100' TVD</u> 30; 30; 67 <u>24,300' MD</u>		
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6,091' to Bottom Hole

1,122' to Top Hole

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Antero Resources Corporation



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Top Hole Coordinates Bottom Hole Coordinates
N: 4,372,706.344m N: 4,377,296.985m
E: 514,002.075m E: 512,479.526m
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. Friend Unit 2H
UTM Zone 17, NAD 1927
Top Hole Coordinates
N: 14,345,406.15'
E: 1,686,307.70'
Point of Entry Coordinates
N: 14,345,376.21'
E: 1,686,512.07'
Bottom Hole Coordinates
N: 14,360,467.27'
E: 1,681,311.96'



	Bearing	Dist.
L1	S 33°52' E	1,283.3'
L2	S 75°08' W	2,080.1'
L3	N 76°42' W	1,517.6'
L4	N 48°36' E	1,144.5'
L5	S 80°43' E	206.6'

FILE NO: 45-54-E-19
DRAWING NO: Friend Unit 2H Well Plat
SCALE: 1" = 2000'
MINIMUM DEGREE OF ACCURACY: Submeter
PROVEN SOURCE OF ELEVATION: WVDOT, Harrisville, WV

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

DATE: June 15 2020
OPERATOR'S WELL NO. Friend 2H
API WELL NO. **W401**
47 - 095 - 02696
STATE COUNTY PERMIT

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

LOCATION: ELEVATION: As-Built 1081' WATERSHED: Outlet Middle Island Creek QUADRANGLE: Porter Falls 81,482; 45; 177;
DISTRICT: Ellsworth COUNTY: Tyler 102,75; 35,25; 64,65;
SURFACE OWNER: Richard D. Pyles Sharon Rose Faini; Rose Enterprises, LLC; Darrell Sole; Allen Smith; B&C Oil and Gas Company (2); 36,3625; 70.0; 134;
ROYALTY OWNER: Richard D. Pyles, et ux; Joseph L. Sitko, et ux; Helen E. Boggs; BRC Appalachian Minerals I, LLC (5) Will E. Morris Trust; Jerry Shoemaker; Haught Family Trust; Karen J. Wolfe; ACREAGE: 168.5 71,283; 13,025;
PROPOSED WORK: DRILL CONVERT DRILL DEEPER FRACTURE OR STIMULATE PLUG OFF OLD FORMATION
 PERFORATE NEW FORMATION OTHER PHYSICAL CHANGE IN WELL (SPECIFY) BHL MOD 71,52; 119; 100; 52;
 PLUG AND ABANDON CLEAN OUT AND REPLUG TARGET FORMATION: Marcellus Shale ESTIMATED DEPTH: 24,300' MD 30; 30; 67

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



ID	TM/Par	Owner	DB/PG	Acres
1	16-44	Robert A. Pyles, et al	335/482	87.82
2	15-38	Rodney A. & Candis L. Nash	351/701	85.48
3	16-23.1	Bruce Winkelmann	334/195	3.30
4	16-44.1	Carl Straight	543/ 598	3.70
5	16-42.1	Richard D. Pyles	336/815	4.56
6	16-42	Richard D. Pyles	379/20	168.50
7	16-22	Joesph L. Jr. & Karen Sitko	296/13	81.70
8	16-23	Joseph L. Sitko	314/462	29.7
9	15-30.1	Roger D. Blizzard & Ruth E. Spencer	343/427	101.38
10	15-11	Roger Matthess	318/137	115.47
11	15-10	Antero Midstream, Inc.	617/739	34.13
12	16-1	Antero Midstream, Inc.	617/739	35.25
13	16-2	David E. Bowyer	622/775	80.75
14	16-4	Darrell J. Sole	227/376	35.00
15	15-9	Antero Midstream, LLC	586/544	132.19
16	15-8	William A. & Joyce L. Caputo	245/485	14.00
17	11-36	David W. Fiber	574/847	21.16
18	10-53	Kathy M. & Doug O. Smith	331/220	1.10
19	10-52	Darwin & Shirley Martin	306/537	5.00
20	10-72	Darwin & Shirley Martin	322/28	1.99
21	10-73	Darwin & Shirley Martin	306/537	1.90
22	10-56	Mary K. Neff	413/731	22.06
23	10-55	Charles & Shirley E. Neff	218/46	1.47
24	10-54	Michael W. & Brenda S. Schmidt	244/409	14.06
25	11-32	Darwin & Shirley Martin	348/344	60.66
26	10-70	Darwin & Shirley Martin	326/490	1.19
27	11-32.2	Bernard R. & Denise F. McDougal	636/587	0.54
28	10-51	Charles E. & Laura Lynn Friend	334/839	8.03
29	10-49	Charles E. & Laura Lynn Friend	334/836	71.52
30	10-57	Charles E. & Laura Lynn Friend	334/836	84.39
31	11-1	Gertrude L. Pugh	314/140	70.00
32	10-46	Opal Carol Tallman	282/382	114.00
33	10-10	Ronald D. & Sandra Sue Martin	378/322	58.35
34	10-8	Helen M. Young	198/126	50.50
35	10-12	Sandra K. Melz	376/458	30.50
36	10-11	J.R. Schamp	318/543	30.00
37	10-9	Brian E. & Barbara J. Courtney	344/626	52.00
38	10-5	Brian E. & Barbara J. Courtney	344/626	30.00
39	10-4	Stefan L. & Alberta B. Smolski	356/467	56.08
40	10-13	Kevin S. & Melinda S. Goff	597/808	87.19
41	6-49	Dennis & Clista A. Heintzman	297/637	45.00
42	6-36	Dennis & Clista A. Heintzman	297/640	417.06
43	6-30.1	Larry M. & Amy B. Adams	369/344	150.34

Leases	
A	Richard D. Pyles, et ux
B	Richard D. Pyles, et ux
C	Helen E. Boggs
D	Bruce Winkelmann
E	Joseph L. Sitko, et ux
F	Joseph L. Sitko, et ux
G	BRC Appalachian Minerals I, LLC
H	Roger D. Blizzard
I	BRC Appalachian Minerals I, LLC
J	BRC Appalachian Minerals I, LLC
K	BRC Appalachian Minerals I, LLC
L	BRC Appalachian Minerals I, LLC
M	James Matthess
N	James L. Newsom Revocable Trust
O	Will E. Morris Trust
P	Jerry Shoemaker
Q	Kenneth R. Baker
R	Shirley E. Neff
S	Michael W. Schmidt, et ux
T	Haught Family Trust
U	Karen J. Wolfe
V	Darrell Sole
W	Charles Eugene Friend, et ux
X	Allen Smith
Y	Ridgetop Capital II, LP
Z	Helen M. Karcinski, et al
AA	B&C Oil and Gas Company
AB	BRC Appalachian Minerals I, LLC
AC	Sharon Rose Faini
AD	BRC Appalachian Minerals I, LLC
AE	B&C Oil and Gas Company
AF	Bounty Minerals, LLC
AG	Rose Enterprises, LLC
AH	B&C Oil and Gas Company
AI	Dennis R. & Clista A. Heintzman
AJ	BRC Appalachian Minerals I, LLC

FILE NO: 45-54-E-19
DRAWING NO: Friend Unit 2H Well Plat
SCALE: 1" = 2000'
MINIMUM DEGREE OF ACCURACY:
Submeter
PROVEN SOURCE OF ELEVATION:
WVDOT, Harrisville, WV

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

DATE: June 15 20 20
OPERATOR'S WELL NO. Friend 2H
API WELL NO Mod 1
47 - 095 - 02696
STATE COUNTY PERMIT

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

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ROYALTY OWNER: Richard D. Pyles, et ux; Joseph L. Sitko, et ux; Helen E. Boggs; BRC Appalachian Minerals I, LLC (5) LEASE NO: _____ ACREAGE: 168.5 71.283; 13.025;
Will E. Morris Trust; Jerry Shoemaker; Haught Family Trust; Karen J. Wolfe; 81.52; 119; 100; 52;
30; 30; 67

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: 7,100' TVD
24,300' 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