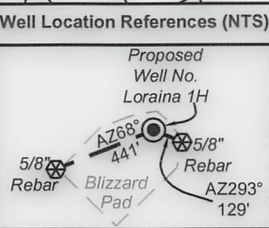


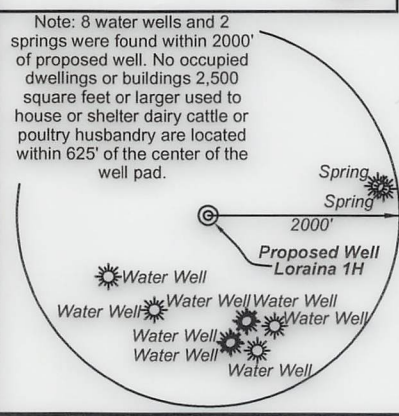
Antero Resources
Well No. Loraina 1H
BHL MOD
 Antero Resources Corporation



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

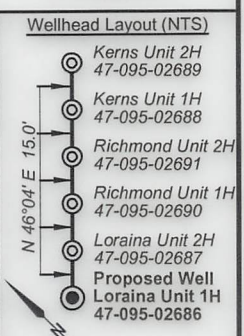


Legend

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

Notes
 West Virginia Coordinate System of 1927, North Zone based upon Differential GPS Measurements.
 Well No. Loraina Unit 1H Top Hole coordinates are
 N: 366,679.98' Latitude: 39°29'55.99"
 E: 1,618,876.38' Longitude: 80°51'02.29"
 Bottom Hole coordinates are
 N: 381,810.75' Latitude: 39°32'24.55"
 E: 1,612,387.02' Longitude: 80°52'28.02"
 UTM Zone 17, NAD 1983
 Top Hole Coordinates Bottom Hole Coordinates
 N: 4,372,160.273m N: 4,376,736.907m
 E: 512,857.159m E: 510,803.339m
 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. Loraina Unit 1H UTM Zone 17, NAD 1927
 Top Hole Coordinates
 N: 14,343,614.69'
 E: 1,682,551.46'
 Point of Entry Coordinates
 N: 14,343,628.32'
 E: 1,681,038.53'
 Bottom Hole Coordinates
 N: 14,358,629.91'
 E: 1,675,812.73'



	Bearing	Dist.
L1	S 33°46' E	910.2'
L2	N 29°10' W	1,674.4'
L3	N 41°13' E	1,361.7'
L4	N 68°16' E	1,142.6'
L5	N 88°32' W	1,513.5'

FILE NO: 43-54-E-19
 DRAWING NO: Loraina 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: April 2, 2020
 OPERATOR'S WELL NO. Loraina 1H
 API WELL NO. 47-095-02686
 STATE COUNTY PERMIT

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

LOCATION: ELEVATION: As-Built 1,004' WATERSHED: Outlet Middle Island Creek QUADRANGLE: Porter Falls 90.168; 93.757; 119.578; 41.75; 130; 1.75; 78; 9.5; 49; 34.102;
 DISTRICT: Ellsworth COUNTY: Tyler
 SURFACE OWNER: Ruth E. Spencer & Heritage Resources Marcellus Minerals, LLC; Cliff & Virginia Perkins Irrevocable Trust; Donald Lee Sharps; Patricia A. Heintzman (2); Michael Allen Eddy; Allen Smith; Roger D. Blizzard; Patsy J. Oliverio; Michael E. Neff; Melvin L. Nichols, et ux; James H. Basset, et ux; ACREAGE: 102.62 17.481; 131.94; 106.32; 0.24; 0.39;
 ROYALTY OWNER: Heritage Resources Marcellus Minerals, LLC; Cliff & Virginia Perkins Irrevocable Trust; LEASE NO: _____ ACREAGE: 32.28; 76.25; 48.5

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: 7,000' TVD
24,950' 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



ID	TM/Par	Owner	Bk/Pg	Acres
1	15-33	Roger D. Blizzard, et al	340/170	102.62
2	15-34.1	Randy & Pamela L. Lancaster	370/776	11.417
3	15-34	Michael & Bente H. Biddle	294/537	82.34
4	15-30	Thomas C. Grinage, et ux	458/73	124.078
5	15-31	Roger D. Blizzard, et al	342/782	25
6	15-27	Ronald & Martha J. Greathouse	217/571	26
7	15-28	Charles Loy Jr., et al	379/140	9
8	15-29	Ronald & Martha J. Greathouse	214/124	15.75
9	15-12	Roger Matthes	319/22	61
10	15-15	David Mendenhall, et al	284/4	50
11	15-15.1	Robert M. Feldmeier, et ux	575/690	30
12	15-14	John W. & Leah D. Starkey	345/93	50.75
13	15-5	Earl H., Jr. & Bernadette Warriner	306/141	48.5
14	15-6	James F. & Connie L. Billiter, et al	288/325	59.5
15	15-2	John W. Eddy, Estate	71/13	49
16	10-59	Goldie A. Mathews	115/485	10.08
17	10-60	J.S. & Goldie A. Matthews	129/58	101.14
18	10-43	Kevin S. & Melinda S. Goff	431/799	100
19	10-42	Kevin S. & Melinda S. Goff	431/799	25.5
20	10-65	Daniel R. Deetz, et al	321/713	131.94
21	10-41	Kevin S. & Melinda S. Goff	431/799	2.66
22	10-36	Randy Lee & Mary Lou Michael	230/499	24.65
23	10-37.4	Kevin S. & Melinda S. Goff	425/830	7.5
24	10-35	Michael E. Neff	299/601	105.56
25	10-35.1	James H. & Mildred G. Bassett	220/370	8.12
26	10-15	Kevin S. Goff & Melinda S. Goff	423/695	18.50
27	10-16	Ruby M. Watson	256/45	0.488

ID	TM/Par	Owner	Bk/Pg	Acres
28	10-15.5	Ruby M. Watson	289/359	0.0292
29	10-15.7	Frank W., Jr. & Ruby M. Watson	317/383	5.226
30	10-15.4	Frank W., Jr. & Ruby M. Watson	343/309	0.65
31	10-35.2	Robert R. Bassett	269/703	0.48
32	10-35.6	Joseph C., Jr. & Vicky G. Snyder	317/551	0.24
33	10-35.3	James H. & Mildred G. Bassett	273/538	0.39
34	10-35.4	Mary Jane Woofter	319/73	0.75
35	10-35.5	Michael E. Neff	281/543	0.76
36	10-20	James & Mildred Bassett	311/637	0.72
37	10-15.3	Robert L. & Teresa Eddy	284/496	0.64
38	10-17	Sandra K. Metz	342/153	0.89
39	10-15.8	Frank & Ruby Watson	427/47	5.229
40	10-18	Wendy S. Gustavich	331/365	1.9
41	10-15.2	Sandra Metz	246/320	0.95
42	10-19.1	Sandra K. Metz	380/98	2.76
43	10-15.6	Wayne H. & Violet Mercer	317/378	35.82
44	10-19	James Bassett & Mildred Bassett	264/548	29.52
45	10-22	Michael V. and Debra K. Smith	335/619	59.42
46	10-21	Patricia Ann Heintzman	W13/384	3
47	10-3	Kevin S. & Melinda S. Goff	597/808	53.75
48	10-2	Patricia Ann Heintzman	W13/384	73.26
49	10-1	Patricia Ann Heintzman	150/15	48.50
50	10-64	John E Roberts	W30/108	100
51	6-36	Dennis & Clista Heintzman	297/640	417.6



Leases	
A	Heritage Resources Marcellus Minerals, LLC
B	Cliff & Virginia Perkins Irrevocable Trust
C	Jerry R. Brown
D	B. Fred Hill Jr.
E	Karen F. Quinn
F	United Spinal Association
G	Reita Jane Hall
H	John W. Starkey, et ux
I	BRC Appalachian Mineral I LLC
J	Dale E. Pipes
K	Sandra E. Merrigan
L	John W. Kerns Heir Trust
M	Allen Smith
N	David E. Bowyer
O	Rockford Energy, LLC
P	Mary Carol Chamberlain
Q	Bob Christen
R	Patsy J. Oliverio
S	Michael Allen Eddy
T	A. DeWayne Matthews
U	Susan Ertel
V	Kevin S. Goff, et ux
W	Kevin S. Goff, et ux
X	Michael E. Neff
Y	Ridgewood Development LLC
Z	James H. Bassett, et ux
AA	Richard Basset
AB	Melvin L. Nichols, et ux
AC	James H. Basset, et ux
AE	Paul A., Jr. & Phyllis V. Marks
AF	Donald Lee Sharps
AG	Nina & Phillip Whitefield
AH	Patricia Ann Heintzman
AI	Patricia Ann Heintzman
AJ	John E. Roberts
AK	Norma Smith

FILE NO: 43-54-E-19
 DRAWING NO: Loraina 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: April 2 2020
 OPERATOR'S WELL NO. Loraina 1H
 API WELL NO
 47 - 095 - 02686 MOD
 STATE COUNTY PERMIT

WELL TYPE: OIL GAS LIQUID INJECTION WASTE DISPOSAL
 (IF GAS) PRODUCTION: STORAGE DEEP SHALLOW
 LOCATION: ELEVATION: As-Built 1,004' WATERSHED: Outlet Middle Island Creek QUADRANGLE: Porter Falls 90.168; 93.757;
 DISTRICT: Ellsworth Donald Lee Sharps; Patricia A. Heintzman (2); Michael Allen Eddy; Allen Smith 119.578; 41.75;
 SURFACE OWNER: & Ruth E. Spencer Roger D. Blizzard Patsy J. Oliverio; Michael E. Neff; Vicky G. Nichols; James H. Basset, et ux; COUNTY: Tyler 130; 1.75; 78; 9.5;
 ROYALTY OWNER: Heritage Resources Marcellus Minerals, LLC; Cliff & Virginia Perkins Irrevocable Trust; B. Fred Hill Jr.; United Spinal Association; Karen F. Quinn; John W. Starkey, et ux; ACREAGE: 102.62 49; 34.102;
 PROPOSED WORK: DRILL CONVERT DRILL DEEPER FRACTURE OR STIMULATE PLUG OFF OLD FORMATION 17.481; 131.94;
 PERFORATE NEW FORMATION OTHER PHYSICAL CHANGE IN WELL (SPECIFY) BHL MOD 106.32; 0.24; 0.39;
 PLUG AND ABANDON CLEAN OUT AND REPLUG TARGET FORMATION: Marcellus Shale ESTIMATED DEPTH: 25,000' MD 7,000' 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