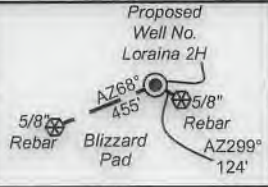


**Antero Resources  
Well No. Loraina 2H**

Antero Resources Corporation



**Well Location References (NTS)**



BTM Hole 7.5' Spot  
Top Hole 7.5' Spot

5,580' to Bottom Hole

4,877' to Top Hole

LATITUDE 39 - 30 - 00

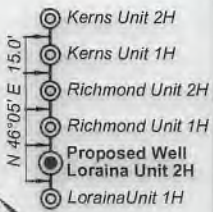
**Notes**  
West Virginia Coordinate System of 1927, North Zone based upon Differential GPS Measurements. Well No. Loraina Unit 2H Top Hole coordinates are N: 366,690.38' Longitude: 80°29'56.09" E: 1,618,887.19' Longitude: 80°51'02.15" Bottom Hole coordinates are N: 366,922.15' Longitude: 39°29'58.28" E: 1,618,184.78' Longitude: 80°51'11.16" UTM Zone 17, NAD 1983  
Top Hole Coordinates Bottom Hole Coordinates  
N: 4,372,163.496m N: 4,372,230.528m  
E: 512,860.400m E: 512,645.229m  
Plat orientation and corner and well references are based upon the grid north meridian. Well location references are based upon the magnetic meridian.

LONGITUDE 80 - 50 - 00

322' to Top Hole

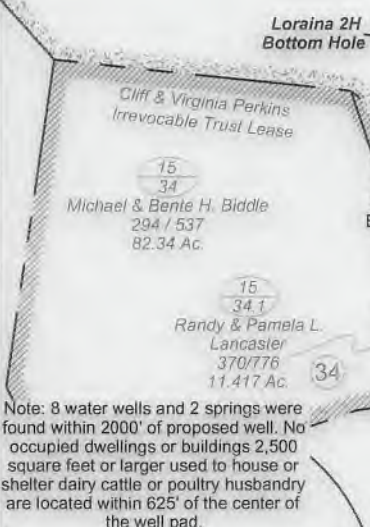
91' to Bottom Hole

**Wellhead Layout (NTS)**

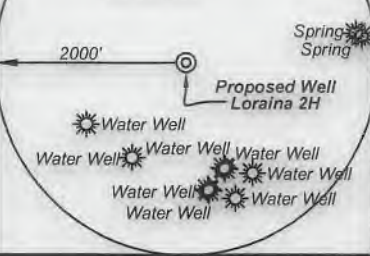


	Bearing	Dist.
L1	S 34°42' E	907.7'
L2	N 28°41' W	1,678.3'
L3	N 41°16' E	1,376.6'
L4	N 68°00' E	1,156.5'
L5	N 71°44' W	739.7'

GRID NORTH



Note: 8 water wells and 2 springs 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.



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

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



SEAL

FILE NO: 43-54-E-19  
DRAWING NO: Loraina 2H Well Plat  
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: January 27 2020  
OPERATOR'S WELL NO. Loraina 2H  
API WELL NO  
47 - 095 - 02687  
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: Shirley  
DISTRICT: Ellsworth COUNTY: Tyler  
SURFACE OWNER: Roger D. Blizzard & Ruth E. Spencer ACREAGE: 102.62  
ROYALTY OWNER: Heritage Resources - Marcellus Minerals, LLC LEASE NO: ACREAGE: 90.168  
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 8,200' 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