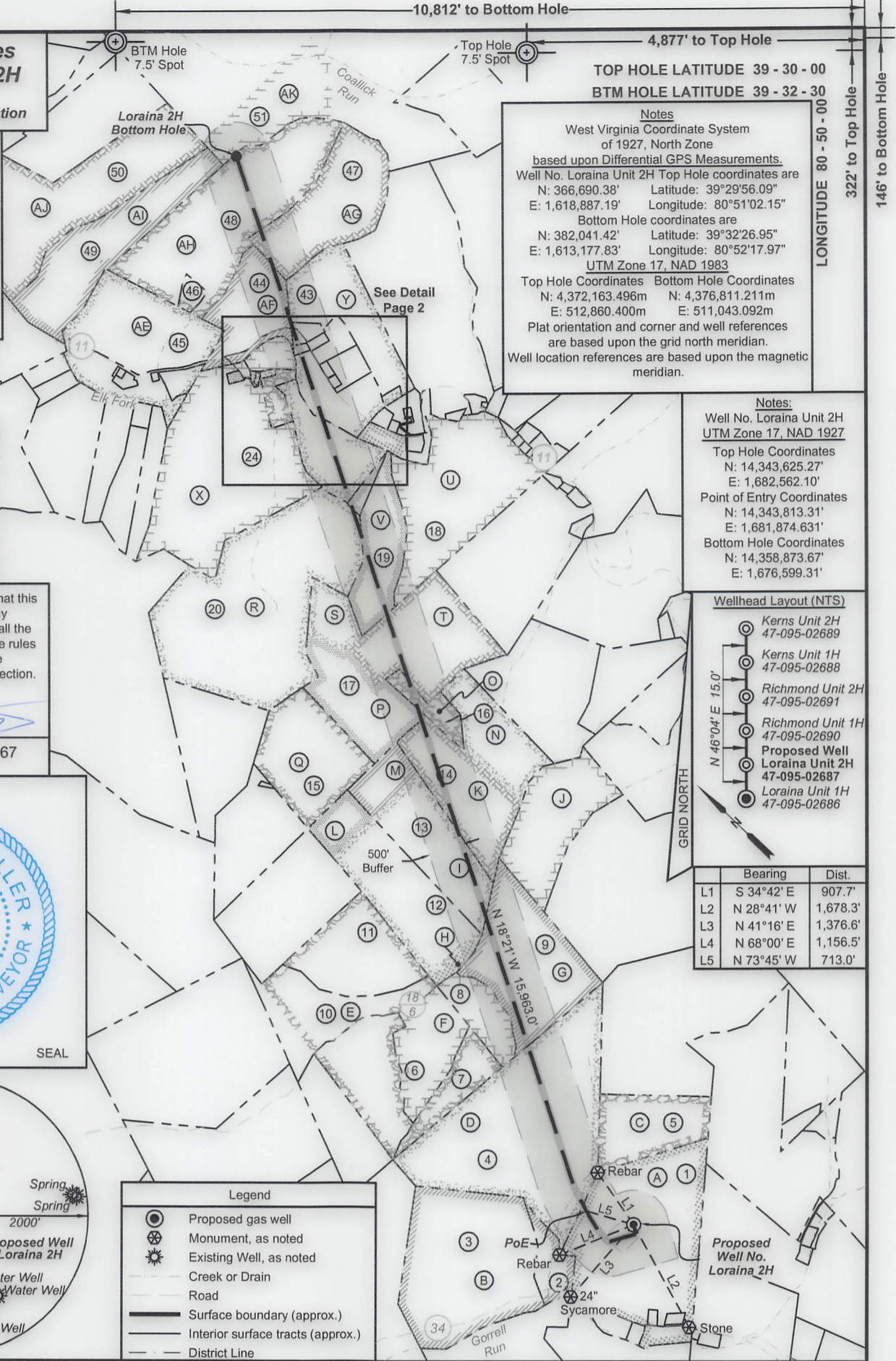


**Antero Resources**  
**Well No. Loraina 2H**  
 BHL MOD  
 Antero Resources Corporation



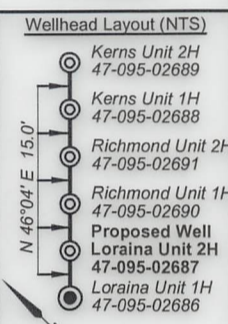
**Notes**  
 West Virginia Coordinate System of 1927, North Zone based upon Differential GPS Measurements.  
 Well No. Loraina Unit 2H Top Hole coordinates are  
 N: 366,690.38' Latitude: 39°29'56.09"  
 E: 1,618,887.19' Longitude: 80°51'02.15"  
 Bottom Hole coordinates are  
 N: 382,041.42' Latitude: 39°32'26.95"  
 E: 1,613,177.83' Longitude: 80°52'17.97"  
 UTM Zone 17, NAD 1983  
 Top Hole Coordinates Bottom Hole Coordinates  
 N: 4,372,163.496m N: 4,376,811.211m  
 E: 512,860.400m E: 511,043.092m  
 Plat orientation and corner and well references are based upon the grid north meridian.  
 Well location references are based upon the magnetic meridian.

**Well Location References (NTS)**  
 Proposed Well No. Loraina 2H  
 5/8" Rebar  
 Blizzard Pad  
 AZ268° 455'  
 AZ299° 124'

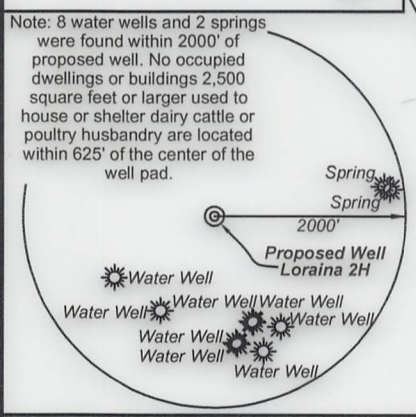
**Notes:**  
 Well No. Loraina Unit 2H UTM Zone 17, NAD 1927  
 Top Hole Coordinates  
 N: 14,343,625.27'  
 E: 1,682,562.10'  
 Point of Entry Coordinates  
 N: 14,343,813.31'  
 E: 1,681,874.631'  
 Bottom Hole Coordinates  
 N: 14,358,873.67'  
 E: 1,676,599.31'

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 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 73°45' W | 713.0'   |



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

FILE NO: 43-54-E-19  
 DRAWING NO: Loraina 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: April 2, 2020  
 OPERATOR'S WELL NO. Loraina 2H  
 API WELL NO. 47-095-02687 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; 119.578;  
 DISTRICT: Ellsworth Roger D. Sharp; Nina & Phillip Whitefield; 68.5; 78; 39;  
 SURFACE OWNER: & Ruth E. Spencer Rockford Energy, LLC; Mary Carol Chamberlain; A. DeWayne Matthews; 76.25; 10.08;  
 ROYALTY OWNER: Heritage Resources Marcellus Minerals, LLC; B. Fred Hill Jr.; Reita Jane Hall; LEASE NO: ACREAGE: 102.62 34.102; 50.13542;  
 PROPOSED WORK:  DRILL  CONVERT  DRILL DEEPER  FRACTURE OR STIMULATE  PLUG OFF OLD FORMATION 131.94; 30.7625;  
 PERFORATE NEW FORMATION  OTHER PHYSICAL CHANGE IN WELL (SPECIFY) BHL MOD ESTIMATED DEPTH: 7,000' TVD  
 PLUG AND ABANDON  CLEAN OUT AND REPLUG TARGET FORMATION: Marcellus Shale 24,100' 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



| 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. Bassett, 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 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: April 2 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 90.168; 119.578;  
 DISTRICT: Ellsworth Donald Lee Sharps; Nina & Phillip Whitefield; COUNTY: Tyler 68.5; 78; 39;  
 SURFACE OWNER: & Ruth E. Spencer Roger D. Blizzard Patsy J. Oliverio; Kevin S. Goff, et ux; Ridgewood Developmet, LLC; 76.25; 10.08;  
 ROYALTY OWNER: Heritage Resources Marcellus Minerals, LLC; B. Fred Hill Jr.; Reita Jane Hall; A. DeWayne Matthews; ACREAGE: 102.62 34.102; 50.13542;  
 LEASE NO: \_\_\_\_\_ ACREAGE: 100; 32.28; 53.75

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  
 24,100' 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