

LATITUDE 39°20'00"

11,266'

LATITUDE 39°17'30"

LONGITUDE 80°57'30"

7,383'

LONGITUDE 80°57'30"

Antero Resources Corporation  
Well No. Musgrave Unit 1H  
47-085-10163 (AS DRILLED)

AS DRILLED DATA:  
WELL 1H TOP HOLE INFORMATION:  
N: 299,669ft E: 1,576,126ft  
LAT: 39°18'47.03" LON: 80°59'53.34"  
BOTTOM HOLE INFORMATION:  
N: 289,461ft E: 1,578,228ft  
LAT: 39°17'06.50" LON: 80°59'24.43"  
WEST VIRGINIA COORDINATE SYSTEM OF 1927 NORTH ZONE. ZONE WAS DERIVED FROM MEASUREMENTS TAKEN WITH TRIMBLE GEOXT SUBMETER MAPPING GRADE GPS UNIT. PLAT ORIENTATION, CORNER, AND WELL REFERENCE TIE LINES ARE BASED ON GRID NORTH.

(NAD) 83 (UTM) ZONE 17 COORDS:  
WELL 1H TOP HOLE INFORMATION:  
N: 4,351,527m E: 500,174m  
BOTTOM HOLE INFORMATION:  
N: 4,348,428m E: 500,866m

- NOTES**
1. NO OCCUPIED DWELLINGS OR BUILDINGS TWO THOUSAND FIVE HUNDRED (2,500) SQUARE FEET OR LARGER USED TO HOUSE OR SHELTER DAIRY CATTLE OR POULTRY HUSBANDRY ARE LOCATED WITHIN SIX HUNDRED TWENTY-FIVE (625) FEET OF THE CENTER OF THE WELL PAD.
  2. TOP HOLE DATA SHOWN HEREON WAS PROVIDED BY ALLEGHENY SURVEYS, INC.
  3. AS DRILLED DATA WAS PROVIDED BY ANTERO RESOURCES CORPORATION.
  4. WLS IS NOT CERTIFYING THE DATA AND INFORMATION LISTED IN NOTES 2 AND 3, ONLY THE RELATIONSHIP TO THE DATA AND INFORMATION PROVIDED TO THE LEASE BOUNDARIES.
  5. WLS IS BY NO MEANS RESPONSIBLE FOR ANY ERRORS OR INACCURACIES WITH THE DATA AND INFORMATION THAT HAS BEEN PROVIDED.

LEGEND

- Surface Owner Boundary Lines +/-
- - - Interior Surface Tracts +/-
- - - Existing Fence
- ⊕ Found monument, as noted
- Proposed Well Path
- ⊗ As Drilled Well Path

DATE 07/16/15

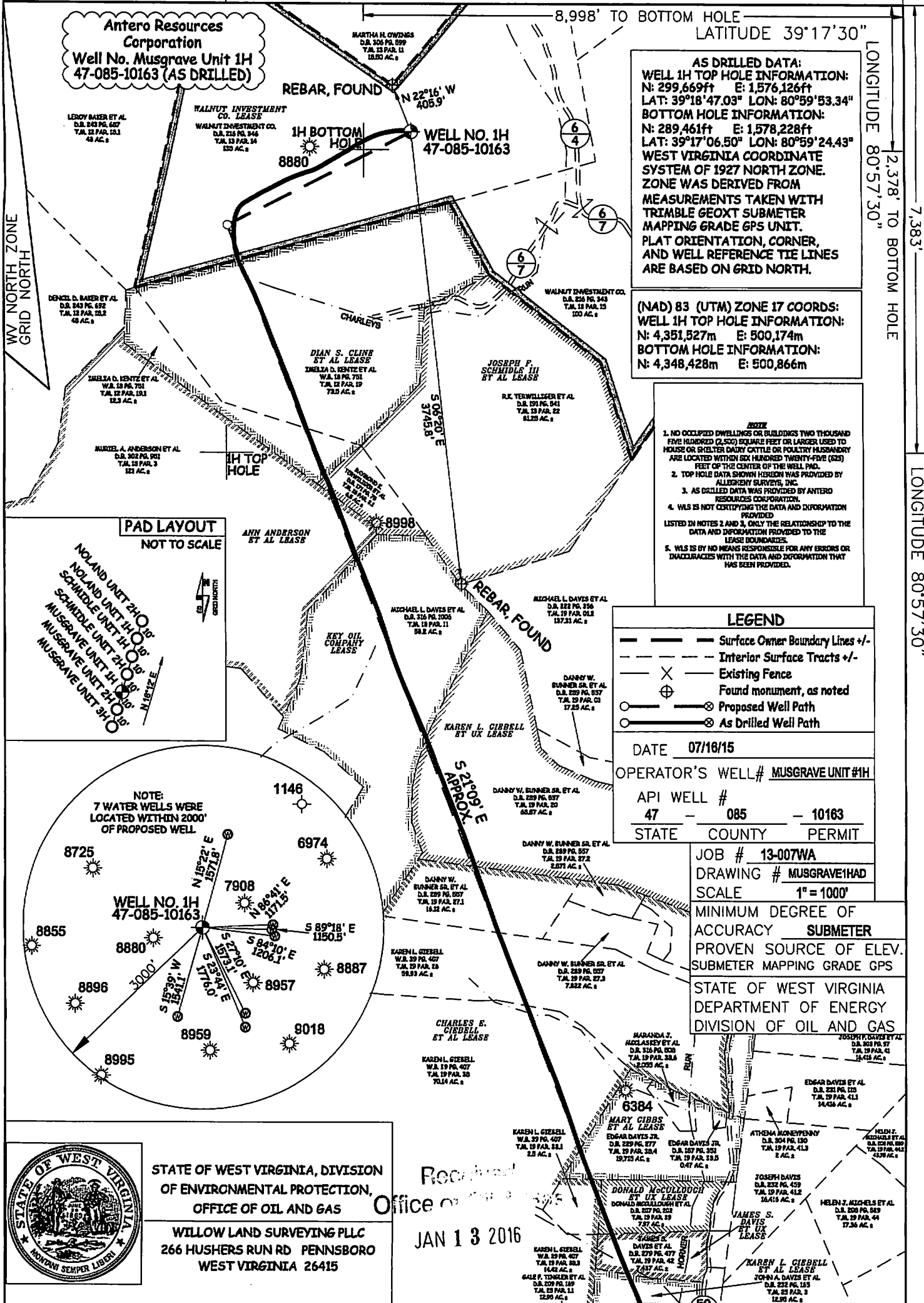
OPERATOR'S WELL# MUSGRAVE UNIT #1H

API WELL # 47 - 085 - 10163  
STATE COUNTY PERMIT

JOB # 13-007WA  
DRAWING # MUSGRAVE1HAD  
SCALE 1" = 1000'

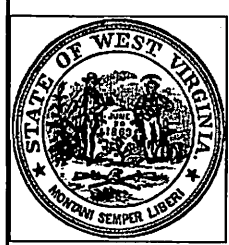
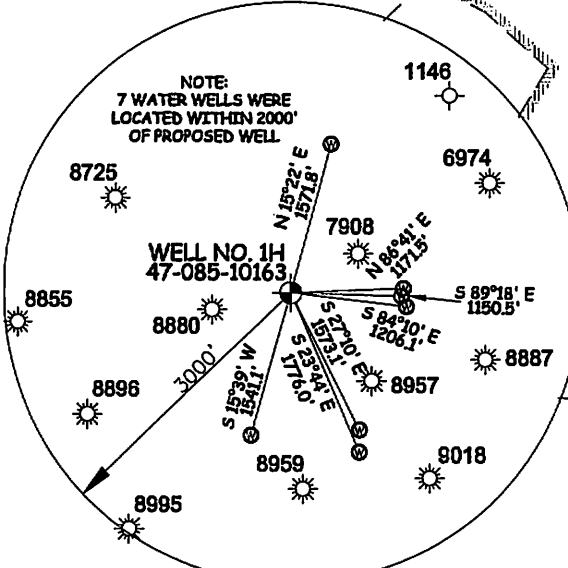
MINIMUM DEGREE OF ACCURACY SUBMETER  
PROVEN SOURCE OF ELEV. SUBMETER MAPPING GRADE GPS

STATE OF WEST VIRGINIA  
DEPARTMENT OF ENERGY  
DIVISION OF OIL AND GAS



PAD LAYOUT  
NOT TO SCALE

NOLAND UNIT 2HO 30'  
NOLAND UNIT 1HO 30'  
SCHMIDLE UNIT 1HO 30'  
MUSGRAVE UNIT 1H 30'  
MUSGRAVE UNIT 2HO 30'  
MUSGRAVE UNIT 3HO



STATE OF WEST VIRGINIA, DIVISION OF ENVIRONMENTAL PROTECTION, OFFICE OF OIL AND GAS  
WILLOW LAND SURVEYING PLLC  
266 HUSHERS RUN RD PENNSBORO WEST VIRGINIA 26415

Received  
Office of Oil and Gas  
JAN 13 2016

WELL TYPE: OIL  GAS  LIQUID INJECTION  WASTE DISPOSAL   
 (IF "GAS") PRODUCTION  STORAGE  DEEP  SHALLOW   
 LOCATION: ELEVATION 1,142' ORIGINAL - 1,121' AS DRILLED WATERSHED NORTH FORK HUGHES RIVER  
 QUADRANGLE PENNSBORO 7.5' DISTRICT CLAY COUNTY RITCHIE  
 SURFACE OWNER WALNUT INVESTMENTS CO. ACREAGE 138 ACRES +/-  
 OIL & GAS ROYALTY OWNER WALNUT INVESTMENT CO.; DIAN S. CLINE ET AL.; JOSEPH F. SCHMIDLE III ET AL.; ANN ANDERSON ET AL.; LEASE ACREAGE 238 AC +/- 73.5 AC +/- 76.8 AC +/- 180 AC +/-  
 KEY OIL COMPANY: KAREN L. GIBRELL ET UX; CHARLES E. GIBRELL ET AL.; MARY CIBBS ET AL.; DONALD MCCULLOUGH ET UX; JAMES S. DAVIS ET UX; KAREN L. GIBRELL ET AL.; PINNEY HOLDINGS, INC. 62.6 AC +/- 69.87 AC +/- 201 AC +/- 35.03 AC +/- 9.25 AC +/- 7.87 AC +/- 5.53 AC +/- 7 AC +/-  
 PROPOSED WORK: DRILL  CONVERT  DRILL DEEPER  REDRILL  FRACTURE OR STIMULATE   
 PLUG OFF OLD FORMATION  PERFORATE NEW FORMATION  OTHER PHYSICAL CHANGE IN WELL (SPECIFY) (X) AS DRILLED  PLUG & ABANDON  CLEAN OUT & REPLUG   
 TARGET FORMATION MARCELLUS ESTIMATED DEPTH 6,391' TVD 16,755' MD  
 WELL OPERATOR ANTERO RESOURCES CORPORATION DESIGNATED AGENT DIANNA STAMPER - CT CORPORATION SYSTEM  
 ADDRESS 1615 WYNKOOP STREET ADDRESS 5400 D BIG TYLER ROAD  
 FORM WW-6 DENVER, CO 80202 CHARLESTON, WV 25313

02/05/2016