

LATITUDE 39°20'00"

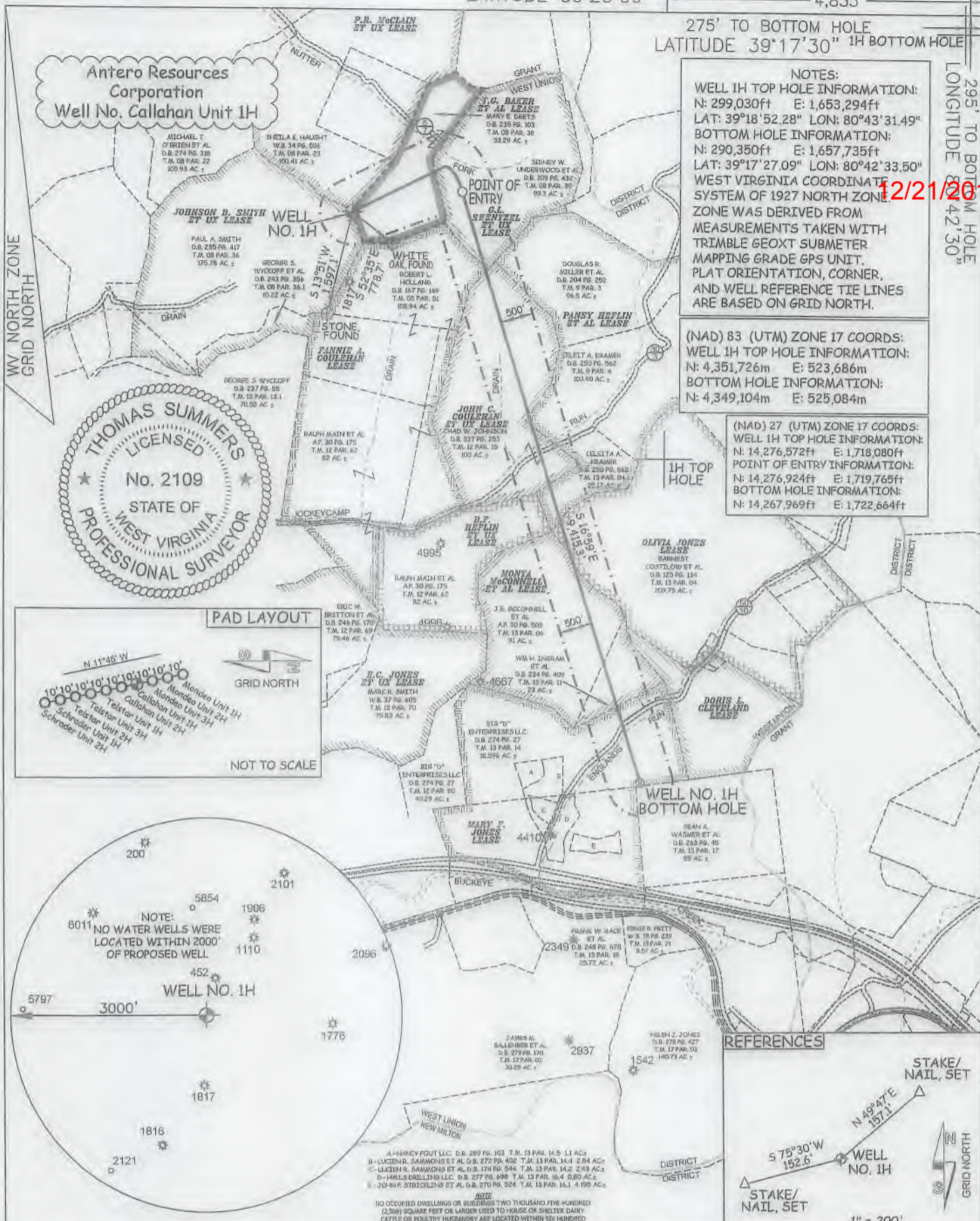
4,833'

275' TO BOTTOM HOLE
LATITUDE 39°17'30" 1H BOTTOM HOLE

295' TO BOTTOM HOLE
LONGITUDE 80°42'30"

6,952'
LONGITUDE 80°42'30"

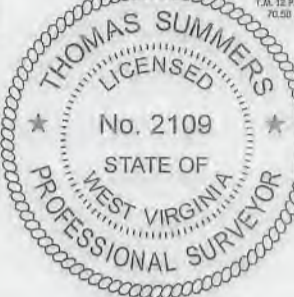
12/21/2018



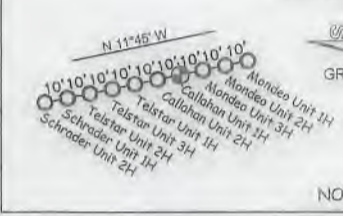
NOTES:
 WELL 1H TOP HOLE INFORMATION:
 N: 299,030ft E: 1,653,294ft
 LAT: 39°18'52.28" LON: 80°43'31.49"
 BOTTOM HOLE INFORMATION:
 N: 290,350ft E: 1,657,735ft
 LAT: 39°17'27.09" LON: 80°42'33.50"
 WEST VIRGINIA COORDINATE SYSTEM OF 1927 NORTH ZONE
 ZONE WAS DERIVED FROM MEASUREMENTS TAKEN WITH TRIMBLE 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: 4,351,726m E: 523,686m
 BOTTOM HOLE INFORMATION:
 N: 4,349,104m E: 525,084m

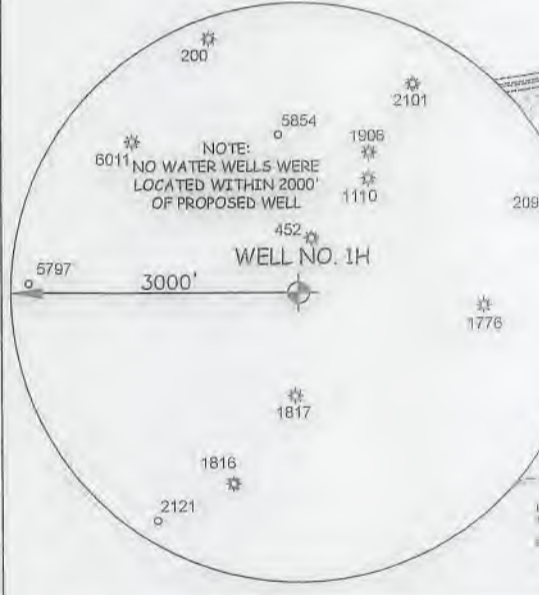
(NAD) 27 (UTM) ZONE 17 COORDS:
 WELL 1H TOP HOLE INFORMATION:
 N: 14,276,572ft E: 1,718,080ft
 POINT OF ENTRY INFORMATION:
 N: 14,276,924ft E: 1,719,765ft
 BOTTOM HOLE INFORMATION:
 N: 14,267,969ft E: 1,722,664ft



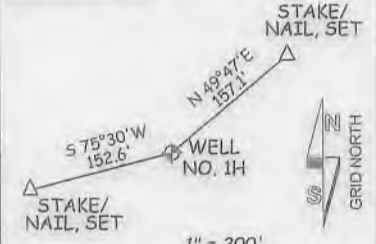
PAD LAYOUT



NOT TO SCALE



REFERENCES



JOB # 13-028WA
 DRAWING # CALLAHAN1HR4
 SCALE 1" = 2000'
 MINIMUM DEGREE OF ACCURACY SUBMETER
 PROVEN SOURCE OF ELEV. SUBMETER MAPPING GRADE GPS

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 PERSCRIBED BY THE DEPARTMENT OF ENVIRONMENTAL PROTECTION,

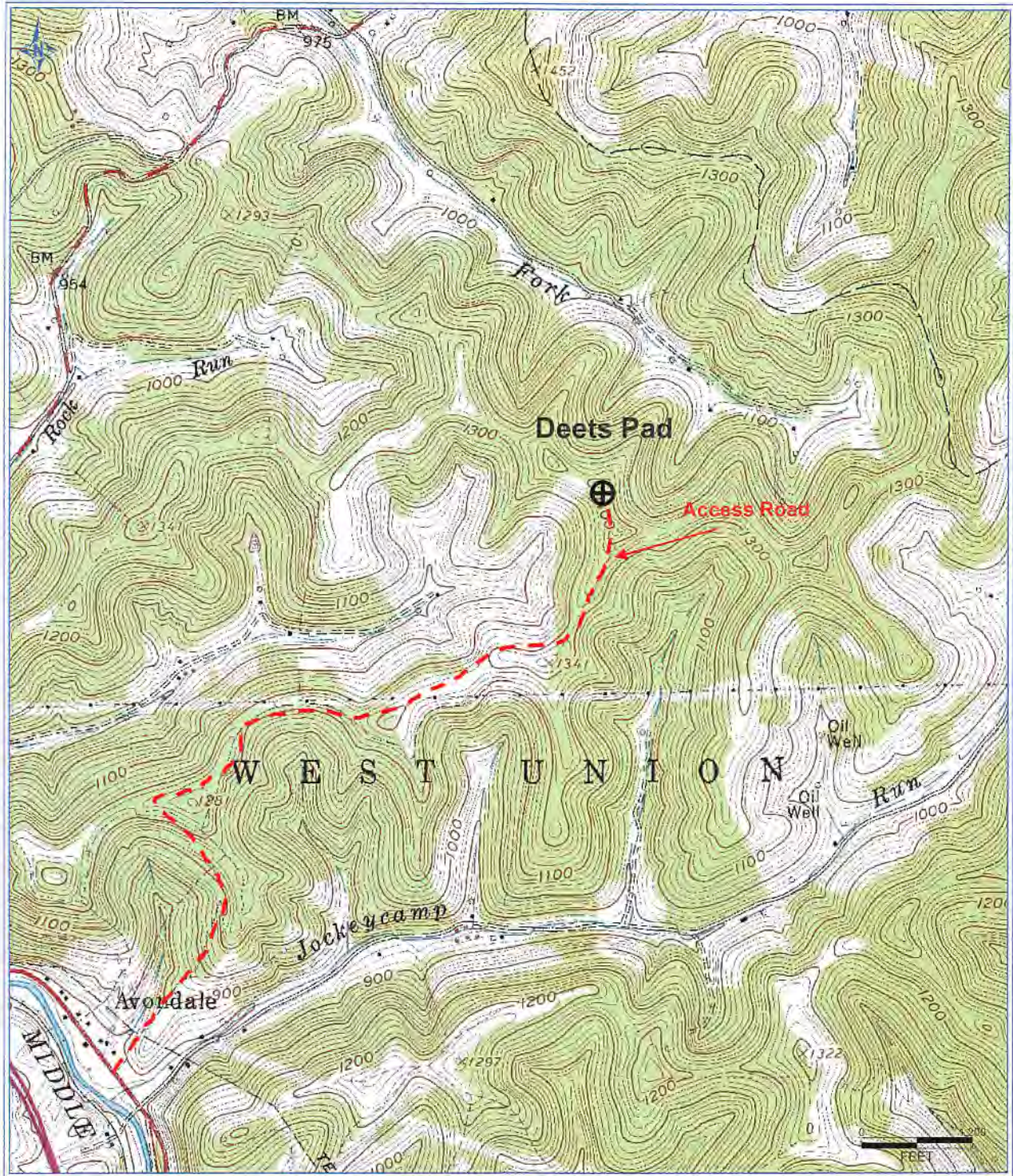


STATE OF WEST VIRGINIA, DIVISION OF ENVIRONMENTAL PROTECTION, OFFICE OF OIL AND GAS
 WILLOW LAND SURVEYING PLLC
 220 MASONIC AVE. PENNSBORO WEST VIRGINIA 26415

LEGEND
 - - - - - Surface Owner Boundary Lines +/-
 - - - - - Interior Surface Tracts +/-
 - - - - - Existing Fence
 ⊕ Found monument, as noted
 THOMAS SUMMERS P.S. 2109

DATE 09/20/18
 OPERATOR'S WELL# CALLAHAN UNIT #1H

STATE OF WEST VIRGINIA DEPARTMENT OF ENERGY DIVISION OF OIL AND GAS
 WELL TYPE: OIL GAS X LIQUID INJECTION WASTE DISPOSAL
 (IF "GAS") PRODUCTION X STORAGE DEEP SHALLOW X
 LOCATION: ELEVATION 1,422'-ORIGINAL 1,376'-PROPOSED WATERSHED HEADWATERS MIDDLE ISLAND CREEK
 QUADRANGLE SMITHBURG 7.5' DISTRICT WEST UNION COUNTY DODDRIDGE
 SURFACE OWNER MARY E. DEETS AND/OR PAUL A. SMITH ACREAGE 53.29 ACRES +/- AND/OR 175.78 ACRES±
 OIL & GAS ROYALTY OWNER T.G. BAKER ET AL.; G.L. SWENTZEL ET UX; FANNIE A. COULEHAN; LEASE ACREAGE 53.46 ACRES±; 103 ACRES%P; 250 ACRES±;
 JOHN C. COULEHAN ET UX; PANSY HEFLIN ET AL.; OLIVIA JONES; MONTA McCONNELL ET AL.; MARY F. JONES 118 ACRES±; 222.5 ACRES±; 280 ACRES±; 114 ACRES±; 194 ACRES±
 PROPOSED WORK: DRILL X CONVERT DRILL DEEPER REDRILL FRACTURE OR STIMULATE X
 PLUG OFF OLD FORMATION PERFORATE NEW FORMATION X OTHER PHYSICAL CHANGE IN WELL
 (SPECIFY) PLUG & ABANDON CLEAN OUT & REPLUG
 TARGET FORMATION MARCELLUS ESTIMATED DEPTH 7,600' TVD 19,300' MD
 WELL OPERATOR ANTERO RESOURCES CORP. DESIGNATED AGENT DIANNA STAMPLER - CT CORPORATION SYSTEM
 ADDRESS 1625 17TH STREET ADDRESS 5400 D BIG TYLER ROAD
 DENVER, CO 80202 CHARLESTON, WV 25313



Antero Resources Corporation
 Appalachian Basin
 Callahan Unit 1H
 Doddridge County

Quadrangle: West Union
 Watershed: Middle Island Creek
 District: West Union
 Date: 3-20-2017

RECEIVED
 Office of Oil and Gas

SEP 24 2018

WV Department of
 Environmental Protection