

LATITUDE 39°15'00" -1,238'

11,006' TO BOTTOM HOLE

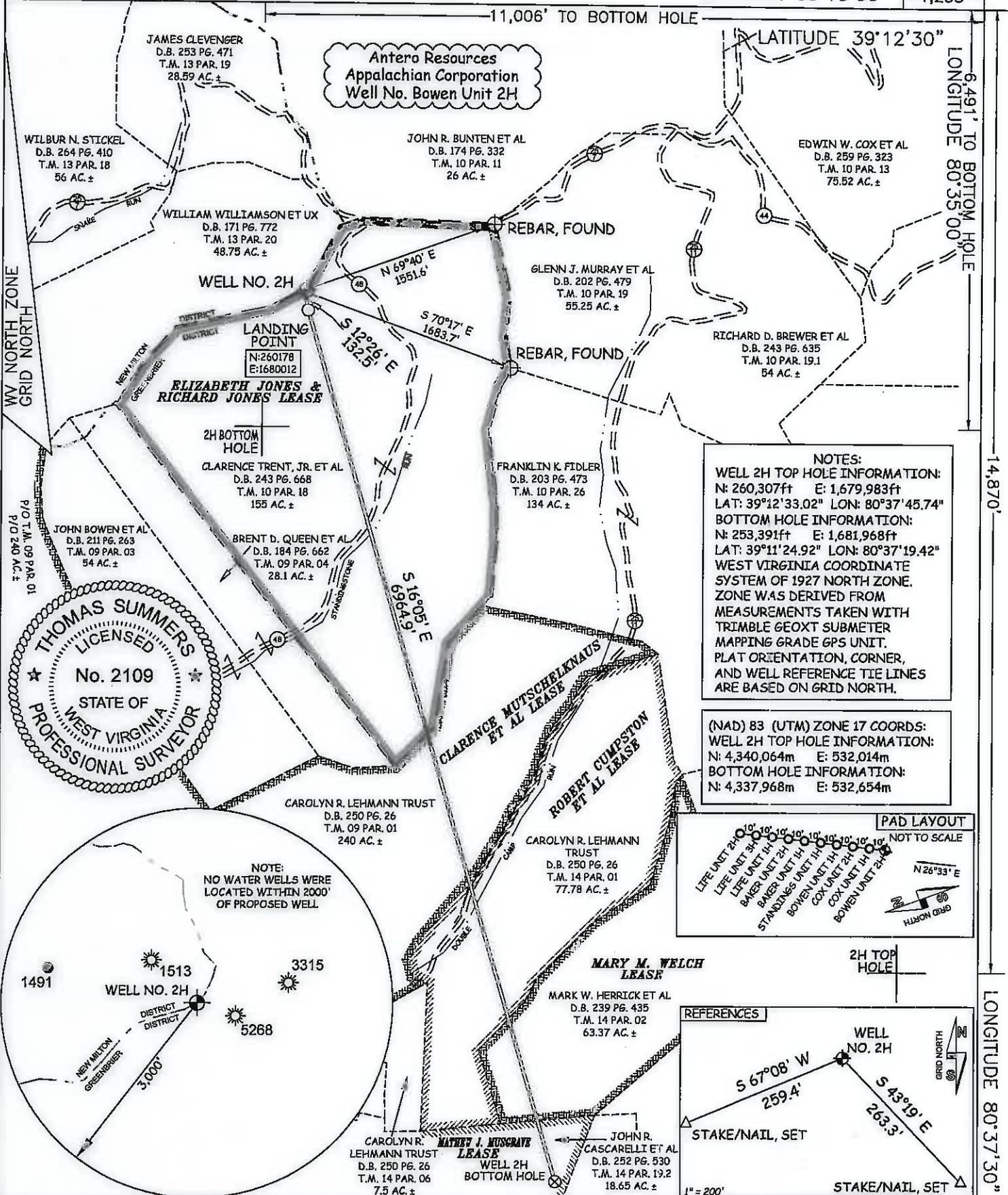
LATITUDE 39°12'30"

LONGITUDE 80°35'00"

14,870'

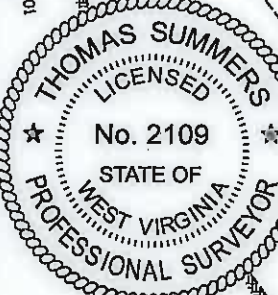
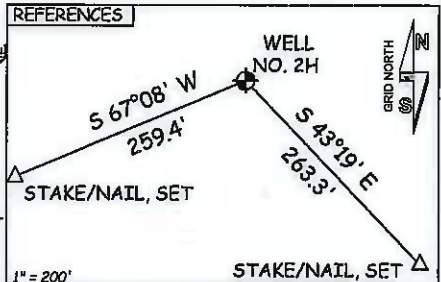
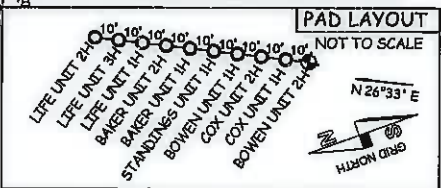
LONGITUDE 80°37'30"

Antero Resources
Appalachian Corporation
Well No. Bowen Unit 2H

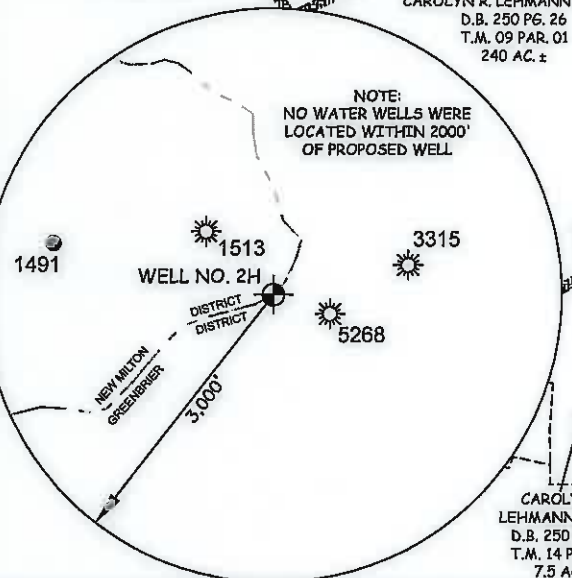


NOTES:
WELL 2H TOP HOLE INFORMATION:
N: 260,307ft E: 1,679,983ft
LAT: 39°12'33.02" LON: 80°37'45.74"
BOTTOM HOLE INFORMATION:
N: 253,391ft E: 1,681,968ft
LAT: 39°11'24.92" LON: 80°37'19.42"
WEST VIRGINIA COORDINATE SYSTEM OF 1927 NORTH ZONE. ZONE WAS DERIVED FROM MEASUREMENTS TAKEN WITH TRIMBLE GEOXT 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 2H TOP HOLE INFORMATION:
N: 4,340,064m E: 532,014m
BOTTOM HOLE INFORMATION:
N: 4,337,968m E: 532,654m

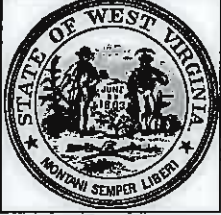


NOTE:
NO WATER WELLS WERE LOCATED WITHIN 2000' OF PROPOSED WELL



JOB # 12-066WA
DRAWING # BOWEN2HR1
SCALE 1" = 1000'
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 REGULATIONS 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 +/-
X Existing Fence
⊕ Found monument, as noted

THOMAS SUMMERS P.S. 2109

DATE 02/13/13
OPERATOR'S WELL# BOWEN UNIT #2H
API WELL # 47 - 017
STATE COUNTY PERMIT

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 1,410' WATERSHED STANDINGSTONE RUN OF MEATHOUSE FORK
QUADRANGLE NEW MILTON 7.5' (TOP HOLE); BIG ISAAC 7.5' (BOTTOM HOLE) DISTRICT GREENBRIER COUNTY DODDRIDGE
SURFACE OWNER CLARENCE TRENT, JR. ET AL ACREAGE 155 ACRES +/-
OIL & GAS ROYALTY OWNER ELIZABETH JONES & RICHARD JONES; LEASE ACREAGE 155 ACRES±
CLARENCE MUTSCHELKNAUS ET AL; ROBERT CUMPSTON ET AL; MARY M. WELCH; MATHEW J. MUSGRAVE 265 ACRES±; 78.375 ACRES±; 70 ACRES±; 18.72 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) Permit Modification - Extended lateral well PLUG & ABANDON CLEAN OUT & REPLUG
TARGET FORMATION MARCELLUS ESTIMATED DEPTH 7,600' TVD 14,300' MD
WELL OPERATOR ANTERO RESOURCES APPALACHIAN CORP. DESIGNATED AGENT CT CORPORATION SYSTEM
ADDRESS 1625 17TH STREET ADDRESS 5400 D BIG TYLER ROAD
FORM WW--6 DENVER, CO 80202 CHARLESTON, WV 25313

Revised 06/16/13 H6A

06/21/2013



west virginia department of environmental protection

Office of Oil and Gas
601 57th Street SE
Charleston, WV 25304
(304) 926-0450
(304) 926-0452 fax

Earl Ray Tomblin, Governor
Randy C. Huffman, Cabinet Secretary
www.dep.wv.gov

PERMIT MODIFICATION APPROVAL

June 19, 2013

ANTERO RESOURCES APPALACHIAN CORPORATION
1625 17TH STREET, SUITE 300
DENVER, CO 80202

Re: Permit Modification Approval for API Number 1706167 , Well #: BOWEN UNIT 2H
MODIFIED HORIZONTAL LATERAL

Oil and Gas Operator:

The Office of Oil and Gas has reviewed the attached permit modification for the above referenced permit. The attached modification has been approved and well work may begin. Please be reminded that the oil and gas inspector is to be notified twenty-four (24) hours before permitted well work is commenced.

Please call James Martin at 304-926-0499, extension 1654 if you have any questions.

Sincerely,

A handwritten signature in blue ink, appearing to read 'Gene Smith', is written over a faint, larger version of the signature.

Gene Smith

Regulatory/Compliance Manager
Office of Oil and Gas

Promoting a healthy environment.

06/21/2013