



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

December 09, 2014

ANTERO RESOURCES CORPORATION
1615 WYNKOOP STREET
DENVER, CO 80202

Re: Permit Modification Approval for API Number 1706495 , Well #: WEINHOLD UNIT 1H
Extend 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,

Gene Smith
Assistant Chief of Permitting
Office of Oil and Gas



September 22, 2014

Antero Resources
1615 Wynkoop Street
Denver, CO 80202
Office 303.357.7310
Fax 303.357.7315

West Virginia Department of Environmental Protection
Office of Oil and Gas
Attn: Ms. Laura Cooper
601 57th Street
Charleston, WV 25304

Ms. Laura Cooper:

Antero Resources Corporation (Antero) would like to submit the following permit modification for an approved well on the Melody Pad. We are requesting to extend the horizontal lateral length which will change the bottom hole location of the Weinhold Unit 1H (API# 47-017-06495).

Attached you will find the following documents:

- REVISED Form WW-6B, which shows the revised MD and Production Casing/Cement program
- REVISED Form WW-6A1, which shows the leases we will be drilling into
- REVISED Mylar Plat, which shows the new bottom hole location

If you have any questions please feel free to contact me at (303) 357-7323.

Thank you in advance for your consideration.

Sincerely,

A handwritten signature in blue ink that reads "Ashlie Steele". The signature is fluid and cursive.

Ashlie Steele
Permitting Supervisor
Antero Resources Corporation

Enclosures

Received
Office of Oil & Gas
OCT 06 2014

12/12/14

STATE OF WEST VIRGINIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION, OFFICE OF OIL AND GAS
WELL WORK PERMIT APPLICATION

1) Well Operator: Antero Resources Corporation 494488557 017-Doddridge Grant West Union 7.5'
Operator ID County District Quadrangle

2) Operator's Well Number: Weinhold Unit 1H Well Pad Name: Melody Pad

3) Farm Name/Surface Owner: Melody Brown Public Road Access: CR 24

4) Elevation, current ground: ~1165' Elevation, proposed post-construction: 1135'

5) Well Type (a) Gas Oil Underground Storage
Other

(b) If Gas Shallow Deep
Horizontal

6) Existing Pad: Yes or No No

7) Proposed Target Formation(s), Depth(s), Anticipated Thickness and Associated Pressure(s):
Marcellus Shale: 7200' TVD, Anticipated Thickness- 55 feet, Associated Pressure- 2950#

8) Proposed Total Vertical Depth: 7200' TVD

9) Formation at Total Vertical Depth: Marcellus Shale

10) Proposed Total Measured Depth: 19,000' MD

11) Proposed Horizontal Leg Length: 8903'

12) Approximate Fresh Water Strata Depths: 216', 291', 407'

13) Method to Determine Fresh Water Depths: Offset well records. Depths have been adjusted according to surface elevations.

14) Approximate Saltwater Depths: 802', 906', 1805'

15) Approximate Coal Seam Depths: 802'

16) Approximate Depth to Possible Void (coal mine, karst, other): None anticipated

17) Does Proposed well location contain coal seams directly overlying or adjacent to an active mine? Yes No

(a) If Yes, provide Mine Info: Name: _____
Depth: _____
Seam: _____
Owner: _____

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18)

CASING AND TUBING PROGRAM

<u>TYPE</u>	<u>Size</u>	<u>New or Used</u>	<u>Grade</u>	<u>Weight per ft. (lb/ft)</u>	<u>FOOTAGE: For Drilling</u>	<u>INTERVALS: Left in Well</u>	<u>CEMENT: Fill-up (Cu. Ft.)</u>
Conductor	20"	New	H-40	94#	40'	40'	CTS, 38 Cu. Ft.
Fresh Water	13-3/8"	New	J-55/H-40	54.5#/ 48#	465'	465' *see #19	CTS, 646 Cu. Ft.
Coal	9-5/8"	New	J-55	36#	2460'	2460'	CTS, 1002 Cu. Ft.
Intermediate							
Production	5-1/2"	New	P-110	20#	19000'	19000'	4829 Cu. Ft.
Tubing	2-3/8"	New	N-80	4.7#		7100'	
Liners							

<u>TYPE</u>	<u>Size</u>	<u>Wellbore Diameter</u>	<u>Wall Thickness</u>	<u>Burst Pressure</u>	<u>Cement Type</u>	<u>Cement Yield (cu. ft./k)</u>
Conductor	20"	24"	0.438"	1530	Class A	1.18
Fresh Water	13-3/8"	17-1/2"	0.38"/0.33"	2730/1730	Class A	1.18
Coal	9-5/8"	12-1/4"	0.352"	3520	Class A	1.18
Intermediate						
Production	5-1/2"	8-3/4" & 8-1/2"	0.361"	12630	Lead-H/POZ & Tail - H	H/POZ-1.44 & H-1.8
Tubing	2-3/8"	4.778"	0.19"	11200		
Liners						

PACKERS

Kind:	N/A			
Sizes:	N/A			
Depths Set:	N/A			

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19) Describe proposed well work, including the drilling and plugging back of any pilot hole:

Drill, perforate, fracture a new horizontal shallow well and complete Marcellus Shale.
*Antero will be air drilling the fresh water string which makes it difficult to determine when freshwater is encountered, therefore we have built in a buffer for the casing setting depth which helps to ensure that all fresh water zones are covered.

20) Describe fracturing/stimulating methods in detail, including anticipated max pressure and max rate:

Antero plans to pump Slickwater into the Marcellus Shale formation in order to ready the well for production. The fluid will be comprised of approximately 99 percent water and sand, with less than 1 percent special-purpose additives as shown in the attached "List of Anticipated Additives Used for Fracturing or Stimulating Well."

21) Total Area to be disturbed, including roads, stockpile area, pits, etc., (acres): 3.09 acres

22) Area to be disturbed for well pad only, less access road (acres): 3.09 acres

23) Describe centralizer placement for each casing string:

Conductor: no centralizers
Surface Casing: one centralizer 10' above the float shoe, one on the insert float collar and one every 4th joint spaced up the hole to surface.
Intermediate Casing: one centralizer above float joint, one centralizer 5' above float collar and one every 4th collar to surface.
Production Casing: one centralizer at shoe joint and one every 3 joints to top of cement in intermediate casing.

24) Describe all cement additives associated with each cement type:

Conductor: no additives, Class A cement.
Surface: Class A cement with 2-3% calcium chloride and 1/4 lb of flake
Intermediate: Class A cement with 1/4 lb of flake, 5 gallons of clay treat
Production: Lead cement- 50/50 Class H/Poz + 1.5% salt + 1% C-45 + 0.5% C-16a + 0.2% C-12 + 0.45% C-20 + 0.05% C-51
Production: Tail cement- Class H + 45 PPS Calcium Carbonate + 1.0% FL-160 + 0.2% ACGB-47 + 0.05% ACSA-51 + 0.2% ACR-20

25) Proposed borehole conditioning procedures:

Conductor: blowhole clean with air, run casing, 10 bbls fresh water.
Surface: blowhole clean with air, trip to conductor shoe, trip to bottom, blowhole clean with air, trip out, run casing, circulate pipe capacity + 40 bbls fresh water followed by 25 bbls bentonite mud, 10 bbls fresh water spacer.
Intermediate: blowhole clean with air, trip to surface casing shoe, trip to bottom, blowhole clean with air, trip out, run casing, circulate 40 bbls brine water followed by 10 bbls fresh water and 25 bbls bentonite mud, pump 10 bbls fresh water.
Production: circulate with 14 lb/gal NaCl mud, trip to middle of lateral, circulate, pump high viscosity sweep, trip to base of curve, pump high viscosity sweep, trip to top of curve, trip to bottom, circulate, pump high viscosity sweep, trip out, run casing, circulate 10 bbls fresh water, pump 48 bbls barite pill, pump 10 bbls fresh water followed by 48 bbls mud flush and 10 bbls water.

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*Note: Attach additional sheets as needed.

WW-6A1

Operator's Well Number Weinhold Unit 1H

INFORMATION SUPPLIED UNDER WEST VIRGINIA CODE
Chapter 22, Article 6A, Section 5(a)(5)
IN LIEU OF FILING LEASE(S) AND OTHER CONTINUING CONTRACT(S)

Under the oath required to make the verification on page 1 of this Notice and Application, I depose and say that I am the person who signed the Notice and Application for the Applicant, and that –

- (1) the tract of land is the same tract described in this Application, partly or wholly depicted in the accompanying plat, and described in the Construction and Reclamation Plan;
- (2) the parties and recordation data (if recorded) for lease(s) or other continuing contract(s) by which the Applicant claims the right to extract, produce or market the oil or gas are as follows:

Grantor, lessor, etc.	Grantee, lessee, etc.	Royalty	Book/Page
James Booher et ux Lease			
James Booher, et ux Dorothea Webber as executrix for the estate of Jack E. Webber, et al Aries Petroleum Corporation Chesterfield Energy Corporation Dominion Appalachian Development, Inc. DAD., DEPI & DTI, Inc.	Jack E. Webber, et ux Aries Petroleum Corporation Chesterfield Energy Corporation Dominion Appalachian Development, Inc. Dominion Appalachian Development, LLC Antero Resources Appalachian Corporation	1/8 Assignment Assignment and Agreement Certificate of Withdrawal Certificate of Conversion *Partial Assignment of Oil and Gas Leases	0093/0298 0122/0259 0134/0748 Unrecorded Document Exhibit 2 0230/0113
Antero Resources Appalachian Corporation	Antero Resources Corporation	Name Change	Exhibit 1
Carolyn E. Farr Lease			
Carolyn E. Farr Clarence W. Mutschelknaus Stonewall Gas Company Dominion Appalachian Development, Inc. DAD., DEPI & DTI, Inc.	Clarence W. Mutschelknaus Stonewall Gas Company Dominion Appalachian Development, Inc. Dominion Appalachian Development, LLC Antero Resources Appalachian Corporation	1/8 Assignment Merger Certificate of Conversion *Partial Assignment of Oil and Gas Leases	0155/0456 0157/0229 Exhibit 3 Exhibit 2 0230/0113
Antero Resources Appalachian Corporation	Antero Resources Corporation	Name Change	Exhibit 1
Blonda Smith et al Lease			
Blonda Smith Drilling Appalachian Corporation Antero Resources Appalachian Corporation	Drilling Appalachian Corporation Antero Resources Appalachian Corporation Antero Resources Corporation	1/8 Memorandum of Agreement Name Change	0163/0194 0282/0407 Exhibit 1
S. Wayne Yoho et al Lease			
S. Wayne Yoho, et ux Key Oil Company J&J Enterprises Eastern American Energy Corporation Energy Corporation of America Antero Resources Appalachian Corporation	Key Oil Company J&J Enterprises Eastern American Energy Corporation Energy Corporation of America Antero Resources Appalachian Corporation Antero Resources Corporation	1/8 Assignment Confirmatory Deed and Assignment of Leases Confirmatory Deed and Assignment of Leases *Partial Assignment of Oil and Gas Leases Name Change	0110/0183 0114/0359 0159/0139 0240/0498 0272/0307 Exhibit 1
Alma Smith Hageman et al Lease			
Alma Smith Hageman Drilling Appalachian Corporation Dominion Appalachian Development Properties, LLC Consol Gas Appalachian Development Properties, LLC Consol Gas Reserves, Inc. Consol Gas Company, et al CNX Gas Company LLC Antero Resources Appalachian Corporation	Drilling Appalachian Corporation Dominion Appalachian Development Properties, LLC Consol Gas Appalachian Development Properties, LLC Consol Gas Reserves, Inc. Consol Gas Company CNX Gas Company LLC Antero Resources Appalachian Corporation Antero Resources Corporation	1/8 Assignment and Conveyance Certificate of Amendment to the Certificate of Authority Certificate of Merger Certificate of Merger Notice of Name Changes and Mergers Memorandum of Agreement Name Change	0158/0358 0181/0667 DB 0286/0101 DB 0286/0121 DB 0286/0133 DB 0292/0469 0260/0631 Exhibit 1

*Partial Assignments to Antero Resources Corporation include 100% rights to extract, produce and market the oil and gas from the Marcellus and any other formations completed with this well.

12/12/14

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Office of Oil & Gas

WW-6A1

Operator's Well Number Weinhold Unit 1H

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- (2) the parties and recordation data (if recorded) for lease(s) or other continuing contract(s) by which the Applicant claims the right to extract, produce or market the oil or gas are as follows:

Grantor, lessor, etc.	Grantee, lessee, etc.	Royalty	Book/Page
Clinton Jameson et al Lease			
Clinton J. Jameson, et al, POA for Bessie Kasley & Ruby Spittler	HND Oil and Gas Company	1/8	0143/0488
HND Oil and Gas Company	Drilling Appalachian Corporation	Agreement	0161/0604
Drilling Appalachian Corporation	Dominion Appalachian Development Properties, LLC	Assignment and Conveyance	0181/0667
Dominion Appalachian Development Properties, LLC	Consol Gas Appalachian Development Properties, LLC	Certificate of Amendment to the Certificate of Authority	DB 0286/0101
Consol Gas Appalachian Development Properties, LLC	Consol Gas Reserves, Inc.	Certificate of Merger	DB 0286/0121
Consol Gas Reserves, Inc.	Consol Gas Company	Certificate of Merger	DB 0286/0133
Consol Gas Company, et al	CNX Gas Company LLC	Notice of Name Changes and Mergers	DB 0292/0469
CNX Gas Company LLC	Antero Resources Appalachian Corporation	Partial Term Assignment	0317/0379
Antero Resources Appalachian Corporation	Antero Resources Corporation	Name Change	Exhibit 1

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****CONTINUED ON NEXT PAGE****

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 Office of Oil & Gas
 OCT 06 2014

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**INFORMATION SUPPLIED UNDER WEST VIRGINIA CODE
Chapter 22, Article 6A, Section 5(a)(5)
IN LIEU OF FILING LEASE(S) AND OTHER CONTINUING CONTRACT(S)**

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- (2) the parties and recordation data (if recorded) for lease(s) or other continuing contract(s) by which the Applicant claims the right to extract, produce or market the oil or gas are as follows:

Lease Name or Number	Grantor, Lessor, etc.	Grantee, Lessee, etc.	Royalty	Book/Page
Flora Martin Lease	Flora E. Martin	W. H. Mossor	1/8	0090/0040
	W. H. Mossor Gene	Conrad, Inc.	Assignment	DB 0171/0061
	Gene Conrad, Inc.	Gerald W. Lauderman, DBA Lauderman Oil & Gas Drilling Company	Assignment	0100/0668
	Gerald W. Lauderman, DBA Lauderman Oil & Gas Drilling Company	C. Brooks LeMasters	Assignment	0167/0298
	C. Brooks LeMasters	Drilling Appalachian Corporation	Assignment	0167/0301
	Drilling Appalachian Corporation	Dominion Appalachian Development Properties, LLC	Assignment and Conveyance	0181/0667
	Dominion Appalachian Development Properties, LLC	Consol Gas Appalachian Development Properties, LLC	Certificate of Amendment to the	
	Consol Gas Appalachian Development Properties, LLC	Consol Gas Reserves, Inc.	Certificate of Authority	DB 0286/0101
	Consol Gas Reserves, Inc.	Consol Gas Company	Certificate of Merger	DB 0286/0121
	Consol Gas Company, et al	CNX Gas Company LLC	Certificate of Merger	DB 0286/0133
	CNX Gas Company LLC	Antero Resources Appalachian Corporation	Notice of Name Changes and Mergers	DB 0292/0469
	Antero Resources Appalachian Corporation	Antero Resources Corporation	Partial Term Assignment	0317/0379
			Name Change	Exhibit 1

*Partial Assignments to Antero Resources Corporation include 100% rights to extract, produce and market the oil and gas from the Marcellus and any other formations completed with this well.

**Acknowledgement of Possible Permitting/Approval
In Addition to the Office of Oil and Gas**

The permit applicant for the proposed well work addressed in this application hereby acknowledges the possibility of the need for permits and/or approvals from local, state, or federal entities in addition to the DEP, Office of Oil and Gas, including but not limited to the following:

- WV Division of Water and Waste Management
- WV Division of Natural Resources WV Division of Highways
- U.S. Army Corps of Engineers
- U.S. Fish and Wildlife Service
- County Floodplain Coordinator

The applicant further acknowledges that any Office of Oil and Gas permit in no way overrides, replaces, or nullifies the need for other permits/approvals that may be necessary and further affirms that all needed permits/approvals should be acquired from the appropriate authority before the affected activity is initiated.

Well Operator: Antero Resources Corporation
By: Kevin Kilstrom
Its: Vice President of Production

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Office of Oil & Gas
OCT 06 2014
Page 1 of _____

FORM WV-6A1
EXHIBIT 1

FILED

JUN 10 2013

Natalie E. Tennant,
Secretary of State
1900 Kanawha Blvd E
Bldg 1, Suite 157-K
Charleston, WV 25305



Penney Barker, Manager
IN THE OFFICE OF Corporations Division
SECRETARY OF STATE Tel: (304)558-8000
Fax: (304)558-8381
Website: www.wvsos.com
E-mail: business@wvsos.com

APPLICATION FOR
AMENDED CERTIFICATE
OF AUTHORITY

Office Hours: Monday - Friday
8:30 a.m. - 5:00 p.m. ET

FILE ONE ORIGINAL
(Two if you want a filed
stamped copy returned to you)
FEE: \$25.00

**** In accordance with the provisions of the West Virginia Code, the undersigned corporation hereby ****
applies for an Amended Certificate of Authority and submits the following statement:

- 1. Name under which the corporation was authorized to transact business in WV: Antero Resources Appalachian Corporation
- 2. Date Certificate of Authority was issued in West Virginia: 6/26/2008
- 3. Corporate name has been changed to: Antero Resources Corporation
(Attach one Certified Copy of Name Change as filed in home State of incorporation.)
- 4. Name the corporation elects to use in WV: Antero Resources Corporation
(due to home state name not being available)
- 5. Other amendments:
(attach additional pages if necessary)

6. Name and phone number of contact person. (This is optional; however, if there is a problem with the filing, listing a contact person and phone number may avoid having to return or reject the document.)

Alwyn A. Schopp (303) 367-7310
Contact Name Phone Number

7. Signature Information (See below **Important Legal Notice Regarding Signature**):

Print Name of Signer: Alwyn A. Schopp Title/Capacity: Authorized Person

Signature: *Alwyn A. Schopp* Date: June 10, 2013

Important Legal Notice Regarding Signature Per West Virginia Code §311-1-129, Penalty for signing false document. Any person who signs a document he or she knows is false in any material respect and knows that the document is to be delivered to the secretary of state for filing is guilty of a misdemeanor and, upon conviction thereof, shall be fined not more than one thousand dollars or confined in the county or regional jail not more than one year, or both.

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OCT 06 2014

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AC

State of West Virginia



Certificate

*I, Betty Ireland, Secretary of State of the
State of West Virginia, hereby certify that*

DOMINION APPALACHIAN DEVELOPMENT, INC.
(a Virginia corporation)

*filed an application for Conversion in my office as required by the provisions of the West
Virginia Code and was found to conform to law.*

Therefore, I issue this

CERTIFICATE OF CONVERSION

converting the corporation to

DOMINION APPALACHIAN DEVELOPMENT, LLC
(a Virginia Limited Liability Company)



*Given under my hand and the
Great Seal of the State of
West Virginia on*

February 23, 2006

Received
Office of Oil & Gas
Betty Ireland
OCT 06 2014

Secretary of State

12/12/14

**FORM WW-6A1
EXHIBIT 3, PAGE 1**

COMMONWEALTH OF VIRGINIA
STATE CORPORATION COMMISSION
Clerk of the Commission
P. O. Box 1197, 1300 East Main Street
Richmond, VA 23209

ARTICLES OF MERGER

DOMINION APPALACHIAN DEVELOPMENT, INC. Dan

a Virginia corporation

STONEWALL GAS COMPANY

a Virginia corporation

The undersigned corporations, pursuant to Title 13.1, Chapter 9, Article 12 of the Code of Virginia, hereby execute the following Articles of Merger and set forth:

ARTICLE I

The Plan of Merger (the "Plan") made and entered into as of the 31st day of August, 1998 by and between the undersigned corporations and attached hereto as Exhibit A provides for the merger of Stonewall Gas Company into Dominion Appalachian Development, Inc. The Plan constitutes the "Plan of Merger" for the purposes of Article 12 of the Virginia State Corporation Act.

ARTICLE II

The Plan was adopted by the written consent of the sole shareholder of Stonewall Gas Company.

ARTICLE III

The Plan was adopted by the written consent of the sole shareholder of Dominion Appalachian Development, Inc.

ARTICLE IV

These Articles of Merger shall become effective on September 30, 1998.

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Office of Oil & Gas

OCT 06 2014

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IN WITNESS WHEREOF, Dominion Appalachian Development, Inc. and Stonewall Gas Company have caused these Articles of Merger to be executed as of the 21 day of August, 1998.

DOMINION APPALACHIAN
DEVELOPMENT, INC.,
a Virginia corporation

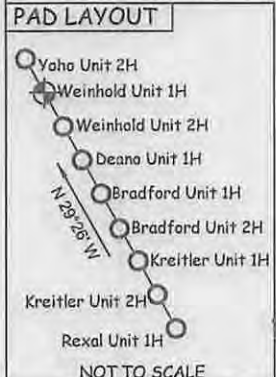
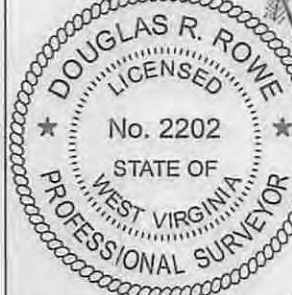
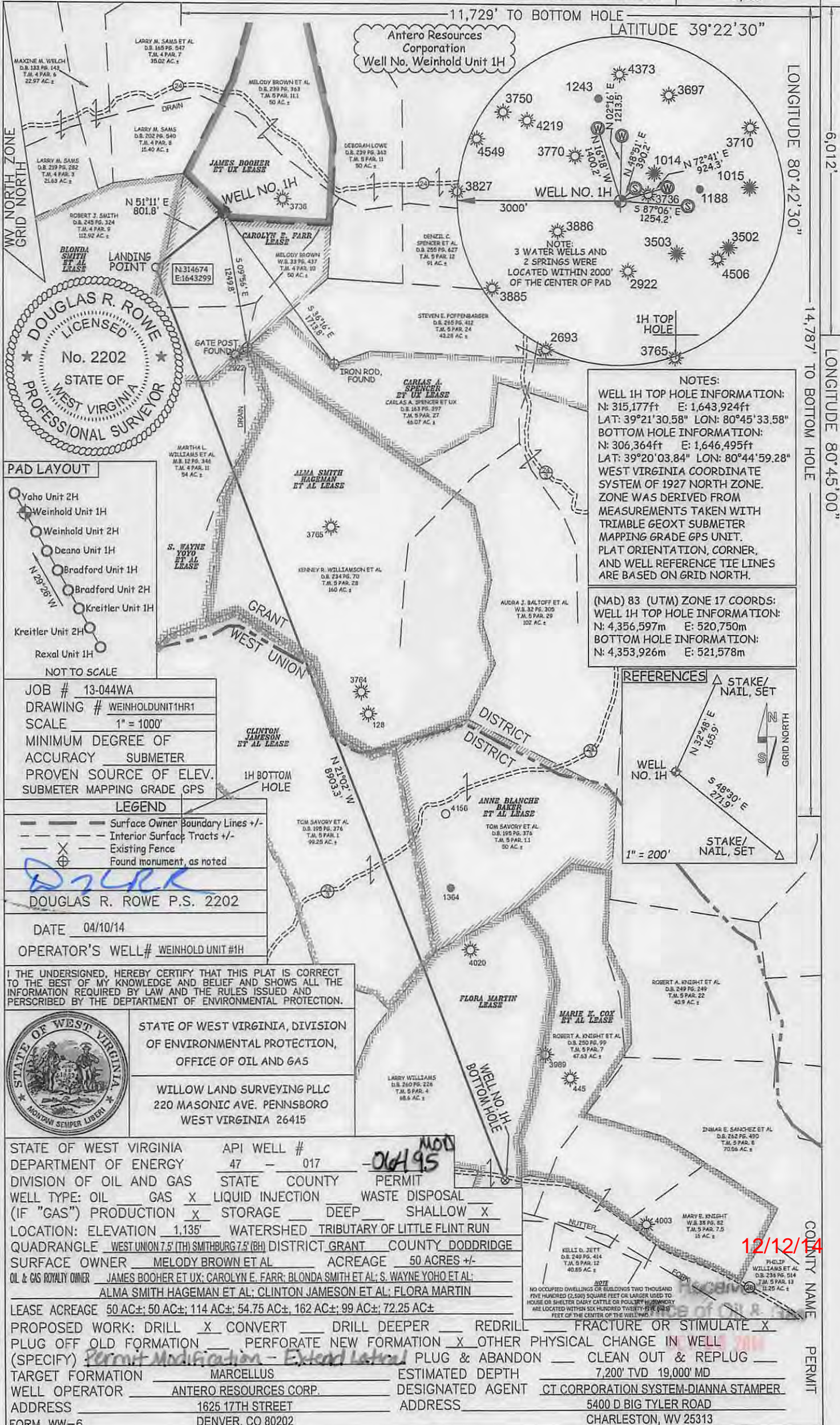
By: Thomas N. Channing
Name: Thomas N. Channing
Its: Vice Chairman

STONEWALL GAS COMPANY,
a Virginia corporation

By: G. E. Lake, Jr.
Name: G. E. Lake, Jr.
Its: Sr. Vice President

LATITUDE 39°22'30" 2,637'

LATITUDE 39°22'30"



JOB # 13-044WA
 DRAWING # WEINHOLDUNIT1HR1
 SCALE 1" = 1000'
 MINIMUM DEGREE OF ACCURACY SUBMETER
 PROVEN SOURCE OF ELEV. SUBMETER MAPPING GRADE GPS

LEGEND
 - - - Surface Owner Boundary Lines +/-
 - - - Interior Surface Tracts +/-
 X Existing Fence
 ⊕ Found monument, as noted

DOUGLAS R. ROWE P.S. 2202
 DATE 04/10/14
 OPERATOR'S WELL# WEINHOLD UNIT #1H

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

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

API WELL # 47 - 017 - 06495 MOD

WELL TYPE: OIL GAS LIQUID INJECTION WASTE DISPOSAL
 (IF "GAS") PRODUCTION STORAGE DEEP SHALLOW

LOCATION: ELEVATION 1,135' WATERSHED TRIBUTARY OF LITTLE FLINT RUN
 QUADRANGLE WEST UNION 7.5 (TH) SMITHBURG 7.5 (BH) DISTRICT GRANT COUNTY DODDRIDGE

SURFACE OWNER MELODY BROWN ET AL ACREAGE 50 ACRES +/-
 OIL & GAS ROYALTY OWNER JAMES BOOHER ET UX; CAROLYN E. FARR; BLONDA SMITH ET AL; S. WAYNE YOHO ET AL;
 ALMA SMITH HAGEMAN ET AL; CLINTON JAMESON ET AL; FLORA MARTIN

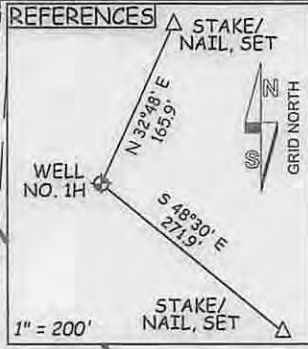
LEASE ACREAGE 50 AC±; 50 AC±; 114 AC±; 54.75 AC±; 162 AC±; 99 AC±; 72.25 AC±

PROPOSED WORK: DRILL CONVERT DRILL DEEPER REDRILL FRACTURE OR STIMULATE
 PLUG OFF OLD FORMATION PERFORATE NEW FORMATION OTHER PHYSICAL CHANGE IN WELL
 (SPECIFY) Permit Modification - Extend Leased PLUG & ABANDON CLEAN OUT & REPLUG

TARGET FORMATION MARCELLUS ESTIMATED DEPTH 7,200' TVD 19,000' MD
 WELL OPERATOR ANTERO RESOURCES CORP. DESIGNATED AGENT CT CORPORATION SYSTEM-DIANNA STAMPER
 ADDRESS 1625 17TH STREET ADDRESS 5400 D BIG TYLER ROAD
 FORM WW-6 DENVER, CO 80202 CHARLESTON, WV 25313

NOTES:
 WELL 1H TOP HOLE INFORMATION:
 N: 315,177ft E: 1,643,924ft
 LAT: 39°21'30.58" LON: 80°45'33.58"
 BOTTOM HOLE INFORMATION:
 N: 306,364ft E: 1,646,495ft
 LAT: 39°20'03.84" LON: 80°44'59.28"
 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: 4,356,597m E: 520,750m
 BOTTOM HOLE INFORMATION:
 N: 4,353,926m E: 521,578m



NOTE: NO OCCUPIED DWELLINGS OR BUILDINGS TWO THOUSAND FIVE HUNDRED (2,500) SQUARE FEET OR LARGER USED TO HOUSE OR SHELTER DAIRY CATTLE OR POULTRY IS BOUNDARY HERE LOCATED WITHIN SIX HUNDRED TWENTY-FIVE (625) FEET OF THE CENTER OF THE WELL PAD.

12/12/14

COUNTY NAME PERMIT

LATITUDE 39°22'30" 2,637'

11,729' TO BOTTOM HOLE

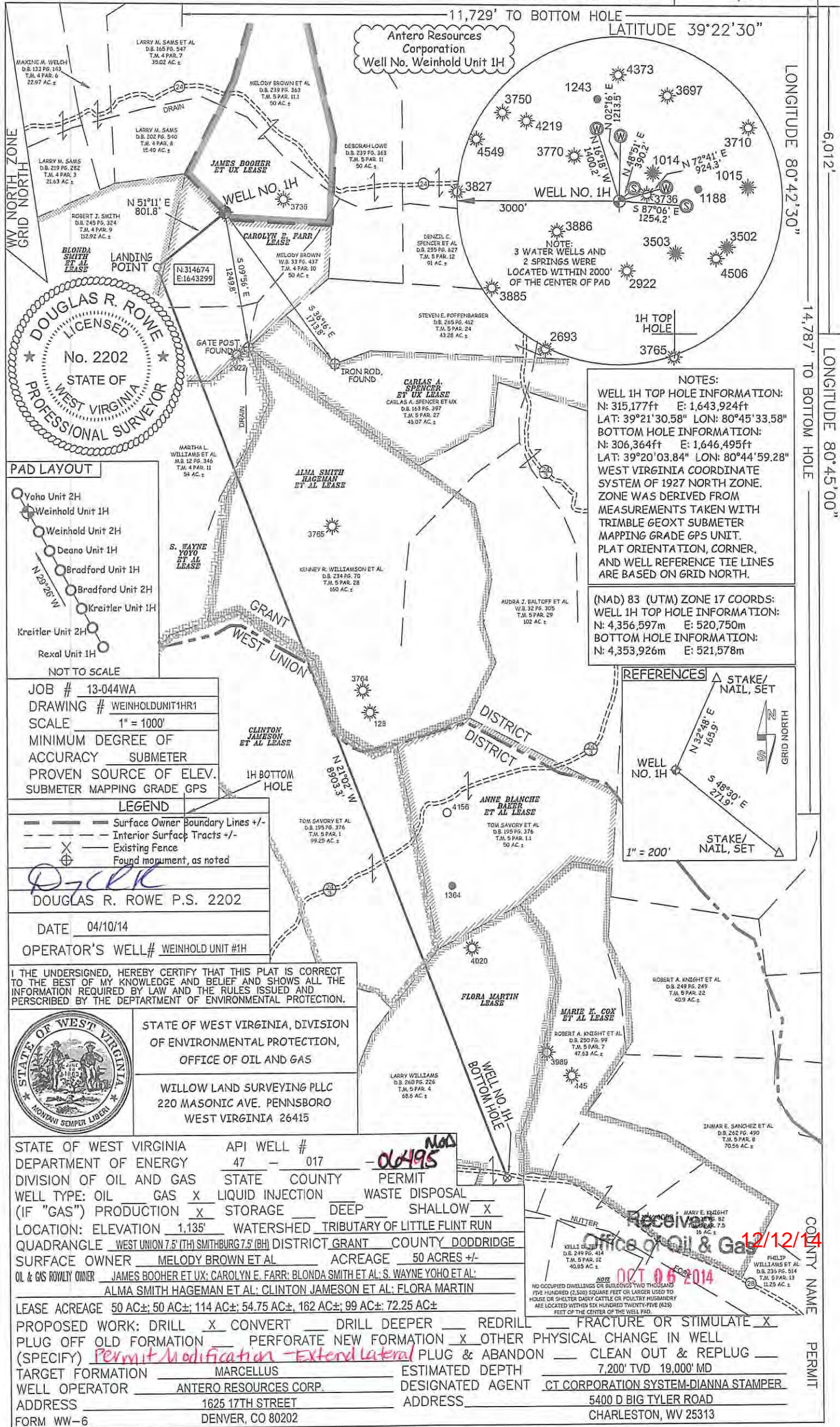
LATITUDE 39°22'30"

LONGITUDE 80°42'30"

6,012'

LONGITUDE 80°45'00"

14,787' TO BOTTOM HOLE

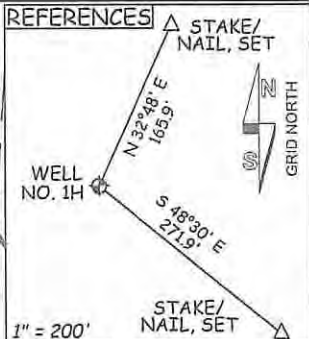


Antero Resources Corporation
Well No. Weinhold Unit 1H

DOUGLAS R. ROWE
LICENSED
No. 2202
STATE OF WEST VIRGINIA
PROFESSIONAL SURVEYOR

NOTES:
WELL 1H TOP HOLE INFORMATION:
N: 315,177ft E: 1,643,924ft
LAT: 39°21'30.58" LON: 80°45'33.58"
BOTTOM HOLE INFORMATION:
N: 306,364ft E: 1,646,495ft
LAT: 39°20'03.84" LON: 80°44'59.28"
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: 4,356,597m E: 520,750m
BOTTOM HOLE INFORMATION:
N: 4,353,926m E: 521,578m



JOB # 13-044WA
DRAWING # WEINHOLDUNIT1HR1
SCALE 1" = 1000'
MINIMUM DEGREE OF ACCURACY SUBMETER
PROVEN SOURCE OF ELEV. SUBMETER MAPPING GRADE GPS
LEGEND
--- Surface Owner Boundary Lines +/-
--- Interior Surface Tracts +/-
X Existing Fence
⊕ Found monument, as noted

DOUGLAS R. ROWE P.S. 2202

DATE 04/10/14
OPERATOR'S WELL# WEINHOLD UNIT #1H

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

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

API WELL # 47 - 017 - **06495**

WELL TYPE: OIL GAS LIQUID INJECTION WASTE DISPOSAL
(IF "GAS") PRODUCTION STORAGE DEEP SHALLOW

LOCATION: ELEVATION 1,135' WATERSHED TRIBUTARY OF LITTLE FLINT RUN
QUADRANGLE WEST UNION 7.5 (TH) SMITHBURG 7.5 (BH) DISTRICT GRANT COUNTY DODDRIDGE

SURFACE OWNER MELODY BROWN ET AL ACREAGE 50 ACRES +/-
OIL & GAS ROYALTY OWNER JAMES BOOHER ET UX; CAROLYN E. FARR; BLONDA SMITH ET AL; S. WAYNE YOHO ET AL;
ALMA SMITH HAGEMAN ET AL; CLINTON JAMESON ET AL; FLORA MARTIN

LEASE ACREAGE 50 AC±; 50 AC±; 114 AC±; 54.75 AC±; 162 AC±; 99 AC±; 72.25 AC±

PROPOSED WORK: DRILL CONVERT DRILL DEEPER REDRILL FRACTURE OR STIMULATE
PLUG OFF OLD FORMATION PERFORATE NEW FORMATION OTHER PHYSICAL CHANGE IN WELL
(SPECIFY) **Permit Modification - Extend Lateral** PLUG & ABANDON CLEAN OUT & REPLUG
TARGET FORMATION MARCELLUS ESTIMATED DEPTH 7,200' TVD 19,000' MD
WELL OPERATOR ANTERO RESOURCES CORP. DESIGNATED AGENT CT CORPORATION SYSTEM-DIANNA STAMPER
ADDRESS 1625 17TH STREET ADDRESS 5400 D BIG TYLER ROAD
FORM WW-6 DENVER, CO 80202 CHARLESTON, WV 25313

Received
Office of Oil & Gas
12/12/14
OCT 06 2014

NOTE: 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.

COUNTY NAME PERMIT