



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

May 08, 2014

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

Re: Permit Modification Approval for API Number 8510015 , Well #: CAIRO-ANNA UNIT 3HR
Changed Bottomhole Coordinates/ Well Name

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,

for Gene Smith
Regulatory/Compliance Manager
Office of Oil and Gas



Antero Resources
1625 17th Street
Denver, Colorado 80202
Office 303.357.7310
Fax 303.357.7315

April 29, 2014

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 existing Eddy Pad. We are requesting to change the bottom hole location of the Anna Unit 3H (API# 47-085-10015). In addition, we kindly request to change the well name to **Cairo-Anna Unit 3HRB** as shown on the enclosed permit modification.

Attached you will find the following documents:

- REVISED Form WW-6B, which shows the revised well name, MD and Production Casing/Cement program
- REVISED Form WW-6A1, which shows the leases we will be drilling into and revised well name
- REVISED Mylar Plat, which shows the revised well name and 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 Mihalcin".

Ashlie Mihalcin
Permit Representative
Antero Resources Corporation

Enclosures

05/09/2014

WW-6B
(9/13)

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

1) Well Operator: Antero Resources Corporation 494488557 085 - Ritchie Clay Pennsboro 7.5'
Operator ID County District Quadrangle

2) Operator's Well Number: Cairo-Anna Unit 3HRB Well Pad Name: Existing Eddy Pad

3) Farm Name/Surface Owner: Annie B. Haymond Public Road Access: WV 74 Mountain Drive

4) Elevation, current ground: 968' Elevation, proposed post-construction: 968'

5) Well Type (a) Gas Oil Underground Storage

Other

(b) If Gas Shallow Deep

Horizontal

6) Existing Pad: Yes or No Yes

7) Proposed Target Formation(s), Depth(s), Anticipated Thickness and Associated Pressure(s):
Marcellus Shale: 6500' TVD, Anticipated Thickness- 75 Feet, Associated Pressure- 2800#

8) Proposed Total Vertical Depth: 6500' TVD

9) Formation at Total Vertical Depth: Marcellus Shale

10) Proposed Total Measured Depth: 15,200' MD

11) Proposed Horizontal Leg Length: 8167'

12) Approximate Fresh Water Strata Depths: 137'

13) Method to Determine Fresh Water Depths: Blanche Unit 1H (API# 47-085-10036) on same pad.

14) Approximate Saltwater Depths: 1948'

15) Approximate Coal Seam Depths: None available

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: _____

WW-6B
(9/13)

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#	305'	305'	CTS, 424 Cu. Ft.
Coal	9-5/8"	New	J-55	36#	2480'	2480'	CTS, 1010 Cu. Ft.
Intermediate							
Production	5-1/2"	New	P-110	20#	15200'	15200'	3784 Cu. Ft.
Tubing	2-3/8"	New	N-80	4.7#		7200'	
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			

WW-6B
(9/13)

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.

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): 15.24 acres (existing)

22) Area to be disturbed for well pad only, less access road (acres): 6.6 acres (existing)

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 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.

*Note: Attach additional sheets as needed.



Addendum for Antero pads in Ritchie County, WV

Cairo-Anna Unit 1H (API# 47-085-09962)
Cairo-Anna Unit 3HRB (API# 47-085-10015)
Mulvay Unit 1H
Mulvay Unit 2H

The following outlines the process to be undertaken by Antero Resources prior to and during completion process of wells in Ritchie County.

- Investigate all wells within 1320' of new wells - for all identified Marcellus vertical wells and any existing well(s) with an interval that is less than 1500 feet from the deepest formation drilled (including, but not specific to the Alexander formation) to the top of Marcellus:
 - Contact operator of all wells
 - Confirm well status, producing horizon, well completion/stimulation information
 - Discuss plans to stimulate the horizontal Marcellus wells and the plans for monitoring potential impact on shallow wells
 - Make sure all vertical wells (with an interval that is less than 1500 feet from the deepest formation drilled to the top of Marcellus) have adequate wellhead equipment, including pressure gauges
 - Provide shallow well operator with frac dates and develop plan for monitoring during stimulation
 - If well waters out during frac, shut it in until after stimulation, and install adequate well control equipment prior to swabbing in the impacted shallow well
- Control fracturing parameters during job to limit fracture height growth
 - Limit rate and limit pressures for each segment of fracturing stages
- Tracers demonstrate that we rarely reach offset wells at 660' offset
 - Will use tracers at each lateral

AFFIDAVIT OF PUBLICATION

**PROOF OF CLASS II LEGAL ADVERTISEMENT,
PURSUANT TO WV CODE SECTION 22-6A-10(e)**

STATE OF WEST VIRGINIA,
COUNTY OF RITCHIE, to-wit:

I, Denise J. Duellley, being first duly sworn upon my oath, do depose and say that I am a member of Ritchie Gazette Publishing Limited Liability Company, publisher of the newspaper entitled **RITCHIE GAZETTE AND THE CAIRO STANDARD**, a Republican newspaper; that I have been duly authorized by the members of such company to execute this affidavit of publication; that such newspaper has been published for more than one year prior to publication of the annexed notice described below; that such newspaper is regularly published weekly, for at least fifty weeks during the calendar year, in the Municipality of Harrisville, Ritchie County, West Virginia; that such newspaper is a newspaper of "general circulation," as that term defined in article three, chapter fifty-nine of the Code of West Virginia, 1931, as amended, within the publication area or areas of the aforesaid municipality, county, and state; that such newspaper averages in length four or more pages, exclusive of any cover, per issue; that such newspaper is circulated to the general public at a definite price or consideration; that such newspaper is a newspaper to which the general public resorts for passing events of a political, religious, commercial and social nature, and for the current happenings, announcements, miscellaneous reading materials, advertisements, and other notices; that the annexed notice of:

GAS WELL PERMIT
(CIR 2) (CAIRO-ANNA 3HRB)

was duly published two weeks beginning with the **16TH DAY OF APRIL, 2014**, issue, and ending with the **23RD DAY OF APRIL, 2014**, issue, and that the cost of publishing said annexed notice was **\$92.98**.

Denise J. Duellley

Publisher, Ritchie Gazette & The Cairo Standard

Taken, subscribed and sworn to before me in my said county this 25th day of April, 2014.

Melissa A. Shaffer

Notary Public of Ritchie County, West Virginia

My commission expires Aug. 23, 2015.



**PUBLIC NOTICE OF APPLICATION FOR
NATURAL GAS HORIZONTAL WELL
DRILLING PERMIT**, pursuant to West Virginia
Code Section 22-6A-10(e).

Antero Resources Corporation, 1625 17th Street, Denver, CO 80202, is applying for a permit for a natural gas horizontal well, Cairo-Anna Unit 3HRB, located at approximately UTM NAO 83 Easting 506889.44m, UTM NAD 83 Northing 4353848.12m in North Fork Hughes River Watershed, Pennsboro Quadrangle, Clay District, Ritchie County, WV which disturbs three acres or more of surface excluding pipelines, gathering lines and roads or utilizes more than two hundred ten thousand gallons of water in any thirty day period. To convert the coordinates above into longitude and latitude, visit: http://agis.dep.wv.gov/convert/utm_convus.php. To receive an email when applications have been received or issued by the Office of Oil and Gas, visit <http://www.dep.wv.gov/insidedep/Pages/DEPMailingLists.aspx> to sign up.

Any interested person may submit written comments or request a copy of the proposed permit application. Regardless of format for comment submissions, they must be received no later than thirty days after the permit application is received by the Office of Oil and Gas.

Comments may be submitted online at <https://apps.dep.wv.gov/oog/comments/comments.cfm>, or by letter to Permit Review, Office of Oil and Gas, 601 57th Street, SE Charleston, WV 25304. Emailed or written comments must reference the county, well number, and operator and be received within 30 days of the date of the last publication. Copies of the proposed permit application may be reviewed at the WV Department of Environmental Protection headquarters, located at 601 57th Street, SE, Charleston, WV 25304 (304-926-0450). Full copies or scans of the proposed permit application will cost \$15.00, whether mailed or obtained at DEP headquarters.

For information related to horizontal drilling, and all horizontal well applications filed in this state, visit: www.dep.wv.gov/oil-and-gas/Horizontal-Permits/Pages/default.aspx

Antero Resources Corporation
c4/16-23

PERMIT MODIFICATION - NAME CHANGE

STATE OF WEST VIRGINIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION, OFFICE OF OIL AND GAS
VOLUNTARY STATEMENT OF NO OBJECTION

Instructions to Persons Named on Page WW-6A

The well operator named on page WW-6A is applying for a permit from the State of West Virginia to conduct oil or gas well work. Well work permits are valid for twenty-four (24) months. Please contact the listed well operator and the Office of Oil and Gas if you do not own any interest in the listed surface tract.

Comment and Waiver Provisions

Pursuant to West Virginia Code § 22-6A-11(a), all persons described in subsection (b), section ten of this article may file written comments with the secretary as to the location or construction of the applicant's proposed well work within thirty days after the application is filed with the secretary.

Pursuant to West Virginia Code § 22-6A-8(b) No permit may be issued less than thirty days after the filing date of the application for any well work except plugging or replugging; and no permit for plugging or replugging may be issued less than five days after the filing date of the application except a permit for plugging or replugging a dry hole: *Provided*, That if the applicant certifies that all persons entitled to notice of the application under the provisions of subsection (b), section ten of this article have been served in person or by certified mail, return receipt requested, with a copy of the well work application, including the erosion and sediment control plan, if required, and the well plat, and further files written statements of no objection by all such persons, the secretary may issue the well work permit at any time.

VOLUNTARY STATEMENT OF NO OBJECTION

I, MARGARET R. LANDRUM hereby state that I have read the Instructions to Persons Named on Page WW-6A and the associated provisions listed above, and that I have received copies of a Notice of Application, an Application for a Well Work Permit on Form WW-6A and attachments consisting of pages one (1) through _____, including the erosion and sediment control plan, if required, and the well plat, all for proposed well work on the tract of land as follows:

State:	<u>West Virginia</u>	UTM NAD 83	Easting:	<u>506,902m</u>
County:	<u>Ritchie</u>		Northing:	<u>4,353,857m</u>
District:	<u>Clay</u>	Public Road Access:	<u>WV 74 Mountain Drive</u>	
Quadrangle:	<u>Pennsboro 7.5'</u>	Generally used farm name:	<u>Landrum, Eddy F.</u>	
Watershed:	<u>North Fork Hughes River</u>			

I further state that I have no objection to the planned work described in these materials, and I have no objection to a permit being issued on those materials.

<p>*Please check the box that applies</p> <p><input type="checkbox"/> SURFACE OWNER</p> <p><input type="checkbox"/> SURFACE OWNER (Road and/or Other Disturbance)</p> <p><input type="checkbox"/> SURFACE OWNER (Impoundments/Pits)</p> <p><input type="checkbox"/> COAL OWNER OR LESSEE</p> <p><input type="checkbox"/> COAL OPERATOR</p> <p><input checked="" type="checkbox"/> WATER PURVEYOR</p> <p><input type="checkbox"/> OPERATOR OF ANY NATURAL GAS STORAGE FIELD</p>	<p>FOR EXECUTION BY A NATURAL PERSON</p> <p>Signature: <u>Margaret R. Landrum</u> Print Name: <u>MARGARET R. LANDRUM</u> Date: <u>MAY 7, 2014</u></p> <p>FOR EXECUTION BY A CORPORATION, ETC.</p> <p>Company: _____ By: _____ Its: _____</p> <p>Signature: _____ Date: _____</p>
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Oil and Gas Privacy Notice:

The Office of Oil and Gas processes your personal information, such as name, address and telephone number, as part of our regulatory duties. Your personal information may be disclosed to other State agencies or third parties in the normal course of business or as needed to comply with statutory or regulatory requirements, including Freedom of Information Act requests. Our office will appropriately secure your personal information. If you have any questions about our use or your personal information, please contact DEP's Chief Privacy Officer at depprivacyofficer@wv.gov.

PERMIT MODIFICATION - NAME CHANGE

STATE OF WEST VIRGINIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION, OFFICE OF OIL AND GAS
VOLUNTARY STATEMENT OF NO OBJECTION

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VOLUNTARY STATEMENT OF NO OBJECTION

I, EDDY LANDRUM, hereby state that I have read the Instructions to Persons Named on Page WW-6A and the associated provisions listed above, and that I have received copies of a Notice of Application, an Application for a Well Work Permit on Form WW-6A and attachments consisting of pages one (1) through _____, including the erosion and sediment control plan, if required, and the well plat, all for proposed well work on the tract of land as follows:

State:	<u>West Virginia</u>	UTM NAD 83	Easting:	<u>506,902m</u>
County:	<u>Ritchie</u>		Northing:	<u>4,353,857m</u>
District:	<u>Clay</u>	Public Road Access:	<u>WV 74 Mountain Drive</u>	
Quadrangle:	<u>Pennsboro 7.5'</u>	Generally used farm name:	<u>Landrum, Eddy F.</u>	
Watershed:	<u>North Fork Hughes River</u>			

I further state that I have no objection to the planned work described in these materials, and I have no objection to a permit being issued on those materials.

<p>*Please check the box that applies</p> <p><input checked="" type="checkbox"/> SURFACE OWNER</p> <p><input type="checkbox"/> SURFACE OWNER (Road and/or Other Disturbance)</p> <p><input type="checkbox"/> SURFACE OWNER (Impoundments/Pits)</p> <p><input type="checkbox"/> COAL OWNER OR LESSEE</p> <p><input type="checkbox"/> COAL OPERATOR</p> <p><input type="checkbox"/> WATER PURVEYOR</p> <p><input type="checkbox"/> OPERATOR OF ANY NATURAL GAS STORAGE FIELD</p>	<p>FOR EXECUTION BY A NATURAL PERSON</p> <p>Signature: <u></u></p> <p>Print Name: <u>EDDY F. LANDRUM</u></p> <p>Date: <u>JUNE 14</u></p> <p>FOR EXECUTION BY A CORPORATION, ETC.</p> <p>Company: _____</p> <p>By: _____</p> <p>Its: _____</p> <p>Signature: _____</p> <p>Date: _____</p>
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Oil and Gas Privacy Notice:

The Office of Oil and Gas processes your personal information, such as name, address and telephone number, as part of our regulatory duties. Your personal information may be disclosed to other State agencies or third parties in the normal course of business or as needed to comply with statutory or regulatory requirements, including Freedom of Information Act requests. Our office will appropriately secure your personal information. If you have any questions about our use or your personal information, please contact DEP's Chief Privacy Officer at denprivacvofficer@wv.gov.

May 5, 2014



Margaret Landrum
233 Burton Run Road
Pennsboro, WV 26415

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

VIA CERTIFIED MAIL

RE: **PERMIT MODIFICATION – NAME CHANGE**
Anna Unit 3H (API# 47-085-10015)
Quadrangle: Pennsboro 7.5'
Ritchie County/Clay District, West Virginia

Dear Surface Owner of Water Well:

You have been identified as the Surface Owner of a Water Well within 1500 feet of an existing oil and/or gas well located on an adjacent surface tract owned by Eddy F. Landrum (Annie B. Haymond Life Estate) (Tax Map 14, Parcel 5). Antero Resources Corporation (Antero) currently has an approved permit to drill the above named well, and has submitted a permit modification to the West Virginia Department of Environmental Protection Office of Oil & Gas requesting to change the name of the Anna Unit 3H well. By this letter you are being notified that the new well name is proposed to be **Cairo-Anna Unit 3HRB**. The surface hole location and API number will stay the same as originally permitted on January 21st, 2013 and subsequently modified on February 28, 2013.

Included with this notice we have attached for your review copies of the following information:

- Form WW-6AW – Voluntary Statement of No Objection
- Form WW-6A – Notice of Application showing the new well name
- Survey Plat showing the existing permitted location of the proposed well and the new well name

Should you have any questions or concerns about the proposed well name change, please contact the Secretary of the Department of Environmental Protection, Attn: Horizontal Well Permit Section, at 601 57th Street SE, Charleston, WV 25304. If you have no comments regarding Antero's permit modification, we kindly request that you sign and return the attached Form WW-6AW - Voluntary Statement of No Objection enclosed herein. Any additional information regarding the proposed horizontal well may be obtained from the WVDEP Office of Oil & Gas website at <http://www.dep.wv.gov/oil-and-gas/Horizontal-Permits/Pages/default.aspx>.

Sincerely,

Ashlie Mihalein
Permit Representative

Enclosures

05/09/2014

Instructions

1. Each Click-N-Ship® label is unique. Labels are to be used as printed and used only once. DO NOT PHOTO COPY OR ALTER LABEL.
2. Place your label so it does not wrap around the edge of the package.
3. Adhere your label to the package. A self-adhesive label is recommended. If tape or glue is used, DO NOT TAPE OVER BARCODE. Be sure all edges are secure.
4. To mail your package with PC Postage®, you may schedule a Package Pickup online, hand to your letter carrier, take to a Post Office™, or drop in a USPS collection box.
5. Mail your package on the "Ship Date" you selected when creating this label.
6. For information on insurance claims, click on "My Account" at the top of any Click-N-Ship web page and then the "How to File a Claim" link.

Click-N-Ship® Label Record

Signature Confirmation™ / Insurance Number:
9407 8036 9930 0008 0906 05

Trans. #:	297997009	Priority Mail® Postage:	\$5.05
Print Date:	05/05/2014	Insurance Fee:	\$0.00
Ship Date:	05/05/2014	Signature Confirmation:	\$2.35
Expected		(Electronic Rate)	
Delivery Date:	05/07/2014	Total:	\$7.40
Insured Value:	\$15.00		

From: LISA BOTTINELLI
ANTERO RESOURCES
1625 17TH ST
DENVER CO 80202-5986

To: MARGARET LANDRUM
233 BURTON RUN RD
PENNSBORO WV 26415-6210

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POSTAL SERVICE

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05/09/2014

May 5, 2014



Annie B. Haymond (Life Estate)
& Eddy F. Landrum
4884 Mountain Drive
Pensboro, WV 26415

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

VIA CERTIFIED MAIL

RE: PERMIT MODIFICATION – NAME CHANGE
Anna Unit 3H (API# 47-085-10015)
Quadrangle: Pensboro 7.5'
Ritchie County/Clay District, West Virginia

Dear Surface Owner:

You have been identified as the Surface Owner of a tract on which Antero Resources Corporation (Antero) currently has an approved permit to drill the above named oil and/or gas well. Antero has submitted a permit modification to the West Virginia Department of Environmental Protection Office of Oil & Gas requesting to change the name of the Anna Unit 3H well. By this letter you are being notified that the new well name is proposed to be **Cairo-Anna Unit 3HRB**. The surface hole location and API number will stay the same as originally permitted on January 21st, 2013 and subsequently modified on February 28, 2013.

Included with this notice we have attached for your review copies of the following information:

- Form WW-6AW – Voluntary Statement of No Objection
- Form WW-6A – Notice of Application showing the new well name
- Survey Plat showing the existing permitted location of the proposed well and the new well name

Should you have any questions or concerns about the proposed well name change, please contact the Secretary of the Department of Environmental Protection, Attn: Horizontal Well Permit Section, at 601 57th Street SE, Charleston, WV 25304. If you have no comments regarding Antero's permit modification, we kindly request that you sign and return the attached Form WW-6AW - Voluntary Statement of No Objection enclosed herein. Any additional information regarding the proposed horizontal well may be obtained from the WVDEP Office of Oil & Gas website at <http://www.dep.wv.gov/oil-and-gas/Horizontal-Permits/Pages/default.aspx>.

Sincerely,

A handwritten signature in cursive script that reads "Ashlie Mihalcin".

Ashlie Mihalcin
Permit Representative

Enclosures

05/09/2014

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4. To mail your package with PC Postage®, you may schedule a Package Pickup online, hand to your letter carrier, take to a Post Office™, or drop in a USPS collection box.
5. Mail your package on the "Ship Date" you selected when creating this label.
6. For information on insurance claims, click on "My Account" at the top of any Click-N-Ship web page and then the "How to File a Claim" link.

Click-N-Ship® Label Record

Signature Confirmation™ / Insurance Number:
9407 8036 9930 0008 0906 12

Trans. #:	297997009	Priority Mail® Postage:	\$5.05
Print Date:	05/05/2014	Insurance Fee:	\$0.00
Ship Date:	05/05/2014	Signature Confirmation:	\$2.35
Expected		(Electronic Rate)	
Delivery Date:	05/07/2014	Total:	\$7.40
Insured Value:	\$15.00		

From: LISA BOTTINELLI
ANTERO RESOURCES
1625 17TH ST
DENVER CO 80202-5986

To: ANNIE B. HAYMOND (LIFE ESTATE) & EDDY F.
LANDRUM
4884 MOUNTAIN DR
PENNSBORO WV 26415-6184

* Commercial Base Pricing Priority Mail rates apply. There is no fee for USPS Tracking™ service on Priority Mail service with use of this electronic rate shipping label. Refunds for unused postage paid labels can be requested online 30 days from the print date.



UNITED STATES
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05/09/2014



May 5, 2014

Annie B. Haymond (Life Estate)
& Eddy F. Landrum
365 Burton Run Road ✓
Pennsboro, WV 26415

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

VIA CERTIFIED MAIL

RE: PERMIT MODIFICATION – NAME CHANGE

Anna Unit 3H (API# 47-085-10015)
Quadrangle: Pennsboro 7.5'
Ritchie County/Clay District, West Virginia

Dear Surface Owner:

You have been identified as the Surface Owner of a tract on which Antero Resources Corporation (Antero) currently has an approved permit to drill the above named oil and/or gas well. Antero has submitted a permit modification to the West Virginia Department of Environmental Protection Office of Oil & Gas requesting to change the name of the Anna Unit 3H well. By this letter you are being notified that the new well name is proposed to be **Cairo-Anna Unit 3HRB**. The surface hole location and API number will stay the same as originally permitted on January 21st, 2013 and subsequently modified on February 28, 2013.

Included with this notice we have attached for your review copies of the following information:

- Form WW-6AW – Voluntary Statement of No Objection
- Form WW-6A – Notice of Application showing the new well name
- Survey Plat showing the existing permitted location of the proposed well and the new well name

Should you have any questions or concerns about the proposed well name change, please contact the Secretary of the Department of Environmental Protection, Attn: Horizontal Well Permit Section, at 601 57th Street SE, Charleston, WV 25304. If you have no comments regarding Antero's permit modification, we kindly request that you sign and return the attached Form WW-6AW - Voluntary Statement of No Objection enclosed herein. Any additional information regarding the proposed horizontal well may be obtained from the WVDEP Office of Oil & Gas website at <http://www.dep.wv.gov/oil-and-gas/Horizontal-Permits/Pages/default.aspx>.

Sincerely,

Ashlie Mihalein
Permit Representative

Enclosures

05/09/2014

Instructions

1. Each Click-N-Ship® label is unique. Labels are to be used as printed and used only once. **DO NOT PHOTO COPY OR ALTER LABEL.**
2. Place your label so it does not wrap around the edge of the package.
3. Adhere your label to the package. A self-adhesive label is recommended. If tape or glue is used, **DO NOT TAPE OVER BARCODE.** Be sure all edges are secure.
4. To mail your package with PC Postage®, you may schedule a Package Pickup online, hand to your letter carrier, take to a Post Office™, or drop in a USPS collection box.
5. Mail your package on the "Ship Date" you selected when creating this label.
6. For information on insurance claims, click on "My Account" at the top of any Click-N-Ship web page and then the "How to File a Claim" link.

Click-N-Ship® Label Record

Signature Confirmation™ / Insurance Number:
9407 8036 9930 0008 0906 36

Trans. #:	297997009	Priority Mail® Postage:	\$5.05
Print Date:	05/05/2014	Insurance Fee:	\$0.00
Ship Date:	05/05/2014	Signature Confirmation:	\$2.35
Expected		(Electronic Rate)	
Delivery Date:	05/07/2014	Total:	\$7.40
Insured Value:	\$15.00		

From: LISA BOTTINELLI
ANTERO RESOURCES
1625 17TH ST
DENVER CO 80202-5986

To: ANNIE B. HAYMOND (LIFE ESTATE) & EDDY F.
LANDRUM
365 BURTON RUN RD
PENNSBORO WV 26415-6209 ✓

* Commercial Base Pricing Priority Mail rates apply. There is no fee for USPS Tracking™ service on Priority Mail service with use of this electronic rate shipping label. Refunds for unused postage paid labels can be requested online 30 days from the print date.



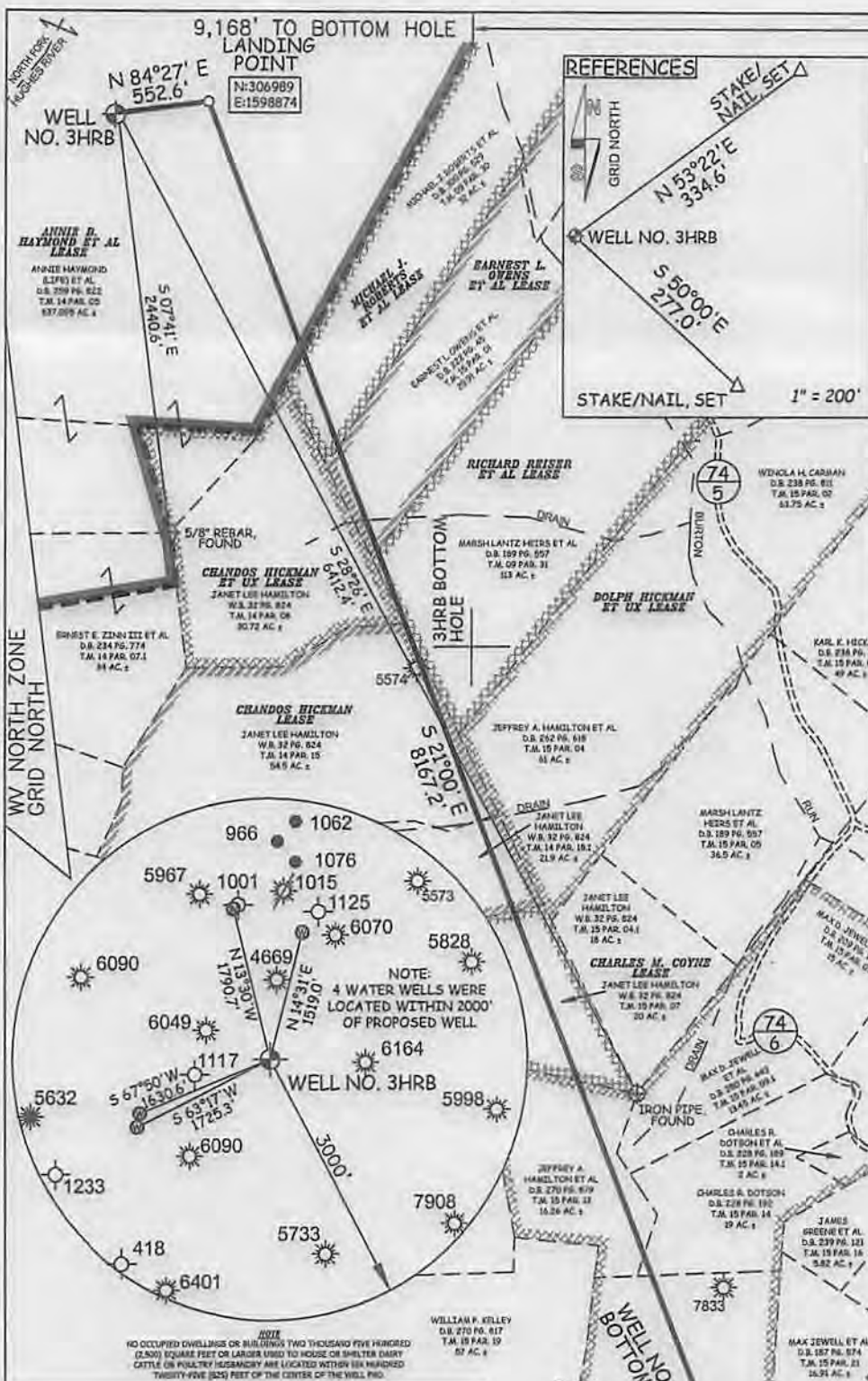
Thank you for shipping with the United States Postal Service!
Check the status of your shipment on the USPS Tracking™ page at usps.com

05/09/2014

LATITUDE 39°20'00"
Antero Resources Corporation
 Well No. Cairo-Anna Unit 3HRB

NOTES:
 WELL 3HRB TOP HOLE INFORMATION:
 N: 306,936ft E: 1,598,324ft
 LAT: 39°20'02.41" LON: 80°55'12.40"
 BOTTOM HOLE INFORMATION:
 N: 299,364ft E: 1,601,801ft
 LAT: 39°18'48.13" LON: 80°54'26.65"
 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.

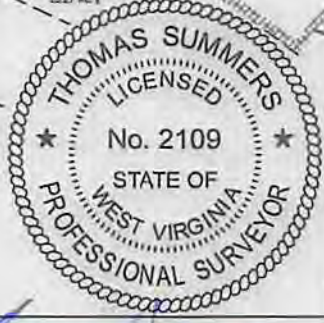
(NAD) 83 (UTM) ZONE 17 COORDS:
 WELL 3HRB TOP HOLE INFORMATION:
 N: 4,353,854m E: 506,900m
 BOTTOM HOLE INFORMATION:
 N: 4,351,565m E: 507,997m



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 (EXCEPT AS LOCATED WITHIN ONE HUNDRED TWENTY-FIVE (25) FEET OF THE CENTER OF THE WELL PAD.

LEGEND

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



JOB # 12-127WA
 DRAWING # CAIRO-ANNA3HRB
 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 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
 266 HUSHERS RUN RD PENNSBORO WEST VIRGINIA 26415

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

WELL TYPE: OIL GAS LIQUID INJECTION WASTE DISPOSAL (IF "GAS") PRODUCTION STORAGE DEEP SHALLOW
 LOCATION: ELEVATION 968' WATERSHED NORTH FORK HUGHES RIVER

QUADRANGLE PENNSBORO 7.5 DISTRICT CLAY COUNTY RITCHIE

SURFACE OWNER ANNIE B. HAYMOND, ET AL ACREAGE 637.095 ACRES +/-

OIL & GAS ROYALTY OWNER ANNIE B. HAYMOND, ET AL; MICHAEL J. ROBERTS ET AL; EARNEST L. OWENS ET AL; RICHARD REISER ET AL; CHANDOS HICKMAN ET UX; CHANDOS HICKMAN; CHARLES M. COYNE; CHARLES U. COSTILOW ET UX LEASE ACREAGE 700 ACRES +/- 34,538 ACRES +/- 0.5 ACRES +/- 113 ACRES +/- 35 ACRES +/- 75.5 ACRES +/- 18.5 ACRES +/- 200 ACRES +/-

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 - Name & 3HR PLUG & ABANDON CLEAN OUT & REPLUG

TARGET FORMATION MARCELLUS ESTIMATED DEPTH 6,500' TVD 15,200' MD

WELL OPERATOR ANTERO RESOURCES CORP. DESIGNATED AGENT DIANNA STAMPER
 ADDRESS 1625 17TH STREET ADDRESS 5400 D BIG TYLER ROAD
 DENVER, CO 80202 CHARLESTON, WV 25313

05/09/2014

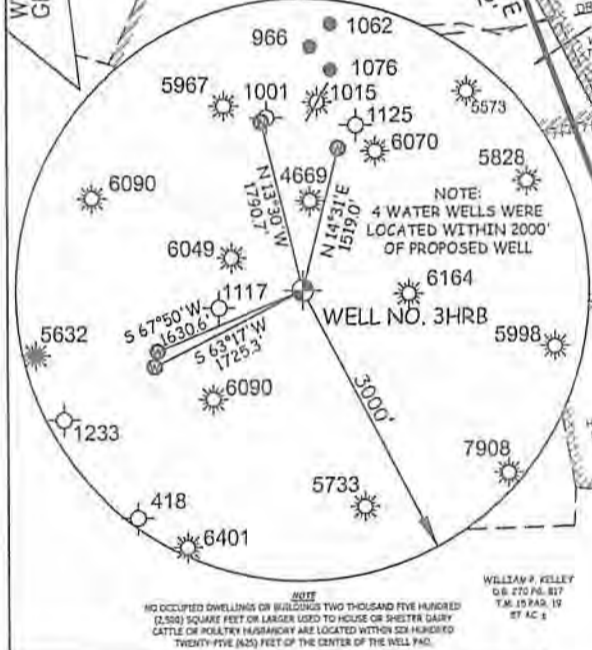
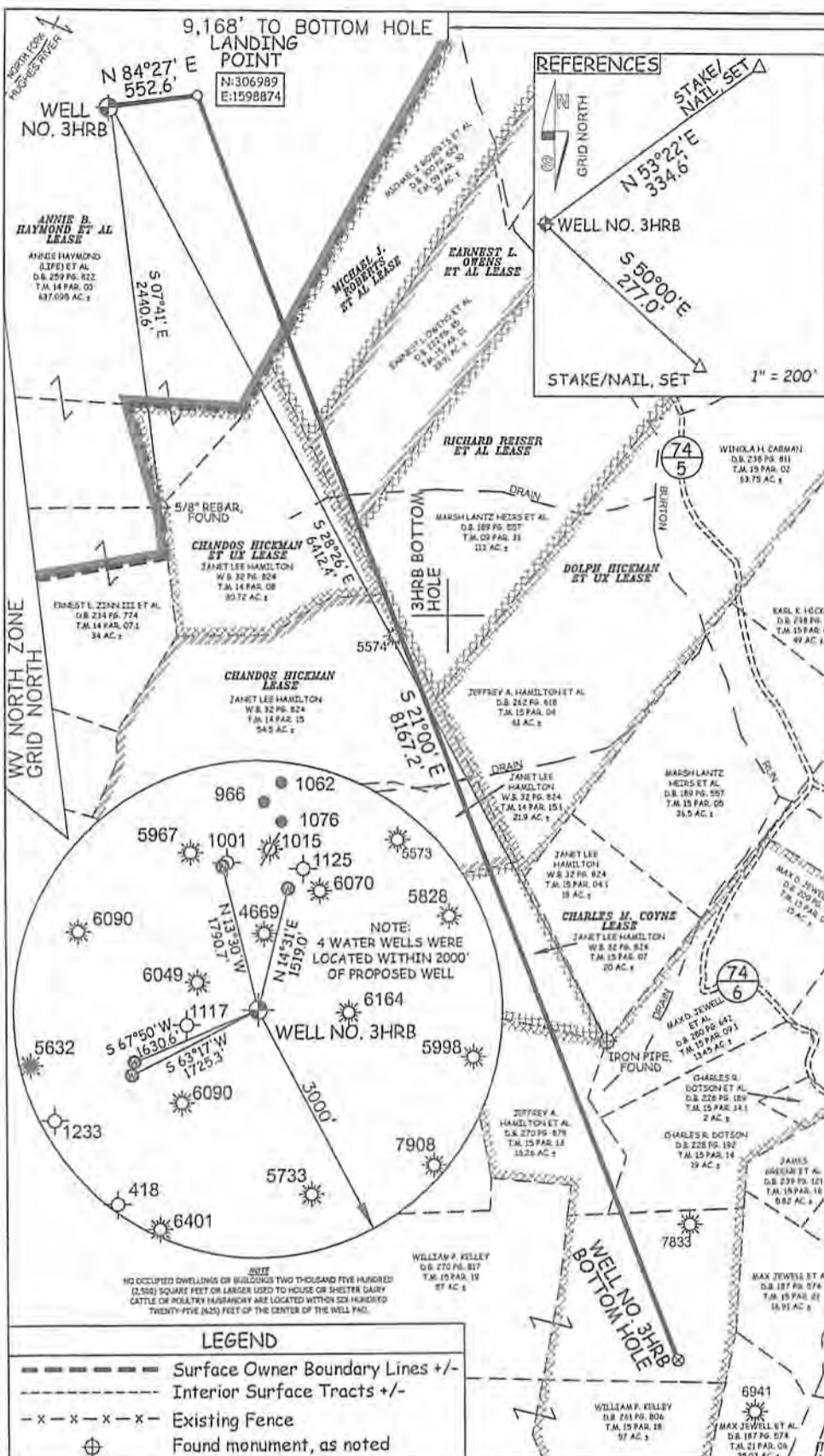
THOMAS SUMMERS P.S. 2109
 DATE 04/29/14
 OPERATOR'S WELL# CAIRO-ANNA UNIT #3HRB
 API WELL # 47 - 085 - 10015
 STATE COUNTY PERMIT

COUNTY RITCHIE

LATITUDE 39°20'00"
Antero Resources Corporation
 Well No. Cairo-Anna Unit 3HRB

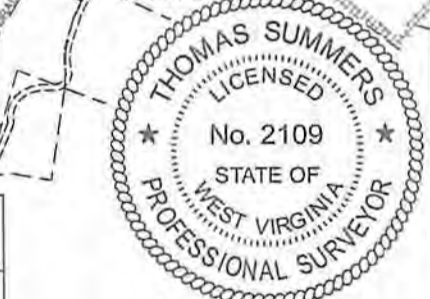
NOTES:
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(NAD) 83 (UTM) ZONE 17 COORDS:
 WELL 3HRB TOP HOLE INFORMATION:
 N: 4,353,854m E: 506,900m
 BOTTOM HOLE INFORMATION:
 N: 4,351,565m E: 507,997m



NO OCCUPIED DWELLINGS OR BUILDINGS TWO THOUSAND FIVE HUNDRED (2,500) SQUARE FEET OR LARGER USED TO HOUSE OR SHELTER CARRY CATTLE OR HOLSTEIN HUSBANDRY ARE LOCATED WITHIN 224 HUNDRED TWENTY-FIVE (225) FEET OF THE CENTER OF THE WELL PAD.

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



JOB # 12-127WA	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	THOMAS SUMMERS P.S. 2109
DRAWING # CAIRO-ANNA3HRB			
SCALE 1" = 1000'	STATE OF WEST VIRGINIA DEPARTMENT OF ENERGY DIVISION OF OIL AND GAS	WILLOW LAND SURVEYING PLLC 266 HUSHERS RUN RD PENNSBORO WEST VIRGINIA 26415	DATE 04/29/14
MINIMUM DEGREE OF ACCURACY SUBMETER			OPERATOR'S WELL# CAIRO-ANNA UNIT #3HRB
PROVEN SOURCE OF ELEV. SUBMETER MAPPING GRADE GPS	STATE OF WEST VIRGINIA DEPARTMENT OF ENERGY DIVISION OF OIL AND GAS	WILLOW LAND SURVEYING PLLC 266 HUSHERS RUN RD PENNSBORO WEST VIRGINIA 26415	API WELL # 47-085-10015
STATE OF WEST VIRGINIA DEPARTMENT OF ENERGY DIVISION OF OIL AND GAS			STATE COUNTY PERMIT
WELL TYPE: OIL GAS X LIQUID INJECTION WASTE DISPOSAL (IF "GAS") PRODUCTION X STORAGE DEEP SHALLOW X	QUADRANGLE PENNSBORO 7.5' DISTRICT CLAY COUNTY RITCHIE	ACREAGE 637.095 ACRES +/-	COUNTY RITCHIE
LOCATION: ELEVATION 968' WATERSHED NORTH FORK HUGHES RIVER			
SURFACE OWNER ANNIE B. HAYMOND, ET AL	OIL & GAS ROYALTY OWNER ANNIE B. HAYMOND, ET AL; MICHAEL J. ROBERTS, ET AL; EARNEST L. OWENS, ET AL; RICHARD REISER, ET AL; CHANDOS HICKMAN, ET UX; CHANDOS HICKMAN, CHARLES M. COYNE; CHARLES U. COSTILOW, ET UX	LEASE ACREAGE 700 ACRES+; 34,638 ACRES+; 113 ACRES+; 35 ACRES+; 75.5 ACRES+; 18.5 ACRES+; 200 ACRES+	NAME PERMIT
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 - Name & BHL PLUG & ABANDON CLEAN OUT & REPLUG			
TARGET FORMATION MARCELLUS ESTIMATED DEPTH 6,500' TVD 15,200' MD	WELL OPERATOR ANTERO RESOURCES CORP. ADDRESS 1625 17TH STREET DENVER, CO 80202	DESIGNATED AGENT DIANNA STAMPER CT CORPORATION SYSTEM ADDRESS 5400 D BIG TYLER ROAD CHARLESTON, WV 25313	PERMIT
WELL OPERATOR ANTERO RESOURCES CORP. ADDRESS 1625 17TH STREET DENVER, CO 80202			

05/09/2014

WW-6A1
(5/13)

Operator's Well No. Cairo-Anna Unit 3HRB

**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:

Lease Name or Number	Grantor, Lessor, etc.	Grantee, Lessee, etc.	Royalty	Book/Page
<u>Charles U. Costilow et ux Lease</u>	Charles U. Costilow, et ux Trio Petroleum Corporation Waco Holding Company Waco Oil & Gas Company Antero Resources Appalachian Corporation	Trio Petroleum Corporation Waco Holding Company Waco Oil & Gas Company Antero Resources Appalachian Corporation Antero Resources Corporation	1/8 Articles of Incorporation Articles of Incorporation Assignment Name Change	0194/0724 AOI 0059/0386 AOI 0059/0395 0261/0446 Exhibit 1

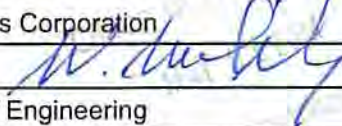
*Partial Assignments to Antero Resources Corporation include 100% rights to extract, produce and market the oil and gas from the Marcellus and any other formations completed with this well.

**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: Ward McNeilly 
 Its: Vice President of Engineering

WW-6A1

Operator's Well Number Cairo-Anna Unit 3HRB

INFORMATION SUPPLIED UNDER WEST VIRGINIA CODE
Chapter 22, Article 6A, Section 5(a)(5)
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Grantor, lessor, etc.	Grantee, lessee, etc.	Royalty	Book/Page
<u>Annie B. Haymond et al Lease</u>			
Annie B. Haymond, et ux Antero Resources Appalachian Corporation	Antero Resources Appalachian Corporation Antero Resources Corporation	1/8+ Name Change	0253/1066 Exhibit 1
<u>Michael J. Roberts et al Lease</u>			
Michael J. Roberts, et ux Antero Resources Appalachian Corporation	Antero Resources Appalachian Corporation Antero Resources Corporation	1/8+ Name Change	0260/0820 Exhibit 1
<u>Ernest L. Owens et al Lease</u>			
Ernest L. Owens, et ux Antero Resources Appalachian Corporation	Antero Resources Appalachian Corporation Antero Resources Corporation	1/8+ Name Change	0261/0500 Exhibit 1
<u>Richard Reiser et al Lease</u>			
Richard Rleser, et ux Dolphin Petroleum, Inc. Appalachian Energy Reserves, Inc. Appalachian Energy Development, Inc. Triad Energy Corporation Triad Hunter, LLC	Dolphin Petroleum, Inc. Appalachian Energy Reserves, Inc. Appalachian Energy Development, Inc. Triad Energy Corporation Triad Hunter, LLC Antero Resources Corporation	1/8 Assignment of Oil and Gas Leases Assignment of Oil and Gas Leases Assignment of Oil and Gas Leases Assignment, Bill of Sale *Partial Term Assignment of Oil and Gas Leases	0205/0081 0205/0375 0229/0100 0229/0108 0250/0196 0270/0270
<u>Chandos Hickman et ux Lease</u>			
Chandos Hickman, et ux Sheldon and Sheldon, Inc. J & J Enterprises, Inc. Eastern American Energy Corporation Energy Corporation of America Antero Resources Appalachian Corporation	Sheldon and Sheldon, Inc. J & J Enterprises, Inc. Eastern American Energy Corporation Energy Corporation of America Antero Resources Appalachian Corporation Antero Resources Corporation	1/8 Assignment Assignment Confirmatory Deed Assignment Name Change	0138/0130 0138/0222 DB 0231/0732 DB 0306/0836 0257/0377 Exhibit 1
<u>Chandos Hickman Lease</u>			
Chandos Hickman, et ux Sheldon and Sheldon, Inc. J & J Enterprises, Inc. Eastern American Energy Corporation Energy Corporation of America Antero Resources Appalachian Corporation	Sheldon and Sheldon, Inc. J & J Enterprises, Inc. Eastern American Energy Corporation Energy Corporation of America Antero Resources Appalachian Corporation Antero Resources Corporation	1/8 Assignment Assignment Confirmatory Deed Assignment Name Change	0138/0122 0138/0222 DB 0231/0732 DB 0306/0836 0257/0377 Exhibit 1
<u>Dolph Hickman et ux Lease</u>			
Dolph Hickman, et ux Sheldon and Sheldon, Inc. J & J Enterprises, Inc. Eastern American Energy Corporation Energy Corporation of America Antero Resources Appalachian Corporation	Sheldon and Sheldon, Inc. J & J Enterprises, Inc. Eastern American Energy Corporation Energy Corporation of America Antero Resources Appalachian Corporation Antero Resources Corporation	1/8 Assignment Assignment Certificate of Merger *Partial Assignment of Oil and Gas Leases Name Change	0138/0124 0138/0222 0231/0732 Corp. Bk. 0006/0450 0257/0377 Exhibit 1
<u>Charles M. Coyne Lease</u>			
Charles Michael Coyne	Antero Resources Corporation	1/8+	0326/0128

*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.

CONTINUED ON NEXT PAGE

05/09/2014

FORM WW-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
Corporations Division
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:

- Name under which the corporation was authorized to transact business in WV: Antero Resources Appalachian Corporation
- Date Certificate of Authority was issued in West Virginia: 6/25/2008
- Corporate name has been changed to: Antero Resources Corporation
(Attach one Certified Copy of Name Change as filed in home State of incorporation.)
- Name the corporation elects to use in WV: Antero Resources Corporation
(due to home state name not being available)
- Other amendments: _____
(attach additional pages if necessary)
- 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) 357-7310
Contact Name Phone Number
- Signature information (See below *Important Legal Notice Regarding Signature):
Print Name of Signer: Alwyn A. Schopp Title/Capacity: Authorized Person
Signature: [Handwritten Signature] Date: June 10, 2013

***Important Legal Notice Regarding Signature:** For West Virginia Code §31D-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.

Hankins, Melanie S

From: Ashlie Mihalcin <amihalcin@anteroresources.com>
Sent: Thursday, May 08, 2014 12:31 PM
To: Hankins, Melanie S
Subject: RE: Permit Application for Mulvay Unit 1H (API 8510105)
Attachments: Cairo-Anna Unit 3HRB_Signed MOD Waivers (Landrum).pdf

Hi Melanie,

For the Cairo-Anna Unit 3HRB modification, we received signed waivers from the surface and water well owner. They have waived the 30 day comment period. Please note that (unfortunately) Annie Haymond passed away last week, so the surface property is solely owned by Eddy Landrum.

Is it possible to get the permit modification approved by next week?

Thanks!

Ashlie

From: Hankins, Melanie S [<mailto:Melanie.S.Hankins@wv.gov>]
Sent: Tuesday, May 06, 2014 11:00 AM
To: Ashlie Mihalcin
Subject: RE: Permit Application for Mulvay Unit 1H (API 8510105)

Hi

Ashlie,
For
Thanks for the letters and mail receipts. The legal ad we have is dated April 16th & 23rd 2014. This ad will suffice, and doesn't need to be republished. As for the comment period, Any time there is a public notice we are required to allow a 30 day period for comments. Sorry, and thanks for the quick turnaround.

Melanie S. Hankins

Environmental Technician
West Virginia Department of Environmental Protection
Office of Oil & Gas
601 57th St. SE
Charleston, WV 25304
(304) 926-0499 ext. 1649
(304) 926-0452 fax
Melanie.S.Hankins@wv.gov



From: Ashlie Mihalcin [<mailto:amihalcin@anteroresources.com>]
Sent: Tuesday, May 06, 2014 12:25 PM

To: Hankins, Melanie S; Dani DeVito (ddevito@proactiveserviceswv.com); Terry Wyckoff
Subject: RE: Permit Application for Mulvay Unit 1H (API 8510105)

Hi Melanie,

I apologize for the error, as I inserted an old legal ad in the permit application. I will have the updated legal ad affidavit emailed to you tomorrow. Thank you!

Ashlie

Ashlie Mihalcin

Permit Representative

Antero Resources Corporation

We've Moved! Please note the new address:

1615 Wynkoop Street

Denver, CO 80202

Office: (303) 357-7323

Cell: (303) 945-0577

NOTICE This message contains confidential information and is intended only for the individual named. If you are not the named addressee you should not disseminate, distribute or copy this e-mail. Please notify the sender immediately by e-mail if you have received this e-mail by mistake and delete this e-mail from your system. If you are not the intended recipient you are notified that disclosing, copying, distributing or taking any action in reliance on the contents of this information is strictly prohibited.

From: Hankins, Melanie S [<mailto:Melanie.S.Hankins@wv.gov>]

Sent: Monday, May 05, 2014 6:43 AM

To: Dani DeVito (ddevito@proactiveserviceswv.com); Terry Wyckoff; Ashlie Mihalcin

Subject: Permit Application for Mulvay Unit 1H (API 8510105)

Ms. Mihalcin,

The Permit Application for the Mulvay Unit 1H (API 8510105) was received by the Office of Oil & Gas on May 1st. The legal ad (public notice) is dated over 7 months ago. It is our policy that the legal ad should be published within 6 months of application. The legal ad will need to be republished and a new WW-PN and copy of the ad submitted. If you have any questions please let me know.

Thank you,

Melanie S. Hankins

Environmental Technician

West Virginia Department of Environmental Protection

Office of Oil & Gas

601 57th St. SE

Charleston, WV 25304

(304) 926-0499 ext. 1649

(304) 926-0452 fax

Melanie.S.Hankins@wv.gov



Hankins, Melanie S

From: Ashlie Mihalcin <amihalcin@anteroresources.com>
Sent: Monday, May 05, 2014 4:40 PM
To: Hankins, Melanie S
Cc: Smith, Gene C
Subject: RE: Name Change Request for Anna Unit 1H (8509962) and 3H (8510015)

Ok great! I will get the notices sent out today and send you copies of the letters/receipts. Thanks again!

Ashlie

From: Hankins, Melanie S [<mailto:Melanie.S.Hankins@wv.gov>]
Sent: Monday, May 05, 2014 2:09 PM
To: Ashlie Mihalcin
Cc: Smith, Gene C
Subject: RE: Name Change Request for Anna Unit 1H (8509962) and 3H (8510015)

Ashlie,

That will work for the public notice, but we'll also need a letter sent to anyone who was noticed under the original permit application (surface owners, mineral owners, water purveyors, coal, etc.). This can be just a letter explaining that the well name is being changed from Anna Unit 3H to Cairo-Anna Unit 3HRB. This will need to be sent Certified Mail, with copies of the letter and receipts sent to be a part of the application. This should take care of notice for not only the public, but any "interested parties".

Thanks,

Melanie S. Hankins

Environmental Technician
West Virginia Department of Environmental Protection
Office of Oil & Gas
601 57th St. SE
Charleston, WV 25304
(304) 926-0499 ext. 1649
(304) 926-0452 fax
Melanie.S.Hankins@wv.gov



From: Ashlie Mihalcin [<mailto:amihalcin@anteroresources.com>]
Sent: Monday, May 05, 2014 3:51 PM
To: Hankins, Melanie S
Cc: Smith, Gene C; Nottingham, Justin E
Subject: RE: Name Change Request for Anna Unit 1H (8509962) and 3H (8510015)

Thanks Melanie!

For the Anna Unit 3H, we actually did re-run a legal ad in April with the new name - Cairo-Anna Unit 3HRB (see attached affidavit). Will you be able to utilize this to make the change via modification since the public was notified? This would really help me out because both the 1H and 3HRB will be drilled in the same unit, so I need to figure out how to make sure they have similar names.

Thanks again!

Ashlie

Ashlie Mihalcin

Permit Representative

Antero Resources Corporation

We've Moved! Please note the new address:

1615 Wynkoop Street

Denver, CO 80202

Office: (303) 357-7323

Cell: (303) 945-0577

From: Hankins, Melanie S [<mailto:Melanie.S.Hankins@wv.gov>]

Sent: Monday, May 05, 2014 1:34 PM

To: Ashlie Mihalcin

Cc: Smith, Gene C; Nottingham, Justin E

Subject: Name Change Request for Anna Unit 1H (8509962) and 3H (8510015)

A:
Ashlie,

I just spoke with Gene Smith, Assistant Chief of the Permitting Section, about the name change requests for Anna Unit 1H (8509962) and 3H (8510015). We will be able to honor the request for the Anna Unit 1H since this is included in a request for a new permit and included public notices. However, the request for a name change for the Anna Unit 3H cannot be granted under a modification of the existing permit since there is no public notice requirement. The well names are the most commonly used identifier of the public and landowners when they call with questions or concerns, so changing the name of a well without public notice can cause confusion. For this reason we cannot change the well name without public notice. I hope this clarifies the situation. If you have any further questions please let me know. You may also contact Gene Smith at extension 1652 or by email at Gene.C.Smith@wv.gov.

Thank you,

Melanie S. Hankins

Environmental Technician

West Virginia Department of Environmental Protection

Office of Oil & Gas

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(304) 926-0499 ext. 1649

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