



---

west virginia department of environmental protection

---

Office of Oil and Gas  
601 57<sup>th</sup> Street, S.E.  
Charleston, WV 25304  
(304) 926-0450  
fax: (304) 926-0452

Harold D. Ward, Cabinet Secretary  
[www.dep.wv.gov](http://www.dep.wv.gov)

Wednesday, June 22, 2022  
WELL WORK PLUGGING PERMIT  
Horizontal 6A Plugging

ANTERO RESOURCES CORPORATION  
1615 WYNKOOP STREET  
DENVER, CO 80202

Re: Permit approval for ERWIN UNIT 2H  
47-017-06077-00-00

This well work permit is evidence of permission granted to perform the specified well work at the location described on the attached pages and located on the attached plat, subject to the provisions of Chapter 22 of the West Virginia Code of 1931, as amended, and all rules and regulations promulgated thereunder, and to any additional specific conditions and provisions outlined in the pages attached hereto. Notification shall be given by the operator to the Oil and Gas Inspector at least 24 hours prior to the construction of roads, locations, and/or pits for any permitted work. In addition, the well operator shall notify the same inspector 24 hours before any actual well work is commenced and prior to running and cementing casing. Spills or emergency discharges must be promptly reported by the operator to 1-800-642-3074 and to the Oil and Gas Inspector.

Upon completion of the plugging well work, the above named operator will reclaim the site according to the provisions of WV Code 22-6-30. Please be advised that form WR-38, Affidavit of Plugging and Filling Well, is to be submitted to this office within 90 days of completion of permitted well work, as should form WR-34 Discharge Monitoring Report within 30 days of discharge of pits, if applicable. Failure to abide by all statutory and regulatory provisions governing all duties and operations hereunder may result in suspension or revocation of this permit and, in addition, may result in civil and/or criminal penalties being imposed upon the operators.

Per 35 CSR 4-5.2.g this permit will expire in two (2) years from the issue date unless permitted well work is commenced. If there are any questions, please feel free to contact me at (304) 926- 0450.

  
James A. Martin  
Chief

Operator's Well Number: ERWIN UNIT 2H  
Farm Name: ERWIN, JOHN F.  
U.S. WELL NUMBER: 47-017-06077-00-00  
Horizontal 6A Plugging  
Date Issued: 6/22/2022

Promoting a healthy environment.

06/24/2022

## PERMIT CONDITIONS

West Virginia Code § 22-6-11 allows the Office of Oil and Gas to place specific conditions upon this permit. Permit conditions have the same effect as law. Failure to adhere to the specified permit conditions may result in enforcement action.

---

### CONDITIONS

---

1. All pits must be lined with a minimum of 20 mil thickness synthetic liner.
2. In the event of an accident or explosion causing loss of life or serious personal injury in or about the well or while working on the well, the well operator or its contractor shall give notice, stating the particulars of the accident or explosion, to the oil and gas inspector and the Chief within twenty-four (24) hours.
3. Well work activities shall not constitute a hazard to the safety of persons.

4701706077P

WW-4B  
Rev. 2/01

- 1) Date May 17, 2022
- 2) Operator's  
Well No. Erwin Unit 2H
- 3) API Well No. 47-017 - 0077

STATE OF WEST VIRGINIA  
DEPARTMENT OF ENVIRONMENTAL PROTECTION  
OFFICE OF OIL AND GAS

APPLICATION FOR A PERMIT TO PLUG AND ABANDON

- 4) Well Type: Oil \_\_\_ / Gas x / Liquid injection \_\_\_ / Waste disposal \_\_\_ /  
(If "Gas, Production \_\_\_ or Underground storage \_\_\_) Deep \_\_\_ / Shallowx
  
- 5) Location: Elevation 1226' Watershed Headwaters Middle Island Creek  
District New Milton County Doddridge Quadrangle New Milton 7.5'
  
- 6) Well Operator Antero Resources Corporation 7) Designated Agent CT Corporation System - Dianna Stamper  
Address 1615 Wynkoop Street Address 5400 D Big Tyler Road  
Denver, CO 80202 Charleston, WV 25313
  
- 8) Oil and Gas Inspector to be notified 9) Plugging Contractor  
Name Sam Ward Name N/A - Antero will plug well  
Address 601 57th Street SE Address \_\_\_\_\_  
Charleston, WV 25304

- 10) Work Order: The work order for the manner of plugging this well is as follows:  
**\*Please See Attached Work Order**

RECEIVED  
Office of Oil and Gas  
  
JUN 13 2022  
  
WV Department of  
Environmental Protection

Notification must be given to the district oil and gas inspector 24 hours before permitted work can commence.

Work order approved by inspector  Date 6/7/2022

06/24/2022

4701706077P

**Erwin Unit 2H**  
**Doddridge County, WV**  
API #47-017-06077



**Antero Resources**  
1615 Wynkoop St.  
Denver, CO 80202  
Office: 303.357.7310  
Fax: 303.357.7315

**Objective:** Plug and Abandon Conductor

**Well Design:**

- 20" OD Conductor, ID 19.124" @ 40' (24" hole) – Cemented to Surface

**Oil and Gas Zones:**

1. N/A

**Procedure:**

1. Notify WV DEP 24 hours prior to commencing work.
2. Hold JSA Pre Job Meeting.
3. MIRU cement services. Mix and pump Class A cement plug to surface.
  - a. 40' conductor- approximately 70 sacks @ yield of 1.15 ft<sup>3</sup>/sk
4. Install Monument Marker with API #47-017-06077

SDW  
6/7/2022

RECEIVED  
Office of Oil and Gas

JUN 13 2022

WV Department of  
Environmental Protection

06/24/2022

WR-35  
Rev. 8/23/13

State of West Virginia  
Department of Environmental Protection - Office of Oil and Gas  
Well Operator's Report of Well Work

API 47 - 017 - 06077 County Doddridge District New Milton  
Quad New Milton 7.5' Pad Name Erwin Hilltop Pad Field/Pool Name ----  
Farm name Sandra E Erwin Well Number Erwin Unit 2H  
Operator (as registered with the OOG) Antero Resources Corporation  
Address 1615 Wynkoop Street City Denver State CO Zip 80202

As Drilled location NAD 83/UTM Attach an as-drilled plat, profile view, and deviation survey  
Top hole Northing 4336599.24m Easting 525142.23m  
Landing Point of Curve Northing ----- Easting -----  
Bottom Hole Northing ----- Easting -----

Elevation (ft) 1226' GL Type of Well  New  Existing Type of Report  Interim  Final  
Permit Type  Deviated  Horizontal  Horizontal 6A  Vertical Depth Type  Deep  Shallow  
Type of Operation  Convert  Deepen  Drill  Plug Back  Redrilling  Rework  Stimulate  
Well Type  Brine Disposal  CBM  Gas  Oil  Secondary Recovery  Solution Mining  Storage  Other -----  
Type of Completion  Single  Multiple Fluids Produced  Brine  Gas  NGL  Oil  Other -----  
Drilled with  Cable  Rotary

Drilling Media Surface hole  Air  Mud  Fresh Water Intermediate hole  Air  Mud  Fresh Water  Brine  
Production hole  Air  Mud  Fresh Water  Brine

Mud Type(s) and Additive(s)  
Air - Foam & 4% KCL  
Mud - Polymer

RECEIVED  
Office of Oil and Gas  
JUN 13 2022

WV Department of  
Environmental Protection  
6/16/2012

Date permit issued 6/4/2012 Date drilling commenced 6/16/2012 Date drilling ceased 6/16/2012  
Date completion activities began N/A Date completion activities ceased N/A  
Verbal plugging (Y/N) N/A Date permission granted N/A Granted by N/A

Please note: Operator is required to submit a plugging application within 5 days of verbal permission to plug

Freshwater depth(s) ft None Identified Open mine(s) (Y/N) depths No  
Salt water depth(s) ft None Identified Void(s) encountered (Y/N) depths No  
Coal depth(s) ft None Identified Cavern(s) encountered (Y/N) depths No  
Is coal being mined in area (Y/N) No

Reviewed by:  
\_\_\_\_\_

06/24/2022

WR-35  
Rev. 8/23/13

API 47-017 - 06077 Farm name Sandra E Erwin Well number Erwin Unit 2H

CASING STRINGS	Hole Size	Casing Size	Depth	New or Used	Grade w/ft	Basket Depth(s)	Did cement circulate (Y/N) * Provide details below*
Conductor	24"	20"	40'	New	94#, H-40	N/A	Y
Surface	17-1/2"	13-3/8"		New	54.5#, J-55	N/A	Y
Coal							
Intermediate 1	12-1/4"	9-5/8"		New	36#, J-55	N/A	Y
Intermediate 2							
Intermediate 3							
Production	8-3/4"/8-1/2"	5-1/2"		New	23#, HCP-110	N/A	Y
Tubing		2-3/8"			4.7#, P-110		
Packer type and depth set		N/A					

Comment Details \_\_\_\_\_

CEMENT DATA	Class/Type of Cement	Number of Sacks	Slurry wt (ppg)	Yield (ft <sup>3</sup> /sks)	Volume (ft <sup>3</sup> )	Cement Top (MD)	WOC (hrs)
Conductor	Class A	sx	15.6	1.18		0'	8 Hrs.
Surface	Class A	sx	15.6	1.20		0'	8 Hrs.
Coal							
Intermediate 1	Class A	sx	15.6	1.19		0'	8 Hrs.
Intermediate 2							
Intermediate 3							
Production	Class H	sx (Lead) sx (Tail)	14.1 (Lead), 16.17 (Tail)	1.4 (Lead), 1.6 (Tail)		-500' into Intermediate Casing	8 Hrs.
Tubing							

Drillers TD (ft) 40' Loggers TD (ft) \_\_\_\_\_  
 Deepest formation penetrated N/A Plug back to (ft) N/A  
 Plug back procedure N/A

Kick off depth (ft) \_\_\_\_\_

\*\* This is a subsequent Well. Antero only runs wireline logs on one well on a multi-well pad (Bill Unit 3H API#47-085-10257). A Cement Bond Log has been included with this submittal.

Check all wireline logs run  caliper  density  deviated/directional  induction  
 neutron  resistivity  gamma ray  temperature  sonic

Well cored  Yes  No Conventional Sidewall Were cuttings collected  Yes  No

DESCRIBE THE CENTRALIZER PLACEMENT USED FOR EACH CASING STRING \_\_\_\_\_  
Conductor - 0

WAS WELL COMPLETED AS SHOT HOLE  Yes  No DETAILS \_\_\_\_\_

RECEIVED  
Office of Oil and Gas

WAS WELL COMPLETED OPEN HOLE?  Yes  No DETAILS \_\_\_\_\_

JUN 13 2022

WERE TRACERS USED  Yes  No TYPE OF TRACER(S) USED N/A

WV Department of  
Environmental Protection



WR-35  
Rev. 8/23/13

API 47- 017 - 06077

Farm name Sandra E Erwin

Well number Erwin Unit 2H

PRODUCING FORMATION(S)	DEPTHS	
	TVD	MD

Please insert additional pages as applicable.

GAS TEST  Build up  Drawdown  Open Flow OIL TEST  Flow  Pump

SHUT-IN PRESSURE Surface \_\_\_\_\_ psi Bottom Hole \_\_\_\_\_ psi DURATION OF TEST \_\_\_\_\_ hrs

OPEN FLOW Gas \_\_\_\_\_ mcfpd Oil \_\_\_\_\_ bpd NGL \_\_\_\_\_ bpd Water \_\_\_\_\_ bpd GAS MEASURED BY  Estimated  Orifice  Pilot

LITHOLOGY/ FORMATION	TOP	BOTTOM	TOP	BOTTOM	DESCRIBE ROCK TYPE AND RECORD QUANTITY AND TYPE OF FLUID (FRESHWATER, BRINE, OIL, GAS, H <sub>2</sub> S, ETC)
	DEPTH IN FT NAME TVD	DEPTH IN FT TVD	DEPTH IN FT MD	DEPTH IN FT MD	

**\*PLEASE SEE ATTACHED EXHIBIT 3**

*DID NOT DRILL*


Please insert additional pages as applicable.

Drilling Contractor Frontier Drilling LLC  
Address 562 Spring Run Road City Pennsboro State WV Zip 26415

Logging Company \_\_\_\_\_  
Address \_\_\_\_\_ City \_\_\_\_\_ State \_\_\_\_\_ Zip \_\_\_\_\_

Cementing Company Schlumberger Oilfield Services  
Address 300 Schlumberger Dr City Sugarland State TX Zip 77478

Stimulating Company \_\_\_\_\_  
Address \_\_\_\_\_ City \_\_\_\_\_ State \_\_\_\_\_ Zip \_\_\_\_\_

Please insert additional pages as applicable.

Completed by Mallory Stanton Telephone 303-357-7310  
Signature *Mallory Stanton* Title Permitting Manager Date 5/17/2022

Submission of Hydraulic Fracturing Chemical Disclosure Information Attach copy of FRACFOCUS Registry

RECEIVED  
Office of Oil and Gas  
JUN 13 2022  
*06/24/2022*  
WV Department of  
Environmental Protection



WW-4A  
Revised 6-07

1) Date: 5/17/2022  
2) Operator's Well Number  
Erwin Unit 2H  
3) API Well No.: 47 - 017 - 06077

**STATE OF WEST VIRGINIA**  
**DEPARTMENT OF ENVIRONMENTAL PROTECTION, OFFICE OF OIL AND GAS**  
**NOTICE OF APPLICATION TO PLUG AND ABANDON A WELL**

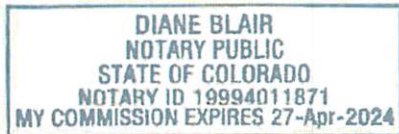
4) Surface Owner(s) to be served:	5) (a) Coal Operator
(a) Name <u>PLEASE SEE ATTACHMENT</u>	Name _____
Address _____	Address _____
(b) Name <u>PLEASE SEE ATTACHMENT</u>	(b) Coal Owner(s) with Declaration
Address _____	Name _____
(c) Name <u>PLEASE SEE ATTACHMENT</u>	Address _____
Address _____	Name _____
6) Inspector <u>Sam Ward</u>	(c) Coal Lessee with Declaration
Address <u>601 57th Street SE</u>	Name _____
<u>Charleston, WV 25304</u>	Address _____
Telephone <u>304 575-0109</u>	

**TO THE PERSONS NAMED ABOVE:** You should have received this Form and the following documents:

- (1) The application to Plug and Abandon a Well on Form WW-4B, which sets out the parties involved in the work and describes the well its and the plugging work order; and
- (2) The plat (surveyor's map) showing the well location on Form WW-6.

The reason you received these documents is that you have rights regarding the application which are summarized in the instructions on the reverses side. However, you are not required to take any action at all.

Take notice that under Chapter 22-6 of the West Virginia Code, the undersigned well operator proposes to file or has filed this Notice and Application and accompanying documents for a permit to plug and abandon a well with the Chief of the Office of Oil and Gas, West Virginia Department of Environmental Protection, with respect to the well at the location described on the attached Application and depicted on the attached Form WW-6. Copies of this Notice, the Application, and the plat have been mailed by registered or certified mail or delivered by hand to the person(s) named above (or by publication in certain circumstances) on or before the day of mailing or delivery to the Chief.



Well Operator Antero Resources Corporation  
 By: Diana Hoff *Diana O. Hoff*  
 Its: Senior VP of Operations  
 Address 1615 Wynkoop Street  
Denver, CO 80202  
 Telephone 303-357-7310

RECEIVED  
Office of Oil and Gas

Subscribed and sworn before me this 18 day of May 2022  
Diane Blair Notary Public  
My Commission Expires 27 Apr 2024

JUN 13 2022

WV Department of  
Environmental Protection

**Oil and Gas Privacy Notice**

The Office of Oil and Gas processes your personal information, such as name, address and phone number, as a 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 of your personal information, please contact DEP's Chief Privacy Officer at [depprivacyofficer@wv.gov](mailto:depprivacyofficer@wv.gov).

06/24/2022

## Erwin Hilltop Pad Surface Owners

**Tax Parcel ID:** 6-19-1 & 6-19-1.1  
**Owner:** Sandra E. Erwin  
**Address:** 12222 WV Route 18 S  
New Milton, WV 26411

**Tax Parcel ID:** 6-15-12  
**Owner:** Carl Hinter Heirs  
c/o Vivian Burton  
**Address:** 29 Painters Crossing  
Williamstown, WV 26187

**Tax Parcel ID:** 6-15-12.1  
**Owner:** John F. & Michelle L. Grogg  
**Address:** 11846 WV Route 18 S  
New Milton, WV 26411

RECEIVED  
Office of Oil and Gas  
JUN 13 2022  
WV Department of  
Environmental Protection

06/24/2022

4701706077P



Cut on dotted line.

### 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.

### Click-N-Ship® Label Record

<b>USPS TRACKING # :</b>	
<b>9405 5036 9930 0253 1682 80</b>	
Trans. #:	563869218
Print Date:	05/19/2022
Ship Date:	05/19/2022
Expected	
Delivery Date:	05/23/2022
Priority Mail® Postage:	<u>\$8.95</u>
Total:	<u>\$8.95</u>
<b>From: JOHN GIANNAULA</b>	
1815 WYNKOOP ST	
DENVER CO 80202-1106	
<b>To: SANDRA EERWIN</b>	
12222 WV ROUTE 18 S	
NEW MILTON WV 26411-6086	
<small>* Retail 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.</small>	

RECEIVED  
Office of Oil and Gas

JUN 13 2022

WV Department of  
Environmental Protection



Thank you for shipping with the United States Postal Service!  
Check the status of your shipment on the USPS Tracking® page at [usps.com](https://usps.com)

06/24/2022

4701706077P



Cut on dotted line.

### 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.

### Click-N-Ship® Label Record

<b>USPS TRACKING # :</b>	
<b>9405 5036 9930 0253 1682 97</b>	
Trans. #:	583889218
Print Date:	05/19/2022
Ship Date:	05/19/2022
Expected Delivery Date:	05/23/2022
Priority Mail® Postage:	<u>\$8.95</u>
Total:	<u>\$8.95</u>
<b>From: JOHN GIANNAULA</b> 1615 WYNKOOP ST DENVER CO 80202-1106	
<b>To: CARL HINTER HEIRS C/O VIVIAN BURTON</b> 29 PAINTERS XING WILLIAMSTOWN WV 26187-1048	
<small>* Retail 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.</small>	

RECEIVED  
Office of Oil and Gas  
**JUN 13 2022**  
WV Department of Environmental Protection



Thank you for shipping with the United States Postal Service!  
Check the status of your shipment on the USPS Tracking® page at [usps.com](https://usps.com)

06/24/2022

4701706077P



Cut on dotted line.

### 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.

### Click-N-Ship® Label Record

<b>USPS TRACKING # :</b>	
<b>9405 5036 9930 0253 1683 03</b>	
Trans. #:	583869218
Print Date:	05/19/2022
Ship Date:	05/19/2022
Expected Delivery Date:	05/23/2022
Priority Mail® Postage:	<u>\$8.95</u>
Total:	<u>\$8.95</u>
From:	JOHN GIANNAULA 1615 WYNKOOP ST DENVER CO 80202-1106
To:	JOHN F & MICHELLE L GROGG 11846 WV ROUTE 18 S NEW MILTON WV 26411-6085
<small>* Retail 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.</small>	

RECEIVED  
Office of Oil and Gas  
**JUN 13 2022**  
WV Department of  
Environmental Protection



Thank you for shipping with the United States Postal Service!  
Check the status of your shipment on the USPS Tracking® page at [usps.com](https://usps.com)

06/24/2022

WW-9  
(5/16)

API Number 47 - 017 - 06077  
Operator's Well No. Erwin Unit 2H

STATE OF WEST VIRGINIA  
DEPARTMENT OF ENVIRONMENTAL PROTECTION  
OFFICE OF OIL AND GAS  
FLUIDS/ CUTTINGS DISPOSAL & RECLAMATION PLAN

Operator Name Antero Resources Corporation OP Code 494507062

Watershed (HUC 10) North Fork Hughes River Quadrangle New Milton 7.5'

Do you anticipate using more than 5,000 bbls of water to complete the proposed well work? Yes  No

Will a pit be used? Yes  No

If so, please describe anticipated pit waste: \_\_\_\_\_

Will a synthetic liner be used in the pit? Yes  No  If so, what ml.? \_\_\_\_\_

Proposed Disposal Method For Treated Pit Wastes:

- Land Application (if selected provide a completed form WW-9-GPP)
- Underground Injection ( UIC Permit Number \*UIC Permit # will be provided on Form WR-34 )
- Reuse (at API Number Future permitted well locations when applicable. API# will be provided on Form WR-34 )
- Off Site Disposal (Supply form WW-9 for disposal location) (Meadowfill Landfill Permit #SWF-1032-98)  
Northwestern Landfill Permit #SWF-1025/  
WV0109410. (Wetzel Co Landfill Permit  
#SWF-1021)
- Other (Explain \_\_\_\_\_)

*SDW  
6/7/2022*

Will closed loop system be used? If so, describe: Yes, fluids stored in tanks, cuttings removed off site and taken to landfill.

Drilling medium anticipated for this well (vertical and horizontal)? Air, freshwater, oil based, etc.

-If oil based, what type? Synthetic, petroleum, etc.

Additives to be used in drilling medium? \_\_\_\_\_

Drill cuttings disposal method? Leave in pit, landfill, removed offsite, etc.

-If left in pit and plan to solidify what medium will be used? (cement, lime, sawdust) \_\_\_\_\_

-Landfill or offsite name/permit number? \_\_\_\_\_

Permittee shall provide written notice to the Office of Oil and Gas of any load of drill cuttings or associated waste rejected at any West Virginia solid waste facility. The notice shall be provided within 24 hours of rejection and the permittee shall also disclose where it was properly disposed.

I certify that I understand and agree to the terms and conditions of the GENERAL WATER POLLUTION PERMIT issued on April 1, 2016, by the Office of Oil and Gas of the West Virginia Department of Environmental Protection. I understand that the provisions of the permit are enforceable by law. Violations of any term or condition of the general permit and/or other applicable law or regulation can lead to enforcement action.

I certify under penalty of law that I have personally examined and am familiar with the information submitted on this application form and all attachments thereto and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine or imprisonment.

Company Official Signature Gretchen Kohler  
Company Official (Typed Name) Gretchen Kohler  
Company Official Title Director of Environmental & Regulatory Compliance

RECEIVED  
Office of Oil and Gas

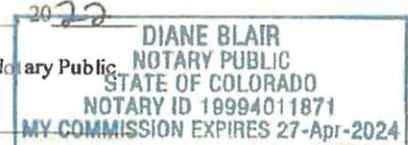
JUN 13 2022

WV Department of  
Environmental Protection

Subscribed and sworn before me this 18 day of May

Diane Blair

Notary Public



My commission expires 27 Apr 2024

06/24/2022

4701706077P

Form WW-9

Operator's Well No. Erwin Unit 2H

Proposed Revegetation Treatment: Acres Disturbed 3.91 Prevegetation pH \_\_\_\_\_

Lime 2-3 Tons/acre or to correct to pH 6.5

Fertilizer type \_\_\_\_\_

Fertilizer amount 500 lbs/acre

Mulch 2-3 Tons/acre

Seed Mixtures

Temporary

Permanent

Seed Type	lbs/acre
Annual Ryegrass	40
Field Bromegrass	40

Seed Type	lbs/acre
Crownvetch	10-15
Tall Fescue	30

Please reference Table IV-3 on page 7 of the Well #1 Plugging Plan

Please reference Table IV-4A on page 7 of the Well #1 Plugging Plan

\*or type of grass seed requested by surface owner

Attach:

Maps(s) of road, location, pit and proposed area for land application (unless engineered plans including this info have been provided). If water from the pit will be land applied, provide water volume, include dimensions (L, W, D) of the pit, and dimensions (L, W), and area in acres, of the land application area.

Photocopied section of involved 7.5' topographic sheet.

Plan Approved by: S. D. Wansett

Comments: \_\_\_\_\_

RECEIVED  
Office of Oil and Gas

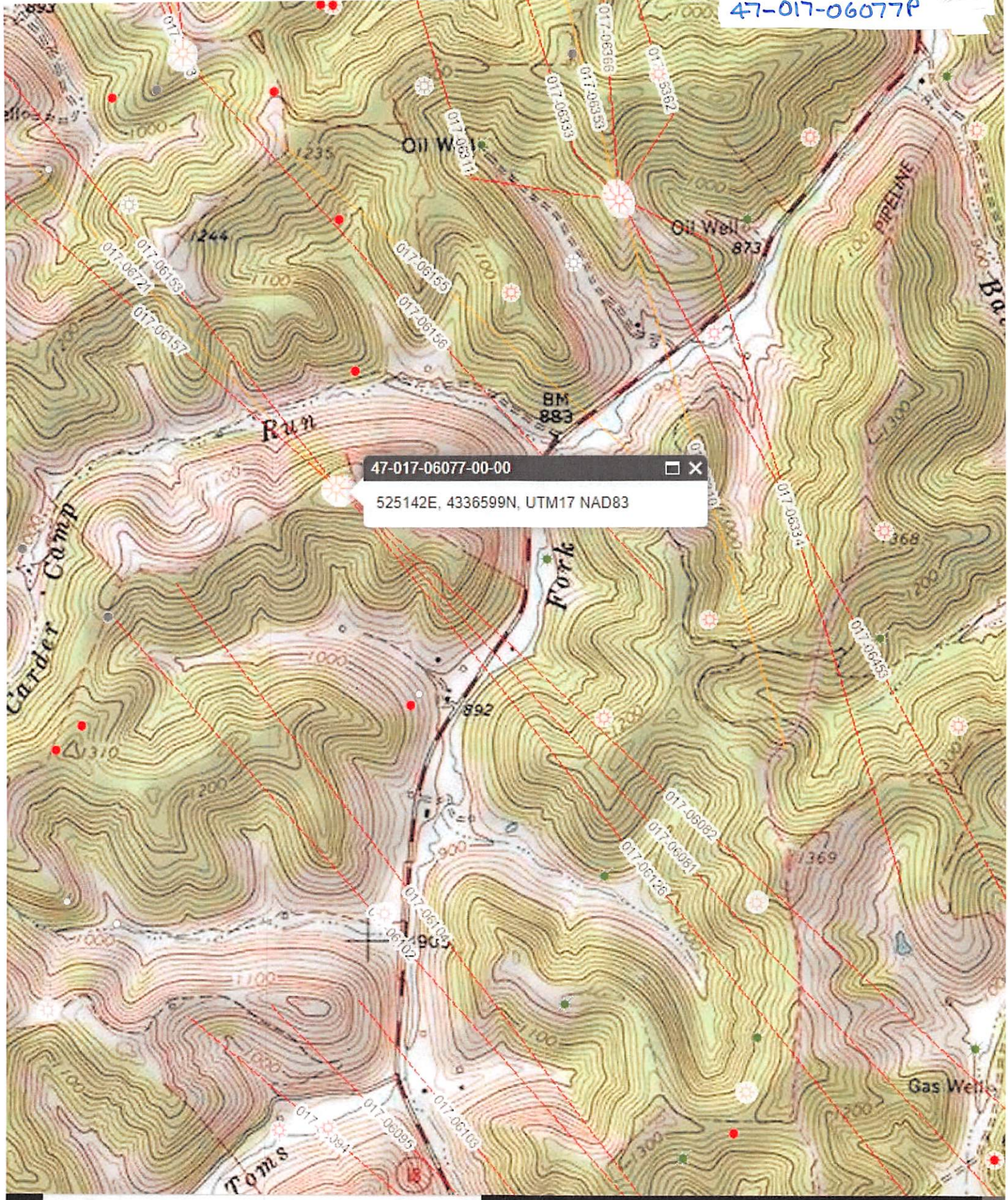
JUN 13 2022

WV Department of  
Environmental Protection

Title: COG Inspector Date: 6/7/2022

Field Reviewed? ( ) Yes ( X ) No

06/24/2022





WW-7  
8-30-06



West Virginia Department of Environmental Protection  
Office of Oil and Gas  
**WELL LOCATION FORM: GPS**

API: 47-017-06077 WELL NO.: Erwin 2H

FARM NAME: Erwin Hilltop

RESPONSIBLE PARTY NAME: Antero Resources Corporation

COUNTY: Doddridge DISTRICT: New Milton

QUADRANGLE: New Milton

SURFACE OWNER: Sandra E. Erwin

ROYALTY OWNER: \_\_\_\_\_

UTM GPS NORTHING: 4336599.24 m

UTM GPS EASTING: 525142.23 m GPS ELEVATION: 1226.3 ft

The Responsible Party named above has chosen to submit GPS coordinates in lieu of preparing a new well location plat for a plugging permit or assigned API number on the above well. The Office of Oil and Gas will not accept GPS coordinates that do not meet the following requirements:

- Datum: NAD 1983, Zone: 17 North, Coordinate Units: meters, Altitude: height above mean sea level (MSL) – meters.
- Accuracy to Datum – 3.05 meters
- Data Collection Method:

Survey grade GPS  : Post Processed Differential \_\_\_\_\_  
Real-Time Differential

Mapping Grade GPS  : Post Processed Differential \_\_\_\_\_  
Real-Time Differential

RECEIVED  
Office of Oil and Gas

JUN 13 2022

WV Department of  
Environmental Protection

- Letter size copy of the topography map showing the well location.

I the undersigned, hereby certify this data is correct to the best of my knowledge and belief and shows all the information required by law and the regulations issued and prescribed by the Office of Oil and Gas.

[Signature]  
Signature

Permitting Manager  
Title

5/10/22  
Date



Stansberry, Wade A &lt;wade.a.stansberry@wv.gov&gt;

---

**Plugging H6A Horizontal Well Work Permit (API: 47-017-06077, 06101, 06154, & 06721)**

1 message

**Stansberry, Wade A** <wade.a.stansberry@wv.gov>

Wed, Jun 22, 2022 at 10:54 AM

To: Mallory Stanton &lt;mstanton@anteroresources.com&gt;

Cc: Diane Blair &lt;d Blair@anteroresources.com&gt;, Dani DeVito &lt;ddevito@shalepro.com&gt;, Stephen E McCoy &lt;stephen.e.mccoy@wv.gov&gt;, Douglas Newlon &lt;douglas.c.newlon@wv.gov&gt;, David Sponaugle &lt;dsponaug@assessor.state.wv.us&gt;

I have attached a copy of the newly issued well [permit](#) number. This will serve as your copy.

**47-017-06077 - ERWIN UNIT 2H****47-017-06101 - HEIRS UNIT 3H****47-017-06154 - WEBLEY FORK UNIT 2H****47-017-06721 - LITTLE TOM UNIT 2H**

If you have any questions, then [please](#) contact us here at the Office of Oil and Gas.

Thank you,

**Wade A. Stansberry****Environmental Resource Specialist 3****West Virginia Department of Environmental Protection****Office of Oil & Gas****601 57th St. SE****Charleston, WV 25304****(304) 926-0499 ext. 41115****(304) 926-0452 fax****[Wade.A.Stansberry@wv.gov](mailto:Wade.A.Stansberry@wv.gov)**

---

**5 attachments** **47-017-06101 - Copy.pdf**  
1148K **47-017-06721 - Copy.pdf**  
1242K **47-017-06154 - Copy.pdf**  
1250K **47-017-06077 - Copy.pdf**  
2874K **IR-8 Blank.pdf**  
237K**06/24/2022**