

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

API 47 - 033 - 05620 County Harrison District Sardis  
Quad Wolf Summit Pad Name Jones Pad Field/Pool Name ---  
Farm name Jones, John R. & Catherine W. Well Number Zirk Unit 1H  
Operator (as registered with the OOG) Antero Resources Corporation  
Address 1615 Wynkoop St. City Denver State CO Zip 80202

As Drilled location NAD 83/UTM Attach an as-drilled plat, profile view, and deviation survey \*Since this well was P&A'd an as-drilled plat was not prepared.  
Top hole Northing \_\_\_\_\_ Easting \_\_\_\_\_  
Landing Point of Curve Northing \_\_\_\_\_ Easting \_\_\_\_\_  
Bottom Hole Northing \_\_\_\_\_ Easting \_\_\_\_\_

Elevation (ft) 1176' 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

Date permit issued 6/1/2012 Date drilling commenced 6/3/2012 Date drilling ceased 6/13/2012  
Date completion activities began N/A - Well P&A Date completion activities ceased N/A - Well P&A  
Verbal plugging (Y/N) Y Date permission granted 6/6/2012 Granted by Inspector Tristan Jenkins

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

Freshwater depth(s) ft est 230' Open mine(s) (Y/N) depths No  
Salt water depth(s) ft N/A Void(s) encountered (Y/N) depths No  
Coal depth(s) ft Pad constructed on reclaimed PGH coal bench Cavern(s) encountered (Y/N) depths No  
Is coal being mined in area (Y/N) No

**APPROVED** Reviewed by:

NAME: Sam Ward

DATE: 1/15/17

02/03/2017

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DEC 01 2015

WV Department of  
Environmental Protection

API 47-033 05620 Farm name Jones, John R. & Catherine W. Well number Zirk Unit 1H

CASING STRINGS	Hole Size	Casing Size	Depth	New or Used	Grade wt/ft	Basket Depth(s)	Did cement circulate (Y/N) * Provide details below*
Conductor	24"	20"	40'	New	94# H-40	N/A	Y
Surface							
Coal							
Intermediate 1							
Intermediate 2							
Intermediate 3							
Production							
Tubing							
Packer type and depth set		N/A					

**Comment Details** Well was drilled to a total depth of 276 feet and encountered stuck pipe. Well was plugged under continuous operations through verbal approval from WVDEP Office of Oil & Gas on 6/6/2012.  
Cement Plug - From 200' and fell back to 26' using 147 sx Class A cement and Cement Plug - From 26' to surface using 26 sx of Class A Cement

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	530 sx	15.6	1.18	38	0'	8 Hrs.
Surface							
Coal							
Intermediate 1							
Intermediate 2							
Intermediate 3							
Production							
Tubing							

Drillers TD (ft) 276' TVD Loggers TD (ft) N/A  
Deepest formation penetrated \_\_\_\_\_ Plug back to (ft) N/A  
Plug back procedure N/A

Kick off depth (ft) N/A

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  
Surface- 1 above guide shoe, 1 above insert float, 1 every 4th joint to surface

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WAS WELL COMPLETED AS SHOT HOLE  Yes  No DETAILS DEC 01 2015

WAS WELL COMPLETED OPEN HOLE?  Yes  No DETAILS WV Department of Environmental Protection

WERE TRACERS USED  Yes  No TYPE OF TRACER(S) USED \_\_\_\_\_



