

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

API 47 - 39 - 06347 County KANAWHA District BIG SANDY  
Quad CLENDENIN - 299 Pad Name \_\_\_\_\_ Field/Pool Name \_\_\_\_\_  
Farm name DANIEL & LAURA BODKINS Well Number OSBORNE 1A  
Operator (as registered with the OOG) RAVEN RIDGE ENERGY, LLC  
Address 3230 PENNSYLVANIA AVENUE City CHARLESTON State WV Zip 25302

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

Elevation (ft) 980' 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)  
SOAP

Date permit issued 12/28/2012 Date drilling commenced 3/14/2013 Date drilling ceased 3/21/2013  
Date completion activities began 8/30/2013 Date completion activities ceased 9/13/2013  
Verbal plugging (Y/N) N 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 200' Open mine(s) (Y/N) depths \_\_\_\_\_  
Salt water depth(s) ft 1,200' - 1,700' Void(s) encountered (Y/N) depths \_\_\_\_\_  
Coal depth(s) ft NONE OF RECORD Cavern(s) encountered (Y/N) depths \_\_\_\_\_  
Is coal being mined in area (Y/N) NO

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

05/02/2014

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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	14 1/4"	13 3/8"	30'	NEW	J55 - 42 LBS		YES - CEMENTED BY RIG
Surface	12 1/4"	9 5/8"	380'	NEW	LS - 17 LBS		YES
Coal							
Intermediate 1	8 3/4"	7"	1836'	NEW	J55 - 23LBS	348'	YES
Intermediate 2							
Intermediate 3							
Production	6 1/4"	4 1/2"	2160'	NEW	J55 - 10.5LBS		YES
Tubing							
Packer type and depth set							

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 I	10 - Cemented by Hand				Ground Level	8
Surface	Class I	120	15.6	1.18	141.6	Ground Level	8
Coal							
Intermediate 1	Class I	330	15.6	1.18	389.4	Ground Level	8
Intermediate 2							
Intermediate 3							
Production	Class I	150	14.2	1.29	193.5	500'	8
Tubing							

Drillers TD (ft) 2274' Loggers TD (ft) 2156'

Deepest formation penetrated WEIR Plug back to (ft) \_\_\_\_\_

Plug back procedure \_\_\_\_\_

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 \_\_\_\_\_

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

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

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



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<u>PRODUCING FORMATION(S)</u>	<u>DEPTHS</u>	
WEIR	2141' - 2190'	TVD MD

Please insert additional pages as applicable.

GAS TEST  Build up  Drawdown  Open Flow OIL TEST  Flow  Pump

SHUT-IN PRESSURE Surface 50 psi Bottom Hole \_\_\_\_\_ psi DURATION OF TEST 12 hrs

OPEN FLOW Gas 2 mcfpd Oil 1/2 bpd NGL \_\_\_\_\_ bpd Water \_\_\_\_\_ bpd GAS MEASURED BY  Estimated  Orifice  Pilot

LITHOLOGY/ FORMATION	TOP DEPTH IN FT NAME TVD	BOTTOM DEPTH IN FT TVD	TOP DEPTH IN FT MD	BOTTOM DEPTH IN FT MD	DESCRIBE ROCK TYPE AND RECORD QUANTITY AND TYPE OF FLUID (FRESHWATER, BRINE, OIL, GAS, H <sub>2</sub> S, ETC)
SAND	0	1269'	0		
SALT SAND	1269'	1494'			
SAND	1494'	1557'			
MAXTON	1557'	1695'			
PENCIL CAVE	1695'	1713'			
LITTLE LIME	1713'	1719'			
BIG LIME	1719'	1879'			
BIG INJUN	1879'	1904'			
SAND	1904'	2141'			
WEIR	2141'	2190'			
SAND	2190'	2247'			

Please insert additional pages as applicable.

Drilling Contractor R & R Well Service  
Address Ambler Ridge City Walton State WV Zip 25286

Logging Company Nabors Completion & Production  
Address 82 Elkins Road City Buckhannon State WV Zip 26201

Cementing Company Universal Well Services  
Address 5 Hall Run Road City Buckhannon State WV Zip 26201

Stimulating Company Producers Service Corporation  
Address 109 Graham Street City Zanesville State OH Zip 43701

Please insert additional pages as applicable.

Completed by Danielle N. Boggs Telephone 304-344-9291

Signature *Danielle N. Boggs* Title Operations Manager Date 12/9/2013

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

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