

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

Received
AUG - 3 2015

Office of Oil and Gas
WV Dept. of Environmental Protection

API 47-15-02883 County CLAY District UNION
Quad ELKHURST 7.5' Pad Name _____ Field/Pool Name _____
Farm name CHESSIE CONNER, ET AL Well Number JS COCHRAN 2A
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) 1,202' 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 8/03/2012 Date drilling commenced 12/3/2012 Date drilling ceased 12/8/2012
Date completion activities began 11/19/2012 Date completion activities ceased 12/3/2012
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 N
Salt water depth(s) ft 1,300' - 1,800' Void(s) encountered (Y/N) depths N
Coal depth(s) ft NONE OF RECORD Cavern(s) encountered (Y/N) depths N
Is coal being mined in area (Y/N) N

Reviewed by:
MSA JK
10/16/2015

API 47- 15 - 02883 Farm name CHESSIE CONNER, ET AL Well number JS COCHRAN 2A

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	J-55 - 42 LBS	NONE	SAND -IN BY RIG
Surface	12 1/4"	9 5/8"	377'	NEW	J-55 - 29 LBS	120'	YES
Coal							
Intermediate 1	8 3/4"	7"	1902'	NEW	J-55 - 17LBS	335'	YES
Intermediate 2							
Intermediate 3							
Production	6 1/4"	4 1/2"	2230'	NEW	J-55 - 10.5 LBS	NONE	YES
Tubing							
Packer type and depth set							

Comment Details _____

CEMENT DATA	Class/Type of Cement	Number of Sacks	Slurry wt (ppg)	Yield (ft ³ /sks)	Volume (ft ³)	Cement Top (MD)	WOC (hrs)
Conductor	CLASS I	10 - RIG				GROUND LEVEL	8
Surface	CLASS I	130	15.6	1.18	153.4	GROUND LEVEL	8
Coal							
Intermediate 1	CLASS I	120	15.6	1.18	141.60	GROUND LEVEL	8
Intermediate 2							
Intermediate 3							
Production	CLASS I	212	15.6	1.40	296.80	1475'	8
Tubing							

Drillers TD (ft) 2517 Loggers TD (ft) 2252
 Deepest formation penetrated Squaw Plug back to (ft) _____
 Plug back procedure _____

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Kick off depth (ft) _____

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

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Well cored Yes No Conventional Sidewall Were cuttings collected Yes No

DESCRIBE THE CENTRALIZER PLACEMENT USED FOR EACH CASING STRING CENTRALIZERS RUN ON 4 1/2" JOINTS 1, 3, 5, 7

WAS WELL COMPLETED AS SHOT HOLE Yes No DETAILS _____

WAS WELL COMPLETED OPEN HOLE? Yes No DETAILS _____

WERE TRACERS USED Yes No TYPE OF TRACER(S) USED _____

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PRODUCING FORMATION(S)	DEPTHS	TVD	MD
INJUN	2034' - 2052'		
SQUAW	2052' - 2098'		

Please insert additional pages as applicable.

GAS TEST Build up Drawdown Open Flow OIL TEST Flow Pump

SHUT-IN PRESSURE Surface 200 psi Bottom Hole _____ psi DURATION OF TEST 12 hrs

OPEN FLOW Gas 10 mcfpd Oil 7 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 ₂ S, ETC)
SAND/SHALE	0	346'	0		
SALT SANDS	346'	538'			
SAND/SHALE	538'	1266'			
LITTLE LIME	1266"	1750'			
PENCIL CAVE	1750'	1998'			
BIG LIME	1998'	2015'			
SAND/SHALE	2015'	2052'			
BIG INJUN	2034'	2052'			
SQUAW	2052"	2098'			
SAND/SHALE	2098'	TD			

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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, CO.
Address 82 ELKINS ROAD City BUCKHANNON State WV Zip 26201

Cementing Company UNIVERSAL WELL SERVICE
Address 5 HALL ROAD City BUCKHANNON State WV Zip 26201

Stimulating Company UNIVERSAL WELL SERVICE
Address 5 HALL ROAD City BUCKHANNON State WV Zip 26201

Please insert additional pages as applicable.

Completed by DANIELLE N. BOGGS Telephone 304-344-9291
Signature *Danielle N. Boggs* Title OPERATIONS MANAGER Date 7/29/2015

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