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

API 47 - 87 - 04715 County Roane District Smithfield
Quad Looneyville Pad Name _____ Field/Pool Name _____
Farm name Willard Thompson Well Number C.E. Lamb 11
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) 862' 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 3/05/2012 Date drilling commenced 6/4/2012 Date drilling ceased 6/8/2012
Date completion activities began 11/14/2012 Date completion activities ceased 12/1/2012
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

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Freshwater depth(s) ft 200' Open mine(s) (Y/N) depths _____
Salt water depth(s) ft 1,300' - 1,800' 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

REC 01 2013
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Environmental Protection
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	J-55	None	Yes - Cemented by Rig
Surface	12 1/4"	9 5/8"	350'	New	J-55	90'	Yes
Coal							
Intermediate 1	8 3/4"	7"	1746'	New	J-55	350'	Yes
Intermediate 2							
Intermediate 3							
Production	6 1/4"	4 1/2"	2410'	New	J-65	1000'	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 - Cemented by Hand				Ground Level	8
Surface	Class I	150	15.6	1.18	31.6 bbls.	Ground Level	8
Coal							
Intermediate 1	Class I	290	15.6	1.18	60.95	300'	8
Intermediate 2							
Intermediate 3							
Production	Class I	150	14.2	1.29	34.5	650'	8
Tubing							

Drillers TD (ft) 2522' Loggers TD (ft) 2494'
 Deepest formation penetrated Coffee Shale/Berea Plug back to (ft) _____
 Plug back procedure Big Lime

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 _____

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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<u>PRODUCING FORMATION(S)</u>	<u>DEPTHS</u>	
Coffee Shale/Berea	2296	TVD 2320 MD

Please insert additional pages as applicable.

GAS TEST Build up Drawdown Open Flow OIL TEST Flow Pump
 SHUT-IN PRESSURE Surface 90 psi Bottom Hole _____ psi DURATION OF TEST 12 hrs
 OPEN FLOW Gas _____ mcfpd Oil 2 bpd NGL _____ bpd Water 18 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)
Shale	0	115	0		
Sand	115	140			
Shale	140	330			
Sand	330	360			
Shale	360	570			
Sel-Shale	570	1400			
Salt Sand	1400	1595			
Shale	1595	1630			
Maxton	1630	1705			
Shale	1705	1720			
Big Lime	1720	1790			
Big Injun	1790	1860			
Squaw	1860	1910			
Shale	1910	2245			

Please insert additional pages as applicable.

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

Logging Company Superior Well Services
 Address 1650 Hackers Creek Road City Jane Lew State WV Zip 26378

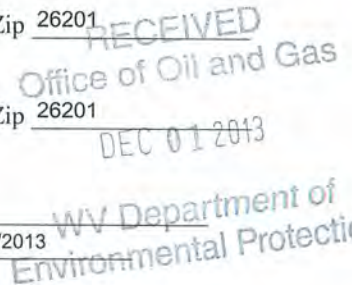
Cementing Company Universal Well Services
 Address 5 Hall Run Road City Buckhannon State WV Zip 26201

Stimulating Company Universal Well Services
 Address 5 Hall Run 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 11/12/2013

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



05/02/2014

API: 47-87-04715

Farm Name: Willard Thompson

Well Number: C.E. Lamb 11

Lithology/ Formation	Top Depth Depth in Ft TVD	Bottom Depth in Ft TVD	Describe Rock Type Fluid Type
Coffee Shale	2245	2260	
Shale	2260	2494	

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