

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

API 47-15-02889 County CLAY District UNION  
Quad ELKHURST 7.5' Pad Name \_\_\_\_\_ Field/Pool Name \_\_\_\_\_  
Farm name ROBERT TAYLOR Well Number KING #13  
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) 1,274' 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

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Date permit issued 6/26/2013 Date drilling commenced 10/31/2013 Date drilling ceased 11/4/2013  
Date completion activities began 12/19/2013 Date completion activities ceased 1/5/2014  
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 1150' - 1650' 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: \_\_\_\_\_

08/15/2014

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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 - 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"	1967'	NEW	J-55 - 17LBS	335'	YES
Intermediate 2							
Intermediate 3							
Production	6 1/4"	4 1/2"	2318'	NEW	J-55 - 10.5 LBS	NONE	N/A
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 - RIG				GROUND LEVEL	8
Surface	CLASS I	130	15.6	1.18	153.4	GROUND LEVEL	8
Coal							
Intermediate 1	CLASS I	280	14.5	1.36	380.8	GROUND LEVEL	8
Intermediate 2							
Intermediate 3							
Production	CLASS I	50	15.6	1.18	59	1750'	8
Tubing							

Drillers TD (ft) 2362 Loggers TD (ft) 2358  
 Deepest formation penetrated SQUAW Plug back to (ft) \_\_\_\_\_  
 Plug back procedure \_\_\_\_\_

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

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 CENTRALIZERS PLACED ON JOINTS 1,3,6,9 AND 12  
OF THE 4 1/2" CASING

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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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PERFORATION RECORD

Stage No.	Perforation date	Perforated from MD ft.	Perforated to MD ft.	Number of Perforations	Formations(s)
1	12/18/13	2111'	2123'	6	INJUN
2	12/18/13	2133'	2139'	3	INJUN
3	12/18/13	2153'	2165'	12	SQUAW

Please insert additional pages as applicable.

STIMULATION INFORMATION PER STAGE

Complete a separate record for each stimulation stage.

Stage No.	Simulations Date	Ave Pump Rate (BPM)	Ave Treatment Pressure (PSI)	Max Breakdown Pressure (PSI)	ISIP (PSI)	Amount of Proppant (lbs)	Amount of Water (bbls)	Amount of Nitrogen/other (units)
1	12/19/13	35	11500	2400	1848	20,000	492	0

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PRODUCING FORMATION(S)	DEPTHS	TVD	MD
INJUN	2111' - 2139'		
SQUAW	2153' - 2165'		

Please insert additional pages as applicable.

GAS TEST  Build up  Drawdown  Open Flow OIL TEST  Flow  Pump

SHUT-IN PRESSURE Surface 220 psi Bottom Hole \_\_\_\_\_ psi DURATION OF TEST 12 hrs

OPEN FLOW Gas 20 mcfpd Oil 6 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/SHALE	0	1588'	0		
SALT SANDS	1588'	1678'			
SAND/SHALE	1678'	1828'			
LITTLE LIME	1828'	1882'			
PENCIL CAVE	1882'	1896'			
BIG LIME	1896'	2014'			
INJUN	2014'	2068'			
SQUAW	2078'	2092'			
SAND/SHALE	2092'	2132'			
WEIR	2132'	2190'			
SAND/SHALE	2190'	2362'			

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Please insert additional pages as applicable.

Drilling Contractor WACO OIL & GAS  
Address P.O. BOX 397 City GLENVILLE State WV Zip 26351

Logging Company NABORS COMPLETION & PRODUCTION, CO.  
Address 82 ELKINS ROAD City BUCKHANNON State WV Zip 26201

Cementing Company FORMATION CEMENTING INC.  
Address P.O. BOX 2667 City ZANESVILLE State OH Zip 43702

Stimulating Company PRODUCERS SERVICE CORPORATION  
Address 109 SOUTH 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 5/30/2014

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