

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

API 47 - 061 - 01676 County Monongalia District Clay  
Quad Blacksville, WV Pad Name Coastal Field/Pool Name \_\_\_\_\_  
Farm name Coastal Forest Resources Company Well Number 9H  
Operator (as registered with the OOG) Northeast Natural Energy LLC  
Address 707 Virginia Street, E., Suite 1200 City Charleston State WV Zip 25301

As Drilled location NAD 83/UTM Attach an as-drilled plat, profile view, and deviation survey  
Top hole Northing 4395409.5 Easting 568208.6  
Landing Point of Curve Northing 4395666.6 Easting 568570.2  
Bottom Hole Northing 4396860.8 Easting 567638.6

Elevation (ft) 1,420' 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)  
Synthetic Based Mud for horizontal section, BIO-BASE 365, CALCIUM CHLORIDE POWDER, G-SEAL PLUS, HRP, LIME, M-I WATE (BARITE), M-I-X II MEDIUM,  
MEGADRIL P SYSTEM, MEGADRIL P SYSTEM RENTAL, MEGAMUL, SAFE-CARB 250, VERSATHIN HF, VERSAWET, VG-PLUS, VINSEAL MEDIUM, WALNUT NUT PLUG MEDIUM

Date permit issued 07/18/2014 Date drilling commenced 12/28/2014 Date drilling ceased 4/22/2015  
Date completion activities began 12/28/2015 Date completion activities ceased 1/4/2016  
Verbal plugging (Y/N) \_\_\_\_\_ Date permission granted \_\_\_\_\_ Granted by \_\_\_\_\_

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

Freshwater depth(s) ft 1,243' Open mine(s) (Y/N) depths Office of Oil and Gas  
Salt water depth(s) ft 2,510' Void(s) encountered (Y/N) depths N  
Coal depth(s) ft 600', 1,200' Cavern(s) encountered (Y/N) depths OCT 1 2016

Is coal being mined in area (Y/N) \_\_\_\_\_

**APPROVED**

NAME: David King  
DATE: 12/16/2015

RECEIVED  
Office of Oil and Gas  
Reviewed by:  
WV Department of Environmental Protection

02/03/2017

API 47-061 - 01676 Farm name Coastal Forest Resources Company Well number 9H

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	30	24	50'	N	N/A	N/A	Y to surface
Surface	17.5	13 3/8	1,385'	N	54.5	N/A	Y 30 bbls
Coal							
Intermediate 1	12.25	9 5/8	2,777'	N	40	N/A	N
Intermediate 2							
Intermediate 3							
Production	8.5	5.5	14,089'	N	20	N/A	Estimated top 2000'
Tubing							
Packer type and depth set							

Comment Details All jobs went well, except intermediate. Ran cement bond log. TOC @1,000' which is inside the surface string. Due to clearance issues top off job could not be performed. Local DEP and NNE decided best not to perforate and squeeze.

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	4,500 psi ready mix	36.4		.75	27.27	CTS	48
Surface	Class A	1063	15.2	1.27	1,271	CTS	8
Coal							
Intermediate 1	Class A	903	15.2	1.26	1,074	CTS	8
Intermediate 2							
Intermediate 3							
Production	50/50 Premix NE - 1.3% R-3.3% MPA 170	2683	14.5	1.17	2,661	Estimated 2,000'	48
Tubing							

Drillers TD (ft) 14,112' Loggers TD (ft) 14,087'  
Deepest formation penetrated Marcellus Plug back to (ft) N/A  
Plug back procedure

Kick off depth (ft) 6,303'

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

Surface: bow spring centralizers every 3rd joint or aprox 120'

Intermediate: bow spring centralizers every 3rd joint or aprox 120'

Production: Hard bodied spiral centralizers every other joint or aprox 80' from TD to KOP then bow spring from KOP to 9 5/8" every forth joint or aprox 140'

WAS WELL COMPLETED AS SHOT HOLE  Yes  No DETAILS 32 stages, 40 shots per stage **RECEIVED**  
**Office of Oil and Gas**

WAS WELL COMPLETED OPEN HOLE?  Yes  No DETAILS **OCT 19 2016**

WERE TRACERS USED  Yes  No TYPE OF TRACER(S) USED **WV Department of Environmental Protection**



