

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



API 47 - 061 - 01686 County Monongalia District Clay
Quad Blacksville, WV Pad Name Coastal Field/Pool Name _____
Farm name Coastal Forest Resources Well Number 5H
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 4395397.7 Easting 568204.6
Landing Point of Curve Northing 4395494.8 Easting 568229.4
Bottom Hole Northing 4397100.4 Easting 566998.3

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 H-F, VERSAWET, VG-PLUS, VINSEAL MEDIUM, WALNUT NUT PLUG MEDIUM

Date permit issued 10/28/2014 Date drilling commenced 12/14/2014 Date drilling ceased 4/7/2015
Date completion activities began 12/8/2015 Date completion activities ceased 12/15/2015
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 _____
Salt water depth(s) ft 2,510' Void(s) encountered (Y/N) depths _____
Coal depth(s) ft 600 , 1,200' Cavern(s) encountered (Y/N) depths _____

Is coal being mined in area Y N

APPROVED

NAME: Glenn Kurt
DATE: 12/16/2016

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Environmental Protection

02/03/2017

API 47-061 - 01686

Farm name Coastal Forest Resources

Well number 5H

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	1,387'	N	54.5	N/A	Y 45 bbls
Coal							
Intermediate 1	12.25	9 5/8	2,794'	N	40	N/A	Y 15 bbls
Intermediate 2							
Intermediate 3							
Production	8.5	5.5	15,373'	N	20	N/A	
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	4,500 psi ready mix	36.4		.75	27.27	CTS	48
Surface	Class A	1,192	15.2	1.27	1,271	CTS	8
Coal							
Intermediate 1	Class A	906	15.2	1.26	1,074	CTS	8
Intermediate 2							
Intermediate 3							
Production	50/50 Premium NE - 1.3% R-3.3% MPA 170	2,960	14.5	1.17	2,661	CTS	48
Tubing							

Drillers TD (ft) 15,385'

Loggers TD (ft) 15,360'

Deepest formation penetrated Marcellus

Plug back to (ft) N/A

Plug back procedure _____

Kick off depth (ft) 6,379'

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 34 Stages, 40 Shots per Stage

WAS WELL COMPLETED OPEN HOLE? Yes No

DETAILS _____

WERE TRACERS USED Yes No

TYPE OF TRACER(S) USED _____

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