

# APPROVED

WR-35  
Rev. 8/23/13

NAME: W. C. M.

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DATE: 1/23/17

State of West Virginia

## Department of Environmental Protection - Office of Oil and Gas Well Operator's Report of Well Work

API 47 - 017 - 06484 County Doddridge District West Union  
 Quad Oxford Pad Name Oxf 97 Field/Pool Name N/A  
 Farm name Haessly Land & Timber, LLC Well Number Oxf 97 DHS  
 Operator (as registered with the OOG) Noble Energy, Inc.  
 Address 1000 Noble Energy Drive City Canonsburg State PA Zip 15317

As Drilled location NAD 83/UTM Attach an as-drilled plat, profile view, and deviation survey  
 Top hole Northing as drilled plat to be submitted by CNX Easting \_\_\_\_\_  
 Landing Point of Curve Northing upon completion of the well. Easting \_\_\_\_\_  
 Bottom Hole Northing \_\_\_\_\_ Easting \_\_\_\_\_

Elevation (ft) 1335 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 Oil Based

Date permit issued 07/24/2014 Date drilling commenced 12/04/2014 Date drilling ceased 05/09/2015  
 Date completion activities began Not completed Date completion activities ceased na  
 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.

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**Office of Oil and Gas**

Freshwater depth(s) ft 266', 503', 810' Open mine(s) (Y/N) depths N  
 Salt water depth(s) ft none noted for offsets Void(s) encountered (Y/N) depths N  
 Coal depth(s) ft NA Cavern(s) encountered (Y/N) depths N  
 Is coal being mined in area (Y/N) No

**WV Department of  
Environmental Protection**

Reviewed by: \_\_\_\_\_

01/27/2017

API 47-017 - 06484

Farm name Haessly Land & Timber, LLC Well number Oxf 97 DHS

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	26"	20"	58.6'	New	J-55		
Surface	17.5"	13 3/8"	891.2'	New	J-55		Y
Coal							
Intermediate 1	12.38"	9 5/8"	3003.6'	New	HCK-55		N
Intermediate 2							
Intermediate 3							
Production	8-3/4" & 8-1/2"	5 1/2"	17,199.4'	New	P-110		N
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	58.6'	50	16.0	1.56	78	18.6	8
Surface	Type 1 / Class A	763	15.6	1.18	900.34	18.6	8
Coal							
Intermediate 1	Type 1 / Class A	stage (1) 1185	15.6	Stage (1) 1.18	1398.3	18.6	8
Intermediate 2							
Intermediate 3							
Production	Type 1 / Class A	Lead 512 Tail 3280	14.5	lead 1.58 Tail 1.27	Total 4974.56	18.6	8
Tubing							

Drillers TD (ft) 17225'

Loggers TD (ft) 17200'

Deepest formation penetrated Marcellus

Plug back to (ft) \_\_\_\_\_

Plug back procedure \_\_\_\_\_

Kick off depth (ft) 5952'

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 No centralizers used on conductor.

11 Centralizers on Surface Casing 36 Centralizers on Intermediate String (Bow string centralizers on first two joints then every third joint to 100' from surface).

304 Centralizers on Production String (rigid bow string every joint to KOP, rigid bow spring every third joint from KOP to top of cement).

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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 Office of Oil and Gas  
 JAN 17 2017  
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 Environmental Protection

01/27/2017





Oxf 97

Formations	Top	Base
Shale and Sandstone	0	2123
Big Lime & Big Injun	2123	2323
Price	2323	2623
Shale and Sandstone	2623	2890
Fourth	2890	2907
Shale and Sandstone	2907	2982
Fifth	2982	2990
Shale and Sandstone	2990	3570
Speechley	3570	3601
Shale	3601	4107
Balltown A	4107	4132
Shale and Sandstone	4132	4321
Balltown B	4321	4378
Shale and Sandstone	4378	4366
Bradford	4366	4377
Shale and Sandstone	4377	4625
Riley	4625	4647
Shale and Sandstone	4647	5157
Benson	5157	5189
Shale and Sandstone	5189	5437
Alexander	5437	5484
Shale	5484	6474
Cashaqua	6474	6602
Middlesex	6602	6651
West River	6651	6727
Burkett	6727	6756
Tully Limestone	6756	6759
Hamilton	6759	6790
Marcellus	6790	6840
Onondaga	6840	