

WR-35  
Rev (8-10)

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

DATE: DECEMBER 6, 2011  
API #: 087-4695

Farm name: MUNDEN Operator Well No.: ZANNIE MACE #9

LOCATION: Elevation: 1020' Quadrangle: ARNOLDSBURG

District: SPENCER County: ROANE  
Latitude: 6850' Feet South of 38 Deg. 50 Min. 00 Sec.  
Longitude 13800' Feet West of 81 Deg. 12 Min. 30 Sec.

Company:

Address:	Casing & Tubing	Used in drilling	Left in well	Cement fill up Cu. Ft.
ROY G. HILDRETH AND SON, INC., PO BOX 1007 SPENCER, WV 25276	9 5/8"	30'	30'	
Agent: <b>ROY G. HILDRETH</b>	7"	300'	300'	TO SURFACE
Inspector: <b>ED GAINER</b>	4 1/2"	2390'	2390'	TOP CEMENT 1350
Date Permit Issued: <b>06/22/11</b>				
Date Well Work Commenced: <b>08/01/11</b>				
Date Well Work Completed: <b>11/30/11</b>				
Verbal Plugging:				
Date Permission granted on:				
Rotary <input checked="" type="checkbox"/> Cable Rig				
Total Vertical Depth (ft):				
Total Measured Depth (ft): <b>2390'</b>				
Fresh Water Depth (ft.): <b>180'</b>				
Salt Water Depth (ft.): <b>1800'</b>				
Is coal being mined in area (N/Y)? <b>N</b>				
Coal Depths (ft.): <b>N</b>				
Void(s) encountered (N/Y) Depth(s) <b>N</b>				

OPEN FLOW DATA (If more than two producing formations please include additional data on separate sheet)

Producing formation BIG INJUN Pay zone depth (ft) 2158' - 2168'

Gas: Initial open flow SHOW MCF/d Oil: Initial open flow SHOW Bbl/d

Final open flow 300 MCF/d Final open flow 5 Bbl/d

Time of open flow between initial and final tests \_\_\_\_\_ Hours

Static rock Pressure \_\_\_\_\_ psig (surface pressure) after \_\_\_\_\_ Hours

Second producing formation \_\_\_\_\_ Pay zone depth (ft) \_\_\_\_\_

Gas: Initial open flow \_\_\_\_\_ MCF/d Oil: Initial open flow \_\_\_\_\_ Bbl/d

Final open flow \_\_\_\_\_ MCF/d Final open flow \_\_\_\_\_ Bbl/d

Time of open flow between initial and final tests \_\_\_\_\_ Hours

Static rock Pressure \_\_\_\_\_ psig (surface pressure) after \_\_\_\_\_ Hours

I certify under penalty of law that I have personally examined and am familiar with the information submitted on this document and all the attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information I believe that the information is true, accurate, and complete.

  
Signature

Dec 6<sup>th</sup> 2011  
Date

05/25/2012

Were core samples taken? Yes \_\_\_\_\_ No

Were cuttings caught during drilling? Yes  No \_\_\_\_\_

Were  Electrical, \_\_\_\_\_ Mechanical, \_\_\_\_\_ or Geophysical logs recorded on this well?  
Y/N Y/N Y/N

**NOTE: IN THE AREA BELOW PUT THE FOLLOWING: 1). DETAILS OF PERFORATED INTERVALS, FRACTURING OR STIMULATING, PHYSICAL CHANGE, ETC. 2). THE WELL LOG WHICH IS A SYSTEMATIC DETAILED GEOLOGICAL RECORD OF THE TOPS AND BOTTOMS OF ALL FORMATIONS, INCLUDING COAL ENCOUNTERED BY THE WELLBORE FROM SURFACE TO TOTAL DEPTH.**

Perforated Intervals, Fracturing, or Stimulating:

20 PERFS @ 2158' - 2168' BIG INJUN  
X-LINK FRACED W/ 37,700# 20/40 SAND

Formations Encountered: \_\_\_\_\_ Top Depth \_\_\_\_\_ / \_\_\_\_\_ Bottom Depth  
Surface:

0 - 1530' SLATE & SHALE

1530' - 1570' SALT SAND

1570' - 1760' SLATE & SHALE

1760' - 1825' SALT SAND

1825' - 1910' MAXON SAND

1910' - 1950' SLATE & SHALE

1950' - 1980' LITTLE LIME

1980' - 2100' BIG LIME

2100' - 2170' BIG INJUN

2170' - 2390' SLATE & SHALE