

**State of West Virginia  
Division of Environmental Protection  
Section of Oil and Gas  
Well Operator's Report of Well Work**

Farm name: GIFFORD, THOMAS L.

Operator Well No.: ARA LONG 2

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LOCATION: Elevation: 1,446'

Quadrangle: PINE GROVE 7.5'

JUL 09 2012

District: GRANT

County: WETZEL

WV GEOLOGICAL SURVEY  
MORGANTOWN, WV

Latitude: 13,065 Feet south of

39 Deg 37 Min 30 Sec.

Longitude: 1,230 Feet west of

80 Deg 40 Min 0 Sec.

Company Address:	HG Energy PO Box 5519 Vienna, WV 26105	Casing & Tubing	Used in Drilling	Left in Well	Cement Fill Up Cu. Ft.
Inspector:	Derek Haught				
Date Permit Issued:	07/05/2011				
Date Well Work Commenced:	12/05/2011				
Date Well Work Completed:	01/16/2012				
Verbal Plugging:					
Date Permission Granted On:					
Rotary X Cable	Rig	7"	1435'	1435'	350 sks
Total vertical Depth (ft):	3530'				
Total Measured Depth (ft):	3611'				
Fresh Water Depth (ft):	none	4 1/2"	3491.8'	3491.8'	200 sks
Salt Water Depth (ft):	none				
Is Coal being mined in ares (Y/N)?	No				
Coal Depths (ft): x	1241'-1248'				
Void(s) encountered (Y/N) depth(s):	NONE				

**OPEN FLOW DATA**

\* Waterflood Producer

This well drilled directionally 213 degrees SW a distance of 515'.

3347'-3348'

Producing formation Gordon Pay zone depth (ft) 3419'-3420.5'  
 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

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

7/3/12  
Date

Were core samples taken? No

Were cuttings caught during drilling? No

Were Y Electrical, N Mechanical, N 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.

**Treatment :** Treated perfs 3347'-3348', 3419'-3420.5' w/ 300 gals 15% HCL, 282 bbls cross linked gel, and 13,100# 20/40 sand.

**Well Log :** All depths are measured relative to KB (8' AGL ).

Shale w/ sand streaks	0	-	1241
Coal	1241	-	1248
Shale	1248	-	1706
Shale w/ sand streaks	1706	-	1765
shale	1765	-	1808
sand	1808	-	1858
shale	1858	-	1885
sand	1885	-	1950
shale	1950	-	2042
sand	2042	-	2150
shale	2150	-	2154
sand	2154	-	2176
shale	2176	-	2192
sand	2192	-	2202
shale	2202	-	2380
sand	2380	-	2412
shale	2412	-	2424
sand	2424	-	2432
Big Lime	2432	-	2538
Big Injun	2538	-	2746
shale	2746	-	3345
Gordon Stray	3345	-	3372
shale	3372	-	3381
Gordon	3381	-	3402
shale	3402	-	3414
sand	3414	-	3421
shale	3421	-	3611
TD	3611		
T.D. -Logger	3511	KB	
T.D. -Driller	3611	KB	

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