

WR-35
Rev (9-11)

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

DATE: 02/07/2013
API #: 47-033-03929 F

Farm name: HWV Incorporated Operator Well No.: Ryan 2

LOCATION: Elevation: 1186' GL Quadrangle: Rosemont

District: Simpson County: Harrison
Latitude: 12,110 Feet South of 39 Deg. 20 Min. 00 Sec.
Longitude 10,920 Feet West of 80 Deg. 10 Min. 00 Sec.

Company: Petroleum Development Corporation

Address:	Casing & Tubing	Used in drilling	Left in well	Cement fill up Cu. Ft.
120 Genesis Boulevard Bridgeport, WV 26330	11 3/4"	22'	22'	Sanded In
Agent: Bob Williamson	8 5/8"	970'	970'	353
Inspector: Tristan Jenkins	4 1/2"	2432'	2432'	485
Date Permit Issued: 06/19/2008				
Date Well Work Commenced: 08/15/2008				
Date Well Work Completed: 08/18/2008				
Verbal Plugging:				
Date Permission granted on:				
Rotary <input type="checkbox"/> Cable <input type="checkbox"/> Rig <input checked="" type="checkbox"/>				
Total Vertical Depth (ft): 4231'				
Total Measured Depth (ft): 4231'				
Fresh Water Depth (ft.): 9', 206'				
Salt Water Depth (ft.): None				
Is coal being mined in area (N/Y)? N				
Coal Depths (ft.): 69-73', 206-211'				
Void(s) encountered (N/Y) Depth(s) N				

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Environmental Protection

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

Producing formation 50 Foot Sand Pay zone depth (ft) 1729
Gas: Initial open flow N/T MCF/d Oil: Initial open flow Bbl/d
Final open flow 133 MCF/d Final open flow Bbl/d
Time of open flow between initial and final tests Hours
Static rock Pressure N/T 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

02/07/2013
Date

03/08/2013

33.03929F

Were core samples taken? Yes _____ No XX

Were cuttings caught during drilling? Yes _____ No XX

Were Electrical, Mechanical or Geophysical logs recorded on this well? If yes, please list Superior GR/CCL.

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:

08/15/2008: MIRU BJ Services and Superior. Set BJ Tools retrievable plug @ 1800'. Pressure tested casing to 3475 psig. Perforated the 50 FOOT formation: 16 (1729-37), 8 (1745-49). RDMO. 08/18/2008: BJ Services: MIRU. Broke the 50 FOOT formation. Formation broke at 1674#. Gel frac formation. Start 105 bbl pad, 304 bbls treating fluid, 40,000 lbs of 30/50 Sand, 27.9 bbl of flush. Stage sand at 1# ppg increments from 1# - 4# ppg. MTP - 1711 psi, ATP - 1675 psi. Shut down, ISIP - 1362 psi, 5 min SIP - 1110 psi. RDMO

Plug Back Details Including Plug Type and Depth(s):

Formations Encountered:	Top Depth	/	Bottom Depth
Surface:			

See "Well Log" from original completion of this well (47-033-03929).