

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

DATE: 02/05/2013  
API #: 47-033-05139

Farm name: Fahey, William F. Operator Well No.: Fahey 5

LOCATION: Elevation: 1296' GL Quadrangle: Wolf Summit 7.5

District: Tenmile County: Harrison  
Latitude: 11,970 Feet South of 39 Deg. 22 Min. 30 Sec.  
Longitude 11,790 Feet West of 80 Deg. 27 Min. 30 Sec.

Company: Petroleum Development Corporation

Address:	Casing & Tubing	Used in drilling	Left in well	Cement fill up Cu. Ft.
<u>120 Genesis Boulevard</u> <u>Bridgeport, WV 26330</u>	<u>13 3/8"</u>	<u>19'</u>	<u>19'</u>	<u>Sanded In</u>
Agent: <u>Bob Williamson</u>	<u>9 5/8"</u>	<u>253'</u>	<u>253'</u>	<u>162</u>
Inspector: <u>Tristan Jenkins</u>	<u>7"</u>	<u>1737'</u>	<u>1737'</u>	<u>354</u>
Date Permit Issued: <u>08/27/2008</u>	<u>4 1/2"</u>	<u>5303'</u>	<u>5303'</u>	<u>423</u>
Date Well Work Commenced: <u>10/29/2008</u>				
Date Well Work Completed: <u>11/13/2008</u>				
Verbal Plugging:				
Date Permission granted on:				
Rotary <input checked="" type="checkbox"/> Cable <input type="checkbox"/> Rig <input type="checkbox"/>				
Total Vertical Depth (ft): <u>5542'</u>				
Total Measured Depth (ft): <u>5542'</u>				
Fresh Water Depth (ft.): <u>410'</u>				
Salt Water Depth (ft.): <u>1650', 1834'</u>				
Is coal being mined in area (N/Y)? <u>N</u>				
Coal Depths (ft.): <u>475'</u>				
Void(s) encountered (N/Y) Depth(s) <u>N</u>				

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

Producing formation Benson, 5th & 4th Sands Pay zone depth (ft) 5224,3022

Gas: Initial open flow 84 MCF/d Oil: Initial open flow Show Bbl/d

Final open flow 189 MCF/d Final open flow Show Bbl/d

Time of open flow between initial and final tests 24 Hours

Static rock Pressure 280 psig (surface pressure) after 72 Hours

Second producing formation Gordon (commingled) Pay zone depth (ft) 2805

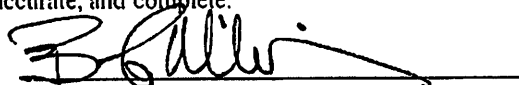
Gas: Initial open flow \_\_\_\_\_ MCF/d Oil: Initial open flow \_\_\_\_\_ Bbl/d

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

Were core samples taken? Yes \_\_\_\_\_ No XXWere cuttings caught during drilling? Yes \_\_\_\_\_ No XXWere Electrical, Mechanical or Geophysical logs recorded on this well? If yes, please list Weatherford Photo Density/Comp Neutron/  
Array Induction from 5542-1728. Superior GR/CCL/CBL /VDL from 5274 - 1600.

**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:

11/13/2008:MIRU HES & Superior Wireline, ran GR/CCL/CBL from 5274'. Perf Benson w/12 holes from 5224'-30'. RU HES, test lines, & pump an N2 assist Delta 15# gel system. Formation broke at 3159#. Start 65 bbl pad, 331 bbls treating fluid, 29,800 lbs of 20/40 Sand, 70 bbl of flush.

Stage sand at 1# ppg increments from 1# - 4# ppg. MTP - 2972 psi, ATP - 2826 psi. Shut down, ISIP - 2294 psi. 2nd stage:

Perforated the 5th/4th Sand formation: 17 holes from (3022-40). Pumped an N2 assist Delta 15# gel system. Formation broke at 2870#.

Start 110 bbl pad, 481 bbls treating fluid, 49,900 lbs of 20/40 Sand, 51 bbl of flush. Stage sand at 1# ppg increments from 1# - 4# ppg.

MTP - 3136 psi, ATP - 2983 psi. Shut down, ISIP - 2508 psi. Perf Gordon w/12 holes from 2805'-11'. Pumped an N2 assist Delta Plug Back Details Including Plug Type and Depth(s): 15# gel system. Formation broke at 2811#. Start 76 bbl pad, 463 bbls treating fluid, 39,900 lbs of 20/40 Sand, 45 bbl of flush. Stage sand at 1# ppg increments from 1# - 4# ppg. MTP - 3902psi, ATP - 3268 psi. Shut down, ISIP - 3524 psi.

<u>Formations Encountered:</u>	<u>Top Depth</u>	<u>Bottom Depth</u>
<u>Surface:</u>		
Little Lime	2160	2186
Big Lime	2206	2250
Keener	2257	2293
Big Injun	2300	2344
Gantz	2692	2717
Fifty Foot	2778	2814 Show Gas
Gordon Stray	2890	2917
4th SS	2950	2993
5th SS	3007	3047 Show Gas
Speechley	3508	3940
Balltown	4020	4228
Bradford	4328	4474
Riley	4778	5130
Benson	5224	5266 Show Gas
TD	5542	