

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: 02/01/2013
API #: 47-091-01147

Farm name: Baker, Harry E. Operator Well No.: H Baker 2

LOCATION: Elevation: 1290' Quadrangle: Grafton 7.5'

District: Booths Creek County: Taylor
Latitude: 5,020 Feet South of 39 Deg. 20 Min. 00 Sec.
Longitude 7,420 Feet West of 80 Deg. 05 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"	44'	44'	Sanded In
Agent: Bob Williamson	8 5/8"	1264'	1264'	422
Inspector: Joe McCourt	4 1/2"	5020'	5020'	984
Date Permit Issued: 06/09/2009				
Date Well Work Commenced: 07/27/2009				
Date Well Work Completed: 10/20/2009				
Verbal Plugging:				
Date Permission granted on:				
Rotary <input checked="" type="checkbox"/> Cable <input type="checkbox"/> Rig <input type="checkbox"/>				
Total Vertical Depth (ft): 7442'				
Total Measured Depth (ft): 7442'				
Fresh Water Depth (ft.): 125', 375'				
Salt Water Depth (ft.): N/A				
Is coal being mined in area (N/Y)? N				
Coal Depths (ft.): 250'				
Void(s) encountered (N/Y) Depth(s) N				

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

Producing formation Bonson, Riley, Balltown (commingled) Pay zone depth (ft) 4510, 4100, 3207

Gas: Initial open flow 100 MCF/d Oil: Initial open flow 0 Bbl/d

Final open flow 146 MCF/d Final open flow 0 Bbl/d

Time of open flow between initial and final tests 72 Hours

Static rock Pressure 1050 psig (surface pressure) after 72 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

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FEB 25 2013

WV Department of
Environmental Protection

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

Were core samples taken? Yes _____ No XX

Were cuttings caught during drilling? Yes XX No _____

Were Electrical, Mechanical or Geophysical logs recorded on this well? If yes, please list Mud Log from 1330'-7442', Hotwell Radial Bond/GR/VDL/CCL from 4933'-1700', JW Wireline GR/CCL/CBL/VDL from 5010'-2350'.

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:

10/20/2009: MIRU Halliburton & JW Wireline & run GR/CCL log from 5010-2350 & perf Benson from 4508-11. RU Halliburton & pump a 60 Q foam w/410 sks of 20/40 brown sand, 12.7 bpm avg slurry rate, 349 bbls clean vol, ATP = 3629, N2 rate @13,160 scfm, & 428,153scf of N2. RU JW & set composite flo-thru small mouth plug at 4205' & perf Riley @ 4179-80. RU Halliburton & pump a 60 Q foam w/355 sks of 20/40 brown sand, 12.4 bpm avg slurry rate, 314 bbls clean vol, ATP = 3390, N2 rate @14,040 scfm, & 407,866scf of N2. RU JW & set composite flo-thru large mouth plug at 3266' & perf Balltown @ 3234-39. RU Halliburton & pump a 60 Q foam w/323 sks of 20/40 brown sand, 14.8 bpm avg slurry rate, 471 bbls clean vol, ATP = 2794, N2 rate @4,359 scfm, & 154,303scf of N2. Plug Back Details Including Plug Type and Depth(s): TD at 7434', Fish(bit & drill pipe) from 7434-6850, void from 6850-6730, cement plug from 6730-6400 (330'), 4 1/2" to 5020' w/ cmt top at 1840'.

Formations Encountered: _____ Top Depth _____ / _____ Bottom Depth _____
Surface: _____

Formations Encountered:	Top Depth	/	Bottom Depth
Little Lime	1314	1329	
Big Lime	1374	1506	
Gantz	1935	1945	
50 Foot	1970	2010	
30 Foot	2044	2075	
Gordon	2150	2165	
4th Sand	2430	2475	Gas
5th Sand	2520	2560	Gas
Balltown	3246	3680	Gas
Riley	3975	4070	
Benson	4170	4220	Gas
Elk	4820	4850	
Geneseo	7434	7442 TD	

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WV Department of
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west virginia department of environmental protection

Oil and Gas Conservation Commission
601 57th Street, SE Charleston, WV 25304
(304)926-0499, Ext 1656

Joe Manchin III, Governor
Randy C. Huffman, Cabinet Secretary
www.wvdep.org

September 4, 2009

Department of Environmental Protection
Office of Oil and Gas
Charleston, WV 25304

RE: Application for Deep Well Permit – API #47-091-01147

COMPANY: Petroleum Development Corporation

FARM: H Baker #2

COUNTY Taylor DISTRICT: Booths Creek QUAD: Grafton

The application for the above company is WITHDRAWN FOR THE ORISKANY.

Withdrawn due to drilling problems, well to be completed in a shallow zone, PDC wishes to drill H Baker 3 wells which is within 3,000' of H Baker #2 therefore OGCC is withdrawing deep well approval for H Baker #2

The applicant has complied with the provision of Chapter 22C-9, of the Code of West Virginia, nineteen hundred and thirty-one (1931), as amended, Oil and Gas Conservation Commission as follows:

1. Provided a certified copy of duly acknowledged and recorded consent and easement form from all surface owners; N/A
2. Provided a tabulation of all deep wells within one mile of the proposed location, including the API number of all deep wells, well name, and the name and address of the operator; NONE
3. Provided a plat showing that the proposed location is a distance of 400+ feet from the nearest lease line or unit boundary and showing the following wells drilled to or capable of producing from the objective formation within 3,000 feet of the proposed location.

Sincerely,

Cindy Raines
Executive Assistant



west virginia department of environmental protection

Office of Oil and Gas
601 57th Street SE
Charleston, WV 25304
(304) 926-0450
(304) 926-0452 fax

Joe Manchin III, Governor
Randy C. Huffman, Cabinet Secretary
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PERMIT MODIFICATION APPROVAL

July 23, 2009

PETROLEUM DEVELOPMENT CORPORATION
P. O. BOX 26, 120 GENESIS BOULEVARD
BRIDGEPORT, WV 26330

Re: Permit Modification Approval for API Number 9101147 , Well #: H BAKER 2
Modified from Marcellus to Oriskany

Oil and Gas Operator:

The Office of Oil and Gas has reviewed the attached permit modification for the above referenced permit. The attached modification has been approved and well work may begin. Please be reminded that the oil and gas inspector is to be notified twenty-four (24) hours before permitted well work is commenced.

Please call James Martin at 304-926-0499, extension 1654 if you have any questions.

Sincerely,

Gene Smith
for Regulatory/Compliance Manager
Office of Oil and Gas

Promoting a healthy environment.

91-01147400

Form: WW - 2B

STATE OF WEST VIRGINIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION, OFFICE OF OIL AND GAS
WELL WORK PERMIT APPLICATION

1) Well Operator Petroleum Development Corp. 308153 Taylor 91 Booths Creek 01 Grafton 378
Operator ID County District Quadrant

2) Operators Well Number: Harry Baker #2 3) Elevation: 1,290'

4) Well Type: (a) Oil _____ or Gas X
(b) If Gas: Production X / Underground Storage _____
Deep X / Shallow _____

5) Proposed Target Formation(s): Oriskany

6) Proposed Total Depth: 8,000

7) Approximate fresh water strata depths: 125, 375

8) Approximate salt water depths: None Reported

9) Approximate coal seam depths: 250'

10) Does land contain coal seams tributary to active mine? No

11) Describe proposed well work Drill and stimulate new well.

12) CASING AND TUBING PROGRAM

TYPE	SPECIFICATIONS			FOOTAGE INTERVALS		CEMENT
	Size	Grade	Weight per ft	For Drilling	Left in Well	Fill -up (Cu. Ft.)
Conductor	16"	H-40	42#	40'	40'	-
Fresh Water	11 3/4"	H-40	32#	425'	425'	CTS
Coal						
Intermediate	8 5/8"	H-40	20/24#	2,000'	2,000'	CTS
Production	5 1/2"	N-80	17#	7,850'	7,850' 7,950'	275 SKS
Tubing						
Liners						

Packers: Kind
 Sizes
Depths Set

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JUL 22 2009

WV Oil and Gas
Conservation Commission

[Handwritten Signature]
7/23/09



west virginia department of environmental protection

Office of Oil and Gas
601 57th Street SE
Charleston, WV 25304
(304) 926-0450
(304) 926-0452 fax

Joe Manchin III, Governor
Randy C. Huffman, Cabinet Secretary
www.wvdep.org

June 09, 2009

WELL WORK PERMIT

New Well

This permit, API Well Number: 47-9101147, issued to PETROLEUM DEVELOPMENT CORPORATION, is evidence of permission granted to perform the specified well work at the location described on the attached pages and located on the attached plat, subject to the provisions of Chapter 22 of the West Virginia Code of 1931, as amended, and all rules and regulations promulgated thereunder, and to all conditions and provisions outlined in the pages attached hereto. Notification shall be given by the operator to the Oil and Gas Inspector at least 24 hours prior to the construction of roads, locations, and/or pits for any permitted work. In addition, the well operator shall notify the same inspector 24 hours before any actual well work is commenced and prior to running and cementing casing. Spills or emergency discharges must be promptly reported by the operator to 1-800-642-3074 and to the Oil and Gas inspector.

Please be advised that form WR-35, well operators report of well work, is to be submitted to this office within 90 days of completion of drilling, as should form WR-34 Discharge Monitoring Report within 30 days of discharge of pits, if applicable. Failure to abide by all statutory and regulatory provisions governing all duties and operations hereunder may result in suspension or revocation of this permit and, in addition, may result in civil and/or criminal penalties being imposed upon the operators.

Per 35CSR-4-5.2.g this permit will expire in two (2) years from the issue date unless permitted well work is commenced. If there are any questions, please feel free to contact me at (304) 926-0499 ext. 1654.

James Martin
Chief

Operator's Well No: H BAKER 2
Farm Name: BAKER, HARRY E.
API Well Number: 47-9101147
Permit Type: New Well
Date Issued: 06/09/2009

Promoting a healthy environment.

91001147
VOID

**STATE OF WEST VIRGINIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION, OFFICE OF OIL AND GAS
WELL WORK PERMIT APPLICATION**

91 1 378

1) Well Operator Petroleum Development Corp.

308153	Taylor	Booths Creek	Grafton 7.5'
Operator ID	County	District	Quadrangle

2) Operator's Well Number: H. Baker #2 3) Elevation: 1290'

4) Well Type: (a) Oil _____ or Gas X
 (b) If Gas: Production X / Underground Storage _____
 Deep _____ / Shallow X

5) Proposed Target Formation(s): Marcellus

6) Proposed Total Depth: 8000 Feet

7) Approximate fresh water strata depths: 125, 375'

8) Approximate salt water depths: None

9) Approximate coal seam depths: 250'

10) Does land contain coal seams tributary to active mine? No

11) Describe proposed well work To Drill and Stimulate a New Well

VOID

12) **CASING AND TUBING PROGRAM**

TYPE	SPECIFICATIONS			FOOTAGE INTERVALS		CEMENT
	Size	Grade	Weight per ft	For Drilling	Left in Well	Fill -up (Cu. Ft.)
Conductor	16"	H-40	42#	40'	40'	
Fresh Water	11 3/4"	H-40	32#	425'	425'	CTS
Coal						
Intermediate	8 5/8"	H-40	20/24#	2000'	2000'	CTS
Production	5 1/2"	N-80	17#	7850'	7850'	275 SKS
Tubing						
Liners						

Packers: Kind _____
 Sizes _____
 Depths Set _____

B.O.H.
5-29-9

0037999
900

