

WR-35

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AUG 04 1989

DIVISION OF OIL & GAS
DEPT. OF ENERGY



State of West Virginia
DEPARTMENT OF ENERGY
Oil and Gas Division

Date August 4, 1989
Operator's
Well No. 3
Farm Daugherty
API No. 47 - 017 - 3709

WELL OPERATOR'S REPORT
OF
DRILLING, FRACTURING AND/OR STIMULATING, OR PHYSICAL CHANGE

WELL TYPE: Oil ___ / Gas X / Liquid Injection ___ / Waste Disposal ___ /
(If "Gas," Production X / Underground Storage ___ / Deep ___ / Shallow ___ /)

LOCATION: Elevation: 1007 Watershed Dotson Run
District: Central County Doddridge Quadrangle Pennsboro

COMPANY Appalachian Energy Dev., Inc.

ADDRESS Rt. 2, Box 499, Grafton, WV 26354

DESIGNATED AGENT George R. Williams

ADDRESS Rt. 2, Box 499, Grafton, WV 26354

SURFACE OWNER Westvaco Corp.

ADDRESS P.O. Box 577, Rupert, WV 25984

MINERAL RIGHTS OWNER Phyllis McKown, et al

ADDRESS Pennsboro, WV

OIL AND GAS INSPECTOR FOR THIS WORK Mike

Underwood ADDRESS Salem, WV

PERMIT ISSUED 3/24/89

DRILLING COMMENCED 6/21/89

DRILLING COMPLETED 6/27/89

IF APPLICABLE: PLUGGING OF DRY HOLE ON
CONTINUOUS PROGRESSION FROM DRILLING OR
REWORKING. VERBAL PERMISSION OBTAINED
ON

Casing & Tubing	Used in Drilling	Left in Well	Cement fill up Cu. ft.
Size 20-16 Cond.			
13-10"	132	132	Surface
9 5/8			
8 5/8	1525	1525	Surface
7			
5 1/2			
4 1/2	5195	5195	Top @ 2500'
3			
2			
Liners used			

GEOLOGICAL TARGET FORMATION Alexander/Benson/Riley/Warren/Balltopp depth 4 feet

Depth of completed well 5227 feet Rotary x / Cable Tools

Water strata depth: Fresh 96 feet; Salt 1390 feet

Coal seam depths: N/A Is coal being mined in the area? No

NOTE: These zones are downhole commingled

OPEN FLOW DATA

Producing formation Alexander/Benson/Riley/Warren/Balltopp pay zone depth See perf. detail feet

Gas: Initial open flow 38 Mcf/d Oil: Initial open flow 0 Bbl/d

Final open flow 810 Mcf/d Final open flow 0 Bbl/d

Time of open flow between initial and final tests hours

Static rock pressure 1680 psig (surface measurement) after 48 hours shut in

(If applicable due to multiple completion--)

Second producing formation Pay zone depth feet

Gas: Initial open flow Mcf/d Oil: Initial open flow Bbl/d

Final open flow Mcf/d Oil: Final open flow Bbl/d

Time of open flow between initial and final tests Aug 1 1989

Static rock pressure psig (surface measurement) after hours shut in

DETAILS OF PERFORMED INTERVALS, FRACTURING OR STIMULATING, PHYSICAL CHANGE, ETC.

- (1) Alexander-perf 5097-5116 w/18 holes. Frac w/30,000# sand in 410 bbls. water, using 76,000 SCF N₂.
- (2) Benson - perf 4661-4818 w/16 holes. Frac w/30,000# sand in 415 bbls. water, using 73,000 SCF N₂.
- (3) Riley - perf 4428-49 w/18 holes, Foam frac w/30,000# 20/40' sand in 610 bbls. 75 quality foam, using 515,000 SCF N₂.
- (4) Balltown - perf 3797-3808 w/16 holes. Frac w/20,000# sand in 270 bbls. water, using 41,000 SCF N₂.
- (5) Warren - perf 3288-3329 w/16 holes. Frac w/30,000# sand in 410 bbls. water, using 68,000 SCF

WELL LOG

FORMATION	COLOR	HARD OR SOFT	TOP FEET	BOTTOM FEET	REMARKS
					Including indication of all fresh and salt water, coal, oil and gas
Sand and Shale			0	120	1" water @ 96'
Red Rock			120	160	
Sand and Shale			160	1860	Wet @ 1390'
Big Lime			1860	1904	
Big Injun			1904	1996	
Sand and Shale			1996	2192	
Weir			2192	2312	
Sand and Shale			2312	3282	
Warren Shale			3282	3338	
Shale			3338	4424	
Riley			4424	4464	
Shale			4464	4810	
Benson			4810	4818	
Shale			4818	5092	
Alexander			5092	5126	
Shale			5126	5227	
Total Depth				5227	
					Gas check @ 5118' 8/10" water - 1".



(Attach separate sheets as necessary)

APPALACHIAN ENERGY DEVELOPMENT, INC.
 Well Operator
 By: George R. Williams
 Date: 8/4/89

AUG 11 1989

Note: Regulation 2.02(i) provides as follows:
 "The term 'log' or 'well log' shall mean a systematic detailed geological record of all formations, including coal, encountered in the drilling of a well."

STATE OF WEST VIRGINIA
DEPARTMENT OF ENERGY, DIVISION OF OIL AND GAS
WELL WORK PERMIT APPLICATION

- 1) Well Operator: Appalachian Energy Development *2325, 1, 538*
- 2) Operator's Well Number: Daugherty Well No.3 3) Elevation: 1007'
- 4) Well type: (a) Oil / or Gas /
(b) If Gas: Production / Underground Storage /
Deep / Shallow /
- 5) Proposed Target Formation(s): Alexander
- 6) Proposed Total Depth: 5200 feet
- 7) Approximate fresh water strata depths: 105'
- 8) Approximate salt water depths: N/A
- 9) Approximate coal seam depths: N/A
- 10) Does land contain coal seams tributary to active mine? Yes / No /
- 11) Proposed Well Work: Drill & 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	11 3/4"			30'	0'	0 Sks.
Fresh Water	3 5/8"			1492'	1492'	CTS 38 38 CSR 13-11.3
Coal						
Intermediate						
Production	4 1/2"			5200'	5200'	By Rule 38 CSR 13-11.1
Tubing						
Liners						

2439

PACKERS : Kind _____
Sizes _____
Depths set _____

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DIVISION OF OIL & GAS
DEPARTMENT OF ENERGY

For Division of Oil and Gas Use Only

1764

Fee(s) paid: Well Work Permit Reclamation Fund WPCP
 Plat WW-9 WW-2B Bond *Blanket* Agent
(Type)

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- 1) Date: March 23, 1989
- 2) Operator's well number Daugherty Well No. 3
- 3) API Well No: 47 - 017 - 3709
State - County - Permit

DIVISION OF OIL & GAS
DEPARTMENT OF ENERGY
STATE OF WEST VIRGINIA
DEPARTMENT OF ENERGY, DIVISION OF OIL AND GAS

NOTICE AND APPLICATION FOR A WELL WORK PERMIT

- | | |
|--|---|
| <p>4) Surface Owner(s) to be served:</p> <p>(a) Name <u>Westvaco Corporation</u>
Address <u>P.O. Box 577</u>
<u>Rupert, WV 25984</u></p> <p>(b) Name _____
Address _____</p> <p>(c) Name _____
Address _____</p> | <p>5) (a) Coal Operator:</p> <p>Name <u>N/A</u>
Address _____</p> <p>(b) Coal Owner(s) with Declaration</p> <p>Name <u>N/A</u>
Address _____</p> <p>Name _____
Address _____</p> <p>(c) Coal Lessee with Declaration</p> <p>Name <u>N/A</u>
Address _____</p> |
| <p>6) Inspector <u>Mike Underwood</u>
Address <u>Rt. 2, Box 135</u>
<u>Salem, WV 26426</u>
Telephone (304)- <u>782 - 1043</u></p> | |

TO THE PERSON(S) NAMED ABOVE TAKE NOTICE THAT:

_____ Included is the lease or leases or other continuing contract or contracts by which I hold the right to extract oil and gas OR
X Included is the information required by Chapter 22B, Article 1, Section 8(d) of the Code of West Virginia (see page 2)

I certify that as required under Chapter 22B of the West Virginia Code I have served copies of this notice and application, a location plat, and accompanying documents pages 1 through 7 on the above named parties, by:

- X Personal Service (Affidavit attached)
- _____ Certified Mail (Postmarked postal receipt attached)
- _____ Publication (Notice of Publication attached)

I have read and understand Chapter 22B and 38 CSR 11-18, and I agree to the terms and conditions of any permit issued under this application. I certify under penalty of law that I have personally examined and am familiar with the information submitted on this application form and all 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.

I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.

Well Operator Appalachian Energy Corporation
By: [Signature]
Its: [Signature]
Address Rt. 2, Box 499
Grafton, WV 26354
Telephone 265 - 4147

Subscribed and sworn before me this 23rd day of March, 1989

Gregory A. Smith Notary Public
My commission expires 12-7-92