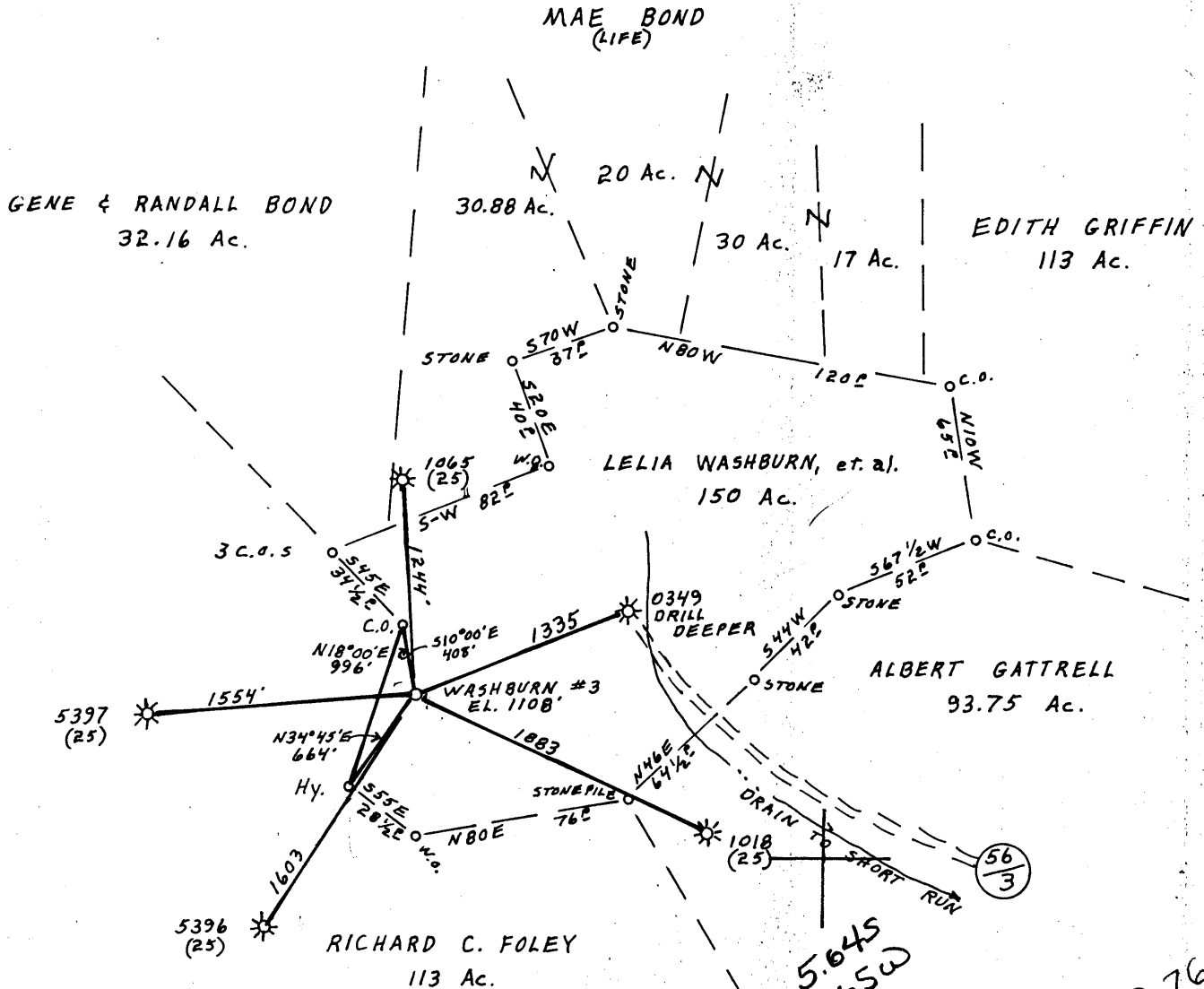
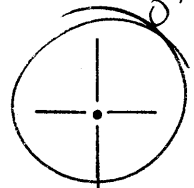


NORTH



REFERENCES

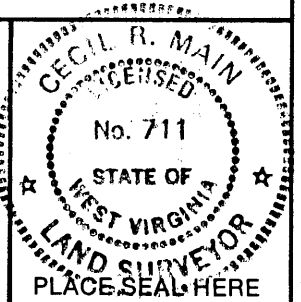
N 86° 00' W 190' TO 4" W.O.
 N 36° 45' E 135' TO 4" DOGWOOD



(+) DENOTES LOCATION OF WELL ON UNITED STATES TOPOGRAPHIC MAPS

FILE NO. _____
 DRAWING NO. _____
 SCALE 1" = 1000'
 MINIMUM DEGREE OF ACCURACY 1 PART IN 200'
 PROVEN SOURCE OF ELEVATION WELL API # 0349
 ELEV 1025

I THE UNDERSIGNED, HEREBY CERTIFY THAT THIS PLAT IS CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF AND SHOWS ALL THE INFORMATION REQUIRED BY LAW AND THE REGULATIONS ISSUED AND PRESCRIBED BY THE DEPARTMENT OF MINES.
 (SIGNED) Cecil R. Main
 R.P.E. _____ L.L.S. 711



STATE OF WEST VIRGINIA
 DEPARTMENT OF MINES
 OIL AND GAS DIVISION



DATE FEBRUARY 2, 1987
 OPERATOR'S WELL NO. WASHBURN #3
 API WELL NO.

47 095 1174
 STATE COUNTY PERMIT

WELL TYPE: OIL ___ GAS X LIQUID INJECTION ___ WASTE DISPOSAL ___
 (IF "GAS,") PRODUCTION ___ STORAGE ___ DEEP ___ SHALLOW X
 LOCATION: ELEVATION 1108 WATERSHED SHORT RUN
 DISTRICT CENTERVILLE COUNTY TYLER
 QUADRANGLE ~~WASHBURN~~ PENNSBORO 7.5 539 133 West Union C.
 SURFACE OWNER GLENN W. JAMES ACREAGE 146
 OIL & GAS ROYALTY OWNER LELIA WASHBURN, et. al. LEASE ACREAGE 150

LEASE NO. _____
 PROPOSED WORK: DRILL X CONVERT ___ DRILL DEEPER ___ REDRILL ___ FRACTURE OR STIMULATE ___ PLUG OFF OLD FORMATION ___ PERFORATE NEW FORMATION X OTHER PHYSICAL CHANGE IN WELL (SPECIFY) _____

PLUG AND ABANDON ___ CLEAN OUT AND REPLUG ___
 TARGET FORMATION ALEXANDER ESTIMATED DEPTH 5600
 WELL OPERATOR APPALACHIAN ENERGY DEV., INC. DESIGNATED AGENT GEORGE WILLIAMS
 ADDRESS P.O. BOX 902 ADDRESS P.O. BOX 902
 BELINGTON, W.VA. 397 BELINGTON, W.VA.

MAR 09 1987

6.6 Stanley (90)

COUNTY NAME

PERMIT

FORM IV-6 (8-78) H.T. HALL

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

- 1.) Perf Benson 4992-96 w/12 holes. Frac w/30,000# 20/40 sand, 43000 SCF N₂, 20# gel in 318 bbls. water. Avg Rate-27 BPM, Avg Pr-2350 psi, ISIP-1700 psi
- 2.) Perf. Riley 4596-4601 (4 holes), 4607-09 (2 holes), 4615-21 (6 holes), 4625-27 (2 holes). Frac w/20,000# 20/40 sand, 58000 SCF N₂, 20# gel in 290 bbls water. Avg Rate-28 BPM, Avg Pr-2700 psi, ISIP-2700 psi.
- 3.) 3 9/16" baffle left in well @ 4693'.

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 & shale			0	269	no water @ 11 3/4" csg point.
siltstone			269	620	
sand			620	642	1" stream water @ 635'.
shale			642	1218	
sand			1218	1288	
sand & shale			1288	1960	
Big Lime			1960	2022	
Big Injun			2022	2110	
sand & shale			2110	2934	gas ck @ 2135'=351 MCF
shale			2934	3400	gas ck @ 2637'=300 MCF
sand & shale			3400	3510	gas ck @ 3106'=268 MCF
shale			3510	4576	gas ck @ 3670'=219 MCF
Riley			4576	4624	gas ck @ 4172'=219 MCF
shale			4624	4972	gas ck @ 4640'=310 MCF
Benson			4972	4978	gas ck @ 5048'=268 MCF
shale			4978	5143	gas ck @ 5143'=332 MCF
Total Depth= <u>5143'</u>					Gas ck @ collars in table = 230 MCF.

RECEIVED
MAR 23 1987

DIVISION OF OIL & GAS
DEPARTMENT OF ENERGY

(Attach separate sheets as necessary)

Appalachian Energy Dev., Inc.

Well Operator

By:

Date:

3/18/87

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."

(Obverse)
7/85

RECEIVED
FEB 24 1987



1) Date: February 20, 1987
 2) Operator's Well No. Washburn # 3
 3) API Well No. 47 State 095 County Permit 1174

DIVISION OF OIL & GAS
DEPARTMENT OF ENERGY

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

- 4) WELL TYPE: A Oil / Gas XXX /
 B (If "Gas", Production XXX / Underground storage / Deep / Shallow XXX /)
- 5) LOCATION: Elevation: 1108' Watershed: Short Run PENNSBORO 7.5
 District: Centerville County: Tyler 095 Quadrangle: West Union 7.5 670
- 6) WELL OPERATOR Appalachian Energy Development, Inc. CODE: 2325 7) DESIGNATED AGENT George R. Williams
 Address Rt. 2, Box 499 Address Rt. 2, Box 499
Grafton, WV 26354 Grafton, WV 26354
- 8) OIL & GAS INSPECTOR TO BE NOTIFIED 9) DRILLING CONTRACTOR:
 Name Robert Lowther Name
 Address General Delivery Address
Middlebourne, WV 26149
- 10) PROPOSED WELL WORK: Drill XXX / Drill deeper / Redrill / Stimulate XXX /
 Plug off old formation / Perforate new formation
 Other physical change in well (specify)
- 11) GEOLOGICAL TARGET FORMATION, Alexander
 12) Estimated depth of completed well, 5600' feet
 13) Approximate strata depths: Fresh, NA feet; salt, NA feet.
 14) Approximate coal seam depths: NA Is coal being mined in the area? Yes / No XXX
- 15) CASING AND TUBING PROGRAM

CASING OR TUBING TYPE	SPECIFICATIONS					FOOTAGE INTERVALS		CEMENT FILL-UP OR SACKS (Cubic feet)	PACKERS	
	Size	Grade	Weight per ft.	New	Used	For drilling	Left in well		Kinds	Sizes
Conductor	11 3/4"			X		30'				
Fresh water										
Coal										
Intermediate	8 5/8"			X		1230'	1230'	Cement to Surface		by rule 15.05
Production	4 1/2"			X			5600'	As Required		Depths set
Tubing								By Rule 15.01		
Liners										Perforations:
										Top Bottom

OFFICE USE ONLY
DRILLING PERMIT

Permit number 47-095-1174 Date March 2 19 87

This permit covering the well operator and well location shown below is evidence of permission granted to drill in accordance with the pertinent legal requirements subject to the conditions contained herein and on the reverse hereof. Notification must be given to the District Oil and Gas Inspector. (Refer to No. 8) Prior to the construction of roads, locations and pits for any permitted work. In addition, the well operator or his contractor shall notify the proper district oil and gas inspector 24 hours before actual permitted work has commenced.)

The permitted work is as described in the Notice and Application, plat, and reclamation plan, subject to any modifications and conditions specified on the reverse hereof.

Permit expires March 2, 1989 unless well work is commenced prior to that date and prosecuted with due diligence.

Bond: <input checked="" type="checkbox"/>	Agent: <input checked="" type="checkbox"/>	Plat: <u>MH</u>	Casing: <u>MH</u>	Fee: <u>442</u>	WPCP: <input checked="" type="checkbox"/>	S&E: <u>MH</u>	Other: <u> </u>
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NOTE: Keep one copy of this permit posted at the drilling location.

John N. Johnston
Director, Division of Oil and Gas

See the reverse side of the APPLICANT'S COPY for instructions to the well operator.

9728

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By Margaret J. Hulse