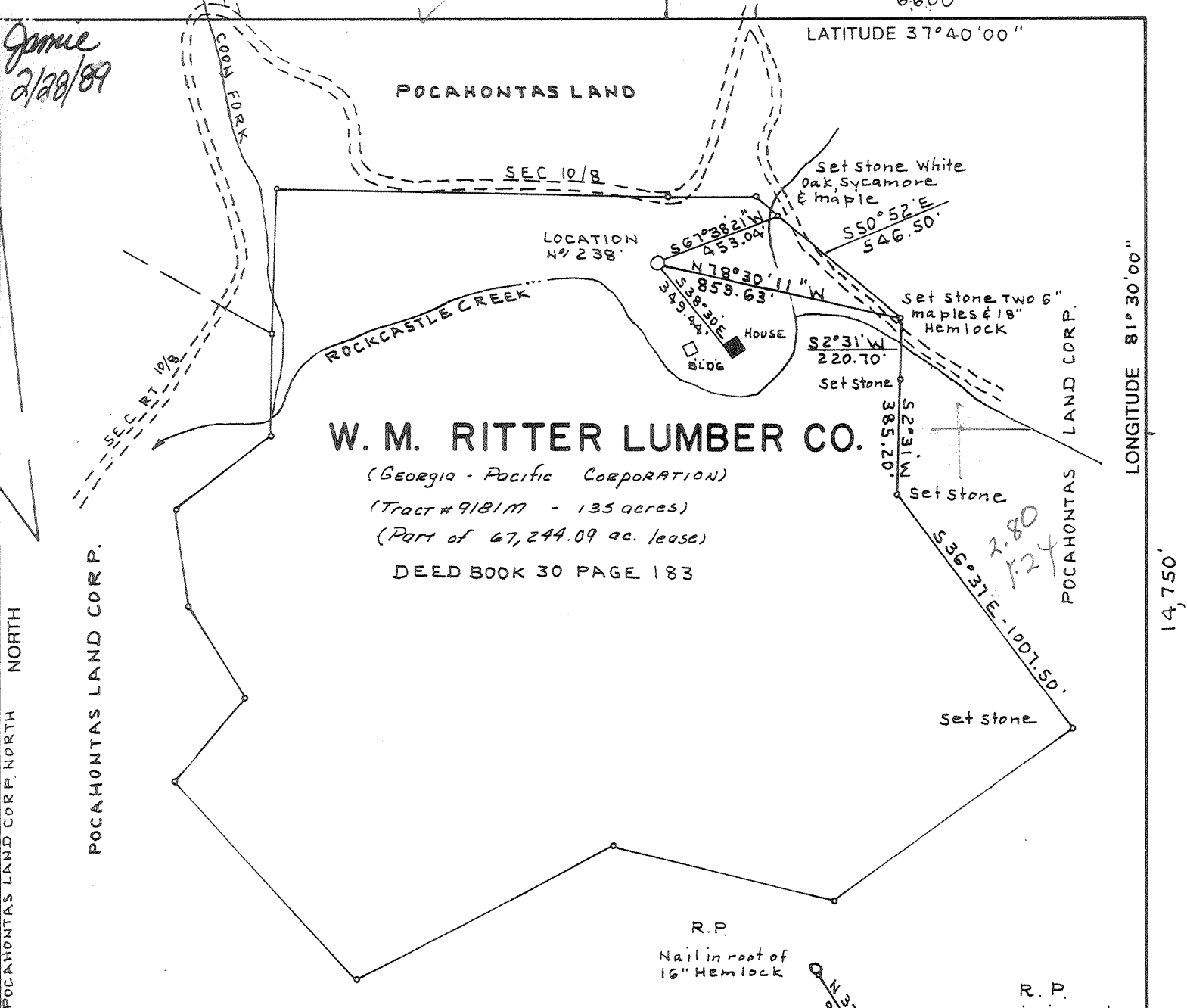


Opmie
2/28/89



W. M. RITTER LUMBER CO.

(Georgia - Pacific Corporation)
(Tract # 918117 - 135 acres)
(Part of 67,244.09 ac. lease)
DEED BOOK 30 PAGE 183

POCAHONTAS LAND CORP.
COORD. LOCATION 238
N - 94435.21'
E - 8,039.18'

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

FILE NO. _____ DRAWING NO. _____ SCALE <u>1" = 500'</u> MINIMUM DEGREE OF ACCURACY <u>1:5500'</u> PROVEN SOURCE OF ELEVATION <u>USGS BM 32 AFK</u> <u>N.E. of Jct Sec Rts 10/8 & 10/9</u> <u>disk in rock E1 1775</u>	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 ENERGY. (SIGNED) <u>C. J. Valley Jr.</u> R.P.E. _____ L.S. <u>92</u>	PLACE SEA HERE
---	--	----------------

STATE OF WEST VIRGINIA
DEPARTMENT OF ENERGY
OIL AND GAS DIVISION

DATE FEB 14, 1989
 OPERATOR'S WELL NO RITTER 238
 API WELL NO. Serial # 117631
47 - 109 - 1081
 STATE COUNTY PERMIT

WELL TYPE: OIL ___ GAS X LIQUID INJECTION ___ WASTE DISPOSAL ___
 (IF "GAS,") PRODUCTION X STORAGE ___ DEEP ___ SHALLOW X

LOCATION: ELEVATION 1735.13 WATERSHED ROCKCASTLE CREEK OF GUYAN RIVER
 DISTRICT CENTER 3 COUNTY WYOMING
 QUADRANGLE MATHENY 463 7036 Pigeville EC

SURFACE OWNER BUD VANDY JR. ACREAGE 135
 OIL & GAS ROYALTY OWNER GEORGIA-PACIFIC CORP. LEASE ACREAGE 67,244.09
 LEASE NO. 4157

PROPOSED WORK: DRILL X CONVERT ___ DRILL DEEPER ___ REDRILL ___ FRACTURE OR
 STIMULATE X PLUG OFF OLD FORMATION ___ PERFORATE NEW
 FORMATION ___ OTHER PHYSICAL CHANGE IN WELL (SPECIFY) _____

PLUG AND ABANDON ___ CLEAN OUT AND REPLUG ___
 TARGET FORMATION Devonian shale ESTIMATED DEPTH 6380 KB
 WELL OPERATOR ASHLAND EXPLORATION INC. DESIGNATED AGENT FORREST BURKETT
 ADDRESS P.O. BOX 391, ASHLAND KY, 41114 ADDRESS P.O. BOX 379, BRENTON WV, 24818

DEEP WELL 6-6 McGraw (248)

LONGITUDE 81° 30' 00"

14,750'

COUNTY NAME

PERMIT

MAR 24 1989

43

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

- 1) Well Operator: Ashland Exploration, Inc. **2750, 3, 463**
- 2) Operator's Well Number: 238, Serial #117631 3) Elevation: 1735.13
W. M. Ritter Lumber Co.
- 4) Well type: (a) Oil / or Gas /
(b) If Gas: Production / Underground Storage /
Deep / Shallow /
- 5) Proposed Target Formation(s): Devonian Shale
- 6) Proposed Total Depth: 6380' KB feet
- 7) Approximate fresh water strata depths: 765' **300'**
- 8) Approximate salt water depths: 1085' KB
- 9) Approximate coal seam depths: Coal Seams Not Operated **604'-607' 610'-615' 263'-266' 613'-616'**
- 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	
Conductor	16"	H40	48.0	30	30	CTS
Fresh Water				150'	150'	
Coal	<i>Changed at operator's request</i>					38 CSR 18-11.3
Intermediate	8 5/8"	J55	24.0	1135	1135	38 CSR 18-11.2.2 CTS
Production	5 1/2"	J55	15.5	6380	6380	38 CSR 18-11.1 As Needed
Tubing	1.9"	CW55	2.76	-	6300	Siphon
Liners						

8355

PACKERS : Kind _____
Sizes _____
Depths set _____

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FEB 24 1989

DIVISION OF OIL & GAS
DEPARTMENT OF ENERGY

For Division of Oil and Gas Use Only

Fee(s) paid: 4 Well Work Permit 500510 Reclamation Fund 50 Blanket WPCP Agent

Plat 4 WW-9 4 WW-2B 4 Bond 50 Blanket (Type)

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FEB 24 1989

1) Date: February 23, 1989
2) Operator's well number
W. M. Ritter Lumber Co. #238, Serial #117631
3) API Well No: 47 - 109 - 1081
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

4) Surface Owner(s) to be served:
(a) Name Bud Vanoy, Jr.
Address P.O. Box 77
Pineville, WV 24874
(b) Name _____
Address _____
(c) Name _____
Address _____
6) Inspector Tim Bennett
Address 525 Tiller St.
Logan, WV 25601
Telephone (304)-792-7075

5) (a) Coal Operator:
Name None
Address _____
(b) Coal Owner(s) with Declaration
Name Georgia-Pacific Corp.
Address 133 Peachtree
Atlanta, GA 30303
Name _____
Address _____
(c) Coal Lessee with Declaration
Name Consol Land Development Company
Address P.O. Box 1289
Bluefield, VA 24605

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 _____ on the above named parties, by:

- _____ Personal Service (Affidavit attached)
- x 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 Ashland Exploration, Inc.
By: J. T. Mellinger
Its: Manager Eastern Region
Address P.O. Box 391
Ashland, KY 41114
Telephone (606) 329-5450

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

Wick W. Foster Notary Public
My commission expires November 23, 1990

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AUG 16 1989

20-Mar-89
API # 47-109-01081

State of West Virginia
DEPARTMENT OF ENERGY
Division of Oil and Gas

DIVISION OF OIL & GAS
DEPARTMENT OF ENERGY

Well Operator's Report of Well Work

Farm name: VANOV, BUD

Operator Well No.: 238-S-117631

LOCATION: Elevation: 1735.13 Quadrangle: MATHENY

District: CENTER County: WYOMING
Latitude: 14750 Feet South of 37 Deg. 40Min. 0 Sec.
Longitude 6600 Feet West of 81 Deg. 30 Min. 0 Sec.

Company: ASHLAND EXPLORATION, INC.
P. O. BOX 391
ASHLAND, KY 41114-0000

Agent: FORREST BURKETT

Inspector: RODNEY G. DILLON
Permit Issued: 03/20/89
Well work Commenced: 05/14/89
Well work Completed: 07/27/89
Verbal Plugging
Permission granted on: _____
Rotary x Cable _____ Rig
Total Depth (feet) 6435
Fresh water depths (ft) @ 80' 3" stream

Salt water depths (ft) 1085' not
noted during drilling

Is coal being mined in area (Y/N)? N
Coal Depths (ft) not noted during drilling

Casing & Tubing Size	Used in Drilling	Left in Well	Cement Fill Up Cu. Ft.
16"	28'	28'	12
11 3/4"	263'	263'	177
8 5/8"	1159'	1159'	1367
5 1/2"	6359'	6359'	751
1.9 tbg	w/ ADL-1 PKR @2543' KB		
1.9 tbg	@2496' KB		

OPEN FLOW DATA

Producing formation Denonian Shale Pay zone depth (ft) 5326-6200
Gordon Sands 3607-3635
Gas: Initial open flow 0/59 MCF/d Oil: Initial open flow _____ Bbl/d
Final open flow 604/825 MCF/d Final open flow _____ Bbl/d
Time of open flow between initial and final tests 3 Hours
Static rock Pressure 280# psig (surface pressure) after 72 Hours
Big Lime
Second producing formation Ravenscliff Pay zone depth (ft) 2510-2516
1337-1364
Gas: Initial open flow 59 MCF/d Oil: Initial open flow _____ Bbl/d
Final open flow 201 MCF/d Final open flow _____ Bbl/d
Time of open flow between initial and final tests 3 Hours
Static rock Pressure 230# psig (surface pressure) after 72 Hours

NOTE: ON BACK OF THIS FORM 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 ALL FORMATIONS, INCLUDING COAL ENCOUNTERED BY THE WELLBORE.

AUG 25 1989

For: ASHLAND EXPLORATION, INC.

By: Jim Stephens, Engineer Tech.

Date: 8/14/89

James L Stephens

<u>FORMATION</u>	<u>TOP</u>	<u>BASE</u>
Sand & shales	0	510
Salt sands	510	1137
Shales	1137	1314
Ravenscliff	1314	1403
Avis LS.	1403	1446
Sand & shales	1446	2132
Lo. Maxton	2132	2270
L. Lime	2270	2356
Pencil Cave	2356	2403
Big Lime	2403	2850
Shale	2850	2888
Weir	2888	3106
Shale	3106	3447
Coffee shale	3447	3463
Berea	3463	3480
Devonian shale	3480	3592
Gordon	3592	3640
Devonian shale	3640	6343
Marcellus	6343	6416
Onondaga LS	6416	TD

DTD 6435'

LTD 6435'

^{Rh}
Lower Devonian Shale 24H/ 5736-6200. 75Q foam frac using 20#/1000 gal. gel system, 1000 gal 7½% HCL Fe acid, 1000 gal. 25% methanol (treated), 103,000 #20/40 sand & 920,000 SCF N₂ @ 30,666 SCF/MIN. BD @ 3250#, ATP 3270 # @ 50 bpm foam rate, MTP 3350#, ISIP 2080, 15 MIN 1740# & TF 423 bbl.

^{LH}
Upper Devonian Shale 24H/ 4783-5334. 75Q foam frac using 1000 gal. 7½% inh Fe acid, 1000 gal. 25% methanol (treated), 56,000 # 20/40 sand, 782,000 SCF N₂ @ 32,583 SCF/MIN. BD @ 3270#, ATP 2600# @ 35 bpm foam rate, MTP 3280#, ISIP 2050#, 15 MIN 1490# & TF 347 bbls.

Big Lime 24H/2510-2516 acidize using 2000 gal. 15% Fe inh acid & 1000 gal. 28% Fe inh acid. BD @ 910#, ATP 700# @ 3 BPM, ATP 910#, ISIP 810# , 15 MIN 20# & TF 162 bbls.

Ravenscliff 45H/1337-1364. 75Q foam frac. using 500 gal. 15% Fe HCL, 1000 gal. 25% methanol, 63,000 # 20/40 sand % 662,000 SCF N₂ @ 13,500 SCF/MIN. BD 1900# ATP 2140# @ 25 bpm foam, MTP 2270#, ISIP 1700# & 15 MIN 1580 #.

UD 3480

LH 4630

J 5280

A 5380

Rh 5680

Mar 6343

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DEPARTMENT OF ENERGY

AUG 25 1989

SSP