

Jamie 3/15/89

9350' 40

LATITUDE 37°37'30"

POCAHONTAS LAND CORP.

0.155  
4.76 W

TILLEY BRANCH

LUGAR LUMBER CO., SURFACE

HURSIE & MARIE SHUMATE, SURFACE

303 S  
4.02 W

W.M. COX, SURFACE

NANCY E. GUNTER, HEIRS, SURFACE

GEORGIA - PACIFIC, MINERAL

LITTLE CREEK

POCAHONTAS LAND CORP. COORD. AT LOCATION  
N-93,193.15  
E-17,405.07

POCAHONTAS LAND CORP NORTH  
FRED G. BECKER, SURFACE  
156.10  
N15°31'W

N50°21'19"E  
68.28'  
LOC.  
S59°29'31"E  
64.47'

R.P.  
Nail in root of 8" Birch

15" Nail in root of 10" Lynn

S75°30'13"E - 1616.85'  
N63°16'W - 1758.80

N40°48'17"W  
386.49'

Set stone 5" Maple

Set stone 16" Hemlock

S82°07'E - 1087.52

N88°52'E  
440.40'

POCAHONTAS LAND CORP

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

FILE NO \_\_\_\_\_  
DRAWING NO. \_\_\_\_\_  
SCALE 1" = 500'  
MINIMUM DEGREE OF ACCURACY 1:5500'  
PROVEN SOURCE OF ELEVATION USGS Forks of road 3400't S.E. of location E1 1847

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) C. J. Volley Jr.

R.P.E. \_\_\_\_\_ L.L.S. 92

PLACE SEAL HERE

STATE OF WEST VIRGINIA  
DEPARTMENT OF ENERGY  
OIL AND GAS DIVISION



DATE FEB 15, 19 89  
OPERATOR'S WELL NO. RITTER 246  
API WELL NO. Serial No. 117711

WELL TYPE: OIL \_\_\_ GAS X LIQUID INJECTION \_\_\_ WASTE DISPOSAL \_\_\_  
(IF "GAS,") PRODUCTION X STORAGE \_\_\_ DEEP \_\_\_ SHALLOW X  
LOCATION: ELEVATION 1858.12 WATERSHED LITTLE CREEK OF BEARHOLE FORK  
DISTRICT CENTER, 3 COUNTY WYOMING  
QUADRANGLE MULLENS 498 087 + 15' WC  
SURFACE OWNER HURSIE & MARIE SHUMATE ACREAGE 56  
OIL & GAS ROYALTY OWNER, GEORGIA-PACIFIC LEASE ACREAGE 67244.09  
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 6813 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

MAR 31 1989

DEEP WELL 6-6 Pineville (250)

808

LONGITUDE 81°12'18"

COUNTY JAME

PERMIT

HT. HALL 48673 FORM WW-6

43

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

2750, 3, 497

- 1) Well Operator: Ashland Exploration, Inc.  
 W. M. Ritter Lumber Company
- 2) Operator's Well Number: 246, Serial #117711 3) Elevation: 1858.12
- 4) Well type: (a) Oil   / or Gas X/  
 (b) If Gas: Production X/ Underground Storage   /  
 Deep   / Shallow X/
- 5) Proposed Target Formation(s): Devonian Shale
- 6) Proposed Total Depth: 6813'KB feet
- 7) Approximate fresh water strata depths: 818'KB
- 8) Approximate salt water depths: 1278'KB
- 9) Approximate coal seam depths: None Operated 748-802' 750'-755', 197'-202'
- 10) Does land contain coal seams tributary to active mine? Yes   / No X/
- 11) Proposed Well Work: Drill & Stimulate
- 12)

CASING AND TUBING PROGRAM

TYPE	SPECIFICATIONS			FOOTAGE INTERVALS		CEMENT
	Size	Grade	Weight per ft.	For drilling	Left in well	
Conductor	16	H40	65.0	30	30	CTS
Fresh Water						380SRB-11.3 380SRB-11.2.2
Coal						
Intermediate	8 5/8	J55	24.0	1328	1328	CTS
Production	5 1/2	J55	15.5	6813	6813	380SRB-11.1 As Needed
Tubing	1.9	CW55	2.76	-	6763	Siphon
Liners						

PACKERS : Kind             
 Sizes             
 Depths set           

RECEIVED  
 MAR 10 1989

For Division of Oil and Gas Use Only DIVISION OF OIL & GAS DEPARTMENT OF ENERGY

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

506525

**RECEIVED**  
MAR 10 1989

DIVISION OF OIL & GAS  
DEPARTMENT OF ENERGY

Date: March 8, 1989  
Operator's well number  
W. M. Ritter Lumber Co. #246, Serial #117711  
API Well No: 47 - 109 - 1086  
State - County - Permit

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 Hursie & Marie Shumate  
Address P.O. Box 106  
Saulsville, WV 25876  
(b) Name \_\_\_\_\_  
Address \_\_\_\_\_  
(c) Name \_\_\_\_\_  
Address \_\_\_\_\_  
6) Inspector Tim Bennett  
Address 525 Tiller Street  
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 Co.  
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 2 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  
RSF 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 8th day of March, 1989

Vicki W. Santa Notary Public  
My commission expires November 23, 1990

R-35  
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 FEB 23 1990

29-Mar-89  
 API # 47-109-01086

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

Well Operator's Report of Well Work

DIVISION OF OIL AND GAS  
 DEPARTMENT OF ENERGY

Well name: SHUMATE, HURSHIE & MARIE Operator Well No.: 246-S-117711

Minerals: Georgia Pacific  
 LOCATION: Elevation: 1858.12 Quadrangle: MULLENS

District: CENTER County: WYOMING  
 Latitude: 800 Feet South of 37 Deg. 37Min. 30 Sec.  
 Longitude 9350 Feet West of 81 Deg. 27 Min. 30 Sec.

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

Agent: FORREST BURKETT

Inspector: RODNEY G. DILLON  
 Permit Issued: 03/29/89  
 Well work Commenced: 08/25/89  
 Well work Completed: 01/23/90  
 Verbal Plugging \_\_\_\_\_  
 Permission granted on: \_\_\_\_\_  
 Rotary X Cable \_\_\_\_\_ Rig  
 Total Depth (feet) 6595'  
 Fresh water depths (ft) 7" stream @  
 101' approximately 818'  
 Salt water depths (ft) approximately  
 1278'  
 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"	22'	22'	17.7
11 3/4"	223'	223'	141
8 5/8"	1346'	1346'	448
5 1/2"	6524'	6524'	623
1.9" @ 6309 w/ADL-1 PKR @ 3376			
1.9" @ 3337' KB			

OPEN FLOW DATA

Producing formation Devonian Shale Pay zone depth (ft) 5045-6406  
Gordon 3864-3876  
 Gas: Initial open flow 0/89 MCF/d Oil: Initial open flow \_\_\_\_\_ Bbl/d  
 Final open flow 637/1645 MCF/d Final open flow \_\_\_\_\_ Bbl/d  
 Time of open flow between initial and final tests 3 Hours  
 Static rock Pressure 635# psig (surface pressure) after 72 Hours  
 Second producing formation Lower Weir Pay zone depth (ft) 3325-3340  
Ravenscliff 1510-1554  
 Gas: Initial open flow 84 MCF/d Oil: Initial open flow \_\_\_\_\_ Bbl/d  
 Final open flow 1008 MCF/d Final open flow \_\_\_\_\_ Bbl/d  
 Time of open flow between initial and final tests 3 Hours  
 Static rock Pressure 345# 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.

For: ASHLAND EXPLORATION, INC.

By: James L. Stephens, Jr. James L. Stephens, Jr. Engineer Tec  
 Date: \_\_\_\_\_

FEB 23 1990

ORIENTATION OR ROCK TYPE

	<u>TOP</u>	<u>BASE</u>
Sand & Shale		
Lower Lee Sand	0	676
Sand & Shale	676	1283
Ravenscliff	1283	1444
Shale	1444	1559
AVIS LS.	1559	1592
Sand & Shale	1592	1633
Lower Maxton	1633	2375
Shale	2375	2469
L. Lime	2469	2497
Pencil Cave	2497	2585
Big Lime	2585	2612
Sand & Shale	2612	3054
Lower Weir	3054	3318
Shale	3318	3377
Coffee Shale	3377	3713
Berea	3713	3730
Devonian Shale	3730	3745
Gordon Sands (3856-3906)	3745	6575

109-  
1086



Onondaga LS.

UD 3745  
RH 4900  
I 5550  
A 3650

6575 TD

DTD 6595'  
LTD 6588'

WELL TREATMENT

Perforate Lower Devonian Shale 25H/5954-6406. 65 Quality foam frac using 1000 gal. 15% Fe acid, 1000 gal. 25% treated methanol, 15,000# 20/40 sand & 527,000 scf N<sub>2</sub> @ 36,000 scf/min. BHTP 4168#, BD @ 3347#, ATP 3064# @ 50 bpm foam rate, MTP 4730#, ISIP 3693# 15 min 1677# & TF 261 Bbls. Well screened off. Finished frac w/500,000 scf N<sub>2</sub>.

Perforate U. Devonian Shale 24H/5045-5450. 75 Quality foam frac using 1000 gal 7 1/2% Fe inh acid, 1000 gal 25% treated methanol, 70,000# 20/40 sand & 635,000 scf N<sub>2</sub> @ 29,000 scf/min. BD @ 2376#, ATP 2571# @ 50 bpm foam rate, MTP 4944#, ISIP 4944#, 15 min 4400# & TF 336#. Well screened out.

Perforate Gordon sand 25 H/3864-3876. 75 Quality foam frac using 500 gal 18.2% inh fe acid, 1000 gal 25% treated methanol, 52,500# 20/40 sand & 362,000 scf N<sub>2</sub> @ 10,100 scf/min. BD @ 1373#, ATP 1295# @ 25 BPM foam rate, MTP 1384#, ISIP 1033#, 15 min 956# & TF 262 bbls.

Perforate Lower Weir 31 H/3325-3340. 75 Quality foam frac using 500 gal 15% inh Fe acid, 1000 gal 25% treated methanol, 47,200# 20/40 Sand, 215,000 scf N<sub>2</sub> @ 8600 scf/min. BD @ 1189#, ATP 1074# @ 30 bpm foam rate, MTP 4200#, ISIP 4200# & TF 236#. Well screened out.

Perforate Ravenscliff 18 H/1510-1554. 75 Quality foam frac using 500 gal 15% inh Fe acid, 500 gal 25% treated methanol, 38,000# 20/40 sand & 370,000 scf N<sub>2</sub> @ 13,300 scf/min. BD @ 1711#, ATP @ 2111# @ 30 BPM foam rate, MTP 2302#, ISIP 1825#, 15 min 1508# & TF 264 bbls.