

82B 12/19/86

8020'

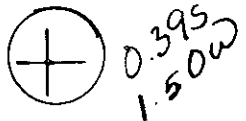
LATITUDE 37° 50' 00"

2050'

LONGITUDE 81° 35' 00"

CHARLESTON NATIONAL BANK, TRUSTEE

THE SOUTHERN LAND CO. et al  
Tract G-3 343.75 Ac.



0.395  
1.50W

N08-20W - 364.0'  
N21-05W - 210.0'  
N18-35W - 164.0'  
N09-05W - 330.0'  
N13-30W - 133.48'

Steel rail on knob

N 78-51W  
1718.19'

#10-1271

THE SOUTHERN LAND et al  
Tract G-17 344.29 Ac.  
Part of 15404.61 Ac. Lease

S 49-24E

N 33-51W

N 60-42E

4533.99'

3644.74'

3153.32'

Rocklick Br.

Loc. No. 15

THE SOUTHERN LAND CO. et al  
Tract G-4 78.5 Ac.

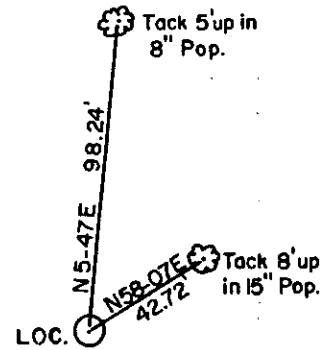
#8-1248

NORTH

CHARLESTON NATIONAL BANK, TRUSTEE

#1444

Co-ordinates Well Loc. No. 15  
Wharton Values  
N 62788.35 E 39130.71  
Pocahontas Land Values  
N 167970.66 E -117478.26



REFERENCE DATA

FILE NO. \_\_\_\_\_  
DRAWING NO. \_\_\_\_\_  
SCALE 1" = 1000'  
MINIMUM DEGREE OF ACCURACY 1 in 2500  
PROVEN SOURCE OF ELEVATION Eastern Associated Coal Co. Survey Pts.

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) Stephen Parks  
R.P.E. 8982 L.L.S. \_\_\_\_\_

PLACE SEAL HERE

(+) DENOTES LOCATION OF WELL ON UNITED STATES TOPOGRAPHIC MAPS  
FORM IV-6 (8-78)



DATE December 18, 1986  
OPERATOR'S WELL NO. 15-Ser #110571  
API WELL NO. 47-005-1468  
STATE COUNTY PERMIT

STATE OF WEST VIRGINIA  
DEPARTMENT OF MINES  
OIL AND GAS DIVISION

WELL TYPE: OIL \_\_\_ GAS X LIQUID INJECTION \_\_\_ WASTE DISPOSAL \_\_\_  
(IF "GAS,") PRODUCTION X STORAGE \_\_\_ DEEP \_\_\_ SHALLOW X  
LOCATION: ELEVATION 1747.2' WATER SHED Rocklick Branch of Pond Fork  
DISTRICT Crook I COUNTY Boone  
QUADRANGLE Pilot Knob 547 006 SCg Bald Knob  
SURFACE OWNER Southern Land Co. et al ACREAGE 344.29  
OIL & GAS ROYALTY OWNER Southern Land Co. et al LEASE ACREAGE 344.29 of 15404.61  
LEASE NO. 33666  
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 Lower Weir ESTIMATED DEPTH 3517  
WELL OPERATOR Ashland Exploration Inc. DESIGNATED AGENT Forrest Burkett  
ADDRESS P. O. Box 391 Ashland Kentucky 41114 ADDRESS P. O. Box 379 Brenton WV 24818

DEC 23 1986

H T HALF

6-6 Man-Oceana

(266)

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MR-35

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MAR 25 1987



State of West Virginia

DIVISION OF OIL & GAS  
DEPARTMENT OF ENERGY

DEPARTMENT OF ENERGY  
Oil and Gas Division

Date March 24, 1987

Operator's

Well No. 15

Farm Southern Land Co.

API No. 47 - 005 - 1468

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 X /)

LOCATION: Elevation: 1747.2' Watershed Rocklick Branch of Pond Fork

District: Crook County Boone Quadrangle Pilot Knob

COMPANY Ashland Exploration, Inc.

ADDRESS P. O. Box 391, Ashland, KY 41114

DESIGNATED AGENT Forrest Burkett

ADDRESS P. O. Box 379, Brenton, WV 24818

SURFACE OWNER Southern Land Co. etal

ADDRESS P. O. Box 1385, Charleston, WV 25325

MINERAL RIGHTS OWNER Southern Land Co. etal

ADDRESS P. O. Box 1385, Charleston, WV 25325

OIL AND GAS INSPECTOR FOR THIS WORK Jerry \*  
Holcomb ADDRESS Rt. #2, Box 159, Hamlin, WV

PERMIT ISSUED Dec. 19, 1986 25523

DRILLING COMMENCED Feb. 20, 1987

DRILLING COMPLETED Feb. 27, 1987

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"	27'	27'	5 sks
* 9 5/8	731'	731'	335 sks
8 5/8			
* 7	2097'	2097'	250 sks
5 1/2			
4 1/2	3518'	3518'	65 sks
3			
2		3436'	
Liners used			

\*Circ cmt to surface

GEOLOGICAL TARGET FORMATION Lower Weir Depth 3517 feet

Depth of completed well 3529 feet Rotary X / Cable Tools

Water strata depth: Fresh 200 feet; Salt 1205 feet

Coal seam depths: 379-409 Open Mine w/<sup>pillar</sup> Is coal being mined in the area? yes

OPEN FLOW DATA

Producing formation L. Weir & Big Lime Pay zone depth 3434-3447 / 3172-3176 feet

Gas: Initial open flow No show Mcf/d Oil: Initial open flow     Bbl/d

Final open flow 622 Mcf/d Final open flow     Bbl/d

Time of open flow between initial and final tests 3 hours

Static rock pressure 675# psig (surface measurement) after 72 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     hours

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

(Continue on reverse side)

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

Perf L. Weir 8H/3424-3428 - 24H/3435-3447 - 75 Q foam frac using 500 gal 15% HCl, 42,000# 20/50 sand & 333,000 SCF N<sub>2</sub> @ 20,000 SCF/min. BD @ 2350#, ATP 2350# @ 56 B/M foam, MTP 2400#, ISIP 1400#, 15 min 900#, TF 246 bbl.

Perf Big Lime 12H/3172-3176 - Acidize w/500 gal 15% HCl w/Fe agent, 1000 gal 20% CHA & 500 gal 15% HCl w/Fe agent. Displ. w/60 bbl. treated wtr. BD @ 1400#, ATP 500# @ 2-3 B/M, ISIP 0#, TF 132 bbl.

**WELL LOG**

FORMATION	COLOR	HARD OR SOFT	TOP FEET	BOTTOM FEET	REMARKS Including indication of all fre and salt water, coal, oil and c
Sand & Shale			0	1347	
L. Pottsville Sand			1347	2067	
Shale			2067	2140	
Ravenscliff			2140	2177	
Shale			2177	2198	
Avis LS			2198	2236	
Shale			2236	2277	
Stray Maxton			2277	2356	
Shale			2356	2372	
Upper Maxton			2372	2480	
Shale Break			2480	2482	
Middle Maxton			2482	2543	
Shale			2543	2711	
Lower Maxton			2711	2728	
Shale			3738	2770	
Little Lime			2770	2854	
Pencil Cave			2854	2864	
Big Lime			2864	3208	
Shale			3208	3210	
Injun			3210	3267	
Shale			3267	3312	
U. Weir			3312	3336	
Shale			3336	3419	
✓ Lower Weir			3419	3453	
Shale			3453	TD	
... DTD 3529' ✓					
LTD 3520'					

**RECEIVED**  
MAR 25 1987  
DIVISION OF OIL & GAS  
DEPARTMENT OF ENERGY

(Attach separate sheets as necessary)

ASHLAND EXPLORATION, INC.

Well Operator

By: Steve A. Dima Engineering Technician

Date: March 24, 1987

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 ..., encountered in the drilling of a well."

FORM WW-2(B) FILE COPY  
 RECEIVED  
 DEC 18 1988



1) Date: December 18, 1986  
 2) Operator's Well No. 15, Southern Land Co., Serial No. 110571  
 3) API Well No. 47 - 005 - 1468  
 State County Permit

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

- 4) WELL TYPE: A Oil  / Gas  /  
 B (If "Gas", Production  / Underground storage  / Deep  / Shallow  )
- 5) LOCATION: Elevation: 1747.2' Watershed: Rocklick Branch of Pond Fork  
 District: Crook 0053 / County: Boone 005 Quadrangle: Pilot Knob 5470
- 6) WELL OPERATOR Ashland Exploration CODE: 2750 7) DESIGNATED AGENT Forrest Burkett  
 Address \_\_\_\_\_ Address P.O. Box 379  
 Brenton, WV 24818
- 8) OIL & GAS INSPECTOR TO BE NOTIFIED 9) DRILLING CONTRACTOR:  
 Name Jerry Holcomb Name FWA Drilling Company, Inc.  
 Address Rt. 2 Box 159 Address P.O. Box 448  
 Hamlin, WV 25523 Elkview, WV 25071
- 10) PROPOSED WELL WORK: Drill  / Drill deeper  / Redrill  / Stimulate  /  
 Plug off old formation  / Perforate new formation  /  
 Other physical change in well (specify) \_\_\_\_\_
- 11) GEOLOGICAL TARGET FORMATION, Lower Weir 387  
 12) Estimated depth of completed well, 3517 feet base of  
 13) Approximate strata depths: Fresh, 697 feet; salt, sand 2050' feet.  
 14) Approximate coal seam depths: 450' Open Mine With is coal being mined in the area? Yes  / No  /

15) CASING AND TUBING PROGRAM Pillar

CASING OR TUBING TYPE	SPECIFICATIONS					FOOTAGE INTERVALS		CEMENT FILL-UP OR SACKS (Cable feet)	PACKERS	
	Size	Grade	Weight per ft.	New	Used	For drilling	Left in well			
Conductor	13 3/8	H-40	48	X		30	30	CTS	Kinds	
Fresh water	9 5/8	H-40	32.3	X		727	727	CTS		
Coal									Sizes	
Intermediate	7	J-55	20	X		2100	2100	CTS		
Production	4 1/2	J-55	10.5	X		3517	3517	As Required	Depths set	
Tubing										
Liners									Perforations:	
									Top Bottom	

OFFICE USE ONLY  
 DRILLING PERMIT

Permit number 47-005-1468 Date December 19 19 86

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 December 19, 1988 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: <input checked="" type="checkbox"/>	Casing: <input checked="" type="checkbox"/>	Fee: 506015-161	WPT: <input checked="" type="checkbox"/>	S&E: <input checked="" type="checkbox"/>	Other: <input type="checkbox"/>
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4308

NOTE: Keep one copy of this permit posted at the drilling location.  
 Director, Division of Oil and Gas File  
 See the reverse side of the APPLICANT'S COPY for instructions to the well operator.

