



FILE NO. BK 91 PG 102  
 DRAWING NO. \_\_\_\_\_  
 SCALE 1" = 500'  
 MINIMUM DEGREE OF ACCURACY 1:200'  
 PROVEN SOURCE OF ELEVATION USGS BM -149 JJS  
EL 676 as shown

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) C. S. Valley Jr.  
 R.P.E. C.S. 92

PLACE SEAL HERE

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



DATE MARCH 28, 1985  
 OPERATOR'S WELL NO. P-88  
 API WELL NO. 47-011-0802  
 STATE WV COUNTY CABELL PERMIT 081

STATE OF WEST VIRGINIA  
 DEPARTMENT OF MINES  
 OIL AND GAS DIVISION

WELL TYPE: OIL  GAS \_\_\_\_\_ LIQUID INJECTION \_\_\_\_\_ WASTE DISPOSAL \_\_\_\_\_  
 (IF "GAS,") PRODUCTION  STORAGE \_\_\_\_\_ DEEP \_\_\_\_\_ SHALLOW   
 LOCATION: ELEVATION 867.16 WATER SHED FUDGES CREEK  
 DISTRICT GRANT 3 COUNTY CABELL 011  
 QUADRANGLE MILTON 476415' WC 081  
 SURFACE OWNER JERRY E. WETHERHOLT ACREAGE 18.5 AC TR.  
 OIL & GAS ROYALTY OWNER JERRY E. WETHERHOLT LEASE ACREAGE 80  
 LEASE NO. LWC-20  
 PROPOSED WORK: DRILL  CONVERT \_\_\_\_\_ DRILL DEEPER \_\_\_\_\_ REDRILL \_\_\_\_\_ FRACTURE OR STIMULATE \_\_\_\_\_ PLUG OFF OLD FORMATION \_\_\_\_\_ PERFORATE NEW FORMATION \_\_\_\_\_ OTHER PHYSICAL CHANGE IN WELL (SPECIFY) \_\_\_\_\_

PLUG AND ABANDON \_\_\_\_\_ CLEAN OUT AND REPLUG \_\_\_\_\_  
 TARGET FORMATION BEREA 321 ESTIMATED DEPTH 2550'  
 WELL OPERATOR SOUTHEASTERN GAS CO. DESIGNATED AGENT J.C. LIMING  
 ADDRESS PO BOX 2347 ADDRESS PO. BOX 2347  
CHARLESTON WV, 25328 CHARLESTON WV, 25328

APR 15 1985



RECEIVED  
IV-3  
(Rev 11) OCT 29 1985

DIVISION OF OIL & GAS  
DEPT. OF ENERGY

State of West Virginia  
Department of Mines  
Oil and Gas Division

Date October 18, 1985  
Operator's  
Well No. P-88  
Farm J. E. Wetherholt  
API No. 47 - 011 - 0802

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

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

LOCATION: Elevation: 867.16 Watershed Fudges Creek  
District: Grant County Cabell Quadrangle Milton 7.5'

COMPANY Southeastern Gas Company  
ADDRESS P O Box 2347, Chas., WV 25328  
DESIGNATED AGENT Fred A. Radford  
ADDRESS P O Box 2347, Chas., WV 25328  
SURFACE OWNER Jerry E. Wetherholt  
ADDRESS Route 2, Box 501  
Milton, WV 25541  
MINERAL RIGHTS OWNER Jerry E. Wetherholt  
ADDRESS Route 2, Box 501  
Milton, WV 25541  
OIL AND GAS INSPECTOR FOR THIS WORK Jerry  
Tephabock ADDRESS Rt 1, Box 101-A  
Ripley, WV 25271  
PERMIT ISSUED April 9, 1985  
DRILLING COMMENCED May 11, 1985  
DRILLING COMPLETED July 11, 1985  
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"	15.0'	15.0'	
<del>10-3/4</del> 9 5/8"	648.1'	648.1'	To Surface
8 5/8"	2106.0'	2106.0'	200 sks.
7"	2568.3'	2568.3'	50 sks.
5 1/2"			
4 1/2"			
3"			
2"			
Liners used			

GEOLOGICAL TARGET FORMATION Berea Sand Depth 2502-2514 feet  
Depth of completed well 2568 feet Rotary    / Cable Tools X  
Water strata depth: Fresh 300 <sup>7</sup> 830 feet; Salt 1385 feet  
Coal seam depths: 601-610 Is coal being mined in the area? No

OPEN FLOW DATA

Producing formation Berea Sand Pay zone depth 2501-2510 feet  
Gas: Initial open flow Show Mcf/d Oil: Initial open flow Show Bbl/d  
Final open flow (40) Mcf/d Final open flow (20) Bbl/d  
Time of open flow between initial and final tests 6 hours  
Static rock pressure 210 psig (surface measurement) after 24 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

NOV 12 1985  
(Continue on reverse side)

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

*Berea*

Well perforated 2501'-2511' with 10 holes - .39". Well was fractured on 7/18/85. A 75 Quality foam frac was used: 500 Gals. 15% HCl; 40,000# 20/40 Sand; 250 Bbls. water; 400,000 SCF Nitrogen; Bd. 2500#; ISIP 1330#; 15 min. 1060#.

WELL LOG  
"Drillers"

FORMATION	COLOR	HARD OR SOFT	TOP FEET	BOTTOM FEET	REMARKS
					Including indication of all fresh and salt water, coal, oil and gas
Top Soil			0	5	
Sand			5	25	
Red Rock			25	60	
Blue Sand			60	75	
Sand			75	93	
Slate			93	102	
Red Rock			102	112	
Blue Slate			112	127	
White Slate			127	155	
Sand			155	165	
Slate			165	179	
Red Rock			179	187	
Slate			187	245	
Red Rock			245	250	
Slate			250	280	
Sandy Shale			280	300	Fresh Water - 300'
Sand			300	355	
Slate			355	385	
Red Rock			385	405	
Slate			405	415	
Red Rock			415	425	
Slate			425	605	
Coal			605	610	Coal - Approx. 5'
Slate			610	675	
Sand			675	685	
Slate			685	735	
Sand			735	740	
Slate			740	805	
Sand			805	830	
Water Sand			830	835	Fresh Water - 835'
Sand			835	900	
Slate			900	940	
Sand			940	975	
Black Slate			975	1020	
Sand			1020	1080	
Slate			1080	1340	

CONTINUED ON PAGE 2

(Attach separate sheets as necessary)

Southeastern Gas Company

Well Operator

By: *W. A. Raeford*, Vice President

Date: October 18, 1985

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."

Sheet No. 2

Date: October 18, 1985

Well Operator: Southeastern Gas Company

Operator's  
Well No. P-88

Farm: J. E. Wetherholt

API No. 47-011-0802 Pg 2

FORMATION	COLOR	HARD or SOFT	TOP FEET	BOTTOM FEET	Remarks: Including indications of all fresh and salt water, coal, oil and gas.
Sand			1340	1348	
Slate			1348	1385	
Salt Sand			1385	1605	Salt Water 1385'
Slate			1605	1620	
Red Rock			1620	1631	
Slate			1631	1665	
Red Rock			1665	1670	
Slate			1670	1715	
Little Lime			1715	1740	
Pencil Cave			1740	1745	
Big Lime			1745	1936	S/O, S/G, 1785'
Slate			1936	1964	
INjun Sand			1964	2080	Salt Water - 1985'
Shell			2080	2490	
Coffee Shale			2490	2502	
Berea Sand			2502	2514	S/O - 2502-2514'
Shale			2514	2568 <small>TD.</small>	

NOV 12 1985

APR - 9 1985



1) Date: April 4, 19 85  
 2) Operator's Well No. P-88  
 3) API Well No. 47 - 011 - 0802  
 State County Permit

OIL & GAS DIVISION  
DEPT. OF MINES

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

- 4) WELL TYPE: A Oil X / Gas \_\_\_\_\_  
 B (If "Gas", Production \_\_\_\_\_ / Underground storage \_\_\_\_\_ / Deep \_\_\_\_\_ / Shallow \_\_\_\_\_)
- 5) LOCATION: Elevation: 867.16 Watershed: Fudges Creek  
 District: Grant County: Cabell Quadrangle: Milton 7.5'
- 6) WELL OPERATOR Southeastern Gas Company  
 Address P O Box 2347  
Charleston, WV 25328
- 7) DESIGNATED AGENT J. C. Liming  
 Address P O Box 2347  
Charleston, WV 25328
- 8) OIL & GAS INSPECTOR TO BE NOTIFIED  
 Name Jerry Tephabock  
 Address Rt 1, Box 101-4  
Ripley, WV 25271
- 9) DRILLING CONTRACTOR:  
 Name Unknown  
 Address \_\_\_\_\_
- 10) PROPOSED WELL WORK: Drill X / Drill deeper \_\_\_\_\_ / Redrill \_\_\_\_\_ / Stimulate X  
 Plug off old formation \_\_\_\_\_ / Perforate new formation \_\_\_\_\_  
 Other physical change in well (specify) \_\_\_\_\_
- 11) GEOLOGICAL TARGET FORMATION, Berea Sandstone
- 12) Estimated depth of completed well, 2550 feet
- 13) Approximate trata depths: Fresh, 230 feet; salt, 1450 feet.
- 14) Approximate coal seam depths: 620' - 624' Is coal being mined in the area? Yes \_\_\_\_\_ / No X
- 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		
Conductor	13-3/8	N/A	48.0		X		20'		
Fresh water	10-3/4	N/A	32.75		X	660'	660'	To Surface	Kinds <u>by rule 15.05</u>
<del>Intermediate</del>	8-5/8	N/A	20.0		X	2120'	2120'	100 sks.	Size
Intermediate									
Production	7	N-80	23.0		X	2550'	2550'	50 sks.	<u>as required</u>
Tubing	2-3/8	J-55	4.6	X			2550'		<u>by rule 15.01</u>
Liners									Perforations:
									Top Bottom

OFFICE USE ONLY  
DRILLING PERMIT

Permit number 47-011-0802

April 9, 1985  
Date

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 April 9, 1987 unless well work is commenced prior to that date and prosecuted with due diligence.

Bond:	Agent:	Plat:	Casing	Fee
<u>143</u>	<u>MW</u>	<u>MW</u>	<u>MW</u>	<u>3045</u>

Margaret J. Hesse  
Administrator, Office of Oil and Gas

NOTE: Keep one copy of this permit posted at the drilling location.

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

File