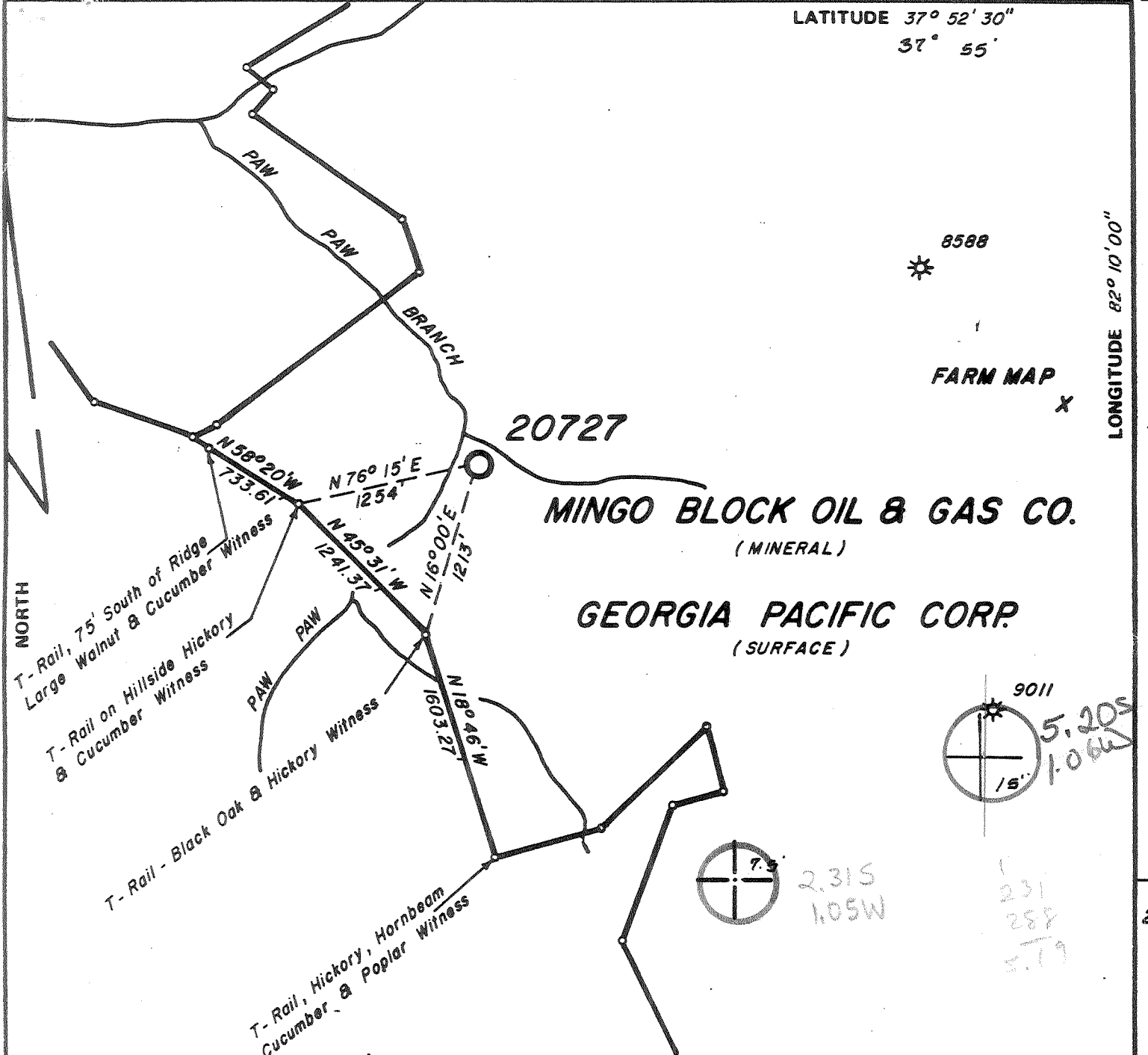


LATITUDE 37° 52' 30"
37° 55'

LONGITUDE 82° 10' 00"



FILE NO. 30-23
 DRAWING NO. 20727
 SCALE 1" = 1000'
 MINIMUM DEGREE OF ACCURACY 1 PART IN 200
 PROVEN SOURCE OF ELEVATION U.S GOV'T B.M. X-150-1957 EL. 900.87'

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) [Signature]
 R.P.E. _____ L.L.S. 99

PLACE SEAL HERE

(+) DENOTES LOCATION OF WELL ON UNITED STATES TOPOGRAPHIC MAPS
 FORM IV-6
 (8-78) LAT: 37° 50' 29"
 LONG: 82° 11' 09"



DATE MAY 20, 19 81
 OPERATOR'S WELL NO. 20727
 API WELL NO. _____
47 - 059 - 0973
 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 923.72' WATER SHED PAW PAW BRANCH OF LAUREL FORK
 DISTRICT HARVEY COUNTY MINGO
 QUADRANGLE MYRTLE, W. VA. Hidden 15' W
 SURFACE OWNER GEORGIA PACIFIC CORP. ACREAGE 8,000
 OIL & GAS ROYALTY OWNER MINGO BLOCK OIL & GAS CO LEASE ACREAGE 8,000
 LEASE NO. 25208
 PROPOSED WORK: DRILL X 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 SHALE ESTIMATED DEPTH 3735'
 WELL OPERATOR COL. GAS TRANS. CORP. DESIGNATED AGENT J. R. HENNING
 ADDRESS CHARLESTON W. VA. 25325 ADDRESS SAME

6-6 Chapmanville (245) Deep Well



IV-35
(Rev 8-81)

RECEIVED

JUL 19 1982

OIL AND GAS DIVISION
WV DEPARTMENT OF MINES

State of West Virginia
Department of Mines
Oil and Gas Division

Date June 15, 1982

Operator's

Well No. 20727

Farm Mingo Block Oil & Gas Co

API No. 47 - 059 - 0973

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: 923.72 ⁹²⁶⁶ Watershed Paw Paw Branch of Laurel Fork

District: Harvey County Mingo Quadrangle Myrtle

COMPANY Columbia Gas Transmission Corporation

ADDRESS P. O. Box 1273, Charleston, WV 25325

DESIGNATED AGENT James L. Weekley

ADDRESS P. O. Box 1273, Charleston, WV 25325

SURFACE OWNER Georgia Pacific Corporation

ADDRESS 900 S.W. 5th Avenue, Portland, Oregon

MINERAL RIGHTS OWNER Island Creek Coal Holdren, W. Va. 25624 and

ADDRESS Mingo Block Oil & Gas Corporation Box 125, Parkersburg, WV 26101

OIL AND GAS INSPECTOR FOR THIS WORK Arthur

St. Clair ADDRESS P.O.Box 157, Brenton, WV

PERMIT ISSUED 7-7-81

DRILLING COMMENCED 10-26-81

DRILLING COMPLETED 1-8-82

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.			
10 3/4" 13-10"	38	38	25 sacks
9 5/8			
8 5/8	641.85	641.85	100 sacks
7	1881.20	0	
5 1/2			
4 1/2	4212.80	4212.80	139.4 sacks
3			
2 3/8	4053.50	4053.50	
Liners used			

GEOLOGICAL TARGET FORMATION Devonian Shale Depth 4250 feet

Depth of completed well 4224 feet Rotary ___ / Cable Tools X

Water strata depth: Fresh 50 feet; Salt 1100 feet

Coal seam depths: Is coal being mined in the area? ___

OPEN FLOW DATA

Producing formation Devonian Shale Pay zone depth 2754-2790 Bed Ford
3560-3710 Haven
4104-4235 Rhinestreet feet

Gas: Initial open flow 0 Mcf/d Oil: Initial open flow ___ Bbl/d

Final open flow 223 Mcf/d Final open flow ___ Bbl/d

Time of open flow between initial and final tests ___ hours

Static rock pressure 374 psig (surface measurement) after 65 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

JUL 26 1982
(Continue on reverse side)

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

Perforated 1-22-82 from 3584-4153' with 20 holes.

Foam fractured Rhinestreet and Huron 1-26-82 from 4104-3560' with 74,000# 20/40 sand, 700,000 Scf Nitrogen, 460 bbls. sand and water and 500 gals. 14% HCL acid.

Perforated Bedford 2-3-82 from 2772-2790' with 12 holes.

Foam fractured Bedford 2-3-82 from 2754-2790' with 57,000# 20/40 sand, 324,000 Scf Nitrogen, 812 bbls. sand laden foam and 500 gals. 14% HCL.

WELL LOG

FORMATION	COLOR	HARD OR SOFT	TOP FEET	BOTTOM FEET	REMARKS Including indication of all fresh and salt water, coal, oil and gas
Rock			0	80	Water at 50'
Slate			80	90	
Sand			90	145	
Slate			145	335	
Sand			335	375	
Slate			375	425	
Sand			425	500	
Slate			500	535	
Sand			535	565	
Slate			565	675	
Sand			675	705	
Slate			705	755	
Sand			755	785	
Slate			785	880	
Sand			880	1100	
Sand			1100	1185	Salt Water at 1100'
Slate			1185	1235	
Sand Hard			1235	1310	
Slate			1310	1315	
Sand			1315	1750	
Slate			1750	1765	
Red Rock			1765	1775	
Sand			1775	1782	
Big Lime			1782	2690	Show of gas at 1810'
Berea			2690	2744	
Devonian Shale			2744	TD	
				4224'	

~~3560-4153 Huron to Rhinestreet~~

Onondaga at 4236 (below 926' kb)

1937 133
 2678 13
 2691 65
 2756 806
 3562 247
 3809 117
 3926 163
 4029 147
 Onondaga 4236

(Attach separate sheets as necessary)

Columbia Gas Transmission Corporation

Well Operator

By:

J. L. Weekley

Date:

June 15, 1982

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."

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JUL 16 1981



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JUL - 8 1981

STATE OF WEST VIRGINIA
OIL & GAS DIVISION
DEPT. OF MINES

OIL & GAS DIVISION
DEPT. OF MINES

Oil and Gas Division

OIL AND GAS WELL PERMIT APPLICATION

TO THE DEPARTMENT OF MINES,
Charleston, W. Va.

DATE July 6, 1981

Surface Owner Georgia Pacific Corp
Address 900 S. W. 5th Ave., Portland, Oregon
Mineral Owner Mingo Block Oil & Gas Corp.
Address Box 125, Parkersburg, W. Va. 26101
Coal Owner Island Creek Coal Co.
Address Holden, W. Va. 25624
Coal Operator Same as Coal Owner
Address _____

Company Columbia Gas Transmission Corp.
Address P. O. Box 1273, Charleston, WV
Farm Mingo Block Oil & Gas Acres 8000
Location (waters) Paw Paw Br. of Laurel Fork
Well No. 20727 Elevation 923.72
District Harvey County Mingo
Quadrangle Mvirtle

THIS PERMIT MUST BE POSTED AT THE WELL SITE

All provisions being in accordance with Chapter 22, of the W. Va. Code, the location is hereby approved for drilling. This permit shall expire if operations have not commenced by 3-23-82.

Fred B. Beekley
Deputy Director - Oil & Gas Division

INSPECTOR
TO BE NOTIFIED Arthur St. Clair
ADDRESS P. O. Box 157, Brenton, W. Va.
PHONE 732-6227

GENTLEMEN:

The undersigned well operator is entitled to drill upon the above named farm or tract of land for oil and gas, having fee title thereto, (or as the case may be) under grant or lease dated 12-8 1927 by -- made to -- and recorded on the -- day of -- 19--, in Mingo County, Book 23 Page 20

NEW WELL DRILL DEEPER REDRILL FRACTURE OR STIMULATE
OIL AND GAS WELL ORIGINALLY DRILLED BEFORE JUNE 5, 1969.

The enclosed plat was prepared by a registered engineer or licensed land surveyor and all coal owners and/or operators have been notified as of the above date.

The above named coal owners and/or operator are hereby notified that any objection they wish to make, or are required to make by Section 3 of the Code, must be received by, or filed with the Department of Mines within ten (10) days. *

Copies of this notice and the enclosed plat were mailed by registered mail, or delivered to the above named coal operators or coal owners at their above shown respective address ----- day ----- before, or on the same day with the mailing or delivery of this copy to the Department of Mines at Charleston, West Virginia.

PLEASE SUBMIT COPIES OF ALL
GEOPHYSICAL LOGS DIRECTLY TO:

WEST VIRGINIA GEOLOGICAL AND
ECONOMIC SURVEY
P. O. BOX 879
MORGANTOWN, WEST VIRGINIA 26505
AC-304 - 292-6331

Address
of
Well Operator

Very truly yours,

(Sign Name)

Fred Beekley
Well Operator

P. O. Box 1273

Street

Charleston

City or Town

West Virginia 25325

State

*SECTION 3 If no objections are filed or found by the Department of mines, within said period of ten days from the receipt of notice and plat by the department of mines, to said proposed location, the department shall forthwith issue to the well operator a permit reciting the filing of such plat, that no objections have been made by the coal operators or found thereto by the department and that the same is approved and the well operator authorized to proceed.

47-059-0973

PERMIT NUMBER

"I have read and understand the reclamation requirements as set forth in Chapter 22, Article 4, Section 12-b and will carry out the specified requirements."

Signed by

Fred Beekley
Manager, Drilling

BLANKET BOND

THIS IS AN ESTIMATE ONLY
ACTUAL INFORMATION WILL BE SUBMITTED ON OG-10 UPON COMPLETION

PROPOSED WORK ORDER TO X FRAC DRILL IN FRACTURE-STIMULATE
 DRILLING CONTRACTOR: (If Known) _____ RESPONSIBLE AGENT:
 NAME _____ NAME Joe Campbell
 ADDRESS _____ ADDRESS P. O. Box 2946, Huntington, WV
 TELEPHONE _____ TELEPHONE 529-4173
 ESTIMATED DEPTH OF COMPLETED WELL: 3735 ROTARY X CABLE TOOLS _____
 PROPOSED GEOLOGICAL FORMATION: Shale
 TYPE OF WELL: OIL _____ GAS X COMB. _____ STORAGE _____ DISPOSAL _____
 RECYCLING _____ WATER FLOOD _____ OTHER _____

TENTATIVE CASING PROGRAM:

CASING AND TUBING SIZE	USED FOR DRILLING	LIFT IN WELL	CEMENT FILL UP OR SACKS - CUBIC FT.
20 - 16			
13 - 12 3/8"	250'	250	To surface
9 - 5/8			
8 - 5/8	1700'	1700	To surface
7			
5 1/2			
4 1/2	3735'	3735	3735 SKS at 1500'
3			Perf. Top by rule 1500'
2			Perf. Bottom
Liners			Perf. Top
			Perf. Bottom

APPROXIMATE FRESH WATER DEPTHS _____ FEET SALT WATER _____ FEET
 APPROXIMATE COAL DEPTHS _____
 IS COAL BEING MINED IN THE AREA? _____ BY WHOM? _____

TO DRILL:

SUBMIT FIVE (5) COPIES OF OG - 1, \$100.00 PERMIT FEE, PERFORMANCE BOND AND PERMANENT COPY OF PLAT.

TO DRILL DEEPER OR REDRILL:

SUBMIT FIVE (5) COPIES OF OG - 1, SHOWING ORIGINAL PERMIT NUMBER AND PERFORMANCE BOND. ON WELLS DRILLED PRIOR TO 1929, A PERMANENT COPY OF THE PLAT AND THE ORIGINAL WELL RECORD MUST ALSO BE SUBMITTED.

TO FRACTURE - STIMULATE:

OIL AND/OR GAS WELL ORIGINALLY DRILLED BEFORE JUNE 5, 1929, FIVE (5) COPIES OG - 1, PERFORMANCE BOND, PERMANENT PLAT AND ORIGINAL WELL RECORD.

OIL AND/OR GAS WELL ORIGINALLY DRILLED ON AND/OR AFTER JUNE 5, 1929, FIVE COPIES OG - 1, SHOWING ORIGINAL PERMIT NUMBER, AND PERFORMANCE BOND.

Required forms must be filed within ninety (90) days of completion for bond release. Inspector to be notified twenty-four (24) hours in advance.

The following waiver must be completed by the coal operator if the permit is to be issued within ten days of receipt thereof.

WAIVER: I the undersigned, Agent for _____ Coal Company, Owner or Operator of the coal under this lease have examined and place on our mine maps this proposed well location.

We the _____ Coal Company have no objections to said well being drilled at this location, providing operator has complied with all rules and regulations in Articles 4, 5, and 7, Chapter 22 of the West Virginia Code.

For Coal Company

Official Title