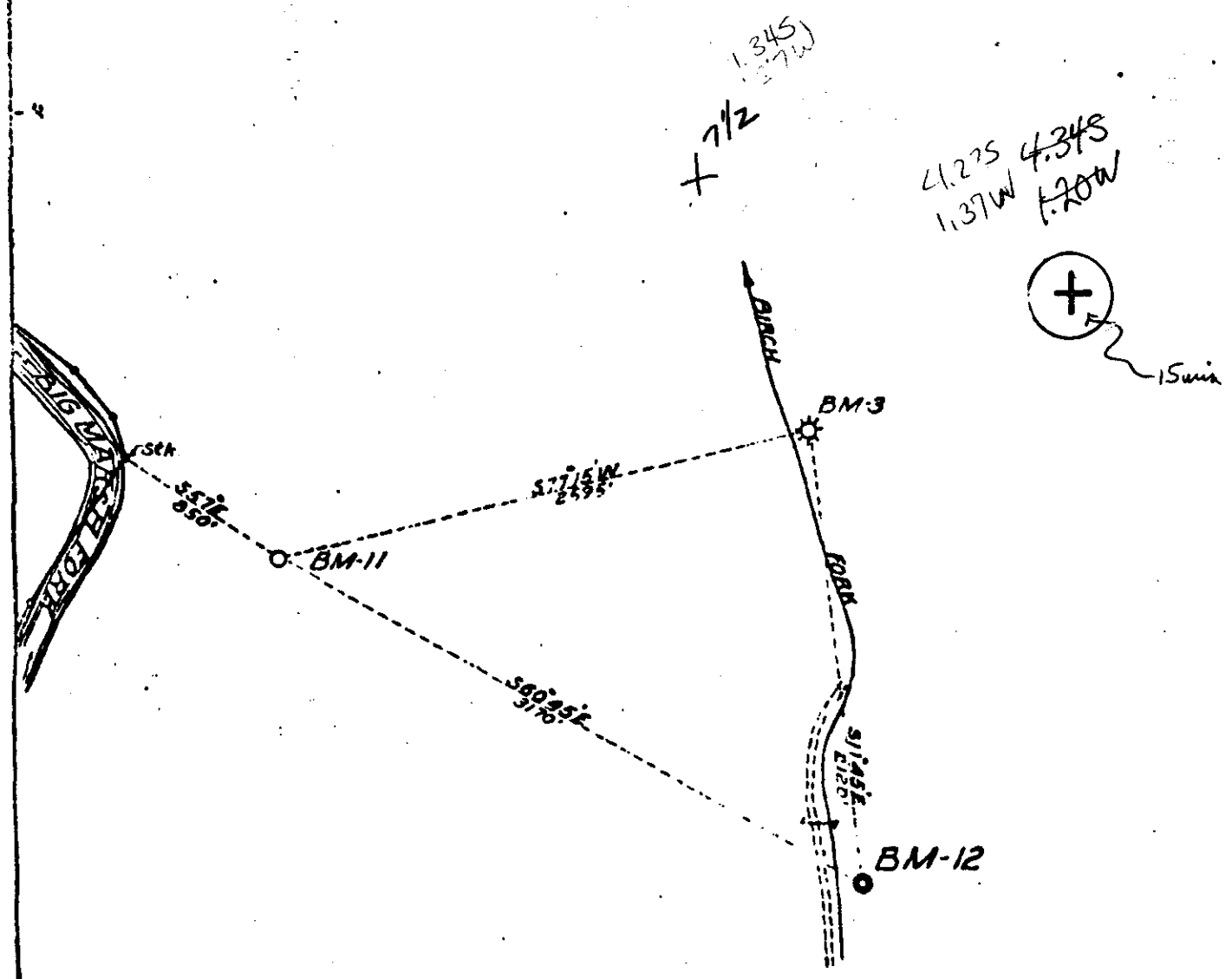


MAN 7-11-85

7050' 299

Latitude 38 00  
37° 57' 30"

Longitude 81° 30'  
8650'



ROWLAND LAND CO.  
COAL NOT OPERATED

New Location   $- 7/11/85$   
Drill Deeper   
Abandonment

LAT: 37° 56' 04"  
LONG: 81° 31' 28"

Company BIG MARSH OIL CO. 92  
 Address CHARLESTON, W.VA.  
 Farm ROWLAND LAND CO.  
 Tract \_\_\_\_\_ Acres 6000 Lease No. 1  
 Well (Farm) No. \_\_\_\_\_ Serial No. BM-12  
 Elevation (Spirit Level) 1027.86'  
 Quadrangle BALD KNOB 15min 006  
 County RALEIGH District MARSH FK 2  
 Engineer \_\_\_\_\_  
 Engineer's Registration No. 662  
 File No. 66-31 Drawing No. \_\_\_\_\_  
 Date JUNE 26-1947 Scale 1" = 800'

STATE OF WEST VIRGINIA  
DEPARTMENT OF MINES  
OIL AND GAS DIVISION  
CHARLESTON

WELL LOCATION MAP

FILE NO. RAL-102-DD

Whitesville 7 1/2 677 NE 3

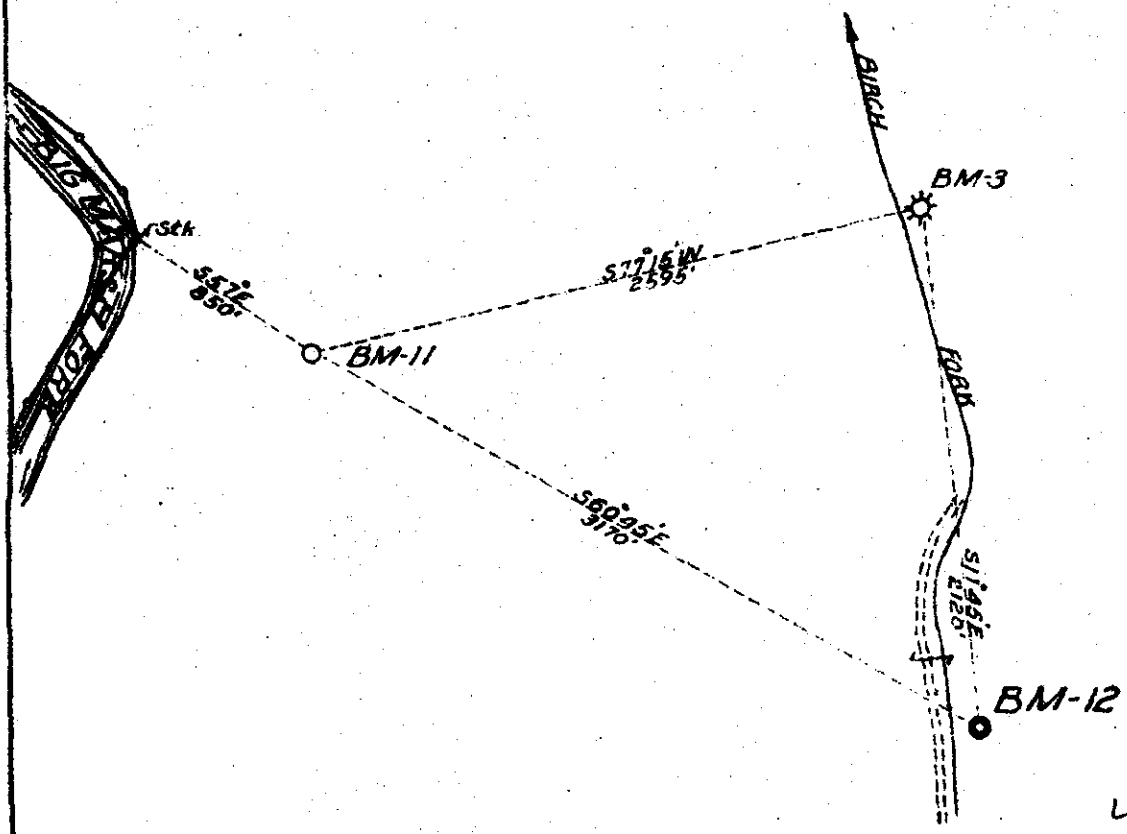
+ Denotes location of well on United States Topographic Maps, scale 1 to 62,500, latitude and longitude lines being represented by border lines as shown.

- Denotes one inch spaces on border line of original tracing.

JUL 22 1947

Latitude 38 00

Longitude 81 30



ROWLAND LAND CO.  
COAL NOT OPERATED

New Location    
 Drill Deeper    
 Abandonment

Company BIG MARSH OIL CO.  
 Address CHARLESTON, W. VA.  
 Farm ROWLAND LAND CO.  
 Tract \_\_\_\_\_ Acres 6000 Lease No. 1  
 Well (Farm) No. \_\_\_\_\_ Serial No. BM-12  
 Elevation (Spirit Level) 1027.86'  
 Quadrangle BALD KNOB  
 County RALEIGH District MARSH FK  
 Engineer \_\_\_\_\_  
 Engineer's Registration No. 662  
 File No. 66-31 Drawing No. \_\_\_\_\_  
 Date JUNE 26-1947 Scale 1" 800'

STATE OF WEST VIRGINIA  
 DEPARTMENT OF MINES  
 OIL AND GAS DIVISION  
 CHARLESTON

WELL LOCATION MAP  
 FILE NO. RAL-102

+ Denotes location of well on United States Topographic Maps, scale 1 to 62,500. latitude and longitude lines being represented by border lines as shown.

- Denotes one inch spaces on border line of original tracing.

WEST VIRGINIA DEPARTMENT OF MINES  
OIL & GAS DIVISION  
W E L L R E C O R D

Permit No. Bal 102  
Bald Knob Quad.  
Company  
Address  
Farm  
Location  
Well No.  
District  
Surface  
Mineral  
  
Commenced  
Completed  
Not shot  
Open flow  
Volume  
Rock Pressure

Gas Well  
CASING & TUBING

Big Marsh Oil Co.  
P.O. Box 1273, Charleston, 25, W.Va.  
Rowland Land Co. Acres 6000 13 3/8 65 65  
Big Marsh Fork 10 3/4 363 363  
BM -12 Elev. 1027.86 GR 8 5/8 1376 1376  
Marsh Fork Raleigh County 7 2102 2102  
  
Rowland Land Co., P.O. Box 586,  
St. Albans, W.Va. Coal at 41' 48" ;  
11-13-47 1 96' 48"; 505' 48"  
4-13-48 635' 36"

Soil	0	10
Sand	10	20
Slate	20	30
Sand	30	41
Coal	41	45
Slate	45	80
Sand	80	147
Slate & Shells	147	196
Coal	196	200
Slate	200	355
Sandy Lime	355	405
Slate	405	440
Sand	440	470
Slate	470	487
Sand	487	505
Coal	505	509
Sandy Lime	509	528
Sand	528	635
Coal	635	638
Slate & Shells	638	710
Salt Sand	710	1107
Slate & Shells	1107	1170
Sand	1170	1255
Slate & Shells	1255	1300
Sand	1300	1356
Slate & Shells	1356	1368
Lime	1368	1383
Red Rock	1383	1389
Lime	1389	1415
Slate & Shells	1415	1522
Red Rock	1522	1572
Sand	1572	1619
Red Rock	1619	1631
Lime	1631	1688
Red Rock	1688	1725
Lime	1725	1740
Red Rock	1740	1850
Slate	1850	1900
Pencil Cave	1900	1906
Lime	1906	1926
Maxon	1926	1951
Slate	1951	1975
Lime Black <i>hittle</i>	1975	2038
Slate <i>pernal</i>	2038	2048
Lime	2048	2087
Slate	2087	2100
Lime	2100	2389
-Injun	2389	2427
Slate	2427	2464
-Sand <i>weir?</i>	2464	2572
Slate	2572	2575
Sand	2575	2581
Slate	2581	2596

Gas 2130' show  
Gas 2491-2508 90/10 W 4" 1,600 M  
Gas 2510-2515 78/10 W 4" 1,489 M  
Gas 2522-2530 90/10 W 4" 1,600 M

T.D.

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

Open Hole Completion

WELL LOG

FORMATION	COLOR	HARD OR SOFT	TOP FEET	BOTTOM FEET	REMARKS Including indication of all fresh and salt water, coal, oil and gas	
Gritty Shell			2600	2650	25/10 Water in 1"	
Slate & Shell			2650	2850		
Coffee Shell			2850	2870		
Berea Sand			2870	2880		
Slate & Shell			2880	3080		
Gordon Sand	} Up. Dev		3080	3084		
Gritty Shale			3084	3990		
Brown Shell	} Low Huron		3990	4090		
Slate & Shell			4090	4550		
Brown Shell			4550	4600		
Slate & Shell			4600	5300		
T.D.			5300		36/10 Water in 1"	
From nearby well						
Up. Dev	top	thickness				
	2880	1110				
Low Huron	3990	610				
Tawa	4600	150				
Angola	4750	300				
Rivestreet	5050					
						5300 new TD
						2596-old TD
					2704-DD log	

(Attach separate sheets as necessary)

Columbia Gas Transmission Corporation  
Well Operator

By: LL Friend

Date: 12/12/85

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."



IV-  
(Rev. 1-1-77)  
**RECEIVED**  
DEC 16 1985

DIVISION OF OIL & GAS  
**DEPT. OF ENERGY**

State of West Virginia  
Department of Mines  
Oil and Gas Division

Date December 12, 1985  
Operator's  
Well No. BM-12  
Farm Rowland Land Company  
API No. 47 - 081 - 102-DD

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    / Underground Storage    / Deep    / Shallow X /)

LOCATION: Elevation: 1027.86 Watershed Birch Fork  
District: Marsh Fork County Raleigh    Quadrangle Bald Knob

COMPANY Columbia Gas Transmission Corp.  
ADDRESS P.O. Box 1273, Charleston, WV 25325  
DESIGNATED AGENT Joseph E. Campbell  
ADDRESS P.O. Box 1273, Charleston, WV 25325  
SURFACE OWNER Rowland Land Company  
ADDRESS 1033 Quarrier St., Charleston, WV 25301  
Room 301  
MINERAL RIGHTS OWNER Rowland Land Co.  
ADDRESS Same  
OIL AND GAS INSPECTOR FOR THIS WORK Rodney  
Dillon ADDRESS P.O. Box 30, Scarbro, WV  
PERMIT ISSUED 7-11-85  
DRILLING COMMENCED 7-30-85  
DRILLING COMPLETED 10-10-85

Casing & Tubing	Used in Drilling	Left in Well	Cement fill up Cu. ft.
Size			
20-16			
Cond.			
13-10"			
9 5/8			
8 5/8			
7			
5 1/2			
4 1/2			
3			
2-3/8	4433.5	4433.5	
Liners used			

IF APPLICABLE: PLUGGING OF DRY HOLE ON CONTINUOUS PROGRESSION FROM DRILLING OR REWORKING. VERBAL PERMISSION OBTAINED ON   

GEOLOGICAL TARGET FORMATION Devonian Shale Depth 5300 feet  
Depth of completed well 5300 feet Rotary    / Cable Tools X  
Water strata depth: Fresh - feet; Salt - feet  
Coal seam depths: - Is coal being mined in the area? No

OPEN FLOW DATA

Producing formation Brown Shale Pay zone depth 3077-5300 feet  
Gas: Initial open flow 35 Mcf/d Oil: Initial open flow - Bbl/d  
Final open flow 40 Mcf/d Final open flow - Bbl/d  
Time of open flow between initial and final tests - hours

Static rock pressure 330 psig (surface measurement) after 6 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

DEC 23 1985

(Continue on reverse side)



**RECEIVED**

MAY 31 1985

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

OIL & GAS DIVISION  
 DEPT. OF MINES

- 4) WELL TYPE: A Oil / Gas  /  
 B (1) Gas, Production  / Underground storage \_\_\_\_\_ / Deep \_\_\_\_\_ / Shallow  /
- 5) LOCATION: Elevation: 1027.86 / Watershed: Big Marsh Fork  
 District: Marsh Fork / County: Raleigh / Quadrangle: Whitesville
- 6) WELL OPERATOR Big Marsh Oil Co. 092 / 5350  
 Address P. O. Box 1273 / Charleston, WV 25325
- 7) DESIGNATED AGENT J. L. Weekley  
 Address P. O. Box 1273 / Charleston, WV 25325
- 8) OIL & GAS INSPECTOR TO BE NOTIFIED  
 Name Rodney Dillon  
 Address P. O. Box 30 / Scarboro, WV 25917
- 9) DRILLING CONTRACTOR:  
 Name \_\_\_\_\_  
 Address \_\_\_\_\_
- 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, Shale 44
- 12) Estimated depth of completed well, 5500 feet
- 13) Approximate trata depths: Fresh, \_\_\_\_\_ feet; salt, \_\_\_\_\_ feet.
- 14) Approximate coal seam depths: 41-45' / Is coal being mined in the area? Yes \_\_\_\_\_ / No  /
- 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									Kinds
Fresh water	10 3/4		32.75				363'-7"	EXISTING - SEE WELL RECORD 400 SX or so required by rule 15.01	Sizes
Coal									Depths
Intermediate	7"		20#				2102'-3"		Perforations:
Production	4 1/2"	K	10.5	X	5500	5500			Top Bottom
Tubing									
Liners									

OFFICE USE ONLY  
 DRILLING PERMIT

Permit number 47-081-0102D / Date July 11 19 85

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 July 11, 1987 unless well work is commenced prior to that date and prosecuted with due diligence.

Bond: <input checked="" type="checkbox"/>	Agent: AIB	Plat: MN	Casing: MN	Fee: 406000.39
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Margaret J. Nasse  
 Administrator, Office of Oil and Gas

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

File

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