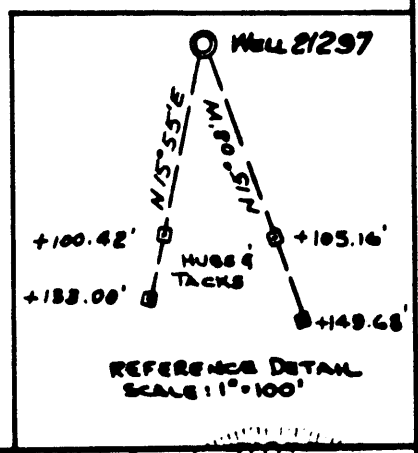
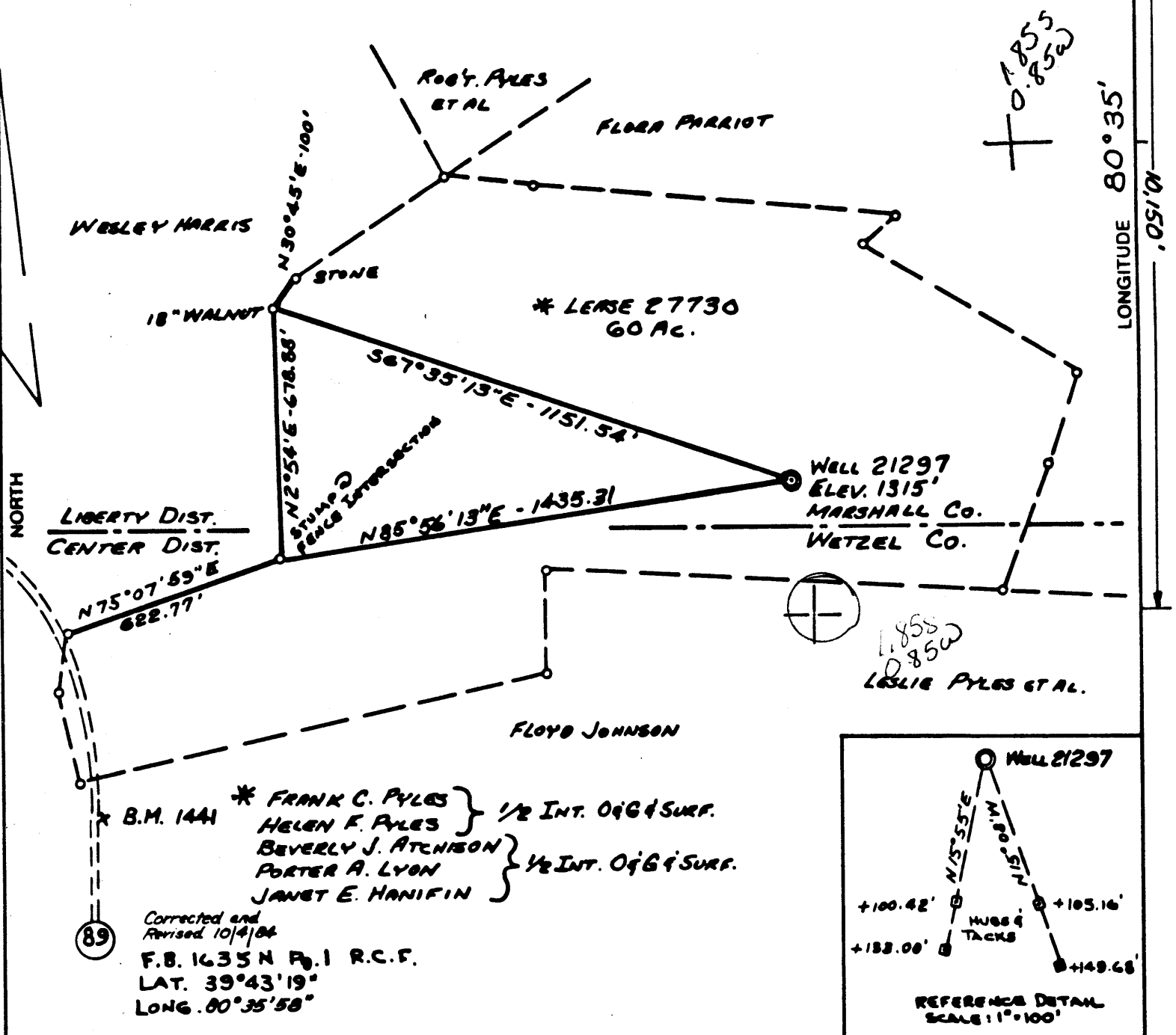


LATITUDE 39°45'

CODE _____ CARD _____ PLOT U



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

FILE NO. _____
 DRAWING NO. _____
 SCALE 1\"/>

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) Wayne C. Stout
 R.P.E. _____ L.L.S. _____

PLACE SEAL HERE

STATE OF WEST VIRGINIA
 DEPARTMENT OF MINES
OIL AND GAS DIVISION

DATE OCTOBER 1, 1984
 OPERATOR'S WELL NO. 21297
 API WELL NO. 05/47 MARS 0705
 STATE COUNTY PERMIT

WELL TYPE: OIL GAS _____ LIQUID INJECTION _____ WASTE DISPOSAL _____
 (IF "GAS,") PRODUCTION _____ STORAGE _____ DEEP _____ SHALLOW _____

LOCATION: ELEVATION 1315' WATERSHED PENNSYLVANIA FORK - FISH CREEK
 DISTRICT LIBERTY 4 COUNTY MARSHALL
 QUADRANGLE LITTLETON - 7 1/2' 438 & 15' N.G. 2 067

SURFACE OWNER FRANK C. PYLES, ET AL (SEE ABOVE) * ACREAGE 58.95
 OIL & GAS ROYALTY OWNER SAME LEASE ACREAGE 60
 LEASE NO. 27730

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 GORDON ESTIMATED DEPTH 3500'
 WELL OPERATOR COLUMBIA GAS TRANSMISSION CORP. DESIGNATED AGENT J.L. WEEKLEY
 ADDRESS P.O. BOX 1873 CHARLESTON, W.VA. 25325 ADDRESS P.O. BOX 1873 CHARLESTON, W.VA. 25325

COUNTY NAME PERMIT

6-6 Lunn Camp (36)

RECEIVED
JUN 19 1985



OIL & GAS DIVISION
DEPT. OF MINES

State of West Virginia
Department of Mines
Oil and Gas Division

Date June 17, 1985
Operator's Well No. 21297
Farm Frank C. Pyles, et al
API No. 47 - 051 - 00705

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: 1315 Watershed Pennsylvania Fork - Fish Creek
District: Liberty County Marshall Quadrangle Littleton

COMPANY Columbia Gas Transmission Corporation
ADDRESS P. O. Box 1273, Charleston, WV
DESIGNATED AGENT James L. Weekley
ADDRESS P. O. Box 1273, Charleston, WV
SURFACE OWNER Frank C. Pyles, et al
ADDRESS 1114 E. 5th Street, Berwick, PA 18603
MINERAL RIGHTS OWNER Frank C. Pyles, et al
ADDRESS 1114 E. 5th Street, Berwick, PA 18603
OIL AND GAS INSPECTOR FOR THIS WORK Robert Lowther
ADDRESS Middlebourne, WV
PERMIT ISSUED 11/8/84
DRILLING COMMENCED 12/10/84
DRILLING COMPLETED 12/18/84
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 Cord.			
13-10"	95.1	95.1	60 sacks
9 5/8	1192.45	1192.45	370 sacks
8 5/8			
7	2631	2631	220 sacks
5 1/2			
4 1/2	3301.5	3301.5	75 sacks
3			
2			
Liners used			

GEOLOGICAL TARGET FORMATION Gordon Depth 3500 feet
Depth of completed well 3320 feet Rotary x / Cable Tools
Water strata depth: Fresh feet; Salt feet
Coal seam depths: 1142-1148 Is coal being mined in the area?

OPEN FLOW DATA
Producing formation Gordon Pay zone depth 3182-3196 feet
Gas: Initial open flow Mcf/d Oil: Initial open flow Bbl/d
Final open flow (16) Mcf/d Final open flow (6) Bbl/d
Time of open flow between initial and final tests hours
Static rock pressure psig (surface measurement) after 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

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

Perforated 1-22-85 from 3182-3196' with 15 holes, from 3210-3212' with 3 holes and from 3244-3252' with 9 holes.

Acidized from 3182-3213' and from 3244-3252' on 1-23-85 with 500 gallons 15% HCl.

Fractured with 1920 gallons gelled water and 60,000# 20/40 sand.

WELL LOG

FORMATION	COLOR	HARD OR SOFT	TOP FEET	BOTTOM FEET	REMARKS
					Including indication of all fresh and salt water, coal, oil and gas
Top Clay			0	3	
Sand Clay			3	9	
Sand Shale			9	130	
Red and Gray Shale			130	152	
Gray Shale			152	256	
Red Gray Shale			256	455	
Gray Sand			455	856	
Waynesburg Coal			856	866	
Mapletown Coal			1042	1047	
Pittsburgh Coal			1142	1150	
Little Dunkard			1564	1595	
Big Dunkard			1684	1716	
1st Gas Sand			1837	1867	
2nd Salt Sand			2033	2049	
3rd Salt Sand			2066	2100	
Big Lime			2284	2320	
Big Injun <small>SEX & PD</small>			2320	2580	
Murrysville			2934	2945	
Gordon			3167	3198	
4th			3209	3216	
5th			3242	3252	
LTD			3348		
DTD			3320		

(Attach separate sheets as necessary)

Columbia Gas Transmission Corporation

Well Operator

By:

J. Weekly

Date:

June 17, 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."



1) Date: 10-10, 19 84
 2) Operator's Well No. _____
 3) API Well No. 47-051-0705 County Marshall Permit 47-051-0705
RECEIVED
 47-051-0705
 OCT 27 1984

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 X / Gas _____
 B (If "Gas", Production _____ / Underground storage _____ / Deep _____ / Shallow _____)
- 5) LOCATION: Elevation: 1315' Watershed: Pennsylvania Fork-Fish Creek
 District: Liberty County: Marshall Quadrange: Littleton
- 6) WELL OPERATOR Columbia Gas Trans. Corp. 7) DESIGNATED AGENT J. L. Weekley
 Address P. O. Box 1273 Address P. O. Box 1273
Charleston, WV 25325 10450 Charleston, WV 25325
- 8) OIL & GAS INSPECTOR TO BE NOTIFIED Name Robert Lowther
 Address General Delivery
Middlebourne, WV 26149
- 9) DRILLING CONTRACTOR: Name _____ 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, Gordon
- 12) Estimated depth of completed well, 3500' feet
- 13) Approximate trata depths: Fresh, _____ feet; salt, _____ feet.
- 14) Approximate coal seam depths: 1180 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									Kinds
Fresh water	<u>13-3/8</u>	<u>H</u>	<u>48</u>	<u>X</u>		<u>90</u>	<u>90</u>	<u>to surface</u>	
Coal	<u>9-5/8</u>	<u>H</u>	<u>32</u>	<u>X</u>		<u>1250</u>	<u>1250</u>	<u>to surface</u>	<u>NEAT</u>
Intermediate	<u>7</u>	<u>K</u>	<u>20</u>	<u>X</u>		<u>2200</u>			
Production	<u>4 1/2</u>	<u>K</u>	<u>10.5</u>	<u>X</u>		<u>3500</u>			Depths set
Tubing									
Liners									Perforations: Top Bottom

OFFICE USE ONLY
 DRILLING PERMIT

Permit number 47-051-0705 Date November 7, 1984

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 November 7, 1986 unless well work is commenced prior to that date and prosecuted with due diligence.

Bond: <u>43</u>	Agent: <u>TS</u>	Plat: <u>TS</u>	Casing: <u>TS</u>	Fee: <u>40600923</u>
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Margaret J. Hassel
 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.