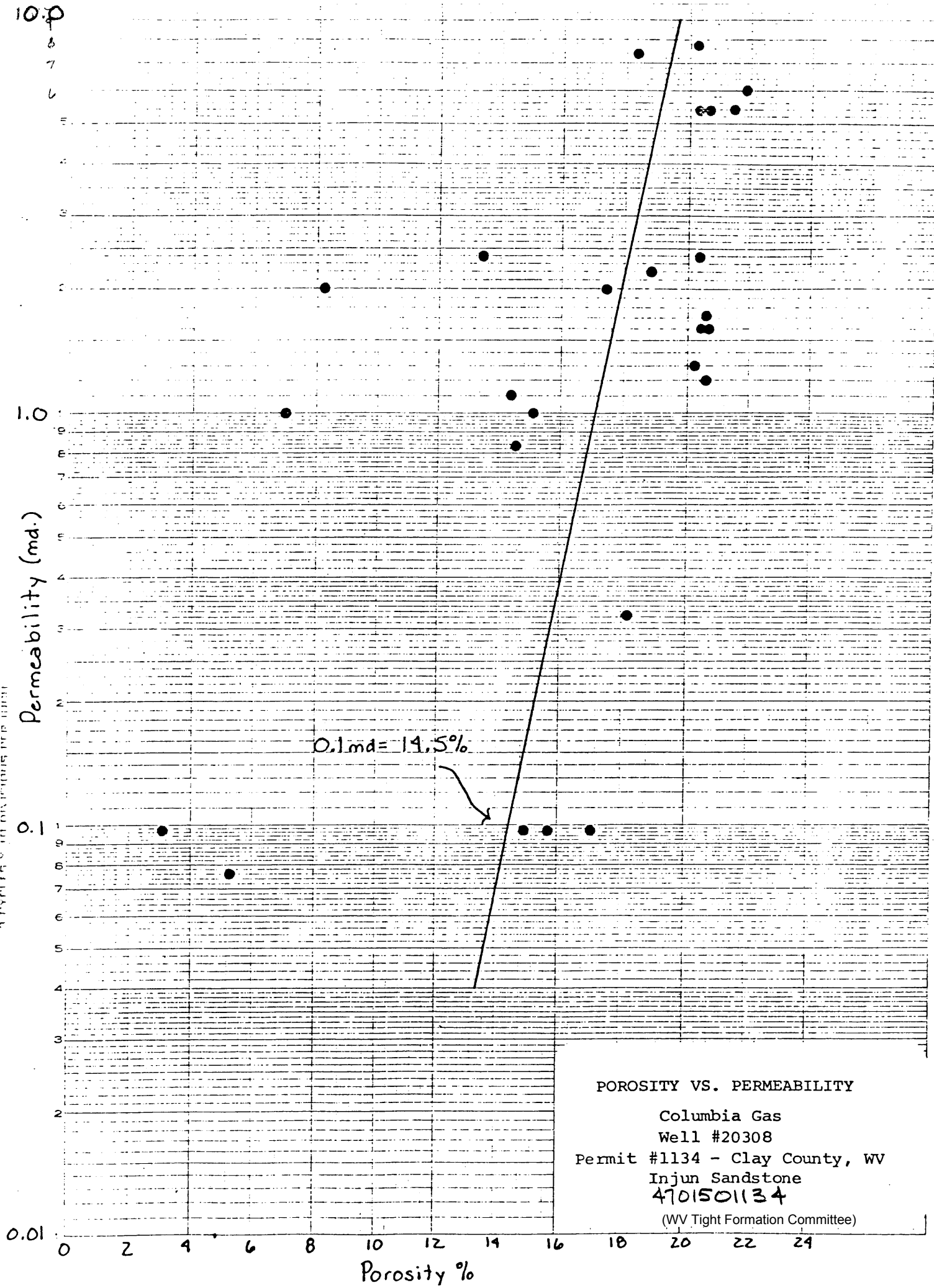


MOORE-BLOOM FIELD GRAPH PAPER
Semi-Logarithmic
3 Cycles x 10 Divisions per Cycle
MADE IN U.S.A.



POROSITY VS. PERMEABILITY

Columbia Gas
Well #20308
Permit #1134 - Clay County, WV
Injun Sandstone
4701501134
(WV Tight Formation Committee)

42-55

Clay-1134



OILFIELD RESEARCH, INC.

WHOLE CORE ANALYSIS REPORT

Company Columbia Gas Transmission Corp. Elevation 1295.34 File No. 7601025
 Lease Well 20308 Formation Injun Date Cored 1/14/76
 Field Grannys Fork Drilg. Fluid FW Gel Date Report 1/21/76
 County Clay State W. Va. Type Of Core Diamond Permit No. _____
 Location (Waters) Summers Fork Remarks Sampled by client

LITHOLOGICAL ABBREVIATIONS

SAND-SD DOLGANTITE-DOL ANHYDRITE-ANHY SANDY-SDY FINE-FN CRYSTALLINE-XLN BROWN-BRN FRACTURED-FRAC SLIGHTLY-SL/
 SHALE-SH CHERT-CH CONGLOMERATE-CONG SHALEY-SHY MEDIUM-MED GRAIN-GRN GRAY-GY LAMINATION-LAM VERY-V/
 LIME-LM GYPSUM-GYP FOSSILIFEROUS-FOSS LIMEY-LMY COARSE-CSE GRANULAR-GRNL VUGGY-VGY STYLOLITIC-STY WITH-W/

SAMPLE NUMBER	DEPTH FEET	PERMEABILITY MILLIDARCYS		POROSITY PERCENT	LITHOLOGY AND REMARKS	
		HORIZONTAL				
		MAX.	90°			

					Percent Oil	Percent Water
1	2189.5-91.8	<0.10	<0.10	3.2	8.3	52.8
2	2191.8-93.2	0.76	0.64	5.4	14.8	51.0
3	2193.2-94.5	2.0	1.8	8.3	17.4	29.4
4	2194.5-95.9	1.0	0.96	7.1	23.4	24.0
5	2195.9-97.1	<0.10	<0.10	4.9	17.8	38.2
6	2197.1-98.2	2.4	1.7	13.5	25.3	42.8
7	2198.2-99.7	0.83	0.69	14.7	23.4	45.3
8	2199.7-00.8	7.4	6.9	18.4	18.5	47.7
9	2200.8-01.8	1.1	0.96	14.4	22.4	49.5
10	2201.8-03.0	1.0	1.0	15.1	24.2	51.9
11	2204.0-05.3	2.4	2.4	20.4	21.1	50.0
12	2205.3-06.4	0.32	0.20	18.2	25.3	50.4
13	2206.4-07.5	1.2	1.2	20.6	22.5	48.0
14	2207.5-08.5	5.4	5.4	20.7	20.5	48.5
15	2208.5-09.7	1.7	1.7	20.7	21.7	47.6
16	2209.7-10.5	1.6	1.6	20.6	19.8	47.4
17	2211.5-12.6	6.0	6.0	21.9	20.6	47.0
18	2212.6-13.9	5.4	5.4	21.4	16.3	51.3
19	2213.9-15.1	7.8	7.1	20.3	19.1	50.8
20	2215.1-16.1	5.4	5.4	20.5	19.5	49.2
21	2216.1-17.0	2.4	2.2	20.4	20.6	45.5
22	2217.9-19.3	2.2	2.2	18.9	20.5	50.6
23	2219.3-20.3	1.3	1.2	20.3	21.3	49.2
24	2220.3-21.8	1.6	1.6	20.7	21.8	48.3
25	2221.8-22.9	2.0	1.9	17.4	23.3	57.2

These analyses, opinions or interpretations are based on observations and material supplied by the client to whom, and for whose exclusive and confidential use this report is made. The interpretations or opinions expressed represent the best judgment of Oilfield Research, Inc. (all errors and omissions excepted) but Oilfield Research, Inc. and its officers and employees, assume no responsibility and make no warranty or representations as to the productivity, proper operation, or profitability of any oil, gas or other mineral well or sand in connection with which such report is used or relied upon.

WHOLE CORE ANALYSIS REPORT

Lease _____ Well No. 2000

SAMPLE NUMBER	DEPTH FEET	PERMEABILITY MILLIDARCYS		POROSITY PERCENT	LITHOLOGY AND REMARKS		
		HORIZONTAL					VERTICAL
		MAX	90°				

					Percent <u>Oil</u>	Percent <u>Water</u>	
26	2223.9-25.0	<0.10	<0.10	17.2	19.5	56.5	
27	2225.0-26.0	<0.10	<0.10	15.8	17.8	66.4	
28	2226.0-27.4	<0.10	<0.10	15.0	12.1	68.6	
AVERAGES							
	2189.5-2197.1	0.67	0.59	5.5	15.3	40.8	(7.6')
	2197.1-2227.4	2.5	2.4	18.6	20.8	51.2	(26.4')