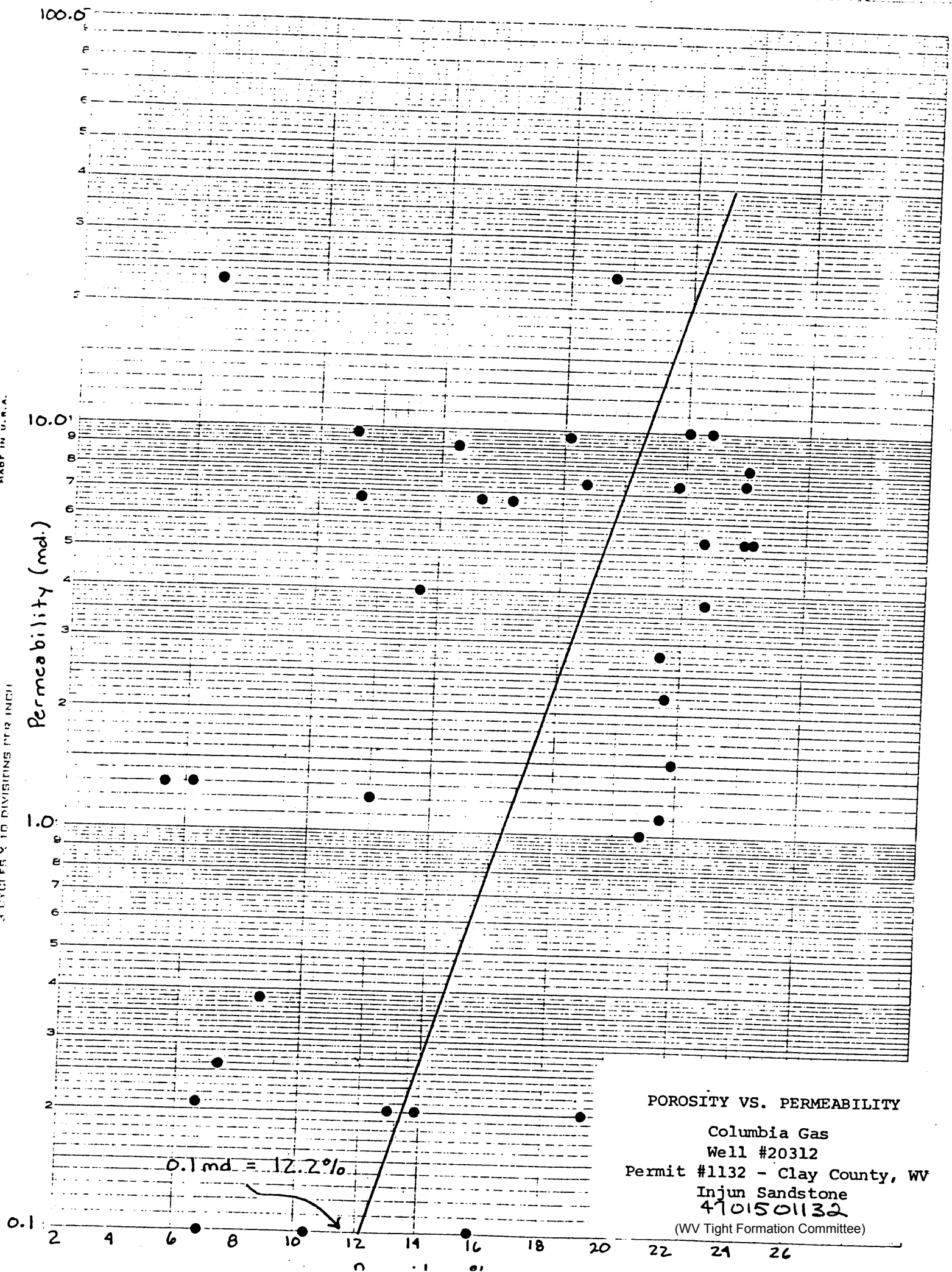


AMERICAN CORPORATION  
MADE IN U.S.A.

SEMI-LOGARITHMIC  
3 CYCLES X 10 DIVISIONS PER INCH



POROSITY VS. PERMEABILITY

Columbia Gas  
Well #20312  
Permit #1132 - Clay County, WV  
Injun Sandstone  
4701501132  
(WV Tight Formation Committee)

0.1 md = 12.2%



# WHOLE CORE ANALYSIS REPORT

Lease \_\_\_\_\_ Well No. 20312

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

					Percent Oil	Percent Water
29	2002.0-03.2	5.4	4.5	22.7	19.8	52.5
30	2003.2-04.8	2.8	2.8	21.4	20.2	52.3
31	2004.8-06.0	2.2	2.0	21.7	21.6	49.3
32	2006.0-07.1	1.5	1.4	21.9	21.3	50.1
33	2007.1-08.3	1.1	1.1	21.7	25.6	49.4
34	2008.3-09.8	1.0	1.0	20.9	19.7	52.9
35	2009.8-11.0	0.20	0.20	19.3	20.6	55.3
36	2011.0-12.1	<0.10	<0.10	15.8	21.9	67.8

**SQUAW**

37	2040.9-42.0	0.66	0.66	19.0	32.5	23.8
38	2042.0-43.3	4.5	4.5	22.0	34.5	21.7
39	2043.3-44.5	0.96	0.96	21.7	34.7	23.0
40	2044.5-45.7	1.1	1.1	21.9	33.6	21.7
41	2045.7-46.9	1.1	1.1	22.0	34.3	21.6
42	2046.9-47.9	2.0	2.0	23.0	33.3	25.6
43	2047.9-49.1	1.6	1.6	22.7	34.1	26.8
44	2049.1-50.4	3.1	3.0	17.1	33.6	19.7

**AVERAGES**

1967.0-1988.1	5.4	3.7	11.1	23.1	43.8	(21.1') INJUN
1988.1-2012.1	5.1	5.0	20.9	20.3	51.4	(24.0') INJUN
2040.9-2050.4	1.9	1.9	21.1	33.9	22.9	(9.5') SQUAW