

**Mercury Injection Capillary Pressure Analysis**  
**Core I.D. 194, 8-10-117-12W6, 1008.55m**

*In situ* Klinkenberg Permeability = 0.0480 md  
*In situ* Porosity = 9.0 %

Mercury Injection Capillary Pressure (psia)	Approx. Pore Entry Diameter (um)	Cumulative Wetting Phase Saturation (% pore vol)	Pore Size Distribution Frequency	Cumulative Surface Area (m2/g)	Approx. Gas-Water Height Above Free Water Level (ft)	Approx. Oil-Water Height Above Free Water Level (ft)	Honarpour <i>et al.</i> Imbibition Carbonate		Corey Calculated		
							Oil Relative Permeability (%)	Water Relative Permeability (%)	Oil or Gas Relative Permeability (%)	Water Relative Permeability (%)	Log Oil/Brine Kro/Krw Ratio
2.0	107	100.0	0.0	0.000	0.1	0.1	0.0	100.0	0.0	100.0	-5.0
2.5	86	100.0	0.0	0.000	0.8	1.1	0.0	100.0	0.0	100.0	-5.0
3.3	65	100.0	0.0	0.000	1.0	1.4	0.0	100.0	0.0	100.0	-5.0
4.3	50	100.0	0.0	0.000	1.3	1.8	0.0	100.0	0.0	100.0	-5.0
5.5	39	100.0	0.0	0.000	1.7	2.4	0.0	100.0	0.0	100.0	-5.0
7.2	30	100.0	0.0	0.000	2.2	3.1	0.0	100.0	0.0	100.0	-5.0
9.3	23	100.0	0.0	0.000	2.9	4.0	0.0	100.0	0.0	100.0	-5.0
12.0	18	100.0	0.0	0.000	3.7	5.2	0.0	100.0	0.0	100.0	-5.0
15.5	14	100.0	0.0	0.000	4.8	6.7	0.0	100.0	0.0	100.0	-5.0
20	11	99.8	0.2	0.000	6.2	8.7	0.0	100.0	0.0	100.0	-5.0
25	8.6	99.8	0.0	0.000	8.0	11.2	0.0	29.3	0.0	99.2	-5.0
35	6.1	99.8	0.0	0.000	9.9	14.0	0.0	29.3	0.0	99.2	-5.0
45	4.8	99.8	0.0	0.000	14	20	0.0	29.3	0.0	99.2	-5.0
55	3.9	99.8	0.0	0.000	18	25	0.0	29.3	0.0	99.2	-5.0
75	2.9	99.8	0.0	0.000	22	31	0.0	29.3	0.0	99.2	-5.0
95	2.3	99.6	0.2	0.000	30	42	0.0	29.3	0.0	99.2	-5.0
120	1.8	98.9	0.7	0.001	38	53	0.0	29.1	0.0	98.3	-5.0
150	1.4	97.6	1.3	0.001	48	67	0.0	28.7	0.0	95.5	-5.0
200	1.1	93.6	4.0	0.006	60	84	0.1	28.0	0.0	90.6	-6.4
260	0.82	69.9	23.7	0.045	80	112	0.5	25.6	0.0	76.3	-4.6
350	0.61	41.5	28.4	0.109	103	145	11.4	14.0	0.9	22.9	-1.4
430	0.50	29.4	12.0	0.141	139	196	43.2	4.7	12.8	2.6	0.7
550	0.39	20.4	9.0	0.173	171	240	62.9	2.3	27.1	0.6	1.7
725	0.30	14.9	5.5	0.198	219	308	80.0	1.0	44.0	0.1	2.6
925	0.23	11.8	3.1	0.216	288	405	91.5	0.5	57.5	0.0	3.3
1200	0.18	9.7	2.1	0.232	368	517	98.2	0.3	66.3	0.0	3.9
1550	0.14	8.3	1.4	0.246	477	671	103.0	0.2	72.8	0.0	4.3
2000	0.11	7.3	1.0	0.259	617	867	106.3	0.1	77.6	0.0	4.7
2600	0.08	6.2	1.1	0.277	796	1119	108.6	0.1	81.0	0.0	5.1
3350	0.06	5.0	1.2	0.302	1034	1454	111.2	0.0	84.9	0.0	5.5
4300	0.05	4.0	0.9	0.328	1333	1874	114.0	0.0	89.3	0.0	6.2
5550	0.04	3.4	0.7	0.351	1711	2405	116.2	0.0	92.8	0.0	6.9
7200	0.03	2.7	0.7	0.383	2208	3104	117.8	0.0	95.4	0.0	7.7
9300	0.02	2.2	0.4	0.408	2864	4027	119.6	0.0	98.3	0.0	9.4
					3700	5201	120.6	0.0	100.0	0.0	15.0

All Hg calculations assume air-mercury T=484 dyne/cm, contact angle=140deg.  
Oil/Gas-Brine Pc assumes insitu o/g-brine Tcos0= 64.0000 22.0000 dynes/cm  
Oil/gas-Brine height assumes o/g density gradient = 0.0186 0.3464 psi/ft  
Oil/gas-Brine height assumes brine density gradient = 0.4525 0.4525 psi/ft  
Swi assumed for relative permeability = 2.2 %  
Sorw assumed for relative permeability = 0 %  
*In situ* Gas/Oil & Brine Density (g/cc)= 0.043/0.80 1.045 g/cc

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