

**Mercury Injection Capillary Pressure Analysis**  
**Core I.D. 70, A-25-E/94-P-16, 1145.92m**

*In situ* Klinkenberg Permeability = 1.51 md  
*In situ* Porosity = 9.7 %

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	98.0	2.0	0.000	0.8	1.1	0.0	100.0	0.0	100.0	-5.0
3.3	65	97.7	0.4	0.000	1.0	1.4	0.0	27.1	0.0	91.8	-6.7
4.3	50	95.7	1.9	0.000	1.3	1.8	0.1	26.9	0.0	90.4	-6.4
5.5	39	94.2	1.5	0.000	1.7	2.4	0.2	25.7	0.0	83.1	-5.3
7.2	30	93.8	0.5	0.000	2.2	3.1	0.4	24.9	0.0	77.7	-4.7
9.3	23	92.8	1.0	0.000	2.9	4.0	0.5	24.6	0.0	76.0	-4.6
12.0	18	92.6	0.2	0.000	3.7	5.2	0.7	24.1	0.0	72.7	-4.3
15.5	14	92.0	0.5	0.000	4.8	6.7	0.7	23.9	0.0	71.9	-4.3
20	11	90.5	1.5	0.000	6.2	8.7	0.8	23.6	0.0	70.2	-4.1
25	8.6	87.3	3.2	0.001	8.0	11.2	1.1	22.8	0.0	65.3	-3.8
35	6.1	83.5	3.8	0.002	9.9	14.0	2.1	21.1	0.0	55.9	-3.2
45	4.8	75.6	7.9	0.003	14	20	3.4	19.2	0.1	46.2	-2.7
55	3.9	71.2	4.4	0.005	18	25	7.5	15.4	0.5	30.0	-1.8
75	2.9	63.8	7.3	0.008	22	31	10.5	13.5	0.9	23.1	-1.4
95	2.3	56.4	7.4	0.012	30	42	16.5	10.7	2.2	14.4	-0.8
120	1.8	45.4	11.0	0.019	38	53	24.0	8.1	4.6	8.3	-0.3
150	1.4	39.9	5.6	0.016	48	67	37.6	5.0	11.3	3.1	0.6
200	1.1	31.8	8.1	0.025	60	84	45.7	3.7	16.7	1.7	1.0
260	0.82	27.9	3.9	0.030	80	112	58.8	2.1	27.7	0.6	1.7
350	0.61	23.7	4.2	0.038	103	145	65.6	1.5	34.6	0.3	2.1
430	0.50	21.7	2.0	0.043	139	196	73.6	1.0	43.4	0.1	2.5
550	0.39	19.3	2.4	0.050	171	240	77.4	0.8	48.1	0.1	2.8
725	0.30	17.5	1.8	0.057	219	308	82.3	0.6	54.3	0.0	3.1
925	0.23	16.5	1.0	0.062	288	405	86.0	0.4	59.3	0.0	3.4
1200	0.18	15.0	1.4	0.071	368	517	88.1	0.4	62.2	0.0	3.6
1550	0.14	13.8	1.2	0.081	477	671	91.1	0.3	66.6	0.0	3.9
2000	0.11	13.1	0.7	0.089	617	867	93.7	0.2	70.4	0.0	4.2
2600	0.08	11.4	1.7	0.113	796	1119	95.3	0.2	72.8	0.0	4.3
3350	0.06	10.4	1.0	0.131	1034	1454	99.1	0.1	78.8	0.0	4.9
4300	0.05	9.0	1.4	0.163	1333	1874	100.0	0.1	82.5	0.0	5.2
5550	0.04	7.7	1.3	0.201	1711	2405	100.0	0.0	87.7	0.0	5.9
7200	0.03	6.6	1.1	0.245	2208	3104	100.0	0.0	92.7	0.0	6.9
9300	0.02	6.0	0.6	0.276	2864	4027	100.0	0.0	97.4	0.0	8.7
					3700	5201	100.0	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 = 6.0 6.0 %  
Sorw assumed for relative permeability = 0 0 %  
*In situ* Gas/Oil & Brine Density (g/cc)= 0.043/0.80 1.045 g/cc

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