

Table 1. Comparison of theoretical σ and actual σ for selected thin sections from the four Benson cores.

API# 4704101704			API# 4700100502		
Thin section #1 (well #11192, 4368 feet)			Thin section #2 (well #11199, 4286 feet)		
Components	theoretical σ	actual σ	theoretical σ	actual σ	
Quartz	4.99	6.14	4.85	4.38	
Argillaceous	4.47	3.97	3.67	2.55	
Carbonate	3.67	3.08	3.67	1.73	
Feldspar	1.17	0.89	1.53	1.34	
Porosity	1.53	1.14	1.59	0.55	

API# 4700100163

Thin section #3
(well #10612, 3919 feet)

Components	theoretical σ	actual σ			
Quartz	4.81	2.88			
Argillaceous	3.36	1.00			
Carbonate	4.00	2.24			
Feldspar	1.17	0.54			
Porosity	0.45	0.45			

API# 4700100243

Thin section #4
(well #10746, 4136.5 feet)

Components	theoretical σ	actual σ	theoretical σ	actual σ	
Quartz	4.81	2.88	4.93	3.03	
Argillaceous	3.36	1.00	4.45	3.21	
Carbonate	4.00	2.24	3.51	2.30	
Feldspar	1.17	0.54	1.19	0.84	
Porosity	0.45	0.45	2.15	0.84	