

### 11.875" LINER TEST CALCULATIONS

Size	Wt/ft	Grade	Conn	Burst
11.875	71.8	HCQ-125	Hydril 513	10720
16	97.0	Q-125	SLSF	8733
70% Internal Yield of 11.875" Casing =				7504
70% Internal Yield of 16" Casing =				6113.1
<u>Considering Internal Yield Test @ Mudline</u>				
Top of casing TVD=				3,602
Test mud weight=				15.80
Pore pressure=				8.60
Differential pressure= (15.8 - 8.6) * 0.052 * 3602=				1349
Test pressure= 6113.1 - 1349=				4764
<u>Considering Internal Yield Test @ Shoe</u>				
Btm of casing TVD=				22,841
Test mud weight=				15.80
Pore pressure=				15.80
Differential pressure= (15.8 - 15.8) * 0.052 * 22841=				0
Test pressure= 7504 - 0=				7504
<u>However, Considering the MAWP surface:</u>				
MAWPsurf + 500 psi= 9464 + 500 =				9964 psi
11 7/8 Liner top test=( 16.3 - 15.8)*.052*20450+500=				1032 psi
<u>Therefore:</u>				
Plan test pressure is lesser of the above=				1032
11 7/8 Shoe Test pressure=( 16.8 - 15.8)*.052*22841+200=				1388
<u>Future Liner pressure tests</u>				
Test 9.375 liner to		1604	psi for 30 min. with	16.2 ppg mud
Equates to 11.875 liner test to		2079	psi for 30 min. with	15.8 ppg mud
<u>Therefore:</u>				
Test casing to be greater than minimum test pressure or shoe or future liner top testing				
Plan test pressure =				2079 psi
Test casing to		2100	psi for 30 min. with	15.8 ppg mud

- Notes: 1. Casing test pressures are based on the lower of MAWP + 500 psi,  
70% internal casing yield less differential of test mud weight and  
pore pressure behind casing, or liner top plus 500 psi.  
Test pressure will be **200 psi greater than shoe test**
2. Actual test pressure will be calculated based on actual mud weight

**11.875" Liner**