

13-5/8" LINER TEST CALCULATIONS

Size	Wt/ft	Grade	Conn	Burst	
13.625	88.2	Q-125HC	SLSF	10030	
16	97.0	Q-125	SLSF	8733	
70% Internal Yield of 13.625" Casing =				7021	
70% Internal Yield of 16" Casing =				6113.1	
<u>Considering Internal Yield Test @ Mudline</u>					
Top of casing TVD=				7,094	(TOP)
Test mud weight=				15.8	
Pore pressure=				11.30	
Differential pressure= (15.8 - 11.3) * 0.052 * 7094=				1660	
Test pressure= 6113.1 - 1660=				4453	
<u>Considering Internal Yield Test @ 13 5/8" Shoe</u>					
Btm of casing TVD=				20,890	(BOTTOM)
Test mud weight=				15.8	
Pore pressure				15.80	
Differential pressure= (15.8 - 15.8) * 0.052 * 20890=				0	
Test pressure= 7021 - 0=				7021	
<u>However, Considering the MAWP:</u>					
MAWP + 500 psi=				9464 + 500 psi =	9964
<u>Current Liner Top Test</u>					
13.625 Liner top test= (16.3 - 15.8)*.052*15200+500=					895
<u>Therefore:</u>					
Plan test pressure is lesser of the above=					895
<u>Shoe Test</u>					
Shoe Test pressure=(16.7 - 15.8)*.052*20890+200 psi =					1178
<u>Future Liner pressure tests</u>					
Test 11.875 liner to	2100	psi for 30 min. with		15.60	ppg mud
Equates to 13.625 liner test to	1883	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					1883
Test casing to	1900	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**

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