

## MUSSER 44 : CEMENT CALCULATIONS

SURFACE CASING:									
CASING:	9.625 " 36#, K-55			0.4340 cu.ft./lin.ft		ID= 8.921			
ANNULUS:	12.250 " x 9.625" Gauge Hole			0.3131 cu.ft./lin.ft					
CONDUCTOR	16.000 " STEEL PIPE			0.8908					
EXCESS:				100%					
CEMENT YIELD:	LEAD			2.65 cu.ft/sack		11.5 PPG			
	TAIL			1.26 cu.ft/sack		15.2 PPG			
CONDUCTOR DEPTH				80					
TOTAL DEPTH				1,500 Feet					
TOP OF TAIL				900 Feet					
TOP OF LEAD				0 Feet		(Surface)			
LEAD SLURRY									
CU.FT									
COND/CSG ANN	80	TO	0	0.8908	71.27				
ANN (OH)	900	TO	80	0.3131	256.77				
ANN EXCESS				100%	256.77				
					584.80	221 SACKS		584.8 CU.FT.	
TAIL SLURRY									
CU.FT									
CSG SHOE (45')	1,500	TO	1,455	0.4340	19.53				
COND/CSG ANN	-	TO	-	0.8908	0.00				
ANN (OH)	1,500	TO	900	0.3131	187.88				
ANN EXCESS				100%	187.88				
					395.28	314 SACKS		395 CU.FT.	
					DISPLACEMENT	112.5 BBLs			

PRODUCTION CASING:									
CASING:	4.500 " , 13.5#, P-110			0.0838 cu.ft./lin.ft		ID= 3.92			
ANNULUS:	7.875 "(For Gauge Hole)			0.2278 cu.ft./lin.ft					
	8.921 " ID x 4-1/2" CASING ANNULUS			0.3236 cu.ft./lin.ft					
EXCESS:				15%					
CEMENT YIELD:	LEAD			2.63 cu.ft./sack		11.5 PPG			
	TAIL			1.49 cu.ft./sack		14.2 PPG			
TOTAL DEPTH				9,614 Feet					
TOP OF TAIL				4,200 Feet					
TOP OF LEAD	OPEN HOLE TOP			1,500 Feet					
	CASED HOLE TOP			SURFACE Feet					
LEAD SLURRY									
CU.FT									
ANN	4,200	TO	1,500	0.2278	614.93	7-7/8"" (For Gauge hole)			
	1,500	TO	0	0.3236	485.34	9-5/8" X 4-1/2" Casing Annulus			
ANN EXCESS				15%	165.04				
					1265.31	481 SACKS	1265	CU.FT.	
TAIL SLURRY									
CU.FT									
CSG	9,614	TO	9,569	0.0838	3.77				
ANN	9,614	TO	4,200	0.2278	1233.06				
ANN EXCESS				15%	184.96				
					1421.78	954 SACKS	1422	CU.FT.	
					DISPLACEMENT	142.8	BBLS		