Drilling homework
Well Control
Annulus pressure

Data
Drilling at 12,125’ Bit 7 7/8” Mud 9.8 #/gal
Drill string 1000’ 6” collars 4 ½” drill pipe
$P_{dp}$ 400 psi $P_a$ 600 psi Pit Gain 21 bbls

Maintaining a Pressure 100 psi over the reservoir pressure calculate the pressure at the casing seat (4545’) and the casing surface pressure when the top of the bubble is at the casing seat. Calculate the same pressures when the bubble reaches the surface and when the new mud reaches the surface.