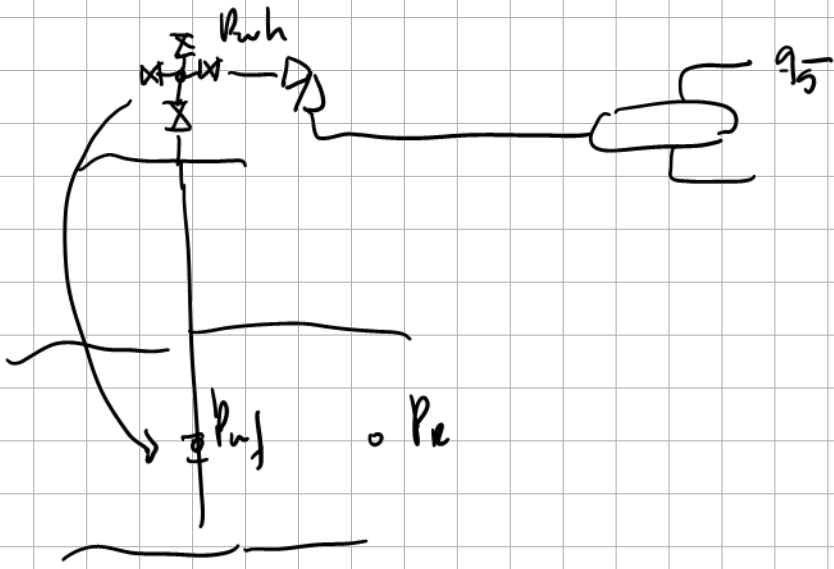
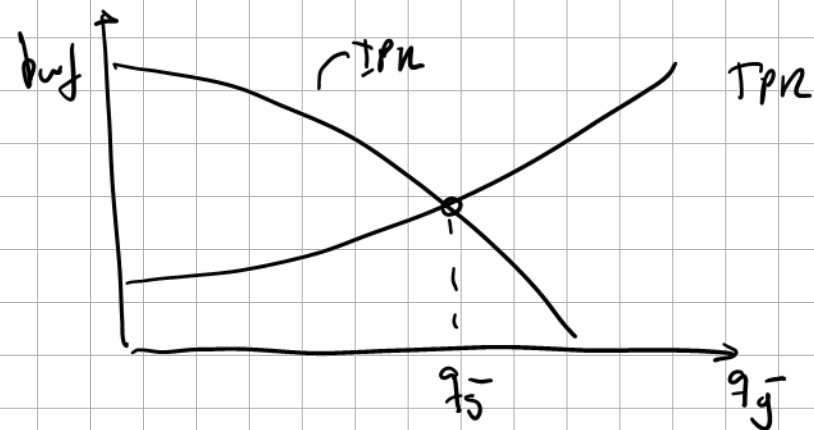




1) reflecting flowline $\leadsto p_{wh} = p_{rp}$
fully open chane

- select an equilibrium point $\rightarrow$ bottom hole

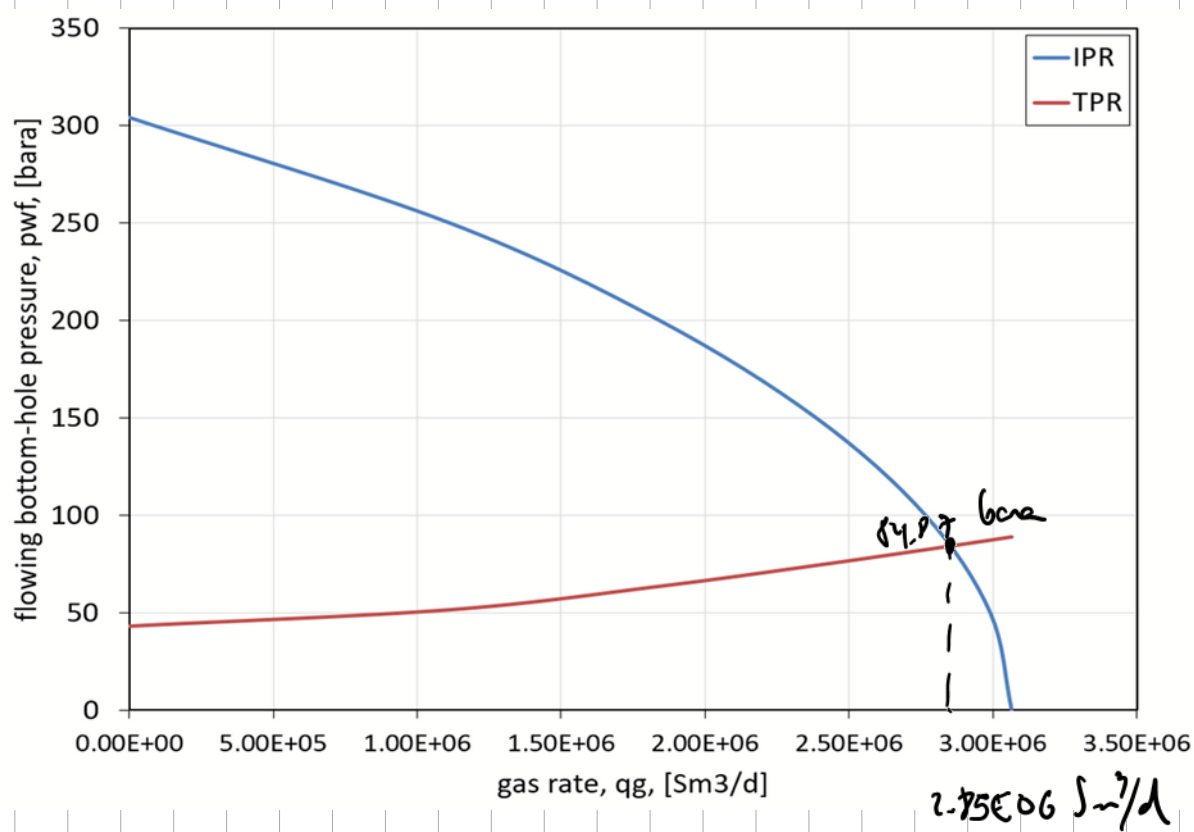


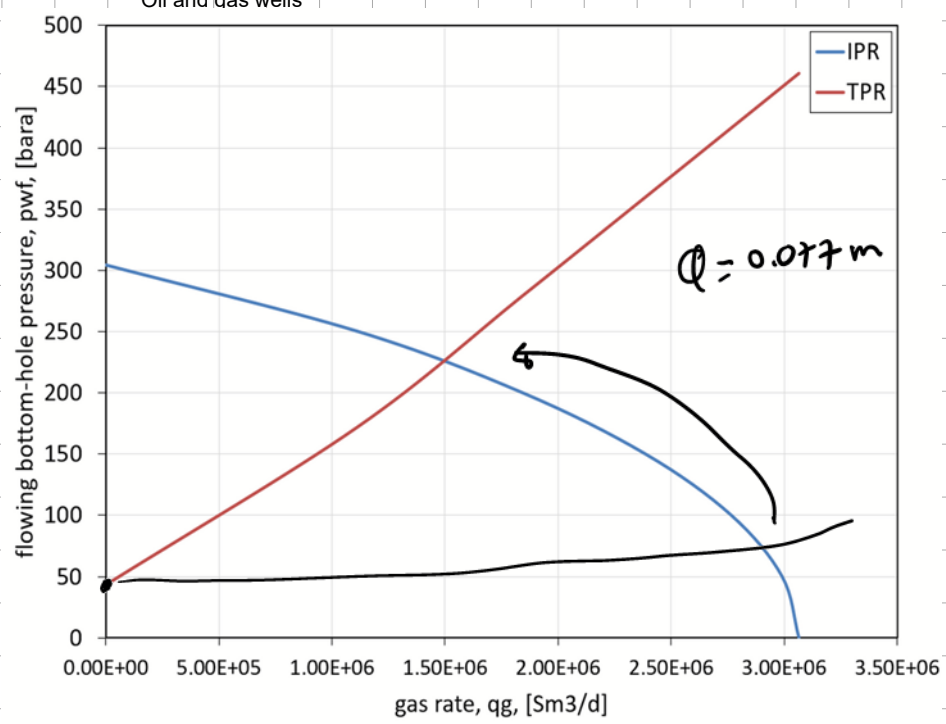
$$q_5 = C_n (R_k^2 - R_{kf}^2)^{\frac{n-1}{2}}$$

$$I_5 = C_r \left(\frac{P_{wh}}{\omega}^2 - P_{wh}^2 \right)^{0.5}$$

$$\leadsto p_{\text{eff}} = \sqrt{\left(p_{\text{rh}}^2 + \left(\frac{q}{c_T} \right)^2 \right) e^S}$$

σ_2 μ_{H} μ_2
 $\left| \begin{array}{c} \uparrow \\ \downarrow \end{array} \right| \begin{array}{c} 9 \\ 75 \end{array}$
 σ_1 μ_{H} (μ_1)





effect of tubing size

$Q \downarrow \rightarrow C \downarrow \rightarrow q_{fs}^* \downarrow$