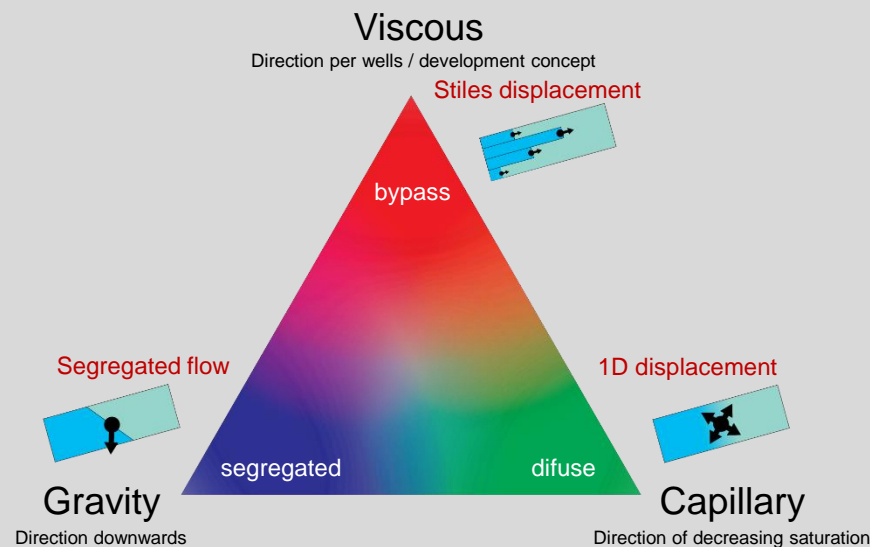


Stable and Unstable Displacement : your influence in the Field Development Plan

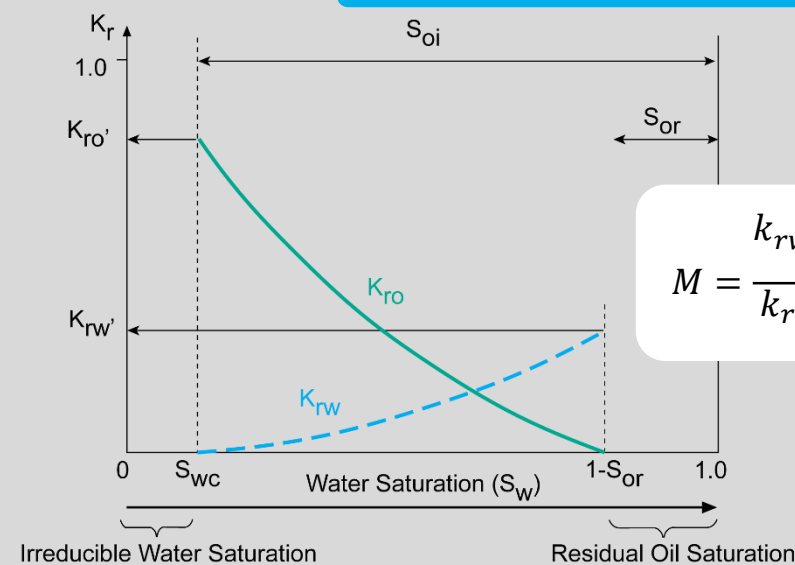
www.tracs.com



Forces acting during displacement

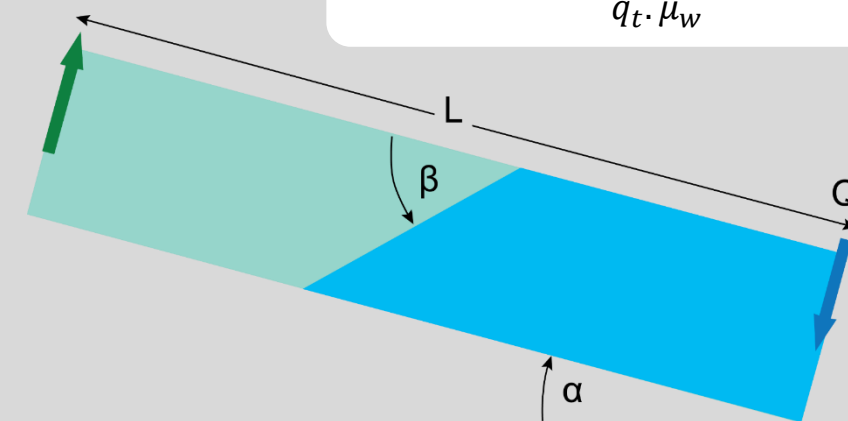


Mobility ratio (M) for waterflood



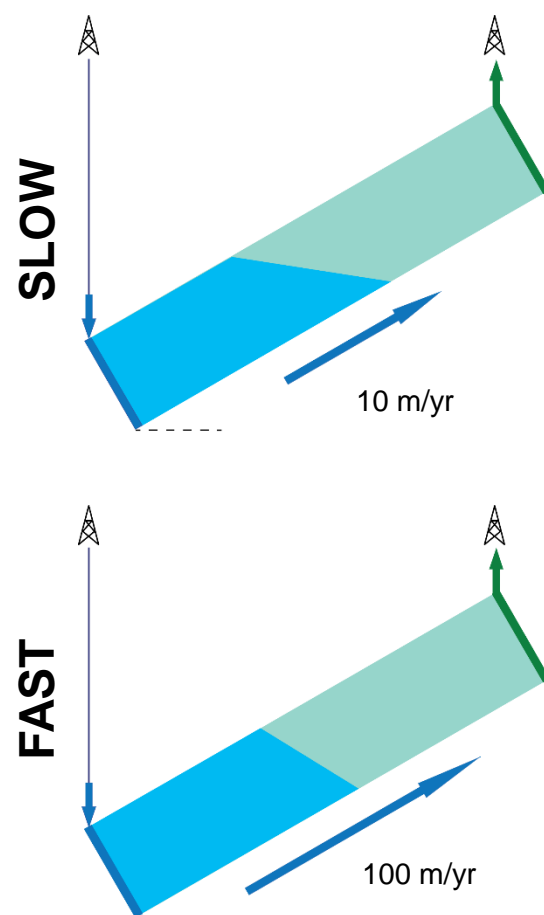
Gravity number (G)

$$G = \frac{0.49 \cdot 10^{-3} k \cdot k_{rw}' \cdot \Delta\gamma \cdot A \cdot \sin \alpha}{q_t \cdot \mu_w}$$



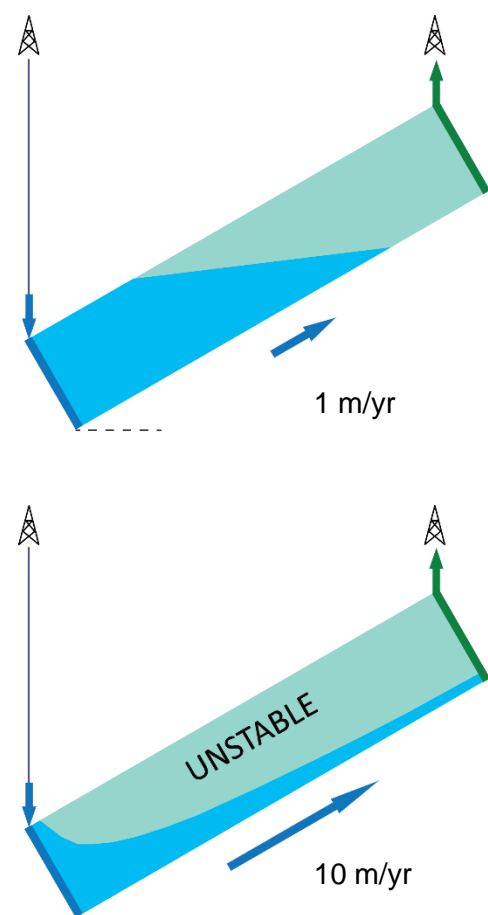
Light Oil ($M \leq 1$)

Unconditionally stable



Viscous Oil ($M > 1$)

Conditionally stable



FDP choices at Clashach Overview



It's not just what you do...
...it's the way that you do it!

Stable displacement would take 1000 years

More wells, slow rate, less water handling ~ 100 yrs

More wells, fast rate, high water handling ~ 10 yrs

