

Fluid contacts

The contact surfaces in **reservoir** segregating **fluids** with different **densities** (normally between **gas**, **oil** and **water**) formed by **gravity** and **capillary pressure**.

Oil Water Contact (OWC)	The lowest elevation above aquifer at which mobile oil occur
Gas Oil Contact (GOC)	The highest elevation below gas reservoir at which mobile oil occur The reservoir above this point is characterised by gas inflow only despite the presence of connate oil.
Gas Water Contact (GWC)	The highest elevation below gas reservoir at which mobile water occur
Free Water Level (FWL)	The highest elevation at which the pressure of the hydrocarbon phase is the same as that of water. It marks the depth point in which the pressure gradient in water-saturated and oil-saturated reservoir meet.
HC-Water Transition	This interval is characterised by commingled hydrocarbon and water production from the same reservoir. The height of the interval may vary from dozens of meters to fraction of a meter depending on capillary pressure.

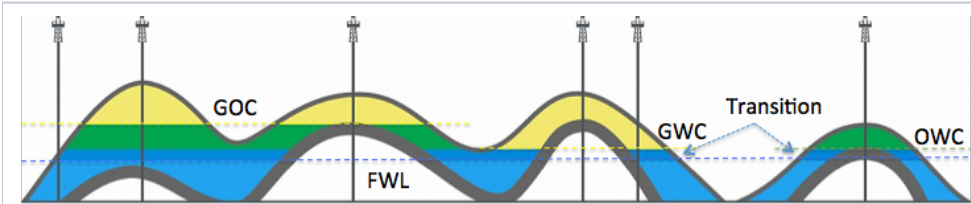


Fig. 1. Fluid contact schematic: gas in **yellow**, oil in **green**, hydrocarbon-water transition in **blue** and free water in **aqua**.

Usually the **fluid contacts** are relatively flat but varying **reservoir** properties may lead to inclination of the contact surface.

The exact knowledge of **fluid contacts** is critical in **reserves estimation** and **field development planning**.

See Also

