

Saturation (reservoir fluid)

Volumetric shares of [petroleum fluids phases](#) V_α saturating [effective pore volume](#) V_ϕ :

(1) $s_\alpha = \frac{V_\alpha}{V_\phi}$	(2) $\sum_\alpha V_\alpha = V_\phi$	(3) $\sum_\alpha s_\alpha = 1$
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In most popular case of a [3-phase fluid model](#) this will be:

(4) $s_w + s_o + s_g = 1$

where

$s_w = s_w(\mathbf{r})$	water phase saturation at reservoir location $\mathbf{r}$
$s_o = s_o(\mathbf{r})$	oil phase saturation at reservoir location $\mathbf{r}$
$s_g = s_g(\mathbf{r})$	gas phase saturation at reservoir location $\mathbf{r}$

See Also

[Petroleum Industry](#) / [Upstream](#) / [Subsurface E&P Disciplines](#) / [Petrophysics](#) / [Volumetric Rock Model \(VRM\)](#)

[[Basic reservoir properties](#)]