

Fluid Density

The [mass](#) of [fluid](#) per unit [volume](#):

$$\rho = \frac{m}{V}$$

where

<i>m</i>	fluid mass	<i>V</i>	fluid volume
----------	----------------------------	----------	------------------------------

The total [fluid density](#) of [multiphase fluid](#) is given by following equation:

(1)
$$\rho = \sum_{\alpha} s_{\alpha} \rho_{\alpha}$$

where

ρ_{α}	Density of α-phase	s_{α}	volumetric share of α-phase
-----------------	--	--------------	---

[Density](#) of popular [petroleum fluids](#) at [SPE Standard Conditions \(STP\)](#):

Fluid	Typical range (g/cc)
Natural Gas	0.007 – 0.30
Gas Condensate	0.200 – 0.40
Oil	0.400 – 1.12
Water	1.000 – 1.15

See also

[Natural Science](#) / [Physics](#) / [State of matter](#) / [Fluid](#)

[Petroleum Industry](#) / [Upstream](#) / [Subsurface E&P Disciplines](#) / [Fluid Analysis](#)

[[Density](#)]