

Standing (1942) saturated oil gas solubility $R_s(p)$ @model

Saturated oil gas solubility	R_s	scf /stb	$p \quad p_b$	$R_s(p,T) = \gamma_g \cdot \left[(c_1 + c_2 p) \cdot 10^X \right]^{c_3}, \quad X = c_4 \gamma_{API} + c_5 T$ $c_1 = 1.4, \quad c_2 = 1/18.2 \quad c_3 = 1.2048 \quad c_4 = 0.0125, \quad c_5 = -0.00091$
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where

Location	California	
p	psia	Fluid pressure
T	°F	Initial formation temperature
γ_{API}	°API	Oil API gravity
γ_o	frac	Oil specific gravity
γ_g	frac	Gas specific gravity

See Also

[Petroleum Industry / Upstream / Petroleum Engineering / Subsurface E&P Disciplines / Reservoir Engineering \(RE\) / PVT correlations / Oil correlations](#)

[[Standing \(1942\) oil correlations](#)]

References

[Standing, Marshall B., and Donald L. Katz. "Density of Natural Gases." Trans. 146 \(1942\): 140–149, doi.org/10.2118/942140-G](#)