

# Standing (1942) bubble point pressure Pb @model

|                       |                    |      |                                                                                                                                                                                                                                                                                   |
|-----------------------|--------------------|------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Bubble point pressure | <div>p<br/>b</div> | psia | <div><math display="block">p_b(T) = c_1 \cdot \left[ \left( \frac{R_{sb}}{\gamma_g} \right)^{c_2} 10^{-X} + c_3 \right], \quad X = c_4 \gamma_{API} + c_5 T</math><math display="block">c_1 = 18.2, \, c_2 = 0.83, \, c_3 = -1.4, \, c_4 = 0.0125, \, c_5 = -0.00091</math></div> |
|-----------------------|--------------------|------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

where

|                        |         |                               |
|------------------------|---------|-------------------------------|
| <i>p</i>               | psia    | Fluid pressure                |
| <i>T</i>               | °F      | Initial formation temperature |
| <i>γ<sub>API</sub></i> | °API    | Oil API gravity               |
| <i>γ<sub>o</sub></i>   | frac    | Oil specific gravity          |
| <i>γ<sub>g</sub></i>   | frac    | Gas specific gravity          |
| <i>R<sub>sb</sub></i>  | scf/stb | Maximum Gas Solubility        |

## 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