

Marhoun (1988) saturated oil formation volume factor Bo @model

Saturated oil formation volume factor	Bo	bbl /stb	p p _b	$B_o(p,T) = c_1 + c_2 T + c_3 F + c_4 F^2, F = R_s^{c_5}(p,T) \gamma_g^{c_6} \gamma_o^{c_7}$ $c_1 = 0.497069, c_2 = 0.862963 \cdot 10^{-3}, c_3 = 0.182594 \cdot 10^{-2}, c_4 = 0.318099 \cdot 10^{-5}$ $c_5 = 0.742390, c_6 = 0.323294, c_7 = -1.202040$
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where

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](#)
[[Marhoun \(1980\) oil correlations](#)]

References

Al-Marhoun, Muhammad Ali. "PVT Correlations for Middle East Crude Oils." J Pet Technol 40 (1988): 650–666. doi: <https://doi.org/10.2118/13718-PA>