

Dobrynin Pore compressibility-pressure @model

Correlation between [pore compressibility](#) $c_{\phi}(p)$ at a given pressure p and [initial pore compressibility](#) $c_{\phi i}$ at [initial formation pressure](#) p_i :

Correlation	Scope
(1) $c_{\phi}(p) = c_{\phi i} \cdot \frac{\ln\left(\frac{p_n}{p_{\max}}\right)}{\ln\left(\frac{p_{ni}}{p_{\max}}\right)}$ (2) $p_n = p_{\min} + 1.75 \cdot \phi^{0.51} \cdot (p_{\max} - p)$ (3) $p_{ni} = p_{\min} + 1.75 \cdot \phi^{0.51} \cdot (p_{\max} - p_i)$	Sandstone Wide pressure range: $p_{\min} = 1 \text{ MPa} < p < p_{\max} = 200 \text{ MPa}$

See also

[Petroleum Industry / Upstream / Subsurface E&P Disciplines / Petrophysics / Geomechanical Rock Modelling / Pore compressibility / Pore compressibility-pressure correlations](#)

Reference

[in Russian] .., , , 1970 ., 239 ., : 552.5; 553.98:551.25 (021)