Retrograde Gas Condensate Reservoir

Petroleum Reservoir that reside in reservoirs with the original temperatures lying between the pseudo-critical temperature T_{pc} and the Cricondentherm $T_{\max}$.

Natural Gas Reservoir with initial formation temperature T_i lying between the pseudo-critical temperature T_{pc} and the Cricondentherm $T_{c,\max}$, which initially stays gaseuous (outside Vapour Liquid Envelope) and builds condensate at separator (inside Vapour Liquid Envelope, see **Fig. 1**).

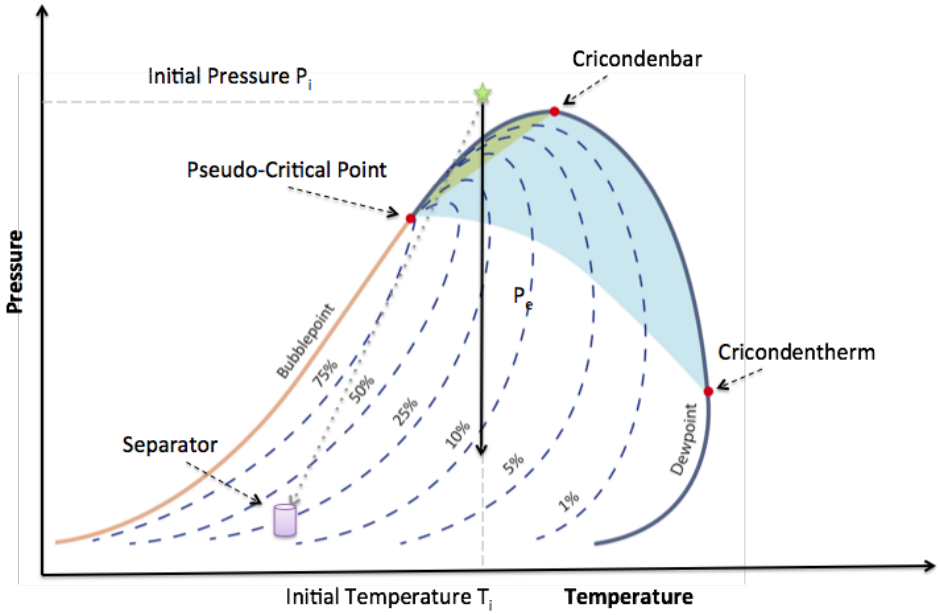

Fig. 1. Production path of the Retrograde Gas Condensate Reservoir on the Phase Equilibrium Diagram.

The downward solid black arrow shows a reservoir pressure depletion path.

The downward grey dash arrow shows a wellbore lift pressure drop path.

Table 1 – Example of Condensate composition (in mol %)

Substance	Condensate
CO_2	2.37
N_2	0.31
C_1	73.19
C_2	7.80
C_3	3.55
i C_4	0.71

n C_4	1.45
i C_5	0.64
n C_5	0.68
C_{6s}	1.09
C_{7+}	8.21
Rs (SCF/STB)	5965
Rv (STB/MMSCF)	165
API gravity	48.5
M_{7+}	184
$_{7+}$	0.816

See Also

Petroleum Industry / Upstream / Subsurface E&P Disciplines / Petroleum Geology / Petroleum Reservoir / Hydrocarbon reservoir / Natural Gas Reservoir

[Hydrocarbon Reserves][Depletion]

References

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