

Volatile Oil Reservoir

Undersaturated Oil Reservoir with initial temperature slightly lower the [pseudo-critical temperature](#) and the Vapour Liquid Envelope having [quality lines](#) tighter spaced at reservoir conditions while [separator](#) conditions lying on relatively high [quality lines](#).

A small reduction of pressure below the bubble point vaporizes a significant fraction of the oil.

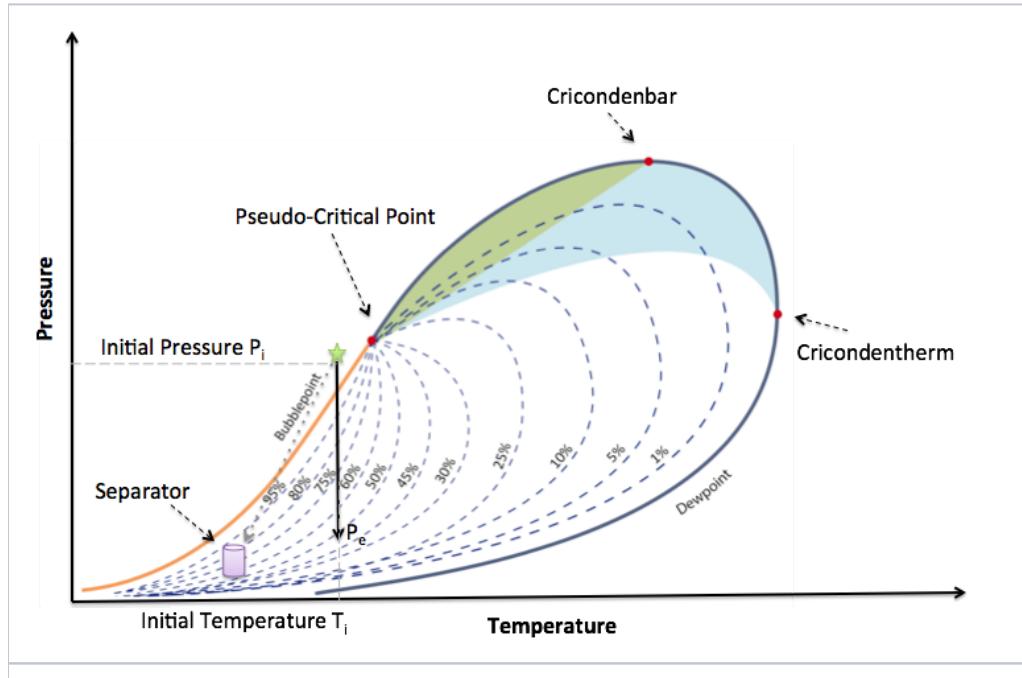


Fig. 1. Production path of the [Volatile Oil Reservoir](#) on the [Phase Equilibrium Diagram](#).

The dash lines showing the [Vapour Quality Lines](#) (with inverse numbering).

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 Volatile Oil composition (in mol %)

Substance	Volatile Oil
CO ₂	1.82
N ₂	0.24
C ₁	57.60
C ₂	7.35
C ₃	4.21
i C ₄	0.74
n C ₄	2.07

$i C_5$	0.53
$n C_5$	0.95
C_{6s}	1.92
C_{7+}	22.57
Rs (SCF/STB)	1465
Rv (STB/MMSCF)	680
API gravity	36.7
M_{7+}	240
$7+$	0.864

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References

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