

## Measurement and Prediction of Condensate Gas Hydrates Formation Conditions – A Study Case

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**Abstract:** A new field of gas condensate recently discovered in south of Algeria caused a lot of difficulties and even accidents during its operation due to unexpected hydrates plug formation. To prevent such damage, we carried out an experimental study using a visual high pressure PVT cell to investigate the thermodynamic conditions of gas hydrates formation and stability, then we established hydrate formation curves, identifying safety zones, allowing operators to work safely. The influence of inhibitors on gas hydrate formation was also investigated. This study was gathered with a numerical analysis using PVTsim commercial software to confirm our experimental results.

**Key words:** hydrates, gas condensate, plug, PVT, safety