Decline curve analysis (many methods, some of them not available in commercial software).

Unique asymmetric tri-linear model able to predict EUR by matching rate or pressure.

Bottom hole pressure estimation module using tubing wellhead pressure.

Constrained production forecast using asymmetric tri-linear model. Constrained pressure depletion estimated with Fast Marching Method (FMM). Automatic history matching of rates or pressure, PVT and BHP estimation tools.

FEATURES:

ProdPredictor™ uses an asymmetric tri-linear model that provides a mechanistic model to represent the production from the unconventional wells. The new tri-linear model is as fast as a simplistic Decline Curve Analysis, yet it provides a reliable and realistic estimate of the EUR which honors the complex asymmetric nature of the SRV in unconventional wells. Initial reservoir parameters are estimated with Unconventional Rate Analysis tools. Automatic history matching of pressure or rate provides the EUR and key average rock properties. Pressure depletion can be simulated with a Fast Marching Method that uses as input the previously derived fracture geometry and the 3D models of the effective medium. A PVT analysis tool is included to handle all possible phases and a BHP analysis tool allows the estimation of Bottom Hole Pressure when Tubing Wellhead Pressure is available.

PVT analysis tools provide the necessary correlations to handle different phases. Sensitivity analysis allows the identification of key frac parameters affecting EUR.

Pressure depletion using Fast Marching Method simulation.

DFIT analysis tools.

Interactive Unconventional Rate Analysis tools to estimate key frac geometry parameters such as average half length and average SRV permeability.

PVT analysis tools using common industry correlations.