JTI Production Forecasting Software

JTI.Horizontal

Quick, Practical Tool for:

- **Single-Well Rate Forecasts**
- **Reserve Estimates**
- **History-Matching**
- **Performance Analysis**

For PRODUCTIVITY over time

- **Multiple Vertical Fracture, Vertical, Horizontal, and Vertical Fractured Wells**
- **Conventional Coal Bed Methane and Unconventional Reservoirs**
- **Oil or Gas Rates and Reserves**
- **Klinkenberg gas slip and diffusion flow for gas wells**

JTI.Horizontal™ will help you answer these questions:

- **Should I drill a vertical well or horizontal well?**
- **How much production rate will I gain with a longer hydraulic fracture?**
- **What is the permeability of the reservoir?**
- **Based on decline history, what are the reserves?**
- **Is my well damaged?**
- **What is my well's drainage area? Or, on what spacing should I develop the field?**
- **How much production rate will I gain by drilling a longer horizontal well?**

Proven and Improved through years of use in JTI Projects Worldwide

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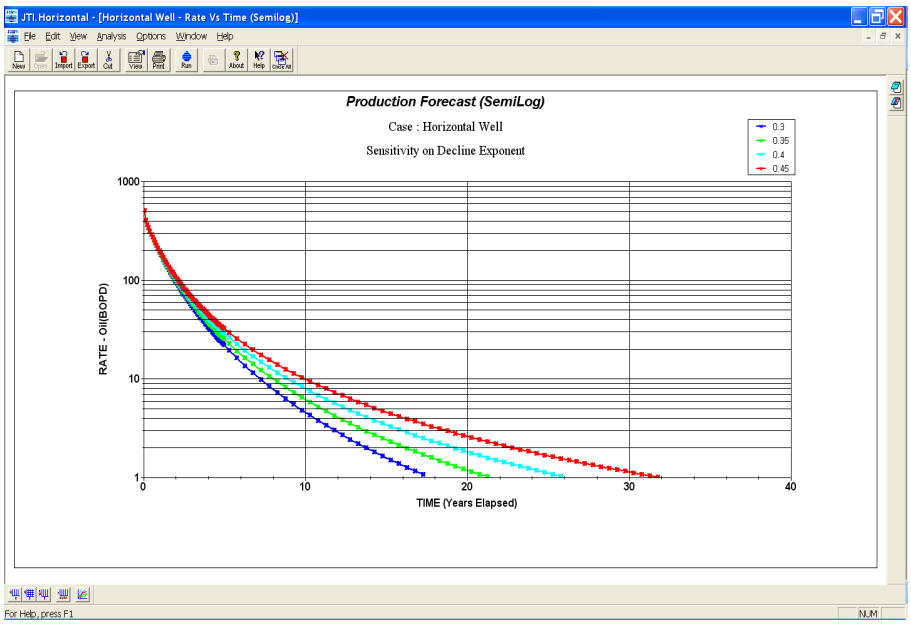
JTI

JTI SOFTWARE: METHODS AND FEATURES

JTI.Horizontal™ uses analytical methods for fast execution and easy data requirements. It allows the engineer to compare many scenarios quickly. JTI.Horizontal™ is useful as a standalone evaluation tool, or a screening tool prior to numerical simulation studies. The **"Sensitivity"** features show the effect of variables or unknowns on rates and reserves in graphical form. JTI.Horizontal™ has **history-matching** features to graphically compare calculated and actual rates, enabling estimation of reservoir properties (e.g. horizontal or vertical permeability, drainage areas, etc.) from production history. JTI.Horizontal™ uses **Oilfield (U.S.) or Metric units**, and is available in stand-alone or network version.

JTI.Horizontal™ handles **horizontal, vertical, hydraulically-fractured, or multiple fractured horizontal wells**. The analytical method uses an iterative solution of the well test equation to calculate rates during the transient period, then uses Arps/Fetkovich or constant percentage decline equations for the pseudo-steady-state (depletion) period.



JTI.Horizontal™ features include:

- 4 plots generated each run:
  1. Semilog rate vs. time
  2. Log-log rate vs. time
  3. Semilog rate vs. Cumulative
  4. Cumulative vs. time
- Tabular report shows monthly production forecast including rate, cumulative production, and recovery factor. Oil or gas in place, "diagnostic" parameters, and all input data are also shown. Report is easily imported into a spreadsheet (e.g. Excel) if desired.
- "Overlay" feature compares multiple cases on the same plot.
- "Sensitivity" feature generates multiple forecasts based on a range for any one of 16 parameters.
- Up to three flowing bottomhole pressures can be entered to represent changes in backpressure or artificial lift.

User Manual leads the Engineer through practical applications of this software.

For further information:
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