

GOHFER®

Fracture Stimulation Design

The GOHFER fracture simulator is the ultimate design tool for creating realistic 3D treatments in complex, heterogeneous reservoirs with vertical, deviated and horizontal wells. Easy-to-use GOHFER software is a complete 3D fracture geometry modeling and design simulator that provides you with:

- Grid-oriented fracture design
- Log analysis
- Data management
- Real-time pressure analysis
- Production forecasting
- Treatment economics

GOHFER software is log-centric; a built-in log analysis package creates a more accurate lithologic description which means less "tuning" and fewer assumptions. Combine this with measured core data for improved geologic characterization.

As a result, GOHFER software models deviated and horizontal wells, and the most complex reservoirs.

The powerful simulator is the result of the combined efforts of the Stim-Lab division of Core Laboratories and Barree & Associates. GOHFER 2005 software builds on 15 years of continuous expansion and refinement employing established formulations verified in the laboratory and the field. The software is

a flexible tool that provides users with "quick-look" job design capability and the power of unlimited data integration.

GOHFER 2005 software features include:

- Easy, convenient production forecasting with built-in production prediction module
- LogCalc log analysis package for easier access to log analysis parameters
- Graphical user interface creates a natural flow to fracture design for intuitive, easy use
- The latest numerical correlations to optimize fracture design
- Continuously updated fluid and proppant performance database verified by Stim-Lab laboratory tests
- A report generator for easy-to-build reports

GOHFER software offers many stimulation design advantages, including:

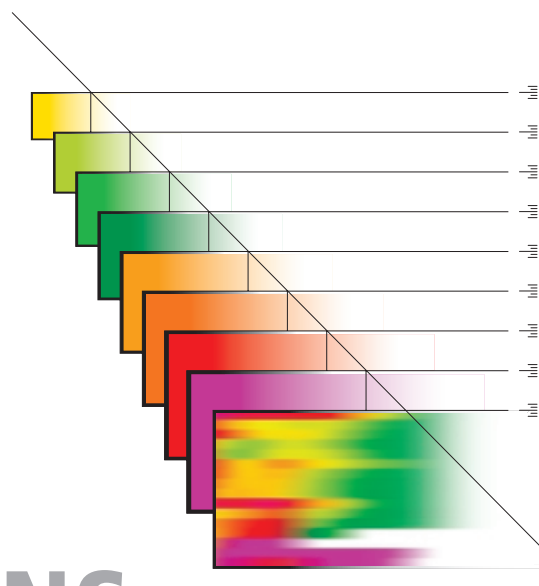
- 3D planar grid reservoir description – not just horizontal "layer cake"
- Direct integration of digital log data
- The unique ability to properly predict proppant transport
- Horizontal and asymmetric fracture modeling, including complex reservoir geometry
- Most effective tool for modeling fracture treatments in unconventional pay such as tight gas shales and coals

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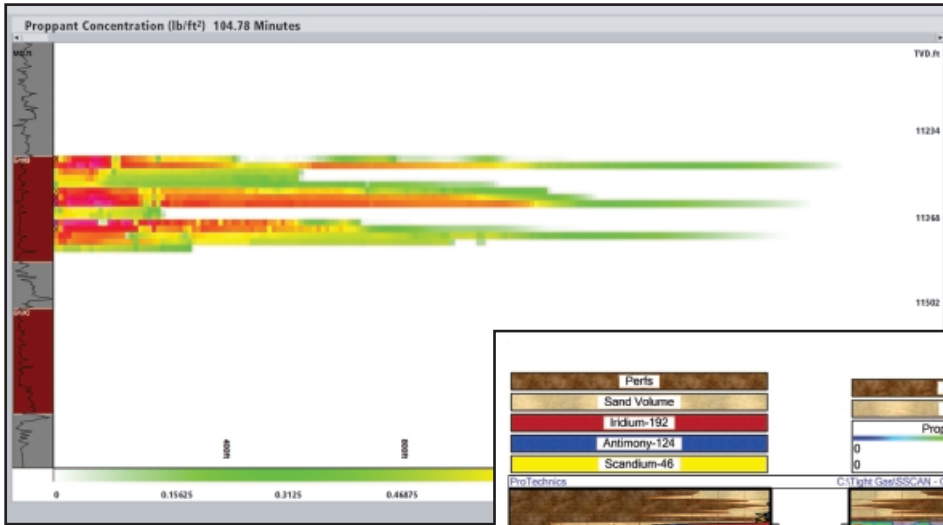


3D GRID ORIENTED
HYDRAULIC FRACTURE
SIMULATOR

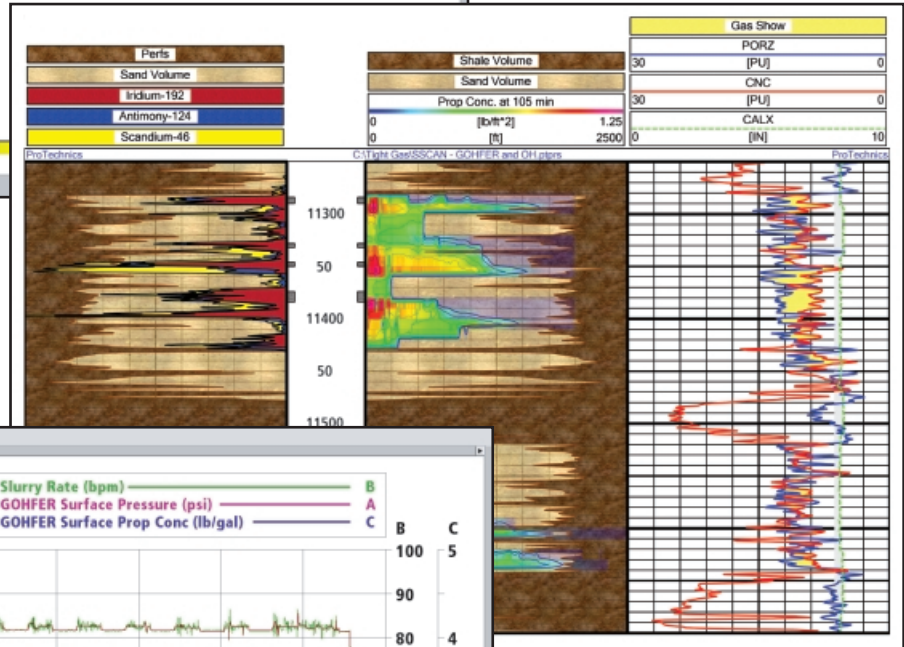
- Limited-entry design, modeling multiple perforated intervals with diversion between perforations
- Allowance for vertical and lateral variation of leakoff and rheology across the fracture
- Accurate modeling of frac pack designs using pressure distribution screen-out criteria
- Accounting for hindered settling and convection
- Fracture acidizing modeling
- Inclusion of poroelastic effects in stress computations



MEASURED SOLUTIONS



GOHFER proppant concentration at end of pumping



Prolmage simultaneous plot of tracer data, GOHFER design and open-hole data



Pressure history match of actual frac data to GOHFER simulated data

For more information, please visit our website at:

www.corelab.com/protechnics
www.GOHFER.com

