Drilling Software | Sophisticated Yet Simple

BridgePRO

Bridging Agent Size Selection Model

Overview

Protecting the pay zone from damage is critical to realize the full potential of any well. Reservoir drill-in fluids (RDF) are designed to prevent formation damage due to fluid invasion and solids plugging. A poorly designed RDF may react with the formation fluid creating blockage or restriction for the natural flow of the reservoir. A large range of undesired solid particles from drill solids, fluid chemicals, and clay viscosifiers may end up plugging the reservoir pores. The technique for designing a non-damaging RDF is to start with selecting bridging agents with an ideal size distribution to effectively seal the formation surface.

Pegasus Vertex has developed BridgePRO, a bridging agent size selection software that aids in the determination of the optimum calcium carbonate blend to achieve maximum bridging of sandstone reservoirs. The software optimization is based on specific formation characteristics and the particle-size distribution of available grades of calcium carbonates.

Benefits

Improved Decision-Making

- Provides a scientific and data-driven approach to selecting bridging agents, allowing operators to make informed decisions based on specific formation data and particle-size distributions. This improves the accuracy and reliability of the RDF design process.

Cost Efficiency

- Reduces the need for costly remedial measures by preventing formation damage and ensuring efficient well operations.

Optimal Bridging Agent Selection

- Ensures the ideal size distribution of calcium carbonate to effectively seal the formation surface, preventing damage and plugging.

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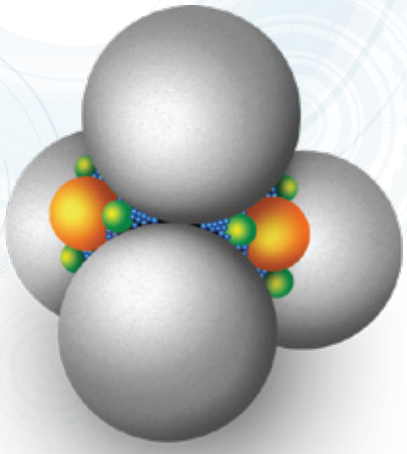
BridgePRO–Bridging Agent Size Selection Model

Features

- Optimize blending of bridging agents
- Bridging agent size selection analysis
- 3 calculation methods: Optimal, Volume percentage, and Blend concentration
- Optimal volume percentage calculation for a maximum of 5 bridging agents
- ECD and pressure
- Particle size distribution (PSD) database
- Target set by permeability or pore size
- Optimization by volume or concentration
- Sensitivity study
- Microsoft Excel®, Word®, and PDF® report
- US oil field, SI, and customized units

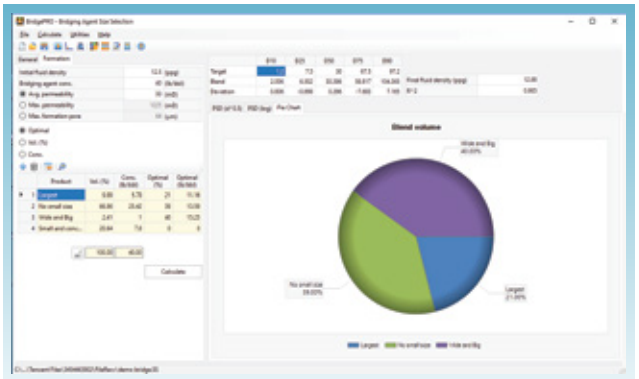
System Requirements

- Microsoft Windows® 10 or above
- Microsoft Office® 2016 or above
- Dual-core Intel or AMD processor, 1.4 GHz or higher. Quad-core CPU recommended. Not compatible with ARM processor
- 4 GB RAM (8 GB Recommended)
- 200 MB of free disk space for installation
- 1,280 x 768 display resolution

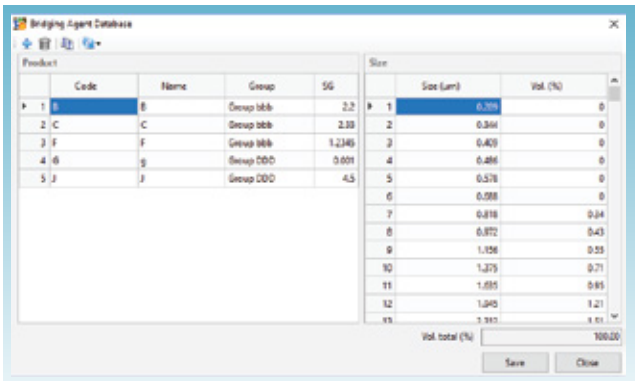


Particle Size Distribution (d^0.5)

PSD Log



Pie Chart



Bridging Agent Database

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