

RWSS Real-Time Wellbore Strengthening Solution

Vertechs RWSS enhances wellbore stability in real time by introducing ULIA Ultra Low Invasion Additive, a non-permeable plugging material, into the drilling fluid. It forms a pressure-bearing barrier near the wellbore, sealing microfractures and micropores while drilling, reducing losses and improving drilling safety.

ULIA is a patented, polymer-free material with an optimized particle-size distribution and surface treatment. It is thermally stable up to 180°C and compatible with all types of drilling fluid systems, including water-based, oil-based, synthetic-based, and formate systems.

The patented HPIT High-Pressure Invasion Tester tracks drilling fluid sealing and pressure resistance in real time, supporting on-site evaluation and optimization.



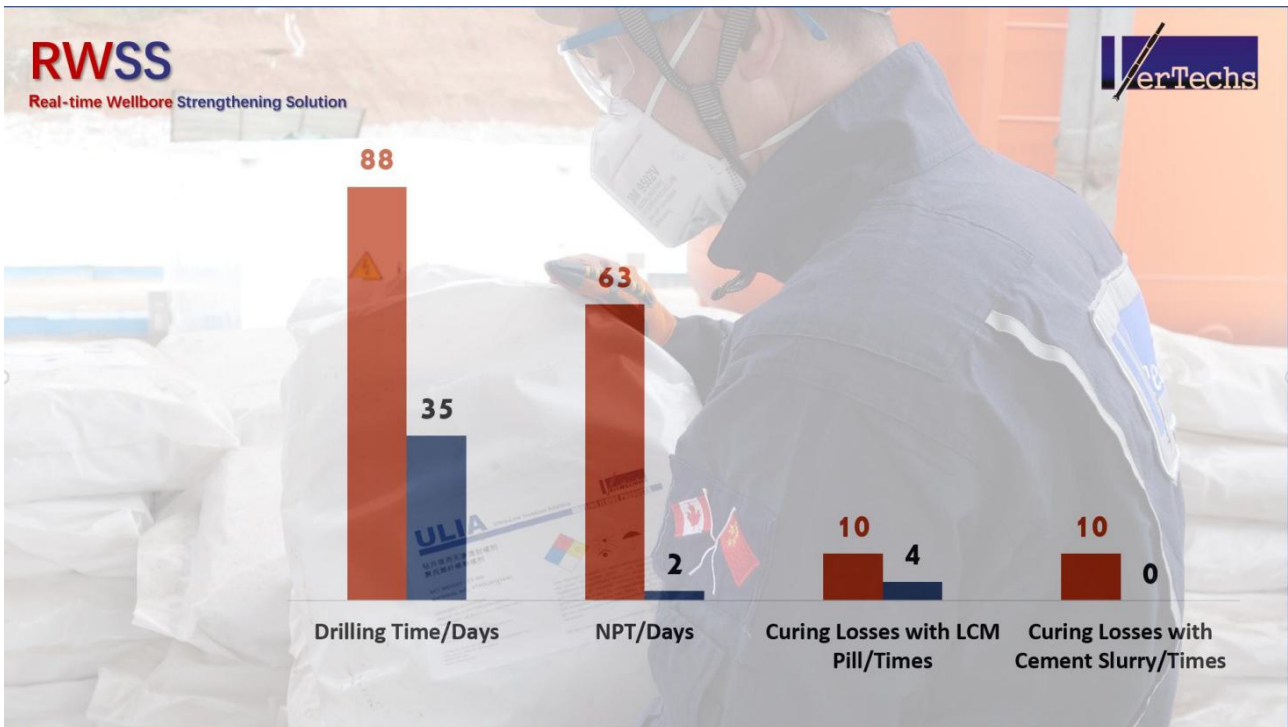
FEATURES

- Polymer-free, minimal impact on rheology, compatible with all types of drilling fluid systems
- Enhances wellbore strength and improves pressure-bearing capacity
- Reduces filtrate invasion and mitigates seepage losses
- Thermal stability up to 180°C
- Ultra-fine particles, suitable for while-drilling applications
- Forms an ultra-thin pressure-bearing sealing film instantly upon formation exposure, and self-removes under pressure reversal
- Real-time sealing performance evaluation with HPIT



APPLICATION

- **Wellbore strengthening and risk control:** Enlarges drilling window and reduces losses and differential sticking
- **Loss and collapse prevention:** Mitigates seepage losses and wellbore collapse
- **Fluid invasion control:** Limits fluid and solids invasion into matrix and microfractures
- **Low-permeability barrier formation:** Restricts pore pressure transmission
- **Microfracture control:** Helps limit fracture propagation and improves pressure-bearing capacity



An interval drilled with downhole complexity (Red) vs. sidetrack with RWSS (Blue)

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