Tuned® Defense™ E Cement Spacer

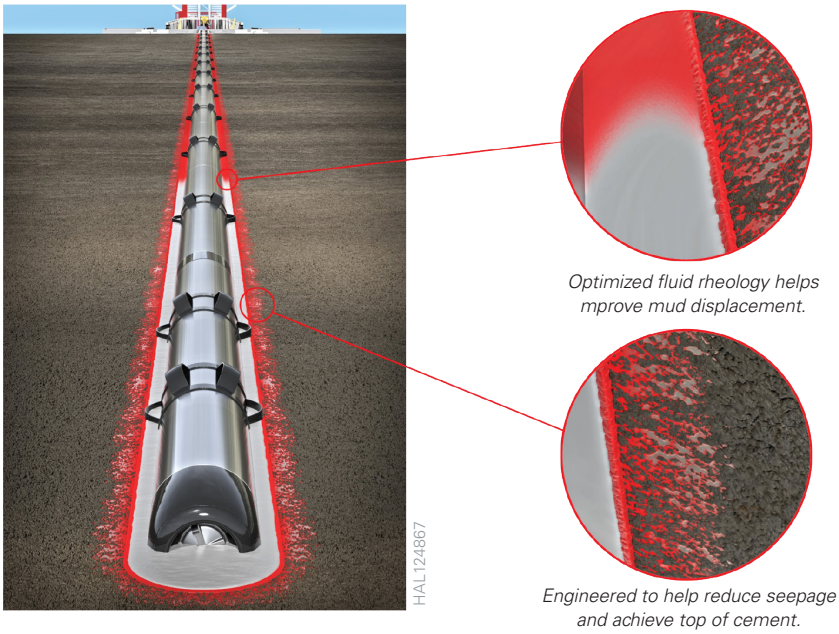
DEFENDING THE WELLBORE FROM LOST CIRCULATION, WITH LESS IMPACT ON THE ENVIRONMENT

OVERVIEW

Lost circulation is a common challenge while drilling and cementing and is the largest contributor to non-productive time (NPT). Losses during primary cementing can cause low top of cement, added rig time, costly remediations, and/or sustained casing pressure. Building on the leading performance of the Tuned® Defense™ cement spacer, Halliburton offers Tuned® Defense™ E, a cement spacer with the superior capability to prevent lost circulation, while reducing the exposure of harmful chemicals to the environment.

In addition to minimizing the risk of lost circulation by reducing the permeability of pores and fractures, the Tuned Defense E spacer is compliant with OSPAR and the Centre for Environment, Fisheries and Aquaculture Science (CEFAS) regulations, and is registered for approved use in North Sea operations.

The critical importance of fluid rheologies for optimum mud removal has been proven through over 100 years of Halliburton solving cementing challenges. The Tuned Defense E cement spacer has an easily adjustable yield point to achieve rheological hierarchy and enable a dependable barrier.



Optimized fluid rheology helps mprove mud displacement.

Engineered to help reduce seepage and achieve top of cement.

FEATURES

- Helps eliminate circulation losses and cement fallback
- Optimized fluid rheology
- Non-damaging to the formation
- Operations up to 300°F/149°C and 19 lb/gal
- Enhanced to treat severe losses with BridgeMaker™ lost circulation material (LCM)
- OSPAR compliant and CEFAS registered

BENEFITS

- Provides effective mud displacement
- Helps achieve planned top of cement in challenging well conditions
- Enables a dependable barrier to maximize production
- Minimizes NPT while drilling and cementing
- Approved for use in North Sea operations

For more information, contact your local Halliburton representative or visit us on the web at www.halliburton.com

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