

Trican AccuLite™ Cements

Business Needs

Oil and Gas operators today are drilling deeper, and encountering problems with lost circulation due to weak formations. Higher fracturing rates and pressures during well completion require pump-down-casing techniques. Conventional cementing systems, in many cases, require a stage collar to ensure that cement is brought back to surface. While increasing the cost of the operation, stage collars have been known to fail and provide a weak link during high pressure fracturing operations. The need to pump cement back to surface in a single stage job resulted in the development of Trican's AccuLite™ system.

Trican Solution

AccuLite is a series of low density cement slurries designed to minimize formation breakdown by reducing hydrostatic pressures. Because of its light weight (1,100 – 1,200 kg/m³), AccuLite provides excellent zonal isolation while maintaining accurate density at bottom hole hydrostatic pressures up to 70 MPa (10,000 psi).

Weak formations are easily broken down, often resulting in cement seeping into fractures or the natural cracks of the formation. This affects the cement's ability to isolate the formation, support the casing and achieve the required cement top. With AccuLite cements, density remains consistently low and cement stays in place, no matter the depth of your well, enabling you to staying within prescribed density tolerances and more accurately calculate the hydrostatic pressure.

One particular customer completed 628 conventional production cements jobs from 2009 to 2011. Of these, 125 were unsuccessful in achieving cement returns to surface. This resulted in a 20% failure rate and hundreds of thousands in remedial cementing costs and associated NPT (non productive time). Since the introduction of AccuLite cement, Trican has pumped 27 production jobs with only 2 not achieving cement returns to surface, resulting in a 93% success rate. Furthermore, since the release of the AccuLite 1100™ cement, 9 out of 9 jobs had cement returns to surface.

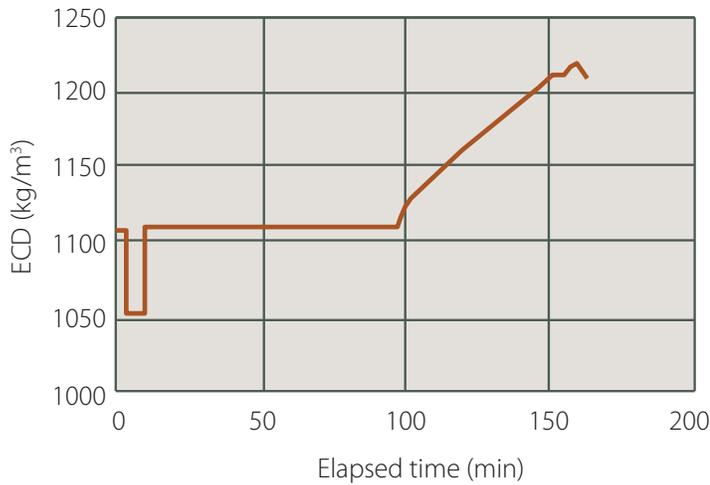
The Trican Advantage

Trican's AccuLite system exhibits consistent density from start to finish. Many competing systems require the addition of nitrogen to reduce slurry density. As the density is designed for a specific wellbore depth, higher equivalent circulating densities (ECDs) are encountered at the shoe due to compression. Nitrogen also imparts higher slurry viscosities, further increasing ECDs by way of friction. Trican's AccuLite cements are blended, hauled and pumped by the same means as conventional cement blends, and will not require the equipment and personnel necessary when using foamed slurries.

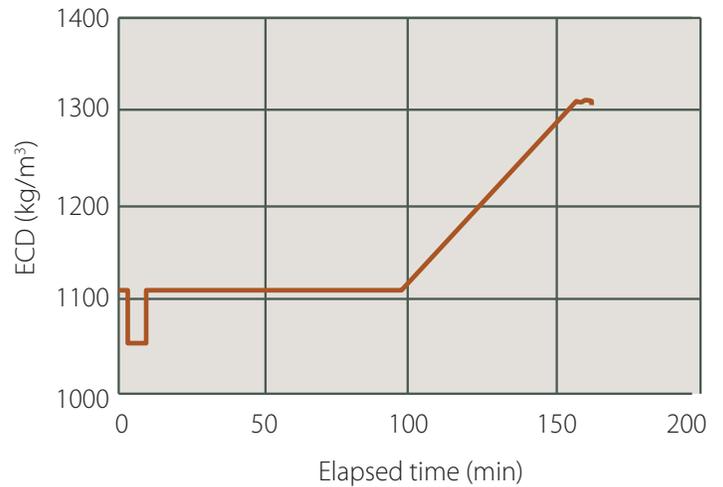


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ECD @ TD with AccuLite 1100



ECD @ TD 1100 kg/m³ Foam



The graphs above illustrate the higher Equivalent Circulating Densities (ECD) of foam cement.

Case Study Snapshot

Date: 2009-2011	Customer: Calgary-based energy company	Location: Hiding/Wapiti/Claresholm/Dalehurst	Service Line: Cementing	Product: Trican AccuLite™ Cements
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Challenges:

- Failure to achieve cement returns to surface on production casing jobs
- Requirement for single stage cement jobs due to frac-down-casing techniques

Trican Innovation:

- Trican's AccuLite Cement system
- Ability to pump ultra lightweight slurries without the operational cost and footprint of foamed cementing

Results:

- With Trican AccuLite, the customer was able to achieve cement returns to surface to a much higher degree than with conventional blends pumped in the past
- The customer experienced an overall decrease in the need for costly remedial cementing
- The ability to pump production casing jobs without the need for stage tools saved time and money, and eliminated a potential weak link during fracturing operations



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