



Slot Jet Isolate transitions from workshop verification to full simulated well testing.

Challenge

Testing to date on the SJI[™] technology has been workshop bench testing, with individual component based verification. The next step was to prove that the SJI[™] was capable of downwards slotting whilst simultaneously jetting, followed by washing & cementing in an actual well. In addition, the challenge was to demonstrate that the SJI[™] could also slot upwards for future coil/rigless applications.



Solution

To de-risk the SJI[™] for future well P&A applications, various operators supported the testing of the technology at the Ullrigg test facility in Stavanger, Norway. The U8 well was utilised for the application, where two cemented 9 5/8" x 13 3/8" test cells were run into a depth of 820ft on casing and hung off. The SJI[™] was then RIH with a well full of 14.7ppg WBM and utilised to slot the 9 5/8" fully cemented casing over a 7.9m (26ft) section, whilst maintaining the integrity of the outer 13 3/8", and jetting the slots at the same time. The resulting slotting and jetting from the SJI[™] enabled the 16ppg cement in-between the casings to be rubblized, jetted, and circulated to surface, providing a suitably clean annulus before being re-isolated.



SJI[™] proving its destructive downward slotting capabilities in actual well conditions.

This slotting and jetting plot clearly shows the blade slotting the casing through the martin decker and then cleaning the cement with the simultaneous jetting of the slots, demonstrated by the pressure fluctuations.

With industry support in the development and implementation of SJI[™] from TotalEnergies.

SJI[™] the solution to reducing your carbon footprint!