

Case study: Norway

# CICM services eliminated dedicated logging runs, saved 12–15 hours, and \$200K USD per well

An operator with highly deviated wells in Norway wanted to log for casing wear prior to intervention operations in a multiwell campaign. An understanding of the condition of the casing in terms of deformation, wear or corrosion is essential to maintaining safe barrier integrity. The operator wanted to improve well intervention operations by acquiring casing wear data in parallel with other planned operations. Up until this point, their only ability to acquire this data was through stand-alone logging runs. However, those had proven highly inefficient in their multiwell campaign.

They reached out to Baker Hughes for a solution, who recommended the **CICM (casing Integrity and cement mapping services)** –the industry’s only cased-hole, pipe-conveyed ultrasonic casing and cement evaluation service. This means, you no longer have to make dedicated logging runs to obtain the needed measurements to confirm well integrity. With CICM, you can get this data any time you run pipe in the well. Leveraging CICM services, you can avoid the excess time it takes to rig up and run a logging tool, substantially reducing the cost required to get the data you need. This also eliminates additional personnel to perform the job, cutting spend associated with lodging, day rates, travel, etc. And, you

get the added benefit of obtaining multiple integrity measurements with one tool, in a single run. By gathering the data during the actual operation, rather than a separate trip, you can make real-time, actionable decisions as the job is happening.

The drillpipe conveyed CICM was run in memory mode during a pre-planned clean out run, demonstrating the ability to acquire cement and casing information in parallel with other planned operations. After recovering the data at surface, the results were compared directly to wireline data, and qualified for casing wear applications. Additionally, a direct overlay of thickness and acoustic impedance measurements was also confirmed that can result in further applications of the technology in the future.

Pleased with the CICM services, our customer was able to save 12–15 hours of rig time and \$200,000 USD per well over a multiple year campaign by eliminating a dedicated logging run. The operator was also able to qualify the technology for casing wear applications for further cost savings and efficiency gains for its multiwell intervention campaign. Our customer plans to use CICM services on the rest of its wells in the North Sea.

## Challenges

- Highly deviated wells, multi-well campaign
- Eliminated the need for setting up and running a dedicated logging run
- Limited personnel on board

## Results

- Identified casing wear on pre-planned operation to eliminate additional time to acquire the data
- Saved 12–15 hours of rig time per well and \$200,000 USD by eliminating dedicated logging run
- Minimized personnel on board and HSE risks