

Case study: Gulf of Mexico, United States

CICM services mitigated risk, improved efficiency of deepwater whipstock setting, saved \$200,000 USD

An operator with a deviated deepwater well working in the Gulf of Mexico wanted to correctly position a packer and whipstock to eliminate the risk of milling a window through a casing collar. They were looking to eliminate a stand-alone dedicated logging run and the associated personnel on board (POB), and wanted to utilize a pre-existing rig operation to collect the necessary log to achieve this objective.

To avoid any issues associated with depth discrepancies between wireline and pipe conveyed operations, Baker Hughes 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 wireline 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 on a run similar to the actual whipstock run to avoid any depth discrepancies, and to avoid inaccuracies when comparing pipe conveyed depth with wireline depth. Additionally the CICM tool was included in a planned operational run minimizing rig time and improving efficiency by combining operations.

Memory data was processed at surface and delivered to the client within two hours and before the subsequent whipstock run. The depth discrepancy between the pipe conveyed run and the original casing tally was greater than 10 feet. Running on the original tally would almost certainly have caused milling a window through the casing collar with its associated risk of non-productive time (NPT).

Pleased with the CICM services, our customer was able to save 12-15 hours and \$200,000 USD of rig time by eliminating a dedicated logging run. They also avoided any NPT associated with whipstock exit failure, slow milling operations, and poor casing exit windows which could have delayed and complicated future operations.

Challenges

- Highly deviated, deepwater well
- Need to eliminate dedicated cost and time of setting up and running logging services
- Need to avoid any discrepancies between wireline and pipe conveyed operations

Results

- Saved 12-15 hours and \$200,000 USD of rig time by eliminating a dedicated logging run
- Reduced NPT by avoiding cutting through a casing collar