CASE STUDY

COMBINED SINGLE RUN OF MICROGUIDE™ WITH INTEGRITY LOG ALLOWED COMPLETION BHA REDESIGN AND IMPROVED PACKER PLACEMENT

TECHNOLOGY

- MicroGuide™ wellbore tortuosity logs
- Multifinger (MFC) + Electromagnetic (MTD) System

APPLICATION

- Completion
- Tortuosity verification
- Casing integrity

LOCATION

- Latin America

INDUSTRY CHALLENGE + OBJECTIVE

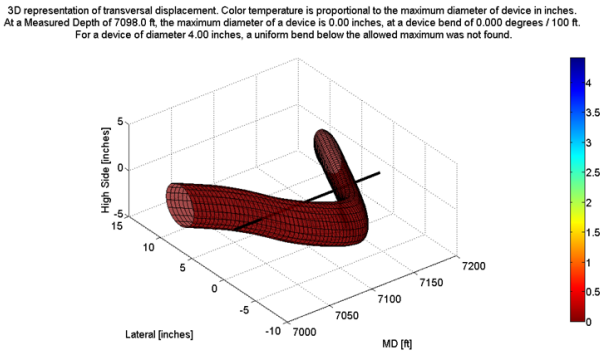
An operator in Latin America was looking for a solution for their completion operations due to challenging problems that they had at the beginning of workover operations. They could not pass through the 7-in. casing with the original completion string, so they decided to perform extra runs to recondition the casing before attempting to run the original completion string again. Despite taking extra runs to recondition the casing, the completion string was still unable to be run down to the bottom. In addition, due to the age of the well, the operator suspected a decline in the integrity of the casing at the depth where the packers were going to be placed.

TECHNOLOGY + SERVICE SOLUTION

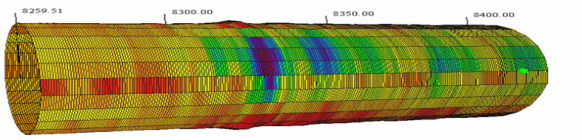
- We suggested to perform a high-density survey (every foot) to check micro-tortuosity with MicroGuide.
- We leveraged the MicroGuide data to determine the best placement for the ESP string.
- We combined MicroGuide with integrity tools to eliminate problems with the ID of the casing that could block the completion.
- We identified the best interval where the packers could be placed using MFC and electromagnetic tools.

RESULTS + VALUE DELIVERED

- The MicroGuide analysis was performed in combination with integrity tools in a single run to save rig time.
- After examining the MicroGuide analysis, we determined that the issue was tortuosity and that there was no major concern with the integrity of the casing, as there had not been a collapse.
- MicroGuide revealed that the operator needed to change the original completion string with another one, as the original was not long enough to pass through this depth.
- MicroGuide provided the informatoin necessary to place the ESP requirement in the best zone in order to get it straight and avoid problems due to buckling.
- The complementary integrity analysis suggested that the operator place the packers 30 ft above the planned location, as the casing in that area was in better condition.
- Due to the success of this project, the operator started running MicroGide and integrity tools in subsequent workover operations.



MicroGuide™ analysis



Integrity analysis with Caliper & Electromagnetic tool

40 gyrodata YEARS OF INNOVATION