CASE STUDY

GYRODATA SAVES OPERATOR $250,000 BY DELIVERING FIT FOR PURPOSE WELLBORE INTEGRITY LOGGING SOLUTION

TECHNOLOGY
- GeoGuide™ Radial Cement Bond Log (RCBL)

APPLICATION
- High-Resolution 360° Cement Bond Map

LOCATION
- Latin America

INDUSTRY CHALLENGE + OBJECTIVE

Ultrasonic logging technology has become the standard choice among operators globally for their wellbore integrity logs. While there are situations where ultrasonic technology is the best fit for the necessary data, there are many situations where a more fit for purpose logging solution will deliver the information necessary for the operator at a substantial cost saving.

Gyrodata took the opportunity to explain to the operator the operating principle of our RCBL Tools and how the deliverable from these tools should satisfy the operators’ requirement in their situation.

TECHNOLOGY + SERVICE SOLUTION

- The operator’s current completion program states a requirement to obtain a high-resolution 360° cement bond map. The operator had been using ultrasonic tools to obtain this data. These logs are an expensive proposition for the operator averaging 40-50% higher than traditional RCBL services.

- Gyrodata has been utilizing the RCBL tool for several years to deliver a high-quality 360° cement bond log. Utilizing our experience with this technology and knowledge of the operator’s end goal in the field, we delivered a technical presentation with the operator to explain the option of utilizing the RCBL tool for their application. The operator decided to run a test of both technologies on the same well for a comparison.

RESULT + VALUE DELIVERED

- After running both logs, the operator realized the information delivered by the RCBL was the information they needed to confidently move forward with their completion program. By utilizing all the measurements delivered, the RCBL, VDL and cement map, the radial bond log is easy to understand and delivers a quality high-resolution log. The RCBL helps identify any channeling or microannuli that may exist and calculates percentage of cement adhesion to the casing and formation building confidence in the wellbore integrity for future completion and production services.

- While the ultrasonic tool reports additional information the RCBL does not, the comparison of the cement bond and cement map show a negligible difference between the tools in regard to cement bond and wellbore and cement integrity.

- After comparing the RCBL to the ultrasonic log, the operator decided to continue the use of the Gyrodata RCBL tools to deliver the fit for purpose log information needed for the application. Gyrodata proved to the operator that that the difference in the log quality and resolution did not justify the 40% price difference between the services. The operator expects to save $250,000 over the development of this field by utilizing Gyrodata for the RCBL moving forward.