

Reservoir characterization challenge

Excavation effect causing inaccurate porosity and saturation readings

Technology solution

Open platform to accommodate custom equation

Result

Increased efficiency for calculating representative porosity and saturation values

Background

Working in the waters off the Egyptian coast, Rashid Petroleum Company (Rashpetco) faced a challenge in that gas in the reservoirs causes excavation effect, resulting in inaccurate porosity and saturation readings from conventional logs. This error can be solved by applying a customized field-specific application of the dual-water saturation equation based on nuclear magnetic resonance (NMR) tool measurements of water saturation. To optimize applying the complex custom equation, Rashpetco required an open software platform to easily incorporate the equation and create standardized workflows for its staff.

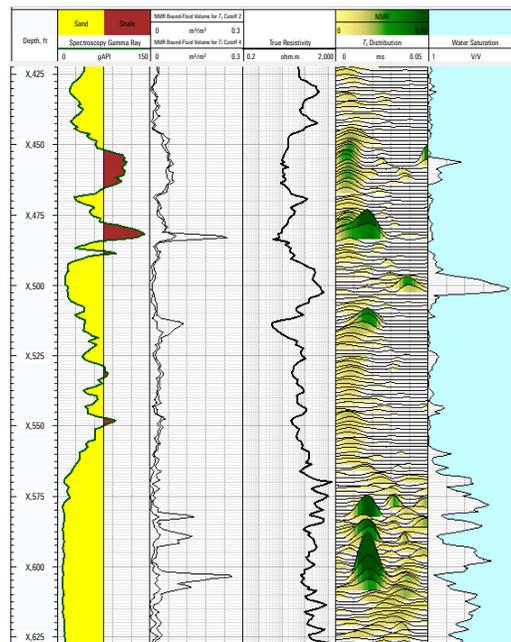
Technologies

- Techlog* wellbore software platform

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Open Techlog Platform Enables Rashpetco to Apply Customized Equation and Standardize Workflow

Calculations in the Techlog platform optimize porosity and saturation determination in offshore gas reservoirs, Egypt



Using a custom dual-water saturation equation in the Techlog platform made it possible for Rashpetco to efficiently derive accurate water saturation from NMR measurements.

“We were able to add a complex equation customized to be applied on our gas fields. This allowed us to calculate saturation using different logs to QC and help identify additional pay zones.”

Hossam Mahmud
Senior Petrophysicist
Rashpetco