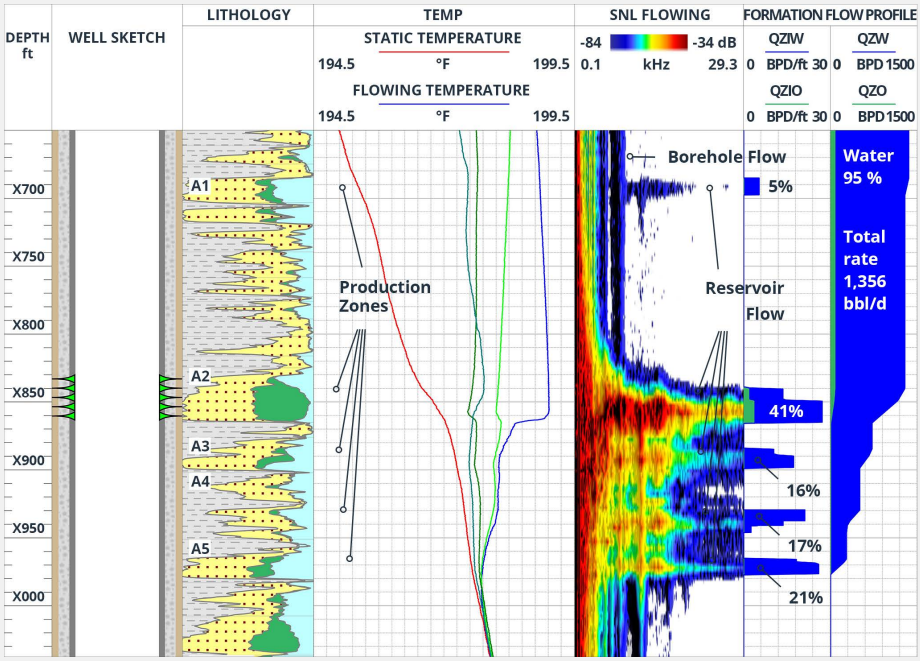
RESERVOIR CASE STUDY
SPECTRAL RESERVOIR FLOW [SPEC-RFA*]

Challenge

Openhole logging data showed that the producing interval of a newly drilled, highly deviated well was oil-saturated. However, once completed and put on production, the well started to produce oil with >90% water cut. The operator needed to find out why.

Solution

To find the source of the excess water production, the operator selected TGT's spectral reservoir flow analysis [SPEC-RFA] technology, which would be focused on the target formation and the water-saturated layers above and below.
The SPEC-RFA survey established that there was communication with the water-bearing zones below and above the perforated zone through possible weak cement bonds, and from the contribution of the fracture network.



Outcome

The operator reduced the total water production by squeezing cement to isolate the communication..

Spectral diagnostics help to eliminate a 95% water cut from a newly completed oil well.

The SPEC-RFA survey indicates water migrating behind casing from the under- and overlying reservoirs. This application of TGT's spectral reservoir technology combines high-precision temperature [HPT] and high-definition spectral noise [SNL-HD*] surveys to reveal reservoir flow regimes behind pipe.*

*TGT patented or patent-pending technology / © TGT Oilfield Services 2017 / CS-0110