

Well Placement LWD VISION Steering Eliminates Pilot Well in Deepwater Production Well in Brazil

Laurence Reynolds, Augusto Silva, and **Chris Lenamond**. Schlumberger Servicos de Petroleo Ltda, Av. Prefeito Aristeu Ferreira da Silva, 702B, Novo Cavaleiros, Macae, RJ, 27930-070, Brazil, phone: 55 22 2763 5200, reynolds@macae.oilfield.slb.com

Deepwater production well was the first horizontal well drilled in the Brazilian Enchova sandstone reservoir without a geological pilot hole to locate the top of the reservoir. The Geological-Steering campaign utilized real-time LWD images and bit resistivity to successfully land the well in the reservoir without drilling a pilot hole for geological correlation.

Accurate well steering and placement requires significant pre-job planning in order to minimize drilling risks while steering using geological criteria. The use of LWD images, in real-time, were key elements to the predicting of undesirable events that might otherwise have jeopardize the success of the project. In this well, sub-seismic faults and premature entry into the shale zone occurred. The interpretation of the available log and image data was critical to the decision-making process while drilling and assured reentry into the reservoir.
