

# JPT



**Field  
Development  
Projects**

**Tight Reservoirs**

**Knowledge  
Management  
and Training**

**Sand Management  
and Frac Pack**

## **SPECIAL FEATURES**

Promising Subsea  
Developments

R&D and the  
Rise of NOCs

Sand Control Reliability

## TECHNOLOGY APPLICATIONS

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Dennis Denney, *JPT* Senior Technology Editor

**Dielectric Scanning**—Schlumberger's Dielectric Scanner (**Fig. 2**) is the newest of the company's wireline tools. The scanner is a multifrequency dielectric dispersion tool offering a new petrophysical measurement. By use of signal-dispersion technology, together with state-of-the-art processing, interpreters can estimate pore-fluid and rock-texture information with great accuracy, independent of pore-fluid salinity. As a result, precise saturation calculations can be made in carbonates, in shaly sands including thin beds, in low-contrast pays, and in heavy-oil sands containing fresh water. An artic-

ulated sensor pad on the tool ensures accurate, repeatable measurements in either water-based or oil-based mud. The borehole-compensated combinations of transmitter-to-receiver measurements at four radial spacings, operating at four different frequencies and two axial orientations, thoroughly characterize pore-water volume, and pinpoint the Archie's textural parameters. The tool's intrinsic high vertical resolution enables characterizing beds as thin as 1 in. **JPT**

For additional information, visit [www.slb.com/ds](http://www.slb.com/ds).



**Fig. 2—A Schlumberger engineer inspects the Dielectric Scanner antenna array pad before running the service in a heavy-oil well in South America.**