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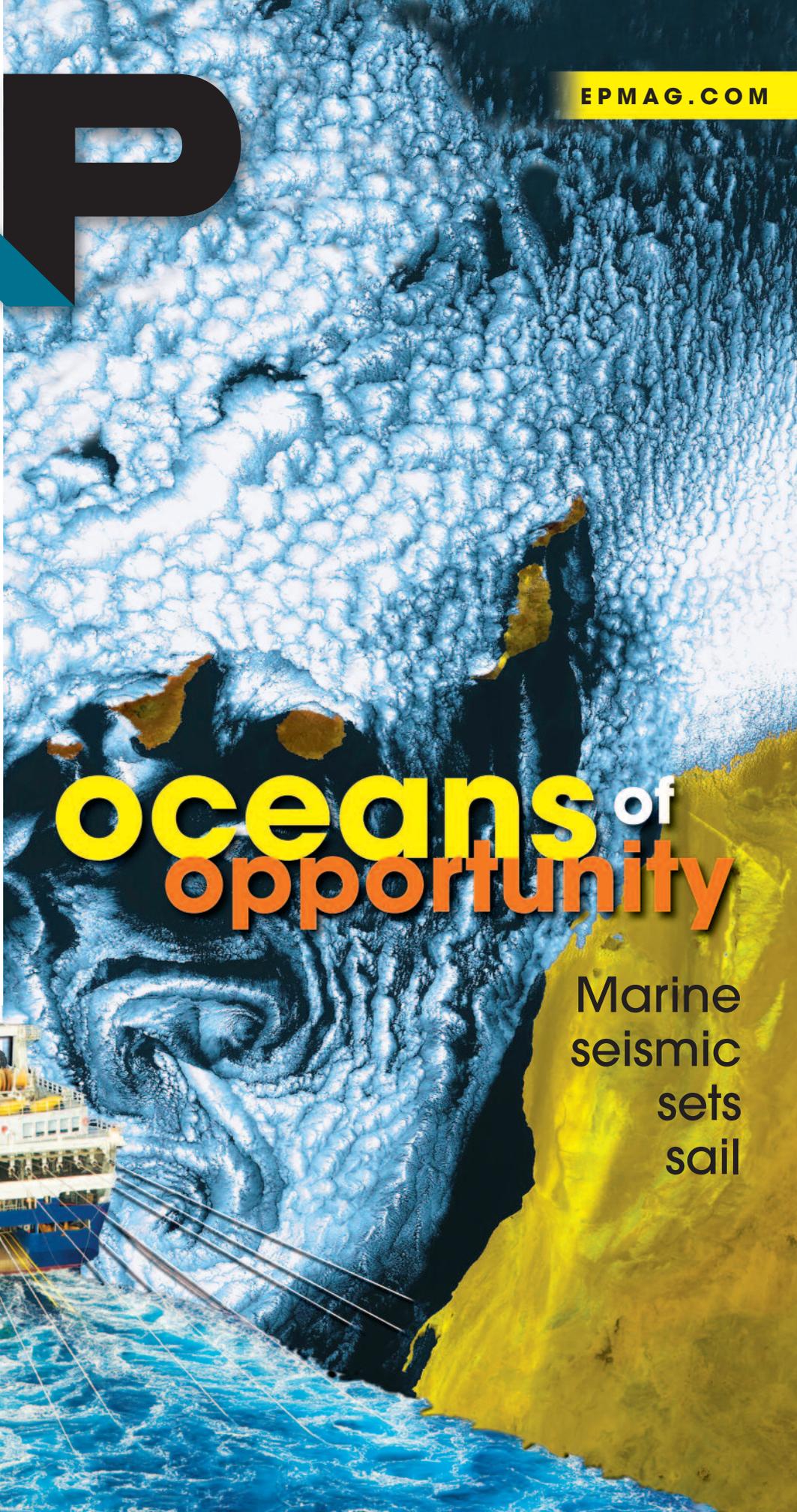
Subsea Technology

Directional Drilling

Riser Technology

Land Seismic

**Improving
Exploration
Success**



oceans of opportunity

**Marine
seismic
sets
sail**

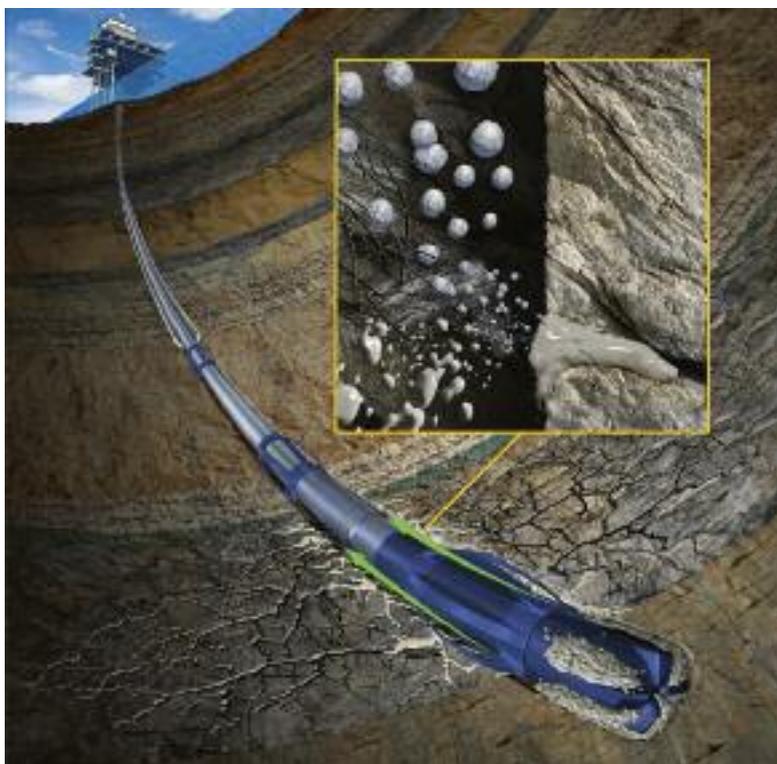


System helps mitigate lost-circulation risks

Lost circulation can occur during drilling or primary cementing procedures, resulting in ineffective mud removal and poor zonal isolation and increasing the need for expensive and time-consuming remedial cementing jobs. The Schlumberger Losseal family of reinforced composite mat pills allows operators to mitigate the risk associated with lost-circulation issues encountered not only while cementing but also while drilling. The Losseal system combines fibers and solids into a specifically engineered, flexible fiber additive pill. The pills use synergy between the physical characteristics of fibers and solids, plugging fractures that cause partial or total losses while drilling or cementing.

The system also creates an impermeable grid strong enough to withstand additional pressure from mud density increases as well as any additional pressure from future drilling or cementing operations. It reduces drilling downtime caused by circulation losses while addressing large losses in fissures, saving thousands of barrels of mud during placement and reducing nonproductive time, the company says.

Traditional lost-circulation fiber treatments rely on knowing the fracture width during bridging and plugging. The combination of fibers



Losseal creates an impermeable seal to cure losses. (Image courtesy of Schlumberger)

with different mechanical properties and high solids content makes the Losseal system design less sensitive to fracture sizes, with the solid particle size being optimized to plug the network of fibers as opposed to the fractures. Plugging-efficiency tests are conducted prior to the first application. Additionally, the system can be pumped through most bottomhole assemblies, eliminating the need to pull out of the hole and run open-ended drillpipe. www.slb.com