

## Brazil's New Finds

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For an example of one of the new breed of successful national oil companies, look no further than Petrobras. Well known for technology expertise and innovation—the company has won two Offshore Technology Conference (OTC) awards for technical achievement—the Brazilian company is now making news for what could be some of the biggest oil discoveries in years.

Petrobras' Tupi discovery, located more than 150 miles in deep water off the Brazilian coast, has estimated recoverable reserves of between 5 and 8 billion bbl. That would make it one of the most significant finds in the past 20 years, according to analysts Wood Mackenzie, rivaling the 2000 Kashagan discovery in Kazakhstan and surpassing the largest deepwater finds, including those in the US Gulf of Mexico and offshore west Africa. Initial production of 100,000 BOPD could begin in 2010.

Petrobras has announced a series of oil discoveries in the Santos basin in recent months, including the natural gas field Jupiter and the subsalt field Carioca, which has drawn considerable speculation about its size. At this year's OTC, Petrobras Chief Executive Officer Jose Sergio Gabrielli, while acknowledging the importance of the deepwater discoveries, would not speculate on potential reserve figures.

If the promise of Tupi holds, Brazil would boost its reserves by 50% and join the ranks of the world's most significant producers. Already there is speculation that Brazil might eventually join OPEC. Petrobras' rise has been steady since it was partially privatized by the Brazilian government in the late 1990s. The country only recently became energy self-sufficient and now produces more than 2 million BOPD, almost 90% of it offshore. The company expects output to rise to 3 million BOPD by 2012 and 4 million BOPD by 2015. Petrobras believes that Tupi may be just part of a huge subsalt cluster extending hundreds of miles along the Brazilian coast.

Brazil's new oil finds will not be easy, or inexpensive, to develop. Although Brazil is considered a global leader in offshore development, the Tupi basin is located under 7,000 ft of water and then under 9,200 ft of shale and salt. Seismic imaging will be difficult and may hamper accurate estimation of reserves, and drilling challenges are common in subsalt. With regard to the Carioca area, Petrobras is at the beginning of its evaluation plan and will not have precise volume estimation until after finishing the plan.

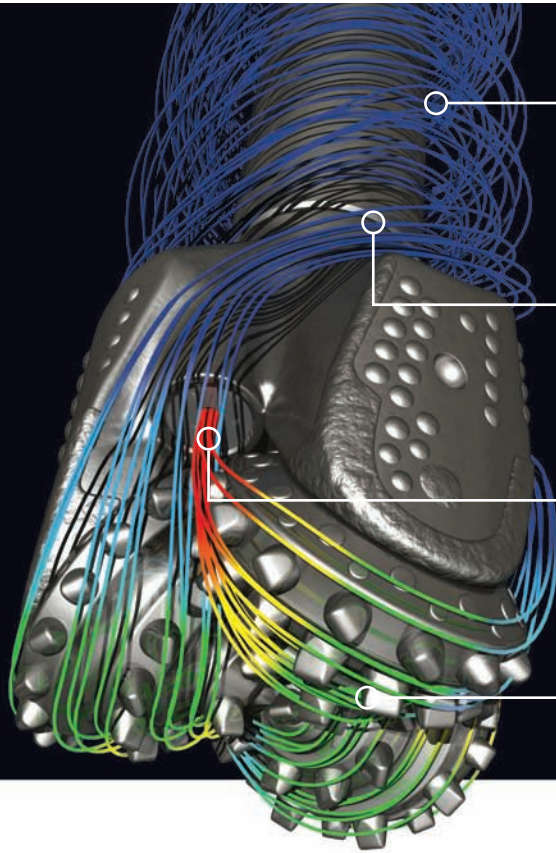
The company's success could put a strain on already tight equipment and talent markets. Petrobras, which already has leased most of world fleet of vessels for deepwater drilling, plans to lease more and also hire thousands of upstream personnel as it creates a new division for subsalt drilling.

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JPT is always eager to hear from its readers. If you have any comments or suggestions, please contact me at [jdonnelly@spe.org](mailto:jdonnelly@spe.org) or by phone at +1.713.779.9595 ext. 616.

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