



Industry faces ultra deep

Excitement is brewing among many long experienced hands in the offshore oilpatch when they see what is being found in the ultra deep in the Gulf of Mexico. They see a chance to apply a career's lessons from around the world in pioneering developments in US frontier areas like Walker Ridge. It is an opportunity to many to take a lead in projects that just yesterday were next to impossible: the challenges of wells more than 30,000 ft (9,150 m) deep; reservoir pressures to the mid-20s in thousands of psi; temperatures beyond 300°F (148°C); and all in waters 7,000 ft to 10,000 ft (2,135 m to 3,050 m) deep and more than 250 miles (402 km) from shore.

The new excitement can be seen in collaboration among technical types in engineering offices around the Gulf of Mexico. Separately, pragmatically it is seen in groups of oil company partners with new discoveries in the ultra deep, allying to overcome huge risks and exploit equally huge opportunities. Driving the excitement is how these prospects attract oil companies to risk huge amounts of capital instead of buying back their own stock in the face of a dearth of better opportunities.

Now in its 13th year, DeepStar is a joint industry technology development project gathering 10 oil companies and 53 service companies to collaborate in its current (Phase 7) program that many say has enabled the fast progress seen in the ultra deep today. Studies methodically organized through DeepStar for the last 2 years have explored how semisubmersibles; spars; tension-leg platforms; and floating production, storage and offloading vessels (FPSOs) can indeed be designed to work in what not long ago was the unheard water depths of 10,000 ft (3,050 m). In its Phase 8 starting in January 2006 DeepStar focuses on specific field conditions for producing from the ultra deep.

Past concerted industry efforts like this have had their frustrations! A major DeepStar effort several years ago cleared away regulatory hurdles for the use of FPSOs in the Gulf of Mexico, succeeding in December 2001, only in 2002 to be met with the industry view "No, we don't yet have the right project." Even today no plans for an FPSO in the Gulf of Mexico have been announced!

But now, it looks like the economics and technology have changed. Despite offshore wells costing as much as US \$100 million to drill and complete, there is reason for optimism that pioneering effort will be rewarded — and the Gulf of Mexico will see FPSOs and shuttle tankers. The persistence of the offshore industry and its addiction to tackling what seemed impossible before has now helped us get to the ultra deep. Where we go from here is not only exciting to contemplate, it is critical to our industry's future.

And yet there is something of a parallel with the kingdom of Saudi Arabia that Matt Simmons tells us of in "Twilight in the Desert" with its oil production peaking and little ahead to stop a decline and yet intense efforts underway to find more oil. Here in the Gulf of Mexico we now approach the outer limits of where oil may be found, before we reach the abyssal plain where geologists tell us there is no petroleum. It seems in both situations that limits do exist in the years ahead. Meantime the Gulf of Mexico pioneers lead the way in an intense effort in our kingdom to delay the ultimate decline in the Gulf for some years.

Our nation needs this ultradeep oil and needs these Gulf of Mexico pioneers who take the lead in doing something worthwhile about it. These kinds of individuals are an essential part of our industry. Their refreshing climate of excitement, with a spirit of hope ahead, might just inspire a surge of new engineering graduates to enter the oilpatch!

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E&P

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