US Gulf deepwater drilling: expanding or shrinking?

Jerry Greenberg, Contributing Editor

BEING IN DEEP water used to mean you were in a heap of trouble, that you were in over your head where you should not be. Lately, though, it means that oil and gas companies have been drilling wells in record water depths in the US Gulf of Mexico, and have apparently been successful, thank you.

According to the Minerals Management Service’s (MMS) latest report on deepwater E&P, dubbed “Americas Expanding Frontier”, the industry had better start reaching for those sunglasses. At the end of 2003 there were 86 producing projects in the deepwater Gulf, a 51% increase since the end of 2001. The MMS also notes that deepwater production rates have risen by “well over” 100,000 barrels of oil per day and 400 million cubic ft of gas per day, respectively, each year since 1997. Production grew to an estimated 959,000 b/d of oil and 3.6 bcf/d of natural gas by the end of 2002. Deepwater oil production accounted for approximately 61% of the US Gulf’s oil production in 2002.

There were 11 announced discoveries in water depths greater than 7,000 ft in the last three years, according to the MMS. In the first half of this year alone eight deepwater discoveries were announced, with three in water depths over 7,000 ft, including Unocal’s and Shell’s Tobago discovery in more than 9,600 ft of water. Importantly, several of the discoveries announced in greater than 7,000 ft of water are now on production.

In other good news, Transocean and ChevronTexaco drilled the first exploratory well in over 10,000 ft of water was drilled, a world water depth record that surely will be broken knowing the industry’s track record for reaching beyond its grasp.

Deepwater activity has resulted in great technological breakthroughs recently. For example, polyester mooring is more prevalent to reduce weight on the rig, and composite and aluminum alloy risers were developed also to help reduce weight. Spars have become the production unit of choice in the US Gulf, and quickly evolving technology has resulted in smaller and lighter (read less expensive) cell spars. Also, 15,000 psi subsea production trees have been developed to handle higher pressures in deepwater.

It seems like the good news will never end, but there are some problems ahead, according to the MMS, which says there was a decrease in deepwater drilling during the past two years. Hmm, an expanding frontier but with some important indicators pointing downward?

For example, the average number of rigs operating in deepwater is down 29% and the number of wells drilled is down 37% since the last deepwater report was issued in 2002. The opposite of this, however, is that announced discoveries appear to be increasing, so perhaps the deepwater success rate is also rising.

The MMS also reports that the average bid amounts for deepwater leases has stabilized or decreased slightly, which, when coupled with the approximately 3,200 deepwater leases the industry already holds, could mean it has its hands already full of prospects.

The agency says worldwide competition for limited exploration and development budgets and a limited deepwater rig fleet are partly to blame. The MMS goes on to say that some long-term deepwater rig contracts may have expired, allowing new companies to utilize the rigs and potentially take them to other basins around the world. Finally, the MMS says, as operators focus on drilling in deeper waters and greater total depths, it takes longer to drill each well.

Regardless of any downward trend, nothing helps a rig market better than a good discovery. The deepwater Gulf is far from played out.