

Projects bring added production to mature Gulf of Mexico fields



The drillship *Ocean Valiant* (shown in distance) completed the Rockefeller well in water about a mile deep in three months to a total depth of more than 13,800 feet.

A new well 160 miles off the coast of Texas is expected to more than triple existing gas production at ExxonMobil's Hoover Diana platform.

▶ During the past several years, the Gulf of Mexico has been an active place for ExxonMobil engineers, geoscientists, drillers and production personnel as they work to bring on new domestic oil and gas supplies at established off-shore fields to meet ever-growing U.S. energy demand.

Programs conducted and planned include facility and well workovers at mature locations and the drilling of new wells using the latest technology to tap previously uneconomic undersea resources.

For example, about six miles from the company's Hoover Diana development south of Galveston Island in water depths

approaching a mile, crews are nearing startup of a well that is expected to add 70 to 80 million cubic feet a day of new gas production to current daily volumes of almost 30 million cubic feet. The gas pockets are in a field called Rockefeller, one of several surrounding Hoover Diana, which started operating in 2000.

Discovered in 1995, Rockefeller was once considered too expensive to develop. But, with technology advancement and further evaluation that placed estimated recovery at 5.4 million barrels of oil-equivalent, along with a drilling plan that tied the new well into an existing subsea network to save millions in costs,

the company decided to move forward with development in 2007.

Activity has progressed quickly ever since, with funding – at more than \$100 million – occurring in 2008 and drilling operations beginning in early May and finishing in July of this year. Startup of the well is expected by the end of September, with ExxonMobil holding 100 percent equity interest.

The *Ocean Valiant*, with a crew of about 100, drilled the well, completing it nearly a month ahead of schedule.

“The drilling team leveraged the company's Fast Drill Process (FDP) to achieve a nearly 60 percent increase in feet-per-day drilling rates compared to other

ExxonMobil-operated deepwater wells in the Gulf of Mexico completed before FDP,” says Andre Kostelnik, U.S. Production’s operations superintendent for the Western Gulf of Mexico.

“Improved drilling rates and flawless execution enabled the well to be completed considerably below budget. This is a significant accomplishment for a deepwater well that extends horizontally nearly one mile, then penetrates vertically deeper to the gas reservoirs for a total depth exceeding 13,800 feet. Environmental impact was also minimized, both through reduced time on location due to improved performance, as well as the use of special dryers that remove fluid from drill cuttings, allowing for their safe disposal,” Kostelnik says.

Significant investment

“Rockefeller is a significant investment for U.S. Production,” says Mandi Winter, Rockefeller project manager. “We saved more than \$10 million in project costs by drilling the well on the southeast corner of the Madison field, where we have existing production, and connecting the gathering line from Rockefeller into the Madison subsea template so the gas can be directed to Hoover Diana for processing and transmission to shore for domestic sales.”

Winter adds that the project has an outstanding safety record, and is on schedule and on target to come in below budget. “Rockefeller is expected to



On the helideck of Hoover Diana, Wayne Jones and Mandi Winter discuss the upcoming drilling program that will occur at the platform, which involves the drilling of two more wells.

provide a significant increase to ExxonMobil’s Gulf of Mexico gas production during the next couple of years,” she says.

Meanwhile, two more multi-million-dollar wells are about to be drilled from the deck of Hoover Diana, and activity this summer has been ramping up steadily on the huge structure, known as a deep draft caisson vessel or DDCV.

“We have installed additional crew quarters, as we expand the number of personnel from a normal contingent of about 40 workers up to a maximum of 120 when drilling begins in August,” says Wayne Jones, senior field superintendent for U.S. Production. “Two wells are planned for the Hoover field that could add about 10,000 barrels a day of gross liquids when both wells start up early next year after an estimated five-month drilling and completions program.”

Drilling operations will run in shifts 24 hours a day onboard the DDCV. Crews will work two weeks on and two weeks off, with full crew changes occurring typically by helicopter transport every other Thursday. But helicopters ferry supplies and specialized personnel just about every day to Hoover Diana from Galveston Island, approximately a two-hour trip by air over royal-blue water.

Bigger picture

Elsewhere in the Gulf, ExxonMobil employees and contractors are also working hard to bring new energy supplies online, acquire additional exploration acreage and work over existing wells to keep oil and gas flowing.

A new well is planned at the ExxonMobil-operated Mica field in the Mississippi Canyon offshore New Orleans, and the company has acquired new exploration leases in the Vermillion area of

the Gulf, south of Louisiana. ExxonMobil is conducting active maintenance and workover programs throughout many of its established Gulf of Mexico operating areas to boost production or mitigate natural falloff of hydrocarbon production rates.

“In fact,” says Gary Walz, operations manager for the Gulf of Mexico and inland Louisiana, who also manages workover programs in the United States, “some of our newest equipment, newest construction and most exciting technology applications are occurring in Gulf of Mexico fields ExxonMobil has operated for decades. It’s all part of our continued plan to find and produce additional domestic supplies of oil and gas to meet the country’s increasing energy needs.” **theLamp**

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