# STATEMENT OF PAUL K. SIEGELE,

# VICE PRESIDENT, DEEPWATER EXPLORATION AND PROJECTS, CHEVRON NORTH AMERICA EXPLORATION AND PRODUCTION COMPANY, A DIVISION OF CHEVRON U.S.A. INC., BEFORE THE UNITED STATES SENATE COMMITTEE ON ENERGY AND NATURAL RESOURCES

January 25, 2007 Hearing

Mr. Chairman and Members of the Committee, on behalf of Chevron North America Exploration and Production Company (hereinafter "Chevron") I wish to express our appreciation at having the opportunity to appear here today to discuss oil and gas resources on the Outer Continental Shelf and areas available for leasing in the Gulf of Mexico.

As Vice President, Deepwater Exploration and Projects, my job responsibilities include looking for new sources of oil and gas in the deepwater Gulf of Mexico. My previous position was General Manager for Deepwater Exploration and Production.

# Introduction: Energy Security and Gulf of Mexico Deepwater Exploration

In a world of increasing strategic competition for resources and heightened geopolitical risks, safeguarding America's energy security requires an integrated, strategic approach. This approach must focus on reducing and managing America's energy vulnerabilities while providing Americans with affordable, reliable energy -- the foundation of our competitiveness and way of life. Energy portfolio diversification is the best way to provide energy security. Long-term energy security will require increasing our energy assets here at home (efficiency measures, alternative energy sources, and traditional hydrocarbons), while engaging strategically with foreign partners who share these same goals of increasing energy supplies, reducing energy demand and promoting global energy diversification.

Oil and gas production from the deepwater Gulf of Mexico is a critical part of a diversified energy portfolio. The Gulf's deepwater is an important frontier area for oil and gas exploration in the U.S. My testimony focuses on Chevron's deepwater exploration prospects because the deepwater is the area of the Gulf of Mexico with the most potential for significant new finds of domestic oil and gas at this time and because it is my job to steer Chevron's deepwater Gulf of Mexico exploration activities. My testimony addresses our current activity in the deepwater Gulf of Mexico, our future plans for growth, and our vision to remain an industry leader in producing tomorrow's energy resources from this basin. My testimony also provides examples of our design and application of industry-changing technology.

## Chevron's Participation in Gulf of Mexico Deepwater Exploration

Chevron is a leader in drilling exploratory wells in the deepwater and is a leading leaseholder in the region. (An exploratory well is a "wildcat" well, a well drilled in an area where it is unknown whether crude oil or natural gas is present.) We drilled an average of 6-8 exploratory

wells per year over the past few years in the Gulf of Mexico and plan to maintain a robust drilling program for the long term. Exploratory wells cost \$50 to \$100 million dollars to drill and often result in dry holes, wells not capable of producing in commercial quantities, rather than discoveries.

Chevron is participating in three new offshore developments involving investments of more than a billion dollars each that are anticipated to yield approximately 300,000 barrels of oil production per day within the next four years. Chevron operates two of these -- the Tahiti and Blind Faith projects -- which represent over \$4.5 billion in capital investment and are designed to produce 165,000 barrels of oil per day. In these projects, we are drilling development wells (wells drilled in a known reservoir in a proved oil- or gas-producing area) and constructing associated facilities, with first oil production targeted for 2008. Chevron is also a partner in the ultra-deep Perdido Regional Development Project, which will include a regional production host facility to allow future expansion beyond the initial core fields. This facility is expected to be on production near the turn of the decade and is capable of handling 130,000 barrels of oil per day of production. These projects are located in very deep waters (4000 feet to 9500 feet), which requires the development of new technologies for successful completion.

In addition to these new offshore developments, Chevron is involved in six projects where the company and its partners are actively appraising significant discoveries. Chevron is the operator of three of these projects, those involving the Jack, Saint Malo, and Big Foot discoveries. These projects are anticipated to provide significant volumes of production for the U.S. for the long term. Each of these projects faces challenges, however, as each requires significant commitment to capital investment, subsurface evaluation, development and testing of new technology, and design of complex subsea production systems.

An example of how we are meeting deepwater development challenges is the record setting Jack well production test in June 2006. The Jack well was completed and tested in an area 270 miles southwest of New Orleans in 7,000 feet of water and more than 20,000 feet under the sea floor. The Jack well test broke Chevron's own 2004 Tahiti well test record as the deepest successful well test ever completed in the Gulf of Mexico. During the test, the well sustained a flow rate of more than 6,000 barrels of crude oil per day, with the test representing approximately 40 percent of the total net pay measured in the Jack #2 well. More than a half a dozen world records for test equipment pressure, depth, and duration in deepwater were set during the Jack well test. For example, the perforating guns were fired at world record depths and pressures. Additionally, the test tree and other drill stem test tools set world records, helping Chevron and its partners to conduct the deepest extended drill stem test in deepwater Gulf of Mexico history. The test was also significant in that it proved the application of technology required to achieve substantial production rates from a reservoir type and a reservoir depth not previously proven to be economically productive in the Gulf of Mexico deepwater. As a result of the Jack well test and other company activities, Chevron has become the recognized leader in exploring, evaluating, and developing the promising area of the deepwater Gulf of Mexico known as the "Lower Tertiary Trend."

Chevron is applying its experience in deepwater appraisal and project design methods to all of its deepwater Gulf of Mexico projects in order to improve productivity, reliability, and safety, and

to expedite production in both current and future projects. Further, to assure that Chevron will have the capability to implement its long-term deepwater exploration and development plan, in 2006 we committed \$2.5 billion to extend two long-term deepwater drilling rig contracts and to enter into long term lease arrangements to build two new state-of-the-art drill ships. The ships will be capable of drilling in 12,000 feet of water and to total depth of 40,000 feet, further extending our ability to explore for and produce new deepwater Gulf of Mexico resources.

### **Role of Incentives**

From a fiscal perspective, deepwater exploration and production is a risky business proposition. As discussed above, exploratory wells can cost \$100 million each, and many result in dry holes. The process of bringing new energy supplies to the marketplace, from leasing through exploration, development, and construction, can take a decade or more. Companies invest billions of dollars years before there is any income from production, and assume all this risk. Government incentives, designed to grow energy production from high-risk, high-cost areas such as the deepwater Gulf of Mexico, encourage companies to invest by reducing costs, and thereby reducing reliance on foreign sources of oil. The Deepwater Royalty Relief Act is a successful program -- production from the Gulf of Mexico has grown dramatically over the past decade, and will continue to grow as projects currently under construction are completed and energy production starts.

#### Conclusion

Chevron has a long history of commitment to the development of resources in the Gulf of Mexico, and this commitment will continue. We are the largest operator on the Gulf of Mexico shelf and a leader in all aspects of deepwater exploration, appraisal, and new project design and execution. We are a partner of choice and a leader in innovation and technology development. We look forward to continuing to explore for and produce oil and gas from the Gulf of Mexico for years to come.