

# Our View of Louisiana: A Partnership for Success

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The Energy Information Agency estimates the contribution of U.S. gas production will double from deep formations by the year 2010, with the greatest potential deep resources located in the shallow coastal waters of Louisiana. This view is based on deep discoveries now producing in the Hickory, South Timbalier 204 and Alex fields, large discoveries at JB Mountain and Mound Point in South Marsh Island, and new seismic data acquired and processed using improved deep-formation imaging technology. While industry attention has focused on prospects drilled with jack-up rigs, recent discoveries lie in 18 feet or less of water in Louisiana, the traditional operating area of Louisiana's swamp barge fleet.



The Yastreb in Sakhalin Island, Russia. The rig is the world's largest and most powerful land rig and was constructed in New Iberia, Louisiana, for the Sakhalin-1 Consortium by Parker Drilling.

The great potential of Louisiana's offshore can be illustrated by the activities of Parker Drilling Company. With a U.S. headquarters in New Iberia, Louisiana, and approximately 750 employees, the heart of Parker Drilling's global operations lies in Louisiana. Rig design, recruitment and training of our global workforce, new equipment construction and the world's largest land rig for Sakhalin Island, Russia, are all tied to Louisiana. Our company's global turnaround in financial performance in 2005, with a net income of \$98.9 million versus a loss of \$47.1 million in the prior year, was highlighted by impressive achievements in our Louisiana-based businesses. While operating with the lowest total recordable incident rate of any drilling contractor worldwide and safeguarding our employees and barge rigs during three Gulf Coast storms, we maintained consistently high rig utilization and margins from our Quail Tools and barge rig operations, both based in New Iberia. This outstanding contribution continues, driven by successful recruiting and training of local personnel, investment in new technology for the region and a strong outlook for growth in upstream oil and gas activity in Louisiana's coastal waters.

## Historical Evolution of the Premium Barge Rig Fleet

The application of rig technology to gain access to new frontiers has a rich history, including helicopter-transportable systems to access environmentally sensitive areas, large wellbore drilling for the U.S. Atomic Energy Commission in Alaska and Nevada, and multiple generations of arctic rig designs. Pushing the depth frontier has also been an area of rig innovation since the 1960s, where our specialized land rigs set world depth records in the Permian Basin of Texas, in the Middle East and in the Anadarko Basin of western Oklahoma.

In 1933 the first well drilled with a conventional barge rig was located in Terrebonne Parish to a depth of 6,000 feet with the *Giliasso*. Originally designed for the Costa Bolivar area of Lake Maracaibo, Venezuela, this first "bay" barge rig was a vessel with drilling equipment mounted directly on the deck, enabling towing to and

from locations as well as de-ballasting and ballasting with bay water. A "posted" barge rig uses the same concept but has a void area between the barge deck and drilling equipment to allow for operations in deeper water. The *Hayward-Barnsdall* rig was designed for open-water operations in the Gulf of Mexico. From its introduction in 1949 until 1954, this design was the only mobile offshore type of drilling unit in existence and led to the submersible, semi-submersible and jack-up rig designs of today. Our purchase of Mallard Bay Drilling and Quail Tools in 1996 set the stage for a long future in Louisiana.

Integrating arctic technology into a deep-posted barge, the *Sunkar*, or Rig 257, was designed and constructed in New Iberia specifically for drilling the North Caspian Sea's giant discoveries and is the world's only arctic-class barge rig in operation today, drilling in the Republic of Kazakhstan. The rig's design includes year-round arctic marine operations, transportable sections via the Russian Volga-Dan Canal system, extreme temperature variation, open-sea conditions with six-foot ice floes and zero discharge with collection and treatment of all cuttings and effluent.

Leveraging previous frontier rig designs and customer demand to mitigate drilling risks of deep exploration targets, projects to modify and construct two ultra-deep barge rigs in New Iberia were undertaken last year to deliver a new generation of high-performance barge rigs to execute challenging, deep-gas drilling programs.

### Local Investment in Technology

Drilling beyond 20,000 feet from locations within Louisiana's expansive southern waterways and bayous is a challenge. With more compacted formations, higher temperatures and lower margins between flowing wells, the latest rig technology has had to address such key areas as well control, environmental risk and drilling performance. Despite last year's disruption of Louisiana's oil and gas industry from hurricanes Rita and Katrina, including the displacement of thousands of key personnel, we engineered, constructed and commissioned Barge Rig 76. This high-pressure, high-temperature, ultra-deep barge rig was designed for increased reliability and specification for deep Miocene targets, and it has the ability to operate in both open water and inland locations. This year we continue our program of investing in new technology for Louisiana with the construction of Barge Rig 77, featuring even higher hook-load capacity, shallower draft, advanced solids handling and AC-power technology.

### Unique Features of Ultra-deep Barge Rigs

Hull and substructure designs for operation in severe weather conditions, high-pressure pump systems, high-capacity hoisting specification and state-of-the-art rig-power design characterize the new fleet of deep barges. Another important design criterion is environmentally friendly operation, which led to the incorporation of zero-discharge systems and shallow-draft hull design.

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Most of Louisiana's oyster leases are located throughout Vermilion, Iberia, Terrebonne, Lafourche, Jefferson, Plaquemines and St. Bernard parishes, all active oil and gas provinces. In this environment, eliminating waste streams and reducing the barge draft specification play a significant role in avoiding lease conflicts and reducing environmental impact. We are designing even larger capacity barge rigs to drill to depths of 30,000 feet, but with still-shallower draft.



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#### **Training Programs for the Changing Workforce**

Despite the storm destruction last year, valuable classroom, simulation and on-the-job training of rig crews with advanced-drilling rig technology has been achieved. Our training center, located in New Iberia, offers a wide range of technical and HSE (health, safety and environment) training for oil field workers. The center aims to maintain Parker Drilling's quality management standards and is committed to a system of continual improvement. The center's certified trainers instruct to a variety of standards, including those of the International Association of Drilling Contractors, the International Well Control Forum, the American Petroleum Institute and the American Society for Training and Development. We are participating with the Louisiana Department of Labor in an Incumbent Worker Training Program Social Services grant for Louisiana employees. The objectives of the program are to complete training of and retain 571 employees, create 51 additional jobs and achieve an average wage increase of 3 percent.

This year we are purchasing a multimillion-dollar pipe-handling, drilling and well-control simulator featuring a driller's chair control and rig-specific simulation software. Located in New Iberia, this new training facility will accelerate our global personnel training on state-of-the-art, new-build land and offshore rigs. Last year our training center trained 2,114 employees in 7,588 courses, and we are on track this year to increase trainees by 40 percent while offering even more courses.

#### **Conclusion**

Our accelerated training of the local workforce, a proud southern Louisiana work culture, along with results from our proprietary ultra-deep barge rig technology and continued growth in the oil and gas business in southern Louisiana, provide a platform for the industry to expand to more challenging drilling prospects that are now technically and commercially feasible. Because of its rich history and culture, natural resources, enthusiastic business community, marine infrastructure and academic facilities, Louisiana will remain one of the foundations upon which the oil and gas industry will continue to enjoy success. ■

**Robert L. Parker Jr. is chairman, president and chief executive officer of Parker Drilling Company.**

**After receiving an undergraduate business degree and an M.B.A. from the University of Texas at Austin, Mr. Parker joined the company in 1973 as a contract representative and was named manager of U.S. operations later that year. He was elected a vice president in 1973, executive vice president in 1976 and president and chief operating officer in 1977. In December 1991, he was named chief executive officer, and he was elected chairman in April of 2006.**

**Mr. Parker is a member of the International Association of Drilling Contractors and serves on the American Petroleum Institute's Upstream Committee. He is also a member of the Development Board of the University of Texas at Austin and of the Development Board of the University of Texas Health Science Center at Houston. Mr. Parker serves as a member of the Board of Directors for St. Luke's Methodist Church in Houston. He has been a Parker director since 1973.**



Parker Drilling's deep barge rig 50, on location in the inland waters of southern Louisiana.