

rigamarole



FALL 08, NO. 26

A PUBLICATION FOR THE PEOPLE, CUSTOMERS, SUPPLIERS
AND FRIENDS OF DIAMOND OFFSHORE DRILLING, INC.



**DIAMOND
OFFSHORE IN
MALAYSIA**

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FALL 08, NO. 26

02 **Drill! Drill! Drill!**

"At this point in time, is there another country on the face of the earth that would possess the oil and gas reserves held by the United States and refuse to exploit them? Only technical incompetence... would hold anyone back. But not us. We won't drill."

06 **Treasure Found in the South China Sea**

Malaysia is playing an increasingly important role in supplying the world's demand for energy. The country boasts some of the newest and richest petroleum fields being discovered and has seized the attention of major oil and gas players worldwide. Two of Diamond Offshore's rigs are taking part in the development.

22 **Rigging Up**

The *Ocean Valivant* is receiving a \$30 million facelift that will enhance the vessels capabilities.

26 **Mariner Sails Ahead**

"Everything in our portfolio is designed to generate a good return or we wouldn't do it."

30 **Going Deep**

Declining reserve replacement, accelerating decline of older fields and still solid worldwide demand have made the potentially large reservoirs and unexplored horizons of deepwater drilling a near imperative in the search for new hydrocarbon deposits. However, with water depths exceeding 10,000 ft. and drillbits reaching more than six miles into the earth's crust, deepwater drilling is presenting unprecedented challenges.

34 **Hometowns of Diamond Offshore**

The cultural heritage of Diamond Offshore employees is rich and varied. In many cases, the men and women who crew our rigs come from the small towns and villages that help make up the heartland of the countries they represent. In this issue, we take a look at Spring, TX and Miri, Malaysia.

46 **Facets**

News and views from Diamond Offshore

rigamarole is published for & about the people & customers of Diamond Offshore. For more information, write us, call or visit us online at www.diamondoffshore.com

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On The Cover

The twin towers of Petronas, Malaysia's national oil company.

A Letter from Larry Dickerson,
PRESIDENT AND CHIEF EXECUTIVE OFFICER

Following two mild hurricane seasons, this year the Gulf of Mexico faced the dual challenges of Gustav and Ike. Between the two storms there were very few of the industry's central Gulf of Mexico facilities that weren't challenged by severe winds and seas.

Following Katrina and Rita in 2005, Diamond Offshore and other offshore drilling contractors went into overdrive to improve station keeping of moored rigs, since that year saw so many of them go adrift. At Diamond, our goal was to have in place, by the height of the 2006 season, a system that would hold in most severe storm conditions. Through the hard work of Tech Services, the crews of our Gulf fleet and Houston operations personnel we achieved our goal. The fact that 2006 and 2007 were mild seasons was all right with us; however we had in place untested moorings.

This year fixed all of that. We were very pleased that although Ike passed almost directly over five of our semis, the *Ocean American*, *Ocean Endeavor*, *Ocean Baroness*, *Ocean Star* and *Ocean Victory*, all held station. This was in spite of seas, winds and storm duration that in some cases exceeded those experienced in either Katrina or Rita. A sixth rig, the *Ocean Saratoga*, was our only semi to break partial lines, but she held on location throughout the long duration of the storm.

Several moored floaters owned by other contractors did not fare as well, and saw their own post Kat-Rita mooring upgrades fail.

However, the overall impact of Ike was still significant to the industry, and Ike impacted our customers worst of all. According to the MMS, 49 production platforms were destroyed, and numerous gas transmission pipelines were damaged.

Three jacks-ups were destroyed, and our own *Ocean Tower* was severely damaged—the derrick and the drill floor slid over the side. The rest of the rig was largely without damage. Incredible as it may seem, the customer continued to use the *Tower* for an additional month in diving support operations. This was first time, I can recall, that we rented a rig without any drilling equipment!

We are currently reviewing future plans for the *Tower* regarding how and when we might repair the unit, since delivery of drilling equipment has such a long lead time.

In the end, our moorings held up to storms powerful enough to take 3½ jack-ups out of service. I salute those who worked so hard to design, install and operate our improved anchor systems. In the not too distant future we will be saluting those who restored our jack-up fleet. We are okay, though, if Mother Nature wants to wait a few dozen years before testing us again.



Drill! Drill! Drill!

One thing Brazil and the U.S. have in common is the price of oil: **It is priced in dollars, and everyone in the world now knows what the price is.**

Written By Daniel Henninger
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Diamond Offshore semisubmersibles
Ocean Whittington (left) and *Ocean Worker* (right)
prepare for work offshore Brazil.



The goal shouldn't be "energy independence," a ridiculous notion in an economically integrated world. It's about admitting the need to strike a balance between the energy and security realities of the here-and-now and the potentialities of the future.

THE FOLLOWING EDITORIAL WAS WRITTEN ON JUNE 12, 2008. WHILE MUCH HAS CHANGED SINCE THAT TIME, THE FUNDAMENTAL NEED TO REDUCE OUR DEPENDENCE ON FOREIGN ENERGY SOURCES REMAINS AND INCREASED ACCESS TO OFFSHORE WATERS CAN PLAY AN IMPORTANT ROLE IN MEETING A PORTION OF THAT NEED.

Another commonality is that each country has vast oil reserves in waters off their coastlines.

Here we may draw a line in the waves between the serious and the unserious.

Brazil discovered only yesterday (November 2007) that billions of barrels of oil sit in difficult water beneath a swath of the Santos Basin, 180 miles offshore from Rio de Janeiro and Sao Paulo. The U.S. has known for decades that at least 8.5 billion proven barrels of oil sit off its Pacific, Atlantic and Gulf coasts, with the Interior Department estimating 86 billion barrels of undiscovered oil resources.

When Brazil made this find last November, did its legislature announce that, for fear of oil spills hitting Rio's beaches or altering the climate, it would forgo exploiting these fields?

Of course it didn't. Guilherme Estrella, director of exploration and production for the Brazilian oil company Petrobras, said, "It's an extraordinary position for Brazil to be in." Indeed it is.

At this point in time, is there another country on the face of the earth that would possess the oil and gas reserves held by the United States and refuse to exploit them? Only technical incompetence... would hold anyone back.

But not us. We won't drill.

California won't drill for the estimated 1.3 billion barrels of recoverable oil off its coast because of bad memories of the Santa Barbara oil spill—in 1969.

We won't drill for the estimated 5.6 billion to 16 billion barrels of oil in the moonscape known as the Alaskan National Wildlife Refuge (ANWR) because of—the caribou.

In 1990, George H.W. Bush, calling himself "the environmental president," signed an order putting virtually all the U.S. outer continental shelf's oil and gas reserves in the deep freeze. Bill Clinton extended that lockup until 2013. A Clinton veto also threw away the key to ANWR's oil 13 years ago.

Our waters may hold 60 trillion untapped cubic feet of natural gas. As in Brazil, these are surely conservative estimates.

While Brazilians proudly embrace Petrobras, yelling "We're Going to be No. 1," the U.S.'s Democratic nominee for president, Barack Obama, promises to impose and "excess profits tax" on American oil producers.

We live in a world in which Russia's Vladimir Putin and Venezuela's Hugo Chavez use their vast oil and gas reserves as instruments of state power. Here, Nancy Pelosi and Harry Reid use their control of Congress

to spend a week debating a "climate-change" bill. This they did fresh off their subsidized (and bipartisan) ethanol fiasco.

One may assume that Mr. Putin and the Chinese have noticed the policy obsession of our political class. While other nations use their oil reserves to attain world status, we give ours up. Why shouldn't they conclude that, long term, these people can be taken? Nakita Khrushchev said, "We will bury you." Forget that. We'll do it ourselves.

Putin intimidates Ukraine, Georgia, the Baltic states and Poland with oil and gas cutoffs, while Chavez uses petrodollars to bankroll Colombian terrorists. Cuba plans to exploit its Caribbean oil fields within a long tee shot of the Florida Keys with help from India, Spain, Venezuela, Canada, Norway, Malaysia, even Vietnam. But America won't drill. Democratic Sen. Bill Nelson of Florida said just last month (May, 2008) he's afraid of an oil spill. Katrina wrecked the oil rigs in the Gulf with no significant damage from leaking oil.

Some portion of the current \$4-per-gallon gasoline may be attributable to the Federal Reserve's inflationary monetary policy or even speculators. But we can wave goodbye to the \$1.25/gallon gasoline that in 1990 allowed a President Bush to airily lock away the nation's oil and gas jewels. This isn't your father's world of energy. New world powers are coming online fast, and they need energy. We need to get back in the game.

The goal shouldn't be "energy independence," a ridiculous notion in an economically integrated world. It's about admitting the need to strike a balance between the energy and security realities of the here-and-now and the potentialities of the future. Some of our best and brightest want to pursue alternative energy technologies, and they should be encouraged to do so, inside market disciplines. But let's at least stop pretending the rest of the world is going to play along with our environmentalist moralisms.

The Democrats' climate-change bill collapsed in early June under the weight of brutal cost realities. It was a wake-up call. This is the year Americans joined the real world energy costs. Now someone needs to explain to them why we—and we alone—are sitting on an ocean of energy but won't drill for it.

You'd think the "national security" nominee, John McCain, would get this. He's clueless—a don't drill zombie. We may mark this down as the year the U.S. tired of being a serious country.

MR. HENNINGER IS DEPUTY EDITOR OF THE WALL STREET JOURNAL'S EDITORIAL PAGE.

A large, ornate golden dragon sculpture, likely a traditional Chinese dragon, is shown in the foreground. The dragon is intricately detailed with scales and patterns, and is holding a long, thin golden staff or scepter. The background is a lush, green forested hillside.

TREASURE FOUND IN THE SOUTH CHINA SEA

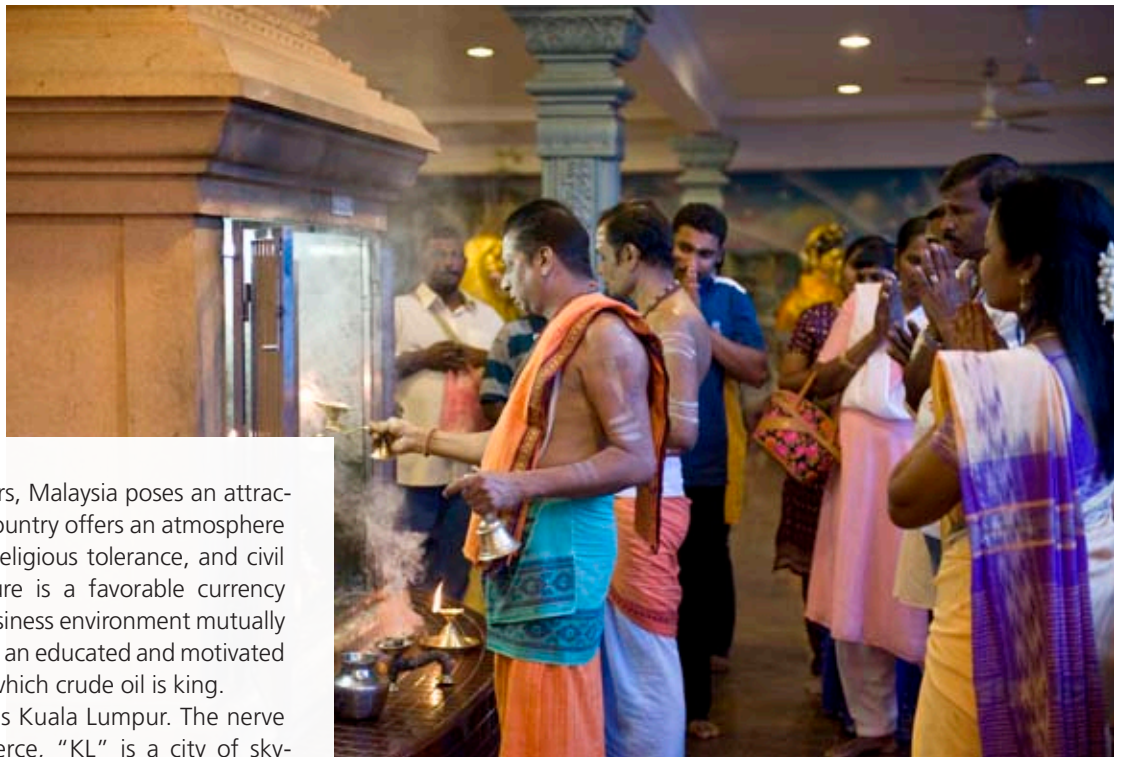
Malaysia is playing an increasingly important role in supplying the world's energy. The country boasts some of the newest and richest petroleum fields being discovered and has seized the attention of major oil and gas players worldwide. Two of Diamond Offshore's rigs are taking part in the development rush.



By Scott Redepenning Photography by Drew Donovan



EVEN BEYOND ABUNDANT PETROLEUM RESERVOIRS, MALAYSIA POSES AN ATTRACTIVE PROSPECT FOR OUTSIDE INVESTMENT.



Even beyond abundant petroleum reservoirs, Malaysia poses an attractive prospect for outside investment. The country offers an atmosphere of legal and political stability, ethnic and religious tolerance, and civil peace. Completing this commercial picture is a favorable currency exchange rate, modern infrastructure, a business environment mutually beneficial to domestic and foreign interests, an educated and motivated workforce, and an economic hierarchy in which crude oil is king.

Malaysia's capital and showcase city is Kuala Lumpur. The nerve center of Malaysian industry and commerce, "KL" is a city of sky-leaping buildings, with numerous cranes busy at work erecting more. Rising above all others are the stainless steel spires of the Petronas Towers, named for the country's national oil company. These stunning twins are the centerpiece of the city, even the entire nation. Housing several oil companies, including Diamond Offshore's current clients Murphy and Newfield, the Petronas Towers are the corporate hub for Malaysian oil and gas, and serve as a symbol of the country's primary industry and source of wealth.

Leaving Kuala Lumpur behind, the scenery changes quickly, but the energy industry influence does not. Exploration and production activity reaches out to cities and settlements such as Kuching, Johor Bahru, Labuan, Miri and Kuantan—the jumping-off points for Malaysia's major oil fields and Diamond Offshore's current rig assignments.

SCOTT REDEPENNING IS AN INTERNATIONALLY EXPERIENCED FREELANCE WRITER, ENTHUSIASTIC SOCCER COACH TO 5-YEAR-OLDS, AND A HIGHLY QUALIFIED BEACH BUM.





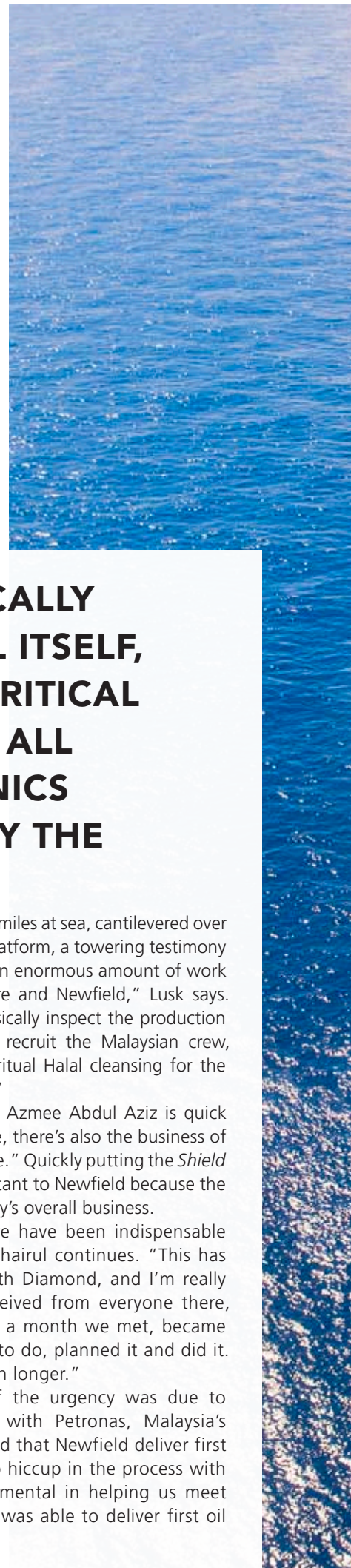
**TREASURE FOUND
IN THE
SOUTH CHINA SEA**

GETTING HER SEA LEGS



The *Ocean Shield* stands like a sentinel over a watery realm. An hour's chopper ride off the eastern coast of the Malaysian peninsula, the rig casts a reflection in the glassy surrounding sea. That the rig is performing well on its maiden assignment is not a surprise. The *Shield's* initial assignment in Malaysia, though, was unexpected.

Sitting in a Singapore shipyard and preparing to head out to a long-standing contract in Australia, the 350-ft. new-build jack-up was offered the opportunity for an interim contract that was on the rig's way to "Oz." "I got a call saying that instead of Australia, which we had been planning for a year, the *Shield* would be stopping off in Malaysia," says Operations Manager John Lusk. "And we needed to be there in month. It just didn't seem possible."



**“THE RIG PRACTICALLY
DRILLS THE WELL ITSELF,
BUT THE MOST CRITICAL
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THESE ELECTRONICS
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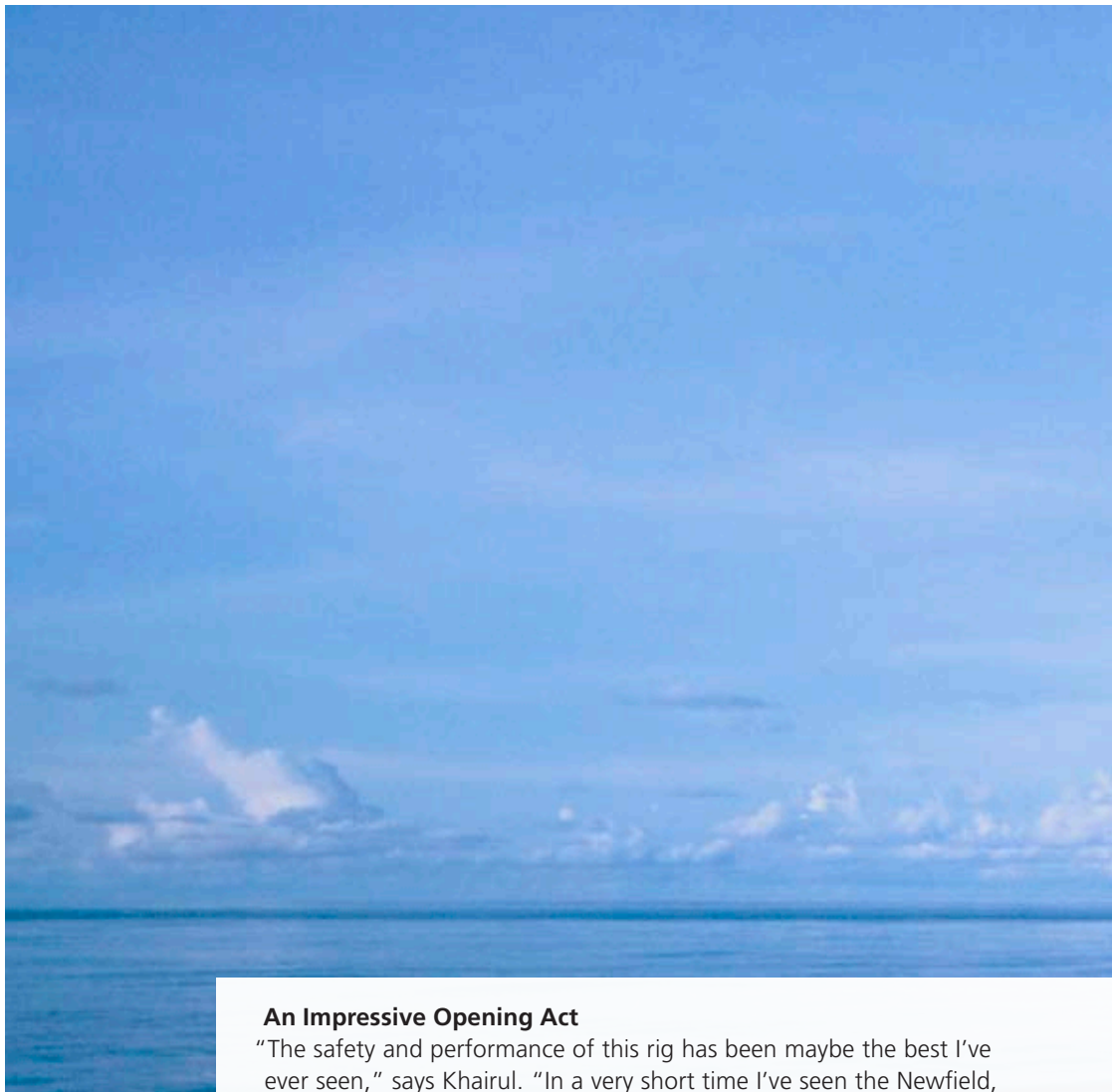
But four weeks later, the *Shield* was 100 miles at sea, cantilevered over Newfield’s East Belulut A production platform, a towering testimony to the success of the feat. “There was an enormous amount of work to be done, both by Diamond Offshore and Newfield,” Lusk says. “We had to do site survey analysis, physically inspect the production platform, release the Australian crew, recruit the Malaysian crew, change out catering companies, do a ritual Halal cleansing for the Islamic crewmembers, and much more.”

Newfield Drilling Manager Khairul Azmee Abdul Aziz is quick to add a key item to the list. “Of course, there’s also the business of actually getting the rig to the site on time.” Quickly putting the *Shield* to work in the Belulut field was important to Newfield because the region is very important to the company’s overall business.

The *Shield* and Diamond Offshore have been indispensable in helping Newfield meet its goals, Khairul continues. “This has been my first experience working with Diamond, and I’m really impressed with the attention we received from everyone there, from top management down. Within a month we met, became friends, figured out what we needed to do, planned it and did it. That was work that usually takes much longer.”

Khairul says a good measure of the urgency was due to Newfield’s partnership arrangement with Petronas, Malaysia’s national oil company, which demanded that Newfield deliver first oil by a specified date. “There was no hiccup in the process with Diamond Offshore, which was instrumental in helping us meet our commitment,” he says. Newfield was able to deliver first oil ahead of the deadline.





An Impressive Opening Act

"The safety and performance of this rig has been maybe the best I've ever seen," says Khairul. "In a very short time I've seen the Newfield, Diamond Offshore and third-party teams really gel. The job has been, if not flawless, at the very least outstanding."

John Lusk adds a few statistics to accentuate the point. "We brought in guys from 19 different rigs. You've got a driller with four guys he's never met before working his floor. A crane operator running five roustabouts that speak different languages. Plus, there's all new highly sophisticated equipment. We had to ramp up performance quickly in the face of all this unfamiliarity, without cutting corners on safety." Lusk adds that the *Shield* has achieved over a year without a Lost Time Accident (including shipyard time and here). It has also incurred less than 1% downtime, astoundingly below the 5-8% standard for jack-ups.

"I was concerned because everything and everybody on the rig were brand new," Khairul says. "We didn't want to be rushing at the expense of safety, but we did need to move quickly. So pulling it off was a double achievement."

Offshore Installation Manager Jimmy Myers, the man in charge of the *Shield's* operations at sea, is proud of these achievements, but notes the rig is still working out a lot of start-up bugs. "The rig is performing great and meeting client objectives. And with the unique challenges that Newfield's horizontal wells pose it's allowing us to work out the kinks. We're learning to walk so later we can really run."

The "kinks" primarily come from the technologically advanced drilling equipment that separate the *Shield* from earlier generation jack-ups. With a 2 million pound hook load and capable of drilling to 35,000 ft. below the seabed, the rig is operated through state of the art electronics. Controlling the drill floor from his joystick bedecked cyber chair, Driller Jason Morris knows this perhaps better than anyone. A flick of the wrist activates giant pieces of equipment that could easily snap an elephant in two. The operation is a study in robotic brute strength. "This new technology allows for a lot of improvements and takes away a lot of the old hazards," Morris says.





"But if something goes wrong with automated equipment, it's more expensive to fix and spares take longer to get. So we're being really careful about learning how to work with it.

"The rig practically drills the well itself, but the most critical circuit among all these electronics is completed by the human brain," Morris adds. "This job has become extremely mental. I have to be on my game watching everything going on with the well. I have 110 fellow *Shield* hands counting on me to do my job right."

A Beautiful Site

Although the *Shield* has been hard at work for several months, it still appears fresh off the showroom floor. The walls don't have a smudge, the paint barely a scratch. The tragic "first door ding" has yet to be received. That new-rig smell permeates the air, pleasingly mixed with the fresh sea breezes meandering across this South China Sea landscape. Spectacular four-foot dorado fish can't resist the rig's attractiveness. They play among the jack-up's massive legs, flashing a silvery signal as they leap from the azure water.

At this writing, the *Shield* was finishing up its third well with Newfield hoping to quickly squeeze in two more if possible. This pressing pace is because the *Shield* is expected to mobilize to Australia in the first half of December. Soon the rig will raise its legs off the bottom and begin the three-week journey to a site near Darwin.

"I've worked with a lot of drilling contractors, and Diamond Offshore has gone way beyond expectations," Khairul concludes. "There was a lot that could have gone wrong, but we did it right. We pulled it off through company interdependency, which isn't always comfortable. But Diamond Offshore made it easy. That's the only way we could have done so much in so short of a time without compromise."

BY SCOTT REDEPENNING, PHOTOGRAPHY BY DREW DONOVAN





TREASURE FOUND
IN THE
SOUTH CHINA SEA

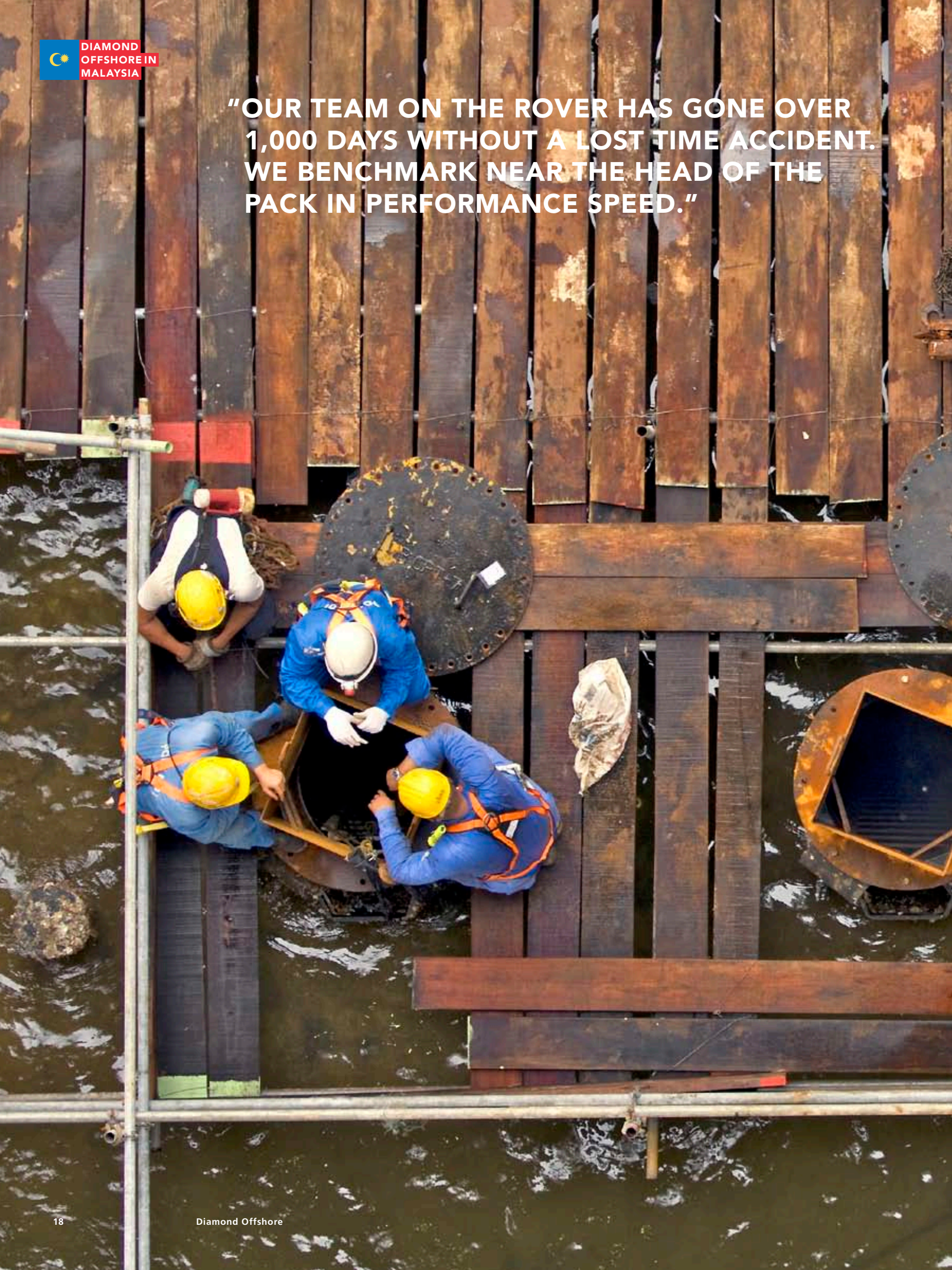
PAST VICTORIES, FUTURE PROMISES



The *Ocean Rover* is the king of Johor Bahru on this September day. The gargantuan rig towers over the other vessels wedged into every last foot of wharf space in this port on the tip of peninsular Malaysia. Raised on its pontoons, the view from the Rover's helideck is of Singapore, which seems a mere stone's toss across the channel that separates it from Malaysia. Singapore would have been the destination for the five-year survey the *Rover* is currently undergoing. But the shipyard there is jam-packed with rapidly rising new-build drilling rigs—including the *Rover's* sister unit, the *Ocean Monarch*.

The *Rover* is a Victory-Class vessel capable of wielding two million pounds of hook load to drill wells to 35,000 feet in up to 8,000 feet of water. Delivered in 2003, the *Rover* played a key role in Murphy Oil's early drilling efforts in what is today the Kikeh field, an enormous Malaysian deepwater reserve that now represents over half of Murphy's revenue. The *Rover* has been instrumental over the last few years in helping Murphy develop and produce Kikeh. And when the inspections, updates and renovations of the five-year survey are finished, the rig will return to Kikeh and Murphy, where the rig is contracted until 2011.

**"OUR TEAM ON THE ROVER HAS GONE OVER
1,000 DAYS WITHOUT A LOST TIME ACCIDENT.
WE BENCHMARK NEAR THE HEAD OF THE
PACK IN PERFORMANCE SPEED."**





"We keep renewing our contracts with Diamond Offshore because of people, safety and performance," says Chris Flannery, Murphy's Deepwater Drilling Team Leader in Malaysia. "Our team on the *Rover* has gone over 1,000 days without a Lost Time Accident. We benchmark near the head of the pack in performance speed. The rig has the specs for what we need to do, and we're not even approaching the vessel's limits. It's very robust."

Flannery has grown accustomed to seeing outstanding performance in all matters surrounding Kikeh. Murphy's development history in the field is an impressive string of world-firsts and landmark accomplishments. Discovered in 2002, Kikeh is the largest reservoir found in Southeast Asia over the last decade, containing roughly 400 million barrels of oil. Operating in steeply fluctuating depths averaging 4,265 ft., Murphy took the field from discovery to first oil in a mere five years.

During that time span, this once featureless expanse of ocean has become a landscape of engineering breakthroughs. The field is home to the first SPAR-supported Dry Tree Unit ever installed outside the Gulf of Mexico. This structure utilized the first ever float-over application for placing the DTU. The design features the first tender-assisted drilling system next to the SPAR. Nearby is the largest Floating Production Storage and Offloading (FPSO) conversion in Malaysia, with the largest external turret ever built. The list goes on, and the *Rover* has played a significant role in this success story.

The Kikeh field has put Malaysia on the global deepwater map, adding the country to conversations that mention energy giants such as Brazil, West Africa and the Gulf of Mexico. Approaching a production target of 120,000 barrels a day, Kikeh is very important to Malaysia and to Murphy. Having the *Rover* performing at the highest level is critical to Kikeh. Flannery punctuates the point: "Last year the *Rover* was named Diamond's 'Rig of the Year' while working for us. Obviously we are extremely happy."

Enthusiasm like Flannery's isn't confined to Murphy's corporate offices. Walking the seemingly endless decks, stairways, ladders and catwalks of the *Rover*, you can sense the pride present among the crew. "This is the best rig I've ever worked on," says Driller Sherman Bush. "When we first went to Kikeh we were the only ones out there, no rigs or anything else in sight. Now you see production platforms and all kinds of activity. That's because of the work we have accomplished. The *Rover* pretty much developed the whole Kikeh site. We've done some amazing things."

And the Survey Says...

The *Rover* is in Johor Bahru port because it is required to be there—and Dave Brown is sweating every minute of it. Brown is Project Manager for the *Rover's* five-year survey, the man in charge of getting the work done right and the rig back out on the job as quickly as possible. His job title suggests that he'd be directing the survey from a nice air-conditioned office, but the profuse perspiration and grime that covers him from hardhat to steel toe tells otherwise.

"I'm the one with my head in the noose," Brown says. "So I get involved with every inspection and repair job on this rig from top to bottom." This enormous responsibility entails disappearing into hidden spaces, such as entering the towering columns that support the rig and descending in darkness to the pontoons at the bottom. Safety is paramount, so a third-party marine inspector first clears us to enter the confined space. And we perform our own tests, including gas detection, to make sure the air is clear and safe.

"We have to check every inch of the hull visually and electronically for steel thickness and cracks, and if anything is not within the tolerances that we deem to be safe and operable, we replace it. No two ways about that," says Brown. "Let's face it, there are hundreds of people living on this rig 365 days a year. I want to be able to sleep at night knowing they're safe. Not only that, we are in the business of generating revenue and profits for our Company. We have to make sure the rig is maintained in proper order and kept in top shape."

The industry requires that rigs undergo a survey of this magnitude every five years. An independent classification society must be brought in to inspect all critical structures and equipment systems, and all required repairs and refurbishments must be completed before the rig can return to sea.

Drilling Superintendent Murray Campbell estimates the survey process will take a little over a month (the rig returned to work for Murphy in mid October as planned). "In addition to the survey, we're using this time as an opportunity to do all the things we haven't had the chance to do because the rig was working 24/7 for our customer," he says. "We're upgrading systems to make the rig even more capable, including changing out all our shakers to much bigger ones. The *Rover* is an elite rig for this area. There aren't many others around that can do what we can."

Towering Potential

With the survey well underway, most of the usual heavy equipment has been offloaded to help get the rig almost all the way out of the water so it can be properly inspected.

Rope-access technicians spider their way across the exposed superstructure. Securely suspended on ropes, they routinely carry out the toughest tasks, such as using a 30,000-psi power-wash wand to remove barnacles. Below the waterline, scuba divers video the pontoons, their swimming directed by inspectors monitoring the live footage onboard. Urgent activity envelops every inch of the rig as the desired ship-out date approaches. The deadline is an ambitious goal, but that's what the *Rover* is known for and the client is outwardly appreciative.

"The thing we've enjoyed most with Diamond Offshore is the openness," says Flannery. "If you don't have that trust, then you're sunk. Our two companies act as one team, and that kind of relationship can be rare. This helps us get a lot done very quickly."

With a knowing nod of agreement, Dave Drysdale, Operations Manager of the *Rover* adds, "The Diamond and Murphy guys on the rig are like a family. From the galley on up, the guys are always ready to share ideas on how to do things best." This is an attitude that will serve all parties well as the *Rover* vacates its kingly Johor Bahru perch and heads out for Kikeh to work Murphy's next set of wells.

BY SCOTT REDEPENNING, PHOTOGRAPHY BY DREW DONOVAN





RIGGING





UP

The **Ocean Valiant** is receiving a \$30 million face-lift that will enhance the vessels capabilities.

By Denise Allen Zwicker Photography by Patrick Lane





“These changes increase the operability and marketability of the rig, the **Ocean Valiant** is a better-equipped rig today due to the upgrades.”



The *Ocean Valiant*, a deepwater semisubmersible built by Diamond Offshore in the late 1980s, is completing a mandatory survey, and approximately \$30 million of upgrades that will enhance the vessels capabilities.

The upgrade features a stronger 1.5 million-pound-hook-load derrick, a 100,000-pound increase over the original derrick. Customers will also benefit from an increase in riser tensioner capacity from 1,280 to 1,600 kips, which will allow the *Valiant* to work with heavier mud weights. And higher capacity pod hose reels will aid drilling in deeper water.

"The tensioner upgrade makes the rig more flexible with different mud weights and water depths," said Matthew Holt, a Senior Project Engineer. Holt is overseeing the project at the Keppel AMFELS Shipyard in Brownsville, Texas. "And, of course, the extra load capacity will allow the crew to increase their drilling load, so they will be able to drill a little deeper, too."

Planning a Year Ahead

"These changes increase the operability and marketability of the rig," said Karl Sellers, Vice President of Engineering. "The *Ocean Valiant* is a better-equipped rig today due to the upgrades."

Because the *Valiant* was due for its five-year special survey in 2008, the rig's shipyard stay was extended to permit the upgrades. "Most special surveys require 28 to 35 days in the shipyard," said Tom Geiger, Director of Projects. "These upgrades increased that time to a little more than 100 days. But we planned the project well ahead of time to minimize impact to our customer."

"A lot of planning went into the upgrade before the *Valiant* ever reached the shipyard," said Holt. "Our engineering team, headed by Patrick Persyn, worked on the derrick design for months.

They then awarded a design contract to a third party. A third party also designed the tensioners, working with our engineering manager Dr. Yi Li and Engineering Specialist Steve Hiltbold. That design also had to be approved by the American Bureau of Shipping. We chose to submit the derrick design to the American Petroleum Institute for their approval, too."

The *Valiant* is contracted to Anadarko in the U.S. Gulf of Mexico until early July 2009 and is expected to return to drill for them when the shipyard work is completed.

Finishing in the Shipyard

Because hurricane season in the Gulf often brings downtime during storms, the Company and Anadarko agreed to time the survey and upgrade during this period, again to minimize unnecessary downtime for Anadarko. The *Valiant* arrived in the shipyard within days of the arrival of the derrick. "Right away, we began to install the tensioner foundations," said Holt. "We also rigged down and removed the old derrick, which we cut up and sold for scrap. Then we installed the new derrick. We set the top section September 12 as Hurricane Ike roared into the Gulf—but luckily northeast of Brownsville.

"Once we finish everything, we have about two weeks of system checks. Then we have a 24-hour test run in the shipyard as though the rig were working offshore. And, finally, we have a deadweight experiment and incline test to determine the rig's lightship weight and centers of gravity which are used to assess the vessels stability," said Holt. At this writing, the *Valiant* is expected to be "turning to the right" for Anadarko by early December.

DENISE ALLEN ZWICKER HAS BEEN A FREELANCE WRITER SINCE 1977, COVERING VIRTUALLY EVERY ASPECT OF THE ENERGY INDUSTRY.

Mariner Sails Ahead

...with a balanced portfolio and faith in fundamentals.



By Molly Glentzer Photography by Patrick Lane



From left:
Cory Loegering
Dalton Polasek Jr.
Scott D. Josey



On a bright summer morning, the Houston sky nearly glows through the expansive windows of Mariner Energy, Inc.'s 20th floor conference room as Chairman, Chief Executive and President Scott D. Josey, Chief Operating Officer Dalton Polasek, Jr., and Senior Vice President for Deepwater Cory Loegering convene for an interview.

The scene below, facing somewhat symbolically eastward, suggests busy optimism as traffic flows briskly on the Sam Houston Parkway. Across a swath of treetops, the skyscrapers of Greenway Plaza and Downtown sparkle in the distance. A few years ago, though, an albatross hovered on this horizon: the headquarters buildings of Mariner's then-parent company, Enron North America Corp..

Josey, a former vice president with Enron North America, took over management of Mariner in August 2001, just three months before Enron declared bankruptcy. "People were concerned about doing business with us just because of whom our primary owner was," he says. "Although we were never bankrupt, we were treated like we were."

Mariner could have disappeared, one of that era's corporate casualties. Instead, it evolved into one of the industry's strongest independents. Named one of BusinessWeek's 100 Hot Growth Companies in 2007, Mariner has grown four-fold or more since 2001 in production, revenues, net income and other categories. The company now employs more than 230 people and occupies a spot on the New York Stock Exchange (ticker symbol: ME).

"We're humbled but also very proud of what we've achieved," Josey says, crediting Diamond Offshore with helping to enable that

success. "Diamond was a very important relationship, and they stayed with us. To this day, we're very appreciative."

Even without ownership issues, Mariner's course needed correction. Founded in 1983 as Trafalgar House, the company worked primarily on the GOM shelf when Enron purchased it in 1996. But by 2001 Mariner's focus had shifted to deepwater exploration—"a very difficult business to finance," Josey says.

He and his team quickly diversified the portfolio, aiming for a moderate risk profile balancing deepwater, shelf and onshore prospects. "We prefer not to go down the path of having all the eggs in one basket," Josey says. "Everything in our portfolio is designed to generate a good return or we wouldn't do it."

Unlike many companies in the oil and gas exploration, development and production business, Mariner lives within its means, and the company has a solid track record of demonstrating this discipline. "We plan our operations and activities carefully so that we can meet our goal of funding our opportunities and projects other than acquisitions from cash flow," says Josey.

With a take-charge mentality, the recharged company has even transformed dormant projects into key assets.

Loegering cites the Bass Lite project in the GOM's Atwater Valley Block as an example. Mariner initially served as a non-operating partner there, he explains. "We took a more aggressive posture, acquired additional ownership, completed two wells and brought on the first production earlier this year."

“Everything in our portfolio is designed to generate a good return or we wouldn’t do it.”

Drilled with the help of Diamond Offshore’s *Ocean America* rig, Bass Lite also illustrates the depth of Mariner’s technical and operational expertise. “It wasn’t our intent to break any records, but in the process we did,” Loegering says.

Collaborating with DO, the *Ocean America*’s water depth capability was upgraded from 5,000 to 6,800 feet, a Mariner water depth record. Bass Lite employs the industry’s second longest subsea tieback in the Gulf of Mexico and a 56-mile fiber optic primary control cable, the longest in the GOM. The steel catenary riser used to tie-in to the Devil’s Tower production facility, the first to meet new GOM storm criteria, also marked Mariner as an industry leader.

The completed system allows production of up to 130 million cubic feet of natural gas per day (MMcf/d), almost double Bass Lite’s previous production levels.

Polasek emphasizes the importance of Diamond Offshore’s contribution. “If Diamond hadn’t made the investment, we still might be looking for a rig that could do that work,” he says.

The *Ocean America* now drills at Mariner’s Geauxpher prospect on Garden Banks Block 462 in the central GOM, which yielded another deepwater discovery for Mariner in June 2008.

“We’ve had the *Ocean America* under contract most of the time I’ve been here,” Josey comments. “You can’t do deepwater drilling at the drop of a hat, and we value the quality of Diamond’s rigs and crews.”

While Mariner’s deepwater portfolio grows with world-class opportunities, the company also maintains a somewhat contrarian faith in the GOM shelf—a quality asset base they’ll continue to explore and develop. “Our activities there serve as the cash register for a lot of other things we do,” Josey says.

Onshore, Mariner ranks among the top five drillers in the Permian Basin, drilling about 100 wells a year. And they’d like to increase their Permian Basin acreage.

“The Permian Basin doesn’t get the hype that shale plays are getting, but it has been strong for 50 or more years,” Josey says. “Having shorter cycle projects allows us to live within our means and execute our offshore program.”

Onshore, he adds, Mariner can drill, complete and begin production immediately, while shelf projects can take from six months to a year, and the more capital-intensive deepwater projects often have an 18-month completion schedule. The company’s reserve numbers have reflected that strategic wisdom: Mariner’s three-year reserve replacement rate as of year end 2007 was 389%.

Although prices have since plunged, then record price increases also proved a boon. Josey says Mariner based its 2008 budget on an \$80-\$85 per barrel formula. “Like most in our industry, we didn’t anticipate a price run-up this rapid,” he admits. “People have been saying it was going to happen since the 1970s, but we’re making investments. We can’t just hope that price will rise.”

Even though prices have retreat somewhat, he adds, “The fundamentals of the petroleum business appear to be pretty strong. But it’s not the same as what happened in the late 1970s and early 1980s. We found a lot of supply then, and a lot of capital investment happened as a result. The world’s been living off those hydrocarbons the last 25 years. Now there’s a lot of capital going in, and we’re seeing some increase in supply but also a very large increase in demand with countries like India and China in the market.”

In the event exploration opens up on the East and West coasts of the U.S., Mariner sees several areas of opportunity. “The biggest challenge,” suggests Polasek, “will be developing it in a timely manner. The big question is the availability of rigs, which are already tight in the Gulf.”

Even with its positive outlook, the company maintains an even-keel attitude. “As soon as you get convinced it’s going to be one way, something else happens,” Josey says. “For the vast majority of our careers, this has been a tough business. We all remember what happened in the early ‘80s.”

Which is one reason, for Mariner’s management, balance also means saving time for family.

Josey and his wife, Holly, stay busy with sons Luke, 17, Zac, 15, and Reese, 13, who like sports and the outdoors. Scott collects old maps in his spare time and “messes around” a little with a guitar. And he and the boys enjoy DO’s father-son deer hunt.

Polasek and his wife, Debbie, devote energy to their 14-year old daughter, Paige, who plays volleyball. They often spend weekends at their place near Bellville and enjoy wine trips to California.

And you can bet Polasek packs cards wherever he goes. A top Texas Hold’em player, he placed in the 2005 World Series of Poker. “It was an endurance game,” he says modestly. “We played 14 hours the first day and about 12 hours the second day.”

Loegering, who knows about endurance from a cycling perspective, can’t resist a quip: “He doesn’t get enough gambling in his day job.”

Loegering rides about 50 miles every Saturday with a local club and leads Mariner’s MS 150 team on its annual Houston-to-Austin charity ride—although he claims his wife, Susan, is the better cyclist. They also keep up with their athletic 12-year old son, Matthew, and often see daughter Bethany, 27, and elder son Brian, 25, who live and work nearby.

Mariner Energy’s corporate cornerstones are integrity, balance, efficient growth and opportunity. These values guide the company throughout its operations and activities, from exploration and production to recruitment and retention, as well as working with partner companies such as Diamond Offshore.

FREELANCE WRITER MOLLY GLENTZER IS BASED IN HOUSTON, TEXAS



Declining reserve replacement, accelerating decline of older fields and still solid worldwide demand have made the potentially large reservoirs and unexplored horizons of deepwater drilling a near imperative in the search for new hydrocarbon deposits. However, with water depths exceeding 10,000 ft. and drillbits reaching more than six miles into the earth's crust, deepwater drilling is presenting unprecedented challenges.

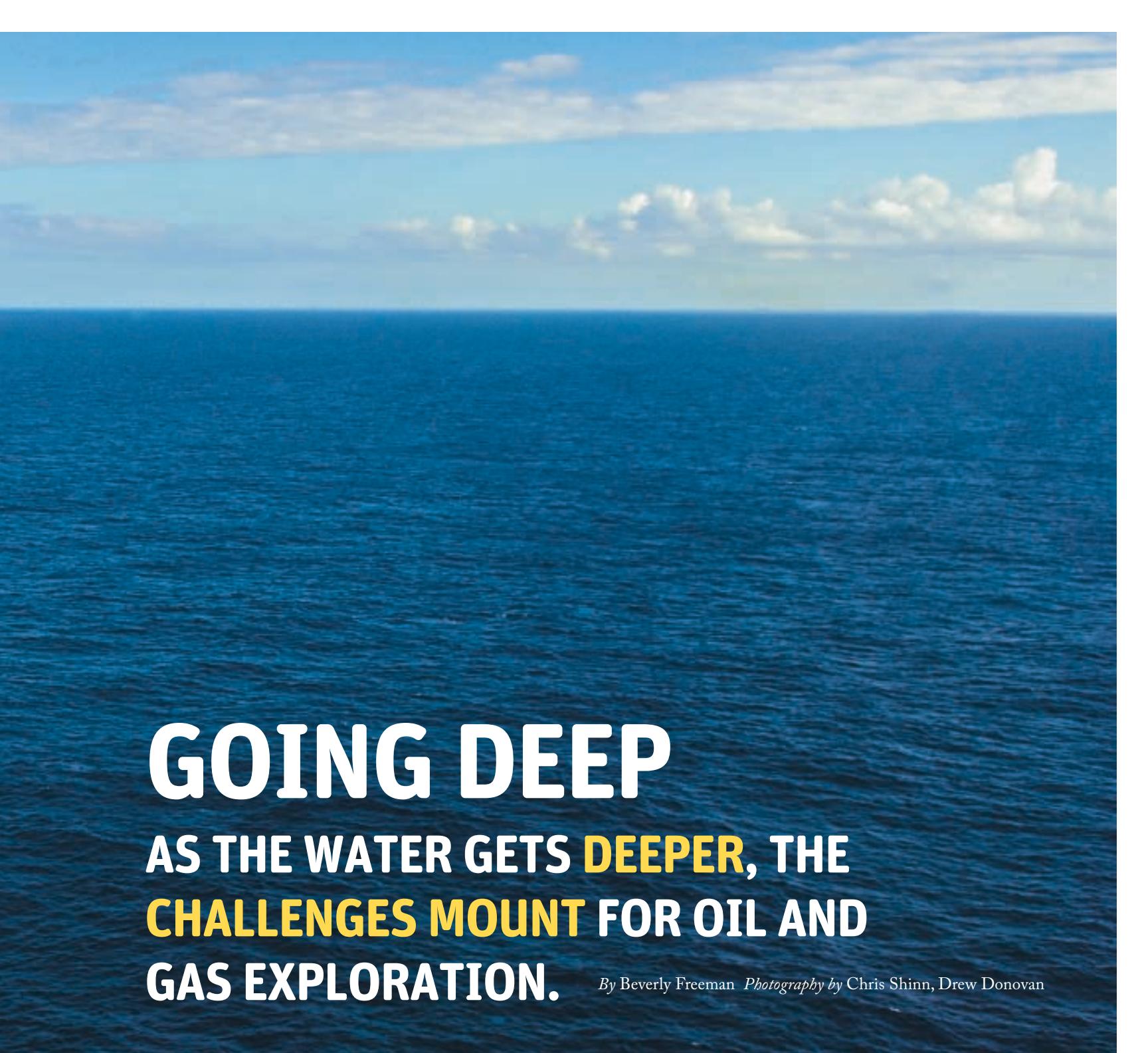
Complex logistics and technologies, fluctuating currents, extreme temperatures and high pressures are just a few of the challenges faced by Diamond Offshore's deepwater crews as the oil and gas industry "goes deep" in search of hydrocarbons.

"We've come a long way in a relatively short time," says Lyndol Dew, Senior Vice President for Worldwide Operations. "Little over a decade ago, ultra deep water was 3,000 ft. Today, the attractive prospects are in deeper waters in the Gulf of Mexico (GOM), West Africa, and Brazil, and we drilling 30,000-ft. wells in up to 10,000 ft. of water."

DEEPWATER FOCUS

Owners of a drilling fleets with 46 rigs, Diamond Offshore currently has 12 rigs capable of working in waters deeper than 4,000 ft. Since 2001, four of the company's Victory-class semisubmersible rigs have been upgraded for drilling in water depths from 7,000 to more than 10,000 ft. They include the *Ocean Endeavor* and soon to be delivered *Ocean Monarch*, both of which are capable of drilling in water depths of up to 10,000 ft.; and the *Ocean Baroness* and *Ocean Rover*, both of which operate in water depths up to 7,000-ft. The *Monarch*, which will rejoin the fleet in early 2009 will begin work for Anadarko in the GOM. In addition, a non-Victory class unit, the dynamically positioned *Ocean Confidence*, is capable of drilling in 10,000 ft. of water.

"Our Victory-class vessels were built in the 1970s for water depths of less than 600 ft.," says Lyndol. "However, thanks to the adaptability and structural soundness of the original hull design, these vessels are extremely cost effective to upgrade for deep sea drilling."



GOING DEEP

AS THE WATER GETS **DEEPER**, THE **CHALLENGES MOUNT** FOR OIL AND GAS EXPLORATION.

By Beverly Freeman Photography by Chris Shinn, Drew Donovan

The multi-million dollar makeovers in a Singapore shipyard include stripping each rig to its hull and re-equipping it with the world's most advanced drilling technology. The cost for each upgrade comes with a \$200-300 million price tag—a very cost effective range when compared to the more than \$800 million cost and long lead times required for a newly constructed rig.

But then, everything about deepwater drilling is expensive. Dayrates for deepwater drilling rigs have surpassed the \$600,000 mark, and that is just part of the price tag. It can cost over \$1 billion to develop a single deepwater field, a number that is likely to grow as exploration moves deeper.

Diamond Offshore has played a key role in the move to ultra-deepwater and its rigs have drilled a number of wells setting apparent world records. The *Endeavor's* 33,000 ft. well for Devon Energy in the Walker Ridge area was one of the Gulf's deepest wells. The *Confidence* set a new water depth record at 10,141 ft. with its well for Murphy Oil in the Lloyd Ridge area.

EXTREME CHALLENGES

To drill in deep water, Diamond Offshore's rigs and the equipment on them must be designed to withstand difficult operational and environmental challenges. Sending a drill bit through two miles of ocean, followed by five miles of dense rock, thick salt and tightly packed sands, is no small engineering feat. Add to that the environmental factors of long distances from shore, extreme temperatures, fluctuating currents and high winds, and you've got a very tough job.

"Our equipment is running closer to maximum operating conditions than ever before," says Phil Tobey, Area Manager. "Knowing what the equipment will do, meticulous planning and constant communication with the customer are critical."

But even the most detailed preparation can't anticipate the unpredictable nature of deepwater drilling. Once the rig arrives on location, the first challenge is to keep the giant drilling rig in place in water nearly two miles deep. The dynamically positioned *Confidence* uses thrusters placed in the lower hull pontoons, coupled to a GPS to

keep it on station without anchors.

For the rigs that aren't dynamically positioned, Diamond Offshore has installed a 12-point mooring system to give greater holding power on location. Depending on weather conditions, the crew can elect to deploy either eight or 12 anchors, which weigh on average about 15 metric tons each (12 anchors are normally deployed on each semisubmersible during hurricane season in the GOM. The additional mooring proved to be very effective in holding the rigs on station during hurricanes Gustav and Ike this past storm season which ended 30 November, 2008).

HITTING A SMALL TARGET

While no two wells are alike, all have the same objective of reaching a small unseen target located miles away. Some compare our task to trying to hit a spot on the ground with a basketball thrown from an airplane flying at 35,000 ft.

Diamond Offshore's state-of-the-art control rooms feature space-age technology that guide the drill bit to the target, however, fluctuating temperatures and intense pressures create additional challenges for the driller. At a depth of 10,000 ft., the water temperature hovers around freezing, but at 30,000 ft. below the seabed, temperatures can soar to 400°F. As the drilling mud and oil move from boiling temperatures inside the earth to near freezing at the seabed, a host of problems can be created, from hydrates that block the pipes to ruptures that can shut down the entire operation.

"The cold affects everything," says Don VanDelinder, drilling superintendent for the *Ocean Endeavor*. "You can get hydrates on the blow out preventer (BOP) stack and the stack freezes up. It also affects the mud; as it cools it gets thicker and harder to pump. The thickness of the cool mud combined with the weight of the cuttings from the well means that you need higher pressures to pump the drilling fluids out of the well and maintain circulation."

Diamond Offshore has equipped each of its deepwater rigs for the use of larger pipe and greater hydraulics. A well drilled to 35,000 ft. will use more than 13,000 barrels of drilling mud and the *Endeavor*, *Monarch* and *Confidence* each have four 2,220 horsepower mud pumps to ensure that heavy cuttings can be returned to the surface. In addition, the *Baroness*, *Rover*, *Endeavor* and *Monarch* employ Tripsaver™ technology, which provides offline capabilities that allow the team to conduct a variety of activities without interrupting drilling operations, including setting aside the BOP to save a trip during subsea tree installations.

"We have become very good at multi-tasking because time is money," says Tobey. "Tripsaver can save the customer 3 ½ to 4 days, which is a huge cost savings."

WEIGHT AND LOGISTICS

With approximately 1,000 joints of drill pipe required for a 35,000 ft. well and a marine riser string weighing approximately 1.7 million pounds, managing weight and logistics is an ongoing concern. "A lot of coordination takes place with the bridge to run the calculations on stability," says Scott Rogers, Rig Superintendent for the *Confidence*. "You are constantly juggling the logistics of people and equipment."

One piece of equipment that is helping to mitigate both the impact of the harsh deepwater environment and the issues of weight is the Deepwater MUX (Multiplex) Control System. Specially designed for harsh conditions, this system triggers controls on the BOP using state-of-the-art electronics rather than hydraulic controls. The electronic system is also much lighter—the hose for a hydraulic system for a well drilling at a water depth of 7,000 ft. would weigh approximately 150,000 lbs. compared to a MUX system weighing in at about 30,000 lbs.

In addition to the unpredictable nature of drilling through the earth's crust, the crew also must deal with constantly fluctuating ocean currents.

"Currents are one of our biggest problems while drilling in deep water," says Chad Williams, Operations Manager for the *Monarch*.

"Loop currents created by the Gulf Stream can shut you down for days. The forces applied by loop currents make it difficult for a rig to maintain its station keeping over the well site. If you continue to drill you risk damaging your riser and subsea blowout preventers, which can be disastrous because the wait time for new riser and subsea equipment can be as long as two years."

To lessen the impact of the current's vortex, Diamond Offshore rigs often attach fairings to the riser that are designed to rotate according to current strength and direction. The fairings align the riser with the current thus minimizing drag and reducing the effects of vortex induced vibrations that can bend the riser and stop drilling.

Deepwater means long distances offshore and that translates to careful planning to ensure that the right equipment is on the rig when it's needed. The *Confidence*, for example, has been drilling in the Lloyd Ridge area 250 miles southeast of New Orleans, La. "This area is quite remote," says Jon Richards, area manager. "A supply boat run takes about 30 hours, the crew boat ride is 11 to 12 hours and a helicopter flight is two hours. There are no facilities within 80-100 miles, so you can't go to a neighboring rig and borrow something."

"You can call it a drilling rig," Tobey says, "but every one of these rigs is a multi-million dollar petrochemical complex with a 125-150 person crew on board."

Protecting the crew and the complex is never more important than during hurricane season. Hurricanes can be extremely unpredictable, yet decisions have to be made well in advance.

"Because of the distances and complexities of these operations, our hurricane management program needs six days from the time the team sets it in motion until the rig is shut down and we are in a position to start to move to a safe location," says Neil Hall, Operations Manager for the dynamically positioned *Confidence*, which can use its thrusters to move out of the path of an approaching storm.

"We do our best to protect the assets and most of all, the crew," says Hall. "Our rigs are designed with severe weather in mind and will survive all but the worst storms; however, the crew is the one asset there is no replacement for, so they are all evacuated to shore during the storms."

SAFETY IS PARAMOUNT

Safety is paramount on the rigs, and crews receive extensive training to prepare them to deal with all types of emergencies, from fires to injuries. In addition, the new deepwater equipment presents unique safety challenges.

"Many of our crews are used to conventional rigs, but deepwater rigs are a whole different animal and many of the problems are difficult to anticipate," says Warren Powell, Operations Manager for the *Endeavor*. "It's new, with bigger equipment. When an upgraded rig leaves the shipyard, our crews are prepared to go right to work. We accomplish this by training them on the rig while it is still being upgraded and during the commissioning phase so they are ready to drill a well with all new technology. Our training is thorough and aggressive, both to bring them up to speed on the equipment, and on HSE issues as well."

With deepwater production contributing 72 percent of the crude oil produced in the Gulf and an estimated 40 billion barrels of undiscovered reserves remaining, the move to deeper water will be a factor far into the future. In 2007, there were 52 discoveries in ultra-deepwater, and for the first time, all of the 20 most prolific producing blocks in the GOM were in deep water.

"Today, we think we're on the cutting edge of technology, but we have hardly scratched the surface," says Dew. "Emerging technologies will allow us to keep drilling deeper, and with deepwater production on tract to double over the next decade, we'll keep chasing that trend."

BEVERLY FREEMAN HAS WORKED IN COMMUNICATIONS FOR THE ENERGY INDUSTRY SINCE THE 1970'S







Walking through

Old Town Spring

25 miles north of Houston, feels a little like stepping into the rarefied environment of a snow globe. Time may fly by only about a mile away on I-45, but this village chockablock with quaint buildings invites you to linger in late 19th or early 20th century charm.

By Scott Redepenning Photography by Jack Thompson



Diamond Offshore employees who grew up here love the shops, restaurants and festivals, but their grandparents might not recognize Old Town Spring; many of the buildings were moved here during the oil boom of the 1980s.

Historical society chairman LuAnne Wunsche Schultz, a great-great granddaughter of town founder Carl Wunsche, often mans the desk at the small Spring Historical Museum, where visitors can glimpse more authentic bits of the past—including the town's first phone booth.

Long before German settlers arrived in the late 1830s, a Native American tribe, the Orcoquisac, inhabited the densely-wooded area, hunting deer, buffalo and even bear. Spanish missionaries visited in the mid-1700s and built the Atascosito Trail, a military and trade route.

Railroad workers laying tracks gave the town its name in 1873; weary from winter cold after working their way southward, they rejoiced at the springlike conditions they found.

By the turn of the century, trains chugged through town, lumber mills flourished and agriculture thrived. A rowdy boomtown atmosphere prevailed until the Great Depression, and Spring idled along quietly for decades, as Houston's sprawl crept northward.

One of Spring's first businesses, the ramshackle Wunsche Bros. Café & Saloon, remains popular—although the once-frequent fist-fights have given way to family fun. Andrew Mayfield, a young Floorhand II on the *Ocean Victory*, eats there often with his dad. "The pot roast and chicken and dumplings are awesome; so is the beer bread," he says.

Deck coordinator John Hernandez (*Ocean America*), his wife, Brenda, and daughters Heidi Marie, 18, and Savannah Rose, 6, enjoy Old Town Spring's ambiance. "We go about three times a week," Hernandez says.

Closer to the freeway, Spring looks like a lot of other suburbs. Mayfield, who grew up in the area in the 1980s, doesn't remember the famous daylily nursery that pre-dated the big waterpark near the main freeway exit. But he's seen plenty of growth. "It's been built up a lot," he says. "That's good for the local economy but it's congested now. I don't go driving around at five o'clock on a Friday."

Hernandez recalls that when he bought his house in Spring about 20 years ago, wildlife roamed near the roads. "You don't see that anymore," he says. But he appreciates the conveniences. "Everything you need is close by," he says.

Ocean Star Floorhand II Richard Blakemore, who grew up nearby in The Woodlands, concurs. "There's a lot to do and a lot going on; you can jump in the car and be in any of four different cities in 20 minutes," he says.

Blakemore loves trying new restaurants with his girlfriend, Jami Mack. He recommends the red snapper at Amerigos—"one of my all time favorites," he says, "and they have a great lounge with jazz on certain nights." He also likes the homey Gugiani's Italian Grill, the sports bar action and crawfish at Wolfie's, the seafood at Crabby Daddy, and the Texas fare at Puffabellys. "And I never miss the crawfish festival in Old Town Spring," he adds.

DP Operator Senior Kevin Keith (*Ocean Confidence*) and his girlfriend, Holly Baker, also like the action at Market Street over in The Woodlands, where they eat at Tommy Bahamas Café. "It's all good," he says of the abundant amenities—including golf courses.







- 01 **Andrew Mayfield**
FLOORHAND II
Ocean Victory
- 02 **Kevin Keith**
DP OPERATING SENIOR
Ocean Confidence
- 03 **Richard Blakemoore**
FLOORHAND II
Ocean Star
- 04 **John Hernandez**
DECK COORDINATOR
Ocean America

Blakemoore and Keith both play at Lake Conroe when they can, although they'd like to play more. (When he's off duty, Keith studies for his chief mate's license, spending two-week stints at places like the Maritime Institute of Technology & Graduates Studies near Baltimore, MD.)

As cosmopolitan as it sounds, Spring's original character still lingers. To Mayfield, Hernandez, Blakemoore and Keith, this sense of home matters most.

Blakemoore worked in Maryland for about four years as a photographer, but he's happy to be back near his parents, who live in the Imperial Oaks subdivision. He plays poker with nine or 10 pals every Wednesday when he's onshore. "I'm a pretty simple guy," he says. "Home is where the heart is. It's what makes me comfortable."

Working for DO, he adds, has been a good experience. "Diamond takes care of younger crew members and has some of the best benefits in the industry," he says.

Hernandez, who was a plumber before joining DO in 2000, says he likes the small town atmosphere—"and the school district's really good." He also spends time on his newly-acquired deer lease in Devers, Texas (near Beaumont). Archery season opened in late September. He learned bow and arrow skills from his grandfather, and he's passing them along to little Savannah Rose, who already loves to hunt. "The big challenge is getting right up on the animal, 55-60 yards away, with a bow. It takes a lot of skill," Hernandez says.

Outside Mayfield's nice house on a quiet, tree-lined street in Spring, his baby sits in the driveway: the intact but rickety 1956 International truck he's restoring nearby. "I like tinkering with things and making them run again. It's a pretty cool feeling to take something like that out on the road," he says. He's hoping to take the International to an off-road spot along Spring Creek soon.

Mayfield worked as a Mercedes mechanic and built racecars before he joined DO in 2007, but he's partial to old off-road vehicles. "I'm kind of an oddball," he says modestly. Nor is he big on fast talk and parties. Although a foosball table occupies a chunk of his neatly decorated living room, he spends much of his off time hanging out with friends and family.

Keith, a graduate of Texas A&M Galveston, traveled with the Corps of Cadets on the school's Texas Clipper II training ship to destinations as far-flung as Norway and Denmark, the Caribbean and the Eastern seaboard. But he grew up nearby in Humble—"that's one of the reasons I'm here, to be close to friends and family," he says.

Keith's large house, in a neat new subdivision, frequently becomes barbeque central. "And we have a crawfish boil every year," he adds. "Last year we boiled 250 pounds, with three kegs of beer."

Who'd want to be anywhere else?



FREELANCE WRITER **MOLLY GLENTZER** IS BASED IN HOUSTON, TEXAS.



Welcome to

Miri, Malaysia

A boomtown, in the state of Sarawak, in the nation of Malaysia, on the island of Borneo.

Where the jungle-tangled hills of northern Borneo tumble their way down and splash into the South China Sea you will find Miri, a place that has spent the last century transforming itself from sleepy fishing hamlet into booming oil town, and now to a glittering modern city.

By Scott Redepenning Photography by Drew Donovan





Where the jungle-tangled hills of northern Borneo tumble their way down and splash into the South China Sea you will find Miri, a place that has spent the last century transforming itself from sleepy fishing hamlet into booming oil town, and now to a glittering modern city.

The metamorphosis began in 1910, when on the town's highest hilltop oil was struck. The Grand Old Lady well came in a gusher, and brought with it irreversible change for the village below. Today, Miri is a high-energy urban center with thousands of oil-industry expats walking the streets alongside the locals. As the world's demand for hydrocarbons grows, so does Miri, with a steady stream of newcomers constantly swelling the city's population of 300,000.

If you're Malaysian, and you work on a Diamond Offshore rig, you likely live in Miri. This city is home to OMAC Services, the company Diamond Offshore partners with to recruit its Malaysian workforce. Miri is in the state of Sarawak on the island of Borneo, hundreds of miles across the ocean from the peninsular part of Malaysia. The island also includes the tiny nation of Brunei as well as a large piece of Indonesia.

Virtually all local Diamond Offshore rig personnel are Iban—the largest of the populace that once hunted and fished across Sarawak. Today many of the Iban people channel their energies into growing black pepper and palm oil. Those who do not work the soil typically go

to work harvesting oil of a different color—black gold, from the dark blue depths of Malaysia's burgeoning offshore fields. Miri's Grand Old Lady was a land well, but the wooden derrick that marks this historical site is now an anomaly—as virtually all Malaysian drilling and production has long ago moved out to sea.

A Home Away from Home

Although most Malaysian rig workers now call Miri their hometown, few originated here. They hail from Iban villages deep in the rainforests across Sarawak such as Suai, Marudi, Sibul, Lawas, Bintulu and Sri Aman. The traditional dwelling in these villages is the longhouse, a Malaysian version of an American apartment building. The structure can shelter anywhere from a few residents to several hundred, and all live in one remarkably elongated building, partitioned into equal-sized dwellings for each family.

Muping Ak Suel, Pumpman on the *Ocean Shield*, shows off his longhouse with conspicuously swelling pride. "It is made from concrete and other modern materials and has 28 families living here," he beams. The longhouses' white paint gleams in the sunlight. A symmetric set of flagpoles stands out front and the landscape looks professional. Late-model cars are parked neatly in a row nearby. As with most longhouses, Ak Suel's home is situated along a river, its banks crowded with vegetation.

• Muping Ak Suel
PUMPMAN
Ocean Shield



- **Chee Leong Chia**
OPERATIONS/ADMIN OFFICER
OMAC
- **Jenkin Fong (right)**
GENERAL MANAGER
OMAC



- **Tony Ak Manggai**
DECK COORDINATOR
Ocean Rover



Meanwhile Back in Miri

The outlying Sarawak villages can be as far as a 14-hour drive from Miri. But distance is not an obstacle. The workers come seeking employment offshore, and Jenkin Fong is the man they come to see. As General Manager of OMAC, he and his right-hand-man Chee Leay Chia provide the workforce Diamond Offshore depends on. OMAC is the premier personnel provider in Miri, and its workers usually have six years or more with the company. "We try to make life as good as possible for our people," says Fong. "And working with a company like Diamond Offshore helps us do that."

Also, it doesn't hurt that Miri has become such a nice place to live. New office buildings, posh hotels and bustling marketplaces are perched along wide boulevards lined with neat rows of wild tropical plants. The rainy season has turned everything to stunning shades of green. The City Fan park welcomes all to its sprawling patch of grassy acreage in the center of town. Make the short drive beyond the city to Esplanade Beach and you're frolicking in the waves. Go a bit farther and you're entering the mythic Niah Caves.

The food in Miri is a definite highlight on the city's lengthy list of assets. Culinary influences from China, India, Burma and Vietnam mix with Malaysian cuisine to create a delectably diverse menu dominated by fresh seafood and vegetables. The languages heard on the street are equally as assorted, even those uttering from one person. People here have a knack for vernaculars. It isn't unusual for any given rig roustabout to have mastered four tongues: Iban, Malay, Chinese and English.

These are people of good education and high ambition, as evidenced by promotions within the Diamond Offshore crew ranks and effusive praise from rig managers. Success here shows. Most rig workers keep a family residence in Miri in addition to their longhouse dwelling. During time off they'll stay in the longhouse for a few days and then come back to Miri, until it's time to catch the helicopter to their rig.

SCOTT REDEPENNING IS AN INTERNATIONALLY EXPERIENCED FREELANCE WRITER, ENTHUSIASTIC SOCCER COACH TO 5-YEAR-OLDS, AND A HIGHLY QUALIFIED BEACH BUM.

Ocean Bounty

[Derrickman's Thoroughness & Diligence](#)

Ocean Bounty Lead Derrickman Jason Read received a monthly Global Recognition award from Chevron Australia for "his thoroughness and diligence in regularly checking rigging, shackles and elevators, perhaps eliminating a very serious injury incident to himself and his coworkers. This safety leadership and operational excellence supports Chevron's IFO objective.

Thanks,

Steve Hassmann
DRILLING MANAGER
Chevron Australia

Editor's Note: While picking up 4½-in. tubing through the V-door with single joint elevators, Read noticed a pin had come loose. On closer inspection he noticed that a weld had broken loose on the pin. This could have lead to a serious incident if a joint had come out of the elevators. He stopped the job and corrected the problem immediately.

Ocean Confidence

[Outstanding Job](#)

The DODI bonus from June 1—August 31, 2008 has been approved by Murphy. Please pass on to the *Ocean Confidence* crews for the outstanding job that they have done for our Eastern GOM campaign.

Thanks,

Chris Lorino
DRILLING ENGINEER
Murphy Exploration and Production

Editors Note: Among other things, the dynamically positioned *Confidence* drilled a well for Murphy in a world-record water depth of 10,141 ft. in the Lloyd Ridge section of the Gulf of Mexico.

Ocean Epoch

[Excellent and Well Run Rig](#)

I am leaving the *Ocean Epoch* today, probably never to return. Just a thumbs up and thank you to all Diamond personnel on board for their help shown to myself, excellent and well run rig with no negative attitudes and everything asked for was accomplished with help from all men. Please pass on my thanks to all of the men and a special thanks to the drillers for their excellent efforts and my apologies to Joe the barge captain for constantly getting him out of bed during adverse weather conditions.

Good rig with nice people.

Regards,

KP
Apache Corporation

Ocean Heritage

[Ahead of the Drilling Curve](#)

I am drafting this letter to express to you my appreciation for the performance of the *Ocean Heritage* on our project in Egypt. Everyone with Diamond has gone out of their way to assist us in getting our recent well, North Ramadan 2, to TD ahead of the drilling curve and within the AFE.

Luke James and Connie Adams have been invaluable to me during this project, helping me in every way possible. Richard Beal and Ricky Barfoot and their crews on the rig have assisted the drilling supervisor in the same professional manner. We have a shallow well to drill and a mud line suspension tie-back to complete, after which time we will be releasing the rig. We have been very pleased with the *Ocean Heritage* and are planning to use them again when our drilling campaign resumes in 2010. Please accept my thanks to you and your staff for a job well done.

Ron Maxey
DRILLING MANAGER
IPR Energy Red Sea, Inc.

Ocean Rover

[Outstanding Performance](#)

Passing on thanks and congratulations for a job well done on WX09 completion. Outstanding performance—an accomplishment to be proud of. This is what it's all about. Safe (no incidents and 100% STOP participation). Efficient (best in class well time). Effective (injectivity targets reached). We can't ask for much more than that!

Regards,

Dale Bradford
SENIOR DRILLING MANAGER
Murphy Oil, Kuala Lumpur

Ocean Spur

[Top Performance](#)

Please pass on a well deserved thanks to all personnel onboard the *Ocean Spur* for their performance in drilling the British Gas, El Burg exploration well. Although there were some equipment issues, it did not detract from the excellent overall performance from the personnel whom always had a "can do" attitude. And in this day of barriers instead of bridges being built by "Drilling Contractors," it was a welcome change for all of us at Rashpetco.

Thanks to all in your shorebase team who always gave good support and were always open and honest where ever possible.

Thank you,

All the best, slainthe mhath

Regards,

George Warrender
DRILLING SUPERINTENDENT
Rashpetco

Ocean Rover

Job Well Done

Please pass on this message of my thanks for a job well done to all crews on the *Ocean Rover*. Today, we are close to finishing up with our second visit to Kikeh East and are preparing to move the rig out of the Kikeh field for the first time in over 18 months. Looking back on performance thus far I can say without doubt that Team *Rover* has much to be proud of.

Recently, Team *Rover* celebrated two years without a Lost Time Incident. The intense challenges of Kikeh deepwater completions operations can't be understated—this is hard work! Heavy crane work with countless boatloads of equipment coming and going, high pressure operations, fluids change-outs, completion brine handling, coiled tubing jobs...the list goes on and on. To maintain excellent safety and environmental performance during this period takes real effort and Team *Rover* has show they are up to the challenge.

In addition to outstanding safety performance, Team *Rover* is proving that they are second to none in deepwater operational efficiency. Through focused effort, the crews have continuously improved performance—for example recent wells have been completed in less than half the time taken at the beginning of the Kikeh project! This was a key contributor to Murphy's successful delivery of Kikeh first oil ahead of target date—this goes straight to the bottom line.

Team *Rover* has proven that by having a clear plan, sticking to the plan, and improving the plan after each job that it is possible to produce best-in-class HSE performance and operational efficiency. The challenge now is to maintain this high standard. Please accept my thanks—and keep up the good work!

Yours sincerely,

Dale Bradford

SENIOR DRILLING MANAGER

Murphy Oil, Kuala Lumpur

Ocean Titan

Perfect GEMs Report Card

It is a pleasure to work on the *Ocean Titan*. Ron (Hudson) takes care of his business in a professional manner. The OIM sets the tone on a rig and the *Titan* hands follow Ron's lead. Excellent rig and hands.

Jim Gentry

Apache

Editor's Note: Our customers rate our overall rig performance on 23 separate GEMs items covering five major categories including operations, personnel and training, HSE, rig and equipment, catering and shore base support using a scoring system from one to five, with five being the highest. The *Titan* scored a rare perfect five on all 23 points.

Ocean Worker

Excellent and Professional Support

I would like to thank you all and your staff on the *Ocean Worker* for the excellent and professional support you have given us to execute our program in Trinidad.

It has been a pleasure for us to work with you, at all levels. I very much hope we can have the opportunity to do business together again in the near future.

Best regards,

Craig McGregor

DRILLING MANAGER

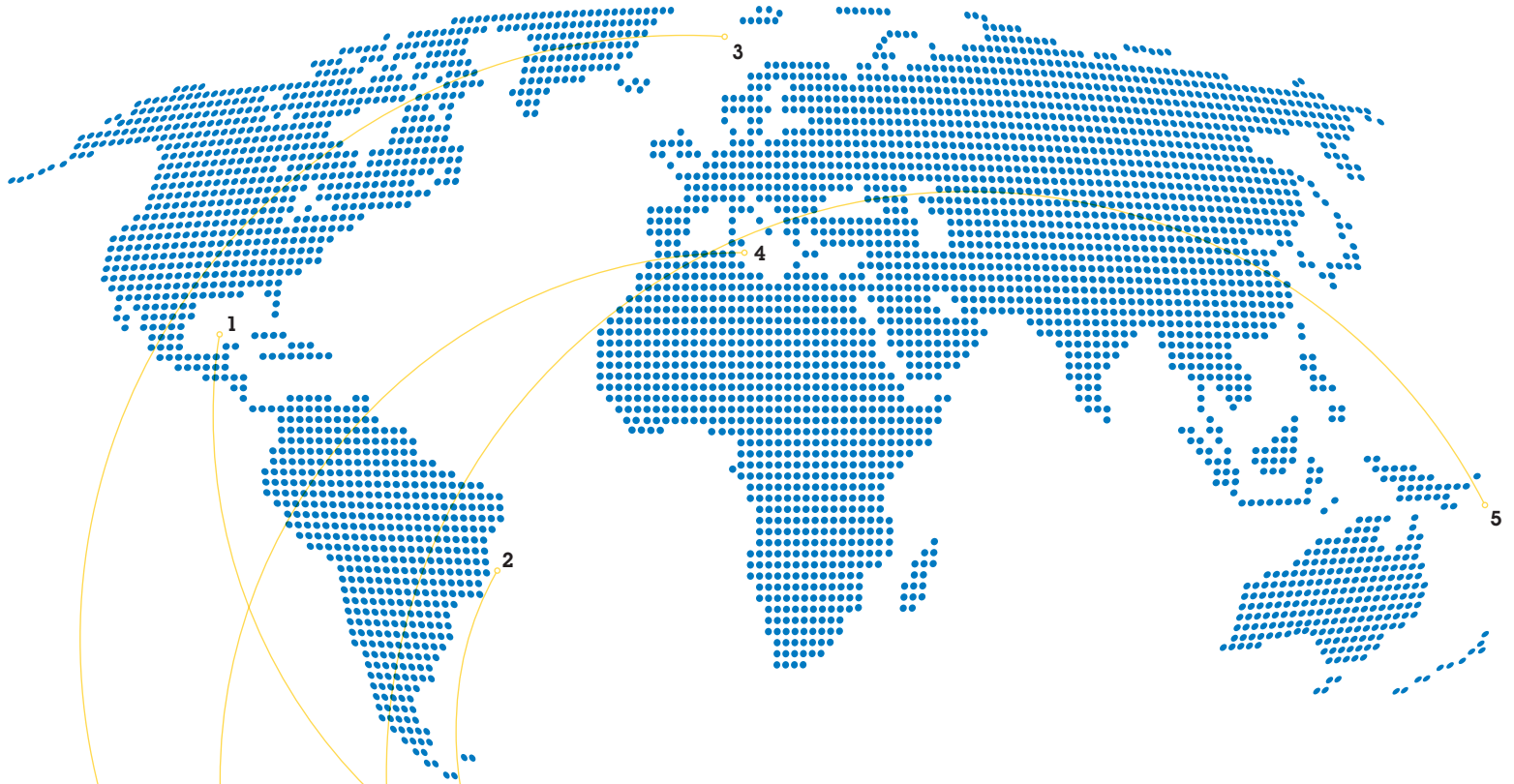
Petro-Canada

Northern Latin America

Editors Note: The *Worker* achieved one year without a Loss Time Accident on 5 July 2008.

RIGS & LOCATIONS

DIAMOND OFFSHORE RIGS BY TYPE AND LOCATION



SEMISUBMERSIBLES

| AUSTRALIA | DEPTH | EQUIPMENT |
|-------------------|--------|-------------|
| OCEAN EPOCH | 1,640 | 3M |
| OCEAN BOUNTY | 1,500 | VC; 3M |
| OCEAN PATRIOT | 1,500 | 15K; 3M |
| BRAZIL | | |
| OCEAN ALLIANCE | 5,000 | DP; 15K; 3M |
| OCEAN WINNER | 4,000 | 3M |
| OCEAN WORKER | 3,500 | 3M |
| OCEAN YATZY | 3,300 | DP |
| OCEAN YORKTOWN | 2,850 | 3M |
| OCEAN CONCORD | 2,200 | 3M |
| OCEAN WHITTINGTON | 1,500 | 3M |
| GOM-US | | |
| OCEAN ENDEAVOR | 10,000 | VC; 15K; 4M |
| OCEAN CONFIDENCE | 7,500 | DP; 15K; 4M |
| OCEAN BARONESS | 7,000+ | VC; 15K; 4M |
| OCEAN AMERICA | 5,500 | SP; 15K; 3M |
| OCEAN STAR | 5,500 | VC; 15K; 3M |
| OCEAN VALIANT | 5,500 | SP; 15K; 3M |
| OCEAN VICTORY | 5,500 | VC; 15K; 3M |
| OCEAN QUEST | 3,500 | VC; 15K; 3M |
| OCEAN SARATOGA | 2,200 | 3M |
| OCEAN AMBASSADOR | 1,100 | 3M |
| LIBYA | | |
| OCEAN LEXINGTON | 2,200 | 3M |
| MALAYSIA | | |
| OCEAN ROVER | 7,000+ | VC; 15K; 4M |
| MEXICO | | |
| OCEAN VOYAGER | 3,200 | VC |
| OCEAN NEW ERA | 1,500 | 3M |
| NORWAY | | |
| OCEAN VANGUARD | 1,500 | 15K; 3M |
| UNITED KINGDOM | | |
| OCEAN NOMAD | 1,200 | 3M |
| OCEAN GUARDIAN | 1,500 | 15K; 3M |
| OCEAN PRINCESS | 1,500 | 15K; 3M |
| VIETNAM | | |
| OCEAN GENERAL | 1,640 | 3M |

JACK-UPS

| ARGENTINA | DEPTH | EQUIPMENT |
|-----------------|-------|------------|
| OCEAN SCEPTER | 350 | IC; 3-4M |
| CROATIA | | |
| OCEAN KING | 300 | IC; 3M |
| EGYPT | | |
| OCEAN SPUR | 300 | IC |
| OCEAN HERITAGE | 300 | IC |
| GOM-US | | |
| OCEAN TITAN | 350 | IC; 15K; 3 |
| OCEAN TOWER | 350 | IC; 3M |
| OCEAN SPARTAN | 300 | IC |
| OCEAN SUMMIT | 300 | IC |
| OCEAN CHAMPION | 250 | MS |
| OCEAN CRUSADER | 200 | MC |
| OCEAN DRAKE | 200 | MC |
| INDONESIA | | |
| OCEAN SOVEREIGN | 300 | IC |
| MALAYSIA | | |
| OCEAN SHIELD | 350 | IC; 3-4M |
| MEXICO | | |
| OCEAN NUGGET | 300 | IC |
| OCEAN COLUMBIA | 250 | IC |

INTERNATIONAL DRILLSHIP

| BRAZIL | DEPTH | EQUIPMENT |
|---------------|--------|-------------|
| OCEAN CLIPPER | 7,500 | DP; 15K; 3M |
| SINGAPORE | | |
| OCEAN MONARCH | 10,000 | VC; 15K; 4M |

COMMISSIONING

Gulf of Mexico

12 Semisubmersibles
9 Jack-Ups

Brazil / Argentina

7 Semisubmersibles
1 Drill Ship
1 Jack-Up

North Sea

4 Semisubmersibles

Mid-East / Mediterranean

1 Semisubmersible
3 Jack-Ups

Asia Pacific

6 Semisubmersibles
2 Jack-Ups

Key

- ▶ DP Dynamically Positioned / Self-Propelled
- ▶ IC Independent-Leg Cantilevered Rig
- ▶ MC Mat-Supported Cantilevered Rig
- ▶ MS Mat-Supported Slot Rig
- ▶ VC Victory-Class
- ▶ SP Self-Propelled
- ▶ 3M Three Mud Pumps
- ▶ 4M Four Mud Pumps
- ▶ 15K 15,000 PSI Well-Control System

A worker on routine fire-watch duty as a helicopter arrives at the *Ocean Shield*.





DIAMOND
OFFSHORE