

# rigamarole

SPRING 2010, NO. 29



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



# rigamarole

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## 02 **Brazil Rebalances the Planet**

Unprecedented oil and gas discoveries have catapulted Brazil into a leading role on the world stage of energy supply. With up to 100 billion barrels of oil awaiting extraction in the pre-salt regions far offshore, Brazil's national oil company plans to invest \$174 billion by 2013 in developing these technologically challenging ultra-deepwater fields. Projections state that by 2020 Brazil will be producing 5.7 million barrels a day—more than half the current daily output of Saudi Arabia.

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Diamond Offshore achieved its safest year ever in 2009, with a total recordable incident rate (TRIP) of 1.09. This is particularly notable in a year that presented extreme demands, including many rigs mobilizing to international locations. For 2010, the Company has set a safety goal of less than 1 TRIR and a minimum of 211 days without a safety incident of any kind fleet-wide.

## 22 **Game On—Taylor Energy's Will Pecue Tackles a Super Project**

Primary objective: Solve the MC 20 challenge, a cleanup job estimated to cost several hundred million dollars. With soils as soft as a Slurpee, conventional abandonment methods won't suffice. The solution requires drilling multiple shallow wells no more than six inches apart, edge-to-edge to the target well, at a depth of almost two miles from the surface. Accuracy is paramount.

## 26 **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 Cabo Frio, Brazil, where being able to go from the rig to the beach makes for good living.

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**rigamarole** is published for and about the people and customers of Diamond Offshore. For more info, write us, call or visit [www.diamondoffshore.com](http://www.diamondoffshore.com).

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**A Letter from Larry Dickerson, President and Chief Executive Officer**



**I, like all of you, continue to be troubled by the size and the duration of the events surrounding the sinking of the Deepwater Horizon in the Gulf of Mexico. What is most distressing is the loss of human life, and we mourn the passing of 11 fellow workers killed in the line of duty.**

At this writing, the well has not been fully capped, and Diamond Offshore is doing all that it can to aid efforts to control the flow of hydrocarbons into the sea. As recovery efforts began, we provided equipment for use in the intervention by ROVs at the submerged BOP. Additional equipment has been provided from our available fleet spares as requested. I would like to thank the crew of the *Ocean Endeavor*, which at eight miles away was the closest rig to the Horizon, for their assistance in the hours after the evacuation.

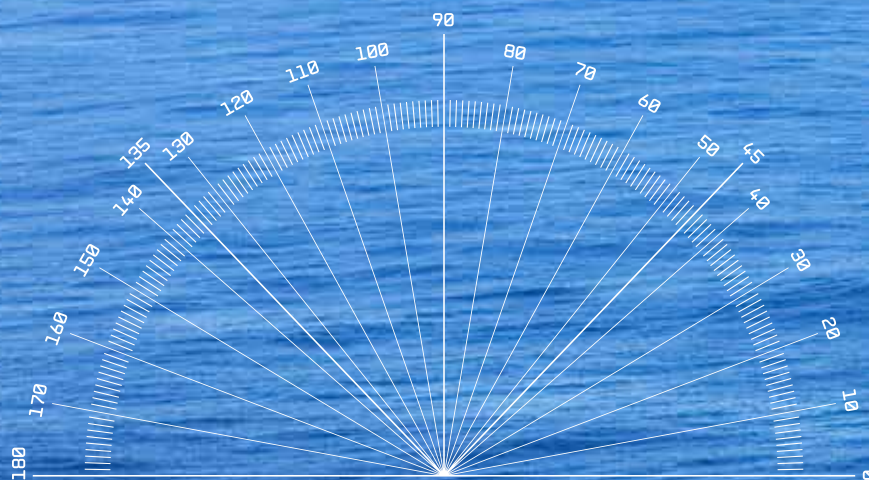
Additionally, we have already completed a review of our current procedures related to the type of end-of-well operations that were under way when the Horizon caught fire. We believe that, when properly followed our procedures allow our trained personnel to safely conduct these types of operations. Increased emphasis has been placed on end-of-well planning and on operational standards we consider critical.

To help reinforce our procedures, we are conducting a series of well control seminars in Lafayette, Aberdeen and Macaé. These seminars will pull together virtually all of our OIMs, tool pushers, drillers and assistant drillers to talk about well control and emergency response. We will also be reinforcing with this key group of personnel the fact that they have decision-making authority, which we expect them to exercise in situations that might call into question the safety of the crew, the equipment or the environment.

Certain Diamond Offshore personnel are also participating in a cross-industry effort that has been charged with reviewing equipment and well procedures, sharing industry best practices and recommending any improvements that can help prevent future tragedies of this nature.

One thing that does not need changing is our absolute commitment to the safety of personnel and the protection of the environment. Two articles in this issue address that commitment. The first article addresses a number of key programs that we put in place long before the Horizon incident, all with an ultimate goal of zero incident operations across our entire fleet. The second article describes our ongoing internal efforts in the wake of this event and the new proactive well control measures we have implemented.

Additional regulations and governmental reviews will almost certainly be a part of the many changes that will follow this incident. Diamond Offshore will support these efforts to demonstrate that the industry can return to our long-term record of safe operation. At Diamond Offshore that record stretches back many years. Since 2000 we have drilled 673 floater wells in the U.S. Gulf of Mexico, all conducted without uncontrolled oil flows or loss of life. We expect this record to continue to build and welcome other companies to match us.



# BRAZIL REBALANCES THE PLANET

UNPRECEDENTED OIL AND GAS DISCOVERIES CATAPULT BRAZIL INTO A LEADING ROLE ON THE WORLD STAGE OF ENERGY SUPPLY.

IN 2014 THE FIFA WORLD CUP WILL BE PLAYED IN CITIES THROUGHOUT BRAZIL WITH THE FINAL MATCH IN RIO DE JANEIRO. TWO YEARS LATER THE CITY WILL HOST THE 2016 SUMMER OLYMPICS. THE ENTIRE WORLD WILL FOCUS ON BRAZIL DURING THESE MOMENTOUS EVENTS, YET THOSE DATES PALE IN COMPARISON TO OCTOBER 2006. THIS IS WHEN A PETROBRAS-CONTRACTED DRILLSHIP, DIAMOND OFFSHORE'S OCEAN CLIPPER, BURROWED ITS BIT THROUGH A MILE-THICK LAYER OF SALT INTO ONE OF THE LARGEST OIL AND GAS DISCOVERIES IN THE HISTORY OF THE WORLD. SUDDENLY, FOR BRAZIL, THAT WORLD WAS CHANGED FOREVER.

*By Scott Redepenning, Photographs by Jacob Langvad*



► Ocean Concord



Sail about 180 miles off the coast of Rio de Janeiro, then dive down thousands of feet to the seafloor. Now drill through another 16,000 feet of rock and salt strata, and you will reach the pre-salt discoveries—a dizzyingly large volume of high-quality oil and gas. Between 8 and 12 billion barrels lie beneath just two of the pre-salt fields, Tupi and Iara in the Santos basin, which were the first to be explored. There’s much more. The Brazilian Association of Petroleum Geologists estimates that up to 100 billion barrels patiently await extraction in the pre-salt regions, which lie far offshore between the states of Santa Catarina and Espírito Santo.

Petrobras, Brazil’s national oil company, plans to invest \$174 billion by 2013 in developing these technologically challenging ultra-deepwater fields. Projections state that by 2020 Brazil will be producing 5.7 million barrels a day, which will profoundly tip the balance of supply in the world, considering this is more than half the current daily output of Saudi Arabia. All of these heady predictions and figures mean enormous changes for Brazil and Petrobras, which has vaulted itself into third position by market cap among the world’s largest oil companies. This also means enormous opportunities for the companies that help to locate, drill for and produce these extraordinary volumes.

### **An Energy Anomaly**

Brazil gets 45% of its energy from renewable resources, according to the Brazilian Ministry of Mines and Energy, while renewables account for only about 12% of the energy mix for the rest of the world. Looking solely at electricity generation, Brazil produces 78% from renewables, nearly all of it coming from hydroelectric sources. Now look at the millions of cars and trucks that course the busy city streets and long highways throughout the country—nearly 18% of the fuel that powers them comes from ethanol.

Despite these figures, oil and gas certainly plays a major role. Brazil relies on hydrocarbons for nearly 48% of its energy, nearly all of it provided by Petrobras. Yet this percentage is uniquely low compared to the rest of the developed world. Now look far into the future and the picture barely changes. By 2030 it is projected that the world will rely on fossil fuels for 90% of its energy, much as it does today.



▶ **Petrobras Headquarters**  
Rio de Janeiro



▶ **Ocean Clipper**

**“We expect to expand our activities and develop markets, all in a sustainable mode. We have to. It’s the only way to be prepared for the challenges of future energy demands.”**

— **Erardo Gomes Barbosa Filho**, Executive Manager E&P, Petrobras

Brazil in 2030 will be a much different story, getting 54% of its power from fossil fuels with the balance coming from renewables—very close to the balance it holds now. This in spite of an exploding population of increasingly prosperous citizens who are demanding modern energy sources like never before.

The pieces of this puzzle fit beautifully for Brazil. Unlike other major powers in the world, the country is energy independent and not nearly as reliant on petroleum. Thus, it's highly ironic that Brazil has drilled its way into some of the biggest oil and gas finds the world has ever seen. No doubt other countries are eyeing these reserves covetously, and Brazil is preparing to append a new title to its name: Major Energy Exporter.

"This is a good position for our country," says José Formigli, executive manager, E&P pre-salt, for Petrobras. "Uncovers such large and promising petroleum and natural gas reserves will enable Brazil, already self-sufficient in energy, to become a net petroleum exporter in the near future." In fact, this is already happening. Last year Petrobras signed an export agreement with Sinopec Corp., which will send 200,000 barrels of oil a day to China for the next 10 years.

"We are also fortunate that this is very high-quality oil," Formigli adds. "Samplings show it to be very light, with a density of 28° API, and with low acidity and sulfur content." This kind of quality is getting increasingly rare, which should place Brazil's pre-salt crude in high demand.

### Deeper Than Oil

Formigli paints even more detail into Brazil's energy picture, stating that even with petroleum to spare, hydrocarbons likely won't be the country's only energy export. "On the other hand, the great production potential of renewable energies may place Brazil as the major supplier of first- or second-generation biofuels," he says. "By virtue of abundant resources in fertile land and water, and an amenable climate, we have some competitive advantages in this area. Therefore Brazil has great potential for the supply of internal markets as well as exports, be it of traditional fossil fuels or of sustainable energies such as ethanol.

"Ultimately, our goal at Petrobras is to add value to our products by creating advantageous logistics, joint ventures and international contracts for exporting petroleum and its by-products and biofuels," Formigli continues. "We are making strong investments in infrastructure, capacity and increasingly complex refining to enable high-volume exports of oil, by-products and ethanol."

In spite of the fact that "Petro" is prominent in the company name, Formigli points out that Petrobras is truly more of an energy conglomerate than an oil company. In addition to being Brazil's dominant petroleum player, the company has the eighth-largest installed capacity in electric power generation, 22% of ethanol distribution and 100% of the biodiesel market. "Clearly, the more intensely Petrobras pursues its strategy to consolidate its position as an energy company, with a strong participation in the biofuel business, the more crucial and influential its actions will be in the energy market," he says. "Although it is important to note that Petrobras alone cannot single-handedly direct the development of the energy market in Brazil."

**"Our goal...is to be the preferred drilling contractor for Petrobras and OGX. We work hard every day to fulfill that goal. Right now Petrobras is Diamond Offshore's biggest customer and OGX is growing. We have to perform."**

— **Mickey Welch**, General Manager South American Operations, **Diamond Offshore**

Uniquely, Petrobras is a NOC that is also publicly traded and must operate with its shareholders in mind. Furthermore, the company, while controlling most pre-salt deepwater blocks, is not the sole operator in the region.

### Calling All Rigs

When the *Ocean Clipper* was drilling that first well in the ultra-deepwater Santos basin, there was hardly another vessel in sight in any direction. Now the brilliant blue landscape is dotted with rigs, and more are on the way every month. Santos encompasses 62,500 square miles (160,000 square kilometers) of ocean that averages nearly two miles (3,000 meters) in depth. There are billions of barrels of crude down there and not a single dry hole has been drilled as of yet. This is a thrilling prospect, and Brazil's producers can't get their hands on rigs fast enough to take advantage of it.

Erardo Gomes Barbosa Filho, executive manager, E&P services, for Petrobras, almost seems surprised as he looks over his company's rig utilization sheet. "We currently have 36 offshore drilling rigs contracted to operate for Petrobras," he says. "Plus our projections show that another 26 rigs will be contracted by the end of 2012." Some of these will be existing rigs and some will be new-builds, yet nearly all of them will be capable of drilling wells in water deeper than 6,500 feet (2,000 meters).

Petrobras operates a significant number of its own rigs, but also regularly works with third-party contractors such as Diamond Offshore, which currently has 15 rigs stationed in Brazil—11 working for Petrobras and four working for Brazil's largest private producer, OGX. This is the largest contingent of rigs from one company in Brazil and represents about a third of the entire Diamond Offshore fleet. Filho says that partnering with third-party companies is a trend that is likely to continue.

"No ideal relationship exists between company-owned and contracted rigs," he says. "I believe rig companies will size their fleets appropriately to allow for the development of new business opportunities and the retention of acquired experience. From our perspective it appears that long-term demands will create foreseeable and stable opportunities, which should lead to lower lease rates and greater interest in the contracting of third-party rigs. The reality is that it is all market driven."





▶ Mickey Welch



▶ Ocean Yatzy



Filho's insights fit quite nicely into the mindset of Mickey Welch, Diamond Offshore's general manager in charge of operations in South America. With so many of Diamond Offshore's assets under his care, and more possibly to come, Welch is a man on a mission. "Our goal down here is to be the preferred drilling contractor for Petrobras and OGX," he says. "We work hard every day to fulfill that goal. Right now Petrobras is Diamond Offshore's biggest customer and OGX is growing. We have to perform."

Welch has been with Diamond Offshore for 37 years, the last seven of those with Diamond Offshore's operating company in Brazil. He was here before the pre-salt discoveries, and he admits that in nearly four decades he's never witnessed anything like what's happening now. "What we're seeing from Petrobras is a huge ramp-up. They're looking for

all the rigs they can find, and they're planning to build more on their own. We're doing everything we can to help them meet their goals." Serving Petrobras with unwavering alacrity isn't anything new, says Welch. "We've had a great relationship with them for a very long time. Petrobras has always been excellent to work with, and the pre-salt discoveries haven't changed the way they work at all. They're simply much busier now. We're all much busier now. Every day is a new challenge."

No telling what the future holds, but for right now Welch's team is getting the job done, according to Filho. "Diamond Offshore has been a long-term supplier of drilling rigs to Petrobras," he says. "We greatly rely on the company for its large and diversified fleet. Plus, Diamond Offshore has always come through with solutions for accomplishing numerous Petrobras projects."

An aerial view of a large offshore oil rig in the middle of the ocean. The rig is a complex structure with a tall derrick in the center, surrounded by various platforms, cranes, and support structures. The rig is supported by several large cylindrical legs. The ocean is a deep blue color.

▶ Ocean Worker

**Petrobras, Brazil's national oil company, plans to invest \$174 billion by 2013 in developing these technologically challenging ultra-deepwater fields. Projections state that by 2020 Brazil will be producing 5.7 million barrels a day, which will profoundly tip the balance of supply in the world, considering this is more than half the current daily output of Saudi Arabia.**

### **Beyond Brazilian Borders**

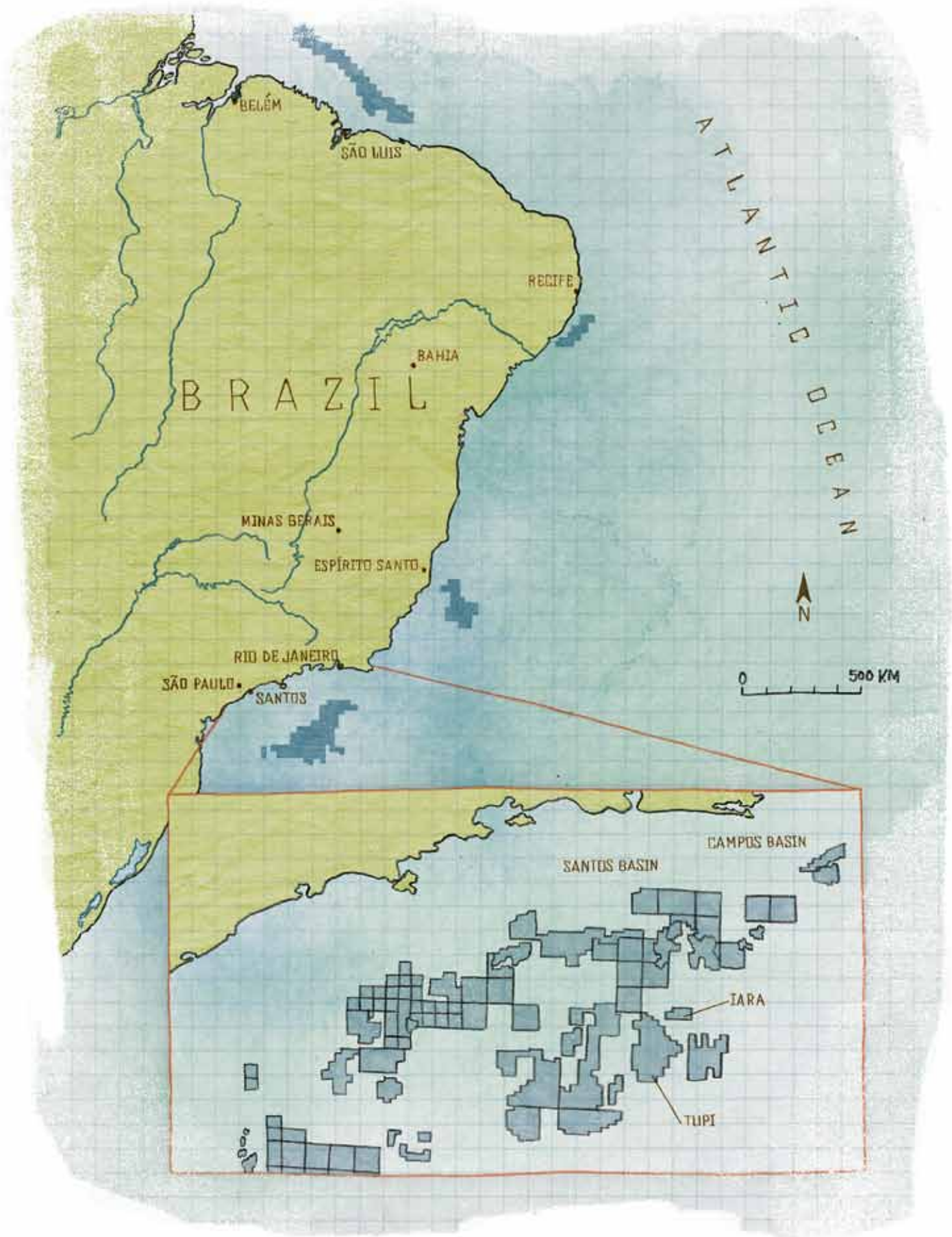
With the pre-salt fields just starting to come online, it would appear that Petrobras has enough on its tectonic plate right now. Not so. The company is an emerging global energy power, now operating far beyond its own borders. In fact, 12% of the company's contracted rigs operate in international waters.

"Our participation in the world energy sector is growing all the time," says Filho. "By means of our business units, subsidiaries and commercial and financial representatives, we are present in 27 countries throughout the world, involved in E&P activities as well as refining and distribution."

These countries include Nigeria, Angola, Libya, Senegal, Namibia, Tanzania, the United States, Mexico, Cuba, Argentina, Bolivia, Chile, Colombia, Ecuador, Paraguay, Peru, Uruguay, Venezuela, Iran, India, Portugal, Turkey, Japan, China, Singapore, the UK, and of course Brazil.

Having such a broad reach presents big challenges, says Filho. "Beyond drilling, we have many factors that drive how Petrobras searches for and provides energy. We work with several exploration scenarios that take into account various aspects such as the economic moment, the prices of energy, technologies in place, governmental policies and so on. Related to these subjects, there exists a host of technological challenges, especially in the upstream and in the second-generation biofuel sector."

Overcoming challenges like these costs money, as reflected in the company's annually revised five-year business plan, in which short- and medium-term investment goals are defined. Currently the plan calls for investments of \$174 billion by 2013.





**“We constantly challenge ourselves to improve quality, lessen pollution rates and achieve outstanding HSE performance. Our mission is to operate safely and profitably in Brazil and abroad, with utmost attention given to meeting our social and environmental responsibilities.”**

— **Erardo Gomes Barbosa Filho**, Executive Manager E&P, **Petrobras**

### **A Careful Plan**

Astonishing investment figures and the rush for rigs would seem to indicate that Brazil is going all out to exploit its new fields, yet the country is still just scratching the pre-salt surface. Petrobras has mapped out a careful plan for the Campos basin, the area northeast of Santos that’s next up to be developed.

José Formigli explains. “Initially there will be a series of assessment wells, seismic acquisition and Long Duration Tests (LDTs). This is known as ‘Stage 0’ and will probably last until 2015. We will be focused mainly on collecting information to improve our understanding of the pre-salt characteristics.

“Next comes ‘Stage 1a,’ which is the first definitive development phase. We will begin with two advanced pilot wells followed by eight standard FPSOs. Our goal is to reach a total Petrobras production of 1 million barrels per day by 2017. This aggressive pursuit of production should provide us with the cash flow to move into ‘Stage 1b.’ At this point we expect a significant increase in production and an acceleration in technological innovation, specially adapted to pre-salt conditions.”

Here’s what this acceleration looks like in numbers. In 2009 Petrobras produced about 2.7 million barrels per day.

The company plans to produce about 3.7 million barrels per day in 2013 and 5.7 million barrels per day in 2020.

All of this projected growth means moving into deeper and deeper waters, which raises towering expectations for technology development. To managers like Formigli, who will be in charge of cost-effectively exploiting these basins, the future R&D landscape looks equally daunting and exciting. “Moving into deeper waters puts new pressures on the subsea equipment, from both the longer depths that have to be spanned and the hydrostatic pressure,” Formigli says. “Thus we are making great efforts to develop lighter and stronger materials, as well as new riser and mooring configurations. For example, we are working on risers that are supported by subsurface buoys to isolate the riser from the movement of the platform. We’re also working to move subsea equipment installation from rigs to boats to save time and keep the rigs working on tasks only they can do. Plus we are developing subsea processing and boosting systems that can handle the extreme pressures of ultra-deep-water operations.”



**“Ultimately, our goal at Petrobras is to add value to our products by creating advantageous logistics, joint ventures and international contracts for exporting petroleum and its by-products and biofuels. We are making strong investments in infrastructure, capacity and increasingly complex refining to enable high-volume exports of oil, by-products and ethanol.”**

— **José Formigli**, Executive Manager E&P Pre-Salt, **Petrobras**

### **Emphasis on Sustainability**

One can't help but be swept up in all this giddy talk of colossal reservoirs, rising rig counts and world exports. Erardo Filho offers up an appropriate dose of sobering perspective. “Yes, we must meet market requirements, but always with an emphasis on sustainability standards,” he says. “We constantly challenge ourselves to improve quality, lessen pollution rates and achieve outstanding HSE performance. Our mission is to operate safely and profitably in Brazil and abroad, with utmost attention given to meeting our social and environmental responsibilities.”

This isn't just corporate “green speak.” Since 2006 Petrobras has been listed in the Dow Jones Sustainability Index, which assesses the performance of companies in addressing their economic, social and environmental concerns. Petrobras was especially distinguished for its “Environmental Policy and Management System,” “Transparency,” “Renewable Energies,” “Community Social Impact” and “Biodiversity,” among others. Petrobras is the only oil and gas company in Latin America to be named in this index.

“We are also aligned with international anxieties regarding climate change,” says Filho. “We have voluntarily set commitments to lessen the growth of our emissions, and we know that between 2006 and 2008, we prevented the release of 5 million tons of CO2 equivalent.”

Filho says that given the present situation, his company must strive to be good at everything —operations, management, human resources, technology, environment—in order to achieve Brazil's goals. “We expect to expand our activities and develop markets, all in a sustainable mode. We have to. It's the only way to be prepared for the challenges of future energy demands.”

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SCOTT REDEPENNING IS AN INTERNATIONALLY EXPERIENCED FREELANCE WRITER, COMMUNICATIONS CONSULTANT AND UNIVERSITY LECTURER. PAGE 5, OCEAN CLIPPER—PHOTO BY CHRIS SHINN; PAGE 10, BRAZIL—ILLUSTRATION BY MARCO CIBOLA; PAGE 11, OCEAN COURAGE—PHOTO BY LEE MAWDSLEY.



› Ocean Yatzy



## Building in a Brazilian Boomtown

Diamond Offshore moves to new facilities in Macaé and into a new era of expansion in Brazil.

By Scott Redepenning, *Photographs by Jacob Langvad*

**At last, Brasdril has come home. After decades of renting office and warehouse space, Diamond Offshore's Brazil operation has moved to its own facilities in the hills overlooking Macaé, the nation's bustling capital of the offshore industry.**

"More of our rigs are moving to Brazil because of the huge pre-salt discoveries. The influx of additional Diamond Offshore rigs forced Brasdril to search for more office space," says Mickey Welch, general manager of South American operations. "Senior management elected to purchase property and build an office instead of renting. When the project started, we had eight rigs here, but we planned the facility to support 12. Soon we'll have 15 rigs here, so we've already made a proposal to add an annex for more office space."

"The huge growth in Diamond's Brazil activity prompted Diamond to relocate a Senior Officer to Brazil," says Mark Baudoin, senior vice president of South America and director geral of Brasdril. "Having been involved with Brazil and its many administrative challenges for 25 years, I was thrilled to be selected for this position. We have a great team of dedicated people in Brazil that have always demonstrated a can-do attitude. Before the move to the new facility, our shore-based personnel were working in







extremely cramped conditions—with some even working out of containers in the parking lot area. To their credit, I never heard one complaint. I am proud to be associated with this group and look forward to meeting the upcoming challenges with success that exceeds management’s expectations.” Baudoin relocated to Brazil in January 2010.

Every employee at Brasdril knows what’s at stake with 15 rigs in one location. No other Diamond Offshore region outside the Gulf of Mexico handles anywhere near this many rigs. In fact, no other drilling company has this many rigs in Brazil. It’s a responsibility that they rise to with serious pride.

You can see it on the face of James Austin, shorebase storekeeper, as he shows off the expansive complex, covering a quarter-million square feet of space (76,000 square meters) on two plots of land. “We ship out more than 1.5 million pounds (700 metric tons) of freight to the rigs every

month. That is an amazing amount of activity,” he says. “And even more amazing is the fact that this warehouse operation has gone 16 years without an LTA (Lost Time Accident). Sixteen! I think this is because we plan every move down to the finest detail. We leave nothing to chance. We can’t because of the huge growth down here. You have to be way ahead of things to meet the supply demands of this many rigs. There is a lot riding on how good a job we do.”

Austin is on a team that’s tasked with receiving and sending out everything needed on every rig, from anchors to aspirin, drilling pipe to drinking cups. That takes a lot of yard and warehouse space, and the new facility doesn’t disappoint. The warehouse is a towering modern structure—a sprawling cavern of heavy-lift cranes and equipment-laden shelves. The striking contemporary architecture is uncommon to Macaé. “I think they designed it this way to make an impression on anyone who comes into this complex,” explains Austin.

### Staffing Surge

Supplying 15 rigs with their required monthly tonnage of equipment and supplies is an enormous undertaking. But the bigger task is to supply the most valuable cargo—the people who make the rigs work. As a result of such a quick fleet expansion offshore, Brasdril is expected to grow to about 150 shore-based personnel and nearly 2,000 offshore workers. This presents huge challenges in hiring and training; challenges that Adriana Torres, Brasdril’s human resources manager, and her staff recognize and efficiently address on a daily basis. Welch says Brasdril has been very fortunate that they’ve been able to do all this crewing up with minimum problems.

Welch, Baudoin and others at Brasdril recognize the importance of putting native Brazilians in key positions, and the management makes no effort to hide their passion for job nationalization at Brasdril. According to Welch, “We want Brazilians in these positions because we are guests here in Brazil, and they deserve the opportunity to have a good career path. Promoting Brazilians is just the right thing to do.”

One obvious success story spawned from such policies is Fabio Maia Tavares, shorebase nurse technician, who administers all health and medical programs for the entire rig fleet in Brazil. He’s been with Brasdril for three years and says his life changed significantly the moment he arrived. “The opportunities and working conditions here are incomparably better than any place else I’ve ever worked, or any place I’ve even heard of in Brazil,” he says. “The benefits for workers and their families are outstanding. The teamwork is incredible. Plus we get a lot of opportunity to grow within the company.” Tavares goes to night school, working toward his production engineering degree with the intent of going into management at Brasdril in occupational health and safety. “Diamond helps you to pursue your interests, even if it’s outside your current training,” he says. “They even reimburse my education expenses.”

Now Tavares, Austin and the other hundred and a half of Welch’s shore-based crew will work their hectic days in decidedly nicer quarters. “The old office and warehouse was not ours,” says Austin. “Now we own it. We’re all pretty excited about having something new that is ours, that we can take care of on our own.”

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BY SCOTT REDEPENNING, PHOTOGRAPHED BY JACOB LANGVAD

By Denise Allen Zwicker, *Photographs by Lee Mawdsley and Jacob Langvad, Illustrations by Marco Cibola*





# A Story Safe to Tell

**DIAMOND OFFSHORE DRILLING ACHIEVED ITS SAFEST YEAR EVER IN 2009 WITH A TOTAL RECORDABLE INCIDENT RATE OF 1.09. THIS IS NOTABLE IN A YEAR THAT PRESENTED EXTREME DEMANDS, INCLUDING MANY RIGS MOBILIZING TO INTERNATIONAL LOCATIONS.**

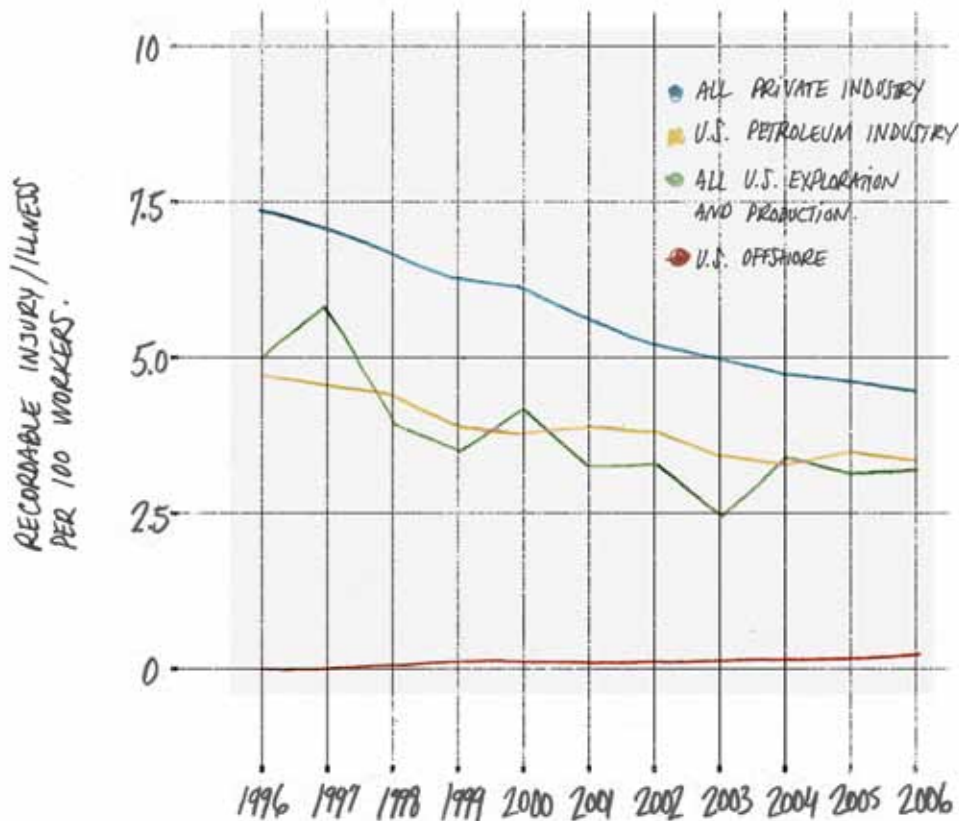
The record came in the wake of two major safety initiatives launched in 2009. One was safety training by Check Six, a contractor (Rigamarole, Fall 2009). The other was Zero Incident Operations (ZIO), a Diamond Offshore process. Toward the end of 2009, the Company began a third program, Hands-Off Operations, aimed at stopping the hand injuries that account for about half of Diamond's safety incidents.

"Safety will always be a journey, and sometimes you don't feel you're making progress," says Lyndol Dew, senior vice president, worldwide operations. "But in 2009, we enjoyed a big improvement over 2008. We think we're on the right path."



By the end of 2009, Diamond Offshore management had also rolled out the new Hands-Off Operations program, which gives crew members new tools to use in place of their hands. The intent is to end the 200 or so hand injuries sustained by Diamond Offshore workers each year.

**OPERATING SAFELY**  
Outer Continental Shelf Performance



Source: Bureau of Labor Statistics  
Minerals Management Services

**Check Six**

"We're not finished because people are still getting hurt on occasion," adds Dew. "But the crews are engaged by the Check Six training, and we're seeing a change in attitudes. They understand that we're serious about safety and have put resources in place to protect them."

"Check Six is very impressive," agrees Jeff Sutherland, rig superintendent on the *Ocean Monarch*. "It's the way they deliver their message—so full of fire. The operators bought into it instantly."

The Check Six training, conducted primarily by former fighter pilots, grew out of a positive experience on board the *Ocean Epoch* in Australia.

"In late 2008, we were concerned about the safety performance on the rig," notes Dew. "The operator told us about some techniques they'd used with success. For one thing, they assessed crew members to see who needed coaching in safety. They even removed those who wouldn't get on board with their safety programs."

"They set up safety training by a group of fighter pilots called Afterburner. They also gave the crews the time they needed to do job safety analyses (JSAs), briefings and after-action reviews (AARs)," Dew continues. "Most people didn't want to do the AARs, but the operator insisted on it for continuous improvement. They fed the AAR data back into their JSAs. And, each time, they got better and safer. Soon, they noticed that an offshoot of the safety was greater efficiency."

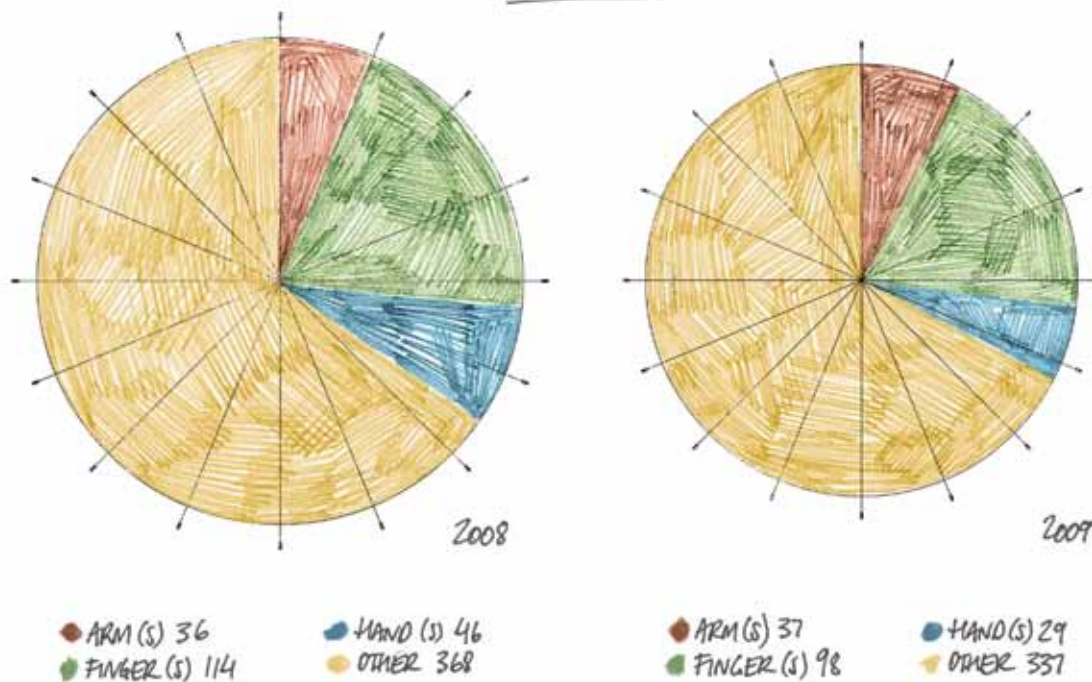
Diamond Offshore followed the operator's lead on the *Ocean Epoch* and quickly saw great results: TRIR on the rig dropped from 5.38 in 2008 to 0.82 in 2009 (23 injuries in 2008 vs. six in 2009). "The results made us want to go further, and that led us to Check Six," says Bob Blank, vice president, operations, Eastern Hemisphere. Check Six trainers call on their aviation backgrounds to demonstrate a similar "mission critical" need for safety on drilling rigs.

**ZIO and DODI**

By mid-year 2009, Diamond Offshore had committed to Check Six training for all 47 of its rigs. As the effort rolled out worldwide, Scott Vaughn, director of health, safety, environmental and claims, was busy monitoring the Company's new Zero Incident Operations. ZIO focuses on excellent operations to avoid personnel injury, equipment damage and environmental harm. In addition, a behavior-based safety process called Diligent Observations, Decisive Intervention (DODI) replaced the former STOP program. DODI targets behavior on the rig, correcting harmful actions and encouraging desired ones through one-on-one interventions with supervisor oversight.

By the end of 2009, Diamond Offshore management had also rolled out the new Hands-Off Operations program, which gives crew members new tools to use in place of their hands. The intent is to end the 200 or so hand injuries sustained by Diamond Offshore workers each year.

REPORTED NUMBERS OF INJURY  
TO SPECIFIC PARTS OF THE BODY  
*2008 vs. 2009.*



"Hands-Off is a real culture change," says Louis Scavone, operations manager. "The hard part is forming the mindset that you can do the work without putting your hands in harm's way. But once the guys get into the groove, they come up with their own ideas—like using a fast line when laying out drill pipe.

"But hands-free often means double handling, which takes time that our rig hands don't think they have. It's a new way of thinking," Scavone adds. "That's where our customers come in. Many of our customers are fully on board with these ideas, but not all operators are yet. And some of the tools we need are costly—like air tuggers that allow horizontal access to pull stands of pipe." It's an education for everyone.

"We're proud to be in the forefront of this hands-off thinking," notes Scavone. "We even helped introduce it to other contractors."

The same is true with the DODI process. DODI uses a tactic common to many behavioral-based safety programs—providing special cards on which crew members take note of a possibly unsafe act, intervene and obtain the commitment that the unsafe act will not be repeated. DODI moves one step further with the process, bringing the crew supervisor into focus by requiring that the supervisor review the documentation.

"The DODI process differs from the old STOP cards because you have to speak to the person who's performing the unsafe action. Then you have to give the card to the person's supervisor, who has to add his own comment and get the word out to the entire crew. So it requires more accountability from everyone," says Chad Williams, operations manager for the *Ocean Monarch*. "When we launch it on each rig, initially the number of cards drops radically compared to the STOP cards. The drop in input alarms operators. But in the long run, the quality of the DODI interventions is greater because they focus on people—on behavior."

Scavone adds, "Naturally, operators worry about stopping a job because of the time and money they might lose. But in the end they also support safety. And we feel so strongly about safety that we'll even go on downtime to do what we know is right."

"That goes a long way with our crews," notes Williams. "They feel good knowing that we care enough about their safety to go on a safety stand-down (shut down the whole rig), if needed, to solve a safety problem."

### Cultural Sea Change

Crew members' response to Diamond Offshore's pledge of ever-safer operations sometimes depends on their age. "When I started in this business 33 years ago, safety glasses were not required, and 50% of our injuries were to the eyes," says Blank. "It took a while to get people to wear them. They resisted. But once safety glasses became the norm, eye injuries dropped to almost zero.

"Now, hand and finger injuries account for about 50% of our incidents," Blank adds. "So if we can be as successful with Hands-Off as with safety glasses, we'll have another step-change in safety. And, most important, fewer people hurt."

Blank is not the only executive who's noticed a better safety attitude among younger crew members. "During my three decades in the industry, I've seen a major change in safety," notes Ronnie James, vice president of international operations, Western Hemisphere. "In the early years, there was a lot of talk, which is the first step in changing attitudes. Then comes belief. Then, finally, living safely. I believe that we have created a culture that at least believes in safety. It's a cultural change, and it takes a long time. The younger crew members, who grew up with these systems, are quicker to adopt them."

"We've seen a shift," agrees Blank. "In the past, when a rig hand got hurt, we'd say, 'He did something wrong.' Now our supervisors are starting to say, 'We let a person get hurt. We let conditions exist—whether his behavior, working conditions or equipment failure—that allowed a worker to get hurt.'

"Now, one of the first questions we ask the supervisor is, 'How did you let that happen and what can we do to fix it?' We're keeping a closer eye on things with DODI and AARs. Measuring and counting keeps the focus on safety," Blank adds.

"Another part of the culture change is how we define a good rig hand," he notes. "It used to be the guy who would charge in first, who was always moving. And sometimes it was the same hard-charging guy who was also getting hurt. Now we define a good rig hand as one who can plan and work efficiently, which is the same as safely."

### Customer Support Vital

"The operators are giving us the time to use our safety tools," says Shawn Bowen, drilling superintendent on the *Ocean Monarch*. "That makes a big difference."

Dew agrees: "When our customers and Diamond Offshore work toward the same goal, our crews don't get mixed messages. When they hear us saying the same thing at the same time, they believe that we mean what we say, and they commit to it, too."

Diamond Offshore works closely with its operator customers to promote a safe workplace offshore. "We try to hold ourselves to a higher standard," says James. "But it isn't always easy. One reason is that five or six years ago, two-thirds of our rigs worked in the Gulf of Mexico. Today three-quarters of the fleet works internationally. So now 60 to 70% of the people we employ on our rigs are non-English speaking.

"We encourage English, and certain jobs require that you speak English," James adds. "In some parts of the world, advancing to a higher position requires more English—and we'll pay our people to learn it. A good command of English is important because some things always get lost in translation."

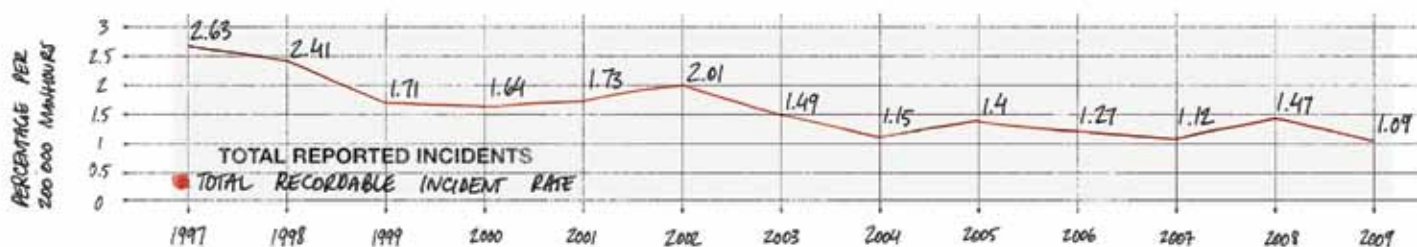
Still, the Company invests in translation, too. "We put a lot of stock in our GEMS safety management system," notes James. "In 2009, we transformed GEMS into a 'living document' that is being used more effectively fleet-wide. We also had it translated into Spanish and Portuguese for use in Mexico, Brazil and Angola."

Another change is the addition of a JSA management system, which, by the way, has dual language capabilities. "This is a new joint program of Diamond Offshore and our safety consultant, Check Six," says Vaughn. "We're moving from paper JSAs to a data base that will make the system easier to use. We're calling it JSAMS ("Jay-sams"), and it will be installed on the majority of our rigs by year-end."

"JSAMS makes it so much simpler to find JSAs and edit them in response to our AARs," says Dew. "It's no longer a paper exercise, but a thinking exercise. And since we installed computers on the rig floors and main decks in 2008, our crew members have access to the system at any time. We've learned that the simpler we make it for our crews to use our safety tools, such as JSAMS, the more likely they are to use them."

With these new programs in place, and the safety culture improving quickly, Diamond Offshore is in a good position to meet ever-higher safety goals. For the first time in its history, the Company has set a 2010 safety goal of less than 1 TRIR and a minimum of 211 ZIO days (days without a safety incident of any kind fleet-wide), compared to 193 days achieved in 2009. As this story went to press, the year was off to a very good start.

## HOW TO COMPUTE A FIRM'S INCIDENT RATE



According to the Bureau of Labor Statistics, incident rates can be used to show the relative level of injuries and illnesses among different industries, firms or operations within a single firm. Because a common base and a specific period of time are involved, these rates can help determine both problem areas and progress in preventing work-related injuries and illnesses.

An incident rate of injuries and illnesses may be computed from the following formula: (number of injuries and illnesses X 200,000)/employee hours worked = incident rate. (The 200,000 hours in the formula represents the equivalent of 10 employees working 40 hours per week,

50 weeks per year, and provides the standard base for the incident rates.)

The same formula can be used to compute the incident rate for the most serious injury and illness cases, defined here as cases that result in workers taking time off from their jobs or being transferred to another job or doing lighter (restricted) duties. Depending on a particular company's methodology, this can lead to slight differences in reportable incident rates.

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







# GAME ON

Taylor Energy's **Will Pecue** Tackles a Super Project

The morning after the Saints paraded through New Orleans to celebrate winning the Super Bowl, you might have expected Taylor Energy President Will Pecue to be basking in the NFL glow. There'd never been a bigger Mardi Gras party—the parade drew about 800,000 delirious fans, many of whom seemed to be finally shaking a post-Hurricane Katrina funk.

With the Louisiana Superdome just outside his office windows, Pecue exuded energy all right. But it stemmed from action on his side of Poydras Street, where heroics in the field have focused on recovery from a different natural disaster. Pecue leads a drilling project like no other—nicknamed Spearfish—that sits about 10 miles offshore from the mouth of the Mississippi River.

*By Molly Glentzer, Photographs by Daymon Gardner*

**“We need to drill wells 30, 40, up to 200 feet and no more than six inches apart, edge-to-edge to our target well, at a depth of almost two miles from the surface. Accuracy is paramount. We call it adding a decimal point. Everything...has to be precise.”**

In September 2004, waves from Hurricane Ivan triggered a massive underwater mudslide there at Mississippi Canyon Block 20, toppling Taylor Energy’s entire jacket structure, which landed about 700 feet from its original position. In the process, while there was no pollution, the platform’s 28 wells were mangled and buried under a new sediment layer more than 100 feet thick in 479 feet of water.

“Imagine 100 feet of sediment coming down and hitting the base of a very large platform. It was literally a hot knife going through butter,” said Pecue, gesturing to illustrate.

The magnitude of the problem still hadn’t been determined in November 2004 when Taylor Energy founder Patrick F. Taylor died. One of the last great independent oilmen, he’d been a prominent player in the GOM since 1979. His highly capable widow, Phyllis M. Taylor, became chairman and CEO of the privately held company, but by early 2008 she had decided to divest. She hired Pecue as senior vice president of operations that April, shortly after announcing the sale of Taylor’s other GOM assets to Korea’s Ankor Energy. In early 2009, Pecue assumed his current role as president of Taylor Energy.

Pecue’s primary objective: to solve the MC 20 challenge, a cleanup job estimated to cost several hundred million dollars. By then everyone knew conventional abandonment methods wouldn’t suffice. “The soils were as soft as a Slurpee. As fast as you could pull them out, you’d get backflow,” Pecue said.

Organizational challenges loomed on a slightly smaller scale. “We had no staff, no equipment, no rig contract, but we were starting a well in six months. That was our commitment to the government’s Minerals Management Service,” Pecue said. Phyllis Taylor, an amiable, constant presence, just wanted the job done right at the lowest reasonable cost—and as quickly as possible.

No stranger to technical challenges, Pecue holds three patents for subsea well operations from his early days at Texaco. He’s served as a technical advisor for the Society of Petroleum Engineers, the American Petroleum Institute, the American Association of Drilling Engineers (where he’s currently on the local board) and other industry organizations. Spearfish, however, presented a most compelling conundrum: the technology Taylor needed didn’t yet exist.

A Boots & Coots conceptual study recommended twinning (drilling) new wells within inches of the existing wells, something that had been done just a few times before. Pecue explained, “We’re trying to start near the surface and find the target well we’re abandoning, track it as we drill, literally come on top of it with another well, and then perforate into the target well and establish communication.

“If you say it fast, it doesn’t sound very difficult, but when you think of all the different things that need to happen, it’s unprecedented in terms of complexity and technical challenge. We need to drill wells 30, 40, up to 200 feet and no more than six inches apart, edge-to-edge to our target well, at a depth of almost two miles from the surface. Accuracy is paramount. We call it adding a decimal point. Everything we’re doing has to be precise.”

Pecue assembled a small, focused team of people he knew and trusted, including a project manager, two drilling engineers, rig site supervisors and a procurement coordinator, all contractors. Diamond Offshore got the drilling call. Happy to find the *Ocean Saratoga* available, Pecue signed the rig through summer 2011.

“I’ve worked with Diamond ever since I started my career,” he said. “Those guys have a reputation second to none. They’re one of the few companies I’ve seen who are in total harmony—the marketing guys know what they have to do to deliver the deal, and the operations guys know what they have to do to deliver outstanding performance. That’s a rare feat for any company to deliver year in, year out.”

Suppliers also delivered, helping Taylor identify, develop, test and deploy step-change technologies in spite of the company’s small size. “It’s been a rewarding process to shoot ideas around and see people take them, develop them and bring them to the marketplace,” he said.

The entire staff, including the *Ocean Saratoga* crew, participates in an incentive program that empowers them to contribute and drives efficiencies. (And Phyllis Taylor has personally handed out the checks.) “As I’ve told the guys on the rig, this is not a project where we only want your strong back. We want your full mental engagement as well,” Pecue said. The result: Roughneck-level employees have recommended time-saving changes.

Part of the magic, Pecue thinks, comes from utilizing a conventional second-gen rig. “We don’t need a new-build rig rated for 40,000 feet or 15,000 psi. We simply need a moored semi to drill a well, make an intervention without incident, and do it repetitively and with an open mind for change. To that extent, the *Saratoga* crew’s performance has been phenomenal.”

The positive culture Phyllis Taylor has encouraged also accounts for successes. “We had a legacy of excellence from Taylor Energy, but in regards to the working arrangements for Spearfish, we said we’re just going to have fun,” Pecue explained. “I haven’t been many places where you see people smiling all the time in the hallways. At the same time, they’re probably doing the most challenging work of their careers.”

Ironically, their objective involves working themselves out of business. When the MC 20 abandonment is complete, any remaining funds will be transferred to the Patrick F. Taylor Foundation for its philanthropic activities. Although best known for its work in education through the Taylor Opportunity Programs for Students (TOPS or Taylor Plan), the foundation also supports law enforcement, the military and other humanitarian efforts.

“I’ve been asked a hundred times, what will you do when this is finished?” Pecue said, grinning. “Well, I guess I’ll look for a job like everybody else.” Already busy making presentations about MC 20, he’s optimistic that Taylor’s new technology can be applied elsewhere. But when the Taylor job is done, Pecue probably wouldn’t mind just chilling for a while at home in Baton Rouge with his wife, Beth, and sons,



**“Diamond Offshore is one of the few companies I’ve seen who are in total harmony—the marketing guys know what they have to do to deliver the deal, and the operations guys know what they have to do to deliver outstanding performance. That’s a rare feat for any company to deliver year in, year out.”**

— **Will Pecue, President, Taylor Energy**

Billy, 20, and Andrew, 18. “I like hunting, fishing in the marsh and anything to do with LSU sports,” he said.

While he has access to a company loft in New Orleans’ trendy warehouse district, he often commutes—as he did for about 20 years with Texaco. He likes to drive into New Orleans early (when the drive takes about 75 minutes), work out each morning, get to the office by 7:30 and work through lunch. “I try to avoid New Orleans lunches as much as I can,” he said. “If I didn’t, my waistline would swell.”

He and Beth can get their fill of great Louisiana cuisine in Baton Rouge anyway. “You’d be surprised,” he said. “There are probably as many outstanding restaurants there as in New Orleans, just not as well known.” (If you’re passing through, he recommends Louisiana Lagniappe and Gino’s.) And he has no shortage of other reasons to live there: “All of my family’s in Baton Rouge, along with most of my wife’s family, and the parochial schools that I, and now my sons, have attended.”

And let’s not forget those Tigers. Pecue earned his B.S. in petroleum engineering at LSU in 1983 but never really left; he often attends advisory committee meetings at the College of Engineering and the Department of Petroleum Engineering. His sons have gold and purple blood, too. Billy attends LSU now, and Andrew will be a freshman next year.

“I’ll admit I’m a fair-weather Saints fan. I usually make one or two games on Monday nights, when it’s right across the street,” Pecue said. “But if the Tigers are playing,

I will build my Saturday night around the TV set.”

Once every six or eight weeks—not often enough, he said—he gets away to the Pecue family camp in Dulac, south of Houma, in Louisiana.

Work usually keeps him jazzed in a good way, though. And 26 years in the industry hasn’t dampened his enthusiasm. “The energy sector is so misunderstood by the general public. They see it conveyed in movies and on TV, where it’s all about sensationalism and characters described as men of steel. We’ve moved way beyond that. We’re professionals who care about the environment and there’s more technology being developed, applied and pursued in our industry than in most other industries out there.”

And with Spearfish, the work feels personal. “Previously, I’ve always worked for publicly traded companies—you can’t identify a face with the ownership. It’s different with Mrs. Taylor. She’s here in the office every day. She interacts with the staff,” Pecue said. “The first time we sat down, I saw her sincerity. It motivates everyone in this company. We want to do whatever we can to help her achieve her objectives. Everyone has really embraced this and moved it forward with outstanding success. It’s been a great run.”

Parade, anyone?

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





# *Hometowns* **OF DIAMOND OFFSHORE**

**Cabo Frio, Brazil** GOING FROM THE RIG  
TO THE BEACH MAKES FOR GOOD LIVING

Cabo Frio is a two-hour dash up the highway from Rio de Janeiro, but most locals would say their beloved little town is on another planet. They should know. Most Cabo Frio residents grew up in one or another of Brazil's famously crowded metropolises such as Rio de Janeiro and São Paulo. They came here to escape the bustle and stress of big city life. Judging by the locals lounging along the shoreline, they also apparently came here to go to the beach.

*By Scott Redepenning, Photographs by Jacob Langvad*



Pushed up tight against the Atlantic Ocean by impossibly perfect gumdrop peaks, Cabo Frio sits like a bright gem necklace washed up onto shore. From a distance the city appears as a scattering of newish homes, hotels, shops and restaurants poured into a shallow valley that plays out onto a broad sugar-white sand beach. But get down to street level for a closer inspection and the city reveals that it has a bit of

a double personality. Prosperity abounds due to the influx of residents who've landed well-paying jobs in the oil and gas industry. New construction is everywhere, and manicured subdivisions have sprung up with electric gates and brilliant bougainvillea spilling over high garden walls. Still, there's ample evidence that the town hasn't completely painted over its sun-bleached beach town vibe.



**Above, from left: Alessandro Ferreira Da Silva, wife, Rita Rozeira, and son, Ricardo; Fabio Maia Tavares, wife, Daniele, and sons, Geovanne and Matheus.**

No matter where you live in Cabo Frio, you're trying to get to the beach, usually with a surfboard tucked under one arm and a cooler of beer under the other. At least, that's the ideal day according to Ary Eduardo Do Carmo Filho, a driller on the *Ocean Yatzy* who moved to Cabo Frio from Macaé five years ago. "Beach and beer," beams Filho. "That's what I like to do with my time off. Plus, of course, spending time with my wife and son, preferably at the beach," he quickly adds.

Filho's family life is something of a Diamond Offshore love story. He met his wife, Cristina, on board the *Ocean Yatzy*, where she had come to work a short stint as the rig's nutritionist, filling in for someone who was on vacation. Cristina says that the moment they met, she had found her "prize in life." But enjoying that prize wasn't easy at first. Their time-off schedules barely overlapped, forcing phone calls and emails to play a major role in their courtship. It wasn't long before they'd had enough, and Filho brought his new bride home to start a family. The plan proved to be successful, as evidenced by three-year-old Breno, who darts about the house, vociferously imploring his parents to take him to the beach. Obviously, the Cabo Frio way of life becomes ingrained at an early age.

Now enter the home of Daniel Rotmeister Reis, radio operator on the *Ocean Concord*, and the laid-back theme continues. All the doors and windows are open to the coastal breezes, a lilting samba tune plays on the stereo, and distractingly appetizing aromas float in from the patio grill out back. Fresh off his last hitch, Reis has shed his rig-required coveralls and steel toes for surf shorts and flip-flops. Although he was born in a big city, Reis has fully embraced the Cabo Frio "coastal casual" dress model. Which is to say, if your shorts aren't sporting a florid tropical print, and if your shirt has

sleeves, you're way overdressed. When you live here, you have to be ready at all times—any moment an impromptu trip to the beach might break out.

"I mean, have you seen the beach?" asks Reis. "Have you seen the clearness of the water? It's perfect for diving and surfing and boogie boarding. These are all things I've learned to do since coming here. I love it." Reis adds that his active lifestyle has been a newly earned gift, as he shows a picture of himself that depicts a very different person. "Just about a year ago, I was 132 pounds heavier. The quality of my life now is much better. I'm playing soccer, biking, running, and I feel like I can do anything I dream of."

One of those dreams is to have his voice recognized outside of the *Ocean Concord's* radio room. In his spare time Reis hooks up his trailer full of keyboards and sound equipment and makes his rounds to restaurants, bars and special events, performing gigs. He holds up his first CD, pointing out that he sings everything from Brazilian pop music to U2 or the Rolling Stones. "My dream is to be a world-famous singer," Reis says with a wink. "I even tried out for the Brazilian version of 'American Idol'. But if all that doesn't work out, I'd be really happy to continue my career with Diamond Offshore. Working there has really given me a better life."

Meet Fabio Maia Tavares, shorebase nurse technician in the Brasdril main office. He and his wife, Daniele, are raising two small children, and they've picked a nice plot of land on which to do it. Tavares leads a tour of his spacious home, pointing out the spot in the backyard where a new pool will soon be installed, then inviting all to take in the view from his second-story terrace overlooking the nature reserve that borders his property.



**Above, from left:** Ary Eduardo Do Carmo Filho, wife, Cristina Martins, and son, Breno; Daniel Rotmeister Reis; **Opposite:** Clayton Da Silva Pignati (left), sister Evelin, and friend Joao Ribeiro.

"It's really safe and quiet here," he says. "The kids can run around, and all they will see is other kids and maybe some monkeys, snakes and giant iguanas from the nature reserve. But I'm pretty sure they're all harmless!" Tavares says he moved the family to Cabo Frio from Macaé to enjoy a lower cost of living, proudly pointing out that he was able to buy his house on his own. It also allows them to pursue their hobbies, which of course have to do with going to the beach, swimming and surfing. Tavares also admits to a thriving fanaticism for soccer, which he indulges by following professional teams as well as playing in a league with friends and colleagues. "Are we competitive? Sure we are," he quips. "But, you know, some of us guys kind of have bellies, so let's just say we don't win every game."

Tavares's other passion is racing motorcycles—ironic for a man whose career in nursing is devoted to forestalling danger and reducing accidents. "I used to race a lot, but I can't really do that anymore," he says. "I started riding minibikes at age 12 and moved up to racing bikes, but all that came to a stop when my son was born." Tavares holds up a match-box-sized model of a sleek Suzuki racer. "This was my bike. But I sold it in 2001," he says with a note of sadness in his voice.

### Upward Mobility

Although life is decidedly carefree in Cabo Frio, the Brasdril employees who live here are extremely serious about their careers. They're quick to offer effusive testimony about how much they like their jobs, but even quicker to share their ambitions for growth within the company. Tavares is expanding on his nurse's training by going to night school to get a degree in production engineering, which he hopes

will propel him into a management position at Brasdril. Daniel Reis is getting training in order to make the move from radio operator into the subsea department. These examples are common.

Alessandro Ferreira Da Silva, roustabout on the *Ocean Whittington*, is an earnest young man supporting a wife and child. A year ago he was a salesman in a store, but went offshore to build a better future for his family. "I want to keep moving up as far as I can," he says. "On my next hitch, I will become a roughneck, and I would like to grow into the operational area and hopefully become a driller in the future."

Clayton Da Silva Pignati, electrician on the *Ocean Star*, is working on his electrical engineering degree, also following an ambition to move into management. It was only five months ago that he left a good job at Siemens to come to Brasdril, and he's conspicuously impressed. "This company is giving me new training, helping me with school, helping me learn English," he says. "I'm working with people from all over the world, learning about other cultures and becoming a more well-rounded person and professional. Brasdril gives me a good salary and is really investing in me."

Because of that commitment, Pignati is making a few smart investments of his own. He's 29 years old and he's already bought two pieces of property—one where he plans to build a rental house, and one on which he is currently building his own house. It's the Cabo Frio dream, to create a peaceful place to live where money goes a little farther than in the cities and the beach is always just a few minutes away. "I came here from Rio when I was 16, and I love it," says Pignati. "On my time off, I just go to the ocean with friends and surf. What could be better?"





Alessandro Da Silva agrees. "My favorite thing about living here is going to the beach with my wife and son. I really like surfing. I've been doing it for 10 years, and I'm still not that good at it. But when you're out there in that water, it just doesn't matter."

Indeed.

**Ocean Endeavor—Safety Culture Best Ever Seen, The Ideal Drilling Contractor for Today’s Industry**

The safety culture is the best I have ever seen. It is very evident that the *Ocean Endeavor* crews are brought into the program for the right reasons. DODI strives to train all personnel and is looking into the future (getting people ready when the “baby boomers” retire). Housekeeping and painting—all excellent! Great maintenance program and very strong desire to get things recovered and running during downtime events. DODI management team is as engaged and a part of the team as the personnel on the rig. They should be commended. The whole rig team and office team is what I would call “the ideal drilling contractor” for today’s industry.

**Samuel Lujan, ExxonMobil**

Editor’s Note: The *Endeavor* actually received “6” out of a possible “5” points for its safety culture on an overall rig evaluation report completed by ExxonMobil.

**Ocean Sovereign—Safe, Cost-Effective and Productive Well Drilling Delivery**

Kodeco Drilling has reached a milestone of three years of drilling operations, drilling and completing 37 wells during that time period. With this program, Kodeco Drilling has set a new high-level benchmark in Indonesia for safe, cost-effective and productive well drilling delivery...

Our team delivery has been excellent..., and Diamond has played an important role in this delivery, and I appreciate your efforts on our behalf! It has been a pleasure working with you and I look forward to working with you, and Diamond Drilling again in the future. Thanks for all your hard work!

As you know, today is my last day working in Indonesia. It has been a true pleasure to work for Kodeco for the last 4 ½ years. Thank you for the opportunity to deliver this project!

**John Zerbi, Drilling Manager, Kodeco Energy Company, Ltd.**

**Ocean Rover —Very Good and Safe Performance**

On behalf of Shell, we would like to congratulate the entire crew of the *Ocean Rover* on the very good and

safe performance achieved during the re-entry and execution operations of the Labu-1 deepwater exploration well in Sarawak, Malaysia.

We recognize that there have been many challenges and hazardous operations out there which needed to be managed, including a rapid mobilization, a sustained period of heavy lifts, narrow margin / complex well control operations, ... At all times, we have been impressed with the constructive efforts to maximize offline capability as well as the contributions to tackling these operations safely and efficiently.

In addition, the quality and almost daily 100% participation in the STOP campaign and other interventions to look after each other is truly commendable...

Shell wishes to congratulate and thank all crew members on a job well done and looks forward to the continuing success of a high performing rig. You can be truly proud of the *Ocean Rover*.

**Diogenes Angelidis, Deepwater Well, Delivery Team Leader, Shell MY E&P**

**Ocean Spartan —No Recordable Incidents, No Reportable Environmental Incident, Outstanding Performance**

Dear Sirs,

On behalf of the Nippon Oil Exploration Well Construction Team in the Houston Office, we would like to thank all Diamond Offshore personnel who have safely and successfully completed our 2009 drilling and completion programs (approximately 224 days) with no recordable incidents and no reportable environmental incident. This excellent achievement would not have been possible without the outstanding performance, commitment, leadership and safety consciousness of each of the rig crew on the *Ocean Spartan* and teamwork efforts involved in the well construction operations...

**Yasuhiro Kuno, General Manager, Well Construction and Procurement, Exploration, Development and Production, Nippon Oil Exploration U.S.A. Limited**

**Ocean Patriot—Well-Run Rig**

Thank you, *Ocean Patriot*, for making my work here such a pleasure. It’s rare that I get to supervise a rig that’s so well run and cared for. All the best. Please continue to manage your safe work practices to a high standard.

Thanks,

**Dennis Bell, Woodside**

**Ocean America—Five Years’ Service—Excellent Safety, Environmental and Regulatory Compliance**

I would like to express my thanks and gratitude to the men and women on the *Ocean America* for their service during the five plus years that the rig was contracted to Mariner Energy. The rig personnel have done an outstanding job, which has resulted in an excellent safety, environmental and regulatory compliance record. Additionally, the drilling performance on our wells during the last three years has been in the upper quartile. The onsite rig leadership and crews deserve credit for the outstanding performance of the rig...

Please pass on Mariner’s thanks and appreciation to all those associated with the rig during its time under contract to Mariner, and I wish them well in their future endeavors.

**Thom B. Roller, Deepwater Drilling Manager, Mariner Energy, Inc.**

**Ocean Bounty—Cooperation, Responsiveness and Attention to Detail Exceptional**

I would just like to pass on to you all a special thanks. It has been a fantastic past four weeks. Inspirational effort by all, to say the least.

Your cooperation, responsiveness and level of attention to detail have been exceptional. Participation toward managing the SBM mud system has been exceptional and has been of great benefit in assisting operations to run smoothly.

Making all the right decisions and responding in the appropriate manner regarding hole characteristics throughout the different hole sections was of critical importance in regards to successfully casing each hole section. End result operations moved forward throughout in a very positive manner with an excellent outcome.

Without your support, none of the above could have been achieved so successfully. The time and level of effort to provide such good support is much appreciated.

Additionally, excellent support on the safety front. I'm really impressed with your rig culture: the team *Bounty* spirit and safety culture that has been developed. It works well and obviously your influence has had a considerable impact. Much appreciated and thanks.

**Chris Lambert**, Woodside Wellsite Manager, *Ocean Bounty*

### **Ocean Monarch –Taking Pride in Performance; Safety Award**

In the past, I have heard many say we need to put the pride back in the drilling industry. Notice to all: The pride never left our industry...

Recently, the worldwide drilling and completions deepwater group had the pleasure of contracting the *Ocean Monarch* to drill a well in the Gulf of Mexico deepwater. It was not long after arriving on the rig for the first time that I saw the pride taken by a group in their profession and their rig. The experience level was very diverse, ranging from not long after the dinosaurs to less than a year in the patch. The one thing that was constant was the attitudes and expectations of the crew. You could see it at every turn on the rig and in the actions of the crews. They take pride in how their rig looks and pride in how they are viewed by others.

I turned a corner into the motor room of a working drilling rig that looked as if it was fresh off the dock of the shipyard. Every tool was in its place and not a grease spot was to be found. I understand that there will be grease spots and tools will be used in the day-to-day operations. But here it is also understood that if you use it, put it back. Moreover, if you make a mess, clean it up.

The crew will help anyone with an issue, from a task to complete to how to follow the rules. That is the pride we seek in our industry. I just wanted to remind us that pride does exist—we only have to demand it in our selection of rig contractors. I am not trying to make this rig an example of excellence, but my dad did say, "It's not bragging if you can."

Expectations and pride are hard to define with ink and paper. People and

actions are much better examples for us to view. If a person seeks pride in work, they only need to look at themselves for direction. If we seek operational excellence, we need only look at our choices. Choices in how we approach a project, from conception to completion.

Excerpted from Marathon HSE Safety Newsletter

**Scott Janes**, HSE Professional, *Marathon*

Editors' Note: The *Ocean Monarch* was also the recipient of the Gulf Coast Safety Excellence Award from Plains Exploration and Production. This award is a symbol and direct reflection of the *Monarch's* commitment to HSE excellence and Zero Incident Operations.

### **Ocean America—Can-Do, Customer-Focused Attitude**

I have nothing but praise for the great working environment on Diamond rigs. Believe me, I've worked with a lot of different contractors. Diamond crews are the best—a sincere can-do and customer-focused attitude that is so refreshing and effective. Please convey our appreciation for the fine job that your men have done for us...

**Stephen Jeu**, *Noble Energy*

### **Ocean Nugget—Concern for the Environment—Certificación Ambiental Industria Limpia**

The world demands industries that work in a friendly manner with the environment.

In Mexdrill Offshore we are always concerned about the care of the environment and the safety of the workforce and their families.

This award is in recognition of the effort by everyone who works in Mexdrill Offshore.

Editor's Note: The primary objective of the environmental audit is the identification, evaluation and control of industrial processes that may be operating under conditions of risk or causing pollution to the environment.

### **What benefits does it represent?**

- Compliance with existing environmental legislation

- Comprehensive assessment of the company processes and their environmental impact
- Savings through the efficient use of raw materials and finished products
- Reduced costs by way of payment of insurance premiums
- Improvement in the image of business to society
- Recognition by the authorities

**Ing. Abel Iván Sánchez Salazar**, HSE Department, *Mexdrill Offshore*

### **Ocean Victory —Getting the Work Done On Time, Under Budget**

I wanted to pass on my thanks to the crews on the *Ocean Victory* and the Diamond support staff assigned to her for the fine job you all did on the recently finished AT-63 #4 completion for ATP. You guys did your usual splendid job of getting the work done for ATP on time and under budget. No spills, no INCs and only two first aid incidents for both rig and third-party personnel added to the operational success and made the results that much better. I truly appreciate the part Diamond Offshore played in this success for us. I look forward to working with you all when the rig returns to ATP in November 2010...

Normalized performance (with the Weather NPT removed) shows that we were 1.31 days over AFE. NPT was 6% of the normalized total time on the well (Weather NPT removed). I've been in deepwater a long time. Total NPT less than 15% and non-Weather NPT of less than 10% are indicators of a good plan that's well executed. Thanks for helping with your part... I understand how tough this completion was and my management does too...

**William T. (Bill) Daugherty**, Drilling Manager, *ATP Oil & Gas Corporation*

### **Diamond Offshore Safety Awards**

Diamond Offshore has been selected as the recipient of the MMS 2009 Lafayette District Safety Award for Excellence (SAFE) in the drilling contractor category. In addition, the Australian Chapter of the IADC has notified Diamond Offshore that it is the winner of the 2009 award for offshore safety performance.

# RIGS & LOCATIONS

DIAMOND OFFSHORE RIGS BY TYPE AND LOCATION



## SEMISUBMERSIBLES

ANGOLA	DEPTH	EQUIPMENT
OCEAN VALIANT	5,500	SP; 15K; 3M
<b>AUSTRALIA</b>		
OCEAN AMERICA	5,500	SP; 15K; 3M
OCEAN EPOCH	3,000	3M
OCEAN PATRIOT	3,000	15K; 3M
<b>BRAZIL</b>		
OCEAN COURAGE	10,000	DP; 15K; 4M
OCEAN VALOR	10,000	DP; 15K; 4M
OCEAN BARONESS	7,000+	VC; 15K; 4M
OCEAN STAR	5,500	VC; 15K; 3M
OCEAN ALLIANCE	5,250	DP; 15K; 3M
OCEAN WINNER	4,000	3M
OCEAN WORKER	4,000	3M
OCEAN QUEST	4,000	VC; 15K; 3M
OCEAN YATZY	3,300	DP
OCEAN YORKTOWN	2,850	3M
OCEAN LEXINGTON	2,200	3M
OCEAN CONCORD	2,300	3M
OCEAN WHITTINGTON	1,650	3M
OCEAN AMBASSADOR	1,100	3M
<b>FALKLAND ISLANDS</b>		
OCEAN GUARDIAN	1,500	15K; 3M
<b>GOM-US</b>		
OCEAN ENDEAVOR	10,000	VC; 15K; 4M
OCEAN MONARCH	10,000	VC; 15K; 4M
OCEAN CONFIDENCE	10,000	DP; 15K; 4M
OCEAN VICTORY	5,500	VC; 15K; 3M
OCEAN VOYAGER	3,200	VC
OCEAN SARATOGA	2,200	3M
<b>MALAYSIA</b>		
OCEAN ROVER	8,000+	VC; 15K; 4M
<b>MEXICO</b>		
OCEAN NEW ERA	1,500	3M
<b>NORWAY</b>		
OCEAN VANGUARD	1,500	15K; 3M
<b>UNITED KINGDOM</b>		
OCEAN NOMAD	1,200	3M
OCEAN PRINCESS	1,500	15K; 3M
<b>VIETNAM</b>		
OCEAN GENERAL	3,000	3M

## JACK-UPS

AUSTRALIA	DEPTH	EQUIPMENT
OCEAN SHIELD	350	IC; 3-4M
<b>BRAZIL</b>		
OCEAN SCEPTER	350	IC; 3-4M
<b>CROATIA</b>		
OCEAN KING	300	IC; 3M
<b>EGYPT</b>		
OCEAN SPUR	300	IC
OCEAN HERITAGE	300	IC
<b>GOM-US</b>		
OCEAN TITAN	350	IC; 15K; 3M
OCEAN SPARTAN	300	IC
OCEAN COLUMBIA	250	IC
<b>INDONESIA</b>		
OCEAN SOVEREIGN	300	IC
<b>MEXICO</b>		
OCEAN NUGGET	300	IC
OCEAN SUMMIT	300	IC

## INTERNATIONAL DRILLSHIP

<b>BRAZIL</b>		
OCEAN CLIPPER	7,875	DP; 15K; 3M

## COLD-STACKED RIGS

<b>SEMISUBMERSIBLES</b>		
<b>MALAYSIA</b>		
OCEAN BOUNTY	1,500	VC; 3M
<b>JACK-UPS</b>		
<b>GOM-US</b>		
OCEAN CHAMPION	250	MS
OCEAN CRUSADER	200	MC
OCEAN DRAKE	200	MC

## MAP LOCATIONS

- 1 Gulf of Mexico**  
7 Semisubmersibles  
8 Jack-Ups
- 2 Brazil / Falkland Islands**  
15 Semisubmersibles  
1 Drill Ship  
1 Jack-Up
- 3 North Sea**  
3 Semisubmersibles
- 4 Mid-East / Mediterranean / Africa**  
1 Semisubmersible  
3 Jack-Ups
- 5 Asia Pacific**  
6 Semisubmersibles  
2 Jack-Ups

### Key

- ▶ **DP** Dynamically Positioned / (SP)
- ▶ **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



**Diamond Offshore Drilling** is committed to operate at the highest possible level of operational integrity and quality, while emphasizing exemplary performance in the areas of health, safety, environmental protection and regulatory compliance. Diamond Offshore's mission is to exceed customer expectations and continually set the standard of excellence as we assist our customers in their worldwide efforts to discover and produce offshore petroleum resources.

