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Setting the standard in energy leadership An interview with Chairman and CEO Lee Raymond

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- Unlocking Russia's vast energy resources
- Bringing out the best Responding to Hurricanes Katrina and Rita
- Opening new U.S. natural gas resources

Setting the standard in energy leadership

of interviews with Exxon Mobil Corporation Chairman and CEO Lee Raymond. In this final session, he reflects on the company's successful past and promising future.

This is the fourth in a series

An interview with Lee Raymond

What are the lessons of ExxonMobil's experience during the recent hurricanes in the Gulf of Mexico and U.S. coastal areas?

The first lesson is that markets do work, and they work under the most extraordinary circumstances. If you let the market work, it brings discipline and is a great allocator. From a personal point of view, you have to be very impressed with our people – how they responded, how they managed the situation so well at every facility, and how they worked to protect people and help others. The U.S. Secretary of Energy told me that ExxonMobil's people in Baton Rouge did a terrific job. He was right. They are terrific. I also think that if he could have gone to our other refineries or any facility in our Upstream, Downstream or Chemical businesses – he would have seen other extraordinary people making similar things happen. That's just who we are. We saw ExxonMobil people at their best during the hurricanes. And if a natural disaster strikes anywhere else in the world where we have facilities, you will see the same kind of response. I

am sure of it because of the systems we have in place, the integrity and commitment our people possess, and the fact that ExxonMobil people are highly skilled and know how to respond when emergencies arise. What our people accomplished before, during, and after the hurricanes was magnificent. And what they did reflects on the company everywhere in the world, which is something that we need to think about all the time, and not only in the middle of a hurricane. That tells you a lot about ExxonMobil.

How do you respond to politicians who have called for higher taxes on U.S. oil companies?

It's a bad idea. Petroleum industry earnings are driven in large part by world commodities prices. So it is very important to put these numbers in perspective. The petroleum industry is a huge, long-term business. It must remain profitable to make the huge investments that are needed to meet the world's growing demand for energy. The U.S. has done this before and it was counterproductive and a failure. I don't "The petroleum industry is a huge, long-term business. It must remain profitable to make the huge investments that are needed to meet the world's growing demand for energy."

understand why anyone concerned about the U.S. economy would want to selectively take money from shareholders and put American companies at a competitive disadvantage. To put your own companies at a disadvantage would be unthinkable in the rest of the world. Would the French do that to a French company? Would the Germans or the Japanese?

Is the petroleum industry prepared to meet the predicted 50 percent increase in global energy demand during the next 25 years?

Given the kind of support that will be needed from governments, I think the industry will be able to meet that challenge. Whether governments are prepared to give the industry the kind of support that is required, only time will tell.

How will the continuing economic growth in Asia affect the way the company conducts its business?

I don't think it affects it all that much, because the growth in demand in Asia should not come as any surprise. We have been predicting it for the past 20 to 25 years. The companies that are doing well these days are those that foresaw 25 years ago that you had to be in Asia. I think the credit goes to the people in our company who anticipated the geographic shift in the future growth, thought about how to deal with it, and made sound investments. That is particularly true in the Chemical company.

"If we are serious about enabling developing countries to advance, producing adequate and affordable energy resources has to remain a high priority."

What do you see as the prospects for long-term economic growth in the developing world?

You must have access to energy to have any real and sustained economic growth. If we are serious about enabling developing countries to advance, producing adequate and affordable energy resources has to remain a high priority.

As ExxonMobil's deepwater developments continue to grow, what does the future hold for this part of the business?

We are going to keep looking in deeper and deeper water, and we will find more and more. Even 15 or 20 years ago, we never imagined where we would be today, and technology has been critical to unlocking this potential. We need to realize that the deeper the water, the bigger the find has to be for it to be economic. Every time we have looked, we have found larger reserves, so you have reason to believe that will continue to be the case.

Looking back on the sweeping changes that have occurred in the oil industry since you joined the company, which have been the most significant?

If you think about the structure of the industry and the company back in the late '50s and the early '60s, the changes that have taken place over the past 40 years are remarkable. The dimensions of the industry and the relationships between the industry and governments were a lot different. And 40 years ago, OPEC was not viewed as a significant organization in the petroleum landscape. There were no commodity markets, and the only trading that was done was between the major oil companies and a few independents. Communications have also changed dramatically. Our access to information and the speed with which information is transmitted have forever altered the way the industry functions. Technology has developed far more rapidly than anyone could have envisioned. Of course, some things have not changed.

Everybody was concerned about the ability to find and develop an economic resource base to replace reserves 40 years ago, and that remains a significant challenge for us today. You have to remember that offshore producing areas such as the North Sea did not exist back in those days. So despite the tremendous changes that have occurred, there is a certain constancy that runs through a natural resource-based industry, where the central focus remains having access to the new reserves that will be needed to meet the world's growing demand for energy.

What are the most important lessons that can be drawn from the company's past?

This is a long-term business, and there aren't any quick fixes. You have to take a long-term view and keep your eye on the ball. We have always taken a disciplined approach to managing the business. You have to run a first-class operation every day, because without that,

it is impossible to have the staying power for the longer term. In that sense, keeping a proper balance continues to be a difficult challenge. We are able to invest in the best ideas and opportunities for the future because of what we have done in the past. So it is a tough blend of maintaining operational excellence in everything we do day to day, and never wavering in the disciplined approach we use to make decisions about new investment opportunities or the best ways to retain ExxonMobil's leading-edge position in the next generation of technology.

Why has ExxonMobil's investment program remained steady through the years despite the volatility in the world's energy markets?

It didn't just happen. It has been managed that way by design. One of the problems that the industry had for some time, going back to the early 1900s, was the experience of the boom-and-bust cycles. We take a disciplined approach to managing our investments. Nobody can accurately forecast



the booms and the busts, so we try to look through the cycles when making our investment decisions, cut off the peaks and valleys, and take a long-term perspective. We choose not to do things precipitously, either in boom times or in weak times. And because we take the view that we are a long-term industry, we work on those things that can give us a long-term competitive advantage and longterm staying power.

How will ExxonMobil continue to prosper in the energy industry of the 21st century?

Our people will make that happen – and we have the best. Throughout its history, the company has always been able to adapt and evolve and come out at the other end stronger than when it went in. No one hands you a textbook and says: "This is what you have to do. Now go out and do it." You have to hire and develop the best people. Then you have to give them the support and tools they need to determine what the alternatives are, what plays best to the company's strengths, and make the best of it. We have been able to do that for more than 120 years, and that remains a tremendous strength and competitive advantage for us today. This company has been blessed with really firstrate leaders whom I've been lucky to know over the past 40 years. Jamieson, Garvin, and Rawl were all first-rate. They all had an unwavering commitment to the success of the company and all were men of great personal integrity. the Lamp

"Nobody can accurately forecast the booms and the busts, so we try to look through the cycles when making our investment decisions, cut off the peaks and valleys, and take a long-term perspective."

5, in the wake of higher energy prices and and profits

On November 9, 2005, in the wake of higher energy prices and industry earnings, senior executives from the five largest oil companies operating in the United States attended a joint hearing of the Senate Energy and Natural Resources and Commerce, Science and Transportation committees. ExxonMobil Chairman and CEO Lee Raymond discussed the scale and longterm nature of the industry, recent earnings in comparison to other industries and the company's long-term investment focus.

Chairmen Domenici and Stevens, Co-Chairman Inouve, Ranking Member Bingaman and Committee Members: Thank you for the opportunity to discuss the important issues being raised about ExxonMobil and the industry. The increases in energy prices following Hurricanes Katrina and Rita have put a strain on Americans' household budgets. We recognize that. After all, our customers are your constituents. And we recognize our responsibility to make energy available to them at competitive costs. It is our responsibility to engage in an open, honest, informed debate about our energy future, grounded in reality, focused on the long-term and intent on finding viable solutions.

In that spirit, I would like to make three points during my allotted time. First, given the scale and long-term nature of the energy industry, there are no quick fixes or short-term solutions. Second, petroleum company earnings go up and down with the volatility in the openly and globally traded commodities in which we deal, but our ongoing investment programs do not – and they cannot, if we are to meet growing energy demand. And third, as the response to Hurricanes Katrina and Rita proved, markets work, even under the most extraordinary circumstances. Permitting them to function properly is the kind of leadership required to meet the future energy challenges we all face.

Let me elaborate on each point in turn.

Energy industry scale and timelines

As you consider energy policy – just as when we consider corporate strategy – it is essential to understand the sheer size of the petroleum industry and the extended timelines in which we operate. Currently, the world's consumers use the equivalent of about 230 million barrels of oil every day from all energy sources. That's 400 million gallons an hour, or 67 billion gallons a week.

Because of the size and strength of the U.S. economy, Americans consume a fifth of this total, more than any other country. You are accustomed to dealing in large budget figures, so let me try putting it in those terms. At current market prices, the bill for the world's petroleum consumption is more than \$2.5 trillion a year. That's greater than the U.S. government's entire annual budget.

The petroleum companies represented here today help meet that enormous demand – but we are a relatively small part. Consider this. ExxonMobil is the world's largest non-government petroleum company; with over 86,000 employees, a market capitalization of about \$350 billion, and operations in 200 countries and territories. In fact, almost three-quarters of our business is outside the United States.

On an average day, we produce over 4 million oil-equivalent barrels. That is about 3 percent of the world's daily oil and gas appetite. Now, in addition to the energy industry's enormous scale, it is also important to keep in mind the long-term timelines in which we operate. In politics, time is measured in two, four or six years, based on the election cycle. In the energy industry, time is measured in decades, based on the life cycles of our projects.

For example, ExxonMobil just announced the first oil and gas production from our Sakhalin-1 project in Russia's Far East. We began work on the project over 10 years ago when prices were very low, and we expect it to produce for over 40 years. All told, that's more than 50 years for one project. Fifty years is 25 Congresses and more than 12 presidential terms. It is longer than any senator has served in the history of this body. Or think of it this way – 50 years ago, Dwight Eisenhower was President.

So what does this mean for policy-making? It means, given the scale and long-term nature of our business, effective policies must be stable, predictable and long term in their focus. History teaches us that punitive measures, hastily crafted in reaction to short-term market fluctuations, will likely have unintended negative consequences – including creating disincentives for investment in domestic projects.

Think back to the 1970s when we were in an energy crisis in the United States. First price controls and then punitive taxes were tried to manage petroleum markets. In addition to contributing to the record gasoline prices consumers were paying by March 1981, they contributed to shortages and gasoline lines. As the government gradually withdrew from trying to actively manage petroleum markets, prices began to come down.



Sources: American Petroleum Investor, Business Week and Oil Daily

In fact, if you exclude the effect of state and federal taxes, prices in real terms for petroleum products like gasoline, diesel fuel, heating oil and jet fuel have actually declined over the last 25 years. Today's higher prices are still lower than the prices that resulted from government controls in the early 1980s. Which brings me to my second point.

Earnings and investments

The petroleum industry's earnings are at historic highs today. But when you look at our earnings per dollar of revenue – a true apples-to-apples comparison – we are in line with the average of all U.S. industries. Our numbers are huge because the scale of our industry is huge. How are these earnings

"Today's higher prices are still lower than the prices that resulted from government controls in the early 1980s."

used? We invest to run our global operations, to develop future supply, to advance energy-producing and energysaving technologies and to meet our obligations to our millions of shareholders. Last year, when oil prices averaged a little under \$40 a barrel and earnings were high, ExxonMobil invested almost \$15 billion in new capital expenditures and more than \$600 million in research and development. And in 1998, when crude oil prices were much lower – as low as \$10 a barrel for a time - so were our earnings, about \$8 billion. But we invested \$15 billion in capital expenditures that year as well.

In fact, over the past 10 years, ExxonMobil's cumulative capital and exploration expenditures have exceeded our cumulative annual earnings. So we keep investing in the future when earnings are high as well as when they are low. If we are to continue to serve our consumers and your constituents, corporate and government leaders alike cannot afford to simply follow the ups and downs of energy prices.

We must take a longer-term view. The current debate on building new grassroots refineries is a good example. Building a new refinery from scratch takes years – even if regulatory requirements are streamlined. Current refining economics are almost irrelevant. And once a refinery begins operations, it takes years more for that refinery to pay back its investment. For us, a faster, more practical and

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economical way to add capacity has been to expand our existing refineries. It is much more efficient because the basic infrastructure is already in place. We have invested \$3.3 billion over the last five years in our U.S. refining and supply system.

Over the last 10 years, ExxonMobil alone has built the equivalent of three average-sized refineries through expansions and efficiency gains at existing U.S. refineries. And industry-wide, while the number of refineries in the United States has been cut in half since 1981, total output from U.S. refineries is up by 27 percent over this same period, a percentage that almost exactly matches the rise in overall product demand.

I should add that we would like to invest even more in this country, especially in exploring for and producing new supplies of oil and natural gas – if there were attractive, economic opportunities to do so. But the fact is the United States is a mature oil province, domestic production is declining from those areas that are accessible to the industry, and limited opportunities for new investment have been made available to us.

Market Leadership

Finally, my third point. Markets work – if we let them. The response to Hurricanes Katrina and Rita proved the point. These storms were a one-two punch to the petroleum industry as well as to many of your constituents. At one point, almost 29 percent of our domestic refining capacity was shut down, and all told, the Congressional Budget Office estimates the hurricanes caused somewhere between \$18 billion and \$30 billion in energy-sector infrastructure losses.

But we are recovering. Crude oil supply was quickly rerouted, refineries rapidly came back online, investors kept coolheaded, and production in the Gulf has been gradually restored. Credit for this goes, in part, to the energy industry, especially our diligent and dedicated employees who went above and beyond to repair the damage and to get back to work.

Credit also goes to the federal government. Release of crude from the Strategic Petroleum Reserve and the temporary easing of regulations such as gasoline specifications and the Jones Act enabled us to reallocate resources effectively and

"Markets work – if we let them. The response to Hurricanes Katrina and Rita proved the point."

efficiently. That helped. But most important, credit goes to our free-market system. The hurricanes showed that markets work, even under the most extraordinary conditions. Even before the hurricanes made landfall, shippers rerouted tankers, refiners recalibrated output, traders reallocated resources, investors moved capital, and consumers began to change their consumption patterns.

Prices for products did increase, of course, but there was no panic and no widespread shortage. Retailers responded to the short-term supply disruption, consumption decreased, and imports increased to make up for the shortfall. The remarkable recovery would not have been possible had the millions of Americans impacted by the storms – energy producers, refiners, suppliers, retailers and consumers - not had a free hand to respond. Markets enabled them to do so. And letting markets work will enable us to meet our future energy challenges. In just 25 years, global energy demand is expected to increase nearly 50 percent, with oil and natural gas needed to continue to meet a majority of that demand. An estimated 100 million barrels of daily oil equivalent in new production is required during this time frame, as well as an estimated \$17 trillion in new investment.

To be sure, much of future demand growth will be in developing countries like China and India. But because oil is a global commodity – like corn or copper – failing to meet demand abroad means higher prices

for Americans at home. The energy industry is meeting this challenge and will continue

To learn more exxonmobil.com/ pricing

to do so. Government can best help by promoting a stable and predictable investment environment, reinforcing market principles, promoting global trade, promoting the efficient use of energy, and implementing and enforcing rational regulatory regimes based on sound science and cost/benefit analyses. It is this kind of leadership that is required of all of us to meet the future energy challenges we all face. Thank you. the Lamp

350 -20 1 Product imports U.S. oil product demand 18 300 -Number of refineries 16 U.S. refinery output 250 -- 14 - 12 200 -- 10 150 -8 Refineries - 6 100 -- 4 50 -- 2 0 0 -1981 1986 1992 1998 2004

While the number of U.S. refineries has been cut by half since 1981, output is up 27 percent. And product imports have played a role for decades

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Making the right energy moves

Interdependence, not independence, is key to America's future energy security.

Can America ever be free of its reliance on imported oil? In the foreseeable future, the answer is no. There are no quick fixes.

Although being independent of the global energy market may sound good, the simple reality is that oil and gas provide 60 percent of the world's energy, and rising oil and gas demand far outstrips the United States' ability to rely on domestic supply alone. America's vast economy and mobile lifestyle ensure that we will be importers for decades to come.

Today, we are part of an enormous global market for energy. For a long time, the majority – today 60 percent – of our oil needs have been met by imports. That's partly because it has been the most economical and politically acceptable way to meet America's growing needs. That share will likely increase as demand for energy grows and domestic production is both limited and maturing. A strong focus on energy efficiency is essential, along with research to identify new energy technologies.

But the real question is: If we are destined to be interna-

tional buyers, can we be smarter customers?

The answer is yes – by seeking out and maintaining a diverse group of international suppliers to sustain competition and ensure a realistic, balanced portfolio of energy supply sources for the United States.

The Middle East will continue to be important. But major investments must also be and are being made in Africa, Russia, the Caspian region, Latin America and Canada. The development of promising domestic oil resources is essential, too.

That's where government policy can make a difference. Governments here and abroad need the political will to promote responsible development of diverse energy supplies. Just as important, fostering strong and durable global trade relationships will help ensure that the necessary long-term investments are made.

Energy independence? Though it sounds attractive, the reality is far less likely. But recognizing our energy interdependence is the first step to securing our energy future.



Unocking anticipated production life of filore tital 40 years, the project exemption of the source of the world's toughest energy challenges and underscores Russia's importance in meeting future energy demand. Russia's vast energy resources

On October 1, 2005, Exxon Neftegas Limited began producing oil and gas on Russia's Sakhalin Island, thanks to new technological advances and a spirit of cooperation. After 10 years in development, and with an anticipated production life of more than 40 years, the project exemplifies



Russia's history is a multistranded tapestry woven with pride and passion. Sakhalin, a remote island off Russia's east coast, represents one long, brightly colored thread in that tapestry. Sakhalin is a place of harsh climate and warm people, spectacular beauty and deep mystery. It's also a place of abundant natural treasures, including vast oil and gas resources.

Sakhalin's resources have hardly been a secret. Oil and gas exploration on the island began in the 1970s, but given the technical hurdles, the remote location and the unforgiving conditions, tapping the resources was until recently only a dream. Today, new technological advances have turned that dream into reality.

On October 1, 2005, Exxon Neftegas Limited (ENL), an ExxonMobil subsidiary, along with Japanese, Indian and Russian oil companies, celebrated as the first production flowed from the Sakhalin-1 project (ExxonMobil interest, 30 percent), further underscoring the island's importance as a significant energy supplier for a growing world economy.

"Working together, Russians and Americans, along with our other international partners, have overcome great challenges and harsh conditions to accomplish what many previously doubted was even possible," said Mark Albers, president of ExxonMobil Development Company, at an event celebrating the Sakhalin-1 production commencement. With that, Albers handed Sakhalin Governor Ivan Malakhov a crystal key symbolizing the consortium's collective work to unlock the island's treasures.

Sakhalin-1 is one of the largest direct foreign investment projects in Russia. Starting on schedule and within 10 percent of unit development cost expectations, the initial phase will produce 250,000 barrels of oil a day by the end of 2006. Associated domestic gas sales started at about 60 million cubic feet per day and are expected to increase to about 250 million cubic feet per day. And this is only the first phase of a multiphase project that comprises the Chayvo, Odoptu and Arkutun-Dagi fields. Ultimate recovery of the entire project is expected to be more than 5 billion oil-equivalent barrels of energy.

A less tangible but equally important reward is the spirit

At left: Facilities for developing the Chayvo field surround the Yastreb, the most powerful drilling rig in the world, one that sits on land but drills below the sea. Yastreb is the Russian word for *hawk*, standing for strength, precision and speed.

At right: Sakhalin Governor Ivan Malakhov (right) accepts a crystal key from ExxonMobil Development Company President Mark Albers in recognition of the consortium's collective work to develop the oil and gas resources offshore Sakhalin Island.





The Yastreb rig uses extended-reach drilling that bores horizontally under the sea for six miles to reach the Chayvo field.

of cooperation between ExxonMobil and Russia's state oil company, Rosneft, that the project helped forge. Sakhalin-1 is ExxonMobil's first major venture in Russia's vast oil and gas fields, and it marks a significant milestone in Russia's energy future. The project partners conduct their activities with the utmost respect for the people of Russia and Sakhalin Island's natural environment.

"The successful implementation of the Sakhalin-1 project became possible thanks to mutually beneficial cooperation between federal and regional Russian authorities and the members of an international consortium, including operator ExxonMobil, a global leader in the oil and gas industry," says Dr. Galina N. Pavlova, director of the Oil and Gas Industry Department of the Sakhalin Oblast Administration.

Two birds in the field

Chayvo in the indigenous Nivkh language means "town by the bay." Indeed, what was once a remote sandbar in an already

remote Sakhalin has evolved into a bustling town of multinational workers.

Bordering the town is a 230-foot-tall blue edifice, which looks as if it belongs more to NASA than to the oil industry. It's the most powerful drilling rig in the world, one that sits on land but drills below the sea. Its name: Yastreb.

"We named the rig Yastreb, the Russian word for *hawk*, because it stands for strength, precision and speed," says ENL President Steve Terni. "And it has more than justified the name."

Even if the oil and gas resources were on land, extracting them in Sakhalin's rugged environment would have been challenging. Arctic pack ice encases the island for six months a year. The average temperature in January hovers around -4° Fahrenheit. The western edge of the oil and gas field sits six miles offshore below the Sea of Okhotsk. In the winter, the Okhotsk can be a sea of moving sheets of ice up to six feet thick. It is also subject to huge storms and seismic activity.



(6 miles)

Reaching the Chayvo

ENL decided it would be more efficient and cost effective to start by building a land-based rig that employs extended-reach drilling that bores horizontally under the sea to reach the Chayvo field. This also minimizes the project's environmental footprint. More than 20 extended-reach wells are planned from shore, making them among the longest wells of this type in the world.

None of this has been easy. As Terni describes it, "drilling horizontally for six miles beneath the Arctic pack ice from onshore is like threading the needle in a haystack from way across the farm in a blizzard."

To tap the outer reaches of the field, ENL will use an offshore platform, named Orlan, after the Russian sea eagle, which symbolizes boldness. The Orlan platform hails from Alaska. To prepare it for duty off the coast of Sakhalin, the platform was first towed to the Russian Far East and retrofitted to withstand the area's turbulent storms and seismic activity. Then the platform was taken to South Korea, where a specially designed extendedreach drilling rig was installed.

"Along with the ice and earthquake threats, we also have to operate safely in an area known for high waves," Terni says. "It's tough out there. So we completely redesigned and reinforced the Orlan structure. Among other things, we put large wave deflectors on two sides of the unit. Retrofitting the Orlan was a major execution challenge."

Oil and gas will initially be sold to domestic markets. Eventually,

crude produced from Yastreb and Orlan will be moved through a pipeline across the Tatar Strait to an export terminal near the town of DeKastri on the Russian mainland. The oil will then be offloaded into double-hull vessels and escorted by icebreakers, providing year-round shipments to international markets.

A model for investing

"We are bringing our technological skills and our global project-management systems and experience to the area, and the Russians are bringing their local knowledge, experience and capabilities, along with a highly educated, motivated workforce," ExxonMobil's Mark Albers says. "It's hard to overstate the importance of this first experience in major Russian project execution to our long-term reputation and credibility in Russia. We've worked together with Russian contractors to establish a safety record that is six times better than the oil and gas construction industry average. Together, we've created a model for investing in Russia."

Tapping Sakhalin's oil and gas resources has meant more than overcoming harsh conditions and technological hurdles. There is little in the way of ancillary industries on the island. Demand for skilled construction workers is strong and increasing rapidly. And the regulatory complexities have been formidable.

"This is a unique situation. We've dealt with one or another of these challenges on other projects before, but not all at the same time," Terni says.

Working closely with Rosneft,

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which has solid experience in the area, and contracting qualified Russian professionals are critical to Sakhalin-1's success. Vladimir Astafyev, ENL Deputy Director and a Rosneft executive, advises ENL on Russia's federal and regional laws and regulations. He has also helped ENL find Russian contractors and suppliers.

"I am enjoying the project because of its comprehensiveness, starting with research and design in light of the economic evaluation and benefits for Russia and ending with the construction and commissioning of facilities," Astafyev says. "I am quite pleased and proud that two-thirds of the Sakhalin-1 project's contract spending [more than \$3.2 billion] is going to pay for the services of Russian contractors and suppliers."

Other economic benefits associated with the project include improved roads, bridges, airport and seaport facilities, public-use medical facilities and other improvements to the local infrastructure, with all facets of the project respecting Sakhalin's natural environment.

Within Sakhalin's unique climate, more than 90 species of rare animals, fish and plants coexist. As part of the project, ENL has implemented one of the most extensive environmentalprotection programs ever undertaken by industry. One of the programs, for instance, is drawing on the expertise of

Russian scientists

to help bring back

the population of

Orlans, which are

threatened on the island.

To learn more exxonmobil.com/ coldocean

"At the end of the day, what's good for Russia's energy future is good for investors," Terni says. "So far, the project has been very beneficial for all concerned. Given all the challenges, we're very pleased with our progress." the Lamp

Bringing out the best: **ExxonMobil's hurricane response**



In the national crises following two major Gulf Coast storms, ExxonMobil employees took effective action to help people in need.

Mike Reeves (left) opened his Kirbyville, Texas, home to Robert Young and seven other Hurricane Katrina survivors before the group had to flee once more from Hurricane Rita.

Two for one

Mike Reeves and Robert Young had a deal: If a hurricane heads your way, bring your family here. If it comes here, we'll stay with you. But when Hurricanes Katrina and Rita struck just weeks apart, survivors had to flee a second time.

"Until then, we'd only seen each other at company meetings," Reeves explains. "Our families had never met. I'm a hydrocarbon measurement specialist at the Beaumont refinery in Texas, and Robert is my counterpart at our Chalmette refinery in Louisiana."

When Katrina came, the Youngs would have come to Texas, except that the Reeves were not in town.

"We were in Missouri," Reeves says. "We got home Sunday. When I finally reached Robert, his wife and children were already in Tennessee. I wanted Robert here, but he said no, that he and his brother's family would stay in Chalmette. We lost

Story and Photo by Richard Cunningham

contact when the storm hit late Sunday night."

St. Bernard Parish and Chalmette took a direct hit. What hurricane winds did not take, the storm surge did.

"We lost power about 1 a.m. Monday," Young says. "By daylight, the winds were still hurricane force, but I thought we'd be okay. Then the water came."

Suddenly, two inches of rainwater in the street became a swift black river of salt water two feet deep. Young yelled for everyone to grab what they could and wade to the two-story house next door. They arrived just as the patio doors burst open and filled the neighbor's living room with another two feet of water. People rushed upstairs, but Young's neighbor held him back.

"We've got to get the boat," he shouted over the wind.

"That was our lifesaver," Young says. "We struggled to unhook his boat from the trailer, then pulled it to the house. I climbed

onto the roof, tied one line to the chimney and threw the anchor through a second-story window."

Within 20 minutes, the storm surge rose to 14 feet, with two feet of water upstairs. Five hours later, the refugees left in their boat, rescuing several others along the way. The group, which grew to 16, spent Monday and Tuesday nights in the Chalmette High School gymnasium, then a third desperate night under a tree near Interstate 10 before being evacuated by bus to the Houston Astrodome.

Reeves learned on Thursday night that Young was in Houston. On Friday morning, he drove a rented van to bring Young and seven others back to Reeves' home near Kirbyville, about 50 miles north of Beaumont.

"There were 10 of us." Reeves says. "Everyone pitched in, and we got along fine. We didn't know then how soon we'd all be running from another hurricane."

By September 22, Hurricane

Rita filled the Gulf of Mexico and was aiming toward Beaumont.

"We left my house at about 2 p.m. with four cars and 14 people," Reeves says. "We got to Dallas early Friday morning and waited for the storm to pass. On Monday, Robert, his brother, my son-in-law and I returned to Kirbyville. My house was damaged, and the power was out for two weeks, but we'd brought eight generators from Dallas for ourselves and the neighbors."

Young and his family eventually relocated to Baton Rouge, where he began working at ExxonMobil's refinery. He has lost so much, yet he talks about the new friends he has gained.

"With the company's help, we began rebuilding our lives in Baton Rouge," he says. "Now the tree our little group stayed under that night on I-10 is our new landmark. When things get back to normal, we're going to have a picnic under that tree." the Lamp

Gratitude to last a lifetime

As Hurricane Katrina hit the Louisiana coast on August 29. she veered east of New Orleans and spared the city the worst of her Category 4 winds. But Katrina didn't spare New Orleans the 20-foot storm surge from the Gulf of Mexico the next day. At 3 a.m., a ringing phone woke ExxonMobil **Emergency Preparedness** Coordinator Alan Hunsberger 90 miles away, in Baton Rouge. The Louisiana State Police were on the line with an urgent plea. Floods had engulfed downtown New Orleans. Residents were stranded on rooftops and in the water. Could ExxonMobil provide any help?

By noon, Emergency Response Supervisor Rob Davidson and 10 other emergency responders from the Baton Rouge Refinery & Chemical Complex were on the road to New Orleans, hauling two pontoon barges, two small skiffs and a trailer of rescue equipment. Over the next two days, the team would evacuate about 1,500 anxious and grateful city residents. "We lost count after awhile," savs Davidson, who heads ExxonMobil's Emergency Local Interfunctional Response Team.

It was close to dusk by the time the team launched its boats off an exit ramp into a quiet, unlit neighborhood, where flood waters had risen as high as the street signs in some places. They navigated the darkness with the aid of Coast Guard helicopter lights and the sounds of occasional cries for help.

"Normally you think of New Orleans as a place of light and noise," says Davidson.

Story by Shelley Moore

During the course of the mission, there would be hundreds of memorable encounters. The team freed a man who had been up to his neck in water for two days, trapped in his house by dead-bolt locks and iron window bars. They plucked another man from the water who was elderly and disabled. He had donned a life preserver and taped himself to a wooden chair so he could float. They rescued more than 100 children from a school for the deaf. A shaken seven-yearold girl began to smile after being appointed assistant captain of the rescue boat. Many people were in wheelchairs, and some were on dialysis.

"We succeeded because our responders practiced teamwork, and also because survivors led us to their neighbors who were in need," says Claire Donaldson, shift supervisor, Light Ends Operations.

Fire station Mechanical Supervisor Barry Miley wielded an ax to free a couple from their attic. "I'm a trained responder and I've always been professionally focused on the job," says Field Supervisor Dickie Hamilton, who piloted the skiff. "But when a woman began to cry and hug me in relief, I became emotional."

Now and then, there was a humorous moment before the tension. The skiff crews didn't turn any pets away, and Miley recalls picking up a giant sheep dog, "when we already had a chihuahua and an ugly, shorthaired 'attitude' dog on the boat. They didn't like each other much. I finally said: 'Each of you dogs get in a corner and be quiet.'"

Photo by Bob Davis

As instructed by authorities, the boat pilots brought people and pets to an entrance ramp on the interstate, only to find a desperate lack of water and food there. Mechanical Supervisor Ray Pratt returned to the Baton Rouge Complex and came back with a small convoy of trucks bringing water supplies.

As conditions in New Orleans worsened, local authorities asked the ExxonMobil team to leave for their own safety. Most team members had been able to get only about 90 minutes of sleep in two days. They had also given most of their own food to the people they rescued. In spite of it all, they found it very hard to leave.

"If I never do anything like this again, I've received enough gratitude to last a lifetime," says Davidson. the Lamp

The ExxonMobil rescue effort in New Orleans involved volunteers from the company's Baton Rouge Complex. Gathered again on one of the boats used in their rescue efforts are (front row, left to right) R.E. "Bubba" Adams, Ray Pratt; (second row, left to right) Dwayne Cobb, Terry Ward, Claire Donaldson, Bernie David and Barry Miley; (back row, left to right) Dickie Hamilton, Robert Davidson, Wayne Rutherford and Chris Baxter.



Two strong storms, one strong team

Workers for ExxonMobil's operations in the Gulf of Mexico are no strangers to bad weather or emergency procedures. It's not unusual that at least once every storm season a few of the more than 100 ExxonMobil offshore structures in the Gulf are in the eye of a hurricane or a tropical storm, requiring an emergency response.

Hurricane Andrew was awful in 1992. Ivan was terrible in 2004. But last summer was by far the most challenging storm season, when ExxonMobil's platforms had to be evacuated two times within a month and oil production had to be shut down. Communications systems failed, hundreds of employees were displaced and supplies were needed in areas that were nearly impossible to reach.

"It was just astounding that we were hit by two monster storms, Hurricanes Katrina and Rita. so close together," says Allen Arnold, one of the superintendents for ExxonMobil's U.S. Production operations in the Gulf of Mexico and one of the people responsible for coordinating offshore evacuations. "After Katrina, we got everybody offshore again, and then we had to get them back in. Twice we had to get upwards of 600 people, including contractors, off the platforms. And we had to secure the platforms themselves."



Donnie Ellis (left), ExxonMobil's U.S. Production emergency-response coordinator, and Allen Arnold, superintendent for U.S. Production operations in the Central Gulf of Mexico, were part of a large team who worked on the company's offshore emergency-response efforts.

Story by Amanda Coyne Photo by Ed Lallo

Arnold was one of about 100 people who worked fast and efficiently in ExxonMobil's U.S. Production emergencyresponse center at the company's Houston office with a diverse team, including logistics, engineering, human resources, regulatory affairs and communications support. All of them worked together to coordinate the efforts of hundreds of other employees in the field to ensure everybody was safe and received the help they needed.

Elsewhere, people like Glenn Chance, a senior field superintendent stationed in Grand Isle, Louisiana, were spending long hours in the field, evacuating people off platforms and staying in constant touch with the team in Houston. And as soon as the storm passed, Chance was back at work getting people and equipment out to the platforms.

The emergency response went off without a hitch. Nobody was hurt, and everybody involved in the effort agreed it was an exhausting but uplifting experience.

Kok-Yew See, ExxonMobil's U.S. Production operations manager for the Gulf of Mexico, had been on the job less than two months when the storms hit. Previously, he had been EMPC's regional coordinator for Asia Pacific and the Middle East. "I literally walked right into the eye of the storm season," he says.

He recalls that he was greatly impressed with how smoothly things ran. "Given that we've not experienced such strong hurricanes back to back before, the way the team responded and the experience, knowledge and commitment they have shown in this difficult period have been very remarkable."

Jim Jordan, U.S. Production's Human Resources labor advisor, says the team was efficient at helping people on the ground, even as they struggled with weather-worn communications systems. He and about five others from Human Resources spent the better part of September in the emergencyresponse center, fielding phone calls from employees in the region who needed assistance. That assistance came in the form of fuel, medical help, loans and grants, time off for those who needed it and insuranceclaims counseling.

"Employees actually called in to thank us," Jordan says. "They couldn't believe how much support ExxonMobil was offering. I can't tell you how good it felt to help people like that."

It was a tense period for all, but the only time it got really stressful, says Donnie Ellis, U.S. Production's emergency-response coordinator, was when team members were unsure whether some employees were safe.

"We'd get someone off a platform and they'd check in with their supervisor and tell them that they were going to evacuate," he says. "And then we'd hear a report about someone in that area being

airlifted from a rooftop. It was moments like that when

To learn more exxonmobil.com/ stormupdates

it got really tense. But nobody got hurt. That's the important part. The storms are going to come and go. Afterwards we can fix the damaged physical structures. But if something happened to one of our people, that's something we couldn't fix." theLamp

Driving for efficiency

Despite cleaner fuels and better engines, average U.S. fuel economy hasn't changed. Science suggests it can.



Who would argue against improving fuel economy? The obvious benefits of using oil supplies wisely have made most people – including energy producers – advocates for energy efficiency.

America has made progress since the 1970s "energy shock." The U.S. economy today is nearly 50 percent more energy efficient than 30 years ago. Every form of transportation – planes, trains and automobiles – now benefits from improved fuels, lubricants and engine systems.

So why is it that, despite this overall progress, the average fuel economy of American cars is unchanged in two decades?

It's because underlying engine efficiency gains have been largely offset by the increasing weight of vehicles, reflecting a growing share of the market moving to light trucks and sport utility vehicles. The size and flexibility of SUVs have made them popular and to many consumers those benefits are hard to give up, even at higher fuel costs. So what to do?

While some technologies hold promise for the longer term, the more immediate challenge is to continue improving engines and fuels to achieve maximum efficiency, regardless of vehicle size.

The best available science suggests that a further 50 percent improvement in the efficiency of the internal combustion engine may be achievable – without limiting consumer choice. Today's hybrids are a start.

Would a 50 percent improvement be worth the investment needed to achieve it?

We think so. And through partnerships with manufacturers like Toyota and Caterpillar we're working on fuel and engine systems that could dramatically improve efficiency and reduce emissions – without restricting America's "right to drive."

Technology leads the way to deepwater SUCCESS

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An increasing percentage of the petroleum resources the world will need to meet the growing demand for energy is coming from offshore developments in water depths greater than 1,300 feet, a current industry definition of deep water. But ExxonMobil and others are pushing far beyond that, testing the limits of their science and skill. Today's deepwater fields showcase some of our best technology and provide a proving ground for advances that will open reliable new supplies of oil and gas in the future. Deepwater production vessels are complex, multifunction facilities that float on the ocean surface, tethered above their wells by elaborate mooring systems. The mobile offshore drilling rigs that support them are often held in place by computer-controlled thrusters operating via signals from global-positioning satellites.

What goes on below the surface is even more impressive. A mile down, the seabed temperature is always near freezing, the area is cloaked in total darkness and the pressure on every piece of equipment is about one ton per square inch.

"What we're routinely doing now was not thought possible just 10 years ago," says Mark Albers, president of ExxonMobil Development Company.

"Deepwater production requires leading-edge technology and disciplined project management. The results speak for themselves. Every year, ExxonMobil employees continue to set world-record cycle times while achieving the industry's lowest per-barrel development costs."

Offshore Angola, for example, ExxonMobil recently completed the Kizomba B project, a major deepwater development that was finished in record time and more than five months ahead of schedule. A similar deepwater development, Erha, is now under way and will start up in 2006 offshore Nigeria. In subsea production, remotely operated assemblies of valves called "trees" are located on the ocean floor. There are many configurations of subsea systems, but all of them have several key components, including a manifold to house the master controls, umbilical connections to the surface vessel to provide communication and hydraulic fluid, and flow lines and risers to carry hydrocarbons from the ocean floor to the vessel. Because they are installed in water too deep for humans, the systems are attended by remotely operated vehicles, or ROVs.

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Story by Amanda Coyne and Richard Cunningham Illustration by Bruce Morser Photography by Bill Goes

A history of success

The earliest offshore developments began more than a century ago in the United States along the California and Louisiana coasts. They consisted of conventional wells drilled at the ends of long wooden piers extending several hundred feet from the beach.

ExxonMobil installed the world's first modern offshore platform out of sight of land in 1947. The water was 50 feet deep, and that was considered frontier. The company laid the foundation for today's deepwater drilling technology by moving out from depths of 630 feet in 1965 to an industry record 3,937 feet in 1977.

ExxonMobil's portfolio in 1989 included 7 million acres in deep water. By 2000, its deepwater leases had grown to more than 137 million acres. In 2005, the company had producing wells in waters approaching 5,000 feet and was exploring in depths of nearly 10,000 feet. "We are continuing to build on ExxonMobil's technical-leadership position in order to support the large capital investments that will be required to overcome the next generation of energy challenges," Albers says.

Driving new technology

ExxonMobil invests more than \$600 million a year in research companywide. In the Upstream business, significant effort goes to improving existing technology and finding new ways to lower the cost of working offshore. There's a particular focus on subsea hardware – all of the flowlines, manifolds, wellheads and risers that move oil and gas from producing reservoirs to production vessels on the surface.

"Once we install equipment on the sea floor, our subsea systems may not be seen or touched again by human hands for decades," says Mike Flynn, vice president of ExxonMobil Development Company. "We're working with parts as big as a house and as small as the tip of a ballpoint pen. Every component is tested and retested to make sure it's tough enough. They must be absolutely perfect."

Flynn, who managed the development of Kizomba A

ROVs can be as big as a truck or smaller than a washing machine. Their functions are vital to subsea operations. This ROV is shutting off a valve on a "tree" that controls hydrocarbons coming from a reservoir beneath the ocean floor. and B for Esso Angola, notes that much of deepwater's new technology is adapted from the aerospace, telemetry and communications industries.

"We are evolving rapidly," he says, "getting more efficient and effective together."

Flying deep

Safe in the control room of a support vessel 150 miles from shore, the pilot of a remotely operated vehicle (ROV) uses a joystick to "fly" his multimillion-dollar craft to the seabed more than a mile below. His computer screens are the same as others have used to discover ancient shipwrecks and explore deep-ocean vents.

This time, the pilot is guiding his robot to connect an umbilical line that contains all of the electrical and hydraulic cables needed to control several subsea wells. With smooth, precise movements, the robot handles the umbilical line and makes the connection using fittings and tools designed for its claw-like hands.

"What goes on above a deepwater development is just the tip of the iceberg," says Calvin Crossley, ExxonMobil Upstream Research Company deepwater systems supervisor. "There's another world of technological wonders going on below, which few people ever see."

The depth of deepwater developments is far too great for human divers to work safely, but ROVs are often used even for shallow-water subsea wells, particularly in regions of the world where there is no established diving industry.





Geoscientists (from left) Peter Vrolijk, Kevin Barnes, Jeff Crabaugh, Duncan Mardon and M. Ellen Meurer are working to further improve the resolution of three- and four-dimensional seismic images of deepwater fields.

"The value of ROVs has been proven in deep water," Crossley says. "Now they are the system of choice for working in all but the shallowest water."

Mapping deepwater reservoirs

Another deepwater challenge is collecting accurate data for the 3-D and 4-D seismic images geologists use to define oil and gas reserves and create models of the fields.

To learn more exxonmobil.com/ deepwater The raw seismic data are collected by first generating sounds at the

surface. As the sound travels into the earth, listening devices called geophones record the returning echoes. With sophisticated software and powerful computers, geoscientists then convert the numbers to images they can use.

"The deeper we go, however, the more the resolution is reduced," says Kevin Barnes, a project manager at ExxonMobil's Upstream Research Center in Houston. "With conventional seismic surveys, the quality of the sound is muffled, not only by the depth of the water, but also by the softness of the mud on the seabed."

Industry is addressing these challenges in several ways, such as deploying geophones in cables along the ocean floor, or lowering them into existing wellbores.

Deepwater choices

ExxonMobil has an extensive toolkit of technology for developing its deepwater fields, and that means spending time to select the right system for the job, based on the challenges of each new field.

"We look at all our options," says Tracy Fowler, deepwater systems engineer, "but there is no magic formula for deciding what goes subsea."

One new approach, for example, is the idea of processing the oil and gas on the seabed rather than sending it to a vessel or surface platform.

"We're not trying to push one technology over another unless we think it is the safest and most efficient system for the field," Fowler says. "We select certain technology because it solves a problem. Whatever we use has to make business and environmental sense."

The new frontier

Dave Lucas, now an ExxonMobil deepwater systems manager, started with the company in the 1970s. Fresh from engineering school, he was assigned to an offshore oil drilling team, where he found himself on the cutting edge of a new frontier.

"Offshore work has always been an adventure," he recalls. "Back then, it felt like we were going to the moon, but it doesn't hold a candle to the kinds of things we routinely accomplish today." theLamp

'New thinking' on natural gas

Securing tomorrow's natural gas supplies requires action today



We rely on it to warm our homes in winter, prepare our food and heat our water. It also fuels many of the power stations that generate our electricity.

America's manufacturers rely on it, too – to power their operations and to produce everyday items like paper, food, toys and medicines.

In fact, natural gas is the fastest-growing major energy source in the nation, with demand expected to increase 25 percent over the next decade, according to the U.S. Department of Energy.

For decades, we've come to rely on natural gas for its low cost, environmental benefits and ready availability. But high demand is now taxing the capacity of mature domestic fields – and policies that discourage development while encouraging consumption over other fuels have led to tighter supplies and higher prices that ripple through the economy.

Maintaining adequate supply will require new thinking. Opening up responsible access to more of North America's abundant and proven resources will help. So will sensible government regulations that make timely construction of infrastructure possible.

But domestic supplies and pipeline imports from Canada alone will not meet future needs. A critical component of future supplies will be imported liquefied natural gas, or LNG.

LNG is natural gas, cooled to a liquid for transportation to consuming markets in specially designed ships. The process is safe and used throughout the world.

Today, only a small amount of LNG is brought here to the United States and processed at a handful of import terminals. Plans for new or expanded facilities in a number of different states are currently being reviewed by regulatory agencies.

These planned terminals – if approved – will make it possible to link Americans with new sources of natural gas around the world to help meet our future needs.

Just as important, their varied locations provide flexibility, which can minimize the supply disruption caused by unexpected events, such as the recent hurricanes.

Taking action now can ensure competitive natural gas for many years to come.

Saving the world's wild tigers Launched more than a decade ago, the Save The Tiger Fund is beloing to pro-

Launched more than a decade ago, the Save The Tiger Fund is helping to protect a disappearing species. In 2005, the organization launched the Campaign Against Tiger Trafficking (CATT) to combat threats to the wild tiger's existence.

Sometime over the past 60 years, the Caspian tiger, like the Bali and Javan tigers, disappeared from the earth. The six surviving tiger subspecies, which may number fewer than 5,000 in the wild, are threatened with the same fate of extinction. The population decline is stark: In the 1800s, an estimated 100,000 tigers roamed through many of Asia's great forests and grasslands.

In 1995, the Exxon Education Foundation [which became the ExxonMobil Foundation when Exxon and Mobil merged in 1999] partnered with the National Fish and Wildlife Foundation to protect the world's remaining tigers through a grantmaking organization known as the Save The Tiger Fund (STF). To date, ExxonMobil has committed \$11 million to support efforts aimed at protecting and sustaining the species.

As the STF celebrates its 11th anniversary this year, the organization is widely recognized as the voice of the wild tiger and is now also supported by the Critical Ecosystem Partnership Fund and donations from people throughout the world. It has funded more than 284 diverse tiger-conservation

projects in countries such as India, Indonesia, Nepal and Russia with an investment of \$13 million. The STF's grants support field research, the monitoring of wild tiger populations, habitat restoration, community conservation awareness and involvement, and anti-poaching programs. Its contributions have helped stabilize some tiger populations, notably in the Russian Far East, and have also been key to restoring habitats in Nepal and India. Much of that success comes from the organization's ability to quickly address the changing challenges of tiger conservation.

Recognizing the uptick in the illegal tiger trade, the STF launched a three-year initiative in 2005 called the Campaign Against Tiger Trafficking (CATT). The program is designed to foster global cooperation to stop the poaching, smuggling, illegal trade and use of tiger parts.

Though trafficking of all tiger species was banned in 1987 by the Convention on International Trade in Endangered Species of Wild Fauna and Flora treaty, the ongoing demand for tiger skins and bones, which are used for clothing and supposed healing properties, keeps the big cats in a state of continual danger.

"We are organizing a global

response to what is now the number-one threat

to tigers in the wild," CATT director Judy Mills says. To counter this threat, CATT is building alliances among various parties, including conservation organizations, businesses, religious groups, and the governments of countries including China, India, Russia, Thailand and the United States.

"It's an organized response to an organized crime," says Mills. Past attempts to stop tiger trafficking were limited in effectiveness because they weren't coordinated, she says. CATT has become a respected clearinghouse for news and information about tiger trafficking and regularly issues updates on the illegal trade.

Some experts believe that ExxonMobil's support for tiger populations will be even more far-reaching than its effect on the species alone. "Tigers are an umbrella species for biodiversity conservation," says Dr. John Seidensticker, chairman of the Save The Tiger Fund Council. "By protecting tigers and the habitat that supports them, all biodiversity is conserved in those tiger conservation landscapes."

Veteran environmentalist and CATT executive Judy Mills agrees. She credits ExxonMobil for its commitment to saving tigers. She says, "I believe their strong support for tiger protection is an excellent example for others in the corporate world."



From top to bottom: A rider wears a tiger-skin costume at a horse festival in northern Asia; Tiger skins recovered from poachers on display in the Himalayas; An Amur tiger leaps to freedom after being relocated to a protected habitat.

Photography (top to bottom) courtesy of Banks EIA/WPSI; Chapagain D./Wildlife Conservation Nepal; and J. Goodrich/ Wildlife Conservation Society.

To learn more exxonmobil.com/tiger





Technology breakthrough opens new U.S. natural gas resources



After nearly a decade of research and development, ExxonMobil is deploying its new multi-zone stimulation technology (MZST) to produce natural gas from Colorado's huge Piceance basin. Clean-burning natural gas is the fastest-growing conventional energy source in the United States. The estimated 35 trillion cubic feet (gross) of natural gas beneath ExxonMobil's interests in the Piceance basin could be a substantial addition to America's future energy supply.

Above: Drilling up to nine wells from each location is efficient and greatly reduces the number of well pads needed to develop the resources.

At left: Workover Superintendent Jeff Simons checks one of five closely spaced gas wellheads.

The industry calls it tight gas. It's similar to what you may use at home to cook dinner or heat water, except that this gas is trapped within rock as dense as sidewalk cement. To recover tight gas, producers have learned to break open or "fracture" the reservoir rock.

Until now, only the most prolific tight-gas reservoirs could justify the expense of fracturing. Tightgas deposits like those distributed throughout the Piceance basin of northwestern Colorado were simply left behind.

"In 1995, senior management challenged the research organization to start thinking about breakthrough technologies," says Tom Muecke, ExxonMobil Upstream Research Company senior advisor. "That was the real beginning of our research program for recovering tight gas."

The goal was to find ways to

make conventional hydraulic fracturing cheaper and faster.

Increasing production

Hydraulic fracturing is a widely used process designed to increase production by opening pathways in reservoir rock so that hydrocarbons can easily flow to a wellbore.

A typical "frac" job involves bringing in a small fleet of specialized trucks equipped with highpressure pumps. Working together, they push fluid down the well and into the reservoir at flow rates and pressures high enough to force long cracks in the rock. Sand grains pumped along with the fluid push deep inside the cracks to hold them open after the pressure is released. A good frac job forms cracks that run from the wellbore more than 1,000 feet into the reservoir rock. "In the Piceance basin, the relatively thin layers of gas sands are often within 20 feet of one another, but isolated," Muecke says. "Long ago, they were deposited in streams as sandbars, so they don't go very far horizontally. Before we fracture the rock, we make decisions about whether to do a zone by itself or try to connect it with others."

To optimize production from a well in such a reservoir, as many as 45 zones may have to be fractured. Conventional frac jobs may involve only four or five zones. To make the process more efficient, a multifunctional team from ExxonMobil's Upstream Research Center and the U.S. Production Organization attacked the problem by developing multi-zone stimulation techniques and tools that had never been tried before.



Bobby Schoggins, senior operator, makes sure the gas processing plant runs close to its capacity of 50 million cubic feet per day.

Multi-zone stimulation technology

After a well is drilled, crews install casing pipe to isolate the wellbore and keep it from collapsing. To let oil or gas into the wellbore from each producing zone, well-completion specialists shoot marble-sized holes in the casing. This process is called perforating. ExxonMobil's proprietary new

technology includes the techniques and tools to quickly isolate a target zone, perforate the casing and fracture the rock, all in one continuous process. The sequence begins at the lowest completion zone in the well and continues up the casing to each new zone.

To make the process even more efficient, ExxonMobil combines up to nine wells, with surface locations spaced about 15 feet apart on a single pad. The advantage is that the drilling rig, and later the fracturing equipment, can move easily from one well to the next without having to travel and set up at a new location.

With conventional fracturing technology, it can take several weeks to complete a few highquality fracture treatments in one well. ExxonMobil's new process has treated up to 22 zones in a single day.

John Kuney (left) and Kris Nygaard review recent data from new wells in Colorado's Piceance basin.

An integrated effort

"Developing the Piceance basin has been a highly integrated effort," says John Kuney, Piceance project manager.

"Research, Exploration, Development, Gas Marketing and Production are working closely together to make this possible. We have created a clear competitive advantage with the management of our large acreage holdings and the technology we have developed to recover the resource safely and in an environmentally responsible manner. The success of this integrated technology development effort illustrates the business impact derived from ExxonMobil's long-standing commitment to the development of differentiating technologies."

Piceance is now moving from the technology-proving stage



"ExxonMobil's ability to go after tight gas is a technical breakthrough that will add significant volumes to our U.S. natural gas supply."



into the commercial-development stage. The project includes the expansion of one of the field's two existing gas plants.

Drilling is under way to support this expansion, and more than 50 wells have been drilled so far.

Technology awards

At an awards ceremony in New York City, ExxonMobil received the 2005 Platts Global Energy Award for "Most Innovative Technology of the Year" for the company's multi-zone stimulation technology.

ExxonMobil was also honored as "Energy Company of the Year" at the same event.

Clean, reliable energy

U.S. natural gas demand is expected to rise by 13 percent over the next decade.

However, much of the recoverable U.S. gas is out of reach,

To learn more exxonmobil.com/ advanceddrilling particularly on non-park lands in the West and in coastal waters.

Advanced technology and balanced access policy will help ensure many more decades of clean, reliable energy from natural gas. "There are many trillions of cubic feet of gas in tight-gas resources in the western United States and Canada," says Kris Nygaard, one of the inventors of the technology. "Worldwide, there are other basins that have similar tight gas in place."

Unlike conventional gas accumulations, which tend to come on strong and deplete themselves in a relatively few years, tight gas wells will decline to a certain point, then level off and produce at a steady rate for decades.

"ExxonMobil's ability to go after tight gas is a technical breakthrough that will add significant volumes to our U.S. natural gas supply," Nygaard says.

"The immediate benefit is that we can develop this resource rapidly and use the technology to improve the performance of other types of wells. The technology could have applications in other types of wells throughout the world."

"This is an enabling technology," Muecke adds. "The prize is huge, and the economic risk was significant, but ExxonMobil has the technology and experience to make the effort worthwhile." theLamp

Geology of the Piceance basin

Over tens of millions of years, meandering rivers deposited organically rich sediment throughout the region known as the Piceance basin. Unlike some large, continuous oil and gas reservoirs under ancient seas, deposits in Piceance are discontinuous, resulting in thousands of small gas-rich zones in intervals that are 4 to 80 feet thick, each separated from the next by thin layers of shale.



The Piceance basin stretches across parts of five counties in western Colorado.

ExxonMobil's leasehold area is shown in yellow. Meeting tomorrow's energy demand requires more efficient ways to develop new supplies without compromising safety. That's why ExxonMobil's Fast-Drill Process (FDP) – which increases drilling rates up to 80 percent – is such a hot topic in the oil patch these days.



Fast-Drill technology sets the pace

What are the physical limits to how fast we can drill through rock? Drillers thought they knew, but a new drilling process developed by ExxonMobil's Upstream Development Company proved there is still much to learn.

In the 1960s, a researcher noted that if the amount of energy required to break rock is equal to the measured strength of the rock, then the system is 100 percent efficient. Ever since, technicians in rock-mechanics labs have used that measure, called mechanical specific energy (MSE), in their work to determine ways to drill faster.

Now ExxonMobil is using a continuous real-time display of MSE as a tool in the Fast-Drill Process, enabling changes in

drilling parameters to minimize the amount of excess energy being used. As energy losses go down, the drilling rate goes up. That can reduce the cost of the well and shorten the time it takes to get it into production. ExxonMobil first tested the continuous real-time display of MSE as a benchmark for drilling on a South Texas well in 2003.

"We're looking at the fundamental physics and engineering principles governing drilling, and we are using that understanding to do things that our competition can't do," says Chuck Roberts, ExxonMobil Development Company technical manager.

"We know there are limits to how fast we can drill," says Roberts. "Fast-Drill enables us to determine those limits and remove them one by one."

Hard as rock

Three factors – the twisting force, rotational speed and amount of weight on the drill bit – determine how fast a bit will cut through rock. Engineers use these variables to measure the amount of energy required to penetrate the rock. By minimizing the energy lost while drilling, the efficiency of the drilling operation increases, and the bit drills faster.

Others in the industry analyze drilling efficiency, but ExxonMobil has fully integrated its analysis process into the design, surveillance and operation of its wells.

"Energy analysis lets drillers identify what is high bit efficiency, Above: At ExxonMobil's Upstream Technology Training Center in Houston, Fred Dupriest trains drilling specialists in the Fast-Drill Process.

Above right: Drillers on the rig floor and well supervisors and engineers in their offices can now monitor in real time how much energy is being used to penetrate the rock.



and they shoot for that," Roberts notes.

Although drilling efficiency may never reach 100 percent, displaying the energy being used lets the driller know when the process is becoming more efficient, or less so.

The information is displayed on the driller's console as a continuous plot that records the mechanical specific energy used whenever the bit is drilling. If the vertical line on the MSE plot moves too far and too fast toward high-energy values, the driller knows that something is making the process less efficient.

"With modern tools, there are only a few cases when the drill bit itself is inefficient, and we know how to fix those." Roberts says. "The problem was, sometimes we didn't know we had a problem."

If, for example, the driller sees that it suddenly takes much more weight on the bit to penetrate the rock, that doesn't necessarily mean that the rock in that zone is harder or that the bit has become dull.

Modern bits are very durable, and rock hardness rarely changes dramatically over short distances. Instead, it could be that the teeth on the drill bit are clogged, like knobby tires spinning in thick mud.

"Another big problem is vibration," Roberts says. "We believe that we are way ahead of the industry in our understanding of what vibration at the drill bit does to the rate of penetration."

Surprising results

Vibration, it turns out, is usually the major limit to how fast you can drill through rock. Drillers can't feel it at the surface, but vibration is happening down hole.

Vibration reduces the drilling rate and can ruin a new bit. In severe cases, a tool that should have drilled thousands of feet of wellbore can be damaged in as few as 100 feet. To replace a bit, drillers have to pull all of the drill pipe from the well, a slow process that can add hundreds of thousands of dollars to the cost of the well.

Suddenly, drillers using MSE to manage vibration were getting two or three times more life from their drill bits.

"Everything we do to minimize

vibration dramatically improves the rate of penetration," says Fred Dupriest, Upstream technical advisor. "But the real savings come when we eliminate some of the costly bit changes that can eat up days of rig time in deep wells. Even in rock formations that naturally cause a lot of vibration, detailed planning and design coupled with real-time MSE analysis can eliminate at least half of the normal bit changes."

Vibration also affects other equipment on the drill string, and even the quality of the hole itself.

"Most of the wells we drill today are very complex," Dupriest says. "We use steering devices and sensitive electronics above the drill bit to analyze the rock as we go. If those devices quit work-



From the Drilling Information Management Center in Houston, Technical Manager Chuck Roberts can verify the quality of data coming in from ExxonMobil wells being drilled around the world.

ing because of excessive vibration, we have to stop drilling and change them out. The Fast-Drill Process has dramatically reduced the number of failures of these down-hole devices."

Pilot-testing

There is no additional hardware associated with MSE or the Fast-Drill Process, only computer software and drilling procedures.

"It costs nothing extra to display MSE on a well log," Dupriest says. "The drilling company just puts another equation in the computer, and out pops the curve. We pilot-tested MSE in late 2003 by adding MSE curves to the drilling logs on six wells so drillers could see how much energy they were using to drill." If the energy use went up suddenly, drillers would modify the weight on the bit or rotating speed until the energy consumption went down. The result in the test case was an average twofold increase in the speed that the drill bit would cut through rock, regardless of the type of rock. The overall drilling rate, which includes the time it takes to stop the bit and add new sections of drill pipe, increased as much as 80 percent.

Redesigning the drilling process

Although drillers using continuous real-time displays of MSE were able to drill faster, they soon found that improving one area often turned up bottlenecks elsewhere in the system. Drilling faster, for example, might reveal that the equipment that circulates cuttings out of the hole can't keep up, or that the drill string is creating too much drag in the well.

"We call them rate-of-penetration limiters," Dupriest says. "So what we learned to do is improve until we reach the next limiter, then focus our attention on pushing back or eliminating the problem. That was the beginning of our Fast-Drill Process. Fast-Drill is the work flow we created to help us redesign the drilling process to extend our rate-of-penetration limits."

One of the most powerful aspects of Fast-Drill is that the work process forces issues to line up one at a time.

"We've learned that if you don't surround MSE with an efficient work process, nothing happens," Dupriest says. "The Fast-Drill difference is the work flow that surrounds it."

Fast-Drill is uniquely tailored to ExxonMobil's organizational culture and structure. The analysis is captured in a way that allows learnings to be transferred effectively from one crew to the next, anywhere in the world.

Drilling faster, not working faster

One of the first things people learn about the FDP is that drilling faster does not mean crews have to work faster.

"Fast-Drill only addresses issues that affect the rate of penetration," Dupriest says. "We have yet to say a word to any crew about trying to make faster connections when they're drilling, or rushing any of their other activities. ExxonMobil has such a strong safety culture, our contractors know that we don't want them to take any risks. There is no confusion about that."

High level of training

To date, the FDP has been rolled out to about half of ExxonMobil's drilling teams. The training is not only for employees, but also for key contractors who work with each team. Some 200 people were recently trained in Fast-Drill in Qatar alone.

Operations personnel at the rig now know more about rock mechanics than many petroleum industry engineers. That requires a high level of training, which ExxonMobil's global organization is well equipped to support through its central group of technologists.

"A year from now, the technology will be fully deployed," Roberts says. "And the best part is that the Fast-Drill Process applies to every new well we drill." the Lamp





An international summit aimed at finding solutions to the continuing health crises in developing countries unites leaders in a commitment to concerted action.

They came from around the world. In early November, more than 400 medical experts, scientists, business leaders, government officials, journalists and celebrities gathered in New York City for the TIME Global Health Summit. Participants and sponsors say their shared objective is to help control preventable health epidemics that are ravaging Africa and other parts of the developing world.

ExxonMobil and other sponsors, including the American Red Cross, the United Nations Foundation and Coca Cola, voiced their commitment to summit hosts TIME, Inc. and the Bill & Melinda Gates Foundation to help focus the world's attention on health crises such as HIV/ AIDS, tuberculosis and malaria.

Microsoft founder Bill Gates headlined the event and was joined by a host of other internationally recognized leaders who declared their support for the summit's goals.

Addressing the gathering on behalf of ExxonMobil, Senior Vice President Ed Galante said: "As a significant and growing investor in sub-Saharan Africa, we have witnessed firsthand the impact of malaria on our workforce, their families and the communities where we operate."

Galante told summit leaders that ExxonMobil's Africa Health Initiative has invested more than \$11.5 million in grants for malaria prevention, treatment and research since 2000. He also pointed to the numerous benefits that result from such involvement. "Our interest goes beyond philanthropy," he explained. "At ExxonMobil, we believe that improving health in Africa is good for the African economy, for the African people and for companies such as ours that do business in the region and have a long-term commitment to Africa's future."

Malaria's toll

Dr. Steven C. Phillips, ExxonMobil's Medical Director for Global Issues and Projects, also appeared at the summit, serving on a panel with other medical experts who discussed the issue of malaria containment – a continuing global challenge. According to Phillips, at least 300 million people worldwide are afflicted by acute symptoms of the disease. "One million people die of malaria every year," he said, "and about 90 percent of those deaths occur in sub-Saharan Africa."

"We understand that judicious investment in malaria research could result in breakthrough change," Phillips said.

In the days preceding the summit, ExxonMobil convened an international press conference to provide updated information on the latest progress in malaria research. Accompanying Phillips at the press briefing were representatives from three organizations supported by the Africa Health Initiative: the PATH Malaria Vaccine Initiative (MVI), Medicines for Malaria Venture (MMV) and the World Health Organization's Special Programme for Research and Training in Tropical Diseases.

Closing an "innovation gap"

Medicines for Malaria Venture Chief Executive Officer Dr. Chris Hentschel attributed the malaria crisis to an "innovation gap," in which the disease has grown resistant to drugs that were developed 50 years ago. He noted that the research community now has the largest portfolio of new anti-malaria drugs ever. including six under late-stage development, thanks to new funding sources. Hentschel added, "the goal of the research community is to put forth one major drug by 2010, and I can happily report that we will meet that objective."

Dr. Melinda Moree, director of the PATH Malaria Vaccine Initiative, said the lack of a vaccine can be attributed to market and scientific challenges. "While the volume market for these products is phenomenal, the revenue market is very small," she said. "It's mostly poor people in poor countries who are going to use these products. She also explained that "malaria is caused by parasites, At lectern: ExxonMobil Senior Vice President Ed Galante addresses summit leaders in New York.

At near left: Bill Gates and Ed Galante make their way to a summit meeting on malaria.

and there are no human vaccines against parasites."

Meeting with success

Still, Moree offered participants cause for optimism. In 2004, MVI and drug maker GlaxoSmithKline conducted trials on a promising vaccine in young children that yielded encouraging results. "We still have a long way to go to make the product available and affordable, but we're meeting with gratifying and early success," Moree said.

"It would be a shame if good tools become available and then it takes years to deliver them," said Dr. Jane-Frances Kengeya-

Kayondo. As coordinator of Implementation Research and Methods for the

To learn more exxonmobil.com/ malaria

Special Programme for Research and Training in Tropical Diseases, Kengeya-Kayondo studies approaches to delivering disease interventions in poor countries on a wide-scale basis.

According to Hentschel, a growing trend toward industry partnerships is already having a beneficial effect on malaria research. Describing the importance of partnerships, he concluded: "We couldn't do what we do without their support and involvement." the Lamp

Around the world with ExxonMobil

Plans set to increase production capacity at world's largest isopropyl alcohol plant

ExxonMobil Chemical will increase the production capacity of isopropyl alcohol (IPA) at its Baton Rouge, Louisiana, facility. IPA is an oxygenated solvent used extensively in coatings, cleaning, electronics, personal care and pharmaceuticals. It is also a feedstock for the production of agricultural chemicals. The project will increase the nameplate capacity of the world's largest IPA plant to 380 kilotons per year and is scheduled for completion in late 2006. ExxonMobil has a strong presence in IPA markets around the world. The investment is part of the company's ongoing commitment to serve the global IPA business and further enhance its competitiveness.

ExxonMobil has been in the isopropyl alcohol business for more than 80 years and has consistently invested in its IPA manufacturing, technology and supply-chain capabilities. The planned expansion further strengthens the company's ability to competitively supply IPA around the world and meet future marketgrowth opportunities.



ExxonMobil Chemical's Baton Rouge facility will boost production capacity to meet the world's growing demand for isopropyl alcohol.



Mitsubishi and Mobil 1 synthetic motor oil A *Mitsubishi Lancer* automobile using *Mobil 1* synthetic motor oil speeds through a tight corner during a World Rally Championship race.

New five-year supply agreement signed with Caterpillar

ExxonMobil and Caterpillar announced a new five-year supply agreement in which ExxonMobil will produce and supply *Caterpillar* oils to Caterpillar factories and dealers worldwide. ExxonMobil will be the exclusive supplier to Caterpillar worldwide for 30 *Cat* lubricants for engines, transmissions, hydraulics and final drives. ExxonMobil has supplied private-label lubricants to Caterpillar since 1987.

Market acceptance has proven the value of the Caterpillar and ExxonMobil alliance. The *Caterpillar*-brand oils supplied by ExxonMobil have delivered an average growth rate of 10 percent in sales over the past 10 years, compared with less than 2 percent for the rest of the lubricant industry.

ExxonMobil's global relationship with Caterpillar includes a dedicated team to support the program and provide technical and marketing training to all Caterpillar dealers and facilities worldwide. The two companies are also working together to develop the next generation of oils that will meet even-lower emission requirements and other machine lubricants that will extend component life.

Liquefied Natural Gas (LNG) production facilities expanded in Qatar

Qatar Petroleum and ExxonMobil Ras Laffan (III) Limited, a wholly owned subsidiary of Exxon Mobil Corporation, have announced the launch of Ras Laffan Liquefied Natural Gas Company Limited (RL3). RL3 is a further expansion of the existing LNG production facilities operated by RasGas Company Limited (Qatar Petroleum 70 percent; ExxonMobil 30 percent) at Ras Laffan Industrial City in Qatar.

The project will bring the total number of trains operated by RasGas to seven (Trains 1 and 2 in RL, 3 through 5 in RL II and 6 and 7 in RL 3) and is expected to increase RasGas LNG production capacity by more than 70 percent.

Full-chain investment in RL3 is estimated at nearly \$14 billion. This includes the design, construction and operation of two 7.8 million-ton-per-year LNG trains and all other facilities associated with the development, production, transportation, processing, treatment, liquefaction, regasification, storage, delivery and sales of about 15.6 million tons of LNG per year.

The new LNG project will be developed in two consecutive phases, with Train 6 scheduled to begin production in the second half of 2008 and Train 7 expected to come on stream one year later. New wells will be drilled to supply the two trains with natural gas from Qatar's giant North Field, which is estimated to contain natural gas resources in excess of 900 trillion cubic feet. LNG from the project will be delivered to targeted markets, principally the United States.

nont in RI 3 is estimated at nearly

ExxonMobil Educational Alliance Program helps local schools

Grants totaling \$2 million in 2005 provided important financial support for schools in 43 states and the District of Columbia as part of the ExxonMobil Educational Alliance Program. The 4,000 grants (\$500 each) can be used for a broad range of educational programs, based on the needs of the individual school. The 2005 contributions marked the sixth year that the program has provided financial support for local schools. Since its inception in 2000, the ExxonMobil Educational Alliance Program has disbursed more than \$11.5 million to K-12 educational institutions in the United States through its *Exxon* and *Mobil* retailers.



A Victory Junction Gang camper enjoys a special moment with *NASCAR* racing legend Kyle Petty.

ExxonMobil signs EPSA IV agreement for exploration in offshore Cyrenaica basin

ExxonMobil Libya Limited, an Exxon Mobil Corporation subsidiary, has signed an Exploration and Production Sharing Agreement (EPSA) with Libya's National Oil Corporation (NOC) to begin exploration activity offshore Libya. The agreement covers the large Cyrenaica basin Contract Area 44, which was awarded in the second round of EPSA IV licensing in October. The contract area comprises 2.5 million acres and is located offshore in water depths ranging from about 10 feet to more than 10,000 feet.

Convenience-store promotion supports Victory Junction Gang Camp for children

A month-long promotion at *On the Run* locations and company-operated *Tiger Mart* and *Mobil Mart* stores helped raise funds for The Victory Junction Gang Camp, a facility founded by *NASCAR* driver Kyle Petty and his wife, Pattie, to enrich the lives of children with chronic medical conditions and serious illnesses. Located in Randleman, North Carolina, Victory Junction is a member of actor Paul Newman's Association of Hole in the Wall Camps. Bengal Traders

URM

Bengal Traders coffee promotion scores extra points with football fans

On the Run convenience stores across the United States rewarded customers with free or half-priced *Bengal Traders* gourmet coffee during a promotion tied to local fan support for the National Football League's Monday night football games.

Exxon Mobil Corporation recognized as Mergent Dividend Achiever for consistent dividend increases

ExxonMobil was recently recognized as a 2005 Mergent Dividend Achiever by Mergent, Inc., a leading provider of business and financial data on global publicly listed companies. With this designation, ExxonMobil continues to be part of an elite group of companies that consistently delivers dividend increases to shareholders.

Mergent, Inc. began identifying Dividend Achievers in 1979. Mergent's Dividend Achievers are companies that have consistently increased their regular annual dividends to shareholders for 10 or more consecutive years (five years or longer for non-U.S. companies). ExxonMobil has increased its dividend every year for the past 23 years.

Each year, less than 3 percent of the U.S. stocks listed on the NYSE, AMEX and NASDAQ qualify as Dividend Achievers. In 2005, just 314 of the 15,000 U.S. publicly listed companies monitored by Mergent met that standard.



Mobil Travel Guide announces the 2006 Mobil Five- and Four-Star Awards

The *Mobil Travel Guide*, developer of the *Mobil Star* rating program for lodgings, spas and restaurants, named 32 lodgings and 15 restaurants as recipients of its 2006 *Mobil Five-Star* rating. In addition, 119 lodgings and 140 restaurants across the United States and Canada received the highly regarded *Mobil Four-Star* rating.

In the lodging category, the Four Seasons Hotel of Washington, D.C. was the sole new winner of the *Mobil Five-Star* designation, joining 31 other superlative establishments named in previous years. Among restaurants, three new properties were added to the *Mobil Five-Star* list: Bastide in Los Angeles; per se in New York City; and White Barn Inn Restaurant in Kennebunkport, Maine.

The *Mobil Five-Star Award* indicates that a dining or lodging experience is among the best in North America, consistently providing an unparalleled level of service and quality that distinguishes each recipient from its peers.

Mobil Delvac engine oil reaches 80-year milestone

Since its introduction in 1925, *Mobil Delvac* engine oil (short for Diesel Engine Lubricants VACuum) has provided power and protection for heavy-duty diesel engines around the world

in conditions ranging from the hottest desert areas of North Africa to Siberia's coldest winters. Throughout its 80year history, *Mobil*



Delvac has set the world standard for lubrication excellence, and it remains one of the most widely used brands of heavy-duty engine oil today.

Mobil Delvac technology is chosen by the world's top five heavy-duty truck engine original-equipment manufacturers and has garnered more than 2,000 builder approvals and preferential endorsements from international and local builders alike. With its signature black packaging, *Mobil Delvac* engine oil is available on the shelves of retail outlets and major truck stops around the world.



Third Quarter Earnings

ExxonMobil's third quarter 2005 earnings excluding special items were \$8,300 million (\$1.32 per share), an increase of \$2,070 million from the third quarter of 2004.

Third quarter net income included a special gain of \$1,620 million from the restructuring of the Corporation's interest in the Dutch gas transportation business ("Gasunie"). Including this gain, net income of \$9,920 million (\$1.58 per share) increased by \$4,240 million.

Upstream earnings excluding the Gasunie special item were \$5,729 million, up \$1,800 million from the third quarter of 2004, reflecting higher crude oil and natural gas realizations.

Downstream earnings were \$2,128 million, up \$1,277 million from the third quarter 2004, reflecting higher refining margins partly offset by weaker marketing margins, and the absence of the Allapatta lawsuit provision in the prior year period.

Chemical earnings were \$472 million, down \$537 million from the same quarter a year ago with reduced margins due to increased feedstock costs.

Net income of \$25,420 million (\$4.00 per share) for the first nine months of 2005 increased \$8,510 million from the first nine months of 2004.

ExxonMobil distributed \$16.4 billion to shareholders in the first nine months of 2005 through dividends and share purchases to reduce shares outstanding.

ExxonMobil quarterly financial summary

	Third quarter					First nine months			
Millions of dollars, except per-share amounts		2005		2004		2005		2004	
Functional earnings Upstream Downstream Chemical Corporate and financing Net income (U.S. GAAP)	\$	7,349 2,128 472 (29) 9,920	\$	3,929 851 1,009 (109) 5,680	\$	17,311 5,602 2,718 (211) 25,420	\$	11,788 3,362 2,180 (420) 16,910	
Net income per common share – assuming dilution	\$	1.58	\$	0.88	\$	4.00	\$	2.59	
Special items Earnings excluding special items	\$ \$	1,620 8,300	\$ \$	(550) 6,230	\$ \$	1,880 23,540	\$ \$	(550) 17,460	
Other financial data Total revenues and other income Income and other taxes Capital and exploration expenditures	\$1 \$ \$	100,717 25,836 4,414	\$ \$ \$	76,375 21,690 3,634	\$ \$ \$	271,336 72,907 12,368	\$ \$ \$	214,670 63,227 10,652	
Dividends on common stock Dividends per common share	\$ \$	1,822 0.29	\$ \$	1,753 0.27	\$ \$	5,390 0.85	\$ \$	5,158 0.79	
Thousands of barrels daily, except for natural ga	as an	d chemical							
Operating data Net production of crude oil and natural gas liquids		2,447		2,505		2,486		2,573	
Natural gas production available for sale (millions of cubic feet daily)		7,724		8,488		9,061		9,675	
Oil-equivalent production (6 million cubic feet = 1 thousand barrel	s)	3,734		3,920		3,996		4,185	
Petroleum product sales		8,217		8,242		8,235		8,131	
Refinery throughput		5,764		5,809		5,747		5,666	
Chemical prime product sales (thousands of metric tons)		6,955		7,117		20,485		20,839	

E‰onMobil

Taking on the world's toughest energy challenges."



Science fiction bows in awe as ExxonMobil writes the latest chapter in deepwater development.

Cover illustration by Bruce Morser



In this issue

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