

Oklahoma Rising!

On the Eve of the Centennial, Private Enterprise and Policymakers Hold the Keys to Success for Oklahoma's Second Century

Single Drilling Rig An Economic Development Dynamo

The primary role of an actively working Oklahoma drilling rig is finding energy. Another role is serving as a dynamic economic development machine — especially in rural areas.



Take the Cole Family 1-16, an oil and natural gas well just east of the city limits of Marlow, Okla., an hour's drive southwest of Oklahoma City.

At slightly more than \$2.7 million, the well's cost was average for Chesapeake, which has about 15,000 producing wells in the state and continues to be the most active driller in both Oklahoma and the nation. Just since 2001, the company has invested \$3.5 billion in finding and producing energy — in Oklahoma alone.

Seventy-five percent of the cost of the Cole Family 1-16, in this case \$2.1 million, was paid to 98 service and supply companies — nearly all based in Oklahoma and the majority of them based in communities outside of major metropolitan areas. The other 25% was allocated to Chesapeake or its drilling and trucking affiliates.

At current production rates, the more than 300 people who own fractional mineral interests in the Cole Family 1-16 should receive checks that collectively total \$1 million in the coming year. In 2006, Chesapeake paid royalties to 32,000 Oklahomans, who received a collective \$372.2 million.

State and local governments stand to receive more than \$425,000 a year in taxes on the sale of natural gas and oil from that single well alone.

Some large companies with headquarters in other states, such as AT&T and Halliburton, were paid for services to drill and complete the Cole. But they are the exception.

The typical companies that helped bring the Cole's energy to the surface on July 4, 2006, are those like Fred's Rat Hole Service from Lindsay, Shore's Energy Services from Ratliff City, or Moe's Portable Steam Co. from the Garvin County community of Foster.

If all 98 companies engaged only one employee each to work on the Cole — which taps energy from the Hoxbar formation two miles beneath the surface of the earth — it would likely be a work force large enough to generate news.

But, depending on the task, these companies don't send just one employee. A working rig and well completion require a small army of people who work for companies other than Chesapeake — bulldozer operators, truck drivers, sign painters, welders and fence builders, just to name a few.

Legal notices need to be published in newspapers. Crushed rock, diesel fuel and propane need to be purchased. Title opinions are necessary, as is insurance.

These expenses only scratch the surface, though, and altogether more than 600 invoices were paid so the Cole's natural gas and oil could improve the lives of Americans.

This kind of grassroots economic development can be seen in Fred's Rat Hole Service, which worked on the Cole Family 1-16.

Before a well is drilled, Fred's and other companies like it are hired to drill a shallow slanted hole near what will become the main well bore. The rat hole provides a convenient and safe space to store the "kelly" when it is not being used. The kelly is the first and sturdiest joint of the drill string.

Mike Davis, whose father founded the company in 1969, now runs Fred's.

"When I came back to work for dad in 1999 there was one other employee, one rig and me," Davis said. "Now, we have three rigs and 14 people, including office staff. We work for several companies, including a lot of work for Chesapeake. And we appreciate it."

"We've been in business for more than 30 years, and 2006 was our best," he said, noting that while he might run a small company, a seven-fold increase in new jobs has an impact in places like Lindsay.

It is a story that could be told 15,000 times across Oklahoma. And with 43 Chesapeake rigs presently drilling in the state, new stories like the Cole Family 1-16 are being made almost every day. ■



1907 Oklahoma becomes the 47th state. Just 10 years prior, in 1897, the state's first well was drilled.

1917

Oilmen gather at Hotel Tulsa to ensure petroleum availability to U.S. armed forces and allies during WWI, resulting in formation of Mid-Continent Oil & Gas Association.

1923

Oklahoma Geological Survey lists 243 oil and gas producing areas across the state.

1923

E.W. Marland sells J.P. Morgan \$12 million of Marland Oil stock.

1923

Betty Foster No. 1 comes in near Wewoka, serving as prelude to Greater Seminole field.

1925

The first all-welded pipeline more than 200 miles in length is built from Louisiana to Texas for transport of natural gas.

1929

Corporation Commission orders 30-day shutdown of Oklahoma City wells because of wasteful overproduction.

Treating Royalty Owners . . . Well, Like Royalty

Last year, royalty payments from Chesapeake Energy Corporation enriched the lives of almost 32,000 Oklahoma residents. Mineral rights owners, commonly called “royalty owners,” are paid a percentage of the revenue from oil and gas produced on land where they own mineral rights. The royalty payments are made by energy companies which lease those rights before they drill for oil or natural gas.

In 2006, Chesapeake paid royalties totaling \$372 million for oil and gas produced from Oklahoma wells. Including those 32,000 Oklahoma residents, almost 100,000 royalty owners located throughout the U.S. received more than three-quarters of a billion dollars in royalties from the company’s energy production across the nation.

Chesapeake’s royalty owner service departments are located in Oklahoma City, Fort Worth, Texas, and Charleston, West Virginia, serving a far-flung customer base totaling nearly 100,000 people.

“Our team’s main focus is service,” said Wade Brawley, vice-president — land administration for Chesapeake. “The department is made up of several groups, each serving royalty owners at different stages in the life of a lease. One group reviews title information and sets up the well’s

ownership to prepare for distribution of revenue. Another team processes ownership changes in the wells, and handles maintenance and changes in names, titles and addresses.”

A third group handles owner relations. Janet Lowrey, supervisor of division order owner relations, is proud of the team’s efforts to answer royalty owners’ questions and satisfy their needs. “We get about 4,000 inquiries a month and we want to serve every one of them the best we can,” she said. Every day, the group addresses hundreds of questions regarding titles, interest, revenues and other issues.

Helping them in the monumental task is a comprehensive Well Interest Owners Section located on the company’s web site at www.chkenergy.com. The web site fields a wide range of questions, interprets the data found on royalty checks and enables owners to electronically update profiles and payment information. The company also recently implemented a program for direct deposit of royalty payments, which has been a popular service to its subscribers.

“Our commitment to royalty owner service is companywide — beginning at the top, where senior management sets the pace of leadership



Royalty owners are able to access payment information via Chesapeake’s web site.

— and our dedicated support staff carries the ball,” Brawley noted. “We go to extremes to help our royalty owners benefit from their relationship with Chesapeake and we want it to be a mutually satisfying one in every way. We want royalty owners to think of Chesapeake before they agree to lease to anyone else.” ■

“Our commitment to royalty owner service is companywide — beginning at the top, where senior management sets the pace of leadership — and our dedicated support staff carries the ball.”



Ready with the right answers, Chesapeake employees Janet Lowrey and Lori Zang, standing, and William McFadden and Marisa Craig, seated, assist hundreds of interest owners with their questions each year at National Association of Royalty Owners (NARO) conventions.

With Oklahoma Roots and Natural Gas Royalties Reba’s Folks Are Happy Ranchers



Clark McEntire was looking for ranch land in 1959 when he bought property outside Stringtown, in southeastern Oklahoma. Today, he says he grins about that ranching dream every time he gets a royalty check from Chesapeake Energy Corporation.

McEntire followed the rodeo circuit almost 30 years, but his road always led back to Oklahoma. “I had a chance to buy the place cheap, and it turned out wonderful for me. Back then it was wonderful because I could afford to pay for it — and now it’s wonderful because it’s paying me royalties.”

“They made it pretty easy for me to do business with them,” McEntire said of Chesapeake. “They came out and we visited for a while. Those Chesapeake people get around. They do everything — drilling a well and laying the pipeline at the same time. That’s good because when you decide to partner in a well, you want it up and running. They’re good neighbors, building good roads and all.”

McEntire and his wife, Jacqueline, are parents of one of America’s top singers and entertainers, Reba McEntire. “She’s managed to hold her own,” McEntire said with quiet pride in his daughter’s success. “Once she got started she wouldn’t take no for an answer.”

Proud of their Oklahoma roots and happy to benefit from their natural gas mineral interests, the McEntires of Stringtown hold their own as well. ■



Representatives of 12 states gather in Ponca City at the home of Gov. E.W. Marland to organize Interstate Oil Compact Commission to conserve oil and gas.

1934

The nation begins massive expansion of its pipeline network leading to rapid growth of natural gas markets. During the 1950s and 1960s, thousands of miles of pipeline are constructed throughout the United States.

1940

Oklahoma Independent Petroleum Association (OIPA) formed.

1955

Osage lands at this date have produced a billion barrels of oil.

1969

Oil found east of state capitol. Ignoring restrictive city ordinances, Gov. Marland calls out state militia and allows drilling on capitol and governor’s mansion lawns — only such occurrence in U.S. history.

1945

Oklahoma becomes third-largest producer of petroleum in U.S., largely as a result of the Oklahoma City and West Edmond discoveries.

1960

Organization of the Petroleum Exporting Countries (OPEC) formed by Venezuela, Saudi Arabia, Iran, Iraq and Kuwait.

Natural Gas Overtakes Oil as Oklahoma's Most Prominent Energy Source

While all of the energy that is discovered and produced from beneath Oklahoma's land is valuable, it might be time for the state's "Oil and Natural Gas Industry" to consider a name change.

Statistics show that "Oklahoma Natural Gas and Oil Industry" would be more accurate.

It was oil that ignited the energy industry in Oklahoma. In 1897, the first commercial oil well was completed in what would become Washington County in northeastern Oklahoma. Then, in November 1905, a wildcatter named Bob Galbreath brought in the Ida Glenn No. 1, breathing life into the mighty Glenn Pool field near Tulsa.

Waves of wealth followed, with technology continually improving. Even greater fields were discovered as the industry spread southwestward across Oklahoma — to Cushing, Oklahoma City, Healdton and beyond.

Population centers were still small, and pipeline systems were too rare to transport commercial quantities of the natural gas that was often discovered with oil, so it was flared. Pure gas wells were generally plugged.

Times have changed. There has been widespread and expanding use of electricity as well as surging industrial, commercial and residential demand. The escalating demand for energy and the growing awareness of the economic and environmental benefits of natural gas have combined to make natural gas Oklahoma's most important form of energy, with the value of production more than three times that of oil — around \$10 billion annually, depending on price.

According to state records, this shift in emphasis to natural gas began in the early to mid-1990s. Today, the emphasis is clearly on natural gas:

- Exploration companies are drilling nearly five times more feet per year searching for natural gas than searching for oil.
- Eight times as many "wildcat" wells — risky wells drilled in unproved areas — are being drilled for natural gas as opposed to oil.
- Three times as many new natural gas wells are being completed than new oil wells.

Today, Oklahoma ranks second in the United States in natural gas production and sixth in oil production. Chesapeake is the leading producer of natural gas in Oklahoma and the second-leading producer of oil.

Oil has been and will remain a vital component of Oklahoma's rich history and economic vitality. Oil brought Oklahoma to the dance and forever shaped its destiny.

But the future lies with Oklahoma's Natural Gas Industry. ■



Water and Natural Gas

Chesapeake Energy Protects One Precious Resource while Producing Another

Water is a precious resource in the Sooner State. Oklahomans are rightfully proud of the state's 11,600 miles of shoreline surrounding its lakes, rivers and streams. Chesapeake strives to conduct its operations with a strong sense of stewardship, protecting the state's water supplies while producing another vital Oklahoma resource — natural gas.

At every Chesapeake drillsite in Oklahoma, the company uses a multitude of safety measures, including surface casing and conductor pipe, to create barriers that protect precious groundwater reserves. These precautions seal off gas-bearing formations and prevent fluids from migrating into freshwater sources.

The water used for drilling and completing wells is usually purchased from private owners of water wells, rural water districts or municipal water departments. Whenever possible, Chesapeake uses effluent discharge water from municipal sewage treatment plants or industrial sources.

Sometimes in remote locations, Chesapeake uses water from area ponds, streams or rivers, or drills new water wells, depending on the area and rainfall amounts. In this highly regulated process, all water usage is permitted by the Oklahoma Water Resources Board. When water is used from streams or rivers, Chesapeake takes care to ensure that a continuous flow is kept for downstream use.

Water is recycled and used three to four times during the drilling process. Following drilling, the well completion process may require up to 25,000 barrels of water for frac jobs, approximately as much water as is used every three days to irrigate one golf course.

The company is also conscientious when storing and disposing of produced saltwater, a frequent byproduct of natural gas production at the well. Though not required by regulations, Chesapeake's saltwater tanks are surrounded by secondary containment equal to 150% of the largest tank's capacity. This secondary containment provides protection in the unlikely event of a release of saltwater.

Saltwater from producing wells is transported for injection into disposal wells drilled into deep formations. Disposal wells, which are certified by the Oklahoma Corporation Commission, are specifically designed to prevent contamination of underground sources of drinking water. Each undergoes mechanical integrity testing annually to certify its soundness. ■



Hunzicker 1-4 in Caddo County, Okla.



At 31,447 feet, Bertha Rogers No. 1 in the Anadarko Basin becomes the world's deepest gas well, and nearby Elk City becomes "Deep Gas Capital of the World."

1971

Oklahoma ranks fourth among crude oil production states and third in natural gas production.

1976

Chesapeake Energy Corporation is founded in May 1989.

1989

Chesapeake goes public on the NASDAQ stock exchange at \$1.33 per share.

1993

The Yom Kippur War sends oil prices increasing from \$3 a barrel to \$13 a barrel.

1973

The cost of natural gas for residential users sets a record high of \$10.06 per thousand cubic feet (measured in constant 2004 dollars).

1983

The Clean Air Act Amendments require environmental relief changes to fossil fuels. Use of these cleaner fuels was phased in during the 1990s. Natural gas is promoted as cleaner burning fuel in power generation and transportation, increasing its use.

1990

Cleaner, Faster, Safer This is Not Your Great-Grandfather's Energy Industry

The natural gas and oil industry in Oklahoma began fully 10 years before statehood, when the Nellie Johnstone No. 1 was drilled and completed in 1897. History books of that early industry show grainy photographs of wooden derricks, mule teams and uncontrolled gushers blowing "black gold" into the sky.

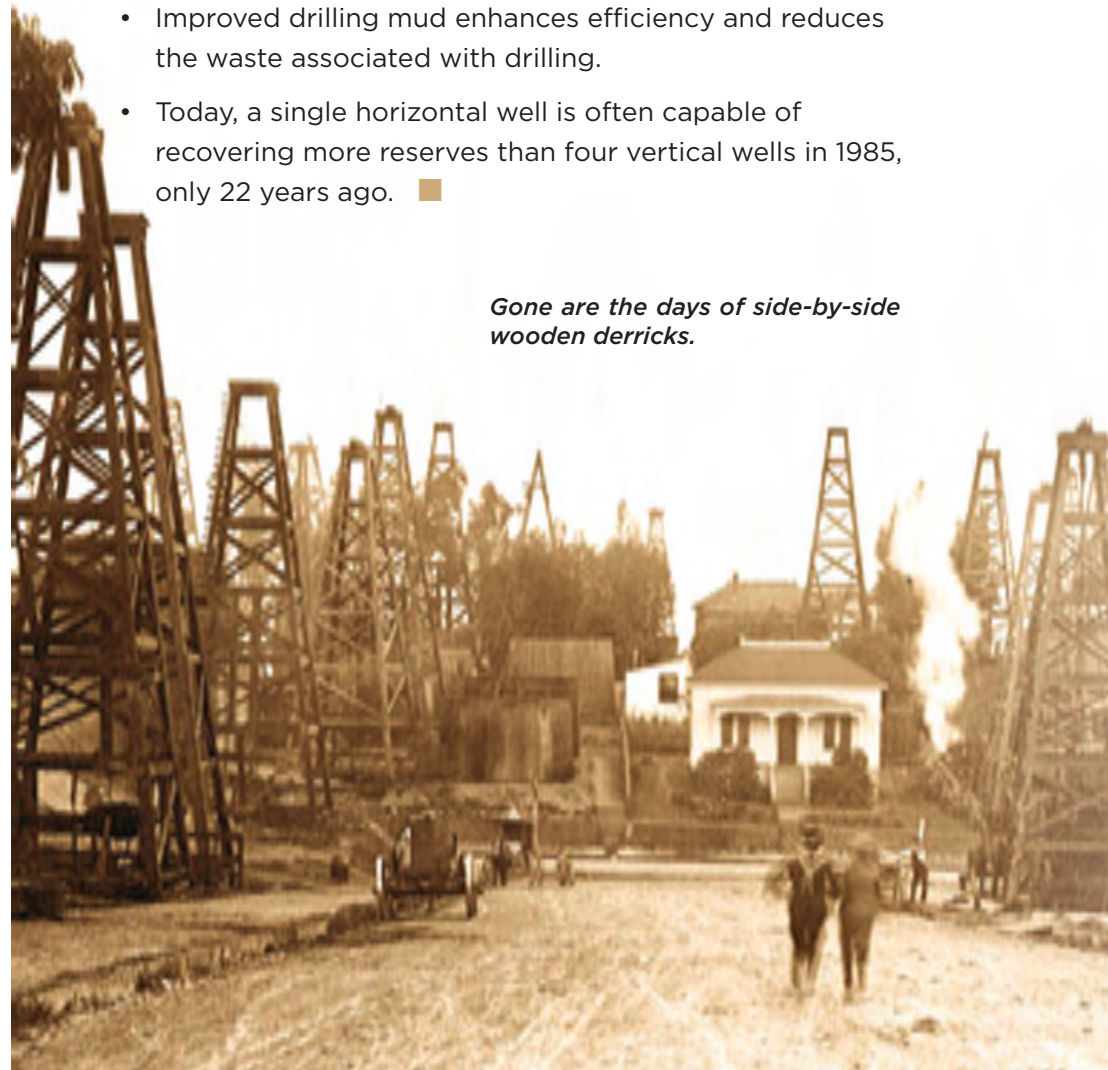
As the state approaches its centennial celebration this November, industry advancements in exploration are accelerating how energy sources are identified and extracted more efficiently and more safely than ever.

In short, this isn't your great-grandfather's energy industry.

- 3-D seismic technology and global satellite positioning enable geologists and engineers to pinpoint potential energy sources and "see" underground before drilling begins, dramatically improving the exploration success rate while greatly reducing surface disturbance and environmental impact.
- Advanced directional drilling technology allows access to an underground target the size of a clothes closet thousands of feet deep and far from the drilling rig, making it possible to drill more wells from a single location.
- Improved drilling mud enhances efficiency and reduces the waste associated with drilling.
- Today, a single horizontal well is often capable of recovering more reserves than four vertical wells in 1985, only 22 years ago. ■



Gone are the days of side-by-side wooden derricks.



Natural Gas Will Play a Role



Environmental Developments Will Impact Politics — And Daily Life

Like their counterparts across the nation, Oklahoma policymakers and business leaders are monitoring recent national political and environmental developments that ultimately will have an impact at the state and local levels.

Consider these developments:

- The Intergovernmental Panel on Climate Change report issued Feb. 2 concluded that human activity is most likely to blame for global warming.
- After winning majorities in the U.S. House and Senate in last November's election, Democrats have several climate-change bills in the works. House Speaker Nancy Pelosi is creating a special committee on the topic.
- Some 12 states are taking steps to reduce greenhouse gases.
- More than 375 mayors have signed pledges to cut emissions in their communities. In January, they launched an effort to develop and pass major climate-change legislation in Congress.
- The leaders of 10 of the nation's largest corporations joined four environmental and climate groups in demanding swift passage of federal legislation to cut emissions.

Regulatory and legislative changes that may stem from this dialogue could have a significant impact on Oklahoma, especially the state's major metropolitan areas as they work to remain within current air quality standards.

For a natural gas-rich state like Oklahoma, changes could also affect the energy industry. Natural gas is the cleanest-burning fossil fuel. While there are no single or near-term solutions, common sense suggests that in the future gas will play a more prominent role than fuels which are less environmentally desirable.

"If you're a serious thinker about global warming, you ultimately will conclude that natural gas will be one of the key components in addressing that issue," said Aubrey McClendon, chairman and chief executive officer of Chesapeake Energy. ■

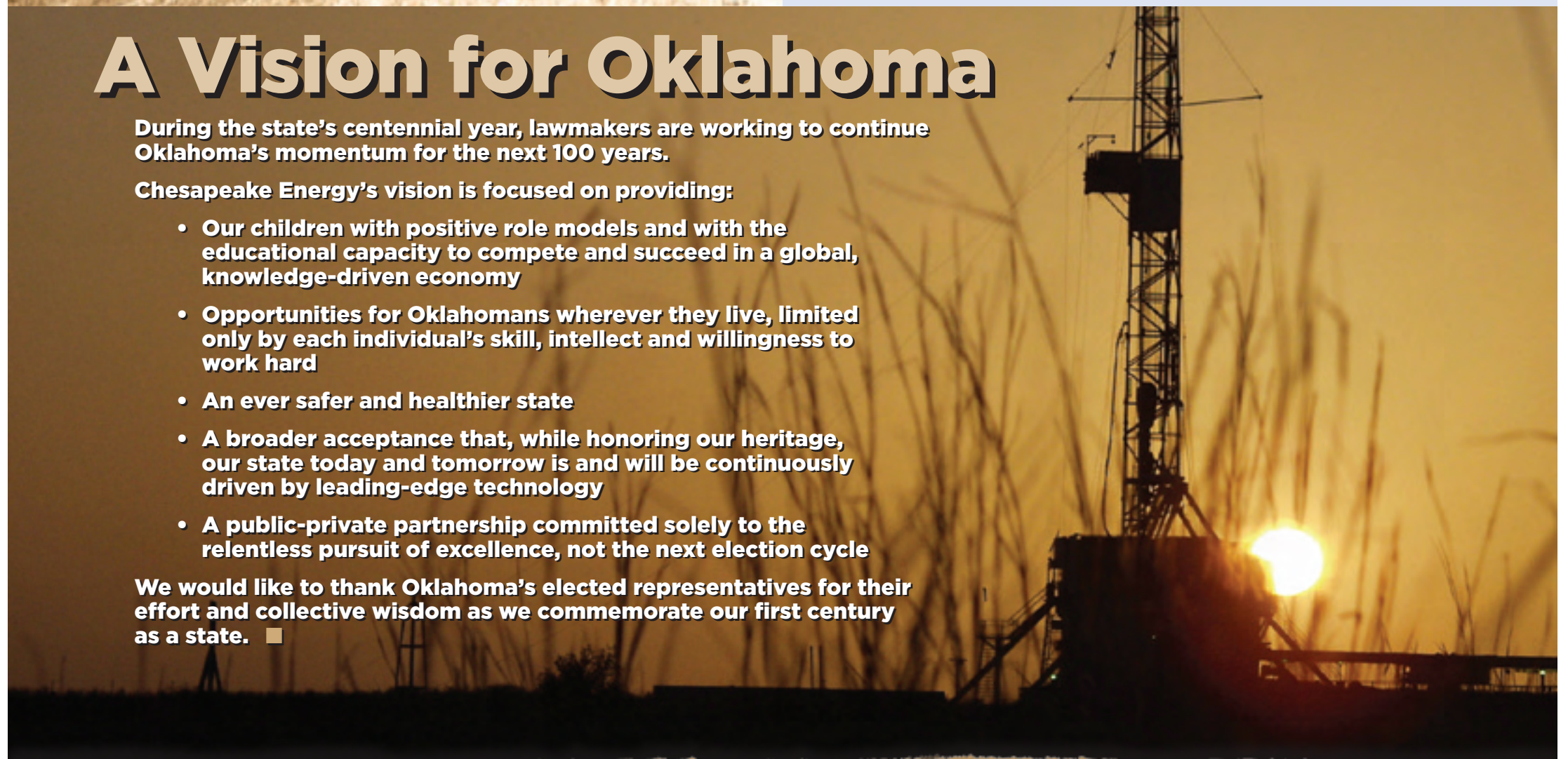
A Vision for Oklahoma

During the state's centennial year, lawmakers are working to continue Oklahoma's momentum for the next 100 years.

Chesapeake Energy's vision is focused on providing:

- **Our children with positive role models and with the educational capacity to compete and succeed in a global, knowledge-driven economy**
- **Opportunities for Oklahomans wherever they live, limited only by each individual's skill, intellect and willingness to work hard**
- **An ever safer and healthier state**
- **A broader acceptance that, while honoring our heritage, our state today and tomorrow is and will be continuously driven by leading-edge technology**
- **A public-private partnership committed solely to the relentless pursuit of excellence, not the next election cycle**

We would like to thank Oklahoma's elected representatives for their effort and collective wisdom as we commemorate our first century as a state. ■



Oklahoma Energy Resources Board (OERB) formed.

1993

1998

About 5.1 billion cubic feet of natural gas is reported as being used for vehicles.

Natural gas consumption peaks at 23.3 trillion cubic feet.

2000

2005

Price of oil per barrel reaches \$60.

Chesapeake Energy becomes the second-largest independent producer of natural gas in the U.S. and the most active driller of new oil and gas wells with estimated reserves of 9.0 trillion cubic feet.

2006

