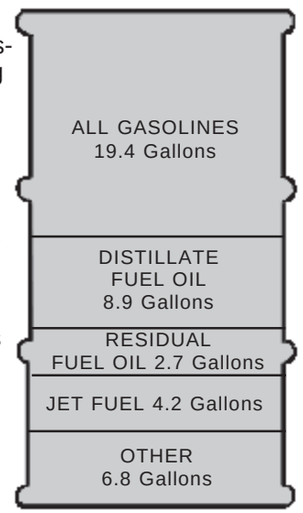
## Responsible Development on Public Lands

- The oil and gas industry in North Dakota has explored and drilled the grasslands for 53 years and has a proven track record of being able to produce oil without disrupting the environment or wildlife.
- The industry, in cooperation with the Forest Service, has reclaimed over 700 wells and 280 miles of roads in the national grasslands. This represents 5,300 acres returned to vegetation after the oil and gas reserves were depleted.
- Over 17% of the state's oil production and nearly 18% of the state's producing wells are on the grasslands.

## Refining and Transportation

- The state's only crude oil refinery is at Mandan. It has a daily capacity of about 60,000 barrels.
- There are ten natural gas processing plants operating in western North Dakota. They are located near Tioga, Ambrose, Killdeer, Lignite, Rhame, Gorham, Arnegard, Trotters, Marmarth and Ray.
- The ten natural gas processing plants processed enough natural gas in 2007 to heat 627,000 households for one year. Over 40% of the homes in North Dakota use natural gas as their primary heating fuel.



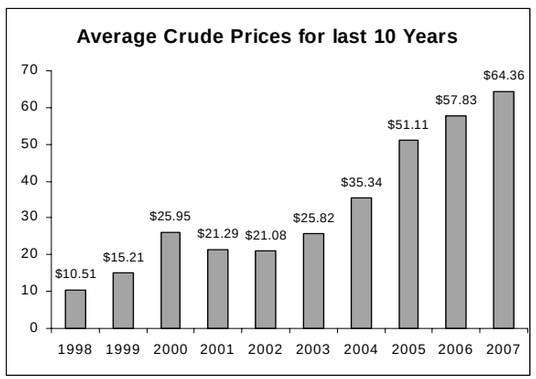

AVERAGE GALLONS OF PRODUCT DERIVED FROM EACH BARREL OF CRUDE OIL
(42 Gallons in a Barrel)

## Gasoline – Consumption & Taxes

- North Dakotans pay 23 cents state tax and 14.8 cents federal tax on each gallon of gasoline and diesel fuel they buy.
- North Dakotans used nearly 362 million gallons of gasoline in 2007, and almost 466 million gallons of diesel fuel.
- Gasoline and special fuels taxes raised almost $140 million in tax revenue during 2007, up $20 million from the previous year. These funds are used primarily for road construction.

## History

- Oil was discovered on April 4, 1951 near Tioga in Williams County. That well, the Clarence Iverson #1, produced more than 585,000 barrels of oil over 28 years.
- Prior to the discovery of oil in 1951, 64 wells had been drilled in the state dating back to 1910. Since 1951, another 14,886 wells have been drilled in North Dakota.
- The average crude oil posted price for North Dakota in 2007 was $64.36 per barrel. That represents $6.53 a barrel increase from the 2006 average.




- The future is bright for the oil and gas industry in North Dakota. There is a huge amount of oil and gas still in the ground in areas that have not been explored. New technologies, new discoveries, and new work in older fields have vastly increased both the odds of finding oil and the efficiency of producing it.

## And Nationally.....

- The biggest source of energy in the United States in 2007 was petroleum, supplying 41% of our nation's energy. Next is natural gas at 23%, coal 22%, nuclear 8%, and renewables 6%.
- The average drilling rig count in the U.S. for 2007 was 1,649. The all-time high was 4,530 in 1981.
- U.S. crude oil production in 2007 was 5.1 million barrels per day, up slightly from 2006.
- Total petroleum imports averaged 12.3 million barrels per day for 2007, up 10% from 2006.
- The U.S. imported 60% of its total oil needs in 2007. The largest importers to the U.S. are Canada with 11.3%, Mexico with 8.3%, Saudi Arabia with 7.1%, Venezuela with 6.8% and Nigeria with 5.4%. Iraq supplied the U.S. with 2.6% of its oil in 2006. Collectively, OPEC countries supplied about 26.7% of our nation's daily oil needs. Saudi Arabia was the world's largest producer of oil in 2007, at 12.6%.

All data is from latest year available.
For sources or additional information, contact:

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# NORTH DAKOTA OIL & GAS INDUSTRY

# FACTS & FIGURES

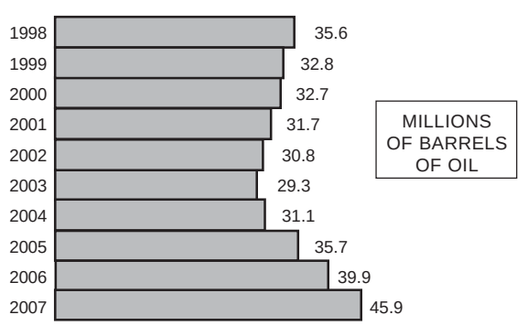
**2008 Edition**

North Dakota Petroleum Council

# North Dakota's Oil Patch Stats for 2007

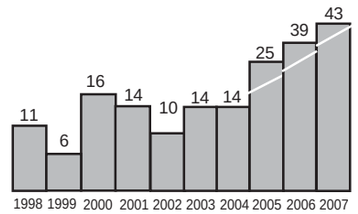
- North Dakota is the eighth largest oil producing state. The state's average production was more than 123,000 barrels of oil per day in 2007, totaling nearly 45 million barrels for the year, up over 5.1 million from 2006.
- All-time production of crude oil in North Dakota amounts to more than 1.6 billion barrels.
- At the end of 2007, there were 3,868 wells capable of producing oil and gas in North Dakota. The average North Dakota well produced approximately 28 barrels per day.
- During 2007, 70.8 billion cubic feet of natural gas was produced and 52 billion cubic feet of natural gas was processed in North Dakota.

**ANNUAL CRUDE OIL PRODUCTION**
*(BARRELS)*
**IN NORTH DAKOTA**




- The drilling rig count, which is a prime barometer for measuring new oil and gas activity, averaged 43 rigs a day in 2007. The peak year for drilling rigs was 1981, with an average monthly rig count of 119. The all-time high was in October of 1981 with 146 rigs operating.

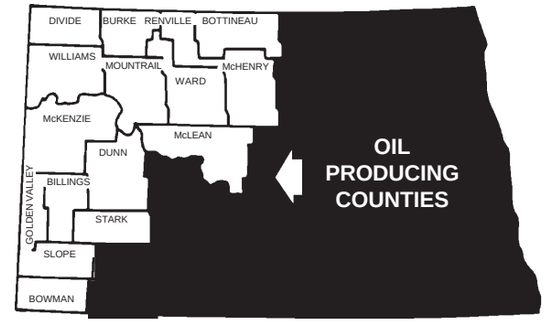
## Average Number of Drilling Rigs




- There were 494 drilling permits issued during 2007, up 146 from last year. Approximately 335 wells were completed during the year.
- Horizontal, or directional, drilling accounted for 76% of the new wells drilled in 2007 and accounted for 69% of the state's total oil production.
- The success ratio for new wells in existing fields in 2007 was 99% and for wildcat wells it was 94%. A wildcat well is a new well drilled at least one mile from existing production. The overall industry success rate for new wells in North Dakota for 2007 was 98%.
- The deepest vertical well drilled last year in North Dakota was 15,180 feet. The average depth for a North Dakota well in 2007 was 16,061. The longest horizontal well drilled last year in North Dakota was 21,726 feet.
- The average cost of completing an oil well in North Dakota was approximately $4.7 million during 2007. The average cost of completing a well in 2006 was nearly $4.1 million.

## Where The Oil Comes From

- There were 16 counties in the state in 2007 with commercial oil production. Oil and gas exploration has occurred at some point in every county in the state except Traill County.
- Bowman County was the top-producing county in 2007 accounting for 39% of the state's oil production. The other top-producing counties were McKenzie, Billings, Williams and Mountrail.



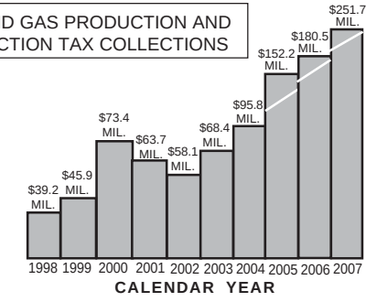

## Oil Patch Employment

- The state averaged more than 6,600 North Dakotans at work in the oil patch in fiscal year 2006-2007. This represents a 16% increase in oilfield employment. Peak oil field employment occurred in late 1981, when more than 10,000 people were working in the oil patch.
- Each drilling rig results in approximately 120 direct and indirect jobs.
- Other sectors of the petroleum industry include refineries, gas plants, pipelines, retail gasoline stations, wholesalers, and transporters. The industry altogether employed approximately 14,500 people in North Dakota in 2007.
- Job Service North Dakota reports that in 2006 the average yearly wage in the oil and gas extraction industry was $70,422. That wage is 125% above the statewide average wage of $31,316!

## Oil Tax Revenues High in 2007

- Higher crude oil prices in 2007 led to huge tax collections for the State of North Dakota. Counties, schools, and cities also benefited from increased oil and gas tax collections. Production tax revenues for 2007 were more than $251.7 million representing a 39% increase from 2006.

*OIL AND GAS PRODUCTION AND EXTRACTION TAX COLLECTIONS




* Total collections reflect all revenue paid by the industry, including the counties' share of the 5% production tax and the trust fund portion of the 6.5% extraction tax.

- All-time oil tax revenues to the state are well over $2 billion.
- The average production and extraction tax paid on crude oil in 2007 was 8.86%. The tax rate on crude oil varies between 5% and 11.5% depending upon the type of well.
- The oil and gas industry paid $17.2 million in taxable sales and purchases in 2007, up 107% from 2006.
- The tax on natural gas for calendar year 2007 was 15.3 cents per thousand cubic feet (mcf). In 2007, the state collected more than $7.7 million in natural gas taxes.
- Over the past 55 years, the State of North Dakota has received more than $545 million from oil and gas leases, bonuses, royalties and rentals on state land. During 2007, more than $7.5 million went to the Lands and Minerals Trust and over $35.3 million to the Board of University and School Lands Trust.
- U.S. Forest Service administered lands in the Little Missouri National Grasslands provided oil and gas revenues of $28.8 million during fiscal year 2007. Of that amount, one-fourth, or $7.2 million, was returned to McKenzie, Billings, Golden Valley and Slope Counties for schools and roads. In addition, Bureau of Land Management administered land produced more than $27.5 million during fiscal year 2007. Half of that amount, $13.7 million, was returned to the state's general fund and is the first money expended for education statewide.