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# CONTENTS

# THE OIL & GAS PRODUCING INDUSTRY IN YOUR STATE

Production

The Year in Review					
2006: US Energy Energy Future					
at a Crossroad	3				
Statistical Summary					
Crude Oil Summary	19				
Natural Gas Summary	20				
Drilling Summary	21				
,					
State Statistics	0.4				
United States	24				
Federal Offshore	26 28				
Alabama	30				
Alaska	32				
Arizona Arkansas	34				
California	36				
Colorado	38				
Florida	40				
Illinois	40				
Indiana	44				
Kansas	46				
Kentucky	48				
Louisiana	50				
Maryland	52				
Michigan	54				
Mississippi	56				
Missouri	58				
Montana	60				
Nebraska	62				
Nevada	64				
New Mexico	66				
New York	68				
North Dakota	70				
Ohio	72				
Oklahoma	74				
Oregon	76				
Pennsylvania	78				
South Dakota	80				
Tennessee	82				
Texas	84				
Utah	86				
Virginia	88				
West Virginia	90				
Wyoming	92				
Exploration and Drilling					
Rotary Rigs Operating	94				
New-Field Wildcat Wells Drilled	93				
Exploratory Wells Drilled	96				
Development Wells Drilled	97				
Total Wells Drilled	98				

Producing Crude Oil F	Crude Oil Wells
Marginal O Producing Marginal G	ells  Oil Marginal Wells
Crude Oil F Natural Ga	g & Equipping Wells107 Revenues
Natural Ga Refiner Acc of Crude O Retail Gase	Vellhead Prices
Consumption Petroleum Natural Ga	on Consumption115 s Consumption117
State Rank World Crud	bus Dil & Gas Historical Society19 ings
Cooperatin Data Source Educationa Glossary . Oil and Ga State Educe State Energian	Information       115         Ins/Conversions       115         Insychology       115         Insychology       120         Instruction       120
by Bruce Wel	acts and cover photography provide s, Executive Director of the America

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Image: A standard cable-tool rig at Penn-Brad Historical Oil Well Park, near Bradford, PA.

# THE OIL & NATURAL GAS PRODUCING INDUSTRY IN YOUR STATE

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# THE YEAR IN REVIEW: INTRODUCTION TO 2006 O&G IN YOUR STATE

**2006: U.S Energy Future at a Crossroads** Pete Stark, Ph. D., IHS

### Introduction:

In the wake of Hurricanes Katrina and Rita, anxieties about the security of U.S. energy supplies soared while the petroleum industry focused on restoring oil and gas production and realigning supply chains. During June 2006, the Minerals Management Service (MMS) reported that hurricane damages resulted in cumulative loss of 162 MMb of oil production and 784 Bcf of cumulative gas production from the Federal Offshore Gulf of Mexico. This amounted to 30% of annual oil production and 21% of annual natural gas production from this province. Vulnerability of offshore Gulf of Mexico production and near-shore facilities to hurricane damage prompted the U.S. Energy Information Agency (EIA) to add a hurricane risk factor to its oil and gas production forecasts. Energy policy makers looked for options to improve the security of oil and gas supplies and calls for "energy independence" and freedom from "foreign" oil imports made headlines during the first quarter of 2006. The petroleum industry noted that a simple option to reduce the vulnerability of U.S. oil and gas supplies would be to open access to prospective offshore and Arctic areas that have been off limits to explorers.

Fears abounded at the start of the year that tight oil and gas supplies would substantially increase prices during the year. On January 3, 2006 U.S. crude oil was \$63.14 per barrel, almost 50% higher than the price on January 3, 2005. Concerns about political risks in the Middle East, supply disruptions in other important oil producing countries like Nigeria and OPEC's dwindling surplus producing capacity were cited as drivers for high oil prices even though January 2006 U.S. crude oil stocks stood at 321 MMb, at the top of the 5-year maximum range for this month. Crude oil stocks continued to build through most of the year reaching a high of 340 MMb during November. Monthly oil prices eventually peaked at \$74.40 per barrel during July 2006 and the year closed at \$57.75 per barrel - off \$5.39 from January 3, 2006. The 2006 annual average oil price, nevertheless, was \$65.58, almost 16% higher than in 2005.

The behavior of natural gas prices was more surprising. The January 3, 2006 U.S. natural gas spot price was \$10.63 per Mcf, some 84% higher than the price on January 3, 2005 and the EIA forecast that Henry Hub gas would average about \$9.50 per Mcf for the year. The weather and a demand slump in response to four months of double digit gas prices, though, helped to paint a different picture. Mild mid-winter weather curtailed gas demand for heating and drove seasonal gas storage volumes from a scant 6% above average level at yearend 2005 to almost 48% above average by mid-February 2006. Correspondingly, by March 1 the Henry Hub spot gas price dropped to \$6.73 per Mcf - a 37% decline from the first of the year. The gas storage surplus prevailed for most of the year and natural gas spot price averaged \$6.91 during 2006, off \$2.06 or 23% from 2005.

The abrupt and unexpected turnaround in the U.S. gas market was a relief for consumers but created crossroads for producers, planners and policy makers alike. During 1997, U.S. gas production essentially reached a plateau. From 1997 to 2005, U.S. gas production ranged from 56 - 60 Bcfd before a series of hurricanes struck the Gulf Coast. To sustain this decade-long plateau, U.S. gas well completions more than doubled from about 12,500 wells during 1997 to 30,349 gas wells during 2006. Increased drilling was required to offset the decline in high productivity conventional offshore and onshore gas production with lower productivity gas wells from unconventional reservoirs. From 1997 through 2005 this looked to be a losing game. Combined offshore and onshore conventional gas production lost 4,056 Bcf (including the impact of the 2005 hurricanes) while unconventional gas production from coalbed methane, tight sands and shales increased by 3,471 Bcf. Growth in gas production from the Barnett shale in the Ft. Worth Basin plus coalbed methane and tight sands in Rocky Mountain basins did not offset all of the decline in conventional gas but it saved the day for U.S. gas consumers.

U.S. gas well productivity, however, was decreasing as average peak well production dropped from 1,324 Mcfd in 1997 to 678 Mcfd per well in 2006. As a result, industry had to drill more gas wells each year just to replace production. Shortages of skilled manpower arose and costs increased 65% during 2005 and 2006 as industry pressed to drill more wells. Moreover, community interests and environmental advocates pressed to curtail the expansion of unconventional gas drilling. Despite these challenges, U.S. gas production reached 17,638 Bcf for the year - the largest volume since 2001. Nevertheless, a paradox emerged as planners and policy makers looked for alternate sources of gas supplies and tapped LNG imports as the solution to meet future U.S. natural gas demand. Permits for LNG regassification facilities were put on a fast track and projects were launched with the objective to accommodate as much as 9 Bcfd in LNG imports during 2009 and as much as 20 Bcfd by 2020.

Insights on key E&P trends that are embedded in the 2006 data in this publication are summarized below:

### **Natural Gas Play Highlights:**

Even though gas prices slumped during the first quarter, independent operators continued to expand their assessments of unconventional gas plays throughout 2006. Significant industry developments involved the expanded quest to test the potential of shale source rocks throughout the U.S. Importantly, breakthroughs in staged hydraulic fracs and horizontal well completions that were pioneered in the Barnett shale helped to establish several important new shale gas plays. Southwestern Energy drove the successful expansion of the Fayetteville shale in the Arkoma Basin of Arkansas and achieved initial production rates in excess of 2 MMcfd from its horizontal wells.

# THE YEAR IN REVIEW: INTRODUCTION TO 2006 O&G IN YOUR STATE

Newfield Exploration Company expanded its Woodford shale play in southeast Oklahoma and found that reducing frac intervals to 500 feet or less generated the same ultimate gas recoveries as achieved from 1,000 ft. frac stages in earlier wells. Other independent operators expanded the Woodford play into the Ardmore Basin of southern Oklahoma. Also in the mid-continent region, operators tested the Caney shale in Oklahoma and the Bend shale in the Palo Duro Basin. In the Permian Basin, thick Woodford and Barnett shales attracted substantial industry interest but economic success was not demonstrated before the end of the year. Independents also tested the Mississippian Floyd shale and Cambrian Conasauga shale in the Black Warrior Basin, Devonian shales in the Appalachian Basin and Delta Petroleum Corp. announced promising tests of Pennsylvanian Paradox shales in the Paradox Basin of Utah.

Operators also leveraged improved well completion technologies to increase the harvest of in-place gas by downspacing in established tight sand plays. Noteworthy were the Bossier and Cotton Valley plays in East Texas, Cretaceous Mesaverde sand plays in the Piceance, Uinta and Green River Basins. Also in the Green River Basin, operators moved to 20 and 10 acre spacing in the prolific Lance formation of the Pinedale Anticline with estimated 20 Tcf recoverable gas and at the Jonah field with estimated 7 to 10 Tcf recoverable gas. Increased well densities, though, prompted objections from environmental groups and community interests. To address the issues, stakeholders were organized to stimulate collaborative communications and operators responded by reducing the environmental footprint by drilling from pads, installing water treatment and pipe systems, rapid restoration of disturbed surface areas, adjusting operations to wildlife migrations and so forth. Such actions reduced the number of legal actions and allowed operators to spend more time on field operations.

### Gas Drilling and Production:

During 2006, U.S. natural gas well completions increased by 13% to 30,642 wells. State level drilling statistics tend to be too coarse to reflect the emergence of new plays but some are indicative as in the following table showing the number of gas well completions for 2005 and 2006 with the indicated % change:

State	2005	2006	% Change	Key Play
AR	277	395	43%	Fayetteville shale
KS	851	1,215	43%	Cherokee CBM
PA	2,614	3,247	24%	Devonian shale
UT	445	649	46%	Cretaceous tight sands

The increasing value of horizontal wells to enable commercial production from certain unconventional coalbed methane and shale reservoirs is reflected in the dramatic 71% increase in horizontal completions from 2004 through 2006. The Fayetteville play drove Arkansas horizontal drilling from four wells during

2004 to 107 during 2006. Oklahoma horizontal wells increased by 381 wells during 2004 to 699 wells during 2006 with much of the increase in Woodford shale, Hartshorne coalbed methane and Granite Wash gas plays. The Barnett shale play drove most of the increase in Texas horizontal wells which increased from 1,250 wells during 2004 to 2,200 wells during 2006.

Coalbed methane plays added 557 Bcf of production – 16% of the production growth from unconventional reservoirs – from 1997 through 2006 but the rate of production growth and new drilling slowed during 2006. Coalbed methane drilling only grew by 44 wells to 6,710 total wells during 2006. Drilling increases in the Cherokee coals of southeastern Kansas and Pennsylvanian coals in Virginia were offset by decreased drilling in Powder River Basin coalbed methane plays. As a result, U.S. coalbed methane production added only 62 Bcf to reach 1,662 Bcf during 2006.

Thanks in large part to the growth of onshore unconventional plays, U.S. natural gas production recovered from the hurricane impacts and added 387.2 Bcf to reach 17,638 Bcf for the year – the most since 2001. Gas production in Texas (+327 Bcf), Wyoming (+109 bcf), Colorado (+97.3 Bcf), Oklahoma (+71 Bcf) and Utah (+40 Bcf) – mostly from unconventional gas plays – more than offset the decrease of 219 Bcf from Federal Offshore production.

### Oil Play Highlights:

Two significant oil plays – Chevron's Jack 2 test in the deepwater offshore Gulf of Mexico and the evolving Devonian Bakken shale oil play in the Williston Basin – dominated U.S. oil E&P news during 2006. The Jack 2 well, a 28,500 ft. well in about 7,000 ft. of water in Walker Ridge Block 758, yielded the first successful production test of the pre-salt Lower Tertiary Wilcox reservoir. This was good news to operators of eleven other indicated ultra-deepwater discoveries in this play. The test flowed 6,000 bopd from about 40% of the measured reservoir. Chevron and partners indicated this test could be the key to unlock 3 to 13 billion barrels of recoverable oil from the Wilcox ultra-deepwater trend.

Expansion of the Bakken shale play into Mountrail County, ND established two sweet spots at the Parshall and Sanish fields and identified a new north – south fairway east of the Nesson Anticline that could boost the play into the giant category. Horizontal wells and staged hydraulic frac technologies have unlocked the potential of the Bakken shale. As the potential of the new Bakken trend was realized the number of horizontal wells in North Dakota jumped from 150 wells during 2004 to 375 wells during 2006. Correspondingly, oil production in North Dakota grew from 30,142 Mb during 2004 to 36,763 Mb during 2006. Independents EOG Resources Inc. and Whiting Oil and Gas Corp. led the development in this important new Bakken oil play.

# THE YEAR IN REVIEW: INTRODUCTION TO 2006 O&G IN YOUR STATE

### Oil Drilling and Production:

Driven by higher oil prices, U.S. operators increased oil well completions during 2006 by 21% to 13,278 wells. Increased activity in traditional oil producing trends in Texas, Oklahoma and Kansas accounted for most of the gains while the expanding Bakken play in North Dakota added 140 of the total 2,349 well increase from 2005.

At the close of 2006 the U.S. recorded 403,887 producing oil wells which produced 1,661.9 MMbo during the year. Marginal oil wells continued to play a valuable role. The 355,794 marginal oil wells generated 360.7 MMbo or 22% of U.S. oil production during the year. Overall 2006 crude oil production dropped by 38.9 MMb to 1,661.9 MMb. Alaska reported the largest decline of 66.5 MMb from 2005 to 269.2 MMb during 2006. Even though U.S. crude oil production decreased by 107 Mb/d (2%) crude oil imports essentially remained flat at 10,118 Mb/d.

### **Concluding Comments:**

The U.S. exploration and production business demonstrated great resiliency during 2006. Even though oil and gas prices slumped and substantial resources were invested to rebuild offshore oil and gas production capacity, the industry managed to boost gas production by more than 2% to 17.638 Bcf, the largest volume since 2001. Independent operators led the onshore industry and demonstrated the capability to boost commercial gas production from unconventional reservoirs including gas from shales. They also demonstrated that they could produce significant amounts of oil from the Bakken shale. These developments made a positive statement about the industry's capabilities to make a substantial contribution to U.S. energy security objectives.

### New Look for Our Publication

The IPAA Statistics Department would like to recognize our continue collaboration with IHS for this publication. In an effort to enhance the data quality and broaden our sources, IPAA welcomes the wide-ranging and professional input provided by IHS.

IPAA continues its efforts to enhance the scope and quality of state and national data that will make this publication more valuable for those in industry, government, academia, finance, and other stakeholder groups. IHS has helped expand data in new areas such as unconventional oil and natural gas production, permit and operator data, horizontal drilling figures and marginal production by state. We will continue to expand our industry perspective and endeavor to provide readers with more detailed analysis on industry trends by nation and play-type in addition to more comprehensive state data.

In the 2007-2008 issue we have added several resources at the beginning of the publication that provide resource links for state education programs, Young Professional chapters and oil and gas museums. This section follows IPAA's broad efforts to expand its Education Center in Houston, TX and work with more energy education groups around the country. In the future, more issues of the publication will be printed for distribution to educators in schools around the country so teachers and students will better understand the important role played by the E&P industry in providing jobs and energy to our country.

We appreciate the assistance of IHS in improving both the scope and quality of this upstream publication. Please let us know if you have ideas pertaining to other ways we can improve. You can send your comments to Fred Lawrence at IPAA (flawrence@ipaa.org). Thank you for your continued support of one of the industry's most informative publications.

# **M**ETHODOLOGY

- IHS uses multiple sources of data such as test files (Texas and Louisiana test information is used to allocate production volumes on a well completion level), injection files and plugging reports that is integrated with basic production volume data that is submitted by individual states. As a result production totals may differ from the Energy Information Administration data.
- IHS production data is used on state pages includes peak production, average production, average output per well, coalbed methane, heavy oil and marginal wells.
- EIA production data is used for determining wellhead value of production, cumulative crude oil wellhead value, state production rankings, and natural gas marketed production. All price data from EIA or states. State reserve data is from EIA.
- All Federal Offshore statistics include only those wells in Federal waters. All state well statistics include those offshore wells for each state.

- Deepest Well statistics are based on total depth recorded from state completion reports. The only exceptions are minor occurrences where projected depth from permits have been used as a proxy for Deepest Well statistics.
- Well statistics for oil, gas and dry wells are all classes that were drilled with the intent to find hydrocarbons. Historical well counts do not include any miscellaneous wells ie injection, storage, etc.
- Drilled footage is the actual drilled footage as reported. For sidetracks it is the footage from the whipstock or kickoff point to total depth. For wells deepened it is the footage from the original total depth to the new total depth.
- Marginal wells are defined as oil wells producing 15 or less barrels of oil and 90 or less thousand cubic feet of gas per day (previous editions used stripper wells producing less than 10 bbls of oil and 60 Mcf of gas per day).

# STATE ENERGY CONTACTS

### Alabama State Oil & Gas Board

420 Hackberry Lane/P.O. Box 869999 Tuscaloosa, AL 35486-6999 (205) 349-2852 (205) 349-2861 Fax http://www.ogb.state.al.us

# Alaska Department of Natural Resources

Division of Oil & Gas 550 West 7th Ave., Suite 800 Anchorage, AK 99501-3560 (907) 269-8800 http://www.dog.dnr.state.ak.us/oil/index.

### Alaska Oil & Gas Conservation Commission

3001 Porcupine Drive Anchorage, AK 99501-3192 (907) 279-1433 http://www.state.ak.us/local/akpages/ ADMIN/ogc/homeogc.htm

### **Arizona Geological Survey**

P.O. Box 40952 Tucson, AZ 85717 (502) 770-3500 http://arizonageologicalsoc.org

### Arkansas Oil & Gas Commission

2215 West Hillsboro El Dorado, AR 71730 (870) 862-4965 (870) 862-8823 Fax http://www.aogc.state.ar.us/

### California Department of Conservation

Division of Oil & Gas 801 K Street, MS 20-20 Sacramento, CA 95814 (916) 445-9686 (916) 323-0424 Fax http://www.consrv.ca.gov/index/

# Colorado Oil & Gas Conservation Commission

1120 Lincoln St., Suite 801 Denver, CO 80203 (303) 894-2100 (303) 894-2109 Fax http://oil-gas.state.co.us/

### Florida Bureau of Geology

Division of Resource Management 903 West Tennessee Street Tallahasee, FL 32304 (904) 488-4191

# Illinois Department of Natural Resources

Oil and Gas Division One Natural Resources Way Springfield, IL 62702-1271 (217) 782-6302 http://www.dnr.state.il.us/mines/index.htm

# Indiana Department of Natural Resources

Oil and Gas Division 402 W. Washington St., Room 293 Indianapolis, IN 46204 (317) 232-4055 (317) 232-1550 Fax http://www.in.gov/dnr/dnroil/

# Interstate Oil and Gas Compact Commission

P.O. Box 53127 Oklahoma City, OK 73152-3127 (405) 525-3596 (405) 525-3592 Fax http://www.iogcc.state.ok.us

### **Kansas Corporation Commission**

Finney St. Office Building 130 South Market, Room 2078 Wichita, KS 67202-3802 (316) 337-6211 http://kcc.state.ks.us

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Oil and Gas Division 1025 Capital Center Dr. Frankfurt, KY 40601 (502) 573-0147 http://dogc.ky.gov/

# Louisiana Department of Natural Resources

P.O. Box 94275/617 North Third Street Baton Rouge, LA 70804-9275 (225) 342-5515 http://www.dnr.state.la.us

### **Maryland Geological Survey**

2300 Saint Paul Street Baltimore, MD 21218-5210 (401) 554-5500 http://www.mgs.md.gov/

### Michigan Geological Survey

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### Mississippi State Oil and Gas Board

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# Missouri Department of Natural Resources

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# Montana Board of Oil and Gas Conservation

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# Nebraska Oil & Gas Conservation Commission

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### New York State Department of Environmental Conservation

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### **New York State Geological Survey**

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### **North Dakota Industrial Commission**

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(614) 265-7999 Fax http://www.ohiodnr.com/mineral/index.html

# Oklahoma Corporation Commission Oil and Gas Division

P.O. Box 52000/2101 N. Lincoln Blvd. Oklahoma City, OK 73152-2000 (405) 521-2211 http://www.occ.state.ok.us/

# Oregon Department of Geology and Mineral Industries

800 NE Oregon St., #28, Room 965 Portland, OR 97232 (503) 731-4100 (503) 731-4066 Fax http://www.oregongeology.com/sub/ default.htm

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# Tennessee Dept. of Geology & Conservation

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### Texas Railroad Commission Office of Information Services

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# Utah Department of Natural Resources

1594 West North Temple/P.O. Box 145801 Salt Lake City, UT 84114-5801 (801) 538-5277 (801) 359-3940 Fax http://dogm.nr.state.ut.us/

### Virginia Division of Energy

Dept. of Mines, Minerals & Energy PO Drawer 900 Big Stone Gap, VA 24219 (276) 523-8146 http://www.mme.state.va.us/dgo/default.htm

### West Virginia Office of Oil & Gas

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# Wyoming Oil and Gas Conservation Commission

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# Federal Energy Regulatory Committee

888 First St., NE, Room 2-A Washington, D.C. 20426 (866) 208-3372 http://www.ferc.gov

# National Petroleum Technology Office

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10200 Richmond Avenue Houston, TX 77042 (713) 781-0758 (713) 781-7542 Fax http://www.aesc.net

### California Independent Petroleum Association

1112 I Street, Suite 350 Sacramento, CA 95814 (916) 447-1177 (916) 447-1144 Fax http://www.cipa.org

### Colorado Oil & Gas Association

1776 Lincoln Street, Suite 1008 Denver, CO 80203 (303) 861-0362 (303) 861-0373 Fax http://www.coga.org

### East Texas Producers & Royalty Owners Assoc.

P.O. Box 1700 Kilgore, TX 75663 (903) 984-8671 (903) 984-1499 Fax

### Eastern Kansas Oil & Gas Association

P.O. Box 355 Chanute, KS 66720 (620) 431-1020 (620) 431-9325 Fax

### FL Independent Petroleum Producers Assoc.

P.O. Box 230 Pensacola, FL 32591 (904) 434-6830 (904) 434-6842 Fax

### Illinois Oil & Gas Association

P.O. Box 788 Mount Vernon, IL 62864 (618) 242-2857 (618) 242-3418 Fax http://www.ioga.com

### Independent Oil & Gas Association of NY

5743 Walden Drive Lakeview, NY 14085 (716) 627-4250 (716) 627-4375 Fax http://iogany.org

### Independent Oil & Gas Assoc. of Pennsylvania

Northridge Office Plaza II Wexford, PA 15090-7906 (724) 933-7306 (717) 933-7310 Fax

### Independent Oil & Gas Assoc. of West Virginia

405 Capitol St., Suite 507 Charleston, WV 25301 (304) 344-9867 (304) 344-5836 Fax http://www.iogawv.com/

### Independent Oil Producers' Agency

1228 N Street, Suite 26 Sacramento, CA 95814 (916) 442-7095 (916) 442-5822 Fax

### Independent Oil Producers Assoc. Tri-State

2104 Lincoln Avenue Evansville, IN 47714 (812) 479-9451 (812) 476-2569 Fax

# Independent Petroleum Assoc. of Mountain States

518 17th Street, Suite 620 Denver, CO 80202 (303) 623-0987 (303) 893-0709 Fax http://www.ipams.org

### Independent Petroleum Assoc. of New Mexico

529 West San Francisco St./PO Box 576 Santa Fe, NM 87504 (505) 984-0128 (505) 622-8996 Fax http://www.ipanm.org

### Indiana Oil & Gas Association

Route 1, P.O. Box 197 Bridgeport, IL 62417 (618) 943-1010 (618) 943-5301 Fax

# International Association of Geophysical Contractors

2550 N. Loop, W, Suite 104 Houston, TX 77092 (713) 957-8080 (713) 957-0008 Fax http://www.iagc.org

### Kansas Independent Oil & Gas Association

105 S. Broadway, Suite 500 Wichita, KS 67202-4262 (316) 263-7297 (316) 263-3021 Fax http://www.kioga.org

### Kentucky Oil & Gas Association

#1-A Physicians Park Frankfort, KY 40601 (502) 226-1955 (502) 226-3626 Fax http://kyoilgas.org

# Liaison Committee of Cooperating Oil & Gas Associations

P.O. Box 1143 Graham, TX 76450 (940) 549-5261 (940) 549-4241 Fax

### Louisiana Oil & Gas Association

P.O. Box 4069 Baton Rouge, LA 70821-4069 (800) 443-1433 (225) 388-9561 Fax http://www.loga.la

### **Louisiana Landowners Association**

P.O. Box 44121 Baton Rouge, LA 70804-4121 (504) 927-5619 (504) 928-7339 Fax http://www.louisiana2000.com/LLA/

### Michigan Oil & Gas Association

124 West Allegan St., Suite 1610 Lansing, MI 48933 (517) 487-1092 (517) 487-0961 Fax http://www.michiganoilandgasassociation.org

### Mississippi Indep. Producers & Royalty Owners

P.O. Box 13393 Jackson, MS 39236 (601) 362-0502 (601) 362-5397 Fax http://www.mipro.ms

### **Montana Petroleum Association**

601 Euclid Ave., P.O. Box 1186 Helena, MT 59624-1186 (406) 442-7582 (406) 443-7291 Fax http://montanapetroleum.org

### **National Association of Royalty Owners**

P.O. Box 5779 Norman, OK 73070-5779 (405) 573-2972 http://www.naro-us.org

### **National Stripper Well Association**

P.O. Box 18336 Oklahoma City, OK 73154 (405) 601-8002

### **New Mexico Oil & Gas Association**

P. O. Box 1864, 500 Don Gaspar Santa Fe, NM 87504-1864 (505) 982-2568 (505) 982-0811 Fax http://www.nmoga.org

### **New York State Oil Producers Association**

37 Elm St., P.O. Box 364 Eldred, PA 16731 (814) 225-4659

### Northern Alliance of Independent Producers

P.O. Box 2422 Bismarck, ND 58502 (701) 224-5037 (701) 224-5038

### Ohio Oil & Gas Association

P.O. Box 535/1718 Columbus Rd., SW Granville, OH 43023-0535 (740) 587-0444 (740) 587-0446 Fax http://www.ooga.org

### Oklahoma Independent Petroleum Association

3555 Northwest 58th St., Suite 400 Oklahoma City, OK 73112 (405) 942-2334 (405) 942-4636 Fax http://www.oipa.com

# Panhandle Producers & Royalty Owners Assoc. 3131 Bell #209

Amarillo, TX 79106 (806) 352-5637 (806) 359-1274 Fax http://www.pproa.org

### COOPERATING OIL & GAS ASSOCIATIONS

### Pennsylvania Oil & Gas Association

106 Locust Grove Rd./P.O. Box 349 Bainbridge, PA 17405 (717) 426-0067 (717) 426-3010 Fax

### **Permian Basin Petroleum Association**

P.O. Box 132/415 W. Wall, 1st Floor Midland, TX 79701 (432) 684-6345 (432) 684-7836 Fax http://www.pbpa.info/

### **Petroleum Association of Wyoming**

951 Werner Court, Suite 100 Casper, WY 82601 (307) 234-5333 http://www.pawyo.org

### **Petroleum Equipment Suppliers Association**

9225 Katy Freeway, Suite 310 Houston, TX 77024 (713) 932-0168 (713) 932-0497 Fax http://www.pesa.org/

### **Petroleum Technology Transfer Council**

16010 Barkers Point Lane, Suite 220 Houston, Texas 77079 (888) THE-PTTC/(281) 921-1720 (281) 921-1723 Fax http://www.pttc.org

### Society of Indep. Professional Earth Scientists

4925 Greenville Avenue, Suite 1106 Dallas, TX 75206 (214) 363-1780 (214) 363-8195 Fax http://www.sipes.org

### Tennessee Oil & Gas Association

750 Old Hickory Blvd., #285 Brentwood, TN 37027 (615) 263-1291 (615) 263-1282 Fax http://www.tennoil.com

### **Texas Alliance of Energy Producers**

726 Scott Ave., Ste. 500 Wichita Falls, TX 76301 (800) 299-2998 (940) 723-4132 Fax http://www.texasalliance.org

# Texas Independent Producers & Royalty Owners Association

515 Congress Avenue, Suite 910 Austin, TX 78701 (512) 477-4452 (512) 476-8070 Fax http://www.tipro.org

### Virginia Oil & Gas Association

1007 East Watauga Ave. Johnson City, TN 37601 (423) 926-2536 (423) 378-1723 Fax

### Wyoming Independent Producers Association

P.O. Box 2325 Gillette, WY 82717-2325 (307) 686-1081 (307) 686-0560 Fax http://www.energyconnect.com/wipa

### **Networking Associations**

### Alaska Oil & Gas Association

121 W. Fireweed, Suite 207 Anchorage, AK 99503 (907) 272-1481 (907) 279-8114 Fax http://www.aoga.org

### **American Association of Petroleum Geologists**

1444 S. Boulder Ave./ P.O. Box 979 Tulsa, OK 74101 (800) 364-2274 (981) 560-2694 http://www.aapg.org

### **American Petroleum Institute**

1220 L St. NW Washington, DC 20005-4070 (202) 682-8000 (202) 962-4776 Fax http://www.api.org

### Canadian Association of Petroleum Producers

Suite 2100, 350 7th Avenue S.W. Calgary, Alberta Canada T2P 3N9 (403) 267-1100 (403) 261-4622 Fax http://www.capp.ca

### Illinois Petroleum Resources Board

P.O. Box 491 Mount Vernon, IL 62864 (618) 242-2861 (618) 242-3418 Fax

# International Association of Drilling Contractors

P.O. Box 4287/10370 Richmond Ave., Ste. 760 Houston, TX 77210-4287/77042

Houston, TX 77210-(713) 292-1945 (713) 292-1946 http://www.iadc.org

### Louisiana Mid-Continent Oil & Gas Association

801 North Blvd. Baton Rouge, LA 70802 (225) 387-3205 (225) 344-5502 Fax http://www.lmoga.com

### Mid-Continent Oil & Gas Association of OK

6701 N. Broadway, Suite 300 Oklahoma City, OK 73116 (405) 843-5741 (405) 843-5746 Fax http://www.okmoga.com

### Nebraska Independent Oil & Gas Association

P.O. Box 427 Kimball, NE 69145 (308) 235-2906 (308) 235-2108 Fax

### North Dakota Petroleum Council

120 N 3rd St., P.O. Box 1395 Bismarck, ND 58502-1395 (701) 223-6380 (701) 222-0006 Fax http://www.ndoil.org

### **Public Lands Advocacy**

1410 Grant St., Suite C-307 Denver, CO 80203 (303) 860-0212 (303) 860-0310 Fax http://www.publiclandsadvocacy.org

### Society of Petroleum Engineers

P.O. Box 833836/222 Palisades Creek Drive Richardson, TX 75083 (800) 456-6863 (972) 952-9435 http://www.spe.org

### Southeastern Ohio Oil & Gas Association

Rt. 1, Box 55-P Marietta, OH 45750 (740) 374-3203 (740) 374-2840 Fax http://www.sooga.org

### Southwest Kansas Royalty Owners Association

209 East 6th, Box 250 Hugoton, KS 67951 (620) 544-4333 (620) 544-2230 Fax http://www.swkroa.com

### Texas Oil & Gas Association

304 W. 13th St. Austin, TX 78701 (512) 478-6631 (512) 472-3859 Fax http://www.txoga.org

### **Utah Petroleum Association**

533 West 2600 South, Suite 270 Bountiful, UT 84010 (801) 295-5399 (801) 295-5477 Fax http://www.utahpetroleum.org

### Western States Petroleum Association

1415 L St., Ste. 600 Sacramento, CA 95814 (916) 444-9981 http://www.wspa.org

### West Virginia Oil & Natural Gas Association

P.O. Box 3231 Charleston, WV 25332-3231 (304) 343-1609 http://www.wvonga.com

American Oil & Gas Historical Society. For additional details, visit www.aoghs.org.

In 2006, IPAA launched its Education Center in Houston. The Education Center is dedicated to coordinating initiatives in public education and workforce expansion. The center's full-time director (Doris Richardson) is a former educator with over 15 years of public affairs experience both in the petroleum industry and private sector, and is chaired by Halliburton's Galen Cobb. IPAA continues to expand upon its commitment to education outreach through a variety of initiatives and programs including the Academy of Petroleum Exploration & Production Technology.

Since 2007, IPAA Education Center Director, Doris Richardson has established two high school engineering & geosciences academies, plus one global energy management program within the Houston Independent School District (HISD). HISD has committed to a total of five IPAA sponsored academies; with 2 more opening by fall 2010.

For more information, please visit the IPAA Education Center online at: http://www.ipaa.org/education/default.asp

### CONTACT INFORMATION FOR PARTICIPATING IPAA HIGH SCHOOL ENERGY MAGNET SCHOOLS:

### **Global Energy Management Academy** - Lamar High School - International **Baccalaureate World School**

3325 Westheimer Houston, TX 77098-1099 713-522-5960 713-535-3769 Fax http://hs.houstonisd.org/lamarHS

### Academy of Petroleum E & P Technology -Milby High School

1601 Broadway Houston, TX 77012-3789 713-928-7401 713-928-7474 Fax http://hs.houstonisd.org/milbyhs/

### Westside Engineering & Geosciences Academy

14201 Briar Forest Dr. Houston, TX 77077-1806 281-920-8000 281-920-8059 Fax http://hs.houstonisd.org/westsideHS/

### Memorial High School

935 Echo Lane Houston, TX 77024 713-365-5110 713-365-5138 Fax http://mhs.springbranchisd.com/

### Western Hills International Baccalaureate **High School**

3600 Boston Avenue Fort Worth, Texas 76116 817-560-5600 817-560-5644 Fax

http://schools.fortworthisd.net/education/school

### Taft Oil Technology Academy

701 7th Street Taft CA 93268 661.763.2300 661.763.1445 Fax http://www.taft.k12.ca.us/programs/oil

### UNIVERSITY ENERGY AND GEOLOGY PROGRAMS (NON AFFILIATED):

### Alabama

### The University of Alabama

Department of Geological Sciences-Geology Ernest Mancini, Geology Professor Office: (205) 348-4319

Fax: (205) 348-0818 Email: faculty@geo.ua.edu

Website: http://www.geo.ua.edu/index.php

### Alaska

### University of Alaska-Fairbanks

College of Engineering and Mines-Geological Engineering

Professor Gang Chen, Department Chair Office: (907) 474-7388

Fax: (907) 474-6635 Email: fyminge@uaf.edu

Website: http://www.alaska.edu/uaf/cem/ge/

College of Engineering and Mines-Petroleum Engineering

Professor Shirish Patil, Department Chair Office: (907) 474-7734

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Website: http://www.alaska.edu/uaf/cem/pete/

### Arkansas

### **Arkansas Tech University**

Department of Physical Sciences-Geology Richard Cohoon, Dean and Professor of Geology

Office: (479) 964-0816 Fax: (479) 964-0837 Email: rcohoon@atu.edu

Website: http://pls.atu.edu/physci/geology

### University of Arkansas Community College at Morrilton

Petroleum Technology Degree Program-Technical Certificate and A.A.S Jeff Lambert, Petroleum Technology Professor

Office: (501) 977-2178 Fax: (501) 977-2134 Email: lambert@uaccm.edu

Website: http://www.uaccm.edu/Academics/

Academics htm

### California

### University of Southern California

Viterbi School of Engineering-Petroleum Engineering

Iraj Ershaghi, Ph.D., P.E., Program Director

Office: (213) 740-0322 Fax: (213) 740-0324 Email: peteng@usc.edu

Website: http://www.usc.edu/dept/peteng/

### Stanford University

Department of Energy Resources Engineering Louis Durlofsky, Chairman and Professor

Office: (650) 723-4142 Fax: (650) 725-2099 Email: lou@stanford.edu

Website: http://pangea.stanford.edu/ERE/about/

### California State University, Long Beach

Department of Geological Sciences-Petroleum Geology

Stan Finney, Department Chair Office: (562) 985-8637

Fax: (562) 985-8638 Email: scfinney@csulb.edu Website: http://www.cnsm.csulb.edu/ departments/geology/programs/graduate/ petroleumgeology.shtml

### California State University, Bakersfield

Department of Geology-Petroleum Geology Dr. Dick Baron, Department Chair

Office: (661) 654-3044 Fax: (661) 654-2040 Email: dbaron@csub.edu

Website: http://www.csub.edu/geology/

### Colorado

### **Colorado School of Mines**

Department of Petroleum Engineering-Petroleum Engineering Dr. Craig W. Van Kirk, Department Head

Office: (303) 273-3740 Fax: (303) 273-3189 Email: cvankirk@mines.edu

Website: http://www.mines.edu/academic/

petroleum/

Department of Geology and Geological Engineering-Petroleum Exploration and

Development

John D. Humphrey, Interim Department Head

Office: (303) 273-3819 Fax: (303) 273-3859 Email: juhumphre@mines.edu

Website: http://www.mines.edu/academic/

geology/

Colorado Mountain College

Process Technology-Petroleum Technology (Certificate)

John Prater, Associate Professor of Energy

Office: (970) 625-6947 Fax: (970) 625-6927

Email: jprater@coloradomtn.edu Website: http://catalog.coloradomtn.edu/ docs/0809/AAS\_Cert\_ProcessTech.pdf

Mesa State College

Department of Business-Landman/Energy

Management Concentration

Dr. Morgan Bridge, Business Department

Head

Office: (970) 248-1169 Fax: (970) 248-1730

Email: mbridge@mesastate.edu

Website: https://www.mesastate.edu/schools/

sbps/busadm/Index.htm

Western State College

Department of Business Administration, Professional Land and Resource Management Ed Grauke, Director and Moncrief Chair

Office: (970) 943-2538 Fax: (970) 943-7042 Email: egrauke@western.edu

Website: http://www.western.edu/business/

PLRM.html

Department of Geology-Petroleum Geology Ronald J. Hill, Moncrief Chair in Petroleum

Geology

Office: (970) 943-2145 Fax: (970) 943-7120 Email: rhill@western.edu

Website: http://www.western.edu/geology/

program.html

Colorado Northwestern Community College

Process Technology-Oil and Gas Associates

Degree

Conrad Stanley, Program Director

Office: (970) 675-3375

Fax: (970) 675-5046 Email: Conrad.stanley@cncc.edu

Website: http://www.cncc.edu/programs/ process\_technology/default.html

The University of Kansas

Department of Engineering-Petroleum

Engineering

Laurence R. Weatherley PhD, Department

Chair

Office: (785) 864-3553 Fax: (785) 864-4967 Email: lweather@ku.edu

Website: http://cpe.engr.ku.edu/petro/

Fort Hays State University

Department of Geosciences-Petroleum

Geology

Dr. Ken Neuhauser, Program Director

Office: (785) 628-5349 Department Fax: (785) 628-4096

Email: kneuhaus@fhsu.edu Website: http://www.fhsu.edu/geo/geology/

petroleumgeology.shtml

Louisiana

Louisiana State University

Department of Petroleum Engineering-Petroleum Engineering

Stephen O. Sears, Department Chair Office: (225) 578-6055

Fax: (225) 578-6039 Email: sosears@lsu.edu Website: http://www.pete.lsu.edu/

University of Louisiana at Lafayette

Management Department-Professional Land and Resource Management

Dr. Steve Knouse, Department Head

Office: (337) 482-6087 Fax: (337) 482-5898

Email: sbk4151@louisiana.edu

Website: http://cobweb.louisiana.edu/New/

academics/plrm\_home.htm

College of Engineering-Petroleum Engineering Ali Ghalambor, Ph.D., Department Head

Office: (337) 482-5748 Fax: (337) 482-6848

Email: axq8302@louisiana.edu

Website: http://petroleum.louisiana.edu/index.

**Nicholls State University** 

Department of Applied Sciences-Petroleum

Technology

Michael Gautreaux, Program Director

Office: (985) 448-4740 Fax: (985) 448-4475

Email: michael.gautreaux@nicholls.edu Website: http://www.nicholls.edu/doas/degree-

programs/petroleum-services/

**Tulane University** 

Freeman School of Business-Energy

Specialization (Certificate)

Eric Smith, Associate Director of Energy

Institute Office: (504) 865-5031 Fax: (504) 862-8327

Email: esmith11@tulane.edu

Website: http://www.freeman.tulane.edu/

energy/about.htm

Missouri

University of Missouri-Rolla

Department of Geological Sciences and Engineering-Petroleum Engineering Dr. Daopu T. Numbere, Program Head

Office: (573) 341-4758 Fax: (573) 341-6935 Email: numbere@mst.edu Website: http://ase.mst.edu/

academicprograms/petroleumengineering.html

Montana

Montana Tech-University of Montana

School of Mines and Engineering-Petroleum

Engineering

Leo Heath, Department Head Office: (406) 496-4507 Fax: (406) 496-4417 Email: Iheath@mtech.edu

Website: http://www.mtech.edu/mines/pet\_eng/

New Mexico

New Mexico Institute of Mining &

Technology

Department of Petroleum and Natural Gas

Engineering

Her-Yuan Chen, Ph.D., Department Chair

Office: (575) 835-5743 Fax: (575) 835-5210 Fmail: her@nmt edu

Website: http://infohost.nmt.edu/~petro/index.

North Dakota

University of North Dakota

Department of Geology and Geological Engineering-Geological Engineering William Gosnold, Department Chair

Office: (701) 777-2631 Fax: (701) 777-4449

Email: willgosnold@mail.und.nodak.edu Website: http://www.geology.und.edu/geoE\_

ugdegreedirectory.php

Ohio

Marietta College Department of Petroleum Engineering-

Petroleum Engineering Dr. Robert Chase, Professor Office: (740) 376-4776 Fax: (740) 376-4777 Email: chaser@marietta.edu

Website: http://www.marietta.edu/~petr/index.

Oklahoma

University of Oklahoma

Price College of Business Department of Management-Energy Management Steve Long, Program Director Office: (405) 325-0758 Fax: (405) 325-7499

Email: slong@ou.edu Website: http://price.ou.edu/academics/

energymgmt.aspx

ConocoPhillips School of Geology and Geophysics-Petroleum Geology Doug Elmore, Director and Eberly Chair

Office: (405) 325-4493 Fax: (405) 325-3140 Email: delmore@ou.edu

Website: http://geology.ou.edu/index.html

### Mewbourne School of Petroleum and **Geological Engineering- Petroleum** Engineering

Chandra Rai, Director and Eberly Chair Office: (405) 325-6866 Fax: (405) 325-7477

Email: crai@ou.edu Website: http://mpge.ou.edu/

### University of Tulsa

Collins College of Business Department of Energy Management-Energy Management Ted Jacobs, Program Director Office: (918) 631-3588 Fax: (918) 631-3584

Email: ted-jacobs@utulsa.edu

Website: http://www.cba.utulsa.edu/Depts/

Department of Petroleum Engineering-Petroleum Engineering Mohan Kelkar, Department Chair Office: (918) 631-3036 Fax: (918) 631-2533 Email: mohan@utulsa.edu Website: http://www.pe.utulsa.edu/

Pennsvlvania

### Pennsylvania State University

Department of Energy and Mineral Engineering-Petroleum and Natural Gas Engineering

Turgay Ertektin, Program Officer and Professor

Office: (814) 865-6082 Fax: (814) 863-1875 Email: eur@psu.edu

Website: http://www.pnge.psu.edu/index.

Department of Energy and Mineral Engineering-Energy Business and Finance Andrew N. Kleit, Program Officer and

Professor Office: (814) 865-0711 Fax: (814) 865-3663 Email: ank1@psu.edu

Website: http://www.eme.psu.edu/ebf/

index.html

### University of Pittsburgh

Swanson School of Engineering-Chemical and Petroleum Engineering Badie Morsi, Program Director and Professor

Office: (412) 624-9650 Fax: (412) 624-9639 Email: morsi@engr.pitt.edu

Website: http://www.engr.pitt.edu/chemical/

index.html

South Dakota

### South Dakota School of Mines &

Technology

Geology and Geological Engineering Department- Geological Engineering Maribeth Price, Department Chair Office: (605) 394-1290 Fax: (605) 394-2461

Email: maribeth.price@sdsmt.edu Website: http://geology.sdsmt.edu/

### Texas A&M

Harold Vance Department of Petroleum Engineering-Petroleum Engineering Betty Robins, Program Assistant Office: (979) 845-2241

Fax: (979) 862-6579 Email: betty@pe.tamu.edu Website: http://www.pe.tamu.edu/

### Texas A&M-Kingsville

Department of Chemical and Natural Gas Engineering-Natural Gas Engineering Ali A. Pilehvari, Department Chair Office: (361) 593-2089 Fax: (361) 593-4026 Email: a-pilehvari@tamuk.edu

Website: http://www.engineer.tamuk.edu/ departments/ngen/index.html

### **Texas Tech University**

Rawls College of Business-Energy Commerce Terry McInturff, Program Director Office: (806) 742-1609 Fax: (806) 742-4535

Email: t.mcinturff@ttu.edu

Website: http://plm.ba.ttu.edu/index.html

Department of Petroleum Engineering-Petroleum Engineering George Asquith, Department Chair Office: (806) 742-3573 Fax: (806) 742-3502 Email: george.asquith@ttu.edu

Website: http://www.depts.ttu.edu/peWeb/ index.php

### University of Houston

Department of Chemical and Biomolecular Engineering-Petroleum Engineering Dr. Kishore Mohanty, Program Director Office: (713) 743-4331

Fax: (713) 743-4323 Email: mohanty@uh.edu Website: http://www.chee.uh.edu/ petroleum/

### University of Houston-Downtown

Department of Management, Marketing and Business-Energy Management (Minor) Forrest Aven Jr., Department Chair Office: (713) 221-8593

Fax: (713) 221-8632 Email: avenf@uhd.edu

Website: http://www.uhd.edu/academic/ colleges/business/mmba/energy\_min\_

University of Texas-Austin Kilgore College

Department of Petroleum and Geosystems Engineering-Petroleum Engineering Gary Pope, Department Director and Professor

Office: (512) 471-3235 Fax: (512) 471-9605

Email: gpope@mail.utexas.edu Website: http://www.pge.utexas.edu/index.

### Kilgore College

Department of Continuing Education-Petroleum Technology Bill Brantly, Course Coordinator Office: (903) 983-8680 Fax: (903) 988-7506 Email: bbrantley@kilgore.edu

Website: http://www.kilgore.edu/petro\_tech.

asp

### Panola College

Department of Applied Sciences-Petroleum Technology

Gary Hughes, Division Director Office: (903) 693-1130 Fax: (903) 693-1144 Email: ghughes@panola.edu

Website: http://www.panola.edu/instruction/

srtc/index.html

### Midland College

Petroleum Professional Development Center-Various Studies/Certifications

Hoxie Smith, Director Office: (432) 683-2832 Fax: (432) 686-8089 Email: hsmith@midland.edu

Website: http://www.midland.edu/~ppdc/

### Del Mar College

Technology Education Department-Process Technology

Denise Rector, Assistant Professor Office: (361) 698-1713

Fax: (361) 698-1868 Email: drector@delmar.edu

Website: http://www.delmar.edu/teched/

process.php

West Virginia

### Glenville State College

Department of Land Resources-Landman Technology

Charles Sypolt, Department Chair Office: (304) 462-4135

Fax: (304) 462-8709 Email: Charles.Sypolt@glenville.edu Website: http://www.glenville.wvnet.edu/

NRMLandmanTech\_BS3.asp

### West Virginia University

College of Engineering and Mineral Resources-Petroleum and Natural Gas

Engineering

Sam Ameri, Department Chair and

Professor

Office: (304) 293-7682 Fax: (304) 293-5708

Email: samuel.ameri@mail.wvu.edu Website: http://www.pnge.cemr.wvu.edu/

welcome/

### Wyoming

### Western Wyoming Community College

Division of Technology and Industry-Oil and

Gas Technology
Paul Johnson, Division Chair Office: (307) 382-1718

Fax: (307) 382-1872

Email: pjohnson@wwcc.wy.edu Website: http://www.wwcc.wy.edu/1.htm

### University of Wyoming

Department of Chemical and Petroleum Engineering-Petroleum Engineering
H. Gordon Harris, Department Head and Professor

Office: (307) 766-6558 Fax: (307) 766-5769 Email: harrishg@uwyo.edu Website: http://wwweng.uwyo.edu/

chemical/

### Canada

### **University of Calgary**

Haskayne School of Business-Petroleum Land Management Bob Schulz, Program Director Office: (403) 220-6591

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undergrad/plma

Acknowledgement: List compiled by Keelen Hauptman for IPAA - Summer Internship 2008.

# ADDITIONAL EDUCATION RESOURCES

# Additional Energy Education Resources

### Campbell Creek Science Center Bureau of Land Management (BLM), Alaska

222 W 7th Avenue, #13 Anchorage Alaska 99513 (907)271-5960 Fax: (907)271-3684 www.blm.gov/ak/getenergized.html

### California Energy Commission "Energy Quest"

1516 9th Street, MS-29 Sacramento, CA 95814 (916) 654-4989 Fax: (916) 653-5590 www.energyquest.ca.gov/

# BP - California Community Relations "A+ for Energy"

6 Centerpointe Drive La Palma, CA 90623 http://www.aplusforenergy.org/California/

# Western States Petroleum Association (WSPA)

"Derricks to Desks" 1415 L Street, Suite 600 Sacramento, CA 95814 (916) 498-7750 (916) 444-5745 Fax. http://www.wspa.org/news/ derrickstodesksreg.htm

### Colorado School of Mines "Denver Earth Science Project"

Office of Special Programs & Continuing Education
Golden, CO 80401
(303) 273-3621
Fax: (303) 273-3314
www.mines.edu/Outreach/Cont\_Ed/desp/desp.html

# Northern Montana Independent Oil and Gas Association

P.O. Box 488 Cut Bank, MT 59427 (406) 873-9000 Fax: (406) 873-5207

# **Environmental Education Council of Ohio**

P.O. Box 1004 Lancaster, OH 43130 (740) 653-2649 Fax: (740) 653-6100 www.eeco-online.org

### The NEED Project

8408 Kao Circle Manassas, VA 20110 (703) 257-1117 http://www.need.org

### Ohio Energy Project (OEP)

670 Enterprise Drive, Suite A Lewis Center, OH 43035 (614) 785-1717 Fax: (614) 785-1731 www.ohioenergy.org

### Ohio Oil & Gas Energy Education Program (OOGEEP)

1718 Columbus Road, S.W. P.O. Box 187 Granville, OH 43023-0535 (740) 587-0444 Fax: (740) 587-0446 www.oogeep.org

### Oklahoma Commission on Marginally Producing Oil and Gas Wells

3535 Northwest 58th Street, Suite 870 Oklahoma City, OK 73112 (405) 604-0460 or (800) 390-0460 Fax: (405) 604-0461 http://www.marginalwells.com

# Oklahoma Energy Resources Board (OERB)

3555 N.W. 58th, Suite 430 Oklahoma City, OK 73112 (405) 942-5323 or (800) 664-1301 Fax: (405) 942-3435 www.oerb.com

### A+ for Energy (Texas)

BP America Inc. 3401 Palmer Highway, Room 445D Texas City, TX 77590 www.aplusforenergy.org/Texas

### Offshore Energy Center (OEC)

200 North Dairy Ashford, Suite 6220 Houston, TX 77079 (281) 679-8040 Fax: (281) 544-2441 www.oceanstaroec.com

# Wisconsin K-12 Energy Education Program (KEEP)

403 LRC, UWSP Stevens Point, WI 54481 (715) 346-4770 Fax: (715) 346.4698 http://www.uwsp.edu/cnr/wcee/keep/index.htm

### Federal Energy Regulatory Commission: A Students' Corner

www.ferc.gov/students/index.htm

### **Center for Energy Studies**

Louisiana State University, Energy, Coast and Environment Building, Nicholson Drive Extension, Baton Rouge, LA 70803. (225) 578-4400. http://www.enrg.lsu.edu/

# Sarkeys Energy Center, University of Oklahoma

100 East Boyd, Room 510 Norman, OK 73019 (405) 325-3821 http://www.sec.ou.edu/index.php

### East Texas Historical Association http://www.easttexashistorical.org/

Wyoming State Historical Society PMB #184 1740H Dell Range Blvd. Cheyenne, WY 82009 http://wyshs.org/index.html

# Young Professionals in Energy Chapters

Young Professionals in Energy Chapters Founded in 2005, YPE is a global network of young professionals who seek to engage with peers in the energy industry. www.ypenergy.org

### Austin

Director - Code Williams (512) 328-2953 ext. 255 cwilliams1@jonesenergy.com

Director - David Watson (512) 475-9023 davewatson@austin.utexas.edu

### Bay Area

Director - Kelsey Lynn (650) 743-3739 kelsey@lakefirecapital.com

Director - Alicia Stevenson (818) 223-1924 alicia@recurrentenergy.com

### **Boston**

Director - Stacey DeFino (512) 217-4174 stacey.defino@sloan.mit.edu

### Calgary

Director - Sarah Phillips (403) 645-7816 sarah.phillips@encana.com

### Chicago

Director - Greg Gleason (847) 604-6121 ggleason@wynnchurch.com

Director - Joseph Elberts (312) 462-6417 jelberts@hlhz.com

### China

Director - Scott Hou (713) 478-3123 hous@stoneenergy.com

### Dallas

Director - Garrett Mayer (214) 442-8404 gmayer@drillinginfo.com

Director - Marcus Krembs (720) 946-6373 mkrembs@sterlingplanet.com

Director - Parker Heikes (303) 864-7343 pheikes@bokf.com

### Dubai

Director - Will Martin (971-50) 557 0273 will.martin@nov.com

### Ft. Worth

Director - Gregg Frasure (817) 284-3492 gregg@welltec-us.com

Director - Rand Winfrey (817) 665-4980 rwinfrey@qrinc.com

### Houston

Director - Preston Carr (713) 877-8975 pcarr@mcgriff.com

Director - Alicia Dodge (713) 954-3825 adodge@mariner-energy.com

### London

Director - Roman Batichtchev +44 (0) 20 7930 2120 rbatichtchev@firstreserve.com

### Midland Odessa

Director - Leah Rudnicki (432) 570-6898 Irudnicki@treyresources.net

### Moscow

Director - Sergei Kurilov +7-495-777-7707 svkurilov@tnk-bp.com

Director - Wiley Long +7-919-967-0574 cwlong@smith.com

### **New Orleans**

Director - J.D. Estes (504) 281-1409 john.d.estes@exxonmobil.com

### **New York City**

Director - Steve Gudovic (847) 644-9038 steve.gudovic@aig.com

### Oklahoma City

Director - Amanda Trood (405) 935-6808 amanda.trood@chk.com

### Philadelphia

Director - Jessica Maizel (215) 255-2364 jlmaizel@delinvest.com

Assistant Director - Chris Moon (215) 255-2364 chmoon@lcpim.com

**Shreveport** Director - William Bowdon (318) 746-1691 william@bowdonnr.com

Director - Matthew Huffty (318) 425-4789 mhuffty@petrohawk.com

### Tulsa

Director - Denver McPhail (918) 760-3645 dmcphail@samson.com

### Washington, DC

Director - Cortney Hazen (202) 857-4702 chazen@ipaa.org

# OIL AND GAS MUSEUMS

### Oil and Gas Museums

Arkansas Museum of Natural Resources (870) 863-6113

http://www.amnr.org/

**Arkansas Museum of Natural Science** 

(870) 725-2877

http://www.msstate.edu/dept/geosciences

Brea Museum and Heritage Center - CA

(714) 256-2283

http://www.breamuseum.org/

California Oil Museum

(805) 933-0076

http://www.oilmuseum.net/

Kern County Museum - CA

(661) 852-5000

http://www.kcmuseum.org/

Olinda Historic Museum and Park - CA

(714) 990-7600

http://www.ci.brea.ca.us/

West Kern County Museum - CA

(661) 765-6664

http://www.westkern-oilmuseum.org/

**Denver Museum of Nature & Science** 

(303) 322-7009

http://www.dmns.org/main/en/

Illinois Oilfield Museum & Resource Center

http://www.theonlyoblong.com/oil\_field/ oblong\_oilfield.html

Museum of Science & Industry - IL

Chicago -IL

(773) 684-1414

http://www.msichicago.org/index.html

Kansas Oil Museum and Hall of Fame

(316) 321-9333

http://www.kansasoilmuseum.org/

Oil Patch Museum - KS

(785) 483-3637

http://www.rchs.russellks.net/

The Kansas Oil & Gas Hall of Fame Museum

(620) 793-5742

http://greatbend.com/gbconven/oilgas.htm

Louisiana State Oil and Gas Museum

(318) 995-6845

http://www.sos.louisiana.gov/museums/oil/

International Petroleum Museum & **Exposition - LA** 

(985) 384-3744

http://www.rigmuseum.com/

Pioneer Oil Museum - NY

(585) 373-6035

http://www.pioneer-oil-museum.

com/about-us.html

**Wood County Historical Center &** Museum - OH

(419) 352-0967

http://www.woodcountyhistory.org

Anadarko Basin Museum of Natural History - OK

(580) 243-0437

http://www1.itlnet.net/web/route66/page4.

Bartlesville Area History Museum - OK

(918) 337-5336

http://www.bartlesvillehistory.com/

**Healdton Oil Museum-OK** 

(405) 229-0317

http://www.brightok.net/chickasaw/ ardmore/county/ healdoil.html

**Oklahoma Historical Society** 

(405) 521-2491

http://www.okhistory.org/

**Greater Seminole Area Oil &** Historical Museum - OK

(405) 382-1500

http://www.seminoleoklahoma.com/ museum/

Drake Well Museum - PA

(814) 827-2797

http://www.drakewell.org/index.htm

The Oil Heritage Region - PA

(800) 483-6264, Ext. 18 http://www.oilregion.org/

Penn-Brad Oil Museum - PA

(814) 368-5574

http://pennbradoilmuseum.com/

Petroleum History Institute - PA

http://www.petroleumhistory.org/

East Texas Oil Museum - TX

(903) 983-8295

http://www.easttexasoilmuseum.com/index.

**Houston Museum of Natural Science** 

(713) 639-4629

http://www.hmns.org/Index.asp

Panhandle-Plains Historical Museum - TX

http://www.panhandleplains.org/

Spindletop - Gladys City Boomtown Museum - TX

(409) 835-0823

http://spindletop.org/default.htm

**Texas Energy Museum** 

(409) 833-5100

http://www.texasenergymuseum.org/front2.

Ocean Star Offshore Drilling Rig and Museum - TX

(409) 766-STAR

http://www.oceanstaroec.com/Default.htm

West Virginia Oil & Gas Museum

(304) 485-5446

http://www.little-mountain.com/ oilandgasmuseum

**Choctaw County Historical Museum - AL** 

http://www.ohwy.com/al/c/choccohm.htm

Hathaway Ranch and Oil Museum - CA

(562) 777-3444

http://www.hathaworld.com/hrm/index.html

Santa Barbara Maritime Museum - CA

(805) 962-8404

http://www.sbmm.org/index.php

Wabash County Museum - IL

(618) 262-8774

http://www.museum.wabash.il.us/

Wood River Refinery History Museum - IL

(618) 255-3718

http://www.wrrhm.org/index.htm

Red Crown Mini-Museum - IN

http://www.oldgas.com/info/redcrown.htm

Trump's Texaco Museum - IN

http://www.southernin.com/Pages/archives/ april\_00/ henry\_county.html

**Butler County Historical Center &** Kansas Oil Museum

(316) 321-9333

http://kansasoilmuseum.org/index.cfm

Hill City Oil Museum - KS

(785) 421-2854

http://www.geocities.com/RainForest/

Vines/5320/oil html

Independence Historical Museum - KS

(620) 331-3515

http://www.comgen.com/~museum/

Norman No. 1 Museum - KS

http://www.neodygrads.com/pages/

museum/norman.html

Stevens County Gas & Historical

Museum - KS http://skyways.lib.ks.us/towns/Hugoton/

Henry Ford Museum & Benson Ford

Research Center - MI

museum.html

(313) 982-6070 http://www.hfmgv.org/museum/default.asp

Farmington Museum - NM

(505) 599-1174 http://www.farmingtonmuseum.org/

Allen County Museum - OH

(419) 222-9426

http://www.allencountymuseum.org/

Hancock Historical Museum - OH

(419) 423-4433 http://www.hancockhistoricalmuseum.org/

### OIL AND GAS MUSEUMS

Ken Miller Supply's Oil, Gas, Car, Truck and Agriculture Museum - OH

(330) 496-4024 or (330) 567-5930 http://www.shreveohio.com/thisweek.htm

Oil Field Engine Society - OH

(937) 456-9387

http://www.oilfieldengine.com

Ames Astrobleme Museum - OK

http://amescrater.com/about.htm

Cherokee Strip Regional Heritage Center - OK

(580) 237-1907

http://www.regionalheritagecenter.org./01. htm

Conoco Museum - OK

(580) 765-8687

http://www.conocomuseum.com/index.htm

**Drumright Community Historical** Museum - OK

(918) 352-3002

http://drumrighthistoricalsociety.org/

Frank Phillips Home - OK

(918) 336-2491

http://www.frankphillipshome.org/

**Greater Southwest Historical Museum** - OK

(580) 226-3857

http://visitors.ardmore.org/

Kerr Conference Center & Museum - OK

(918) 647-9579

http://www.carlalbert.edu/kerr\_center/

Marland Oil Museum - OK

http://www.marlandmansion.com/

Nowata County Historical Museum - OK

(918) 273-1191

http://www.ohwy.com/ok/y/ynowhimu.htm

Oklahoma History Center

(405) 522-5248

http://www.okhistorycenter.org/

Oklahoma Oil Museum

(405) 382-1500

http://www.seminoleoklahoma.com/

museum/

Phillips Petroleum Company Museum

(918) 661-1305

http://www.phillips66museum.com/index.htm

Sam Noble Oklahoma Museum of **Natural History** 

(405) 325-4712

http://www.snomnh.ou.edu/index.shtml

Sarkeys Energy Center, University of OK

(405) 325-3821

http://www.sec.ou.edu/index.php

**SEG Geoscience Center & Virtual** Museum - OK

(918) 497-5566

http://www.mssu.edu/seg-vm/

**Stephens County Historical Museum** - OK

(580) 252-0717

http://www.shopoklahoma.com/museums.

Tulsa Historical Society - OK

(918) 712-9484

http://www.tulsahistory.org/learn/earlytulsa/

Woolaroc Museum - OK

http://www.woolaroc.org/

Barbara Morgan Harvey Center for the Study of Oil Heritage - PA

http://www.clarion.edu/library/ HarveyCenter/BMHCol lection.htm

Coolspring Power Musuem - PA

http://www.coolspringpowermuseum.org/

Oil Region Alliance of Business, Industry & Tourism, Inc - PA

(800) 483-6264 http://www.oilregion.org/

Pumping Jack Museum - PA

(724) 867-0030

http://www.pumpingjack.org/

Simpler Times Museum - PA

(814) 484-3483

http://www.navr.org/museums.html

Venango Museum of Art, Science and Industry - PA

http://www.venangomuseum.org/

**Bob Bullock Texas State History** Museum - TX

(866) 369-7108

http://www.thestoryoftexas.com/

Carson Country Square House Museum

(805) 537-3524

http://www.squarehousemuseum.org/

Central Texas Oil Patch Museum - TX

(830) 875-1922

http://www.oilmuseum.org/Welcome.html

Depot Museum - TX

(903) 657-4303

http://www.depotmuseum.com/index.html

Felty Outdoor Oil Museum - TX

http://www.trailsandtales.org/index.htm

Fort Worth Museum of Science and

History - TX (817) 255-9300

http://www.fwmuseum.org/home/index.html

Gaston Museum - TX

(903) 847-2205

http://www.gastonmuseum.org/

Heritage Museum of Montgomery County - TX

(936) 539-6873

http://www.heritagemuseum.us/

**Hutchinson County Historical Museum - TX** 

http://www.hutchinsoncountymuseum.org/ index.html

London Museum - TX

(903) 895-4602

http://www.nlse.org/museum.html

Million Barrel Museum - TX

http://www.monahans.org/new/chamber/ museums.html

Museum of the Plains - TX

(806) 435-6400

http://www.museumoftheplains.com/

Panhandle-Plains Historical Museum - TX http://www.panhandleplains.org

Petroleum Museum - TX http://www.petroleummuseum.org/index.html

Ranger Historical Preservation Society - TX

(254) 647-5353

http://www.txbusiness.com/rhps/

Van Area Oil & Historical Museum - TX

(903) 963-5435

http://www.vantexas.com/history.html

W. K. Gordon Center for Industrial History of Texas - TX

(254) 968-1886

http://www.tarleton.edu/~gordoncenter/

Hot Springs County Museum & Cultural Center - WY

(307) 864-5183

http://thermopolis.com/Attractions/ Museums/County+ Museum.htm

Pioneer Association Museum of the American West - WY

(307) 332-4137

http://wyshs.org/mus-pioneerassoc.htm

Salt Creek Museum - WY

(307) 437-6513

http://wyshs.org/mus-saltcreek.htm

Tate Geological Museum - WY

(307) 268-2447

http://www.caspercollege.edu/community/ campus/tate /tate new/index.htm

Oil and Gas museum information complied by the American Oil and Gas Historical Society. For additional details, visit www.aoghs.org.



The American Oil & Gas Historical Society (AOGHS) believes the fascinating history of the nation's petroleum industry offers a vital context for teaching today's young people. AOGHS, a 501(c)-3 nonprofit organization, is dedicated to preserving the history of U.S. exploration and production by providing advocacy for organizations that preserve that history through exhibition, material preservation – and especially educational programming. AOGHS publishes a quarterly newsletter, the *Petroleum Age*, and hosts an annual Energy Education Conference & Field Trip. The conference brings together education program practitioners – those who teach the teachers. Become an AOGHS member and help us promote state and national energy education programs. To support this effort, please copy and mail this form with your contribution to AOGHS, 1201 15th St., NW, Suite 300, Washington, DC 20005, or fax it to (202) 857-4799. Questions? Call Bruce Wells, Executive Director at (202) 857-4785.

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# STATE RANKINGS

# STATE RANKINGS

	Crude Oil Wells Drilled		Natural Gas Wells Drilled		Crude Oil Production		ural Gas eduction
1	Texas	1	Texas	1	Federal Offshore	1	Texas
2	Oklahoma	2	Oklahoma	2	Texas	2	Federal Offshore
3	California	3	West Virginia	3	Alaska	3	Wyoming
4	Kansas	4	Lousiana	4	California	4	Oklahoma
5	Louisiana	5	Pennsylvania	5	Louisiana	5	New Mexico
6	Illinois	6	Wyoming	6	Oklahoma	6	Louisiana
7	New Mexico	7	New Mexico	7	New Mexico	7	Colorado
8	Ohio	8	Colorado	8	Wyoming	8	Alaska
9	Wyoming	9	Kansas	9	North Dakota	9	Kansas
10	Pennsylvania	10	Federal Offshore	10	Montana	10	Michigan
11	Federal Offshore	11	Ohio	11	Kansas	11	Utah
12	Kentucky	12	Kentucky	12	Colorado	12	California
13	Michigan	13	Michigan	13	Utah	13	Alabama
14	Montana	14	Montana	14	Mississippi	14	West Virginia
15	New York	15	New York	15	Illinois	15	Arkansas
16	West Virginia	16	Alabama	16	Alabama	16	Pennsylvania
17	Arkansas	17	Arkansas	17	Arkansas	17	Montana
18	Colorado	18	California	18	Ohio	18	Virginia
19	Mississippi	19	Utah	19	Michigan	19	Kentucky
20	North Dakota	20	Virginia	20	Pennsylvania	20	Ohio
21	Utah	21	Mississippi	21	Florida	21	Mississippi
22	Indiana	22	Tennessee	22	Kentucky	22	New York
23	Nebraska	23	Illinois	23	Nebraska	23	North Dakota
24	Alaska	24	Indiana	24	West Virginia	24	Indiana
25	Tennessee	25	Nebraska	25	Indiana	25	Florida
26	Alabama	26	North Dakota	26	South Dakota	26	Tennessee
27	Missouri	27	Alaska	27	Nevada	27	Nebraska
28	South Dakota	28	South Dakota	28	New York	28	South Dakota
29	Florida	29	Maryland	29	Tennessee	29	Oregon
30	Nevada	30	Missouri	30	Missouri	30	Arizona
31	Arizona	31	Oregon	31	Arizona	31	Illinois
32	Virginia	32	Arizona	32	Virginia	32	Maryland
33	Iowa	33	Washington			33	Nevada
34	Washington	34	Florida				

Sources: IHS for wells drilled and EIA for production.

# CRUDE OIL SUMMARY

Year	<b>Pr</b> Crude Oil*	oduction	<b>n</b> Total	Imports Total*	<b>Su</b> Other	pply Total	Exports	* Dem	nand Total	Crude R Proved*	New*	Oil
1960	7,035	929	7,964	<i>(th</i> 1,815	ous. b/d) 147	9,926	202	9,798	10,000	Reserves (mill. 31,613	bbls.)	Wellhead (\$/bbl.) 2.88
1960 1961 1962 1963 1964 1965 1966 1967 1968 1969	7,033 7,183 7,332 7,542 7,614 7,804 8,295 8,810 9,096 9,238	991 1,021 1,098 1,155 1,210 1,284 1,409 1,504 1,590	8,174 8,353 8,640 8,769 9,014 9,579 10,219 10,600 10,828	1,917 2,082 2,123 2,258 2,468 2,573 2,537 2,840 3,166	147 179 175 202 217 220 246 293 347 339	10,270 10,610 10,965 11,244 11,702 12,398 13,049 13,787 14,333	174 168 208 202 187 198 307 231 233	9,976 10,400 10,743 11,023 11,513 12,085 12,560 13,393 14,137	10,000 10,150 10,568 10,951 11,225 11,700 12,283 12,867 13,624 14,370	31,759 31,389 30,970 30,991 31,352 31,452 31,377 30,707 29,632	2,365 2,658 2,181 2,174 2,665 3,048 2,964 2,962 2,455 2,120	2.89 2.90 2.89 2.88 2.88 2.88 2.92 2.94 3.09
1970	9,637	1,660	11,297	3,419	355	15,071	259	14,697	14,956	39,001	2,689	3.18
1971	9,463	1,694	11,157	3,925	438	15,520	224	15,213	15,437	38,063	2,318	3.39
1972	9,441	1,744	11,185	4,741	431	16,357	222	16,367	16,589	36,339	1,558	3.39
1973	9,208	1,738	10,946	6,256	472	17,674	231	17,308	17,539	35,300	2,146	3.89
1974	8,774	1,688	10,462	6,112	478	17,052	221	16,652	16,873	34,250	1,994	6.87
1975	8,375	1,632	10,007	6,056	631	16,694	209	16,322	16,531	32,682	1,318	7.67
1976	8,132	1,604	9,736	7,313	577	17,626	223	17,461	17,684	30,942	1,085	8.19
1977	8,245	1,618	9,863	8,808	531	19,202	243	18,431	18,674	31,780	1,140	8.57
1978	8,707	1,567	10,274	8,364	315	18,953	362	18,847	19,209	31,355	2,583	9.00
1979	8,552	1,583	10,135	8,456	503	19,094	471	18,516	18,987	29,810	1,410	12.64
1980	8,597	1,573	10,170	6,909	616	17,695	544	17,056	17,600	29,805	2,970	21.59
1981	8,572	1,609	10,181	5,995	392	16,568	595	16,058	16,653	29,426	2,570	31.77
1982	8,649	1,550	10,199	5,113	478	15,790	815	15,296	16,111	27,858	1,382	28.52
1983	8,688	1,559	10,247	5,051	503	15,801	739	15,231	15,970	27,735	2,897	26.19
1984	8,879	1,630	10,509	5,437	587	16,533	722	15,726	16,448	28,446	3,748	25.88
1985	8,971	1,609	10,580	5,067	640	16,287	781	15,726	16,507	28,416	3,022	24.09
1986	8,680	1,551	10,231	6,223	764	17,218	785	16,281	17,066	26,889	1,446	12.51
1987	8,349	1,595	9,944	6,678	768	17,390	764	16,665	17,429	27,256	3,240	15.40
1988	8,151	1,625	9,776	7,402	840	18,018	815	17,283	18,098	26,825	2,380	12.58
1989	7,626	1,546	9,172	8,060	853	18,085	859	17,325	18,184	26,501	2,262	15.86
1990	7,335	1,559	8,894	8,017	1,025	17,936	857	16,988	17,845	26,254	2,258	20.03
1991	7,417	1,659	9,076	7,626	1,047	17,749	1,001	16,714	17,715	24,682	940	16.54
1992	7,171	1,697	8,868	7,888	1,114	17,870	949	17,033	17,953	23,745	1,509	15.99
1993	6,847	1,736	8,583	8,620	1,152	18,355	1,003	17,237	18,240	22,957	1,551	14.25
1994	6,662	1,727	8,389	8,996	1,291	18,676	942	17,718	18,660	22,457	1,768	13.19
1995	6,560	1,762	8,322	8,835	1,517	18,674	949	17,725	18,674	22,351	2,107	14.62
1996	6,465	1,830	8,295	9,478	1,516	19,290	981	18,309	19,215	22,017	1,839	18.46
1997	6,452	1,817	8,253	10,162	1,193	19,623	1,003	18,620	19,623	22,546	2,667	17.23
1998	6,252	1,759	8,011	10,708	1,143	19,862	945	18,917	19,862	21,034	479	10.87
1999	5,881	1,850	7,731	10,852	1,876	20,459	940	19,519	20,459	21,765	2,683	15.56
2000	5,822	1,911	7,733	11,459	1,549	20,741	1,040	19,701	20,741	22,045	2,160	26.72
2001	5,801	1,868	7,669	11,871	1,080	20,620	971	19,649	20,620	22,446	2,316	21.84
2002	5,746	1,880	7,626	11,530	1,589	20,745	984	19,761	20,745	22,677	2,106	22.51
2003	5,681	1,719	7,400	12,264	1,397	21,061	1,027	20,034	21,061	21,891	1,091	27.56
2004	5,419	1,809	7,228	13,145	1,406	21,779	1,048	20,731	21,779	21,371	1,299	36.77
2005	5,178	1,717	6,895	13,714	1,358	21,967	1,165	20,802	21,967	21,757	2,119	50.28
2006	5,102	1,739	6,841	13,707	1,456	22,004	1,317	20,687	22,004	20,972	867	59.69

Sources: Energy Information Administration\* and IHS.

Note: Reserves estimated as of December 31 each year. Imports to Strategic Petroleum Reserve are excluded.

### NATURAL GAS SUMMARY Year Production **Extraction Imports Supply Exports Consumption** Gas Reserves **Price** Marketed Dry Other Total Loss Proved New Gas Reserves Reserves Wellhead (Bcf) (\$/Mcf.) 1960 12,771 12,228 701 13,096 543 156 11 11,967 263,759 14,253 .14 1961 13,254 12,662 592 219 686 13,578 11 12,489 267,728 17,421 .15 1962 13,877 13,253 624 402 838 14,509 16 13,267 273,766 19,750 .16 1963 14,747 14,077 670 406 899 15,399 17 13,970 276,151 18,418 .16 1964 15,547 14,824 723 443 866 16,153 20 14,814 281,251 20,447 .15 1965 16,040 15,287 753 456 934 16,703 26 15,280 286,469 21,470 .16 1966 17,207 16.468 739 480 1.116 18.089 25 16.452 289.333 20.355 .16 1967 18,171 17,386 785 564 1,052 19,084 82 17,388 292,908 21,956 .16 1968 19,322 18,494 828 652 1,236 20,476 94 18,632 287,350 13,816 .16 1969 20,698 19,831 867 727 1,329 21,938 51 20,056 275,109 8,482 .17 1970 1,388 290,746 37,598 21,921 21,015 906 821 23,294 70 21,139 .17 1971 935 1,427 24,052 80 21,793 10,136 22,493 21,610 883 278,806 .18 1972 22,532 21,624 908 1,019 1,679 24,400 78 22,101 266,085 9,791 .19 21,731 77 22,049 249,950 6,471 .22 1973 22,648 917 1,033 1,456 24,297 1974 21,601 959 1,624 23,373 77 21,223 237,132 8,501 .30 20,713 887 1975 19.236 10,786 .45 20,109 872 953 1,687 21,949 73 19,538 228,200 1976 19,952 19,098 854 964 1,640 21,767 65 19,946 216,026 7,368 .58 12,978 20,025 863 1,011 21,884 .79 1977 19,163 1,654 56 19,521 207,413 1978 19,974 19,122 852 966 1,817 21,958 53 19,627 208,033 19,425 .91 1979 20.471 19.663 22,592 12.221 808 1.253 1.620 56 20.241 200.997 1.18 1980 20,180 19,403 777 985 1,385 21,822 49 19,877 199,021 16,723 1.59 1981 904 1,499 21,643 59 19,404 19,956 19,181 775 201,730 21,446 1.98 1982 18,582 17,820 933 1,647 20,452 52 18,001 201,512 17,288 2.46 762 1983 16,884 18,590 16,835 14,523 2.59 16,094 790 918 1,523 55 200,247 14,409 1984 18,304 17,466 838 843 1,894 20,258 55 17,951 197,463 2.66 1985 11,891 17,270 16,454 816 950 2,005 19,464 55 17,281 193,369 2.51 1986 750 1,364 191,586 16,859 16,059 800 18,234 61 16,221 13,827 1.94 1987 17,433 16,621 812 993 1,484 19,152 54 17,211 187,211 11,739 1.67 17,918 1,294 168,024 1988 17,103 816 1,807 20,278 74 18,030 -2,5171.69 1989 107 19,119 16,075 18,095 17,311 785 1,382 2,917 21,717 167,116 1.69 1990 18,594 17,810 784 1,532 2,265 21,693 86 19,174 169,346 19,463 1.71 1991 18,532 17,698 835 1,773 2,699 22,299 129 19,562 167,062 14,918 1.64 1992 18.712 17.840 872 2,138 2.805 22.999 216 20.228 165.015 15.376 1.74 1993 18,982 18,095 886 2,350 3,105 23,690 140 20,790 162,415 15,189 2.04 1994 19,710 18,821 889 2,624 2,598 24,205 162 21,247 163,837 19,744 1.85 19,275 1995 19,506 18,599 908 2,841 3,333 24,927 154 22,207 165,146 1.55 1996 19.751 958 2.937 25,669 21.456 2.17 18 854 3,725 153 22,610 166,474 1997 19,866 18,902 964 2,994 3,641 25,694 157 22,737 167,223 19,960 2.32 1998 19.961 19.024 938 3.152 2.975 25,310 22.246 164,041 15.538 1.96 159 1999 19,805 18,832 973 3,585 2,585 25,166 163 22,405 167,406 22,293 2.19 3,782 2000 20,198 19,182 1,016 244 3,053 26,261 23,333 177,427 29,240 3.68 2001 20,570 19,616 954 3.977 2,110 26,076 373 22,239 183,460 25,812 4.00 2002 19.885 18.928 957 4,015 2,734 26,193 516 23,007 186,946 22,839 2.95 2003 19,974 19,099 876 3,996 2,526 26,249 680 22,277 189,044 21,523 4.88 2004 19,517 18,591 927 4,259 2,689 26,393 854 22,389 192,513 22,637 5.46 2005 4,341 22,011 204,385 30.330 7.33 18.927 18,051 876 2.621 25,742 729 2006 25,301 211,085 25,245 6.40 19,381 18,476 906 4,186 1,915 724 21,653

Sources: Energy Information Administration.

Note: Reserves estimated as of December 31 each year. Imports to Strategic Petroleum Reserve are excluded.

# DRILLING SUMMARY

Year	Seismic Crew	s Rotary Ri	gs Explorat	ory Wells		Total	Well Comp	letions		Footage
	Working	Active	New-Field Wildcats	Total Exploratory	Oil Wells	Gas Wells	Dry Wells	Service Holes	Total Wells	Total Drilled (mill. ft.)
1960	4,625	1,750	7,320	11,704	21,186	5,258	17,574	2,733	46,751	190.7
1961 1962 1963 1964 1965 1966 1967 1968 1969 1970	4,557 3,915 3,966 4,102 4,247 3,672 3,337 3,268 3,156 2,340	1,760 1,637 1,500 1,502 1,387 1,273 1,134 1,169 1,194 1,028	6,909 6,794 6,570 6,623 6,175 6,158 5,260 5,205 5,956 4,829	10,992 10,797 10,664 10,747 9,466 10,313 8,878 8,879 9,701 7,436	21,101 21,249 20,288 20,620 18,761 16,447 15,329 14,331 14,368 13,043	5,664 5,848 4,751 4,855 4,724 4,167 3,659 3,456 4,083 4,031	17,106 16,682 16,347 17,488 16,025 15,770 13,246 12,812 13,736 11,099	3,091 2,400 2,267 2,273 1,913 2,152 1,584 2,315 1,866 1,369	46,962 46,179 43,653 45,236 41,423 38,536 33,818 32,914 34,053 29,542	192.1 198.6 184.4 189.9 181.5 165.5 144.7 149.3 161.0 142.0
1971 1972 1973 1974 1975 1976 1977 1978 1979	2,655 3,016 2,999 3,662 3,416 3,140 3,063 4,148 4,400 4,962	976 1,107 1,195 1,471 1,660 1,656 2,001 2,255 2,176 2,910	4,636 5,011 5,096 5,946 6,234 5,856 6,162 6,731 6,423 7,332	7,131 7,551 7,771 8,969 9,459 9,317 10,140 11,030 10,735 12,870	11,903 11,437 10,251 13,644 16,979 17,697 18,700 19,065 20,689 32,120	3,983 5,484 6,975 7,168 8,169 9,438 12,119 14,405 15,166 17,132	10,382 11,013 10,466 12,205 13,736 13,805 15,036 16,591 16,035 20,234	1,414 1,486 970 1,398 1,920 1,674 1,453 1,610 1,472 2,076	27,682 29,420 28,662 34,415 40,804 42,614 47,308 51,671 53,362 71,562	130.7 142.5 141.9 153.8 184.9 187.3 215.7 238.4 243.7 311.4
1981 1982 1983 1984 1985 1986 1987 1988 1989	5,877 5,676 4,944 4,655 3,494 2,016 1,561 1,512 1,392 1,493	3,970 3,105 2,229 2,428 1,969 964 936 936 869 1,010	9,151 7,386 6,057 6,528 5,630 3,484 3,515 3,271 2,644 2,685	17,430 15,882 13,845 15,138 12,208 7,156 6,903 6,350 5,251 5,074	42,520 39,252 37,396 44,472 36,458 18,598 16,441 13,508 10,412 12,104	19,742 18,810 14,505 14,962 12,917 8,055 8,114 8,446 9,483 10,242	26,972 25,827 23,837 25,549 21,431 12,362 11,698 10,284 8,468 8,359	2,366 2,212 2,047 2,251 1,736 834 890 953 672 802	91,600 86,101 77,785 87,234 75,542 39,849 37,143 33,191 29,035 31,417	406.5 375.4 316.7 368.8 316.8 177.6 163.8 155.2 135.0 149.5
1991 1992 1993 1994 1995 1996 1997 1998 1999 2000	1,251 847 952 1,087 1,253 1,307 1,336 1,566 1,125 727	862 721 755 775 723 779 943 827 625 918	2,195 1,762 1,683 1,613 1,605 1,676 1,757 1,478 1,244 1,505	4,399 3,525 3,603 3,787 3,402 3,342 3,155 2,445 1,842 2,231	11,733 8,821 9,144 7,704 8,736 9,937 12,028 8,389 5,419 8,860	9,020 7,854 10,285 10,044 8,923 10,118 11,838 12,233 12,663 17,283	7,664 6,394 6,594 5,568 5,425 5,698 6,354 5,202 3,930 4,721	1,070 989 716 669 885 791 1,017 838 478 930	29,487 24,058 25,724 23,985 23,969 26,544 31,237 26,662 22,490 31,794	141.4 121.3 138.5 130.6 124.5 138.7 165.4 143.6 110.0 148.9
2001 2002 2003 2004 2005 2006	717 674 481 563 655 728	1,156 830 1,032 1,192 1,383 1,649	1,765 1,452 1,711 1,951 1,936 2,275	3,018 2,233 2,484 2,891 3,729 4,368	9,581 7,222 8,710 9,303 10,882 13,150	21,601 16,801 20,715 23,377 26,809 30,349	4,667 3,771 4,011 3,979 4,005 4,674	786 747 815 1,447 1,596 1,946	36,635 28,541 34,251 36,777 41,696 48,173	184.0 145.0 178.5 202.6 226.6 266.9

Sources: EIA & IHS, World Oil, Baker-Hughes & American Petroleum Institute (wells drilled data pre-2005).

Notes: Total well completions include exploratory and development wells. API historical data may not match IHS data used for recent decade on state and summary pages.



# **Background Information**

### States

Number of states	50
With oil and/or gas production	33

### First year of production

Crude oil (Pennsylvania)	1859
Natural gas (Pennsylvania)	1881

### Year and amount of peak production

Crude oil — 3,517,450 thous. bbls.	1970
Natural gas — 22,647,549 MMcf	1973

### Deepest producing well (ft.)

Crude oil (GO	OM)	31,481
Natural gas (7	Texas)	30,712

### Year and depth of deepest well drilled (ft.)

2003 (GOM) 31,824

### Cumulative number of total wells drilled as of 12/31/06 (excluding service wells)

Oil wells	1,507,245	48%
Gas wells	664,079	21%
Dry holes	982,167	31%
Total	3,153,496	100%

### Cumulative crude oil wellhead value

as of 12/31/06 (thous. \$) \$2,005,238,242

# Cumulative production & new reserves

	Crude	NGL		Natural
	Oil	(mill. bbls.)	Total	Gas (Bcf)
Reserves	209,623	49,337	258,960	1,273,956
Production	188.741	37.674	226.415	1.065.570

### Value of Oil and Gas

# Average wellhead price

Crude oil (\$/bbl.)	\$59.69
Natural gas (\$Mcf)	\$ 6.40

### Wellhead value of production

Crude oil	\$111,158,240
Natural gas	\$124,044,128
Total	\$235,202,368

# Average natural gas price (2006, \$/Mcf)

Residential consumers	\$13.75
Commercial consumers	\$11.99
Industrial consumers	\$ 7.86
Electric utilities	\$ 7.11
City Gate	\$ 8.61
Severance taxes paid (2006, in thous. \$)	\$9,711,307

### **2006 Industry Statistics**

Number	Ωf	wells	drilled
HUILIDEI	OI	WCIIS	unincu

	Exploratory	Development	Total
Oil	805	12,345	13,150
Gas	2,254	28,095	30,349
Dry	1,309	3,365	4,674
Total	4,368	43,805	48,173

### Total footage drilled

(thous, ft.)

	Exploratory	Development	Total	
Oil	5,685.6	55,315.7	61,001.3	
Gas	12,813.2	169.558.0	182,371.2	
Dry	7,358.5	16,131.2	23,489.8	
Total	25,857.3	241,004.9	266,862.2	
(Note: Totals may not add due to rounding.)				

New-field wildcats drilled 2,275 Footage (thous. ft.) 13,497.8

Average rotary rigs active 1,649

Permits 75,455

### World-wide rank

	Crude Oil	Natural Gas
Wells drilled	1st	1st
Production	3rd	2nd
Reserves (2006)	12th	5th

### Number of operators 16,013

### Number of producing wells

(12/31/06)

Crude oil	400,741
Natural gas	369,586
Total	773,069

### Average production

 Crude oil (thous. b/d)
 4,482

 Natural gas
 48,867

 Total
 54,349

### Natural gas marketed production

(MMcf) 19,409,674

### Average output per producing well

Crude oil (bbls.) 3,071 Natural gas (Mcf) 42,219

### 2006 Latest Available Data

### Petroleum reserves

as of 12/31/06 (mill. bbls.)

	Crude Oil	NGL	Total
New reserves	867	1,118	1,985
Production	1,652	811	2,463
Net annual cha	nge -785	307	-478
Proved reserve	s 20.972	8.472	29.444

### Natural gas reserves

as of 12/31/06 (Bcf)

	Associated	Non-	Dry
	Dissolved	Associated	Gas
New reserves	3,685	22,796	25,245
Production	2,281	17,092	18,545
Net annual char	nge 1,404	5,704	6,700
Proved reserves	29,640	190,776	211,085

### Cost of drilling and equipping wells

	Cost/ft.	Cost/	Total Cost
	(\$)	well (\$)	(thous. \$)
Oil	305	1,413,215	18,583,779
Gas	332	1,996,884	60,603,424
Dry	268	1,347,775	6,299,501

### Marginal oil wells

Producing marginal wells	355,177
Crude oil production in bbls. (thous.)	359,339
Crude oil production b/d (thous.)	984

### Marginal natural gas wells

as of 12/31/06

Producing marginal wells	261,437
Natural gas production (MMcf)	2.450.958

### Federal onshore mineral lease royalties

Oil	\$ 4,262,953,675
Gas	\$ 5,765,932,458
Total Royalties	\$12,616,328,035

### Average number of employees

Oil and natural gas extraction	403,358
Refining	69,124
Transportation	231,809
Wholesale	191,759
Retail	862,064
Pipeline construction	83,408
Oilfield machinery	52,382
Total petroleum industry	1,825,703

Source: EIA for production and IHS for wells drilled.



### **Background Information**

Planning Areas	
Number of areas	25
With oil and/or gas production	3

### First year of production

Crude oil	1946
Natural gas	1946

### Year and amount of peak production

Crude oil — 591,589 thous. bbls.	2001
Natural gas — 5.248.041 MMcf	1997

### Deepest producing well (ft.)

Water depth	10,062
Natural gas	26,712

### Year and depth of deepest well drilled (ft.)

Water depth (2004)	10,062
Well depth (2005)	30,505

### Cumulative number of total wells drilled

as of 12/31/06 (excluding service wells)

Oil wells	20,973	33%
Gas wells	25,421	39%
Dry holes	18,161	28%
Total	64,555	100%

### Cumulative crude oil wellhead value

as of 12/31/06 (thous. \$) \$289,157,519

### Cumulative production & new reserves

as of 12/31/06

Crude	NGL		Natural
Oil	(mill. bbls.)	Total	Gas (Bcf)

Reserves 21,314 4,700 21,314 103,401 Production 15,160 2,747 17,907 63,032

### Value of Oil and Gas

### Average wellhead price

(2006)

Crude oil (\$/bbl.)	\$60.41
Natural gas (\$Mcf)	\$ 6.40

### Wellhead value of production

006, in thous. \$)

Crude oil	\$30,211,826
Natural gas	\$18,909,043
Total	\$49.120.870

### Federal Reserves

(2006, in thous. \$)

Bonuses	\$ 865.26
Rents	\$ 224.01
Royalties	\$6,559.00
Total	\$7,606.77

### **2006 Industry Statistics**

N I	I	- 6	II -	-11	III
ıvum	per	OI	wells	arı	ıea

	Exploratory	Development	Total
Oil	1	127	128
Gas	28	265	293
Dry	126	91	217
Total	155	483	638

### Total footage drilled

(thous. ft.)

	Exploratory	Development	Total	
Oil	15.4	1,306.9	1,322.3	
Gas	254.9	2,780.2	3,035.1	
Dry	1,623.0	939.9	2,562.9	
Total	1,893.3	5,027.0	6,920.3	
(Note: Totals may not add due to rounding.)				

### New-field wildcats drilled 146 Footage (thous. ft.) 1,752.3

### Average rotary rigs active 9

Permits 1,177

### State-wide rank

	Crude Oil	Natural Gas
Wells drilled	11th	10th
Production	1st	2nd
Reserves (2006)	2nd	6th

### Number of producing wells

(12/31/06)

Crude oil	3,146
Natural gas	3,367
Total	6,513

### Average production

 Crude oil (thous. b/d)
 1,182

 NGL (est.)
 181

 Natural gas (MMcf/day)
 1,612

### Natural gas marketed production

(MMcf) 19,381,895

### Average output per producing well

 Crude oil (bbls.)
 137,101

 Natural gas (Mcf)
 705,489

### Producing well depth

	Oil Wells	Gas Wells
Shelf (wd <1,000ft)	2,722	3,218
Deep (wd 1,000-4,999	ft) 389	128
Ultra Deep (wd >5,000	ft) 35	22
Total	3,146	3,368

### Number of operators

Producing oil	71
Producing natural gas	103

Source: EIA for production and IHS for wells drilled.

### 2006 Latest Available Data

### Petroleum reserves

as of 12/31/06 (mill. bbls.)

(	Crude Oil	NGL	Total
New reserves	44	82	126
Production	431	125	556
Net annual chang	e -387	-43	-430
Proved reserves	4,096	653	4,749

### Natural gas reserves

as of 12/31/06 (Bcf)

	Associated	Non-	Dry
	Dissolved	Associated	Gas
New reserves	-434	773	304
Production	635	2,206	2,775
Net annual char	ge-1,069	-1,433	-2,471
Proved reserves	4,835	10,915	15.360

### Cost of drilling and equipping wells

	Cost/ft.	Cost/	Total Cost
	(\$)	well (\$)	(thous. \$)
Oil	3,352	34,624,729	4,431,965
Gas	3,509	36,346,199	10,649,436
Drv	3.576	42.234.002	9.164.778

### 2006 Lease Statistics

G&G permits	105
Platform installations	109
Platform removals	102
Platform in place	3,922

### Lease characteristics

### Existing leases

<200 meters of water	3,204
200-400 meters of water	102
401-900 meters of water	86
>900 meters of water	112

### Oil & natural gas fields

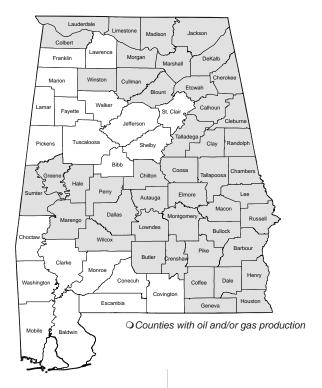
Producing	830
Non-producing	390

### Federal onshore mineral lease royalties

•
\$3,398,971,818
\$3,160,028,663
\$7,606,767,938

The Kermac No. 16 discovery well struck oil in the Gulf of Mexico on Nov. 14, 1947 — the first successful well out of sight of land. Brown & Root built the freestanding platform 10 miles from shore for Kerr-McGee Oil Industries and partners Phillips Petroleum and Stanolind.

# **A**LABAMA



### **Background Information**

### Counties

Number of counties	67
With oil and/or gas production	21

### First year of production

Crude oil	1944
Natural das	1904

### Year and amount of peak production

Crude oil — 22,153 thous. bbls.	1980
Natural gas —378,877 MMcf	1996

### Deepest producing well (ft.)

Crude oil	19,000
Natural gas	23,505

### Year and depth of deepest well drilled (ft.)

1995	24.275

### Cumulative number of total wells drilled as of 12/31/06 (excluding service wells)

Oil wells	1,365	10%
Gas wells	7,802	57%
Dry holes	4,583	33%
Total	13,750	100%

### Cumulative crude oil wellhead value

as of 12/31/06 (thous. \$) \$11,131,033

### Cumulative production & new reserves

as of 12/31/06

	Crude Oil	NGL (mill. bbls.)	Total	Natural Gas (Bcf)
Reserves		406	916	8,512
Production		370	852	6,887

### Value of Oil and Gas

# Average wellhead price (2006)

Crude oil (\$/bbl.) \$63.16 \$ 7.57 Natural gas (\$Mcf)

### Wellhead value of production

(2006, in thous. \$)

\$ 475,658 Crude oil \$2,166,685 Natural gas Total \$2,642,343

### Average natural gas price

(2006, \$/Mcf)

Residential consumers \$18.80 Commercial consumers \$15.82 Industrial consumers \$ 9.46 Electric utilities \$ 7.32 City Gate \$10.26

\$177,280

### Severance taxes paid

(2006 in thous. \$)

A I		1 111 1
Number	OF WALLS	arillaa
IMMILINEL	OI MEII9	uninea

	Exploratory	Development	Total
Oil	3	13	16
Gas	7	373	380
Dry	23	21	44
Total	33	407	440

### Total footage drilled

thous. ft.)

	Exploratory	Development	Total
Oil	37.5	153.2	190.5
Gas	23.8	1,016.6	1,040.4
Dry	198.2	94	292.2
Total	259.3	1,263.8	1,523.1
(Note: 7	otals may not add	due to roundina.)	

New-field wildcats drilled	24
Footage (thous. ft.)	189.8

### Average rotary rigs active

Permits 708

### State-wide rank

	Crude Oil	Natural Gas
Wells drilled	26th	16th
Production	16th	13th
Reserves (2006)	18th	12th

### Number of operators 85

### Number of producing wells

(12/31/06)

Crude oil	493
Natural gas	5,523
Total	6,016

### Average production

Crude oil (thous. b/d) 14
NGL (thous. b/d) 6.3
Natural gas (MMcf/d) 796

### Natural gas marketed production

(MMcf) 286,220

### Average output per producing well

Crude oil (bbls.) 10,703 Natural gas (Mcf) 52,604

# Coalbed methane (YTD MMcf) 116,940 Oil Wells 3 Gas Wells 5,060

320

NA

Daily Average (MMcf) / Well

Av. Bbls per well/d

Heavy oil (YTD BBIs, in thous.)

Wells

Av. BbIs per day

NA

Source: EIA for production and IHS for wells drilled.

### 2006 Latest Available Data

Petroleum reserves as of 12/31/06 (mill. bbls.)

Crude	Oil	NGL	Total
New reserves	-5	0	-5
Production	5	5	10
Net annual change	-10	-5	15
Proved reserves	45	56	101

### Natural gas reserves

as of 12/31/06 (Bcf)

,	Associated	Non-	Dry
	Dissolved	Associated	Gas
New reserves	-7	254	233
Production	4	286	287
Net annual chang	je -11	-32	-54
Proved reserves	18	3,945	3,911

### Cost of drilling and equipping wells

	Cost/ft	Cost	Total Cost
	(\$)	well (\$)	(thous. \$)
Oil	454	5,412,007	86,592
Gas	211	577,847	219,582
Dry	276	1,834,373	80,712

### Marginal oil wells

Producing marginal wells	320
Crude oil production in bbls. (thous.)	706
Crude oil production b/d (thous.)	2

### Marginal natural gas wells

as of 12/31/06

Producing marginal wells	4,165
Natural gas production (MMcf)	60,255

### Federal onshore mineral lease royalties

Oil	\$ 729,991
Gas	\$ 915,536
Total Royalties	\$1,981,892

### Horizontal wells data

Horizontal wells drilled	13

### Average number of employees

Oil and natural gas extraction	1,957
Refining	948
Transportation	3,329
Wholesale	3,145
Retail	19,001
Pipeline construction	3,329
Oilfield machinery	0
Total petroleum industry	29,437

Hunt Oil company drilled the A.R. Jackson Well No. 1 near Gilbertown in January 1944. The well found commercial quantities of oil at a depth of 2, 580 feet. The State Oil and Gas Board of Alabama was formed the following year.



### **Background Information**

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Number of areas 15 With oil and/or gas production 8

### First year of production

Crude oil 1905 Natural gas 1945

### Year and amount of peak production

Crude oil — 738,143 thous. bbls. 1988 Natural gas — 555,402 MMcf 1994

### Deepest producing well (ft.)

Crude oil 22,261 Natural gas 17,864

### Year and depth of deepest well drilled (ft.)

### Cumulative number of total wells drilled as of 12/31/06 (excluding service wells)

Oil wells 4,535 Gas wells 298 5% Dry holes 986 17% 5,819 100% Total

### Cumulative crude oil wellhead value

\$241,769,045 as of 12/31/06 (thous. \$)

### Cumulative production & new reserves

as of 12/31/06

Crude NGL Natural Oil (mill. bbls.) Total Gas (Bcf)

Reserves 19,942 510 20,452 22,830 Production 15,654 368 16,022 11,733

### Value of Oil and Gas

### Average wellhead price

Crude oil (\$/bbl.) \$57.03 Natural gas (\$Mcf) \$ 5.79

# Wellhead value of production (2006, in thous. \$)

\$15,425,817 Crude oil Natural gas \$ 2,574,952 \$18,000,769 Total

# Average natural gas price (2006, \$/Mcf)

Residential consumers \$6.84 \$4.75 Commercial consumers Industrial consumers \$3.70 Electric utilities \$3.65 City Gate \$5.25

Severance taxes paid \$1,061,672

(2006, in thous. \$)

### 2006 Industry Statistics

A I		1 111 1
Number	Of WALLS	arillaa

	Exploratory	Development	Total
Oil	1	112	113
Gas	1	6	7
Dry	9	3	12
Total	11	121	132

### Total footage drilled

(thous ft)

	Exploratory	Development	Total
Oil	11.5	835.6	847.2
Gas	8.2	42.5	50.7
Dry	60.4	12.3	72.7
Total	80.1	890.4	970.5
(Note: 7	Totals may not add	due to rounding.)	

### New-field wildcats drilled 5 Footage (thous. ft.) 37.7

# Average rotary rigs active

8

### Permits 187

### State-wide rank

	Crude Oil	Natural Gas
Wells drilled	24th	27th
Production	3rd	8th
Reserves (2006)	3rd	8th

### Number of operators 6

### Number of producing wells

(12/31/06

Crude oil	2,465
Natural gas	193
Total	2,658

### Average production

 Average production

 Crude oil (thous. b/d)
 737

 NGL (thous. b/d)
 3.9

 Natural gas (MMcf/day)
 796

### Natural gas marketed production

(MMcf) 444,724

### Average output per producing well

Crude oil (bbls.) 109,189 Natural gas (Mcf) 1,040,335

### Coalbed methane (YTD MMcf)

Oil Wells Gas Wells Daily Average (MMcf) / Well	NA NA NA
Heavy oil (YTD BBIs, in thous.)	NA
Wells Av. Bbls per day Av. Bbls per well/d	NA NA NA

Source: EIA for production and IHS for wells drilled.

### 2006 Latest Available Data

Petroleum reserves

as of 12/31/06 (mill. bbls.)

Crude Oil	NGL	Total
New reserves -50	0	-50
Production 242	14	256
Net annual change -292	-14	-306
Proved reserves 3,979	338	4,317

### Natural gas reserves

as of 12/31/06 (Bcf)

	Associated		Dry
	Dissolved	Associated	Gas
New reserves	2,742	-236	2,482
Production	218	192	408
Net annual chan	ge 2,524	-428	2,074
Proved reserves	8,886	1,447	10,245

### Cost of drilling and equipping wells

	Cost/ft.	Cost/	Total Cost
	(\$)	well (\$)	(thous. \$)
Oil	3,410	25,564,678	2,888,809
Gas	2,120	15,350,642	107,454
Dry	2,799	16,946,151	203,354

### Marginal oil wells

Producing marginal wells	154
Crude oil production in bbls. (thous.)	326
Crude oil production b/d (thous.)	1

### Marginal natural gas wells

as of 12/31/06

Producing marginal wells	0
Natural gas production (MMcf)	0

### Federal onshore mineral lease royalties

Oil	\$ 3,096,217
Gas	\$15,133,069
Total Royalties	\$24,144,428

### Horizontal wells data

Horizontal wells drilled	81

### Average number of employees

Office of the formal many section of the sec	40 404
Oil and natural gas extraction	10,434
Refining	414
Transportation	0
Wholesale	1,355
Retail	1,804
Pipeline construction	481
Oilfield machinery	0
Total petroleum industry	14.488

Discovery of Alaska's first commercial oilfield took place near Katella in 1902. The Trans-Alaska pipeline was completed in 1977.



### **Background Information**

### Counties

Number of counties	15
With oil and/or gas production	1

### First year of production

Crude oil	1958
Natural gas	1955

### Year and amount of peak production

Crude oil — 3,370 thous. bbls.	1968
Natural gas —3,161 MMcf	1966

### Deepest producing well (ft.)

Crude oil	6,382
Natural gas	5,771

### Year and depth of deepest well drilled (ft.)

1981	18,013

### Cumulative number of total wells drilled as of 12/31/06 (excluding service wells)

Oil wells	71	6%
Gas wells	52	5%
Dry holes	985	89%
Total	1.108	100%

### Cumulative crude oil wellhead value

\$70,805,188 as of 12/31/06 (thous. \$)

### Cumulative production & new reserves

45 01 12/01/00	Crude Oil	NGL (mill. bbls.)	Total	Natural Gas (Bcf)
Reserves	NA	0	NA	NA
Production	NA		NA	NA

### Value of Oil and Gas

# Average wellhead price\*

Crudo oil (f/bbl )	¢c1 E1
Crude oil (\$/bbl.)	\$61.51
Natural gas (\$Mcf)	\$ 5.88

# Wellhead value of production (2006, in thous. \$)

Crude oil	\$3,383
Natural gas	\$3,593
Total	\$6,976

# Average natural gas price (2006, \$/Mcf)

Residential consumers	\$16.32
Commercial consumers	\$12.11
Industrial consumers	\$ 9.90
Electric utilities	\$ 6.48
City Gate	\$ 7.67

### Severance taxes paid \$7,979

# **2006 Industry Statistics**

Numl	oer	of	wells	drilled	
	_			_	

	Exploratory	Development	Total
Oil	NA	NA	NA
Gas	NA	NA	NA
Dry	1	NA	1
Total	1	NA	1

### Total footage drilled

	Exploratory	Development	Tota
Oil	NA	NA	NA
Gas	NA	NA	NA
Dry	7.0	NA	7.0
Total	7.0	NA	7.0
(Note: 7	Totals may not add	due to rounding.)	

### New-field wildcats drilled 7.0 Footage (thous. ft.)

Average rotary rigs active	

0

0

### **Permits** 12

### State-wide rank

	Crude Oil	Natural Gas
Wells drilled	31st	32nd
Production	31st	30th
Reserves (2006)	NA	NA

### Number of operators

### Number of producing wells

(12/31/06)

Crude oil	25
Natural gas	5
Total	30
Average production Crude oil (thous. b/d)	0

### NGL (thous. b/d) Natural gas (MMcf/day)

Natural gas marketed production	
(MMcf)	611

### Average output per producing well

Crude oil (bbls.)	2,121
Natural gas (Mcf)	104,379

### Coalbed methane (YTD MMcf)

NA
NA

Source: EIA for production and IHS for wells drilled. \* State Data.

### 2006 Latest Available Data

Petroleum reserves as of 12/31/06 (mill. bbls.)

Cru	de Oil	NGL	Total
New reserves	NA	NA	NA
Production	NA	NA	NA
Net annual change	NA	NA	NA
Proved reserves	NA	NA	NA

# Natural gas reserves as of 12/31/06 (Bcf)

, ,			
	Associated Dissolved	Non- Associated	Dry Gas
New reserves	NA	NA	NA
Production	NA	NA	NA
Net annual chang	ge NA	NA	NA
Proved reserves	NA	NA	NA

### Cost of drilling and equipping wells

	Cost/ft.	Cost/	Total Cost
	(\$)	well (\$)	(thous. \$)
Oil	NA	NA	NA
Gas	NA	NA	NA
Dry	146	1,021,580	1,022

### Marginal oil wells

Producing marginal wells	24
Crude oil production in bbls. (thous.)	40
Crude oil production b/d (thous.)	0

### Marginal natural gas wells

as of 12/31/06

Producing marginal wells	2
Natural gas production (MMcf)	26

### Federal onshore mineral lease royalties

Oil	\$	510,100
Gas	\$	53,591
Total Royalties	\$69	.493.470

### Horizontal wells data

Horizontal wells drilled	0

### Average number of employees

Oil and natural gas extraction	268
Refining	215
Transportation	429
Wholesale	1,935
Retail	16,582
Pipeline construction	779
Oilfield machinery	0
Total petroleum industry	20,208

In 1902, Joseph Heslet drilled northern Arizona's first oil well near Paulden oil seeps. Although it was a dry hole, prospectors and speculators swarmed in. By 1918, no commercial oil deposits were found, and the boom was over.

# **A**RKANSAS



O Counties with oil and/or gas production

### **Background Information**

### Counties

Number of counties	75
With oil and/or gas production	25

### First year of production

Crude oil	1921
Natural gas	1889

### Year and amount of peak production

Crude oil — 77,398 thous. bbls.	1925
Natural gas — 224,446 MMcf	1996

### Deepest producing well (ft.)

Crude oil	12,500
Natural gas	19,850

### Year and depth of deepest well drilled (ft.)

1992 20,661

### Cumulative number of total wells drilled as of 12/31/06 (excluding service wells)

Oil wells	14,259	40%
Gas wells	6,804	19%
Dry holes	14,600	41%
Total	25 762	1000/

### Cumulative crude oil wellhead value

as of 12/31/06 (thous. \$)

### Cumulative production & new reserves as of 12/31/06

	Crude Oil		Total	Natural Gas (Bcf)
Reserves	1,827	94	1,921	10,307
Production	1 756	89	1 845	7 758

### Value of Oil and Gas

# Average wellhead price (2006)

Crude oil (\$/bbl.)	\$ 58.67
Natural gas (\$Mcf)	\$ 6.43

### Wellhead value of production

(2006, in thous. \$)

Crude oil	\$ 358,112
Natural gas	\$1,242,649
Total	\$1,600,761

### Average natural gas price

(2006, \$/Mcf)

Residential consumers	\$ 14.15
Commercial consumers	\$ 10.72
Industrial consumers	\$ 9.51
Electric utilities	\$ 6.38
City Gate	\$ 7.96
•	

### Severance taxes paid (2006, in thous. \$)

\$15,078

Num	her	Ωf	Wells	drilled	
INUITI	UCI	OI.	WEIIS	uninea	

	Exploratory	Development	Total
Oil	1	38	39
Gas	53	342	395
Dry	24	37	61
Total	78	417	495

#### Total footage drilled

thous. ft.)

	Exploratory	Development	Total
Oil	5.0	136.1	141.1
Gas	343.0	2,058.9	2,401.9
Dry	144.3	194.5	338.8
Total	492.3	2,389.5	2,881.8
(Note: 7	otals may not add	due to rounding )	

#### New-field wildcats drilled 55 Footage (thous. ft.) 348.7

#### Average rotary rigs active 2

#### Permits 801

#### State-wide rank

Crude Oil	Natural Gas
17th	17th
17th	15th
19th	18th
	17th 17th

#### Number of operators 315

#### Number of producing wells

(12/31/06)

Crude oil	2,505
Natural gas	4,481
Total	6,986

#### Average production

Crude oil (thous. b/d) 14
NGL (thous. b/d) 0
Natural gas (MMcf/day) 529

#### Natural gas marketed production

(MMcf) 193,258

#### Average output per producing well

Crude oil (bbls.)	2,113
Natural gas (Mcf)	43,069

Coalbed methane (YTD MMcf)	2,268
Oil Wells	0
Gas Wells	45
Daily Average (MMcf) / Well	6

Heavy oil (YTD BBIs, in thous.)	NA
Wells	NA
Av. Bbls per day	NA
Av. Bbls per well/d	NA

Source: EIA for production and IHS for wells drilled.

#### 2006 Latest Available Data

#### Petroleum reserves

as of 12/31/06 (mill. bbls.)

	Crude Oil	NGL	Total
New reserves	3	1	4
Production	6	0	6
Net annual char	nge -3	1	-2
Proved reserves	37	4	41

#### Natural gas reserves

as of 12/31/06 (Bcf)

	ssociated	Non- Associated	Dry Gas
	JISSUIVEU	Associated	
New reserves	3	489	493
Production	5	183	188
Net annual change	-2	306	305
Proved reserves	44	2,227	2,269

#### Cost of drilling and equipping wells

	Cost/ft.	Cost/	Total Cost
	(\$)	well (\$)	(thous. \$)
Oil	140	505,825	19,727
Gas	216	1,311,007	517,848
Dry	153	852,125	51,980

#### Marginal oil wells

Producing marginal wells	2,883
Crude oil production in bbls. (thous.)	2,259
Crude oil production b/d (thous.)	8

#### Marginal natural gas wells

as of 12/31/06

Producing marginal wells	2,888
Natural gas production (MMcf)	38,001

#### Federal onshore mineral lease royalties

Oil	\$	244
Gas	\$ 8,9	74,165
Total Royalties	\$16.5	14.329

#### Horizontal wells data

Horizontal wells drilled	107

#### Average number of employees

Oil and natural gas extraction	2,926
Refining	633
Transportation	1,879
Wholesale	2,234
Retail	12,586
Pipeline construction	402
Oilfield machinery	0
Total petroleum industry	20,660

The Busey-Armstrong No. 1 well came in on Jan. 10, 1921, and quickly catapulted the population of El Dorado from 4,000 to 25,000. H. L. Hunt arrived with a borrowed \$50 and joined lease traders and speculators at the Garrett Hotel — where fortunes were made and lost.

## CALIFORNIA



#### **Background Information**

#### Counties

Number of counties	58
With oil and/or gas production	29

#### First year of production

Crude oil 1861 Natural gas 1889

#### Year and amount of peak production

Crude oil —423,877 thous. bbls. 1985 Natural gas —714,893 MMcf 1968

#### Deepest producing well (ft.)

Crude oil 15,177 Natural gas 18,114

#### Year and depth of deepest well drilled (ft.)

1993 24,426

## Cumulative number of total wells drilled as of 12/31/06 (excluding service wells)

 Oil wells
 145,055
 79%

 Gas wells
 6,098
 3%

 Dry holes
 33,224
 18%

 Total
 184,377
 100%

#### Cumulative crude oil wellhead value

as of 12/31/06 (thous. \$) \$210,900,625

## Cumulative production & new reserves as of 12/31/06

Crude NGL Natural
Oil (mill. bbls.) Total Gas (Bcf)

Reserves 31,029 1,553 32,582 46,221 Production 24,608 1,391 25,999 36,493

#### Value of Oil and Gas

#### Average wellhead price

(2006)

Crude oil (\$/bbl.) \$ 54.78 Natural gas (\$Mcf) \$ 6.47

#### Wellhead value of production

(2006, in thous. \$)

 Crude oil
 \$12,240,536

 Natural gas
 \$ 2,039,402

 Total
 \$14,279,938

#### Average natural gas price

(2006, \$/Mcf)

Residential consumers \$11.79
Commercial consumers \$10.43
Industrial consumers \$9.30
Electric utilities \$6.71
City Gate \$6.76

Severance taxes paid \$328,876

(2006, in thous. \$)

A I		1 111 1
Number	OF WALLS	arillaa
IMMILINEL	OI MEII9	uninea

	Exploratory	Development	Total
Oil	4	2,286	2,290
Gas	5	124	129
Dry	21	54	75
Total	30	2,464	2,494

#### Total footage drilled

thous. ft.)

	Exploratory	Development	Total
Oil	11.4	5,474.4	5,485.8
Gas	25.1	772.9	798.0
Dry	140.9	275.0	415.9
Total	177.5	6,522.3	6,699.8
(Note: 7	otals may not add	due to rounding.)	

#### New-field wildcats drilled 13 Footage (thous. ft.) 80.9

#### Average rotary rigs active

#### Permits 4,149

#### State-wide rank

	Crude Oil	Natural Gas
Wells drilled	3rd	18th
Production	4th	12th
Reserves (2006)	4th	15th

#### Number of operators 396

#### Number of producing wells

(12/31/06)		
Crude oil		49,705
Natural gas		1,715
Total		51,420

#### Average production

Crude oil (thous. b/d)	611
NGL (thous. b/d)	0.6
Natural gas (MMcf/day)	248

#### Natural gas marketed production

(MMcf)	315.209

#### Average output per producing well

Crude oil (bbls.)	4,484
Natural gas (Mcf)	52,772

#### Coalbed methane (YTD MMcf)

Oil Wells	NA
Gas Wells	NA
Daily Average (MMcf) / Well	NA

#### Heavy oil (YTD BBIs, in thous.) 214,134 Wells 45,095

 Wells
 45,095

 Av. Bbls per day
 586.7

 Av. Bbls per well/d
 4,749

Source: EIA for production and IHS for wells drilled.

#### 2006 Latest Available Data

#### Petroleum reserves

as of 12/31/06 (mill. bbls.)

	Crude Oil	NGL	Total
New reserves	176	6	182
Production	222	11	233
Net annual char	nge -46	-5	-51
Proved reserves	3,389	132	3,521

#### Natural gas reserves

as of 12/31/06 (Bcf)

	Associated	Non-	Dry
	Dissolved	Associated	Gas
New reserves	-250	69	-179
Production	180	88	255
Net annual char	nge -439	-19	-434
Proved reserves	2,155	780	2,794

#### Cost of drilling and equipping wells

	Cost/ft.	Cost/	Total Cost
	(\$)	well (\$)	(thous. \$)
Oil	471	1,128,932	2,585,255
Gas	176	1,087,583	140,298
Dry	283	1,566,758	177,507

#### Marginal oil wells

Producing marginal wells	36,126
Crude oil production in bbls. (thous.)	69,591
Crude oil production b/d (thous.)	191

#### Marginal natural gas wells

as of 12/31/06

Producing marginal wells	835
Natural gas production (MMcf)	10,121

#### Federal onshore mineral lease royalties

Oil	\$ 81,483,968
Gas	\$ 5,719,014
Total Royalties	\$ 87,202,982

#### Horizontal wells data

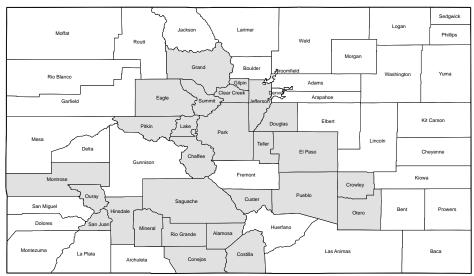
Horizontal wells drilled	150

#### Average number of employees

Oil and natural gas extraction	17,988
Refining	12,992
Transportation	3,740
Wholesale	4,843
Retail	54,180
Pipeline construction	1,854
Oilfield machinery	6,480
Total petroleum industry	102.077

In the early 1860s, Josiah Stanford dug about 30 tunnels into Sulphur Mountain near Santa Paula, slanting them upwards so oil would flow down to the entrances. Stanford's tunnels produced more oil in California than any other production method of the day.

## Colorado



O Counties with oil and/or gas production

#### **Background Information**

#### Counties

Number of counties	63
With oil and/or gas production	37

#### First year of production

Crude oil 1887 Natural gas 1893

#### Year and amount of peak production

Crude oil - 58,516 thous. bbls. Natural gas — 1,217,865 MMcf 2006

#### Deepest producing well (ft.)

Crude oil 12,651 Natural gas 18,535

#### Year and depth of deepest well drilled (ft.)

1987 22,092

#### Cumulative number of total wells drilled as of 12/31/06 (excluding service wells)

Oil wells 13,504 18% 34,025 47% Gas wells Dry holes 25,426 35%

#### Cumulative crude oil wellhead value

72,955

100%

as of 12/31/06 (thous. \$) \$22,780,004

#### Cumulative production & new reserves

as of 12/31/06

Total

	Crude Oil	NGL (mill. bbls.)	Total	Natural Gas (Bcf)
Reserves	,	1,014	3,214	34,404
Production	1.950	523	2.473	16.494

#### Value of Oil and Gas

#### Average wellhead price

Crude oil (\$/bbl.) \$63.80 Natural gas (\$Mcf) \$ 6.12

#### Wellhead value of production

(2006, in thous. \$)

Crude oil \$ 1,492,282 \$ 7,361,265 Natural gas Total \$ 8,853,547

#### Average natural gas price

Residential consumers \$10.45 Commercial consumers \$ 9.61 Industrial consumers \$11.53 Electric utilities \$ 6.22 City Gate \$ 7.61

#### Severance taxes paid

(2006, in thous. \$)

\$196,668

N I	I	- 6	1	I -	-11	111
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	Exploratory	Development	Total
Oil	3	36	39
Gas	104	2,730	2,834
Dry	51	79	130
Total	158	2,845	3,003

#### Total footage drilled

(thous. ft.)

	Exploratory	Development	Total
Oil	15.1	236.6	251.7
Gas	560.9	15,843.9	16,404.8
Dry	271.7	329.9	601.6
Total	847.8	16,410.4	17,258.2
(Note: 7	otals may not add	due to rounding.)	

#### New-field wildcats drilled 101 Footage (thous. ft.) 512.8

#### Average rotary rigs active 8

#### Permits 5,888

#### State-wide rank

Crude Oil	Natural Gas
18th	8th
12th	7th
12th	5th
	18th 12th

#### Number of operators 353

#### Number of producing wells

(12/31/06)	
Crude oil	5,049
Natural gas	28,407
Total	33,456

#### Average production

Crude oil (thous. b/d)	31
NGL (thous. b/d)	34.6
Natural gas (MMcf/day)	3,337

#### Natural gas marketed production

(MMcf)	1,202,821

#### Average output per producing well

Crude oil (bbls.)	2,249
Natural gas (Mcf)	42,872

#### Coalbed methane (YTD MMcf) 517,561

Oil Wells	8
Gas Wells	4,052
Daily Average (MMcf) / Well	1,418

Heavy oil (YTD BBls, in thous.)	22
Melle	22

VVEIIS	23
Av. Bbls per day	0.1
Av. Bbls per well/d	978

Source: EIA for production and IHS for wells drilled.

#### 2006 Latest Available Data

#### Petroleum reserves

as of 12/31/06 (mill. bbls.)

	Crude Oil	NGL	Total
New reserves	42	26	68
Production	18	32	50
Net annual chang	ge 24	-6	18
Proved reserves	274	478	752

#### Natural gas reserves

as of 12/31/06 (Bcf)

	Associated	Non-	Dry
	Dissolved	Associated	Gas
New reserves	311	1,460	1,727
Production	96	1,115	1,174
Net annual cha	nge 215	345	553
Proved reserve	s 1,541	16,141	17,149

#### Cost of drilling and equipping wells

	Cost/ft.	Cost/	Total Cost
	(\$)	well (\$)	(thous. \$)
Oil	218	1,407,770	54,903
Gas	374	2,164,209	133,367
Dry	196	905,546	17,721

#### Marginal oil wells

Producing marginal wells	4,318
Crude oil production in bbls. (thous.)	3,970
Crude oil production b/d (thous.)	11

#### Marginal natural gas wells

as of 12/31/06

Producing marginal wells	20,404
Natural gas production (MMcf)	243,647

#### Federal onshore mineral lease royalties

Oil	\$ 39,293,385
Gas	\$399,527,690
Total Royalties	\$526,645,502

#### Horizontal wells data

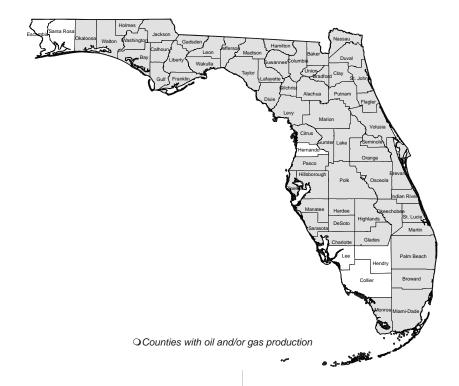
Horizontal wells drilled	29

#### Average number of employees

Oil and natural gas extraction	15,589
Refining	0
Transportation	2,139
Wholesale	2,049
Retail	12,559
Pipeline construction	2,988
Oilfield machinery	148
Total netroleum industry	35 472

On a coal lease near Florence, in 1881, Alexander Cassidy drilled for water but hit oil instead at 1,445 feet. At the height of the boom, 25 oil companies and three refineries operated out of Florence.

## **F**LORIDA



#### **Background Information**

#### Counties

Number of counties	67
With oil and/or gas production	6

#### First year of production

Crude oil	1943
Natural gas	1943

#### Year and amount of peak production

Crude oil — 47,536 thous. bbls.	1978
Natural gas — 51,595 MMcf	1978

#### Deepest producing well (ft.)

Crude oil	18,806
Natural gas	17,452

#### Year and depth of deepest well drilled (ft.)

2002	19 906

## Cumulative number of total wells drilled as of 12/31/06 (excluding service wells)

Oil wells	319	27%
Gas wells	3	0%
Dry holes	889	73%
Total	1.211	100%

#### Cumulative crude oil wellhead value

as of 12/31/06 (thous. \$) \$9,352,458

#### Cumulative production & new reserves

as of 12/31/06

	Crude	NGL		Natural
	Oil	(mill. bbls.)	Total	Gas (Bcf)
Reserves	717	83	800	652
Production	678	86	764	596

#### Value of Oil and Gas

## Average wellhead price

Crude o	il (\$/I	obl.)			NA
Natural	gas (	\$Mcf	)		NA

## Wellhead value of production (2006, in thous. \$)

Crude oil	NA
Natural gas	NA
Total	NA

## Average natural gas price (2006, \$/Mcf)

Residential consumers Commercial consumers	\$21.54 \$13.91
Industrial consumers	\$11.66
Electric utilities	\$ 8.62
City Gate	\$ 8.32

## Severance taxes paid \$9,527 (2006, in thous. \$)

Nh	ımber	Ωf	Walle	drilla	Ы
1711	$\Pi \Pi \Pi \square \square \square \square \square$	( )	WEILS	. (111111	(1)

	Exploratory	Development	Total
Oil	NA	NA	NA
Gas	NA	NA	NA
Dry	NA	NA	NA
Total	NA	NA	NA

#### Total footage drilled

(thous. ft.)

	Exploratory	Development	Iotal
Oil	NA	NA	NA
Gas	NA	NA	NA
Dry	NA	NA	N/
Total	NA	NA	NA
(Note: 7	Totals may not add	due to rounding.)	

## New-field wildcats drilled NA Footage (thous. ft.) NA

## Average rotary rigs active 0

#### Permits 0

#### State-wide rank

	Crude Oil	Natural Gas
Wells drilled	29th	34th
Production	21st	24th
Reserves (2006)	20th	24th

#### Number of operators 5

#### Number of producing wells

(12/31/06)	•	
Crude oil		65
Natural gas		0
Total		65

## Average production

Crude oil (thous. b/d)	6
NGL (thous. b/d)	0
Natural gas (MMcf/day)	0

#### Natural gas marketed production

(MMcf)	2,540

#### Average output per producing well

Crude oil (bbls.)	36,146
Natural gas (Mcf)	0

#### Coalbed methane (YTD MMcf)

Oil Wells	NA
Gas Wells	NA
Daily Average (MMcf) / Well	NA
Lloover oil (VTD DDIs in these)	NIA
Heavy oil (YTD BBIs, in thous.)	NA
Wells	NA
Av. Bbls per day	NA
Av. Bbls per well/d	NA

Source: EIA for production and IHS for wells drilled.

#### 2006 Latest Available Data

#### Petroleum reserves

as of 12/31/06 (mill. bbls.)

	Crude Oil	NGL	Total
New reserves	-19	-4	-23
Production	2	0	2
Net annual cha	ange-21	-4	-25
Proved reserve	es 38	3	41

#### Natural gas reserves

as of 12/31/06 (Bcf)

	Associated Dissolved	Non- Associated	Dry Gas
New reserves	-34	0	-30
Production	3	0	2
Net annual char	nge -37	0	-32
Proved reserves	s 50	0	45

#### Cost of drilling and equipping wells

	Cost/ft. (\$)	Cost/ To well (\$) (t	
Oil	NA	NA	NA
Gas	NA	NA	NA
Dry	NA	NA	NA

#### Marginal oil wells

Producing marginal wells	8
Crude oil production in bbls. (thous.)	20
Crude oil production b/d (thous.)	0

#### Marginal natural gas wells

as of 12/31/06

Producing marginal wells 0
Natural gas production (MMcf)

#### Federal onshore mineral lease royalties

Oil	
Gas	
Total Royalties	\$28,736

#### Horizontal wells data

Horizontal	wells drilled	NA

#### Average number of employees

Oil and natural gas extraction	1,513
Refining	465
Transportation	3,540
Wholesale	6,919
Retail	39,969
Pipeline construction	722
Oilfield machinery	0
Total petroleum industry	53,128

Florida's first producing well came in on Sept. 26, 1943. Humble Oil Co. drilled to 11,626 feet with its Sunniland No. 1 well. The site is by the present day Big Cypress Preserve and a 30-minute drive from the resort city of Naples.

## **I**LLINOIS



#### **Background Information**

#### Counties

Number of counties	102
With oil and/or gas production	43

#### First year of production

Crude oil	1889
Natural gas	1882

#### Year and amount of peak production

Crude oil — 147,647 thous. bbls.	1940
Natural gas — 18,137 MMcf	1944

#### Deepest producing well (ft.)

Crude oil	NA
Natural gas	NA

#### Year and depth of deepest well drilled (ft.)

1976	14,942
------	--------

#### Cumulative number of total wells drilled as of 12/31/06 (excluding service wells)

Oil wells	64,519	55%
Gas wells	1,164	1%
Dry holes	51,534	44%
Total	117.220	100%

#### Cumulative crude oil wellhead value

\$21,417,762 as of 12/31/06 (thous. \$)

#### Cumulative production & new reserves

as of 12/31/06

	Cruae	NGL		ivaturai
	Oil	(mill. bbls.)	Total	Gas (Bcf)
Reserves	3,595	NA	3,595	NA

Production 3,546 NA 3,546 NA

#### Value of Oil and Gas

#### Average wellhead price

Crude oil (\$/bbl.) \$59.70 Natural gas (\$Mcf) NA

#### Wellhead value of production

Crude oil	\$616,283
Natural gas	NA
Total	\$616,283

## Average natural gas price (2006, \$/Mcf)

Residential consumers	\$11.18
Commercial consumers	\$10.91
Industrial consumers	\$ 9.44
Electric utilities	\$ 7.14
City Gate	\$ 8.26

#### Severance taxes paid (2006, in thous. \$)

	Exploratory	Development	Total
Oil	8	257	265
Gas	NA	44	44
Dry	59	110	169
Total	67	411	478

#### Total footage drilled

(thous. ft.)

	Exploratory	Development	Total
Oil	20.9	629.6	650.4
Gas	NA	41.2	41.2
Dry	156.5	248.8	405.3
Total	177.3	919.6	1,096.9
(Note: 7	Totals may not add	due to rounding.)	

New-field wildcats drilled	31
Footage (thous. ft.)	68.5

#### Average rotary rigs active

0

#### Permits 747

#### State-wide rank

	Crude Oil	Natural Gas
Wells drilled	6th	23rd
Production	15th	30th
Reserves (2006)	15th	NA

#### Number of operators 843

#### Number of producing wells\*

16,228
43
16,271

#### Average production

Crude oil (thous. b/d)	28
NGL (thous. b/d)	C
Natural gas (MMcf/day)	C

#### Natural gas marketed production

(MMcf)	170
(IVIIVICI)	170

#### Average output per producing well

Crude oil (bbls.)	0
Natural gas (Mcf)	0

#### Coalbed methane (YTD MMcf)

Oil Wells Gas Wells Daily Average (MMcf) / Well	NA NA NA
Heavy oil (YTD BBIs, in thous.)	NA
Wells	NA

 Wells
 NA

 Av. Bbls per day
 NA

 Av. Bbls per well/d
 NA

Source: EIA for production and IHS for wells drilled \* World Oil for Number of producing wells.

#### 2006 Latest Available Data

#### Petroleum reserves

as of 12/31/06 (mill. bbls.)

Crud	de Oil	NGL	Total
New reserves	4	NA	4
Production	10	NA	10
Net annual change	-6	NA	-6
Proved reserves	89	NA	89

#### Natural gas reserves

as of 12/31/06 (Bcf)

A	ssociated	Non-	Dry
I	Dissolved	Associated	Gas
New reserves	NA	NA	NA
Production	NA	NA	NA
Net annual chang	e NA	NA	NA
Proved reserves	NA	NA	NA

#### Cost of drilling and equipping wells

	Cost/ft.	Cost/	Total Cost
	(\$)	well (\$)	(thous. \$)
Oil	190	466,920	123,734
Gas	459	430,422	18,939
Dry	183	439,450	74,267

#### Marginal oil wells

Producing marginal wells	5,269
Crude oil production in bbls. (thous.)	5,153
Crude oil production b/d (thous.)	14

#### Marginal natural gas wells

as of 12/31/06

Producing marginal wells	0
Natural gas production (MMcf)	0

#### Federal onshore mineral lease royalties

Oil	\$264,449
Gas	
Total Royalties	\$264,449

#### Horizontal wells data

Horizontal wells drilled	2
--------------------------	---

#### Average number of employees

Oil and natural gas extraction	2,610
Refining	4,519
Transportation	5,896
Wholesale	5,714
Retail	26,326
Pipeline construction	1,120
Oilfield machinery	20
Total petroleum industry	46,205

In 1882, drillers found commercial quantities of natural gas at Litchfield in Montgomery County. Total output from the field by 1902 was only 6,576 barrels, but by 1940, Illinois Basin discoveries ranked Illinois 4th among producing states.

## LaGrange Noble DeKalb INDIANA Carroll Clinton Tipton Fayette Union OCounties with oil and/or gas production Dubois

#### **Background Information**

#### Counties

Number of counties	92
With oil and/or gas production	16

#### First year of production

Crude oil 1889 Natural gas 1885

#### Year and amount of peak production

Crude oil — 12,833 thous. bbls. 1953 Natural gas — 3,401 MMcf 2004

#### Deepest producing well (ft.)

Crude oil NA NA Natural gas

#### Year and depth of deepest well drilled (ft.)

#### Cumulative number of total wells drilled as of 12/31/06 (excluding service wells)

Oil wells 6,312 Gas wells 1,144 6% Dry holes 10,274 58% Total 17,730 100%

#### Cumulative crude oil wellhead value

\$3,549,726 as of 12/31/06 (thous. \$)

#### Cumulative production & new reserves as of 12/31/06

	Crude	NGL		Natural
	Oil	(mill. bbls.)	Total	Gas (Bcf)
Reserves	552	NA	552	NA
Production	546	NA	546	NA

#### Value of Oil and Gas

#### Average wellhead price

Crude oil (\$/bbl.) \$59.31 Natural gas (\$Mcf) \$ 6.01

#### Wellhead value of production

(2006, in thous. \$)

\$102,666 Crude oil Natural gas \$ 17,555 \$120,221 Total

## Average natural gas price (2006, \$/Mcf)

Residential consumers	\$13.07
Commercial consumers	\$ 1.55
Industrial consumers	\$ 9.38
Electric utilities	\$ 7.63
City Gate	\$ 8.31

#### Severance taxes paid (2006, in thous. \$)

\$1,215

N I	-£	. 11 -	-1-:1	11
Number	OT WE	ells.	arıı	ıea

	Exploratory	Development	Total
Oil	1	37	38
Gas	9	13	22
Dry	35	22	57
Total	45	72	117

#### Total footage drilled

(thous. ft.)

	Exploratory	Development	Iotal
Oil	3.9	62.4	66.3
Gas	14.5	14.5	29.0
Dry	64.7	36.2	100.9
Total	83.0	113.1	196.2
(Note: 7	Totals may not add	due to rounding.)	

#### New-field wildcats drilled 32 Footage (thous. ft.) 54.2

## Average rotary rigs active

0

#### Permits 341

#### State-wide rank

	Crude Oil	Natural Gas
Wells drilled	22nd	24th
Production	25th	23rd
Reserves (2006)	25th	NA

#### Number of operators 231

### Number of producing wells\*

(12/31/06)	
Crude oil	5,044
Natural gas	1,059
Total	6,103

#### Average production

- ·	
Crude oil (thous. b/d)	5
NGL (thous. b/d)	0
Natural gas (MMcf/day)	0

#### Natural gas marketed production

(MMcf)	2,921
--------	-------

#### Average output per producing well

Crude oil (bbls.)	0
Natural gas (Mcf)	0

#### Coalbed methane (YTD MMcf)

Oil Wells	NA
Gas Wells	NA
Daily Average (MMcf) / Well	NA
Heavy oil (YTD BBIs, in thous.)	NA
Wells	NA
Av. Bbls per day	NA
Av. Bbls per well/d	NA

Source: EIA for production and IHS for wells drilled.

\* World Oil for Number of producing wells.

#### 2006 Latest Available Data

#### Petroleum reserves

as of 12/31/06 (mill. bbls.)

C	rude Oil	NGL	Total
New reserves	-3	NA	-3
Production	1	NA	1
Net annual change	-4	NA	-4
Proved reserves	12	NA	12

#### Natural gas reserves

as of 12/31/06 (Bcf)

	Associated Dissolved	Non- Associated	Dry Gas
New reserves	NA	NA	NA
Production	NA	NA	NA
Net annual chang	ge NA	NA	NA
Proved reserves	NA	NA	NA

#### Cost of drilling and equipping wells

Cost/ft.	Cost/	Total Cost
(\$)	well (\$)	(thous. \$)
162	282,700	10,743
464	611,798	13,460
229	404,725	23,069
	(\$) 162 464	(\$) well (\$) 162 282,700 464 611,798

#### Marginal oil wells

Producing marginal wells	1,061
Crude oil production in bbls. (thous.)	1,085
Crude oil production b/d (thous.)	3

#### Marginal natural gas wells

as of 12/31/06

Producing marginal wells	0
Natural gas production (MMcf)	0

#### Federal onshore mineral lease royalties

Oil	
Gas	
Total Royalties	\$479

#### Horizontal wells data

Horizontal wells drilled	
i lulizulitai welis ullieu	

#### Average number of employees

Oil and natural gas extraction	394
Refining	0
Transportation	3,597
Wholesale	3,497
Retail	23,590
Pipeline construction	1,030
Oilfield machinery	0
Total petroleum industry	32,108

South of Francesville, Granville Bates fund natural gas while drilling for oil in 1867. His discovery prompted little excitement at the time, since the commercial potential of natural gas was years in the future.

## KANSAS

Cheyenn	e Rav	vlins	Decatur	Norton	Phillips	Smith	Jewell	Republic	Washin	gton Mai	shall Ne	maha Bro	own Donip	han
Shermar	n Tho	omas	Sheridan	Graham	Rooks	Osborne	Mitchell	Cloud	Clay	\	ottawatomi		Atchison d	eavenworth
Wallace	Loga	an	Gove	Trego	Ellis	Russell	Lincoln		Dickinso	Riley	Wabauns	eeShawne	~~	Wyandoft
Greeley	Wichita	Scott	Lane	Ness	Rush	Barton	Ellsworth	Saline		Morri	s Lyor	Osage	Franklin	Miami
				Hodgeman	Pawne	ee Stafford	Rice	McPherson Han	IVIAIIO	n Cha	1 -	Coffey	Andersor	Linn
Hamilton	Kearny	Finney	<u> </u>	Food	Edwards		Reno		_	Butler	Greenwoo	od Woodso	Allen	Bourbon
Stanton	Grant	Haskell	Gray	Ford	Kiowa	Pratt	Kingman	Sedgw	rick		Elk	Wilson	Neosho	Crawford
Morton	Stevens	Seward	Meade	Clark	Comanche	Barber	Harpei	r Sumn	er	Cowley	Chautauq	Montgo	mery Labette	Cherokee

OCounties with oil and/or gas production

#### **Background Information**

#### Counties

Number of counties 105 With oil and/or gas production 90

#### First year of production

Crude oil 1889 Natural gas 1882

#### Year and amount of peak production

Crude oil -124,204 thous. bbls. 1956 Natural gas — 899,955 MMcf 1970

#### Deepest producing well (ft.)

Crude oil 8,480 Natural gas 28.780

#### Year and depth of deepest well drilled (ft.)

#### Cumulative number of total wells drilled as of 12/31/06 (excluding service wells)

Oil wells 126,766 Gas wells 32,613 12% Dry holes 108,641 41% Total 268,020 100%

#### Cumulative crude oil wellhead value

\$48,764,204 as of 12/31/06 (thous. \$)

#### Cumulative production & new reserves

Crude NGL Natural Oil (mill. bbls.) Total Gas (Bcf)

44,549 Reserves 6,418 1,452 7,870 Production 6,151 1,303 7,454 40,389

#### Value of Oil and Gas

#### Average wellhead price

Crude oil (\$/bbl.) \$60.74 Natural gas (\$Mcf) \$ 5.61

#### Wellhead value of production

(2006, in thous. \$)

\$2,165,442 Crude oil Natural gas \$2,081,557 Total \$4,246,999

## Average natural gas price (2006, \$/Mcf)

Residential consumers \$13.19 Commercial consumers \$12.44 Industrial consumers \$ 6.83 Electric utilities \$ 6.32 City Gate \$ 9.08

Severance taxes paid \$148,855

(2006, in thous. \$)

Nun	nber	Ωf	well	S	dril	led

	Exploratory	Development	Total
Oil	165	964	1,129
Gas	54	1,161	1,215
Dry	233	584	817
Total	452	2,709	3,161

#### Total footage drilled

(thous. ft.)

	Exploratory	Development	Total
Oil	699.7	3,133.9	3,833.6
Gas	197.9	2,231.0	2,428.9
Dry	958.1	2,161.5	3,119.7
Total	1,855.7	7,526.5	9,382.1
(Note: 7	otals may not add	due to roundina.)	

#### New-field wildcats drilled 277 Footage (thous. ft.) 1,112.5

#### Average rotary rigs active 10

#### Permits 5,524

#### State-wide rank

	Crude Oil	Natural Gas
Wells drilled	4th	9th
Production	11th	9th
Reserves (2006)	13th	11th

#### Number of operators 2,084

#### Number of producing wells

 (12/31/06)

 Crude oil
 40,349

 Natural gas
 19,891

 Total
 60,240

#### Average production

Crude oil (thous. b/d) 98
NGL (thous. b/d) 0
Natural gas (MMcf/day) 1,036

#### Natural gas marketed production

(MMcf) 371,044

#### Average output per producing well

Crude oil (bbls.) 883 Natural gas (Mcf) 19,005

#### Coalbed methane (YTD MMcf) 23,687 Oil Wells 6 Gas Wells 2,374

Gas Wells 2,374
Daily Average (MMcf) / Well 65
Heavy oil (YTD BBIs, in thous.) NA

Wells NA
Av. Bbls per day NA
Av. Bbls per well/d NA

Source: EIA for production and IHS for wells drilled.

#### 2006 Latest Available Data

#### Petroleum reserves

as of 12/31/06 (mill. bbls.)

C	rude Oil	NGL	Total
New reserves	17	4	21
Production	35	19	54
Net annual chang	e -18	-15	-33
Proved reserves	263	209	472

#### Natural gas reserves

as of 12/31/06 (Bcf)

	Associated		Dry
	Dissolved	Associated	Gas
New reserves	8	-35	-33
Production	9	365	350
Net annual chang	ge -1	-400	-383
Proved reserves	82	4,115	3,931

#### Cost of drilling and equipping wells

	Cost/ft.	Cost/	Total Cost
	(\$)	well (\$)	(thous. \$)
Oil	100	340,005	383,866
Gas	140	280,759	341,122
Dry	66	252,030	205,908

#### Marginal oil wells

Producing marginal wells	39,543
Crude oil production in bbls. (thous.)	25,250
Crude oil production b/d (thous.)	69

#### Marginal natural gas wells

as of 12/31/06

Producing marginal wells	17,185
Natural gas production (MMcf)	240,025

#### Federal onshore mineral lease royalties

Oil	\$4,083,140
Gas	\$5,697,953
Total Royalties	\$9,850,753

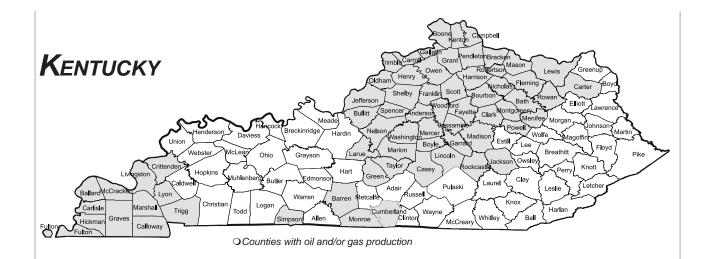
#### Horizontal wells data

Horizontal wells drilled	24
i lonzontai welis drilled	47

#### Average number of employees

Oil and natural gas extraction	7,723
Refining	1,856
Transportation	2,600
Wholesale	2,174
Retail	10,318
Pipeline construction	1,289
Oilfield machinery	61
Total petroleum industry	26,021

Norman No. 1 came in on Nov. 28, 1892—the first oil well west of the Mississippi River to produce a commercial quantity. It was also the first well drilled in the vast Mid-Continent oil field that covers parts of Kansas, Nebraska, Oklahoma, Arkansas, Louisiana and Texas.



#### **Background Information**

#### Counties

Number of counties	120
With oil and/or gas production	51

#### First year of production

Crude oil 1860 Natural gas 1888

#### Year and amount of peak production

Crude oil — 27,272 thous. bbls. 1959 Natural gas - 96,459 MMcf 1947

#### Deepest producing well (ft.)

Crude oil NA Natural gas 10,608

#### Year and depth of deepest well drilled (ft.)

#### Cumulative number of total wells drilled as of 12/31/06 (excluding service wells)

Oil wells 18,183 Gas wells 15,674 25% Dry holes 28,275 45% 62,132 100% Total

#### Cumulative crude oil wellhead value

\$17,555,333 as of 12/31/06 (thous. \$)

#### Cumulative production & new reserves

as of 12/31/06

	Crude Oil	NGL (mill. bbls.)	Total	Natural Gas (Bcf)
Reserves	769	272	1,041	7,329
Production	758	155	913	5,277

#### Value of Oil and Gas

#### Average wellhead price

Crude oil (\$/bbl.) \$58.33 Natural gas (\$Mcf) \$ 8.83

## Wellhead value of production (2006, in thous. \$)

\$136,492 Crude oil Natural gas \$841,676 \$978,168 Total

#### Average natural gas price

(2006, \$/Mcf)

Residential consumers \$14.14 \$13.22 Commercial consumers Industrial consumers \$ 9.64 \$ 7.96 Electric utilities City Gate \$ 9.07

#### Severance taxes paid

(2006, in thous. \$)

\$42,586

Ν	lum	ber	of	wel	ls c	Iril	led
---	-----	-----	----	-----	------	------	-----

	Exploratory	Development	Total
Oil	23	186	209
Gas	411	495	906
Dry	55	124	179
Total	489	805	1,294

#### Total footage drilled

(thous. ft.)

	Exploratory	Development	Total
Oil	26.2	275.8	302.0
Gas	1,378.4	1,662.6	3,041.0
Dry	69.4	168.9	238.3
Total	1,474.0	2,107.3	3,581.3
(Note: Totals may not add due to rounding.)			

#### New-field wildcats drilled 239 Footage (thous. ft.) 685.6

#### Average rotary rigs active

#### Permits 2,181

#### State-wide rank

	Crude Oil	Natural Gas
Wells drilled	12th	12th
Production	22nd	18th
Reserves (2006)	21st	16th

#### Number of operators 591

#### Number of producing wells

(12/31/06)
Crude oil\* 17,988
Natural gas 14,641
Total\* 32,629

#### Average production

 Crude oil (thous. b/d)
 3

 NGL (thous. b/d)
 0

 Natural gas (MMcf/day)
 235

#### Natural gas marketed production

(MMcf) 95,320

#### Average output per producing well

Crude oil (bbls.) 0 Natural gas (Mcf) 6,721

#### Coalbed methane (YTD MMcf)

Oil Wells	NA
Gas Wells	NA
Daily Average (MMcf) / Well	NA
Heavy oil (YTD BBIs, in thous.)	NA
Wells	NA
Av. Bbls per day	NA
Av. Bbls per well/d	NA

Source: EIA for production and IHS for wells drilled.

\* World Oil for Number of producing wells.

#### 2006 Latest Available Data

#### Petroleum reserves

as of 12/31/06 (mill. bbls.)

Cru	de Oil	NGL	Total
New reserves	4	38	42
Production	2	3	5
Net annual change	2	35	37
Proved reserves	25	105	130

#### Natural gas reserves

as of 12/31/06 (Bcf)

	Associated Dissolved	Non- Associated	Dry Gas
New reserves	6	193	142
Production	0	70	66
Net annual chang	ge 6	123	76
Proved reserves	36	2,333	2,227

#### Cost of drilling and equipping wells

	Cost/ft.	Cost/	Total Cost
	(\$)	well (\$)	(thous. \$)
Oil	158	228,001	47,652
Gas	107	358,088	324,427
Dry	190	252,788	45,249

#### Marginal oil wells

Producing marginal wells	994
Crude oil production in bbls. (thous.)	671
Crude oil production b/d (thous.)	2

#### Marginal natural gas wells

as of 12/31/06

Producing marginal wells	12,617
Natural gas production (MMcf)	78,304

#### Federal onshore mineral lease royalties

Oil	\$	7,333
Gas	\$	259,146
Total Rovalties	\$ 2	.070.084

#### Horizontal wells data

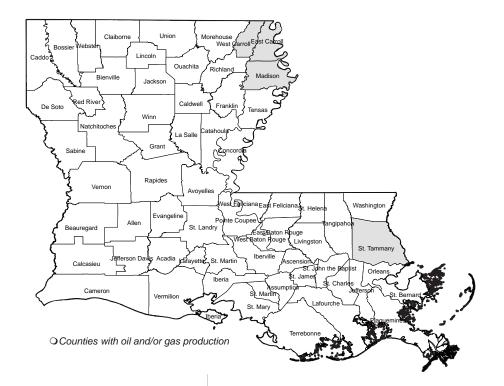
Horizontal	wells drilled	-

#### Average number of employees

Oil and natural gas extraction	2,299
Refining	1,177
Transportation	1,782
Wholesale	3,107
Retail	19,134
Pipeline construction	706
Oilfield machinery	0
Total petroleum industry	28.205

Boring for salt water near Burkesville in March 1829, drillers hit an oil gusher. Oil from this well was sold as patent medicine for decades before kerosene distilation created the petroleum industry.

## Louisiana



#### **Background Information**

#### Counties

Number of counties	64
With oil and/or gas production	60

#### First year of production

Crude oil 1902 Natural gas 1905

#### Year and amount of peak production

Crude oil -935,243 thous. bbls. 1971 Natural gas — 8,242,423 MMcf 1973

#### Deepest producing well (ft.)

Crude oil 22,856 Natural gas 22,235

#### Year and depth of deepest well drilled (ft.)

#### Cumulative number of total wells drilled as of 12/31/06 (excluding service wells)

Oil wells 99,771 Gas wells 67,336 27% Dry holes 84,817 33% 251,924 100% Total

#### Cumulative crude oil wellhead value

\$260,395,812 as of 12/31/06 (thous. \$)

#### Cumulative production & new reserves

as of 12/31/06

Crude NGL Natural Oil (mill. bbls.) Total Gas (Bcf)

Reserves 27,738 6,305 34,043 267,301 Production 18,654 4,555 23,209 146,353

#### Value of Oil and Gas

#### Average wellhead price

Crude oil (\$/bbl.) \$64.23 Natural gas (\$Mcf) \$ 6.93

#### Wellhead value of production

(2006, in thous. \$)

\$ 4,745,055 Crude oil Natural gas \$ 9,432,555 Total \$ 14,177,610

## Average natural gas price (2006, \$/Mcf)

Residential consumers \$ 14.67 Commercial consumers \$ 11.84 Industrial consumers \$ 7.43 \$ 7.66 Electric utilities City Gate \$ 7.67

Severance taxes paid \$885,402

	Exploratory	Development	Total
Oil	2	310	312
Gas	23	979	1,002
Dry	39	280	319
Total	64	1,569	1,633

#### Total footage drilled

(thous. ft.)

	Exploratory	Development	Total
Oil	11.8	1,534.5	1,546.3
Gas	234.3	9,861.1	10,095.7
Dry	326.8	2,415.8	2,742.6
Total	573.2	13,811.4	14,384.5
(Note: 7	otals may not add	due to rounding.)	

#### New-field wildcats drilled 51 Footage (thous. ft.) 479.5

#### Average rotary rigs active 188

#### Permits 2,331

#### State-wide rank

	Crude Oil	Natural Gas
Wells drilled	5th	4th
Production	5th	6th
Reserves (2006)	8th	7th

#### Number of operators 1,019

#### Number of producing wells

17,999
10,679
28,678

#### Average production

7 Wordgo production	
Crude oil (thous. b/d)	135
NGL (thous. b/d)	67.8
Natural gas (MMcf/day)	3,535

#### Natural gas marketed production

1,361,119 (MMcf)

#### Average output per producing well

Crude oil (bbls.)	2,747
Natural gas (Mcf)	120,812

#### Coalbed methane (YTD MMcf)

Oil Wells	NA
Gas Wells	NA
Daily Average (MMcf) / Well	NA
Heavy oil (YTD BBIs, in thous.)	22,659

11,199 Av. Bbls per day Av. Bbls per well/d 62.1 2,023

Source: EIA for production and IHS for wells drilled.

#### 2005 Latest Available Data

#### Petroleum reserves

as of 12/31/06 (mill. bbls.)

С	rude Oil	NGL	Total
New reserves	49	38	87
Production	53	50	103
Net annual change	e -4	-12	-16
Proved reserves	428	280	708

## Natural gas reserves as of 12/31/06 (Bcf)

(,			
	Associated	Non-	Dry
	Dissolved	Associated	Gas
New reserves	37	1,340	1,336
Production	64	1,282	1,309
Net annual char	nge -27	58	27
Proved reserves	561	10.149	10.474

#### Cost of drilling and equipping wells

	Cost/ft.	Cost/	Total Cost
	(\$)	well (\$)	(thous. \$)
Oil	516	2,555,325	797,261
Gas	473	4,765,617	4,775,148
Dry	512	4,401,509	1,404,081

#### Marginal oil wells

Producing marginal wells	15,671
Crude oil production in bbls. (thous.)	9,494
Crude oil production b/d (thous.)	26

#### Marginal natural gas wells

as of 12/31/06

Producing marginal wells	4,851
Natural gas production (MMcf)	47,268

#### Federal onshore mineral lease royalties

Oil	\$ 4,300,928
Gas	\$41,990,018
Total Royalties	\$46,767,664

#### Horizontal wells data

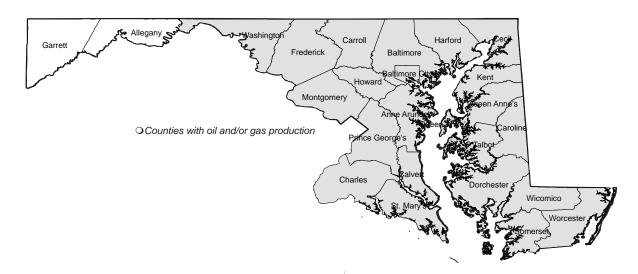
Horizontal wells drilled	27

#### Average number of employees

Oil and natural gas extraction	45,031
Refining	10,152
Transportation	3,961
Wholesale	1,461
Retail	17,832
Pipeline construction	14,236
Oilfield machinery	0
Total petroleum industry	92,673

In September 1901, Louisiana's oil industry began when the Heywood well came in near the communities of Evangeline and Jennings.

## MARYLAND



#### **Background Information**

#### Counties

Number of counties 23 With oil and/or gas production 2

#### First year of production

1950 Natural gas

#### Year and amount of peak production

Crude oil -Natural gas -4,543 MMcf 1959

#### Deepest producing well (ft.)

10,376 Natural gas 8,658

#### Year and depth of deepest well drilled (ft.)

#### Cumulative number of total wells drilled as of 12/31/06 (excluding service wells)

Oil wells Gas wells 71 49% Dry holes 75 51% 100% Total

#### Cumulative crude oil wellhead value

as of 12/31/06 (thous. \$)

#### Cumulative production & new reserves as of 12/31/06

Crude NGL Natural Oil (mill. bbls.) Total Gas (Bcf)

NA NA Reserves NA Production NA NA NA

#### Value of Oil and Gas

#### Average wellhead price

Crude oil (\$/bbl.) NA Natural gas (\$Mcf) \$7.63

## Wellhead value of production (2006, in thous. \$)

Crude oil NA Natural gas \$ 366 \$ 366 Total

## Average natural gas price (2006, \$/Mcf)

Residential consumers \$16.36 \$13.28 Commercial consumers Industrial consumers \$12.86 Electric utilities \$ 7.80 City Gate \$10.62

Severance taxes paid (2006, in thous. \$)

	Exploratory	Development	Total
Oil	. NA	NA NA	NA
Gas	NA	NA	NA
Dry	NA	NA	NA
Total	NA	NA	NA

#### Total footage drilled

(thous. ft.)

	Exploratory	Development	Total
Oil	NA	NA	NA
Gas	NA	NA	NA
Dry	NA	NA	NA
Total	NA	NA	NA

## New-field wildcats drilled NA Footage (thous. ft.) NA

#### Average rotary rigs active 0

#### Permits

#### State-wide rank

	Crude Oil	Natural Gas
Wells drilled	NA	29th
Production	NA	31st
Reserves (2006)	NA	NA

#### Number of operators -

#### Number of producing wells

(12/31/00)	
Crude oil	NA
Natural gas	NA
Total	NA

#### Average production

Crude oil (thous. b/d)	NA
NGL (thous. b/d)	N/
Natural gas (MMcf/day)	N/

#### Natural gas marketed production

(MMcf) 48

#### Average output per producing well

Crude oil (bbls.)	NA
Natural gas (Mcf)	NA

#### Coalbed methane (YTD MMcf)

Oil Wells	NA
Gas Wells	NA
Daily Average (MMcf) / Well	NA
Heavy oil (YTD BBIs, in thous.)	NA

Wells	NA
Av. Bbls per day	NA
Av. Bbls per well/d	NA

Source: EIA for production and IHS for wells drilled.

#### 2006 Latest Available Data

#### Petroleum reserves

as of 12/31/06 (mill. bbls.)

de Oil	NGL	Total
NA	NA	NA
	NA NA NA	NA NA NA NA NA NA

#### Natural gas reserves

as of 12/31/06 (Bcf)

	Associated	Non-	Dry
	Dissolved	Associated	Gas
New reserves	NA	NA	NA
Production	NA	NA	NA
Net annual change	ge NA	NA	NA
Proved reserves	NA	NA	NA

#### Cost of drilling and equipping wells

	Cost/ft.	Cost/	Total Cost
	(\$)	well (\$)	(thous. \$)
Oil	NA	NA	NA
Gas	NA	NA	NA
Dry	NA	NA	NA

#### Marginal oil wells

Producing marginal wells	NA
Crude oil production in bbls. (thous.)	NA
Crude oil production b/d (thous.)	NA

#### Marginal natural gas wells

as of 12/31/06

Producing marginal wells	0
Natural gas production (MMcf)	0

#### Federal onshore mineral lease royalties

Oil	
Gas	
Total Royalties	\$7,656

#### Horizontal wells data

Horizontal wells drilled	N/

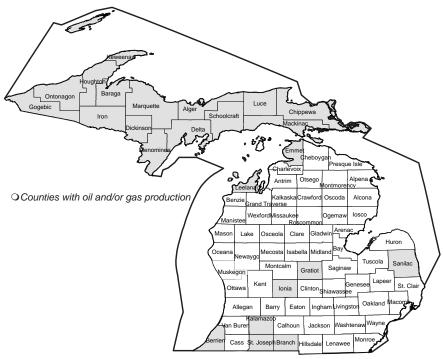
#### Average number of employees

Oil and natural gas extraction	763
Refining	0
Transportation	737
Wholesale	3,435
Retail	10,545
Pipeline construction	772
Oilfield machinery	0
Total petroleum industry	16,252

#### For more information please contact:

Information Services Department
Independent Petroleum Association of America
1201 15th St., N.W., Suite 300
Washington, D.C. 20005
T: 202-857-4722 • FAX: 202-857-4799

# MICHIGAN Gogebic



#### **Background Information**

#### Counties

Number of counties	83
With oil and/or gas production	57

#### First year of production

Crude oil	1900
Natural gas	1909

#### Year and amount of peak production

Crude oil — 34,862 thous. bbls.	1979
Natural gas —311,616 MMcf	1997

#### Deepest producing well (ft.)

Crude oil	12,742
Natural gas	14.716

#### Year and depth of deepest well drilled (ft.)

1975	17,466
------	--------

#### Cumulative number of total wells drilled as of 12/31/06 (excluding service wells)

Oil wells	15,243	28%
Gas wells	13,532	24%
Dry holes	26,630	48%
Total	55.405	100%

#### Cumulative crude oil wellhead value

\$14,798,985 as of 12/31/06 (thous. \$)

	Crude	NGL		Natural
	Oil	(mill. bbls.)	Total	Gas (Bcf)
Reserves	1,289	292	1,581	9,412
Production	1,237	235	1,472	5,560

#### Value of Oil and Gas

#### Average wellhead price

Crude oil (\$/bbl.)	\$60.89
Natural gas (\$Mcf)	NA

#### Wellhead value of production

(2006, in thous. \$)

Crude oil	\$310,113
Natural gas	NA
Total	\$310.113

## Average natural gas price (2006, \$/Mcf)

Residential consumers	\$11.97
Commercial consumers	\$10.75
Industrial consumers	\$ 9.90
Electric utilities	\$ 6.01
City Gate	\$ 8.34
-	

#### Severance taxes paid \$88,143 (2006, in thous. \$)

Cumulative production & new reserves

Number	of	wells	drilled

	Exploratory	Development	Total
Oil	3	22	25
Gas	3	450	453
Dry	28	52	80
Total	34	524	558

#### Total footage drilled

(thous. ft.)

	Exploratory	Development	Total
Oil	18.9	82.0	100.9
Gas	15.3	655.2	670.5
Dry	125.4	140.7	266.1
Total	159.6	877.9	1,037.5
(Note: Totals may not add due to rounding.)			

#### New-field wildcats drilled 28 Footage (thous. ft.) 124.4

#### Average rotary rigs active

2

#### Permits 990

#### State-wide rank

	Crude Oil	Natural Gas
Wells drilled	13th	13th
Production	19th	10th
Reserves (2006)	16th	13th

#### Number of operators 174

#### Number of producing wells

 (12/31/06)

 Crude oil
 3,847

 Natural gas
 9,444

 Total
 13,291

#### Average production

Crude oil (thous. b/d) 16 NGL (thous. b/d) 2.1 Natural gas (MMcf/day) 436

#### Natural gas marketed production

(MMcf) 263,009

#### Average output per producing well

 Crude oil (bbls.)
 1,478

 Natural gas (Mcf)
 16,867

#### Coalbed methane (YTD MMcf)

Oil Wells NA
Gas Wells NA
Daily Average (MMcf) / Well NA
Heavy oil (YTD BBIs, in thous.) NA
Wells NA
Av. BbIs per day NA
Av. BbIs per well/d NA

Source: EIA for production and IHS for wells drilled.

#### 2006 Latest Available Data

#### Petroleum reserves

as of 12/31/06 (mill. bbls.)

Cr	ude Oil	NGL	Total
New reserves	6	6	12
Production	5	3	8
Net annual change	1	3	4
Proved reserves	63	42	105

#### Natural gas reserves

as of 12/31/06 (Bcf)

,	Associated		Dry
	Dissolved	Associated	Gas
New reserves	57	300	352
Production	18	183	197
Net annual chang	ge 39	117	155
Proved reserves	192	2,925	3,065

#### Cost of drilling and equipping wells

	Cost/ft.	Cost/	<b>Total Cost</b>
	(\$)	well (\$)	(thous. \$)
Oil	518	2,088,335	52,208
Gas	523	773,803	350,533
Dry	336	1,117,661	89,413

#### Marginal oil wells

Producing marginal wells	3,617
Crude oil production in bbls. (thous.)	3,297
Crude oil production b/d (thous.)	9

#### Marginal natural gas wells

as of 12/31/06

Producing marginal wells	1,122
Natural gas production (MMcf)	15,088

#### Federal onshore mineral lease royalties

Oil	\$ 297,144
Gas	\$2,451,832
Total Royalties	\$2,804,281

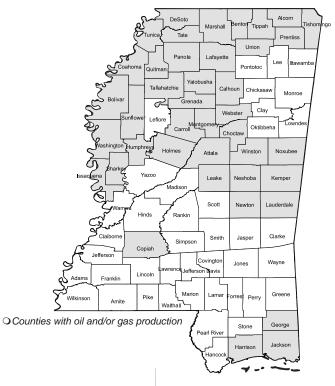
#### Horizontal wells data

#### Average number of employees

Oil and natural gas extraction	2,550
Refining	784
Transportation	4,255
Wholesale	3,146
Retail	25,487
Pipeline construction	1,283
Oilfield machinery	0
Total petroleum industry	37,505

In 1860, Michigan State Geologist Alexander Winchell reported that oil and natural gas deposits lay under Michigan's surface. First commercial production began in 1886 near Port Huron. In 1928, Mt. Pleasant's oilfield made it the "Oil Capital of MIchigan."

## MISSISSIPPI



#### **Background Information**

#### Counties

Number of counties	82
With oil and/or gas production	41

#### First year of production

Crude oil	1889
Natural gas	1923

#### Year and amount of peak production

Crude oil —65,119 thous. bbls.	1970
Natural gas — 221.331 MMcf	1988

#### Deepest producing well (ft.)

Crude oil	21,533
Natural gas	23.894

#### Year and depth of deepest well drilled (ft.)

1986	25,500

#### Cumulative number of total wells drilled as of 12/31/06 (excluding service wells)

Oil wells	10,586	33%
Gas wells	3,924	12%
Dry holes	17,834	55%
Total	32 344	100%

#### Cumulative crude oil wellhead value

\$20,943,376 as of 12/31/06 (thous. \$)

#### Cumulative production & new reserves

	Crude Oil	NGL (mill. bbls.)	Total	Natural Gas (Bcf)
Reserves	2,701	130	2,831	9,711
Production	2,540	149	2,689	8,963

#### Value of Oil and Gas

#### Average wellhead price

Crude oil (\$/bbl.)	\$59.35
Natural gas (\$Mcf)	\$ 6.84

#### Wellhead value of production

Crude oil	\$1,030,079
Natural gas	\$ 414,032
Total	\$ 1,444,111

## Average natural gas price (2006, \$/Mcf)

Residential consumers	\$14.65
Commercial consumers	\$12.25
Industrial consumers	\$ 9.27
Electric utilities	\$ 7.20
City Gate	\$ 9.13

#### Severance taxes paid

(2006, in thous. \$)

\$6,809

Ν	lum	ber	of	wel	ls c	dril	led
---	-----	-----	----	-----	------	------	-----

	Exploratory	Development	Total
Oil	2	46	48
Gas	15	162	177
Dry	23	45	68
Total	40	253	293

#### Total footage drilled

(thous. ft.)

	Exploratory	Development	Total
Oil	22.8	333.8	356.6
Gas	55.4	1,263.1	1,318.4
Dry	179.4	279.9	459.3
Total	257.6	1,876.7	2,134.3
(Note: 7	otals may not add	due to rounding.)	

New-field wildcats drilled	30
Footage (thous. ft.)	176.3

#### Average rotary rigs active 10

#### Permits 577

#### State-wide rank

	Crude Oil	Natural Gas
Wells drilled	19th	21st
Production	14th	20th
Reserves (2006)	14th	21st

#### Number of operators 211

#### Number of producing wells

(12/31/06)	
Crude oil	1,788
Natural gas	1,574
Total	3,362

#### Average production

7 Wordgo production	
Crude oil (thous. b/d)	44
NGL (thous. b/d)	3.8
Natural gas (MMcf/day)	565

#### Natural gas marketed production

(MMcf) 60,531

#### Average output per producing well

Crude oil (bbls.)	9,006
Natural gas (Mcf)	131,048

#### Coalbed methane (YTD MMcf)

Oil Wells	NA
Gas Wells	NA
Daily Average (MMcf) / Well	NA
Heavy oil (YTD BBIs, in thous.)	1,843

 Wells
 242

 Av. Bbls per day
 5.1

 Av. Bbls per well/d
 7,616

Source: EIA for production and IHS for wells drilled.

#### 2006 Latest Available Data

#### Petroleum reserves

as of 12/31/06 (mill. bbls.)

Cr	ude Oil	NGL	Total
New reserves	12	2	14
Production	15	1	16
Net annual change	-3	1	-2
Proved reserves	186	8	194

#### Natural gas reserves

as of 12/31/06 (Bcf)

	Associated	Non-	Dry
	Dissolved	Associated	Gas
New reserves	4	138	141
Production	3	81	83
Net annual chan	ge 1	57	58
Proved reserves	21	795	813

#### Cost of drilling and equipping wells

	Cost/ft.	Cost/	<b>Total Cost</b>
	(\$)	well (\$)	(thous. \$)
Oil	384	2,851,759	136,884
Gas	438	3,263,258	577,597
Dry	410	2,771,576	188,467

#### Marginal oil wells

Producing marginal wells	964
Crude oil production in bbls. (thous.)	2,202
Crude oil production b/d (thous.)	6

#### Marginal natural gas wells

as of 12/31/06

Producing marginal wells	1,063
Natural gas production (MMcf)	14,679

#### Federal onshore mineral lease royalties

Oil	\$2,156,274
Gas	\$ 502,252
Total Rovalties	\$4.173.855

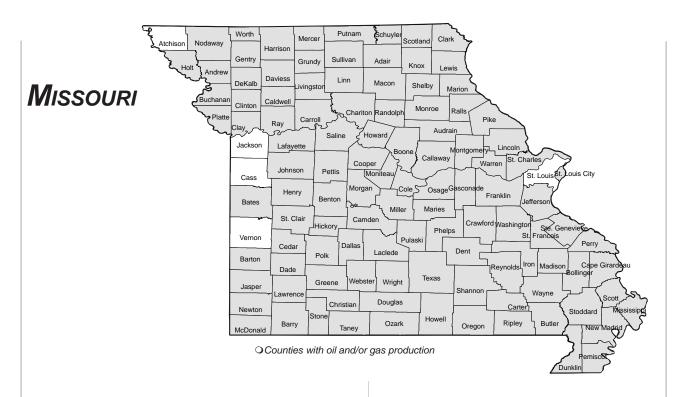
#### Horizontal wells data

Horizontal wells drilled	-

#### Average number of employees

Oil and natural gas extraction	4,982
Refining	1,794
Transportation	1,475
Wholesale	2,348
Retail	15,600
Pipeline construction	871
Oilfield machinery	62
Total petroleum industry	27.132

Near Tinsley and Yazoo City, Union Producing Co. brought in the No. 1 Woodruff well at 5,500 feet in September of 1939. Within 15-months, there were 133 producing wells. The Tinsley field has yielded 230 million barrels of oil.



#### **Background Information**

#### Counties

Number of counties 114
With oil and/or gas production 5

#### First year of production

Crude oil 1889 Natural gas 1887

#### Year and amount of peak production

Crude oil —285 thous. bbls. 1984 Natural gas —1,368 MMcf 1938

#### Deepest producing well (ft.)

Crude oil 3,680 Natural gas 765

#### Year and depth of deepest well drilled (ft.)

1988 10,089

## Cumulative number of total wells drilled as of 12/31/06 (excluding service wells)

 Oil wells
 675
 32%

 Gas wells
 78
 4%

 Dry holes
 1,335
 64%

 Total
 2,088
 100%

#### Cumulative crude oil wellhead value

as of 12/31/06 (thous. \$) \$105,046

#### Cumulative production & new reserves

as of 12/31/06

Crude NGL Natural
Oil (mill. bbls.) Total Gas (Bcf)

Reserves NA NA NA NA NA Production 7 NA 7 15

#### Value of Oil and Gas

#### Average wellhead price

(2006

Crude oil (\$/bbl.) \$57.34 Natural gas (\$Mcf) NA

#### Wellhead value of production

(2006, in thous. \$)

Crude oil \$4,989 Natural gas NA Total \$4,989

#### Average natural gas price

(2006, \$/Mcf)

Residential consumers \$14.25 Commercial consumers \$12.94 Industrial consumers \$12.40 Electric utilities NA City Gate \$8.53

#### Severance taxes paid

(2006, in thous. \$)

200	บ เมนนอน	y Statisti	103
Numl	ber of wells	drilled	
	Exploratory	Developme	nt Total
Oil	NA	NA	NA
Gas	NA	NA	NA
Dry	NA	NA	NA
Total	NA	NA	NA
Total (thous. f	footage dri	lled	
	Exploratory	Developme	nt Total
Oil	NA	NA	NA
Gas	NA	NA	NA
Dry	NA	NA	NA
Total (Note: 7	NA Totals may not add	NA due to rounding.)	NA
New-	field wildca	ts drilled	NA
	ge (thous. ft.)	to drilled	NA
Avera	age rotary r	igs active	0
Perm	nits		0
State	-wide rank		
Produ	drilled ction ves (2006)	Crude Oil 27th 30th NA	Natural Gas 30th NA NA
Num	ber of opera	ators	
Num (12/31/0	ber of produ	ucing wells	
Crude	oil		NA
Natura	al gas		NA
Total			NA
Avera	age product	ion	
	oil (thous. b/c	d)	NA
	thous. b/d)		NA
Natura	al gas (MMcf/d	day)	NA

rvaturai gas (iviivici/day)	
Natural gas marketed production	
,	

0

Average output per producing well	
Crude oil (bbls.)	NA
Natural gas (Mcf)	NA

Coalbed methan	e (YTD MMcf)

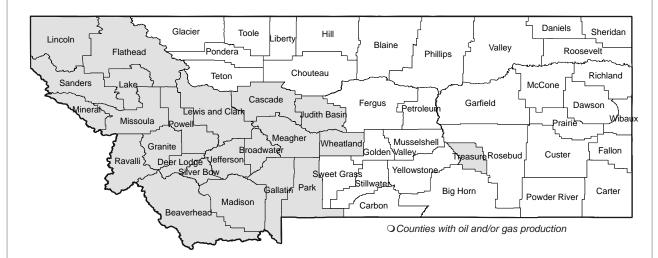
Oil Wells	NA
Gas Wells	NA
Daily Average (MMcf) / Well	NA
Heavy oil (YTD BBIs, in thous.)	NA
Wells	NA
Av. Bbls per day	NA
Av. Bbls per well/d	NA

Source: EIA for production and IHS for wells drilled.

2006 Latest	Availa	able Dat	ta	
Petroleum reserves as of 12/31/06 (mill. bbls.)				
Cruc New reserves Production Net annual change Proved reserves	de Oil NA NA NA NA	NGL NA NA NA	Total NA NA NA NA	
Natural gas rese as of 12/31/06 (Bcf)	erves			
	NA NA	Non- Associated NA NA NA NA	Dry Gas NA NA NA	
Cost of drilling a	nd equi	pping well	s	
Oil Gas Dry	Cost/ft. (\$) NA NA NA	Cost/ To well (\$) (t NA NA NA	otal Cost hous. \$) NA NA NA	
Marginal oil well:	S			
Crude oil production in bbls. (thous.)			NA NA NA	
Marginal natural	gas we	ells		
Producing marginal Natural gas product		cf)	0 0	
Federal onshore	minera	al lease roy	/alties	
Oil Gas Total Royalties		\$8,	  515,935	
Horizontal wells	data			
Horizontal wells dril	led		NA	
Average number of employees				
Oil and natural gas Refining Transportation Wholesale Retail Pipeline constructio Oilfield machinery Total petroleum indi	n	on	109 446 3,469 4,290 25,237 475 0 34,026	

Oil and natural gas were discovered in Missouri soon after the Civil War. By the early 1930s, more than 2,500 wells had been drilled.

## MONTANA



#### **Background Information**

#### Counties

Number of counties	56
With oil and/or gas production	33

#### First year of production

Crude oil	1916
Natural gas	1915

#### Year and amount of peak production

Crude oil —48,460 thous. bbls.	1968
Natural gas — 107,918 MMcf	2005

#### Deepest producing well (ft.)

Crude oil	22,625
Natural gas	20,250

#### Year and depth of deepest well drilled (ft.)

2006	22.037
2000	22,001

## Cumulative number of total wells drilled as of 12/31/06 (excluding service wells)

Oil wells	14,546	35%
Gas wells	9,704	23%
Dry holes	17,281	42%
Total	41 531	100%

#### Cumulative crude oil wellhead value

as of 12/31/06 (thous. \$) \$19,699,705

#### Cumulative production & new reserves

as of 12/31/06

	Crude Oil	NGL (mill. bbls.)	Total	Natural Gas (Bcf)
Reserves	2,020	54	2,074	4,463
Production	1,613	45	1,658	3,342

#### Value of Oil and Gas

#### Average wellhead price

(2006

Crude oil (\$/bbl.) \$ 56.69 Natural gas (\$Mcf) \$ 5.53

#### Wellhead value of production

(2006, in thous. \$)

Crude oil	\$2,055,693
Natural gas	\$ 624,033
Total	\$2,679,726

#### Average natural gas price

(2006, \$/Mcf)

Residential consumers	\$11.26
Commercial consumers	\$11.12
Industrial consumers	\$11.63
Electric utilities	NA
City Gate	\$ 7.25

#### Severance taxes paid

\$204,129

Number of wells drilled	Numb	er of	wells	drilled
-------------------------	------	-------	-------	---------

	Exploratory	Development	Total
Oil	166	206	372
Gas	43	615	658
Dry	46	42	88
Total	255	863	1,118

#### Total footage drilled

(thous, ft.)

	Exploratory	Development	Total	
Oil	1,786.8	2,246.3	4,033.1	
Gas	83.6	794.1	877.6	
Dry	204.6	94.3	298.8	
Total 2,075.0 3,134.6 5,209.6 (Note: Totals may not add due to rounding.)				
(Note: Totals may not add due to rounding.)				

#### New-field wildcats drilled 138 Footage (thous. ft.) 1,065.4

#### Average rotary rigs active 22

Permits 1,291

#### State-wide rank

	Crude Oil	Natural Gas
Wells drilled	14th	14th
Production	10th	17th
Reserves (2006)	9th	19th

#### Number of operators 231

#### Number of producing wells

 (12/31/06)

 Crude oil
 4,272

 Natural gas
 6,200

 Total
 10,472

#### Average production

 Average production

 Crude oil (thous. b/d)
 99

 NGL (thous. b/d)
 0.5

 Natural gas (MMcf/day)
 255

#### Natural gas marketed production

(MMcf) 112,845

#### Average output per producing well

Crude oil (bbls.)	8,433
Natural gas (Mcf)	15,032
Coalbed methane (YTD MMcf)	11,825

Oil Wells 2
Gas Wells 841
Daily Average (MMcf) / Well 32

Heavy oil (YTD BBIs, in thous.)

 Wells
 82

 Av. Bbls per day
 0.5

 Av. Bbls per well/d
 2,388

Source: EIA for production and IHS for wells drilled.

#### 2006 Latest Available Data

#### Petroleum reserves

as of 12/31/06 (mill. bbls.)

	Crude Oil	NGL	Total
New reserves	28	2	30
Production	36	1	37
Net annual chan	ge -8	1	-7
Proved reserves	419	10	429

#### Natural gas reserves

as of 12/31/06 (Bcf)

	Associated	Non-	Dry
	Dissolved	Associated	Gas
New reserves	53	137	188
Production	19	100	117
Net annual chan	ige 34	37	71
Proved reserves	195	874	1,057

#### Cost of drilling and equipping wells

	Cost/ft	t. Cost/	Total Cost
	(\$)	well (\$)	(thous. \$)
Oil	360	3,897,889	1,450,015
Gas	331	442,153	290,937
Dry	368	1,250,303	110,027

#### Marginal oil wells

Producing marginal wells	2,938
Crude oil production in bbls. (thous.)	3,519
Crude oil production b/d (thous.)	10

#### Marginal natural gas wells

as of 12/31/06

Producing marginal wells	5,276
Natural gas production (MMcf)	43,617

#### Federal onshore mineral lease royalties

Oil	\$27,874,390
Gas	\$24,876,809
Total Royalties	\$94,440,805

#### Horizontal wells data

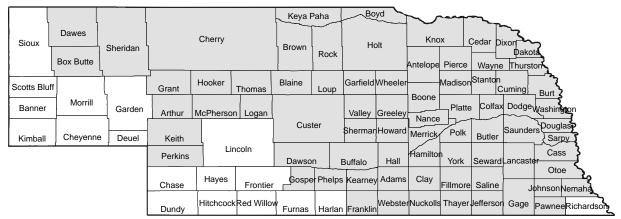
Horizontal wells drilled	342
Horizontal wells drilled	342

#### Average number of employees

Oil and natural gas extraction	2,711
Refining	0
Transportation	720
Wholesale	996
Retail	5,095
Pipeline construction	385
Oilfield machinery	0
Total petroleum industry	9,907

Montana's first substantial oil production began in 1915 from wells drilled in the northern Elk Basin, southeast of Belfry. Over the next 40 years, more oil fields were developed in the Williston Basin, Sweetgrass Arch, Big Snowy Uplift, Powder River Basin, and northern extensions of the Big Horn Basin.

## **N**EBRASKA



OCounties with oil and/or gas production

#### **Background Information**

$\sim$	
(:01	ınties

Number of counties 93 With oil and/or gas production 18

#### First year of production

Crude oil 1939 Natural gas 1950

#### Year and amount of peak production

Crude oil -24,894 thous. bbls. 1962 Natural gas -15,743 MMcf 1961

#### Deepest producing well (ft.)

11,761 Natural gas 5,832

#### Year and depth of deepest well drilled (ft.)

#### Cumulative number of total wells drilled as of 12/31/06 (excluding service wells)

Oil wells 6,055 Gas wells 342 2% Dry holes 13,388 68% 19,785 Total 100%

#### Cumulative crude oil wellhead value

\$4,370,062 as of 12/31/06 (thous. \$)

#### Cumulative production & new reserves

as of 12/31/06

NGL Crude Natural Oil (mill. bbls.) Total Gas (Bcf) NA Reserves 514 NA 514 Production 504 504 NA NA

#### Value of Oil and Gas

#### Average wellhead price

Crude oil (\$/bbl.) \$57.77 Natural gas (\$Mcf) NA

#### Wellhead value of production

(2006, in thous. \$)

\$133,622 Crude oil Natural gas NA \$133,622 Total

#### Average natural gas price

(2006, \$/Mcf)

Residential consumers \$11.30 Commercial consumers \$ 9.62 Industrial consumers \$ 8.37 Electric utilities \$ 7.31 City Gate \$ 8.27

#### Severance taxes paid

\$2,796

	Exploratory	Development	Total
Oil	6	19	25
Gas	3	1	4
Dry	22	14	36
Total	31	34	65

#### Total footage drilled

02.3
18.5
59.9
30.6

#### New-field wildcats drilled Footage (thous. ft.) 78.7

## Average rotary rigs active

#### **Permits** 118

#### State-wide rank

	Crude Oil	Natural Ga
Wells drilled	23rd	25th
Production	23rd	26th
Reserves (2006)	24th	NA

#### Number of operators

#### Number of producing wells

(12/31/06)	
Crude oil	1,229
Natural gas	117
Total	1,346

#### Average production Crude oil (thous. b/d) 6 NGL (thous. b/d) 0 Natural gas (MMcf/day)

#### Natural gas marketed production

(MMcf)	1,200

#### Average output per producing well

Crude oil (bbls.)	1,869
Natural gas (Mcf)	7,671

#### Coalbed methane (YTD MMcf)

Oil Wells	NA
Gas Wells	NA
Daily Average (MMcf) / Well	NA
Heavy oil (YTD BBIs, in thous.)	NA
Wells	NA
Av. Bbls per day	NA
Av. Bbls per well/d	NA

Source: EIA for production and IHS for wells drilled.

#### 2006 Latest Available Data

#### Petroleum reserves

as of 12/31/06 (mill. bbls.)

Cr	ude Oil	NGL	Total
New reserves	0	NA	0
Production	2	NA	2
Net annual change	-2	NA	-2
Proved reserves	14	NA	14

#### Natural gas reserves

as of 12/31/06 (Bcf)

	Associated	Non-	Dry
	Dissolved	Associated	Gas
New reserves	NA	NA	NA
Production	NA	NA	NA
Net annual chang	ge NA	NA	NA
Proved reserves	NA	NA	NA

#### Cost of drilling and equipping wells

	Cost/ft.	Cost/	Total Cost
	(\$)	well (\$)	(thous. \$)
Oil	140	572,814	14,320
Gas	133	614,662	2,459
Dry	131	579,814	20,873

#### Marginal oil wells

Producing marginal wells	1,181
Crude oil production in bbls. (thous.)	1,676
Crude oil production b/d (thous.)	5

#### Marginal natural gas wells

as of 12/31/06

Producing marginal wells	103
Natural gas production (MMcf)	774

#### Federal onshore mineral lease royalties

Oil	\$230,422
Gas	
Total Royalties	\$270,774

#### Horizontal wells data

Horizontal	wells	drilled	(

#### Average number of employees

Oil and natural gas extraction	236
Refining	0
Transportation	1,744
Wholesale	1,251
Retail	8,838
Pipeline construction	132
Oilfield machinery	0
Total petroleum industry	12,201

The Nebraska legislature awarded a \$15,000 bonus to the Pawnee Royalty Co. for the Bucholz Well No. 1, the first oil well in the state to produce at least 50 barrels daily for 60 consecutive days. The well began producing on May 29, 1940.

#### **Background Information**

#### Counties

Number of counties 17 With oil and/or gas production 2

First year of production

Crude oil 1954 Natural gas NA

Year and amount of peak production

Crude oil -3,230 thous. bbls. 1988 Natural gas -NA

Deepest producing well (ft.)

Natural gas

Year and depth of deepest well drilled (ft.)

Cumulative number of total wells drilled as of 12/31/06 (excluding service wells)

Oil wells 121 Gas wells 2 0% Dry holes 774 86% 100% Total

Cumulative crude oil wellhead value \$847,349 as of 12/31/06 (thous. \$)

Cumulative production & new reserves as of 12/31/06

Crude NGL Natural Oil (mill. bbls.) Total Gas (Bcf) NA NA Reserves NA NA Production NA NA NA NA

#### Value of Oil and Gas

Average wellhead price

Crude oil (\$/bbl.) \$58.30 Natural gas (\$Mcf) NA

Wellhead value of production (2006, in thous. \$)

\$24,836 Crude oil Natural gas NA \$24,836 Total

Average natural gas price (2006, \$/Mcf)

Residential consumers \$14.31 \$12.12 Commercial consumers Industrial consumers \$12.00 Electric utilities \$ 6.79 City Gate \$ 8.64

Severance taxes paid \$42 (2006, in thous. \$)

Number	of	wells	drilled

	Exploratory	Development	Total
Oil	. NA	NA NA	NA
Gas	NA	NA	NA
Dry	1	NA	1
Total	1	NA	1

#### Total footage drilled

(thous. ft.)

	Exploratory	Development	Total
Oil	NA	NA	NA
Gas	NA	NA	NA
Dry	7.4	NA	7.4
Total	7.4	NA	7.4
(Note: 7	otals may not add	due to rounding.)	

#### New-field wildcats drilled 1 Footage (thous. ft.) 7.4

#### Average rotary rigs active

#### Permits 7

#### State-wide rank

	Crude Oil	Natural Gas
Wells drilled	34th	35th
Production	27th	32nd
Reserves (2006)	NA	NA

#### Number of operators

#### Number of producing wells (12/31/06) Crude oil

Crude oil	68
Natural gas	0
Total	68

1
0
0
(

## Natural gas marketed production

## (MMcf) 5

#### Average output per producing well

Crude oil (bbls.)	6,261
Natural gas (Mcf)	0

#### Coalbed methane (YTD MMcf)

Oil Wells	NA
Gas Wells	NA
Daily Average (MMcf) / Well	NA
Heavy oil (YTD BBIs, in thous.)	NA

Wells	NA
Av. Bbls per day	NA
Av. Bbls per well/d	NA

Source: EIA for production and IHS for wells drilled.

#### 2006 Latest Available Data

#### Petroleum reserves

as of 12/31/06 (mill. bbls.)

Cı	rude Oil	NGL	Total
New reserves	NA	NA	NA
Production	NA	NA	NA
Net annual change	NA	NA	NA
Proved reserves	NA	NA	NA

#### Natural gas reserves

as of 12/31/06 (Bcf)

	Associated	Non-	Dry
	Dissolved	Associated	Gas
New reserves	NA	NA	NA
Production	NA	NA	NA
Net annual change	ge NA	NA	NA
Proved reserves	NA	NA	NA

#### Cost of drilling and equipping wells

	Cost/ft.	Cost/	Total Cost
	(\$)	well (\$)	(thous. \$)
Oil	NA	NA	NA
Gas	NA	NA	NA
Dry	146	1,079,956	1,080

#### Marginal oil wells

Producing marginal wells	45
Crude oil production in bbls. (thous.)	117
Crude oil production b/d (thous.)	0

#### Marginal natural gas wells

as of 12/31/06

Producing marginal wells	0
Natural gas production (MMcf)	0

#### Federal onshore mineral lease royalties

Oil	\$ 2,734,895
Gas	
Total Royalties	\$15,542,861

#### Horizontal wells data

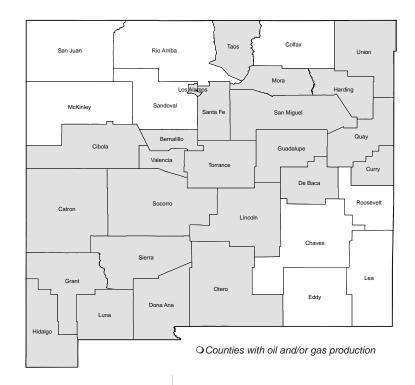
Horizontal	wells drilled	0	
rionzontai	wons armou	U	

#### Average number of employees

Oil and natural gas extraction	130
Refining	0
Transportation	20
Wholesale	761
Retail	8,619
Pipeline construction	743
Oilfield machinery	0
Total petroleum industry	10,273

On Feb. 12, 1954, Shell Oil Co. drilled the Eagle Springs No.1 — the discovery well for the Railroad Valley field and the state's first producer.

## **NEW MEXICO**



#### **Background Information**

#### Counties

Number of counties 33 With oil and/or gas production 9

#### First year of production

Crude oil 1911 Natural gas 1924

#### Year and amount of peak production

Crude oil — 129,227 thous. bbls. 1969 Natural gas — 1,689,125 MMcf 2001

#### Deepest producing well (ft.)

Crude oil 18,380 Natural gas 26,579

#### Year and depth of deepest well drilled (ft.)

1969 22,926

## Cumulative number of total wells drilled as of 12/31/06 (excluding service wells)

 Oil wells
 49,229
 47%

 Gas wells
 38,115
 36%

 Dry holes
 18,370
 17%

 Total
 105,789
 100%

#### Cumulative crude oil wellhead value

as of 12/31/06 (thous. \$) \$57,682,580

#### Cumulative production & new reserves

as of 12/31/06

Crude NGL Natural Oil (mill. bbls.) Total Gas (Bcf)

Reserves 7,123 3,268 10,391 81,824 Production 6,486 2,302 8,788 63,887

#### Value of Oil and Gas

#### Average wellhead price

(2006

Crude oil (\$/bbl.) \$61.74 Natural gas (\$Mcf) \$ 6.18

#### Wellhead value of production

(2006, in thous. \$)

Crude oil \$ 3,693,163 Natural gas \$ 9,944,998 Total \$13,638,161

#### Average natural gas price

(2006, \$/Mcf)

Residential consumers \$12.64
Commercial consumers \$10.65
Industrial consumers \$ 8.92
Electric utilities NA
City Gate \$ 6.82

Severance taxes paid \$1,169,271

(2006, in thous. \$)

A I		1 211 1
Number	Of WALLS	arillaa

	Exploratory	Development	Total
Oil	25	599	624
Gas	53	1,250	1,303
Dry	36	65	101
Total	114	1,914	2,028

#### Total footage drilled

thous, ft.)

	Exploratory	Development	Total
Oil	108.3	3,632.4	3,740.7
Gas	384.0	7,512.2	7,896.2
Dry	132.9	308.4	441.3
Total	625.1	11,453.0	12,078.1
(Note: 7	Totals may not add	due to rounding.)	

New-field wildcats drilled	6
Footage (thous. ft.)	287.

#### Average rotary rigs active 9

#### Permits 3,195

#### State-wide rank

	Crude Oil	Natural Gas
Wells drilled	7th	7th
Production	7th	5th
Reserves (2006)	6th	3rd

#### Number of operators 568

#### Number of producing wells

(12/31/06)	
Crude oil	21,219
Natural gas	31,246
Total	52,465

#### Average production

Crude oil (thous. b/d)	147
NGL (thous. b/d)	18
Natural gas (MMcf/day)	3,705

#### Natural gas marketed production

(MMcf)	1,609,223

#### Average output per producing well

Crude oil (bbls.)	2,529
Natural gas (Mcf)	43,277

## Coalbed methane (YTD MMcf) 511,856 Oil Wells 0 Gas Wells 4,988 Daily Average (MMcf) / Well 1,402

Heavy oil (YTD BBIs, in thous.)	18
Wells	34
Av. Bhls ner day	0.1

 Wells
 34

 Av. Bbls per day
 0.1

 Av. Bbls per well/d
 537

Source: EIA for production and IHS for wells drilled.

#### 2006 Latest Available Data

#### Petroleum reserves

as of 12/31/06 (mill. bbls.)

С	rude Oil	NGL	Total
New reserves	71	99	170
Production	56	78	134
Net annual change	15	21	36
Proved reserves	705	861	1,566

#### Natural gas reserves

as of 12/31/06 (Bcf)

	Associated	Non-	Dry
	Dissolved	Associated	Gas
New reserves	304	981	1,159
Production	193	1,332	1,426
Net annual cha	inge 111	-351	-267
Proved reserve	s 1,772	17,332	17,934

#### Cost of drilling and equipping wells

	Cost/ft.	Cost/	Total Cost
	(\$)	well (\$)	(thous. \$)
Oil	217	1,302,743	812,912
Gas	202	1,222,989	1,593,555
Dry	327	1,430,211	144,451

#### Marginal oil wells

Producing marginal wells	17,759
Crude oil production in bbls. (thous.)	22,253
Crude oil production b/d (thous.)	61

#### Marginal natural gas wells

as of 12/31/06

Producing marginal wells	20,461
Natural gas production in MMcf (thous.)	261,711

#### Federal onshore mineral lease royalties

Oil	\$ 287,445,113
Gas	\$ 810,013,305
Total Royalties	\$1,268,142,550

#### Horizontal wells data

Horizontal wells drilled	14
--------------------------	----

#### Average number of employees

Office of a street was a street from	4.4.400
Oil and natural gas extraction	14,402
Refining	716
Transportation	1,626
Wholesale	1,607
Retail	7,814
Pipeline construction	214
Oilfield machinery	0
Total petroleum industry	26 379

Twenty miles west of Farmington, Midwest Refining brought in New Mexico's first commercially successful oil well in September 1922.



#### **Background Information**

#### Counties

Number of counties 62 With oil and/or gas production 21

#### First year of production

Crude oil 1865 Natural gas 1821

#### Year and amount of peak production

Crude oil — 6,685 thous. bbls. 1882 Natural gas — 55,980 MMcf 2006

#### Deepest producing well (ft.)

Crude oil 11,193 Natural gas 11.329

#### Year and depth of deepest well drilled (ft.)

#### Cumulative number of total wells drilled as of 12/31/06 (excluding service wells)

Oil wells 2,614 20% Gas wells 7,910 61% Dry holes 2,453 19% Total 12,977 100%

#### Cumulative crude oil wellhead value \$1,150,450 as of 12/31/06 (thous. \$)

#### Cumulative production & new reserves

NGL Crude Natural Oil (mill. bbls.) Total Gas (Bcf) 1,556 Reserves NA NA NΑ Production NA NA NA 1,207

#### Value of Oil and Gas

Average wellhead price

Crude oil (\$/bbl.) \$63.51 Natural gas (\$Mcf) \$ 7.13

#### Wellhead value of production

(2006, in thous. \$)

Crude oil \$ 20,260 Natural gas \$399,137 Total \$419,397

## Average natural gas price (2006, \$/Mcf)

Residential consumers \$15.35 Commercial consumers \$11.91 Industrial consumers \$10.56 \$ 7.75 Electric utilities City Gate \$ 9.22

Severance taxes paid (2006, in thous. \$)

	Number	of	wells	drilled
--	--------	----	-------	---------

	Exploratory	Development	Total
Oil	1	107	108
Gas	12	119	131
Dry	2	1	3
Total	15	227	242

#### Total footage drilled

thous ft )

	Exploratory	Development	Total
Oil	2.8	184.3	187.1
Gas	65.9	375.9	441.7
Dry	18.0	3.7	21.67
Total	86.6	563.8	650.5
(Note: Totals may not add due to rounding.)			

#### New-field wildcats drilled 13 Footage (thous. ft.) 69.2

#### Average rotary rigs active

#### Permits 578

#### State-wide rank

Crude Oil	Natural Gas
15th	15th
28th	21st
NA	23rd
	15th 28th

#### Number of operators 427

#### Number of producing wells

(12/31/06)		
Crude oil		2,395
Natural gas		6,764
Total		9,159

#### Average production

Crude oil (thous. b/d)	1
NGL (thous. b/d)	0.3
Natural gas (MMcf/dav)	109

#### Natural gas marketed production

(MMcf)		55,980

#### Average output per producing well

Crude oil (bbls.)	79
Natural gas (Mcf)	5,875

#### Coalbed methane (YTD MMcf)

Oil Wells	NA
Gas Wells	NA
Daily Average (MMcf) / Well	NA
Heavy oil (YTD BBIs, in thous.)	NA
Wells	NA
Av. Bbls per day	NA

Source: EIA for production and IHS for wells drilled.

NA

#### 2006 Latest Available Data

#### Petroleum reserves

as of 12/31/06 (mill. bbls.)

Cr	ude Oil	NGL	Total
New reserves	NA	NA	NA
Production	NA	NA	NA
Net annual change	NA	NA	NA
Proved reserves	NA	NA	NA

#### Natural gas reserves

as of 12/31/06 (Bcf)

	Associated Dissolved	Non- Associated	Dry Gas
New reserves	-1	64	64
Production	0	49	50
Net annual change	ge -1	15	14
Proved reserves	2	361	363

#### Cost of drilling and equipping wells

	Cost/ft.	Cost/	Total Cost
	(\$)	well (\$)	(thous. \$)
Oil	128	222,446	24,024
Gas	147	496,064	64,984
Dry	283	2,046,736	6,140

#### Marginal oil wells

Producing marginal wells	2,073
Crude oil production in bbls. (thous.)	188
Crude oil production b/d (thous.)	1

#### Marginal natural gas wells

as of 12/31/06

Producing marginal wells	6,512
Natural gas production (MMcf)	10,828

#### Federal onshore mineral lease royalties

Oil	
Gas	\$22,688
Total Royalties	\$22,688

#### Horizontal wells data

Horizontal wells drilled	0

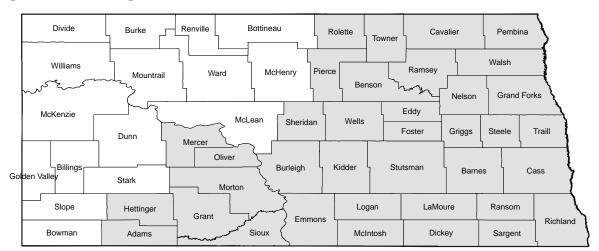
#### Average number of employees

Oil and natural gas extraction	930
Refining	466
Transportation	3,963
Wholesale	13,762
Retail	28,314
Pipeline construction	1,398
Oilfield machinery	0
Total petroleum industry	48,833

In November 1865, Job Moses and his Hall Farm Petroleum Co. found oil in Carrollton Township, Cattaraugus County. The Moses No. 1 well was drilled to 1,165 feet. Initial production was seven barrels per day, but the well was on the edge of what would become the giant Bradford oilfield.

Av. Bbls per well/d

## NORTH DAKOTA



O Counties with oil and/or gas production

#### **Background Information**

#### Counties

Number of counties	53
With oil and/or gas production	16

#### First year of production

Crude oil	1951
Natural gas	1907

#### Year and amount of peak production

Crude oil — 52,654 thous. bbls.	1984
Natural gas — 72,633 MMcf	1985

#### Deepest producing well (ft.)

Crude oil	(25,828 MD horizontal)	16,510
Natural gas	(19,579 MD horizontal)	15,300

#### Year and depth of deepest well drilled (ft.)

2006 (18,262 MD horizontal-2000) 20,362

#### Cumulative number of total wells drilled as of 12/31/06 (excluding service wells)

Oil wells	9,522	58%
Gas wells	351	2%
Dry holes	6,633	40%
Total	16.506	100%

#### Cumulative crude oil wellhead value

\$27,438,844 as of 12/31/06 (thous. \$)

#### Cumulative production & new reserves

as of 12/31/06

	Crude Oil		Total	Natural Gas (Bcf)
Reserves	,	251	2,187	2,771
Production		174	1.709	2.308

#### Value of Oil and Gas

#### Average wellhead price

Crude oil (\$/bbl.)	\$ !	56.69
Natural gas (\$Mcf)	\$	6.52

#### Wellhead value of production

Crude oil	\$2,262,555
Natural gas	\$ 360,380
Total	\$2.622.935

## Average natural gas price (2006, \$/Mcf)

Residential consumers	\$10.80
Commercial consumers	\$ 9.68
Industrial consumers	\$ 6.54
Electric utilities	\$10.93
City Gate	\$ 7.82

#### Severance taxes paid

(2006, in thous. \$)

COMPILED BY IPAA FEBRUARY 2009

\$ 166,147

A I		1 111 1
Number	OF WOLLS	arillaa
IMMILINEL	OI MEII9	uninea

	Exploratory	Development	Total
Oil	137	243	380
Gas	5	64	69
Dry	23	15	38
Total	165	322	487

#### Total footage drilled

(thous. ft.)

	Exploratory	Development	Total	
Oil	1,517.2	2,193.7	3,710.9	
Gas	47.9	144.8	192.7	
Dry	250.1	134.8	384.9	
Total	1,815.1	2,473.3	4,288.5	
(Note: Totals may not add due to rounding.)				

## New-field wildcats drilled 104 Footage (thous. ft.) 1,128.1

# Average rotary rigs active 32

# Permits 635

#### State-wide rank

	Crude Oil	Natural Gas
Wells drilled	20th	26th
Production	9th	22nd
Reserves (2006)	10th	22nd

# Number of operators 152

# Number of producing wells

(12/31/06)		
Crude oil		3,512
Natural gas		371
Total		3,883

#### Average production

Crude oil (thous. b/d)	101
NGL (thous. b/d)	7.7
Natural gas (MMcf/day)	47

#### Natural gas marketed production

(MMcf)		55,273

# Average output per producing well

Crude oil (bbls.)	10,468
Natural gas (Mcf)	46,404

# Coalbed methane (YTD MMcf)

Oil Wells	NA
Gas Wells	NA
Daily Average (MMcf) / Well	NA
Heavy oil (YTD BBIs, in thous.)	NA
Wells	NA
Av. Bbls per day	NA
Av. Bbls per well/d	NA

Source: EIA for production and IHS for wells drilled.

# 2006 Latest Available Data

# Petroleum reserves

as of 12/31/06 (mill. bbls.)

Cı	rude Oil	NGL	Total
New reserves	32	12	44
Production	38	6	44
Net annual change	-6	6	0
Proved reserves	412	55	467

#### Natural gas reserves

as of 12/31/06 (Bcf)

As	sociated	Non-	Dry
D	issolved	Associated	Gas
New reserves	54	35	78
Production	40	18	52
Net annual change	14	17	26
Proved reserves	357	182	479

# Cost of drilling and equipping wells

	Cost/ft.	Cost/	Total Cost
	(\$)	well (\$)	(thous. \$)
Oil	352	3,442,221	1,308,044
Gas	439	1,227,356	84,688
Dry	280	2,836,129	107,773

## Marginal oil wells

Producing marginal wells	2,146
Crude oil production in bbls. (thous.)	4,710
Crude oil production b/d (thous.)	13

# Marginal natural gas wells

as of 12/31/06

Producing marginal wells	244
Natural gas production (MMcf)	2,670

## Federal onshore mineral lease royalties

Oil	\$44,957,328
Gas	\$ 6,193,948
Total Royalties	\$69,146,231

#### Horizontal wells data

Horizontal wells	drillad	375
nonzoniai wells	armea	3/3

# Average number of employees

Oil and natural gas extraction	3,101
Refining	0
Transportation	240
Wholesale	1,671
Retail	4,058
Pipeline construction	167
Oilfield machinery	0
Total petroleum industry	9,237

On April 4, 1951, on the Clarence Iverson farm, eight miles south of Tioga, the Amerada Hess Petroleum Corp. brought in the discovery well for the Williston Basin. The basin extends from South Dakota to western Canada, and from central North Dakota to central Montana.



# **Background Information**

#### Counties

Number of counties	88
With oil and/or gas production	56

#### First year of production

Crude oil	1860
Natural gas	1884

# Year and amount of peak production

Crude oil — 23,941 thous. bbls.	1896
Natural gas — 186,480 MMcf	1984

## Deepest producing well (ft.)

Crude oil	9,002
Natural gas	11,442

Year and depth of deepest well drilled (ft.)

#### Cumulative number of total wells drilled as of 12/31/06 (excluding service wells)

Oil wells	46,952	58%
Gas wells	22,273	28%
Dry holes	11,097	14%
Total	90.333	1000/

# Cumulative crude oil wellhead value

as of 12/31/06 (thous. \$)

# Cumulative production & new reserves

as of 12/31/06 Crude NGL Natural Oil (mill. bbls.) Total Gas (Bcf)

Reserves 1,128 NA 1,128 9,629 Production 1,092 1,092 8,891 NA

# Value of Oil and Gas

# Average wellhead price

Crude oil (\$/bbl.) \$62.89 Natural gas (\$Mcf) \$ 7.75

# Wellhead value of production (2006, in thous. \$)

Crude oil \$ 340,990 Natural gas \$ 668,941 \$1,009,931 Total

# Average natural gas price (2006, \$/Mcf)

Residential consumers \$14.39 \$12.83 Commercial consumers Industrial consumers \$11.60 Electric utilities \$ 7.97 City Gate \$ 9.87

Severance taxes paid \$ 2,554 (2006, in thous. \$)

# OHO

# **2006 Industry Statistics**

Numb	er	Ωf	wells	drilled
INGILL	701	OI.	WCIIS	uninea

	Exploratory	Development	Total
Oil	12	366	378
Gas	23	251	274
Dry	12	20	32
Total	47	637	684

#### Total footage drilled

thous. ft.)

	Exploratory	Development	Total
Oil	52.4	1,497.4	1,549.8
Gas	85.2	891.2	976.4
Dry	27.9	84.4	112.3
Total	165.5	2,473.0	2,638.5
(Note: Totals may not add due to rounding.)			

New-field wildcats drilled 16 Footage (thous. ft.) 43.6

Average rotary rigs active

Permits 1,220

# State-wide rank

	Crude Oil	Natural Gas
Wells drilled	8th	11th
Production	18th	19th
Reserves (2006)	17th	20th

Number of operators 675

# Number of producing wells

(12/31/06)
Crude oil 17,867
Natural gas 23,123
Total 40,990

#### Average production

Crude oil (thous. b/d) 12 NGL (thous. b/d) 1.9 Natural gas (MMcf/day) 170

#### Natural gas marketed production

(MMcf) 86,315

# Average output per producing well

Crude oil (bbls.) 245 Natural gas (Mcf) 2,682

#### Coalbed methane (YTD MMcf)

Oil Wells

Gas Wells

NA

Daily Average (MMcf) / Well

Heavy oil (YTD BBIs, in thous.)

Wells

Av. Bbls per day

Av. Bbls per well/d

NA

Source: EIA for production and IHS for wells drilled.

# 2006 Latest Available Data

Petroleum reserves as of 12/31/06 (mill. bbls.)

Crude Oil NGL Total New reserves 7 NA 7 Production NA 4 Net annual change NA 3 3 Proved reserves NA 49

# Natural gas reserves

as of 12/31/06 (Bcf)

	Associated	Non-	Dry
	Dissolved	Associated	Gas
New reserves	5	150	155
Production	15	63	78
Net annual chan	ge -10	87	77
Proved reserves	174	801	975

# Cost of drilling and equipping wells

	Cost/ft.	Cost/	Total Cost
	(\$)	well (\$)	(thous. \$)
Oil	80	328,872	124,314
Gas	97	347,295	95,159
Dry	126	441,036	14,113

## Marginal oil wells

Producing marginal wells	15,570
Crude oil production in bbls. (thous.)	3,709
Crude oil production b/d (thous.)	10

#### Marginal natural gas wells

as of 12/31/06

Producing marginal wells	22,628
Natural gas production (MMcf)	52,003

#### Federal onshore mineral lease royalties

Oil	\$195,146
Gas	\$615,425
Total Royalties	\$842,038

#### Horizontal wells data

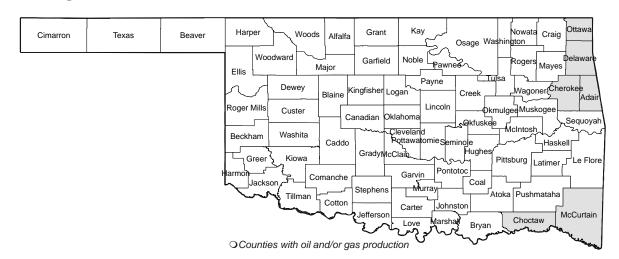
Horizontal wells drilled

#### Average number of employees

Oil and natural gas extraction	4,962
Refining	2,158
Transportation	4,470
Wholesale	5,683
Retail	35,401
Pipeline construction	1,340
Oilfield machinery	197
Total petroleum industry	54 211

On Jan 20, 1886, the spectacular "Karg Well" of Findlay, Ohio, came in with an initial flow of 12 million cubic feet per day — a pressure so great it could not be controlled. Its towering plume of fire was a popular tourist attraction that burned for four months.

# OKLAHOMA



# **Background Information**

#### Counties

Number of counties 77
With oil and/or gas production 71

#### First year of production

Crude oil 1891 Natural gas 1902

## Year and amount of peak production

Crude oil —277,775 thous. bbls. 1927 Natural gas — 2,153,852 MMcf 1991

#### Deepest producing well (ft.)

Crude oil 19,912 Natural gas 27,400

# Year and depth of deepest well drilled (ft.)

1974 31,441

# Cumulative number of total wells drilled as of 12/31/06 (excluding service wells)

 Oil wells
 240,364
 53%

 Gas wells
 81,076
 18%

 Dry holes
 135,308
 29%

 Total
 456,748
 100%

# Cumulative crude oil wellhead value

as of 12/31/06 (thous. \$) \$107,432,146

#### Cumulative production & new reserves

as of 12/31/06

 $\begin{array}{ccc} \text{Crude} & \text{NGL} & \text{Natural} \\ \text{Oil} & \text{(mill. bbls.)} & \text{Total} & \text{Gas (Bcf)} \end{array}$ 

Reserves 14,884 5,372 20,256 113,379 Production 14,463 4,345 18,808 110,689

# Value of Oil and Gas

# Average wellhead price

(2006

Crude oil (\$/bbl.) \$63.11 Natural gas (\$Mcf) \$6.32

#### Wellhead value of production

(2006, in thous. \$)

 Crude oil
 \$ 3,965,896

 Natural gas
 \$10,674,385

 Total
 \$14,640,281

## Average natural gas price

(2006, \$/Mcf)

Residential consumers \$13.40
Commercial consumers \$12.17
Industrial consumers \$ 9.66
Electric utilities \$ 6.58
City Gate \$ 9.13

Severance taxes paid \$ 1,168,598

(2006, in thous. \$)

N 1			- 11	1 11	
Niiim	nar	$\cap$ t	wells	arıl	חמו

	Exploratory	Development	Total
Oil	37	866	903
Gas	192	2,474	2,666
Dry	95	331	426
Total	324	3,671	3,995

#### Total footage drilled

thous. ft.)

	Exploratory	Development	Total
Oil	243.4	4,302.3	4,545.7
Gas	1,853.7	16,788.3	18,641.9
Dry	591.7	1,710.4	2,302.1
Total	2,688.8	22,801.0	25,489.8
(Note: Totals may not add due to rounding.)			

New-field wildcats drilled 181 Footage (thous. ft.) 1,458.0

Average rotary rigs active 179

Permits 5,489

#### State-wide rank

	Crude Oil	Natural Gas
Wells drilled	2nd	2nd
Production	6th	4th
Reserves (2006)	7th	4th

# Number of operators 3,861

# Number of producing wells

(12/31/06)
Crude oil 54,408
Natural gas 36,358
Total 90,766

#### Average production

 Crude oil (thous. b/d)
 148

 NGL (thous. b/d)
 25.8

 Natural gas (MMcf/day)
 4,268

#### Natural gas marketed production

(MMcf) 1,688,985

# Average output per producing well

Crude oil (bbls.) 992 Natural gas (Mcf) 42,850

 Coalbed methane (YTD MMcf)
 74,626

 Oil Wells
 8

 Gas Wells
 3,450

 Daily Average (MMcf) / Well
 204

Heavy oil (YTD BBIs, in thous.)

Wells

Av. Bbls per day

Av. Bbls per well/d

NA

Source: EIA for production and IHS for wells drilled.

# 2006 Latest Available Data

# Petroleum reserves

as of 12/31/06 (mill. bbls.)

(	Crude Oil	NGL	Total
New reserves	-12	134	122
Production	49	81	130
Net annual change	-61	53	-8
Proved reserves	569	892	1,461

# Natural gas reserves

as of 12/31/06 (Bcf)

	sociated issolved	Non- Associated	Dry Gas
New reserves	86	2,002	1,942
Production	95	1,604	1,601
Net annual change	-9	398	341
Proved reserves	800	17,735	17,464

# Cost of drilling and equipping wells

	Cost/ft.	Cost/	Total Cost
	(\$)	well (\$)	(thous. \$)
Oil	200	1,007,809	910,052
Gas	295	2,062,100	5,497,559
Dry	222	1,197,746	510,240

# Marginal oil wells

Producing marginal wells	48,234
Crude oil production in bbls. (thous.)	35,018
Crude oil production b/d (thous.)	96

#### Marginal natural gas wells

as of 12/31/06

Producing marginal wells	24,955
Natural gas production (MMcf)	303,692

#### Federal onshore mineral lease royalties

Oil	\$ 12,139,225
Gas	\$ 39,651,131
Total Royalties	\$ 55,038,554

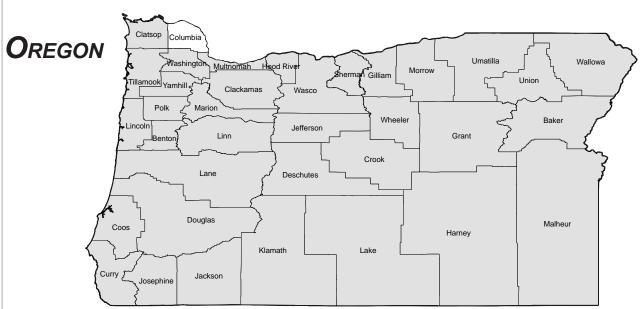
#### Horizontal wells data

Horizontal wells drilled 691

#### Average number of employees

Oil and natural gas extraction	40,017
Refining	1,795
Transportation	4,475
Wholesale	4,046
Retail	13,271
Pipeline construction	1,843
Oilfield machinery	6,644
Total petroleum industry	72.091

Curious onlookers gathered at the Nellie Johnstone No. 1 well on April 15, 1898. At 3 p.m., George Keeler's stepdaughter, Miss Jenni Cass, dropped a "go devil" down the well bore to set off the waiting nitroglycerin — producing a gusher that marked the beginning of Oklahoma's oil era.



#### O Counties with oil and/or gas production

NA

# **Background Information**

_	
( , O I I	ınties

Number of counties 36 With oil and/or gas production

#### First year of production

NA Natural gas 1979

# Year and amount of peak production

NA Natural gas — 5,000 MMcf 1980/81

#### Deepest producing well (ft.)

NA Natural gas 3,720

# Year and depth of deepest well drilled (ft.)

#### Cumulative number of total wells drilled as of 12/31/06 (excluding service wells)

Oil wells Gas wells 67 16% Dry holes 361 84% 100% Total

#### Cumulative crude oil wellhead value

as of 12/31/06 (thous. \$)

# Cumulative production & new reserves

as of 12/31/06

Crude NGL Natural Oil (mill. bbls.) Total Gas (Bcf) NA NA Reserves NA NA Production NA NA NA

# Value of Oil and Gas

# Average wellhead price

Crude oil (\$/bbl.)

Natural gas (\$Mcf) \$4.42

# Wellhead value of production

Crude oil NA Natural gas \$2,745 \$2,745 Total

# Average natural gas price (2006, \$/Mcf)

Residential consumers \$14.53 Commercial consumers \$12.94 Industrial consumers \$ 9.16 Electric utilities \$ 5.95 City Gate \$ 8.10

Severance taxes paid \$ 90

A I		1 111 1
Number	OF WALLS	arillaa
IMMILINEL	OI MEII9	uninea

	Exploratory	Development	Total
Oil	NA	NA	NA
Gas	NA	NA	NA
Dry	NA	NA	NA
Total	NA	NA	NA

## Total footage drilled

(thous. ft.)

	Exploratory	Development	Total
Oil	NA	NA	NA
Gas	NA	NA	NA
Dry	NA	NA	NA
Total	NA	NA	NA
(Note: Totals may not add due to rounding.)			
New-field wildcats drilled			NA

NA

0

# Average rotary rigs active

Permits

#### State-wide rank

Footage (thous. ft.)

	Crude Oil	Natural Gas
Wells drilled	NA	31st
Production	NA	28th
Reserves (2006)	NA	NA

#### Number of operators 2

# Number of producing wells (12/31/06)

C
13
13

# Average production

Crude oil (thous. b/d) 0 NGL (thous. b/d) 0 Natural gas (MMcf/day)

# Natural gas marketed production

621

# Average output per producing well

Crude oil (bbls.) NA Natural gas (Mcf) 48,015

# Coalbed methane (YTD MMcf)

Oil Wells	NA
Gas Wells	NA
Daily Average (MMcf) / Well	NA
Heavy oil (YTD BBIs, in thous.)	NA

NA Wells Av. Bbls per day NA Av. Bbls per well/d NA

Source: EIA for production and IHS for wells drilled.

# 2006 Latest Available Data

# Petroleum reserves

as of 12/31/06 (mill. bbls.)

Cruc	de Oil	NGL	Total
New reserves	NA	NA	NA
Production	NA	NA	NA
Net annual change	NA	NA	NA
Proved reserves	NA	NA	NA

# Natural gas reserves as of 12/31/06 (Bcf)

, ,			
	Associated Dissolved	Non- Associated	Dry Gas
New reserves	NA	NA	NA
Production	NA	NA	NA
Net annual chan	ge NA	NA	NA
Proved reserves	NA	NA	NA

# Cost of drilling and equipping wells

	Cost/ft.	Cost/ Tot	al Cost
	(\$)	well (\$) (th	ous. \$)
Oil	NA	NA	NA
Gas	NA	NA	NA
Dry	NA	NA	NA

## Marginal oil wells

Producing marginal wells	NA
Crude oil production in bbls. (thous.)	NA
Crude oil production b/d (thous.)	NA

# Marginal natural gas wells

as of 12/31/06

Producing marginal wells	10
Natural gas production (MMcf)	158

## Federal onshore mineral lease royalties

Oil	
Gas	
Total Royalties	\$1,318,016

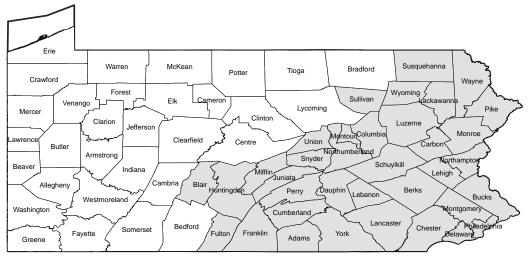
#### Horizontal wells data

Horizontal wells drilled

# Average number of employees

22
0
0
1,797
10,969
292
0
13,080

# PENNSYLVANIA



O Counties with oil and/or gas production

# **Background Information**

#### Counties

Number of counties	67
With oil and/or gas production	31

## First year of production

Crude oil	1859
Natural gas	1881

# Year and amount of peak production

Crude oil — 31,424 thous. bbls.	1891
Natural gas — 200,907 MMcf	2000

## Deepest producing well (ft.)

Crude oil	13,186
Natural gas	8,484

Year and depth of deepest well drilled (ft.)

# Cumulative number of total wells drilled

as of 12/31/06 (excluding service wells)

Oil wells	22,270	31%
Gas wells	45,558	64%
Dry holes	3,809	4%
Total	71.637	100%

# Cumulative crude oil wellhead value

as of 12/31/06 (thous. \$)

# Cumulative production & new reserves

as of 12/31/06

	Crude Oil	NGL (mill. bbls.)	Total	Natural Gas (Bcf)
Reserves Production	,		1,368 1,357	15,949 13,089

# Value of Oil and Gas

# Average wellhead price

Crude oil (\$/bbl.)	\$64.02
Natural gas (\$Mcf)	NA

# Wellhead value of production

(2006, in thous. \$)

Crude oil	\$232,137
Natural gas	NA
Total	\$232,137

# Average natural gas price (2006, \$/Mcf)

Residential consumers	\$16.45
Commercial consumers	\$14.30
Industrial consumers	\$12.30
Electric utilities	\$ 7.76
City Gate	\$10.30

# Severance taxes paid

(2006, in thous. \$)

Number	of	wells	drilled	

	Exploratory	Development	Total
Oil	71	742	813
Gas	536	2,711	3,247
Dry	42	158	200
Total	649	3,611	4,260

#### Total footage drilled

(thous. ft.)

	Exploratory	Development	Total
Oil	148.5	1,387.2	1,535.7
Gas	2,225.4	10,290.9	12,516.3
Dry	174.0	445.1	619.1
Total	2,548.0	12,123.2	14,671.2
(Note: Totals may not add due to rounding.)			

New-field wildcats drilled	217
Footage (thous. ft.)	904.7

# Average rotary rigs active

## Permits 6,686

# State-wide rank

	Crude Oil	Natural Gas
Wells drilled	10th	5th
Production	29th	25th
Reserves (2006)	23rd	14th

# Number of operators

# Number of producing wells

(12/31/06)	
Crude oil	NA
Natural gas	NA
Total	NA

#### Average production

Crude oil (thous. b/d)	NA
NGL (thous. b/d)	NA
Natural gas (MMcf/day)	NA

#### Natural gas marketed production

(MMcf)		158,355

# Average output per producing well

Crude oil (bbls.)	NA
Natural gas (Mcf)	NA

# Coalbed methane (YTD MMcf)

Oil Wells	NA
Gas Wells	NA
Daily Average (MMcf) / Well	NA
Heavy oil (YTD BBIs, in thous.)	NA
Wells	NA

Av. Bbls per day NA
Av. Bbls per well/d NA

Source: EIA for production and IHS for wells drilled.

# 2006 Latest Available Data

# Petroleum reserves

as of 12/31/06 (mill. bbls.)

C	Crude Oil	NGL	Total
New reserves	8	NA	8
Production	2	NA	2
Net annual change	6	NA	6
Proved reserves	20	NA	20

#### Natural gas reserves

as of 12/31/06 (Bcf)

	ssociated Dissolved	Non- Associated	Dry Gas
New reserves	28	420	444
Production	11	166	176
Net annual chang	e 17	254	268
Proved reserves	151	2,913	3,050

# Cost of drilling and equipping wells

	Cost/ft.	Cost/	<b>Total Cost</b>
	(\$)	well (\$)	(thous. \$)
Oil	126	238,172	193,634
Gas	89	343,607	1,115,691
Dry	133	412,914	82,583

## Marginal oil wells

Producing marginal wells	NA
Crude oil production in bbls. (thous.)	NA
Crude oil production b/d (thous.)	NA

# Marginal natural gas wells

as of 12/31/06

Producing marginal wells	0
Natural gas production (MMcf)	0

#### Federal onshore mineral lease royalties

Oil	
Gas	\$80,305
Total Royalties	\$200,151

# Horizontal wells data

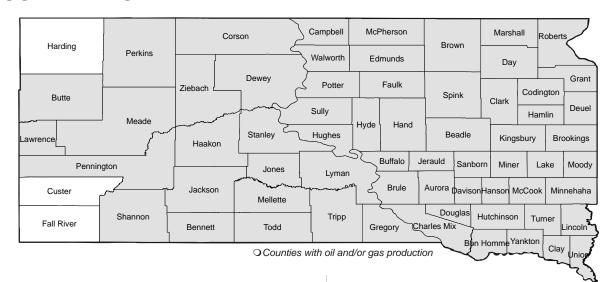
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# Average number of employees

5,233
4,839
5,678
11,220
36,425
1,929
288
65,612

America's petroleum industry began In Titusville when "Col." Edwin Drake," working for the Pennsylvania Rock Oil Co., struck oil at 69 1/2 feet on Aug. 27, 1859. Drake sold the oil to Samuel Kier for \$20 per barrel. Kier used a small still in Pittsburg to refine the oil into kerosene for illumination.

# SOUTH DAKOTA



# **Background Information**

#### Counties

Number of counties	66
With oil and/or gas production	3

#### First year of production

Crude oil	1954
Natural gas	1979

# Year and amount of peak production

Crude oil — 1,668 thous. bbls.	1988
Natural gas — 4,369 MMcf	1989

## Deepest producing well (ft.)

Crude oil 15,159 Natural gas 7,337

# Year and depth of deepest well drilled (ft.)

2006 17,025

# Cumulative number of total wells drilled as of 12/31/06 (excluding service wells)

Oil wells	374	22%
Gas wells	115	7%
Dry holes	1,176	71%
Total	1 665	100%

# Cumulative crude oil wellhead value

as of 12/31/06 (thous. \$) \$953,421

# Cumulative production & new reserves

as of 12/31/06

	Crude	NGL		Natural
	Oil	(mill. bbls.)	Total	Gas (Bcf)
001100	NΙΛ	NΙΛ	NΙΛ	NΙΛ

Reserves NA NA NA NA NA NA

# Value of Oil and Gas

# Average wellhead price

(2006)

Crude oil (\$/bbl.)	\$5	1.85
Natural gas (\$Mcf)	\$	6.40

## Wellhead value of production

(2006, in thous. \$)

Crude oil	\$72,279
Natural gas	\$ 6,163
Total	\$78,442

# Average natural gas price

(2006, \$/Mcf)

Residential consumers	\$11.11
Commercial consumers	\$ 9.46
Industrial consumers	\$ 9.32
Electric utilities	NA
City Gate	\$ 8.01

#### Severance taxes paid

thous. \$)

\$3,256

#### **2006 Industry Statistics** 2006 Latest Available Data Number of wells drilled Petroleum reserves as of 12/31/06 (mill, bbls.) Development Exploratory Total Crude Oil NGL Total Oil 18 19 Gas NA 3 3 New reserves NA NA NA Production NA NA NA Dry 3 NA 3 Net annual change NA NA NA Total 4 21 25 Proved reserves NA NA Total footage drilled Natural gas reserves as of 12/31/06 (Bcf) Exploratory Development Total Oil 108.4 116.3 Associated Non-Dry 7.9 Dissolved Associated Gas Gas NA 5.5 5.5 NA New reserves NA NA Dry 3.5 NA 3.5 113.9 Production NA NA NA Total 11.5 125.3 NA (Note: Totals may not add due to rounding.) Net annual change NA NA Proved reserves NA NA NA New-field wildcats drilled 4 Cost of drilling and equipping wells Footage (thous. ft.) 11.5 Cost/ft. Cost/ **Total Cost** well (\$) (thous. \$) (\$) Average rotary rigs active Oil 401 2,453,380 46,614 251 457,528 1,373 Gas Permits 50 159 186,925 561 Dry State-wide rank Marginal oil wells Producing marginal wells Crude Oil 71 Natural Gas Crude oil production in bbls. (thous.) 212 Wells drilled 28th 28th Crude oil production b/d (thous.) Production 27th 26th Reserves (2006) NA NA Marginal natural gas wells Number of operators 16 Producing marginal wells 62 Number of producing wells Natural gas production (MMcf) (12/31/06) Crude oil 153 Federal onshore mineral lease royalties Natural gas 62 Total 215 \$1,403,517 Gas \$ 151.322 Average production **Total Royalties** \$1,783,870 Crude oil (thous. b/d) 4 Horizontal wells data NGL (thous. b/d) 0 Natural gas (MMcf/day) Horizontal wells drilled 14 Natural gas marketed production Average number of employees 963 Oil and natural gas extraction 7 0 Refining Average output per producing well Transportation 288 Wholesale 1.277 9,113 Crude oil (bbls.) Retail 5,759 Natural gas (Mcf) 7.058 Pipeline construction 44 Oilfield machinery 0 Coalbed methane (YTD MMcf) Total petroleum industry 7,415 Oil Wells NA Gas Wells NA Daily Average (MMcf) / Well NA Heavy oil (YTD BBIs, in thous.) NA Wells NA

NA

NA

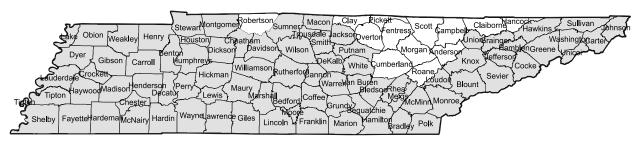
Shell Oil Co. drilled the discovery well for the Buffalo Field in October 1953 in Harding County. The well began producing at 9,332 feet on Jan. 14, 1954. Over the last 50 years, the well has produced 341,169 barrels of oil.

Source: EIA for production and IHS for wells drilled.

Av. Bbls per day

Av. Bbls per well/d

# **T**ENNESSEE



OCounties with oil and/or gas production

# **Background Information**

#### Counties

Number of counties	95
With oil and/or gas production	13

## First year of production

Crude oil	1860
Natural gas	1889

# Year and amount of peak production

Crude oil — 1,132 thous. bbls.	1982
Natural gas — 5,022 MMcf	1984

## Deepest producing well (ft.)

Crude oil 3,297 Natural gas 4,624

# Year and depth of deepest well drilled (ft.)

#### Cumulative number of total wells drilled as of 12/31/06 (excluding service wells)

Oil wells 2,797 Gas wells 3,244 27% Dry holes 5,912 50% Total 11,953 100%

#### Cumulative crude oil wellhead value

\$423,426 as of 12/31/06 (thous. \$)

#### Cumulative production & new reserves

as of 12/31/06)

	Crude Oil	NGL (mill. bbls.)	Total	Natural Gas (Bcf)
Reserves	NA	NA	NA	NA
Production	NA	NA	NA	NA

# Value of Oil and Gas

# Average wellhead price\*

Crude oil (\$/bbl.) \$57.06

#### Natural gas (\$Mcf) \$ 6.78

# Wellhead value of production (2006, in thous. \$)

Crude oil	\$10,956
Natural gas	\$12,157
Total	\$23,112

# Average natural gas price (2006, \$/Mcf)

Residential consumers	\$14.74
Commercial consumers	\$13.06
Industrial consumers	\$10.00
Electric utilities	NA
City Gate	\$ 9.00

# Severance taxes paid

\$1,041

Number of wells drilled			
	Exploratory	Development	Total
Oil	4	42	46
Gas	105	55	160
Dry	8	71	79
Total	117	168	285

## Total footage drilled

thous. ft.)

	Exploratory	Development	Total
Oil	10.4	65.9	76.3
Gas	445.6	175.1	620.7
Dry	13.1	117.4	130.4
Total	469.0	358.3	827.4
(Note: 7	otals may not add	due to rounding.)	

# New-field wildcats drilled 79 Footage (thous. ft.) 334.4

# Average rotary rigs active

# Permits 386

#### State-wide rank

Crude Oil	Natural Gas
25th	22nd
29th	29th
NA	NA
	25th 29th

# Number of operators

# Number of producing wells

(12/31/06)	
Crude oil	NA
Natural gas	NA
Total	NA

#### Average production

Crude oil (thous. b/d)	NA
NGL (thous. b/d)	NA
Natural gas (MMcf/day)	NA

#### Natural gas marketed production

(MMcf)		1,793

# Average output per producing well

Crude oil (bbls.)	NA
Natural gas (Mcf)	NA

## Coalbed methane (YTD MMcf)

Oil Wells Gas Wells Daily Average (MMcf) / Well	NA NA NA
Heavy oil (YTD BBIs, in thous.)	NA
Walls	NΔ

Wells NA
Av. Bbls per day NA
Av. Bbls per well/d NA

Source: EIA for production and IHS for wells drilled.

# 2006 Latest Available Data

# Petroleum reserves

as of 12/31/06 (mill. bbls.)

Cr	ude Oil	NGL	Total
New reserves	NA	NA	NA
Production	NA	NA	NA
Net annual change	NA	NA	NA
Proved reserves	NA	NA	NA

# Natural gas reserves

as of 12/31/06 (Bcf)

	Associated	Non-	Dry
	Dissolved	Associated	Gas
New reserves	NA	NA	NA
Production	NA	NA	NA
Net annual change	ge NA	NA	NA
Proved reserves	NA	NA	NA

# Cost of drilling and equipping wells

	Cost/ft.	Cost/	Total Cost
	(\$)	well (\$)	(thous. \$)
Oil	167	276,901	12,737
Gas	101	393,584	62,973
Dry	161	265,202	20,951

## Marginal oil wells

Producing marginal wells	NA
Crude oil production in bbls. (thous.)	NA
Crude oil production b/d (thous.)	NA

# Marginal natural gas wells

as of 12/31/06

Producing marginal wells	0
Natural gas production (MMcf)	0

## Federal onshore mineral lease royalties

Oil	
Gas	
Total Royalties	

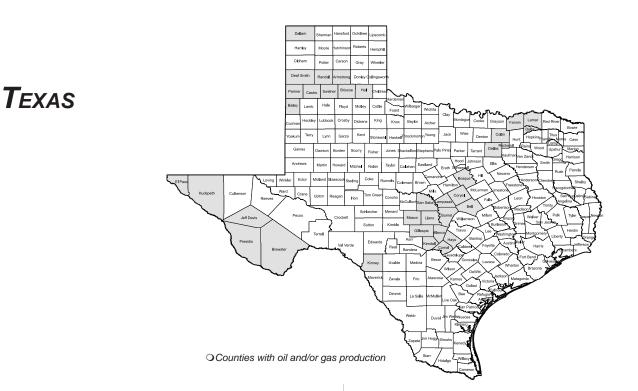
#### Horizontal wells data

Horizontal wells drilled 0

#### Average number of employees

637
0
2,315
3,629
24,063
646
0
31,290

Between 1859 and 1870, several exploratory wells were drilled in Overton County. The Gilbreath No. 1 on Bear Creek came in at a depth of only 20 feet in 1860. In 1866, the Newman No. 1 well came in on Spring Creek and yielded about 2,000 barrels of oil from a depth of only 19 feet.



# **Background Information**

#### Counties

Number of counties	254
With oil and/or gas production	221

#### First year of production

Crude oil 1889 Natural gas 1889

# Year and amount of peak production

Crude oil — 1,301,685 thous. bbls. 1972 Natural gas — 8,657,840 MMcf 1972

#### Deepest producing well (ft.)

Crude oil 27,011 Natural gas 30,712

# Year and depth of deepest well drilled (ft.)

#### Cumulative number of total wells drilled as of 12/31/06 (excluding service wells)

Oil wells 557,017 Gas wells 179,448 17% Dry holes 321,885 30% 1,056,350 100% Total

#### Cumulative crude oil wellhead value

\$581,877,278 as of 12/31/06 (thous. \$)

# Cumulative production & new reserves

as of 12/31/06

Crude NGL Natural Oil (mill. bbls.) Total Gas (Bcf)

Reserves 72,645 20,608 93,253 431,376 Production 68,597 16,770 85,367 419,831

# Value of Oil and Gas

# Average wellhead price

Crude oil (\$/bbl.) \$61.31 Natural gas (\$Mcf) \$ 6.60

# Wellhead value of production (2006, in thous. \$)

\$24,353,558 Crude oil Natural gas \$36,390,677 \$60,744,236 Total

# Average natural gas price (2006, \$/Mcf)

Residential consumers \$13.11 \$10.25 Commercial consumers Industrial consumers \$ 6.69 Electric utilities \$ 6.55 City Gate \$ 7.60

Severance taxes paid \$3,200,807

(2006, in thous. \$)

Number	$\cap f$	Wells	dril	hal
nullibel	UΙ	WEIIS	un	ıeu

	Exploratory	Development	Total
Oil	85	4,241	4,326
Gas	265	7,359	7,624
Dry	338	1,121	1,459
Total	688	12,721	13,409

#### Total footage drilled

(thous. ft.)

	Exploratory	Development	Total
Oil	563.7	23,336.4	23.900.1
Gas	2,618.0	70,242.5	72,860.5
Dry	2,605.6	6,354.9	8,960.5
Total	5,787.2	99,933.8	105,721.1
(Note: 7	otals may not ado	due to rounding.)	

New-field wildcats drilled 387 Footage (thous. ft.) 3,022.4

Average rotary rigs active 74

Permits 19,291

# State-wide rank

	Crude Oil	Natural Gas
Wells drilled	1st	1st
Production	2nd	1st
Reserves (2006)	1st	1st

Number of operators 4,795

# Number of producing wells

 (12/31/06)

 Crude oil
 153,455

 Natural gas
 86,272

 Total
 239,727

#### Average production

 Crude oil (thous. b/d)
 948

 NGL (thous. b/d)
 123.4

 Natural gas (MMcf/day)
 15,471

#### Natural gas marketed production

(MMcf) 5,513,739

# Average output per producing well

Crude oil (bbls.)	2,255
Natural gas (Mcf)	65,456

Coalbed methane (YTD MMcf)	188
Oil Wells	0
Gas Wells	11
Daily Average (MMcf) / Well	1

Heavy oil (YTD BBIs, in thous.)	NA
Wells	NA
Av. Bbls per day	NA
Av. Bbls per well/d	NA

Source: EIA for production and IHS for wells drilled.

# 2006 Latest Available Data

Petroleum reserves as of 12/31/06 (mill. bbls.)

 Crude Oil
 NGL
 Total

 New reserves
 307
 568
 970

 Production
 355
 313
 668

 Production
 355
 313
 668

 Net annual change
 -48
 255
 207

 Proved reserves
 4,871
 3,335
 8,206

Natural gas reserves

as of 12/31/06 (Bcf)

	Associated	Non-	Dry
	Dissolved	Associated	Gas
New reserves	660	10,931	10,937
Production	594	5,370	5,608
Net annual cha	inge 66	5,561	5,329
Proved reserve	s 7,069	58,736	61,836

## Cost of drilling and equipping wells

	Cost/ft.	Cost/	Total Cost
	(\$)	well (\$)	(thous. \$)
Oil	229	1,265,874	5,476,173
Gas	367	3,507,603	26,741,969
Drv	262	1,611,405	2,351,040

## Marginal oil wells

Producing marginal wells	140,644
Crude oil production in bbls. (thous.)	145,308
Crude oil production b/d (thous.)	398

# Marginal natural gas wells

as of 12/31/06

Producing marginal wells 50,964 Natural gas production (MMcf) 583,968

#### Federal onshore mineral lease royalties

	-
Oil	\$ 5,075,123
Gas	\$24,639,763
Total Royalties	\$37,798,496

#### Horizontal wells data

Horizontal wells drilled 2,200

#### Average number of employees

Oil and natural gas extraction	180,803
Refining	21,080
Transportation	19,541
Wholesale	16,636
Retail	67,406
Pipeline construction	22,404
Oilfield machinery	33,724
Total petroleum industry	361.594

Confederate veteran Lyne Taliaferro Barret's Melrose Petroleum Oil Co. brought in the No. 1 Isaac C. Skillern well near Nacodoches, Texas, on Sept. 12, 1866. The Lone Star state's first commercial producer yielded a modest ten barrels per day.

# **U**TAH



OCounties with oil and/or gas production

# **Background Information**

#### Counties

Number of counties	29
With oil and/or gas production	11

# First year of production

Crude oil	1907
Natural gas	1886

# Year and amount of peak production

Crude oil — 42,301 thous. bbls.	1975
Natural gas — 348,140 MMcf	1994

## Deepest producing well (ft.)

Crude oil	20,600
Natural gas	18,607

# Year and depth of deepest well drilled (ft.)

1982	21.874
1002	21,017

#### Cumulative number of total wells drilled as of 12/31/06 (excluding service wells)

Oil wells	6,813	38%
Gas wells	6,040	34%
Dry holes	4,908	28%
Total	17.761	100%

#### Cumulative crude oil wellhead value

\$18,438,149 as of 12/31/06 (thous. \$)

# Cumulative production & new reserves

as of 12/31/00	Crude Oil	NGL (mill. bbls.)	Total	Natural Gas (Bcf)
Reserves	,	1,483	2,963	11,482
Production		385	1,578	6,276

# Value of Oil and Gas

# Average wellhead price

Crude oil (\$/bbl.) \$59.70 Natural gas (\$Mcf) \$ 5.70

# Wellhead value of production (2006, in thous. \$)

Crude oil	\$1,069,227
Natural gas	\$1,983,828
Total	\$3,053,055

# Average natural gas price (2006, \$/Mcf)

Residential consumers	\$ 11.02
Commercial consumers	\$ 9.61
Industrial consumers	\$ 8.02
Electric utilities	NA
City Gate	\$ 8.42

#### Severance taxes paid \$ 77,074

(2006, in thous. \$)

# UTAH

# 2006 Industry Statistics

	Exploratory	Development	Total
Oil	19	287	306
Gas	79	570	649
Dry	27	23	50
Total	125	880	1,005

#### Total footage drilled

thous. ft.)

Exploratory	Development	Total
124.1	1,763.8	1,887.9
659.8	4,794.7	5,454.5
186.8	75.2	262.0
970.8 otals may not add	6,633.6 due to rounding.)	7,604.4
	124.1 659.8 186.8 970.8	124.1 1,763.8 659.8 4,794.7 186.8 75.2

# New-field wildcats drilled 53 Footage (thous. ft.) 404.8

# Average rotary rigs active 4

# Permits 2,127

#### State-wide rank

	Crude Oil	Natural Gas
Wells drilled	21st	19th
Production	13th	11th
Reserves (2005)	11th	9th

# Number of operators 122

# Number of producing wells

(12/31/06)		
Crude oil		2,953
Natural gas		4,781
Total		7,734

# Average production

44
5.4
881

#### Natural gas marketed production

(MMcf)	348,040

# Average output per producing well

Crude oil (bbls.)	5,406
Natural gas (Mcf)	67,272

Coalbed methane (YTD MMcf)	77,632
Oil Wells	2
Gas Wells	865
Daily Average (MMcf) / Well	213

Heavy oil (YTD BBIs, in thous.)	18

Wells	19
Av. Bbls per day	0.5
Av. Bbls per well/d	9,916

Source: EIA for production and IHS for wells drilled.

# 2006 Latest Available Data

# Petroleum reserves

as of 12/31/06 (mill. bbls.)

(	Crude Oil	NGL	Total
New reserves	95	70	165
Production	17	62	79
Net annual chan	ge 78	8	86
Proved reserves	334	887	1,221

# Natural gas reserves

as of 12/31/06 (Bcf)

	Associated	Non-	Dry
	Dissolved	Associated	Gas
New reserves	39	1,166	1,200
Production	30	323	349
Net annual cha	ange 9	843	851
Proved reserve	es 317	4,894	5,146

# Cost of drilling and equipping wells

	Cost/ft.	Cost/	<b>Total Cost</b>
	(\$)	well (\$)	(thous. \$)
Oil	201	1,240,306	379,534
Gas	443	3,721,826	2,415,465
Dry	321	1,681,321	84,066

## Marginal oil wells

Producing marginal wells	1,979
Crude oil production in bbls. (thous.)	4,163
Crude oil production b/d (thous.)	11

# Marginal natural gas wells

as of 12/31/06

Producing marginal wells	2,386
Natural gas production (MMcf)	35,126

## Federal onshore mineral lease royalties

Oil	\$115,262,119
Gas	\$184,611,613
Total Royalties	\$430,783,951

#### Horizontal wells data

izontal wells drilled
-----------------------

# Average number of employees

Oil and natural gas extraction	5,168
Refining	819
Transportation	1,142
Wholesale	910
Retail	9,612
Pipeline construction	400
Oilfield machinery	248
Total petroleum industry	18.299

In 1907, Pat Holohan found oil sand in Washington County and a dozen companies rushed in to drill 14 more. The next year, L.L. Goodridge brought in a gusher at Mexican Hat in San Juan County.



# **Background Information**

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Cou	ıntı	$^{\circ}$
-	יווו וווי	

Number of counties	96
With oil and/or gas production	7

# First year of production

Crude oil	1943
Natural gas	1931

# Year and amount of peak production

Crude oil — 65 thous. bbls.	1983
Natural gas — 102,798 MMcf	2006

## Deepest producing well (ft.)

Crude oil Natural gas 10,134

# Year and depth of deepest well drilled (ft.)

#### Cumulative number of total wells drilled as of 12/31/06 (excluding service wells)

Oil wells	54	1%
Oil wells	54	1 70
Gas wells	4,757	92%
Dry holes	337	7%
Total	5 148	100%

#### Cumulative crude oil wellhead value

\$11,097 as of 12/31/06 (thous. \$)

# Cumulative production & new reserves

as of 12/31/06

	Crude Oil	NGL (mill. bbls.)	Total	Natural Gas (Bcf
Reserves	NA	NA	NA	3,184
Production	NA	NA	NA	1.190

# Value of Oil and Gas

# Average wellhead price

Crude oil (\$/bbl.)	NA
Natural gas (\$Mcf)	NA

# Wellhead value of production (2006, in thous. \$)

Crude oil	NA
Natural gas	NA
Total	NA

# Average natural gas price (2006, \$/Mcf)

Residential consumers	\$16.20
Commercial consumers	\$12.46
Industrial consumers	\$ 9.98
Electric utilities	\$ 7.73
City Gate	\$10.51

# Severance taxes paid

A I		1 111 1
Number	Of WALLS	arillaa

	Exploratory	Development	Total
Oil	NA	NA	NA
Gas	14	531	545
Dry	NA	NA	NA
Total	14	531	545

#### Total footage drilled

	Exploratory	Development	Total
Oil	NA	NA	NA
Gas	80.5	1,422.7	1,503.2
Dry	NA	NA	NA
Total	80.5	1,422.7	1,503.2
(Note: Totals may not add due to rounding.)			

#### New-field wildcats drilled Footage (thous. ft.) 34.1

# Average rotary rigs active

#### Permits 623

#### State-wide rank

	Crude Oil	Natural Gas
Wells drilled	32nd	20th
Production	32nd	17th
Reserves (2006)	NA	17th

# Number of operators\*

# Number of producing wells

(12/31/06)	
Crude oil	NA
Natural gas	5,007
Total	5,007

#### Average production

Crude oil (thous. b/d)	0
NGL (thous. b/d)	0
Natural gas (MMcf/day)	282

#### Natural gas marketed production

(MMcf)	103,027
--------	---------

# Average output per producing well

Crude oil (bbls.)	NA
Natural gas (Mcf)	20,531

#### Coalbed methane (YTD MMcf)

Oil Wells	NA
Gas Wells	NA
Daily Average (MMcf) / Well	NA
Heavy oil (YTD BBIs, in thous.)	NA
Wells	NA
Av. Bbls per day	NA
Av. Bbls per well/d	NA

Source: EIA for production and IHS for wells drilled. \* State Data

2006 Latest Available Data

Petro	leum	reserv	es

as of 12/31/06 (mill. bbls.)

Ci	rude Oil	NGL	Total
New reserves	NA	NA	NA
Production	NA	NA	NA
Net annual change	NA	NA	NA
Proved reserves	NA	NA	NA

# Natural gas reserves

as of 12/31/06 (Bcf)

	ssociated Dissolved	Non- Associated	Dry Gas
New reserves	0	386	386
Production	0	102	102
Net annual change	e 0	284	284
Proved reserves	0	2,302	2,302

# Cost of drilling and equipping wells

	Cost/ft.	Cost/	Total Cost
	(\$)	well (\$)	(thous. \$)
Oil	NA	NA	NA
Gas	115	316,063	172,254
Dry	NA	NA	NA

## Marginal oil wells

Producing marginal wells	NA
Crude oil production in bbls. (thous.)	NA
Crude oil production b/d (thous.)	NA

# Marginal natural gas wells

as of 12/31/06

Producing marginal wells	4,117
Natural gas production (MMcf)	53,268

# Federal onshore mineral lease royalties

-
\$440,161
\$478,497

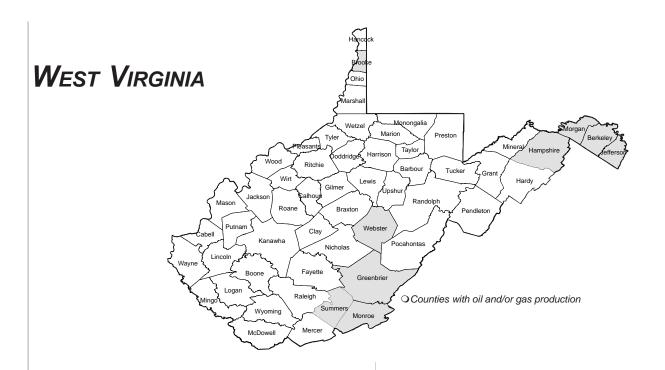
## Horizontal wells data

0

# Average number of employees

Oil and natural gas extraction	1,543
Refining	0
Transportation	1,997
Wholesale	4,900
Retail	33,251
Pipeline construction	1,748
Oilfield machinery	0
Total petroleum industry	43,439

Reporting on the Ruffner brothers wells northwestern Virginia in 1833, the American Journal of Science noted, "The petroleum affords considerable profit and is beginning to be in demand for workshops and manufactories. It affords a clear, brisk light, when burned in this way, and will be a valuable article for lighting the street lamps in the future . . ."



# **Background Information**

#### Counties

Number of counties	55
With oil and/or gas production	46

# First year of production

Crude oil	1860
Natural gas	1885

# Year and amount of peak production

Crude oil — 16,196 thous. bbls.	1900
Natural gas — 264.139 MMcf	2000

## Deepest producing well (ft.)

Crude oil	8,381
Natural gas	17,111

# Year and depth of deepest well drilled (ft.)

#### Cumulative number of total wells drilled as of 12/31/06 (excluding service wells)

Oil wells	13,934	17%
Gas wells	57,058	73%
Dry holes	7,609	10%
Total	78.188	100%

# Cumulative crude oil wellhead value

\$2,804,167 as of 12/31/06 (thous. \$)

# Cumulative production & new reserves

as of 12/31/06

	Crude Oil	NGL (mill. bbls.)	Total	Natural Gas (Bcf)
Reserves	607		1,099	24,446
Production	014	412	1,026	20,091

# Value of Oil and Gas

# Average wellhead price

Crude oil (\$/bbl.)	\$63.07
Natural gas (\$Mcf)	\$7.17

# Wellhead value of production (2006, in thous. \$)

Crude oil	\$ 110,309
Natural gas	\$1,617,050
Total	\$1,727,359

# Average natural gas price (2006, \$/Mcf)

Residential consumers	\$15.74
Commercial consumers	\$14.38
Industrial consumers	\$ 8.98
Electric utilities	\$ 8.03
City Gate	\$ 8.93

# Severance taxes paid

\$84,947

Number	of	wells	drilled	

	Exploratory	Development	Total
Oil	6	71	77
Gas	193	1,502	1,695
Dry	8	11	19
Total	207	1,584	1,791

#### Total footage drilled

thous. ft.)

	Exploratory	Development	Total
Oil	25.0	244.8	269.8
Gas	892.1	6,175.1	7,067.1
Dry	32.0	24.4	56.4
Total	949.0 Totals may not add	6,444.3	7,393.3
(IVOLE. I	otais may not add	due to rounding.)	

# New-field wildcats drilled 36 Footage (thous. ft.) 165.8

# Average rotary rigs active 27

# Permits 2,593

#### State-wide rank

Crude Oil	Natural Gas
16th	3rd
24th	14th
22nd	10th
	16th 24th

# Number of operators 492

# Number of producing wells

(12/31/06)	
Crude oil	2,107
Natural gas	41,364
Total	43,471

#### Average production

Crude oil (thous. b/d)	2
NGL (thous. b/d)	2.3
Natural gas (MMcf/day)	562

#### Natural gas marketed production

(MMcf)	225,530
--------	---------

# Average output per producing well

Crude oil (bbls.)	374
Natural gas (Mcf)	4,957

#### Coalbed methane (YTD MMcf) 1,183

Oil Wells	(
Gas Wells	88
Daily Average (MMcf) / Well	3

Heavy oil (YTD BBIs, in thous.)	NA
Wells	NA

Wells NA
Av. Bbls per day NA
Av. Bbls per well/d NA

Source: EIA for production and IHS for wells drilled.

# 2006 Latest Available Data

# Petroleum reserves

as of 12/31/06 (mill. bbls.)

C	rude Oil	NGL	Total
New reserves	4	30	34
Production	2	5	7
Net annual change	2	25	27
Proved reserves	23	110	133

#### Natural gas reserves

as of 12/31/06 (Bcf)

ı	Associated Dissolved	Non- Associated	Dry Gas
New reserves	-2	277	237
Production	1	192	187
Net annual chang	je -3	85	50
Proved reserves	16	4,638	4,509

# Cost of drilling and equipping wells

	Cost/ft.	Cost/	Total Cost
	(\$)	well (\$)	(thous. \$)
Oil	89	311,421	23,979
Gas	87	361,116	612,092
Dry	140	415,749	7,899

## Marginal oil wells

Producing marginal wells	1,689
Crude oil production in bbls. (thous.)	463
Crude oil production b/d (thous.)	1

# Marginal natural gas wells

as of 12/31/06

Producing marginal wells	40,544
Natural gas production (MMcf)	167,499

#### Federal onshore mineral lease royalties

Oil	\$ 996
Gas	\$ 709,959
Total Royalties	\$ 981,725

# Horizontal wells data

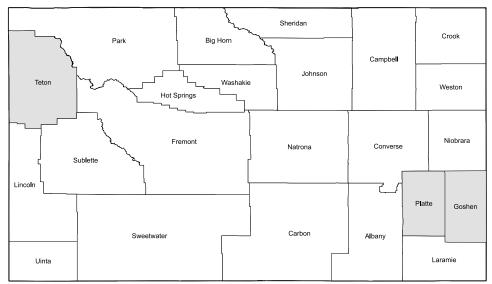
Horizontal wel	lls drilled	

#### Average number of employees

Oil and natural gas extraction	4,493
Refining	900
Transportation	2,297
Wholesale	1,042
Retail	9,233
Pipeline construction	826
Oilfield machinery	0
Total petroleum industry	18,791

Confederate Gen. William "Grumble"
Jones attacked Burning Springs on May 9, 1863.
Jones reported, "All the oil, the tanks, barrels, engines for pumping, engine-houses, and wagons—in a word, everything used for raising, holding, or sending it off was burned."

# WYOMING



O Counties with oil and/or gas production

# **Background Information**

#### Counties

Number of counties	23
With oil and/or gas production	20

#### First year of production

Crude oil	1894
Natural gas	1889

# Year and amount of peak production

Crude oil — 160,345 thous. bbls.	1970
Natural gas — 1.948.640 MMcf	2005

#### Deepest producing well (ft.)

Crude oil	17,750
Natural gas	25,175

# Year and depth of deepest well drilled (ft.)

2001	25,830

#### Cumulative number of total wells drilled as of 12/31/06 (excluding service wells)

Oil wells	33,311	33%
Gas wells	38,559	38%
Dry holes	29,858	29%
Total	101 728	100%

#### Cumulative crude oil wellhead value

\$70,085,007 as of 12/31/06 (thous. \$)

# Cumulative production & new reserves

as of 12/31/06

# Value of Oil and Gas

# Average wellhead price

Crude oil (\$/bbl.) \$53.25 Natural gas (\$Mcf) \$ 5.85

# Wellhead value of production (2006, in thous. \$)

Crude oil \$ 2,817,138 Natural gas \$10,624,776 \$13,441,914 Total

# Average natural gas price (2006, \$/Mcf)

Residential consumers \$11.60 Commercial consumers \$10.30 Industrial consumers \$ 8.90 Electric utilities NA \$ 7.20 City Gate

Severance taxes paid \$660,461

(2006, in thous. \$)

N I	L	- 4			11
Num	per	OI	wells	s arıı	ıea

	Exploratory	Development	Total
Oil	19	231	250
Gas	46	3,711	3,757
Dry	45	82	127
Total	110	4,024	4,134

#### Total footage drilled

(thous ft )

	Exploratory	Development	Total
Oil	187.8	1,385.4	1,573.2
Gas	501.8	14,476.0	14,977.8
Dry	320.0	349.3	669.2
Total	1,009.6	16,210.6	17,220.2
(Note: T	otals mav not add	due to rounding.)	

New-field wildcats drilled 68 Footage (thous. ft.) 594.6

Average rotary rigs active 99

Permits 5,542

#### State-wide rank

Crude Oil	Natural gas
9th	6th
8th	3rd
5th	2nd
	9th 8th

#### Number of operators 463

# Number of producing wells

 (12/31/06)

 Crude oil
 12,813

 Natural gas
 29,875

 Total
 42,688

#### Average production

 Crude oil (thous. b/d)
 116

 NGL (thous. b/d)
 29.5

 Natural gas (MMcf/day)
 5,339

#### Natural gas marketed production

(MMcf) 1,816,201

# Average output per producing well

Crude oil (bbls.) 3,300 Natural gas (Mcf) 65,226

# Coalbed methane (YTD MMcf) 385,031

 Oil Wells
 3

 Gas Wells
 19,879

 Daily Average (MMcf) / Well
 1,055

Heavy oil (YTD BBIs, in thous.) 10,974 Wells 2,047

 Veils
 2,047

 Av. Bbls per day
 30.1

 Av. Bbls per well/d
 5,361

Source: EIA for production and IHS for wells drilled.

# 2006 Latest Available Data

# Petroleum reserves

as of 12/31/06 (mill. bbls.)

(	Crude Oil	NGL	Total
New reserves	45	70	115
Production	43	62	105
Net annual change	2	8	10
Proved reserves	706	887	1,593

#### Natural gas reserves

as of 12/31/06 (Bcf)

A	Associated	l Non-	Dry
	Dissolved	Associated	Gas
New reserves	10	1,492	1,470
Production	47	1,714	1,695
Net annual chang	ge -37	-222	-225
Proved reserves	347	24,116	23,549

# Cost of drilling and equipping wells

	Cost/ft.	Cost/	<b>Total Cost</b>
	(\$)	well (\$)	(thous. \$)
Oil	394	2,479,171	619,793
Gas	556	2,217,858	8,332,491
Dry	351	1,850,028	234,954

## Marginal oil wells

Producing marginal wells	10,520
Crude oil production in bbls. (thous.)	13,316
Crude oil production b/d (thous.)	36

#### Marginal natural gas wells

as of 12/31/06

Producing marginal wells	18,043
Natural gas production (MMcf)	187,793

#### Federal onshore mineral lease royalties

Oil	\$ 230,457,579
Gas	\$1,056,668,685
Total Royalties	\$2,206,279,983

# Horizontal wells data

Horizontal wells drilled	60

#### Average number of employees

Oil and natural gas extraction	17,523
Refining	861
Transportation	909
Wholesale	743
Retail	4,052
Pipeline construction	3,823
Oilfield machinery	149
Total petroleum industry	28.060

In 1832, Captain B. L. E. Bonneville took the first wagons through South Pass and recorded the presence of oil. Fifty years later, prospector Mike Murphy, bought an oil lease on the site of Capt. Bonneville's "great tar spring" southeast of Lander.

# ROTARY RIGS OPERATING

	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
Alabama	4	6	6	4	5	3	3	3	4	5
Alaska	11	12	5	8	13	11	10	10	9	8
Arizona	0	0	0	0	0	0	0	0	0	0
Arkansas	10	6	3	4	2	1	2	6	9	24
California Colorado Florida Illinois	32 16 0	28 13 0 0	19 13 0 0	24 18 0 0	36 32 0 0	23 28 0 0	22 39 1 0	24 54 1 0	27 74 2 0	33 89 0 0
Indiana	0	0	0	0	0	0	0	0	0	0
Kansas	19	13	7	22	23	8	9	7	7	10
Kentucky	5	3	6	5	6	5	4	5	5	7
Louisiana	194	187	141	194	214	163	157	167	182	188
Michigan	6	5	2	3	1	1	3	3	3	2
Mississippi	13	14	7	11	14	8	8	10	10	10
Montana	11	9	4	7	10	8	14	20	24	22
Nebraska	1	1	0	1	0	0	0	1	0	0
Nevada	0	0	0	0	0	0	1	2	2	1
New Mexico	53	45	36	68	68	42	65	67	83	94
New York	1	2	3	3	5	4	3	5	4	6
North Dakota	18	11	6	13	14	10	14	15	21	32
Ohio	9	10	11	9	10	9	8	7	9	8
Oklahoma	104	85	62	99	130	91	129	159	152	179
Oregon	0	0	0	0	0	0	0	0	0	0
Pennsylvania	10	11	8	9	11	11	10	9	13	16
South Dakota	1	0	1	0	1	0	0	1	2	1
Texas	358	303	227	343	462	338	449	506	614	746
Utah	14	12	9	16	21	13	14	22	28	40
Virginia	2	2	5	2	2	2	1	1	2	1
West Virginia	15	14	14	14	18	13	16	15	17	27
Wyoming	39	38	32	41	55	40	54	74	78	99
Other	1	1	0	0	2	1	1	0	1	NA
TOTAL U.S.	943	827	625	918	1,156	830	1,032	1,192	1,381	1,649
ONSHORE	820	703	517	779	1,002	716	923	1,095	1,287	1,561
OFFSHORE	123	124	107	139	154	114	109	97	94	88

Source: Baker-Hughes.

# NEW-FIELD WILDCAT WELLS DRILLED

# NEW-FIELD WILDCAT WELLS DRILLED

	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
Alabama	28	18	19	17	19	16	17	22	17	24
Alaska	11	12	5	8	10	10	9	8	0	5
Arizona	3	7	0	0	0	10	9	8	4	1
Arkansas	22	15	13	13	18	10	10	20	13	55
California	35	22	32	42	42	29	26	31	30	13
Colorado	77	60	49	42	71	40	49	64	136	101
Florida	0	0	0	0	0	0	0	0	2	0
Georgia	0	1	0	0	1	0	0	0	0	0
Illinois	57	23	13	20	36	17	33	31	33	31
Indiana	28	9	7	5	19	10	17	20	20	32
Iowa	0	0	0	0	1	0	0	0	0	0
Kansas	188	120	82	147	215	155	160	180	227	277
Kentucky	34	18	16	26	87	84	123	151	124	239
Louisiana	95	80	76	83	63	74	61	59	59	51
Maryland	0	0	0	0	0	0	0	0	0	0
Michigan	57	40	22	20	19	24	19	23	17	28
Mississippi	31	29	29	25	28	38	33	29	33	30
Missouri	1	1	3	1	3	2	0	0	0	0
Montana	69	67	45	56	90	95	121	159	168	138
Nebraska	23	14	9	15	12	14	15	16	18	20
Nevada	10	6	1	3	3	2	3	3	5	1
New Mexico	48	40	38	44	58	32	61	77	45	65
New York	1	9	16	22	39	35	25	47	2	13
North Carolina	0	2	0	0	0	0	0	0	0	0
North Dakota	49	28	16	19	19	9	4	25	45	104
Ohio	9	21	1	0	5	6	4	2	13	16
Oklahoma	100	63	57	65	102	69	97	102	110	181
Oregon	0	1	0	0	0	0	0	0	0	0
Pennsylvania	2	2	5	4	23	15	37	67	142	217
South Dakota	8	5	1	1	1	6	5	1	6	4
Tennessee	4	4	8	9	11	23	42	25	33	79
Texas	538	581	453	517	432	345	434	476	464	387
Utah	15	23	15	6	20	30	12	22	32	53
Virginia	1	0	1	7	4	8	7	1	2	6
Washington	1	1	1	1	1	0	0	0	0	0
West Virginia	1	3	5	10	32	29	18	28	23	36
Wyoming	155	107	89	77	78	74	85	86	80	68
Federal Offshor	re 61	54 <b>1,487</b>	66 <b>1,193</b>	106 <b>1,411</b>	106 <b>1,668</b>	70 <b>1,372</b>	83 <b>1,610</b>	81 <b>1,857</b>	158 <b>1,936</b>	146 <b>2,275</b>
	•	-	•	•	•	-	•	•	•	•

Note: Data include oil wells, gas wells, and dry holes and may not total due to Federal Offshore data duplication.

# **EXPLORATORY WELLS DRILLED**

# EXPLORATORY WELLS DRILLED

	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
Alabama	30	19	20	17	22	17	23	36	27	33
Alaska	12	13	5	8	14	17	11	13	18	11
Arizona	3	7	0	1	0	1	0	1	4	1
Arkansas	24	15	13	14	23	10	12	26	35	78
California	71	66	67	80	90	64	50	60	62	30
Colorado	115	135	104	88	137	57	82	100	204	158
Florida	0	0	0	0	0	0	0	0	2	0
Georgia	0	1	0	0	1	0	0	0	0	0
Iowa	0	0	0	0	1	0	0	0	0	0
Illinois	118	75	37	51	47	33	46	47	45	67
Indiana	69	33	20	10	19	12	37	24	35	45
Kansas	295	190	148	251	400	281	292	345	416	452
Kentucky	80	63	46	58	121	125	173	269	269	489
Louisiana	106	92	85	87	64	83	72	73	70	64
Maryland	0	0	0	0	0	0	0	0	0	0
Michigan	60	44	30	23	25	30	23	27	23	34
Mississippi	43	30	31	33	33	43	41	33	44	40
Missouri	1	1	3	1	3	2	0	0	0	0
Montana	106	119	65	100	177	156	187	248	287	255
Nebraska	38	18	17	30	19	17	22	18	29	31
Nevada	11	7	1	3	4	_2	3	3	5	1
New Mexico	143	128	104	95	115	75	98	103	94	114
New York	4	11	18	26	46	38	32	59	27	15
North Carolina	0	2	0	0	0	0	0	0	0	0
North Dakota	132	88	41	51	52	22	23	53	73	165
Ohio	83	55	25	26	35	27	22	24	38	47
Oklahoma	153	86	67	103	188	109	209	251	276	324
Oregon	0	2	5	0	0	0	0	0	0	0
Pennsylvania	2	7	13	10	31	29	70	206	436	649
South Dakota	11	7	2	1	2	6	5	4	7	4
Tennessee	16	11	12	21	16	26	54	56	71	117
Texas	1,228	1,033	789	848	1,000	706	786	762	732	688
Utah	35	45	23	19	72	41	35	47	68	125
Virginia	1	1	1	9	5	14	10	2	6	14
Washington	1	1	1	0	1	0	0	0	0	0
West Virginia	8	11	18	28	76	88	41	144	196	207
Wyoming	195	180	143	142	178	151	143	126	130	110
Federal Offshor	<b>e</b> 62	74	78	106	106	70	83	81	166	155
TOTAL U.S.	3,266	2,670	2,032	2,340	3,123	2,352	2,685	3,241	3,729	4,368

Source: IHS.

Note: Data include oil wells, gas wells, and dry holes and may not total due to Federal Offshore data duplication.

# DEVELOPMENT WELLS DRILLED

	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
Alabama	94	168	205	152	346	246	371	405	416	407
Alaska	158	200	94	128	164	179	165	193	155	121
Arizona	0	0	1	0	0	0	0	0	0	0
Arkansas	215	177	136	155	227	144	216	278	299	417
California	2,431	2,134	1,478	2,113	2,181	1,925	1,928	2,161	2,234	2,464
Colorado	677	720	636	955	1,392	1,332	1,511	1,892	2,506	2,845
Florida	4	1	0	4	0	1	0	0	1	0
Illinois	456	339	213	328	367	289	308	277	379	411
Indiana	76	55	34	53	117	81	145	125	128	72
Kansas	1,414	728	497	911	1,099	902	1,339	1,542	1,867	2,709
Kentucky	685	587	601	729	865	891	752	573	680	805
Louisiana	1,249	1,098	757	1,031	1,217	790	1,003	1,188	1,381	1,569
Maryland	0	0	1	0	0	0	0	0	0	0
Michigan	610	540	298	374	414	337	353	403	505	524
Mississippi	151	159	86	192	242	168	240	237	255	253
Missouri	1	1	5	14	6	0	1	0	0	0
Montana	345	242	383	418	406	388	644	504	682	863
Nebraska	44	14	3	11	13	14	16	32	46	34
Nevada	4	4	1	1	3	2	0	0	0	0
New Mexico	1,169	1,097	935	1,461	1,574	1,200	1,526	1,686	1,812	1,914
New York	60	54	69	70	77	54	46	77	133	227
North Dakota	186	145	42	121	158	154	199	168	227	322
Ohio	697	517	495	547	690	493	493	525	539	637
Oklahoma	2,172	1,847	1,582	2,176	2,982	2,351	2,783	2,884	3,248	3,671
Oregon	0	5	5	0	0	0	0	0	0	0
Pennsylvania	1,245	1,502	1,362	1,591	2,232	2,183	2,505	2,290	2,908	3,611
South Dakota	6	3	4	10	9	6	3	8	34	21
Tennessee	67	98	109	165	103	81	198	146	163	168
Texas	9,276	7,012	4,697	6,931	8,052	6,534	8,592	9,522	10,800	12,272
Utah	376	455	237	414	549	383	381	554	709	880
Virginia	263	221	278	245	304	291	358	361	318	531
Washington	0	0	0	0	0	0	0	2	0	0
West Virginia	709	764	670	653	887	870	974	1,081	1,212	1,584
Wyoming	1,025	1,075	2,438	4,744	5,331	3,045	2,768	3,717	4,330	4,024
Federal Offsho	re 1,035	893	794	939	952	612	630	615	551	483
TOTAL U.S.	25,987	22,076	18,506	26,843	32,184	25,454	29,923	32,945	37,967	43,805

Source: IHS.

Note: Data include oil wells, gas wells, and dry holes and may not total due to Federal Offshore data duplication.

# TOTAL WELLS DRILLED

# TOTAL WELLS DRILLED

	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
Alabama	124	187	225	169	368	263	394	441	443	440
Alaska	170	213	99	136	178	196	176	206	173	132
Arizona	3	7	1	1	0	1	0	1	4	1
Arkansas	239	192	149	169	250	154	228	304	334	495
California	2,502	2,200	1,545	2,193	2,271	1,989	1978	2,221	2,296	2,494
Colorado	792	855	740	1,043	1,529	1,389	1,593	1,992	2,710	3,003
Florida	4	1	0	4	0	1	0	0	3	0
Georgia	0	1	0	0	1	0	0	0	0	0
Illinois	574	414	250	379	414	322	354	324	424	478
Indiana	145	88	54	63	136	93	182	149	163	117
Iowa	0	0	0	0	1	0	0	0	0	0
Kansas	1,709	918	645	1,162	1,499	1,183	1,631	1,887	2,283	3,161
Kentucky	765	650	647	787	986	1,016	925	842	949	1,294
Louisiana	1,355	1,190	842	1,118	1,281	873	1,075	1,261	1,451	1,633
Maryland	0	0	1	0	0	0	0	0	0	0
Michigan	670	584	328	397	439	367	376	430	528	558
Mississippi	194	189	117	225	275	211	281	270	299	293
Missouri	2	2	8	15	9	2	1	0	0	0
Montana	451	361	448	518	583	544	831	752	969	1,118
Nebraska	82	32	20	41	32	31	38	50	75	65
Nevada	15	11	2	4	7	4	3	3	5	1
New Mexico	1,312	1,225	1,039	1,556	1,689	1,275	1,624	1,789	1,906	2,028
New York	64	65	87	96	123	92	78	136	160	242
North Carolina	0	2	0	0	0	0	0	0	0	0
North Dakota	318	233	83	172	210	176	222	221	300	487
Ohio	780	572	520	573	725	520	515	549	577	684
Oklahoma	2,325	1,933	1,649	2,279	3,170	2,460	2,992	3,135	3,524	3,995
Oregon	0	7	10	0	0	0	0	0	0	0
Pennsylvania	1,247	1,509	1,375	1,601	2,263	2,212	2,575	2,496	3,344	4,260
South Dakota	17	10	6	11	11	12	8	12	41	25
Tennessee	83	109	121	186	119	107	252	202	234	285
Texas	10,514	8,045	5,486	7,779	9,052	7,240	9,378	10,284	11,532	13,409
Utah	411	500	260	433	621	424	416	601	777	1,005
Virginia	264	222	279	254	309	305	368	363	324	545
Washington	1	1	1	0	1	0	0	2	0	0
West Virginia	717	775	688	681	963	958	1,015	1,225	1,408	1,791
Wyoming	1,220	1,255	2,581	4,886	5,509	3,196	2,911	3,843	4,460	4,134
Federal Offsho		1,078	971	1,135	1,158	758	807	786	716	638
TOTAL U.S.	30,306	25,636	21,277	30,066	36,182	28,374	33,227	36,777	41,696	48,173

Source: IHS.

Note: Data include oil wells, gas wells, and dry holes and may not total due to Federal Offshore data duplication.

# PRODUCING CRUDE WELLS

	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
Alabama	564	549	521	502	494	481	485	502	557	493
Alaska	2,229	2,349	2,256	2,243	2,304	2,310	2,283	2,384	2,505	2,465
Arizona	27	29	30	28	27	24	24	21	23	25
Arkansas	2,553	2,352	2,167	2,244	5,498	4,385	2,718	2,143	2,138	2,505
California	45,731	46,267	45,293	46,654	47,148	46,811	47,060	47,666	48,239	49,705
Colorado	5,519	5,370	5,305	5,400	5,322	5,272	5,133	5,140	5,088	5,049
Florida	107	99	88	79	73	72	96	67	76	65
Kansas	47,594	45,683	42,539	42,358	41,774	41,629	41,261	40,167	40,024	40,349
Louisiana	20199	19,290	18,300	19,604	18,530	17,996	17,991	17,569	17,463	17,999
Michigan	958	2,519	2,631	3,688	3,845	3,672	3,790	3,761	3,887	3,847
Mississippi	1,854	1,796	1,715	1,742	1,768	1,616	1,664	1,685	1,647	1,788
Montana	3,823	3,735	3,617	3,741	4,409	3,662	3,713	3,918	4,052	4,272
Nebraska	1,493	1,424	1,269	1,270	1,250	1,224	1,222	1,224	1,211	1,229
Nevada	80	75	70	69	69	71	71	68	71	68
New Mexico	18,452	18517	18,189	18,809	19,512	19,420	19,652	20,034	20,553	21,219
New York	NA	NA	NA	NA	10	NA	2,417	2,406	2,053	2,395
North Dakota	3,572	3,483	3,391	3,418	3,481	4,224	3,519	3,779	3,506	3,512
Ohio	16,866	16,222	15,443	16,760	17,277	17,529	17,165	17,147	17,436	17,867
Oklahoma	69,172	66,986	64,254	61,074	60,923	58,088	53,530	52,326	51,869	54,408
South Dakota	157	148	143	144	144	143	143	145	162	153
Texas	179,250	175,147	166,711	163,487	161,943	158,410	154,932	152,693	152,045	153,455
Utah	2,242	2,201	2,112	2,142	2,201	2,163	2,217	2,433	2,685	2,953
West Virginia	2,041	1,895	1,558	1,263	1,708	2,188	1,469	2,099	2,115	2,107
Wyoming	12,096	11,775	11,599	11,910	11,921	11,716	11,688	11,743	12,147	12,813
Federal Offsho	ore 4,571	4,405	4,256	4,240	4,235	4,127	3,957	3,840	3,631	3,146

TOTAL U.S. 441,150 432,316 413,457 412,869 415,866 407,233 398,200 394,960 395,183 403,887

Source: IHS.

# PRODUCING NATURAL GAS WELLS

	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
Alabama	3,362	3,469	3,497	3,698	3,891	4,130	4,460	4,784	5,122	5,523
Arizona	8	7	7	7	7	8	6	7	4	5
Arkansas	3,068	3,117	3,073	3,336	3,454	3,510	3,704	3,959	4,298	4,481
California	1,447	1,287	1,309	1,359	1,484	1,416	1,467	1,497	1,579	1,715
Colorado	13,342	13,541	16,040	16,824	18,137	19,280	20,821	22,693	25,570	28,407
Kansas	15,757	15,789	15,781	18,069	16,684	17,827	16,998	17,740	18,417	19,891
Kentucky	9,045	9,598	9,859	10,225	10,541	11,038	11,510	12,298	11,754	12,771
Louisiana	13,862	13,931	13,889	13,907	8,405	8,250	8,367	8,734	9,385	10,679
Michigan	6,237	6,992	7,152	7,234	7,642	7,957	8,282	8,524	9,009	9,444
Mississippi	640	648	665	765	913	992	1,151	1,284	1,469	1,574
Montana	3,389	3,531	3,862	4,115	4,419	4,603	4,864	5,299	5,716	6,200
Nebraska	90	100	108	99	102	104	108	112	115	117
New Mexico	21,010	21,512	22,225	23,213	24,506	25,454	26,687	28,160	29,723	31,246
New York	5,601	5,638	5,722	5,713	6,120	5,544	6,517	6,707	6,661	6,764
North Dakota	87	83	82	92	100	97	111	133	208	371
Ohio	22,568	21,619	20,661	22,011	22,585	22,426	22,613	22,212	22,151	23,123
Oklahoma	24,094	24,633	25,200	26,297	27,829	29,077	30,551	32,214	34,081	36,358
Oregon	20	20	21	18	18	16	16	16	14	13
South Dakota	58	56	56	58	58	58	58	60	60	62
Texas	57,692	59,072	59,760	61,388	64,760	66,747	70,056	74,550	79,879	86,272
Utah	1,591	1,812	2,060	2,353	2,792	3,118	3,392	3,715	4,171	4,781
West Virginia	38,283	40,298	39,429	29,977	39,465	40,846	39,763	41,309	44,172	41,364
Wyoming	5,467	6,119	7,470	11,115	15,705	19,269	21,099	23,749	26,475	29,875
Federal Offsho	re 4,789	4,645	4,606	4,628	4,672	4,374	4,277	4,137	3,878	3,367

TOTAL U.S. 251,507 257,517 262,534 266,501 284,289 296,141 306,878 323,893 344,095 369,410

Source: IHS. Data not available for certain states.

<sup>\*</sup>Alaska is not included as produced natural gas is re-injected in order to maintain reservoir pressure.

# CRUDE OIL PRODUCTION

(thous. bbls.)	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
Alabama	8,787	7,453	6,406	5,983	5,415	5,163	4,970	4,662	5,197	5,276
Alaska	472,957	429,232	383,199	355,149	351,466	359,496	362,371	335,740	335,740	269,150
Arizona	79	74	62	55	58	61	45	50	48	53
Arkansas	7,878	7,093	6,187	6,454	6,873	6,470	6,586	5,845	5,388	5,292
California	285,047	284,232	273,222	271,027	260,545	255,195	247,393	239,485	228,811	222,874
Colorado	17,990	16,668	13,971	13,884	13,209	12,771	12,682	12,014	11,764	11,357
Florida	6,262	5,938	4,888	4,624	4,406	3,644	3,263	2,875	2,585	2,349
Illinois	13,514	12,807	11,274	10,906	10,198	11,127	11,707	10,699	8,899	10,324
Indiana	2,399	2,179	1,962	2,035	2,073	1,969	1,870	1,729	1,595	1,714
Kansas	41,211	36,644	34,084	34,238	33,957	33,056	33,711	33,802	33,897	35,621
Kentucky	1,587	1,372	1,459	1,545	1,490	1,381	1,347	1,210	1,215	1,181
Louisiana	94,694	90,606	80,263	75,860	71,204	60,626	58,658	56,983	50,835	49,443
Michigan	6,395	7,360	6,846	7,502	7,070	6,583	6,230	5,763	5,744	5,686
Mississippi	19,648	19,620	16,389	18,564	18,040	16,781	15,678	15,635	16,402	16,103
Montana	16,254	16,688	15,346	15,719	16,172	16,940	19,309	24,674	32,655	36,027
Nebraska	3,315	3,166	2,666	2,953	2,911	2,746	2,810	2,520	2,405	2,297
Nevada	974	799	706	621	571	553	492	463	446	426
New Mexico	67,926	63,591	59,667	61,659	60,957	58,293	57,004	56,723	54,530	53,661
New York	0	0	0	0	0	0	94	110	92	188
North Dakota	35,334	35,071	32,360	32,042	30,653	29,876	28,413	30,142	34,092	36,763
Ohio	5,842	5,163	4,563	4,935	5,532	4,917	4,521	4,264	4,250	4,372
Oklahoma	75,990	71,992	65,297	62,930	61,248	58,543	56,770	54,899	52,288	53,947
Oregon	0	0	0	0	0	0	0	0	0	0
South Dakota	1,335	1,208	1,100	1,162	1,246	1,209	1,239	1,356	1,415	1,394
Texas	490,861	459,255	408,993	400,930	380,943	365,891	359,907	351,459	347,614	346,079
Utah	17,085	17,042	14,560	14,156	13,913	12,610	12,089	13,718	15,298	15,965
West Virginia	691	627	533	538	706	571	768	586	676	788
Wyoming	64,279	58,893	52,901	52,987	48,963	46,020	43,174	41,689	41,452	42,287
Federal Offshore	<b>e</b> 394,332	415,456	454,621	470,192	473,252	496,663	505,364	476,795	427,167	431,321
TOTAL U.S. 2	2,152,667	2,070,229 1	,953,5241	,928,649 1	,883,071	1,869,155 1	1,858,4651	,785,890	1,700,805	1,661,939
DAILY AVG.	6,452	6,252	5,881	5,822	5,801	5,746	5,681	5,419	5,178	4,553

Source: IHS. Notes: Daily Average derived from EIA data.

# NATURAL GAS PRODUCTION

1998 1999	2000	2001 2002	2003	2004	2005	2006
428,112 415,442 404 333 152,174 146,407 78,588 90,546	281 149,085 14	239 236 9,662 147,897	355,701 183 153,236 83,695	324,437 218 170,222 75,362	301,634 154 182,452 81,952	290,530 522 192,991 90,504
673,310 706,407 612,428 574,048 72,949 75,096 1,387,931 1,310,820	528,307 49 76,073 7	0,685 464,540 7,031 81,344	997,085 431,149 83,452 1,252,126	1,062,396 405,594 85,668 1,266,290	386,067 79,419	378,032 85,840
247,144 227,506 119,764 120,227 52,105 55,197 1,209 1,021	110,869 13	2,500 142,950	178,082 157,847 78,092 1,183	170,023 170,157 87,046 1,217	161,614 183,103 91,456 939	159,295 206,269 93,199 898
1,400,987 1,454,198 17,034 17,148 16,108 13,732 87,785 74,411	18,476 30 12,896 14	0,181 36,252 4,744 14,485	1,375,603 35,725 12,823 68,428	1,372,580 45,785 13,329 66,562	1,358,029 53,535 13,150 60,451	1,352,226 39,741 17,216 62,021
1,417,037 1,393,706 1,263 1,555 760 685 4,854,011 4,715,593	1,596 598	1,115 840 538 510	734 523	468 509	457 428	1,557,944 624 438 5,647,050
253,950 239,524 172,312 218,565 1,045,758 1,118,077 4,406,420 4,316,714	161,940 19 1,266,885 1,39	0,798 194,328 0,353 1,539,308	257,510 183,091 1,636,903 3,715,894	264,789 195,084 1,735,410 3,355,752	281,368 215,145 1,839,625 2,594,879	321,626 205,051 1,948,640 2,376,086
	428,112 415,442 404 333 152,174 146,407 78,588 90,546 673,310 706,407 612,428 574,048 72,949 75,096 1,387,931 1,310,820 247,144 227,506 119,764 120,227 52,105 55,197 1,209 1,021 1,400,987 1,454,198 17,034 17,148 16,108 13,732 87,785 74,411 1,417,037 1,393,706 1,263 1,555 760 685 4,854,011 4,715,593 253,950 239,524 172,312 218,565 1,045,758 1,118,077	428,112 415,442 396,775 38 404 333 281 152,174 146,407 149,085 149 78,588 90,546 86,347 89 673,310 706,407 758,839 803 612,428 574,048 528,307 499 72,949 75,096 76,073 77 1,387,931 1,310,820 1,322,815 1,37 247,144 227,506 215,038 203 119,764 120,227 110,869 133 52,105 55,197 64,740 74 1,209 1,021 861 17,034 17,148 18,476 30 17,040,987 1,454,198 1,461,998 1,461 17,034 17,148 18,476 30 17,040,987 1,454,198 1,461,998 1,461 17,037 1,393,706 1,433,317 1,448 18,476 30 18,480,987 1,461,988 18,480,988 18,54,011 4,715,593 4,869,777 4,940 18,480,988 18,54,011 4,715,593 4,869,777 4,940 18,480,988 18,54,011 4,715,593 4,869,777 4,940 18,480,988 18,54,011 4,715,593 4,869,777 4,940 18,680,988	428,112 415,442 396,775 381,831 370,977 404 333 281 239 236 152,174 146,407 149,085 149,662 147,897 78,588 90,546 86,347 89,748 78,277 673,310 706,407 758,839 803,229 912,289 612,428 574,048 528,307 490,685 464,540 72,949 75,096 76,073 77,031 81,344 1,387,931 1,310,820 1,322,815 1,371,071 1,261,846 247,144 227,506 215,038 203,038 192,482 119,764 120,227 110,869 132,500 142,950 52,105 55,197 64,740 74,416 79,235 1,209 1,021 861 871 894 1,400,987 1,454,198 1,461,998 1,466,020 1,412,648 17,034 17,148 18,476 30,181 36,252 16,108 13,732 12,896 14,744 14,485 87,785 74,411 74,125 72,225 70,426 1,417,037 1,393,706 1,433,317 1,448,236 1,396,439 1,263 1,555 1,596 1,115 840 760 685 598 538 510 4,854,011 4,715,593 4,869,777 4,940,417 4,886,656 253,950 239,524 244,989 265,032 260,714 172,312 218,565 161,940 190,798 194,328 1,045,758 1,118,077 1,266,885 1,390,353 1,539,308	428,112 415,442 396,775 381,831 370,977 355,701 404 333 281 239 236 183 152,174 146,407 149,085 149,662 147,897 153,236 78,588 90,546 86,347 89,748 78,277 83,695 673,310 706,407 758,839 803,229 912,289 997,085 612,428 574,048 528,307 490,685 464,540 431,149 72,949 75,096 76,073 77,031 81,344 83,452 1,387,931 1,310,820 1,322,815 1,371,071 1,261,846 1,252,126 247,144 227,506 215,038 203,038 192,482 178,082 119,764 120,227 110,869 132,500 142,950 157,847 52,105 55,197 64,740 74,416 79,235 78,092 1,209 1,021 861 871 894 1,183 1,400,987 1,454,198 1,461,998 1,466,020 1,412,648 1,375,603 17,034 17,148 18,476 30,181 36,252 35,725 16,108 13,732 12,896 14,744 14,485 12,823 87,785 74,411 74,125 72,225 70,426 68,428 1,417,037 1,393,706 1,433,317 1,448,236 1,396,439 1,412,925 1,263 1,555 1,596 1,115 840 734 760 685 598 538 510 523 4,854,011 4,715,593 4,869,777 4,940,417 4,886,656 4,962,056 253,950 239,524 244,989 265,032 260,714 257,510 172,312 218,565 161,940 190,798 194,328 183,091 1,045,758 1,118,077 1,266,885 1,390,353 1,539,308 1,636,903	428,112 415,442 396,775 381,831 370,977 355,701 324,437 404 333 281 239 236 183 218 152,174 146,407 149,085 149,662 147,897 153,236 170,222 78,588 90,546 86,347 89,748 78,277 83,695 75,362 673,310 706,407 758,839 803,229 912,289 997,085 1,062,396 612,428 574,048 528,307 490,685 464,540 431,149 405,594 72,949 75,096 76,073 77,031 81,344 83,452 85,668 1,387,931 1,310,820 1,322,815 1,371,071 1,261,846 1,252,126 1,266,290 247,144 227,506 215,038 203,038 192,482 178,082 170,023 119,764 120,227 110,869 132,500 142,950 157,847 170,157 52,105 55,197 64,740 74,416 79,235 78,092 87,046 1,209 1,021 861 871 894 1,183 1,217 1,400,987 1,454,198 1,461,998 1,466,020 1,412,648 1,375,603 1,372,580 17,034 17,148 18,476 30,181 36,252 35,725 45,785 16,108 13,732 12,896 14,744 14,485 12,823 13,329 87,785 74,411 74,125 72,225 70,426 68,428 66,562 1,417,037 1,393,706 1,433,317 1,448,236 1,396,439 1,412,925 1,446,878 1,263 1,555 1,596 1,115 840 734 468 760 685 598 538 510 523 509 4,854,011 4,715,593 4,869,777 4,940,417 4,886,656 4,962,056 5,072,699 253,950 239,524 244,989 265,032 260,714 257,510 264,789 172,312 218,565 161,940 190,798 194,328 183,091 195,084 1,045,758 1,118,077 1,266,885 1,390,353 1,539,308 1,636,903 1,735,410	428,112 415,442 396,775 381,831 370,977 355,701 324,437 301,634 404 333 281 239 236 183 218 154 152,174 146,407 149,085 149,662 147,897 153,236 170,222 182,452 78,588 90,546 86,347 89,748 78,277 83,695 75,362 81,952 673,310 706,407 758,839 803,229 912,289 997,085 1,062,396 1,120,614 612,428 574,048 528,307 490,685 464,540 431,149 405,594 386,067 72,949 75,096 76,073 77,031 81,344 83,452 85,668 79,419 1,387,931 1,310,820 1,322,815 1,371,071 1,261,846 1,252,126 1,266,290 1,219,382 247,144 227,506 215,038 203,038 192,482 178,082 170,023 161,614 119,764 120,227 110,869 132,500 142,950 157,847 170,157 183,103 52,105 55,197 64,740 74,416 79,235 78,092 87,046 91,456 1,209 1,021 861 871 894 1,183 1,217 939 1,400,987 1,454,198 1,461,998 1,466,020 1,412,648 1,375,603 1,372,580 1,358,029 17,034 17,148 18,476 30,181 36,252 35,725 45,785 53,535 16,108 13,732 12,896 14,744 14,485 12,823 13,329 13,150 87,785 74,411 74,125 72,225 70,426 68,428 66,562 60,451 1,417,037 1,393,706 1,433,317 1,448,236 1,396,439 1,412,925 1,446,878 1,486,872 1,263 1,555 1,596 1,115 840 734 468 457 760 685 598 538 510 523 509 428 4,854,011 4,715,593 4,869,777 4,940,417 4,886,656 4,962,056 5,072,699 5,319,815 1,045,758 1,118,077 1,266,885 1,390,353 1,539,308 1,636,903 1,735,410 1,839,625

TOTAL U.S. 17,653,19417,499,54417,286,958 17,434,509 17,872,507 17,375,334 17,434,045 17,388,474 17,250,875 17,637,563

Source: IHS. Data not available for certain states.
\*Alaska data is not included as produced natural gas in re-injected in order to maintain reservoir pressure.

# PRODUCING MARGINAL OIL WELLS

# PRODUCING MARGINAL OIL WELLS

	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
Alabama	317	317	307	295	305	300	304	320	387	320
Alaska	90	128	95	101	136	145	151	140	144	154
Arizona	24	26	27	25	24	22	23	19	22	24
Arkansas	2,107	1,920	1,871	2,002	5,334	4,141	2,427	1,910	1,925	2,259
California	28,720	29,484	28,803	30,194	31,274	31,314	31,770	33,010	34,338	36,126
Colorado	4,594	4,461	4,437	4,504	4,454	4,455	4,344	4,384	4,334	4,318
Florida	16	12	11	9	7	13	33	11	15	8
Illinois	6,414	5,848	5,463	5,500	5,102	5,166	5,107	5,148	4,964	5,269
Indiana	1,344	1,212	1,124	1,142	1,114	1,108	1,043	1,051	995	1,061
Kansas	46,631	44,914	41,825	41,716	41,141	40,933	40,607	39,386	39,250	39,543
Kentucky	1,274	1,107	1,078	1,060	1,034	995	981	965	947	994
Louisiana	16,699	15,633	15,205	14,894	15,737	15,377	15,587	15,129	15,288	15,671
Michigan	594	2,120	2,240	3,306	3,520	3,386	3,502	3,508	3,665	3,617
Mississippi	926	948	919	864	867	793	822	850	883	964
Montana	2,846	2,786	2,733	2,810	3,465	2,714	2,731	2,817	2,853	2,938
Nebraska	1,397	1,335	1,199	1,190	1,172	1,154	1,140	1,177	1,157	1,181
Nevada	42	39	32	35	38	39	42	40	45	45
New Mexico	14,774	14,954	14,727	15,324	15,893	15,916	16,181	16,602	17,114	17,759
New York	NA	NA	NA	NA	NA	NA	2,249	2,164	1,966	2,073
North Dakota	2,119	2,053	2,019	2,035	2,085	2,819	2,163	2,412	2,164	2,146
Ohio	14,922	14,035	13,809	14,812	15,251	15,762	15,162	15,308	15,360	15,570
Oklahoma	64,411	61,599	59,045	56,384	56,346	53,846	49,700	48,542	47,937	48,234
South Dakota		58	57	57	54	52	61	64	75	71
Texas	156,915	153,113	145,466	146,200	145,415	142,031	139,807	138,498	138,295	140,644
Utah	1,263	1,252	1,288	1,315	1,360	1,421	1,442	1,582	1,756	1,979
West Virginia	1,909	1,787	1,456	1,143	1,544	2,016	1,201	1,722	1,480	1,689
Wyoming	9,046	9,020	8,997	9,248	9,360	9,237	9,355	9,473	9,911	10,520
Federal Offsho	<b>ore</b> 691	678	599	630	669	707	640	648	755	621
TOTAL U.S.	380,143	370,838	354,832	356,795	362,701	355,862	348,575	346,876	348,021	355,794

Source: IHS.

Notes: A marginal oil well is defined as a well producing 15 barrels/day or less. \*Totals may not add due to rounding.

# MARGINAL OIL WELL PRODUCTION

(thous. bbls.	) 1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
Alabama	759	731	709	703	748	752	754	740	809	706
Alaska	136	257	176	185	252	288	243	264	193	326
Arizona	40	40	30	30	39	34	32	24	37	40
Arkansas	3,068	2,667	2,910	3103	4,095	3,212	2,881	3,042	3,046	2,883
California	59,565	59,951	58,766	62,439	63,431	62,603	62,889	64,825	66,663	69,591
Colorado	4,083	3,831	3,591	3,768	3,881	4,212	4,199	4,188	4,028	3,970
Florida	31	23	20	23	20	35	46	27	25	20
Illinois	6,499	5,884	5,507	5,551	5,068	5,227	5,267	5,104	4,249	5,153
Indiana	1,386	1,255	1,149	1,186	1,178	1,102	1,063	1,020	916	1,085
Kansas	30,527	27,114	26,276	25,835	25,504	25,250	25,016	24,607	24,541	25,250
Kentucky	912	847	793	804	799	753	698	701	677	671
Louisiana	12,912	11,562	10,702	10,617	10,342	10,043	9,773	9,547	10,029	9,494
Michigan	1,205	1,753	1,769	3,304	3,460	3,367	3,374	3,427	3,443	3,297
Mississippi	2,134	2,176	1,913	1,997	1,994	1,855	1,966	2,010	2,121	2,202
Montana	3,362	3,331	3,223	3,413	3,457	3,344	3,350	3,352	3,508	3,519
Nebraska	2,518	2,228	2,010	1,981	1,857	1,826	1,777	1,842	1,711	1,676
Nevada	77	84	60	71	89	92	90	91	103	117
New Mexico	19,957	19,876	19,574	20,064	20,549	20,516	20,825	21,045	21,788	22,253
New York	NA	NA	NA	NA	NA	NA	94	110	92	188
North Dakota	<b>a</b> 4,791	4,459	4,318	4,572	4,658	4,648	4,815	4,531	4,601	4,710
Ohio	4,383	3,918	3,692	4,042	4,364	4,152	3,871	3,669	3,716	3,709
Oklahoma	48,470	44,715	41,612	41,413	41,037	39,526	37,636	36,618	34,834	35,018
South Dakot		172	164	198	194	166	208	217	229	212
Texas	165,124	157,315	150,271	153,498	151,564	147,152	145,505	142,581	142,740	145,308
Utah	2,743	2,682	2,743	2,872	2,875	3,010	3,110	3,391	3,908	4,163
West Virgini	<b>a</b> 428	402	317	330	351	370	343	384	422	463
Wyoming	14,181	13,752	13,494	13,785	13,611	13,344	13,383	13,289	13,448	13,316
Federal Offs	<b>hore</b> 1,55	7 1,583	1,351	1,398	1,574	1,675	1,527	1,528	1,889	1,372
TOTAL U.S.	391,023	372,603	357,140	367,182	366,993	358,554	354,735	352,166	353,755	360,708

Source: IHS. Notes:Totals may not add due to rounding.

# PRODUCING MARGINAL NATURAL GAS WELLS

	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
Alabama	1,777	1,834	1,928	2,199	2,403	2,590	2,889	3,187	3,639	4,165
Arizona	3	2	3	3	3	5	2	2	2	2
Arkansas	1,709	1,827	1,814	2,030	2,155	2,216	2,387	2,526	2,750	2,888
California	693	580	617	677	667	681	683	706	765	835
Colorado	8,091	8,034	12,459	12,674	13,360	13,742	14,725	16,097	18,525	20,404
Kansas	7,379	7,894	8,320	8,948	9,863	10,657	11,858	13,417	15,038	17,185
Kentucky	8,881	9,444	9,684	10,074	10,405	10,868	11,329	12,129	11,616	12,617
Louisiana	9,926	10,056	10,055	10,023	4,339	4,168	4,220	4,327	4,646	4,851
Michigan	482	562	563	609	737	821	892	956	1,039	1,122
Mississippi	286	290	296	388	447	506	684	806	932	1,063
Montana	3,086	3,206	3,447	3,636	3,854	4,002	4,262	4,536	4,790	5,276
Nebraska	84	85	87	87	89	92	95	98	101	103
New Mexico	12,996	13,159	13,374	14,006	14,847	15,598	16,482	17,650	19,194	20,461
New York	5,550	5,564	5,653	5,645	6,041	5,487	6,155	6,416	6,426	6,512
North Dakota	67	67	65	68	69	65	78	82	144	244
Ohio	21,958	20,976	20,048	21,400	22,082	21,917	22,096	21,689	21,573	22,268
Oklahoma	13,611	14,318	15,054	16,118	17,462	18,785	20,134	21,455	23,151	24,955
Oregon	12	12	12	10	9	9	10	11	11	10
South Dakota	55	54	54	56	58	57	57	59	60	62
Texas	33,799	34,688	35,811	36,844	39,069	40,295	42,002	44,656	47,307	50,964
Utah	745	854	976	1,055	1,270	1,459	1,648	1,804	2,107	2,386
West Virginia	37,601	39,699	38,724	29,366	38,704	40,053	38,844	40,452	43,242	40,544
Wyoming	1,706	1,959	2,807	4,671	7,160	9,587	11,139	13,474	15,513	18,043
Federal Offsh	<b>ore</b> 661	668	687	739	771	818	809	796	890	723
TOTAL U.S.*	170,519	175,184	181,877	180,615	195,123	203,692	212,711	226,561	243,465	262,168

Source: IHS.

Notes: A marginal natural gas well is defined as a well producing 90 thousand cubic feet per day or less.

\*Row may not total because it includes Pacific Coastal wells.

# MARGINAL NATURAL GAS PRODUCTION

(Mmcf)	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
Alabama	26,995	28,068	30,121	33,921	37,297	39,807	44,565	47,877	53,488	60,255
Arizona	37	4	35	25	4	60	37	28	30	26
Arkansas	23,251	24,862	25,602	28,215	28,948	30,432	32,364	33,641	36,326	38,001
California	9,158	7,406	7,896	7,831	8,547	8,441	8,642	8,986	9,566	10,121
Colorado	103,071	100,311	126,128	129,869	141,830	153,960	172,625	195,674	219,087	243,647
Kansas	99,001	111,463	118,887	129,410	146,535	158,854	178,136	201,997	222,426	240,025
Kentucky	62,931	66,065	67,591	69,400	71,156	74,072	75,513	78,805	73,076	78,304
Louisiana	39,208	40,645	39,732	40,557	38,425	38,934	39,254	40,083	43,650	47,268
Michigan	7,392	8,467	8,766	9,283	10,538	11,686	12,851	13,559	14,376	15,088
Mississippi	3,965	4,112	4,282	5,837	7,077	8,684	11,210	12,783	13,015	14,679
Montana	26,496	27,769	28,823	30,391	32,251	35,138	37,128	37,963	40,661	43,617
Nebraska	1,078	1,040	908	744	743	755	793	784	700	774
New Mexico	167,044	167,586	173,320	181,395	189,490	198,823	210,356	229,209	247,151	261,711
New York	14,494	13,726	12,800	12,181	12,340	10,976	11,002	10,874	10,842	10,828
North Dakota	367	451	432	430	429	478	663	731	1,376	2,670
Ohio	64,888	61,082	54,295	56,226	57,397	57,026	55,378	53,812	50,307	52,003
Oklahoma	178,628	186,744	195,208	211,217	225,276	239,475	256,811	269,245	286,833	303,692
Oregon	123	68	125	154	79	112	113	117	138	158
South Dakota	581	668	600	523	538	473	483	466	428	438
Texas	387,382	400,261	410,614	421,242	445,495	456,406	479,643	509,051	538,896	583,968
Utah	11,302	12,728	14,089	15,922	19,724	21,985	25,297	27,683	30,898	35,126
West Virginia	143,483	151,707	159,474	126,932	157,127	162,879	152,036	161,214	175,204	167,499
Wyoming	23,7111	27,805	36,222	56,571	87,966	110,593	136,750	158,345	174,046	187,793
Federal Offshor	<b>e</b> 7,630	7,710	8,277	9,158	10,033	10,078	9,897	9,722	11,030	8,802

TOTAL U.S.\* 1,394,886 1,443,215 1,516,2471,568,617 1,719,644 1,820,4731,942,122 2,093,201 2,253,603 2,459,875

Notes: Totals may not add due to rounding.
\*Row may not total because it includes Pacific Coastal wells.

# COST OF DRILLING AND EQUIPPING WELLS '06

State	No. of Wells Drille	d Footage Drilled	Depth per Well	<b>Total Cost</b>	Cost per Well	Cost per Foot
			(ft.)			(\$)
Alabama	440	1,523,127	3,462	386,886,000	879,286	254.01
Alaska	132	970,519	7,352	3,199,617,000	24,239,523	3,296.81
Arizona	1	7,000	7,000	1,022,000	1,022,000	146
Arkansas	495	2,881,767	5,822	589,554,000	1,191,018	204.58
California	2,494	6,699,771	2,686	2,843,060,000	1,139,960	424.35
Colorado	3,003	17,258,154	5,747	6,305,991,000	2,099,897	365.39
Florida	-	-	-	-	-	-
Illinois	478	1,096,943	2,295	216,939,000	453,847	197.77
Indiana	117	196,156	1,677	47,271,000	404,026	240.99
Kansas	3,161	9,382,145	2,968	930,897,000	294,494	99.22
Kentucky	1,294	3,581,272	2,768	417,329,000	322,511	116.53
Louisiana	1,633	14,384,545	8,809	6,976,491,000	4,272,193	485
Michigan	558	1,037,470	1,859	492,154,000	881,996	474.38
Mississipp	oi 293	2,134,313	7,284	902,948,000	3,081,734	423.06
Montana	1,118	5,209,601	4,660	1,850,978,000	1,655,615	355.30
Nebraska	65	280,649	4,318	37,652,000	579,262	134.16
Nevada	1	7,400	7,400	1,080,000	1,080,000	145.95
New Mexic	2,028	12,078,134	5,956	2,550,918,000	1,257,849	211.20
New York	242	650,480	2,688	95,149,000	393,178	146.28
North Dak	<b>ota</b> 487	4,288,452	8,806	1,500,504,000	3,081,117	349.89
Ohio	684	2,638,475	3,857	233,586,000	341,500	88.53
Oklahoma	- /	25,489,808	6,380	6,917,851,000	1,731,627	271.40
Pennsylva	<b>nia</b> 4,260	14,671,156	3,444	1,391,908,000	326,739	94.87
South Dak	tota 25	125,342	5,014	48,548,000	1,941,920	387.32
Tennessee	285	827,354	2,903	96,662,000	339,165	116.83
Texas	13,409	105,721,057	7,884	34,569,181,000	2,578,058	326.98
Utah	1,005	7,604,400	7,567	2,879,064,000	2,864,740	378.61
Virginia	545	1,503,189	2,758	172,254,000	316,062	114.59
Washingto	on -	-	-	-	-	-
West Virgi	•	7,393,289	4,128	643,971,000	359,559	87.10
Wyoming	4,134	17,220,244	4,166	9,187,238,000	2,222,360	533.51
Federal O	ffshore 638	6,920,312	10,847	24,246,180,000	38,003,417	3,503.59
TOTAL U.S	S. 48,811	273,782,524	5,609	109,733,000,000	2,248,118	400.80
Explorator		27,270,664	6,135	14,584,389,220	3,224,495	525.55
Developm		246,031,860	5,555	95,148,494,925	2,148,404	386.73

Source: IHS

# CRUDE OIL REVENUES

(thous	. \$.) 1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
Alabama	163,262	90,032	107,044	165,310	125,520	120,763	143,981	180,839	418,677	475,657
Alaska	7,018,682	3,635,595	4,828,307	8,438,340	6,449,401	7,020,957	8,664,291	11,136,496	14,890,978	15,425,817
Arizona	1,440	865	996	1,470	1,266	1,319	1,198	1,843	2,605	3,383
Arkansas	138,495	78,732	98,311	174,129	149,969	139,105	174,990	214,336	322,656	358,121
California	4498,042	2,714,416	3,803,250	6,699,787	5,210,900	5,532,628	6,506,436	8,221,520	11,113,988	12,240,536
Colorado	342,350	209,350	242,676	400,553	327,847	322,979	380,589	485,125	1,263,025	1,492,282
Florida	122,986	60,746	85,540	134,281	NA	NA	NA	NA	NA	NA
Illinois	258,253	163,673	195,829	306,895	242,304	265,268	340,674	414,479	522,598	616,283
Indiana	44,933	27,216	33,962	56,797	48,633	46,134	53,071	66,013	81,112	102,665
Kansas	767,761	446,690	582,155	964,142	800,027	780,452	966,831	1,324,362	1,806,486	2,165,442
Kentucky	28,518	16,011	24,336	40,896	33,570	31,059	36,652	44,552	125,356	136,492
Louisiana	1,820,019	1,140,730	1,411,826	2,188,561	1,734,529	1,496,250	1,777,924	2,283,879	4,079,856	4,745,055
Michigan	119,906	91,190	113,849	210,956	160,418	155,885	181,791	225,564	297,815	310,112
Mississippi	332,837	202,675	252,718	486,934	381,185	371,028	430,518	578,964	877,318	1,030,078
Missouri	2,124	1,068	1,436	2,695	1,833	2,045	2,169	3,269	4,239	4,988
Montana	276,318	188,241	253,823	437,303	374,544	385,554	553,396	950,689	1,730,144	2,055,692
Nebraska	60,002	36,409	45,882	82,595	49,865	64,861	80,450	96,818	126,393	133,622
Nevada	14,610	9,005	9,792	14,084	13,544	9,904	12,074	14,807	19,078	NA
New Mexico	1,291,953	785,985	1,041,786	1,775,779	1,387,381	1,405,444	1,682,758	2,226,378	3,205,274	3,693,163
New York*	NA	NA	NA	NA	NA	NA	2,718	4,334	10,764	20,259
North Dako	ta* 622,938	399,459	540,412	903,264	691,225	721,505	831,649	1,184,581	1,867,871	2,262,554
Ohio*	103,812	62,989	74,879	135,663	136,530	111,173	127,402	163,183	302,212	340,989
Oklahoma	1,447,610	916,458	1,160,328	1,830,004	1,520,175	1,433,718	1,687,204	2,193,215	3,390,468	3,965,895
Oregon	0	2	6	0	0	0	0	0	0	0
Pennsylvan	ia 24,803	27,039	27,180	43,200	40,208	55,512	71,780	100,200	215,388	232,136
South Dako	ta* 23,763	14,846	18,546	32,745	27,362	28,968	35,857	52,070	74,405	72,278
Tennessee	6,334	3,226	5,496	9,093	7,708	6,020	8,260	13,162	14,765	10,955
Texas	9,159,466	5,639,651	7,075,579	11,466,598	8,917,876	8,697,229	10,484,091	13,633,095	20,395,845	24,353,558
Utah	317,268	213,366	257,566	403,871	335,164	301,001	349,130	539,803	898,821	1,069,227
Virginia	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
West Virgin	<b>ia</b> 12,134	7,493	8,773	14,591	15,779	12,876	21,550	22,491	84,011	110,309
Wyoming	1,119,097	630,155	871,279	1,424,820	1,055,153	1,010,599	1,149,724	1,463,284	2,355,694	2,817,138
TOTAL U.S.	37,090,452	22,503,389	30,396,833	51,533,501	40,822,345	42,074,679	51,219,295	65,667,175	95,034,530	111,158,239

Source: EIA price and production data used in addition to state data when EIA not available. Total does not include Federal Offshore.

#### NATURAL GAS REVENUES

(thous.	\$.) <b>1997</b>	1998	1999	2000	2001	2002	2003	2004	2005	2006
Alabama	1,140,106	946,128	963,825	1,583,132	1,615,145	1,291,000	2,109,307	2,160,750	2,751,780	2,166,685
Alaska**	852,326	615,975	634,265	807,831	938,166	986,831	1,180,314	1,613,895	2,314,590	2,574,952
Arizona	953	760	693	984	985	614	792	1,116	1,596	3,593
Arkansas	669,073	596,522	600,269	779,715	746,813	655,184	792,230	966,861	1,383,270	1,242,649
California	183,652	154,818	213,689	415,329	621,954	228,569	421,823	425,795	2,336,396	2,039,402
Colorado	1,374,568	1,279,289	1,539,967	2,784,939	3,084,399	2,198,616	4,526,766	5,535,083	8,418,829	7,361,265
Florida	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Illinois	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Indiana	1,147	1,285	1,872	3,155	3,490	4,071	7,920	21,426	28,560	17,555
Kansas	1,415,736	1,041,128	1,033,286	1,695,865	1,795,907	1,212,449	1,866,875	2,003,634	2,455761	2,081,557
Kentucky	1,886,145	174,348	155,449	240,391	368,208	244,845	378,872	450,614	634,718	841,676
Louisiana	3,418,979	2,803,621	2,910,020	4,867,959	5,470,573	4,037,907	7,061,991	7,547,088	11,301,539	9,432,555
Maryland	263	164	49	128	133	132	216	213	342	366
Michigan	536,239	437,445	402,686	524,693	704,542	415,761	714,109	654,589	1,383,894	NA
Mississippi	206,970	170,065	195,970	365,868	520,725	437,427	809,755	992,015	451,962	414,032
Missouri	9	NA	NA							
Montana	77,250	79,721	92,731	183,862	232,178	189,372	291,283	392,577	709,021	624,033
Nebraska	1,704	1,572	1,389	1,946	1,881	1,359	3,750	3,919	4,922	NA
New Mexico	2,380,069	2,465,737	3,068,358	5,014,653	5,702,818	3,785,897	6,272,750	6,821,723	11,368,097	9,944,998
New York*	43,064	43,607	37,040	69,285	150,905	109,844	206,491	319,579	429,300	399,137
North Dakota	<b>a</b> 34,610	34,471	31,858	50,810	52,046	39,544	45,265	76,375	441,479	360,380
Ohio*	233,088	258,966	180,819	300,948	327,902	318,326	403,725	442,637	754,213	668,941
Oklahoma	3,421,065	2,508,155	2,857,097	5,202,941	5,836,391	4,105,531	7,022,237	7,986,767	11,819,425	10,674,385
Oregon	3,024	3,006	3,919	4,293	4,081	3,335	3,288	1,821	1,930	2,745
Pennsylvani	<b>a</b> 253,600	387,041	539,826	346,500	446,209	538,098	NA	NA	NA	NA
South Dakot	, -	1,877	1,459	2,129	1,840	1,505	2,605	2,794	7,380	6,163
Tennessee	4,310	3,247	3,238	5,031	4,140	6,820	10,701	12,441	21,010	12,157
Texas	11,951,566	9,999,263	10,893,020	19,138,224	20,354,518	15,441,833	25,703,450	29,573,835	39,836,828	36,390,677
Utah	429,474	439,334	462,281	803,564	932,913	518,821	1,058,366	1,387,494	2,156,757	1,983,828
Virginia*	148,535	126,401	179,756	284,034	329,961	256,232	398,975	NA	NA	NA
West Virginia	<b>a</b> 443,468	408,379	653,509	524,686	786,088	668,488	794,615	918,846	1,563,234	1,617,050
Wyoming	242,569	1,861,129	2,202,612	4,231,396	4,852,332	4,156,132	6,760,409	8,607,634	11,245,715	10,624,776
TOTAL U.S.	31,420,431	26,852,256	29,876,317	50,246,100	55,887,242	41,854,540	68,848,881	94,941,068	138,735,606	124,044,128

Source: EIA price and production data used in addition to state data when EIA not available. Total does not include Federal Offshore.

Alaska natural gas is reinjected.

#### **ABANDONMENTS**

	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
Alabama	8	2	6	6	3	3	34	29	6	78
Arizona	0	0	0	0	0	0	0	0	0	0
Arkansas	138	97	77	116	43	42	108	69	51	73
California	1,919	1,392	1,046	1,615	1,469	2,452	2,501	1,629	1,558	1,999
Colorado	321	153	120	124	168	119	259	212	147	282
Illinois	518	802	590	647	689	710	659	554	547	853
Indiana	129	133	58	72	93	125	102	80	65	159
Kansas	1,765	1,480	2,025	614	1,614	1,722	2,270	1,473	1,225	1,318
Kentucky	166	233	179	232	202	237	312	263	206	503
Louisiana	785	750	620	605	760	731	1,500	898	584	750
Michigan	153	146	139	139	141	155	177	196	126	87
Mississippi	74	58	83	91	62	109	106	90	55	34
Missouri	251	2	4	12	1	4	12	4	4	11
Montana	45	124	136	178	135	65	169	113	58	227
Nebraska	66	90	66	67	83	100	81	55	54	15
New Mexico	397	206	105	121	203	217	263	752	449	420
New York	79	58	57	36	36	65	115	83	78	19
North Dakota	51	37	26	35	48	38	40	50	44	71
Ohio	335	243	183	211	216	183	500	572	201	577
Oklahoma	1,871	1,442	841	922	710	774	1,056	956	619	1,090
Pennsylvania	640	968	590	300	200	210	328	306	134	100
South Dakota	1	7	2	0	0	2	2	0	0	0
Tennessee	81	77	70	76	45	38	86	50	29	34
Texas	5,246	5,110	4,078	4,255	5,126	5,228	6,902	6,718	5,461	6,417
Utah	20	30	36	16	30	16	17	57	35	65
Virginia	0	0	0	0	0	0	60	45	0	98
West Virginia	100	84	80	78	50	46	327	335	30	285
Wyoming	14	188	10	120	107	228	241	517	211	635
TOTAL U.S.	15,173	13,912	11,227	10,688	12,234	13,619	18,219	16,106	11,977	16,201

Source: IOGCC.

Note: Oil and gas wells plugged and abandoned as of January 1, 2007. Estimated data for Colorado, Illinois, Pennsylvania, Tennessee and West Virginia.

### SEVERANCE AND PRODUCTION TAXES

(thous. \$)	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
Alabama	67,526	55,078	37,899	68,341	107,024	53,235	92,695	101,184	132,299	177,280
Alaska	788,409	395,500	507,000	759,000	558,772	519,368	1,093,356	750,425	1,060,066	1,061,672
Arizona	5,952	6,398	6,060	7,026	6,510	8,377	8,377	9,899	10,022	7,979
Arkansas	6,872	4,371	4,616	9,476	9,546	6,608	8,355	9,802	15,078	15,078
California	174,044	157,652	194,606	215,696	239,921	189,306	214,473	188,753	268,796	328,876
Colorado	18,688	19,756	23,327	24,641	54,384	48,914	23,613	107,145	134,050	196,668
Florida	10,441	7,318	4,157	6,046	8,258	5,197	5,469	6,084	8,278	9,527
Indiana	599	550	502	653	572	567	590	845	1,119	1,215
Kansas	78,531	51,686	120,333	56,900	109,232	59,895	84,212	116,677	148,855	148,855
Kentucky	12,653	11,212	8,452	11,414	20,678	14,610	17,800	22,170	28,630	42,586
Louisiana	380,699	336,293	240,055	354,314	478,805	454,429	480,749	677,320	714,729	885,402
Maryland	2	1	1	1	2	1	1	1	3	3
Michigan	40,961	30,982	30,570	40,012	61,279	35,967	54,651	56,186	66,749	88,143
Mississippi	28,343	25,346	14,518	23,751	11,817	28,201	43,413	62,631	84,409	6,809
Montana	42,482	35,065	28,997	43,770	92,818	50,304	75,454	114,218	180,077	204,129
Nebraska	1,915	1,334	1,017	2,108	1,868	1,455	1,845	2,191	2,926	2,796
Nevada	283	74	50	62	62	56	248	45	43	41
New Mexico	372,600	375,800	227,200	345,300	355,370	479,109	571,862	737,200	926,884	1,169,270
North Dakota	53,500	39,200	35,402	71,275	66,800	62,300	66,846	73,914	157,500	166,146
Ohio	3,655	3,383	3,327	3,090	2,884	2,799	2,900	2,691	2,615	2,554
Oklahoma	413,576	360,285	253,039	410,412	745,236	417,103	600,980	701,156	875,653	1,168,597
Oregon	156	93	98	146	119	145	89	72	78	89
South Dakota	,	1,018	730	1,051	1,566	1,239	1,522	1,658	2,507	3,255
Tennessee	282	213	363	532	380	498	592	592	813	1,041
Texas 1	,091,284	926,561	659,396	1,153,086	1,956,108	1,049,054	1,492,743	1,887,879	2,338,380	3,200,806
Utah	17,217	13,988	11,109	17,313	42,106	20,603	28,689	39,356	57,116	77,074
West Virginia	17,431	16,118	19,161	18,048	34,549	28,382	30,475	41,544	53,557	84,947
Wyoming	152,448	73,754	125,178	567,445	581,532	327,497	370,381	504,731	713,456	660,461
TOTAL U.S. 3	,781,727	2,949,029	2,557,163	4,210,909	5,548,198	3,863,352	5,372,380	6,216,369	7,984,690	9,711,306

Source: Various state and industry contacts.

Notes: Figures include all state and local tax revenues. States vary on the use of fiscal (Arizona) or calendar year data. West Virginia data switched to FY in 2001.

### CRUDE OIL WELLHEAD PRICES

(\$/Bbl.)	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
Alabama	18.58	12.08	16.71	27.63	23.18	23.39	28.97	38.79	53.26	63.16
Alaska	14.84	8.47	12.60	23.76	18.35	19.53	23.91	33.17	47.21	64.10
Arizona*	18.23	11.69	16.06	26.72	21.82	21.63	26.63	36.86	52.09	61.51
Arkansas	17.58	11.10	15.89	26.98	21.82	21.50	26.57	36.67	50.86	58.67
California	15.78	9.55	13.92	24.72	20.00	21.68	26.30	34.33	47.08	57.34
Colorado	19.03	12.56	17.37	28.85	24.82	25.29	30.71	40.38	55.34	63.80
Florida	19.64	10.23	17.50	29.04	NA	NA	NA	NA	NA	NA
Illinois	19.11	12.78	17.37	28.14	23.76	23.84	29.10	38.74	51.20	59.70
Indiana	18.73	12.49	17.31	27.91	23.46	23.43	28.38	38.18	51.02	59.31
Kansas	18.63	12.19	17.08	28.16	23.56	23.61	28.68	39.18	53.41	60.74
Kentucky	17.97	11.67	16.68	26.47	22.53	22.49	27.21	36.82	49.45	58.33
Louisiana	19.22	12.59	17.59	28.85	24.36	24.68	30.31	40.08	54.05	64.23
Michigan	18.75	12.39	16.63	28.12	22.69	23.68	29.18	39.14	53.67	60.89
Mississippi	16.94	10.33	15.42	26.23	21.13	22.11	27.46	37.03	49.58	59.35
Missouri*	18.63	11.48	15.61	28.37	20.37	21.53	26.45	37.15	49.87	57.34
Montana	17.00	11.28	16.54	27.82	23.16	22.76	28.66	38.53	52.66	56.69
Nebraska	18.10	11.50	17.21	27.97	23.67	23.62	28.63	38.42	52.38	57.77
Nevada*	15.00	11.27	13.87	22.68	17.13	17.91	24.54	31.98	42.68	58.30
New Mexico	19.02	12.36	17.46	28.80	23.72	24.11	29.52	39.25	52.84	61.74
New York*	18.49	11.46	16.18	28.60	22.76	24.92	28.91	39.40	54.64	63.51
North Dakota	17.63	11.39	16.70	28.19	23.55	24.15	29.27	39.30	52.38	56.69
Ohio	17.77	12.20	16.41	27.49	22.55	22.61	28.18	38.27	53.47	62.89
Oklahoma	19.05	12.73	17.77	29.08	24.68	24.49	29.72	39.95	54.46	63.11
Pennsylvania	18.79	13.67	18.49	28.80	24.82	24.86	29.60	39.48	54.47	64.02
South Dakota	17.80	12.29	16.86	28.18	23.89	23.96	28.94	38.40	50.65	51.85
Tennessee*	17.26	11.24	15.93	26.28	21.96	21.89	26.56	36.46	45.57	57.06
Texas	18.66	12.28	17.30	28.60	23.41	23.77	29.13	38.79	52.61	61.31
Utah	18.57	12.52	17.69	28.53	24.09	23.87	28.88	39.35	53.98	59.70
Virginia*	16.40	11.64	16.88	NA	NA	NA	26.23	NA	NA	NA
West Virginia	17.56	11.95	16.46	27.12	22.35	22.55	28.06	38.38	53.75	63.07
Wyoming	17.41	10.70	16.47	26.89	21.55	21.96	26.63	35.10	45.63	53.25
TOTAL U.S.	17.23	10.87	15.56	26.72	21.84	22.51	27.56	36.77	50.28	59.69

Source: Energy Information Administration and State Sources\*

Notes: Data represent average first purchase price of crude oil at the lease or wellhead.

# NATURAL GAS WELLHEAD PRICES

(\$/Mci	f) <b>1997</b>	1998	1999	2000	2001	2002	2003	2004	2005	2006
Alabama	2.67	2.21	2.32	3.99	4.23	3.48	5.93	6.66	9.28	7.57
Alaska	1.82	1.32	1.37	1.76	1.99	2.13	2.41	3.42	4.75	5.79
Arizona*	2.40	1.88	2.08	3.50	4.12	2.60	4.33	5.12	6.85	5.70
Arkansas	4.03	3.92	4.10	5.23	4.99	4.43	5.17	5.68	7.26	6.43
California	2.41	1.97	2.36	4.81	6.93	2.92	5.04	5.65	7.45	6.47
Colorado	2.23	1.90	2.18	3.67	3.84	2.41	4.54	5.21	7.43	6.12
Florida*	1.06	1.42	2.50	1.76	NA	NA	NA	NA	NA	NA
Illinois*	2.81	2.74	2.74	2.05	NA	NA	NA	NA	NA	NA
Indiana	2.18	2.09	2.19	3.51	3.28	3.11	5.41	6.30	9.11	6.01
Kansas	2.05	1.70	1.80	3.21	3.66	2.61	4.33	4.94	6.51	5.61
Kentucky	2.66	2.39	2.07	3.16	4.78	3.01	4.54	5.26	6.84	8.83
Louisiana	2.36	2.02	2.22	3.68	3.99	3.20	5.64	5.96	8.72	6.93
Maryland	2.23	2.60	2.73	3.75	4.15	5.98	4.50	6.25	7.43	7.63
Michigan	2.19	1.77	1.77	2.44	3.47	2.16	4.01	3.85	5.30	NA
Mississippi	1.73	1.42	1.63	3.30	3.93	3.06	5.13	5.83	8.54	6,84
Missouri	1.70	1.62	NA							
Montana	1.59	1.53	1.68	2.84	3.12	2.39	3.73	4.51	6.57	5.53
Nebraska	1.53	1.30	1.36	2.26	2.16	1.52	3.17	3.22	4.29	NA
New Mexico	1.76	1.76	2.11	3.43	3.89	2.68	4.56	4.97	6.91	6.18
New York	2.56	2.56	2.16	3.75	5.00	3.03	5.78	6.98	7.78	7.13
North Dakota	2.16	2.14	2.32	3.94	3.53	2.73	3.53	5.73	8.40	6.52
Ohio	2.70	2.95	2.43	4.06	4.54	4.52	5.90	6.65	9.03	7.75
Oklahoma	2.32	1.77	2.05	3.63	4.03	2.94	4.97	5.52	7.21	6.32
Oregon	2.19	2.38	2.52	2.69	3.66	3.97	4.48	3.89	4.25	4.42
Pennsylvania*	3.17	2.97	3.09	2.31	3.41	3.41	NA	NA	NA	NA
South Dakota	2.09	2.47	2.13	3.56	3.42	2.95	4.98	5.49	7.44	6.40
Tennessee	2.55	2.15	2.28	4.09	3.60	3.41	5.22	6.90	9.55	6.78
Texas	2.48	2.06	2.31	3.93	4.12	3.16	5.18	5.83	7.55	6.60
Utah	1.86	1.73	1.93	3.28	3.52	1.99	4.11	5.24	7.16	5.70
Virginia*	2.55	2.16	2.49	3.97	4.29	3.16	4.65	NA	NA	NA
West Virginia*	2.63	2.37	2.99	3.24	4.12	3.44	4.34	4.71	7.07	NA
Wyoming	2.42	1.78	1.97	3.34	3.49	2.70	4.13	4.96	6.86	5.85
TOTAL U.S.	2.32	1.96	2.19	3.68	4.00	2.95	4.88	5.46	7.33	6.40

Source: Energy Information Administration and State Sources\*

### REFINER ACQUISITION COST OF CRUDE OIL

(\$/Bbl.)	Domestic	Imported	Composite	(
1980	24.23	33.89	28.07	
1981	34.33	37.05	35.24	
1982	31.22	33.55	31.87	
1983	28.87	29.30	28.99	
1984	28.53	28.88	28.63	
1985	26.66	26.99	26.75	
1986	14.82	14.00	14.55	
1987	17.76	18.13	17.90	
1988	14.74	14.56	14.67	
1989	17.87	18.08	17.97	
1990	22.59	21.76	22.22	
1991	19.33	18.70	19.06	
1992	18.63	18.20	18.43	
1993	16.67	16.14	16.41	
1994	15.67	15.51	15.59	
1995	17.33	17.14	17.23	
1996	20.77	20.64	20.71	
1997	19.61	18.53	19.04	
1998	13.18	12.04	12.52	
1999	17.90	17.26	17.51	
2000	29.11	27.70	28.26	
2001	24.33	22.00	22.95	
2002	24.65	23.71	24.10	
2003	29.82	27.71	28.53	
2004	38.97	35.90	36.98	
2005	52.94	48.86	50.24	
2006	62.62	59.02	60.24	

Source: Energy Information Administration

#### RETAIL GASOLINE PRICES

(¢/gal.)	Excluding Taxes	Taxes	Pump Price
1983	95.4	28.7	124.1
1984	90.7	30.5	121.2
1985	91.2	29.0	120.2
1986	62.4	30.3	92.7
1987	66.9	27.9	94.8
1988	67.3	27.3	94.6
1989	75.6	26.5	102.1
1990	88.3	28.1	116.4
1991	79.7	34.3	114.0
1992	78.7	34.0	112.7
1993	75.9	34.9	110.8
1994	73.8	37.4	111.2
1995	76.5	38.2	114.7
1996	84.7	38.4	123.1
1997	83.9	39.5	123.4
1998	67.3	38.6	105.9
1999	78.1	38.4	116.5
2000	110.6	40.4	151.0
2001	103.2	42.9	146.1
2002	94.7	41.1	135.8
2003	115.6	43.5	159.1
2004	143.5	44.5	188.0
2005	182.9	46.6	229.5
2006	212.8	43.1	255.9

Source: Energy Information Administration. Pump price quoted for unleaded regular.

## WORLD CRUDE OIL RESERVES

(mill. bbls.)	United States	Canada	Latin America	Middle East	Africa	Asia Pacific	Western EuropeE	Eastern urope & FSU	World
1990	26,501	5,783	121,091	662,598	59,892	50,242	14,476	58,855	999,113
1991	26,254	5,588	119,765	661,571	60,488	44,073	14,503	58,774	991,011
1992	24,682	5,292	123,811	661,791	61,872	44,572	15,829	59,193	997,042
1993	23,745	5,096	124,996	662,866	61,963	44,647	16,643	59,168	999,124
1994	22,957	5,096	129,073	660,295	62,177	44,453	16,572	59,196	999,319
1995	22,457	4,898	128,695	659,555	73,154	43,953	15,573	59,188	1,007,475
1996	22,351	4,893	127,943	676,352	67,555	42,299	18,361	59,093	1,018,849
1997	22,017	4,839	126,115	676,952	70,062	42,275	18,128	59,101	1,019,545
1998	22,546	4,931	136,867	673,647	75,442	43,013	18,719	59,053	1,034,265
1999	21,034	4,931	117,931	675,636	74,890	43,985	18,611	59,024	1,016,041
2000	21,765	4,706	122,809	683,516	74,889	43,957	17,185	59,024	1,027,852
2001	22,045	4,858	122,912	685,592	76,677	43,779	17,135	58,555	1,031,553
2002	22,446	180,021	111,173	685,642	77,429	38,712	18,098	79,360	1,212,881
2003	22,677	178,893	114,522	726,842	87,043	38,258	18,233	79,343	1,265,812
2004	21,891	178,800	115,195	729,341	100,784	36,246	16,102	79,343	1,277,702
2005	21,371	178,792	116,246	743,411	102,580	35,936	14,842	79,370	1,292,550
2006	21,757	179,210	115,160	739,205	114,073	33,366	14,965	99,992	1,317,447

Source: Oil & Gas Journal. Estimated proved reserves as of 1/1 of stated year. Totals may not add due to rounding. Canadian reserves include oil sands after 2001.

# WHOLESALE PRICES—TOTAL U.S.

Year	Motor Gasoline	Kerosene		el Oil	Avera		Crude Oil
		(	Distillate t/gal.)	Residual	Of Four P		(\$/bbl.)
1951 1952 1953 1954 1955 1956 1957 1958 1959	11.40 11.38 12.01 11.66 11.62 11.75 12.34 11.74	9.85 9.90 10.23 10.40 10.53 10.99 11.54 10.96 11.26	8.50 8.52 8.83 8.94 9.08 9.45 10.05 9.39 9.31	4.42 3.84 3.73 3.97 4.53 5.30 6.15 4.82 4.79	8.79 8.62 8.96 8.88 9.06 9.43 10.10 9.27 9.22	3.69 3.62 3.76 3.73 3.81 3.96 4.24 3.89 3.87	2.53 2.53 2.68 2.78 2.77 2.79 3.09 3.01 2.90
1960 1961 1962 1963 1964 1965 1966 1967 1968 1969	11.61 11.62 11.52 11.35 11.27 11.52 11.59 11.84 11.55 11.80	11.17 11.49 11.42 11.51 10.93 11.28 11.49 11.96 12.03 11.98	8.79 9.10 9.11 9.18 8.65 9.04 9.09 9.71 9.84 10.06	4.88 4.85 4.78 4.61 4.50 4.81 4.73 4.53 4.30 4.20	9.15 9.21 9.13 9.01 8.83 9.12 9.15 9.33 9.14 9.27	3.84 3.87 3.84 3.79 3.71 3.83 3.84 3.92 3.84 3.89	2.88 2.89 2.90 2.89 2.88 2.86 2.88 2.92 2.94 3.09
1970 1971 1972 1973 1974 1975 1976 1977 1978 1979	12.33 12.70 12.70 14.72 25.53 30.27 33.82 36.99 39.22 56.84	12.43 12.90 12.87 14.08 24.02 27.41 31.67 35.81 37.23 56.60	10.45 10.75 10.61 12.61 22.57 26.09 30.38 34.41 35.66 54.47	6.14 7.76 7.60 8.45 20.43 22.03 21.66 25.87 23.00 33.63	10.20 10.94 10.87 12.49 23.48 27.03 29.55 33.21 33.72 49.50	4.28 4.59 4.57 5.25 9.86 11.35 12.41 13.95 14.16 20.79	3.18 3.39 3.89 6.87 7.67 8.19 8.57 9.00 12.64
1980 1981 1982 1983 1984 1985 1986 1987 1988 1989	87.40 101.63 94.56 86.97 81.14 81.11 47.74 53.22 50.31 59.15	80.26 101.03 97.18 85.12 84.75 81.69 49.92 56.75 50.72 60.78	78.21 97.20 91.95 80.05 79.62 76.66 44.91 52.25 46.10 56.02	44.43 61.17 57.80 57.30 59.14 56.41 36.23 45.36 38.72 40.87	72.77 88.75 83.27 76.94 74.49 73.06 43.97 50.89 46.22 53.28	30.56 37.28 34.97 32.31 31.29 30.69 18.47 21.37 19.41 22.38	21.59 31.77 28.52 26.19 25.88 24.09 12.51 15.40 12.58 15.86
1990 1991 1992 1993 1994 1995 1996 1997 1998 1999 2000	72.13 64.24 60.90 54.85 52.95 55.51 68.29 66.21 52.60 64.50 96.30	73.37 64.79 62.78 59.98 57.67 58.15 74.02 62.26 45.00 53.00	67.82 59.81 58.12 55.54 53.22 53.74 69.64 66.81 43.90 53.60	50.99 40.94 41.67 40.22 42.50 47.41 53.78 54.69 28.00 35.40	65.20 56.61 54.81 50.82 50.09 51.63 64.43 62.19 42.38 51.63	27.38 23.78 23.02 21.34 21.04 21.68 27.06 26.12 17.80 21.68 34.70	20.03 16.54 15.99 14.25 13.19 14.62 18.46 17.23 10.87 15.56 26.72
2001 2002 2003 2004 2005 2006	88.60 82.80 100.20 128.80 167.50 196.90	76.30 71.60 87.10 120.80 172.30 196.10	77.90 71.80 88.20 117.80 172.00 201.20	47.60 53.00 66.10 68.10 97.10 113.60	72.60 69.80 85.40 108.88 152.23 176.95	30.49 29.32 35.87 45.73 63.88 74.10	21.84 22.51 27.56 36.77 50.28 59.69

Sources: Petroleum product prices derived by IPAA from Platt's Oilgram Price Report thru 1997. EIA prices used thereafter. Crude oil wellhead prices from EIA.

Notes: Data reflect price trends only, not actual sale prices. Motor gasoline prices represent leaded fuel prior to 1982, and unleaded

thereafter.

# PETROLEUM CONSUMPTION

# PETROLEUM CONSUMPTION

(mill. bbls.)	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
Alabama	98.3	97.2	101.6	105.4	103.9	108.1	107.1	117.1	114.6	115.9
Alaska	45.3	45.6	48.6	48.5	51.1	48.7	50.0	58.9	58.7	60.3
Arizona	81.3	88.0	92.9	94.6	95.7	97.8	99.3	103.6	108.6	110.8
Arkansas	65.4	65.2	71.6	73.1	70.0	70.1	69.6	71.7	70.7	70.8
California	604.8	609.8	628.5	654.1	651.7	685.8	701.2	693.1	706.0	713.7
Colorado	70.1	75.0	77.8	83.5	86.9	83.3	86.7	93.7	92.2	95.9
Connecticut	80.3	78.8	83.2	81.2	76.6	70.8	79.8	86.1	82.6	75.0
Delaware	25.0	25.3	25.8	24.9	26.7	26.1	26.6	25.5	26.8	25.1
Dist.of Columbia	6.3	6.7	6.1	6.3	6.1	6.1	5,.4	5.6	5.3	4.3
Florida	309.5	339.9	341.4	354.2	352.7	345.4	351.4	382.7	390.4	373.3
Georgia	179.3	183.3	192.6	193.7	193.0	192.5	196.1	206.2	213.3	207.8
Hawaii	39.8	40.5	39.7	40.6	41.5	45.1	47.0	49.0	51.3	51.6
Idaho	26.6	27.6	30.0	30.7	28.6	29.1	25.6	28.8	29.5	30.7
Illinois	232.8	228.6	250.6	248.6	243.0	237.7	243.2	255.1	275.7	265.5
Indiana	157.3	156.4	161.9	164.5	150.5	160.4	165.5	162.2	160.8	163.5
lowa	72.3	78.8	82.8	82.4	78.8	82.4	76.4	86,.5	88.2	89.9
Kansas	75.6	75.8	86.6	79.3	73.7	71.1	83.8	81.8	65.2	66.7
Kentucky	125.7	127.5	132.7	130.2	119.3	129.9	122.7	134.2	133.5	138.7
Louisiana Maine	258.3 46.5	248.1 46.1	278.9 48.1	327.7 47.1	325.8 40.7	331.5 41.3	300.9 47.3	310.5 46.6	297.9 47.6	320.7 42.9
Maryland	95.1	100.4	105.1	101.9	102.6	99.4	103.3	106.7	110.8	103.4
Massachusetts	134.7	138.0	133.7	138.2	135.4	130.8	133.1	135.5	136.8	124.4
Michigan Minnesota	197.0 117.2	197.4 116.5	208.0 1221	201.5 125.6	194.0 125.0	198.1 126.3	193.4 129.2	197.4 133.0	198.1 133.9	187.0 130.1
			8.4	10.7	9.9	10.1	10.9		84.1	86.8
Mississippi Missouri	10.8 132.2	9.2 139.3	0. <del>4</del> 145.1	128.6	135.4	136.9	138.9	10.2 140.1	139.7	141.1
Montana	28.4	28.1	30.4	29.6	30.4	30.0	29.5	33.7	35.0	35.6
Nebraska	43.0	45.4	45.9	42.0	41.0	42.9	43.3	44.5	43.2	43.3
Nevada	39.3	40.7	41.9	43.4	45.9	43.8	44.4	48.3	51.1	54.1
New Hampshire	31.9	33.5	34.5	34.0	31.1	32.8	36.6	37.7	35.4	32.1
New Jersey	216.0	212.5	221.5	226.7	232.2	229.5	222.9	229.8	239.8	234.1
New Mexico	43.3	45.3	47.6	45.8	45.3	45.8	46.1	47.8	47.7	50.3
New York	284.7	290.7	294.8	309.1	297.0	287.1	318.8	337.1	330.6	292.6
North Carolina	172.9	174.1	173.0	181.2	176.9	173.2	177.5	185.5	187.1	181.0
North Dakota	22.3	20.8	22.9	22.5	26.4	23.3	22.6	25.0	25.7	25.4
Ohio	233.5	231.5	245.0	242.2	238.4	242.8	250.2	251.2	251.6	248.8
Oklahoma	85.8	86.7	93.5	95.4	106.4	101.6	99.6	98.3	105.5	111.7
Oregon	65.4	70.5	71.8	69.9	67.4	69.5	67.4	70.7	71.3	70.6
Pennsylvania	242.9	248.4	248.2	259.7	264.4	260.2	267.3	276.1	279.0	269.4
Rhode Island	18.6	17.6	17.9	17.8	18.3	18.0	18.6	18.1	17.9	17.2
South Carolina	82.0	84.2	84.7	87.9	93.1	93.2	95.7	109.5	105.3	109.2
South Dakota	21.3	20.9	21.4	22.1	20.9	22.7	21.3	21.6	22.3	22.1
Tennessee	119.8	125.4	129.3	130.8	135.3	141.3	143.5	146.8	151.0	152.6
Texas Utah	1,150.6 44.5	1,163.6 45.4	1,153.5 46.8	1,125.6 49.2	1,113.0 48.2	1,150.0 47.6	1,159.9 49.9	1,198.4 50.6	1,162.5 52.9	1,199.9 57.1
Vermont	16.1	15.6	15.7	16.6	16.9	16.2	16.3	17.9	17.2	17.0
Virginia Washington	152.1 148.6	153.7 148.5	156.7 153.2	164.6 152.9	168.9 154.0	164.2 147.4	177.1 142.9	189.7 151.1	189.8 153.2	185.2 146.0
Washington West Virginia	38.5	40.5	38.8	39.2	47.2	49.2	46.7	51.4	49.9	53.0
Wisconsin										
Wisconsin Wyoming	115.6 23.4	118.0 23.0	126.1 26.3	124.9 26.2	116.3 28.9	117.6 27.8	112.2 28.9	118.2 28.4	117.2 28.9	115.7 31.0
,	20.4	20.0	20.0	20.2	20.0	21.0	20.0	20.4	20.0	31.0
, ,										

Source: Energy Information Administration.

# NATURAL GAS CONSUMPTION

(MMcf.)	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
Alabama	324,158	329,134	337,270	353,614	332,693	379,343	350,345	382,367	353,156	391,098
Alaska	425,393	434,871	422,816	427,288	408,960	419,131	414,234	406,319	432,972	379,791
Arizona	134,706	158,355	165,076	205,235	240,812	250,734	272,921	349,622	321,584	358,136
Arkansas	260,113	266,485	252,853	251,329	227,943	242,325	246,916	215,124	213,609	233,640
California	2,146,211	2,309,883	2,339,521	2,508,797	2,464,565	2,273,193	2,269,405	2,406,889	2,248,256	2,292,056
Colorado	314,486	330,259	333,085	367,920	463,738	459,397	436,253	440,378	470,321	449,830
Connecticut	144,708	131,497	152,237	159,712	146,278	177,587	154,075	162,642	168,067	172,707
Delaware	46,511	40,809	56,013	48,387	50,113	52,216	46,177	48,057	46,904	43,194
Dist.of Colum Florida Georgia Hawaii	522,116 371,376 2,894	30,409 503,844 368,579 2,654	32,281 559,366 337,576 3,115	33,468 541,847 413,845 2,841	29,802 543,143 351,109 2,818	32,898 689,337 383,546 2,734	32,814 689,986 379,761 2,732	32,227 734,178 394,986 2,774	32,085 778,209 412,560 2,795	29,052 891,607 419,908 2,784
Idaho	68,669	69,277	70,672	72,697	80,279	71,481	69,868	75,335	74,540	75,728
Illinois	1,077,139	957,254	1,004,281	1,030,604	951,616	1,049,878	998,486	953,207	969,642	892,129
Indiana	556,624	521,748	556,932	570,558	501,711	539,034	527,037	526,701	531,111	496,332
Iowa	254,489	232,057	230,691	232,565	224,336	226,457	230,161	226,819	241,340	238,495
Kansas	338,231	326,674	302,932	312,369	272,500	304,992	281,346	256,779	255,123	258,363
Kentucky	227,931	205,129	218,399	225,168	208,974	227,920	223,226	225,470	234,080	211,067
Louisiana	1,661,061	1,569,190	1,495,478	1,536,725	1,219,013	1,341,444	1,233,505	1,281,428	1,254,370	1,222,720
Maine	6,290	5,716	6,572	44,779	95,733	101,536	70,832	72,565	57,835	49,605
Maryland	212,017	188,552	196,350	212,133	178,376	196,276	197,024	194,725	202,509	182,057
Massachuset	ts 402,629	358,846	344,790	343,314	349,103	393,194	403,991	372,532	378,068	370,789
Michigan	994,342	876,444	951,143	963,136	906,001	966,354	924,819	916,629	913,827	809,099
Minnesota	354,092	330,513	344,591	362,025	340,911	371,583	371,261	359,898	367,825	352,576
Mississippi	255,475	241,342	306,733	300,652	332,589	343,890	265,842	282,051	301,663	307,293
Missouri	283,294	258,652	265,798	284,763	283,793	275,629	262,529	263,945	268,040	250,797
Montana	59,851	59,840	62,129	67,955	65,051	69,532	68,473	66,829	68,355	73,882
Nebraska	132,221	130,730	121,487	126,962	121,984	120,333	118,922	115,011	119,070	121,756
Nevada	132,128	148,539	154,689	189,170	176,835	176,596	185,846	214,984	227,149	249,683
New Hampsh	ire 20,848	19,127	20,313	24,950	23,398	24,901	54,147	61,172	70,484	62,549
New Jersey	717,011	679,619	715,630	605,275	564,923	598,602	612,890	620,806	602,388	547,908
New Mexico	256,464	245,823	236,264	266,469	266,283	235,098	221,021	223,575	220,717	224,103
New York	•	1,232,473	1,274,162	1,244,746	1,171,898	1,199,632	1,101,618	1,098,056	1,080,215	1,097,040
North Carolin		214,092	217,159	233,714	207,108	235,376	218,642	224,796	229,715	223,103
North Dakota		49,541	56,418	56,528	60,819	66,726	60,907	59,986	53,050	53,338
Ohio		811,389	841,966	890,962	804,243	830,955	848,388	825,753	825,961	742,440
Oklahoma		575,855	538,329	538,563	491,458	508,298	540,103	538,576	582,536	618,714
Oregon		229,403	235,009	224,888	229,665	202,164	212,556	234,997	232,562	222,643
Pennsylvania		644,017	688,740	702,847	634,794	675,583	689,992	696,175	691,591	659,848
Rhode Island		130,751	118,001	88,419	95,607	87,805	78,456	72,609	80,764	77,197
South Carolin		159,458	162,926	160,436	141,785	184,803	146,641	163,787	172,032	174,805
South Dakota		33,042	35,794	37,939	37,077	41,577	43,881	41,679	42,555	40,739
Tennessee		279,070	278,841	270,658	255,990	255,515	257,315	231,133	230,338	220,426
Texas		4,205,459	4,009,689	4,421,777	4,252,152	4,303,831	4,050,632	3,908,243	3,503,636	3,433,863
Utah	165,253	169,776	159,889	164,557	159,299	163,379	154,125	155,891	160,275	187,537
Vermont	8,061	7,735	8,033	10,426	7,919	8,367	8,400	8,685	8,372	8,056
Virginia	248,960	260,332	276,793	268,770	237,853	258,202	262,970	277,434	299,746	274,055
Washington	256,366	290,229	287,302	286,653	312,114	233,716	249,599	262,485	264,754	263,467
West Virginia Wisconsin Wyoming	400,651 100,950	142,860 368,022 109,188	139,961 380,560 96,726	147,854 393,601 101,314	141,090 359,784 98,569	146,455 385,310 112,872	126,986 394,711 115,358	122,267 383,316 107,060	117,136 410,250 108,314	113,085 372,457 107,363
Total U.S.	22,131,342	22,245,956	££,400,101	١٤١ ,دد.	22,230,024	23,007,017	22,210,302	22,388,975	22,010,596	21,550,845

Source: Energy Information Administration. Volumes delivered to consumers.

#### INDUSTRY EMPLOYMENT-2006

State	e Mining Refining		Transportation			Wholesale	Retail	Total	
	Oil & Gas Extraction	Petroleum Refining	Oils & Greases	Pipelines, Except Gas	Pipeline Construction	Gas Distribution	Petroleum Products	Gasoline Stations	Industry
Alabama	1,957	337	611	196	1,057	3,133	3,145	19,001	29,437
Alaska	10,434	ND	414	ND	481	ND	1,355	1,804	14,488
Arizona	268	ND	215	247	779	182	1,935	16,582	20,208
Arkansas	2,926	442	191	922	402	957	2,234	12,586	20,660
California	17,988	12,158	834	2,533	1,854	1,207	11,323	54,180	102,077
Colorado	15,589	NC	ND	832	2,988	1,307	2,197	12,586	35,472
Connecticut	28	ND	ND	166	248	1,279	5,479	6,497	13,367
Delaware	28	ND	ND	ND	88	ND	725	2,553	3,374
Dist. of Colui	<b>mbia</b> ND	ND	ND	ND	ND	ND	ND	477	477
Florida	1,513	96	369	1,770	722	1,770	6,919	39,969	53,128
Georgia	351	110	195	282	1,528	1,758	4,300	29,566	38,090
Hawaii	12	ND	ND	ND	75	ND	439	2,688	3,194
ldaho	136	ND	ND	ND	317	ND	911	5,394	6,758
Illinois	2,610	2,837	1,682	979	1,120	4,917	5,734	26,326	46,205
Indiana	394	ND	ND	513	1,030	3,084	3,497	23,590	32,108
Iowa	10	39	138	396	302	552	1,746	17,882	21,065
Kansas	7,723	1,576	280	875	1,289	1,725	2,235	10,318	26,021
Kentucky	2,299	725	452	991	706	791	3,107	19,134	28,205
Louisiana	45,031	9,036	1,116	2,347	14,236	1,614	1,461	17,832	92,673
Maine	17	ND	381	72	13	62	4,531	7,539	12,615
Maryland	763	ND	ND	54	772	683	3,435	10,545	16,252
Massachuse	136	ND	ND	131	346	2,724	7,314	11,915	22,566
Michigan	2,550	ND	784	1,131	1,283	3,124	3,146	25,487	37,505
Minnesota	160	ND	ND	369	1,041	1,703	1,736	23,105	28,114
Mississippi	4,982	1,687	107	841	871	634	2,410	15,600	26,323
Missouri	109	35	411	292	475	3,177	4,290	25,237	34,026
Montana	2,711	ND	ND	328	385	392	996	5,095	9,907
Nebraska	236	ND	ND	255	132	1,489	1,251	8,838	12,201
Nevada	130	ND	ND	20	743	ND	761	8,619	10,273
New Hampsh	hire 50	ND	201	ND	ND	196	2,464	5,240	8,151
New Jersey	392	2,515	572	311	1,159	3,749	6,319	14,770	29,787
New Mexico	14,402	ND	716	932	214	694	1,607	7,814	26,379
New York		42	424	365	1,398	3,598	13,762	28,314	48,833
North Carolir		ND	1,067	119	1,124	2,165	6,829	28,694	40,562
North Dakota		ND	ND	240	167	ND	1,671	4058	9,237
Ohio		1,414	744	982	1,340	3,488	5,880	35,401	54,211
Oklahoma		1,319	476	1,382	1,843	3,093	10,690	13,271	72,091
Oregon		ND	ND	ND	292	ND	1,797	10,969	13,080
Pennsylvania		2,314	2,525	1,779	1,929	3,899	11,508	36,425	65,612
Rhode Island		ND	ND	ND	87	ND	1,625	1,918	3,717
South Carolii	47	ND	ND	ND	199	908	2,401	18,233	22,001
South Dakota		ND	ND	60	44	228	1,277	5,759	7,415
Tennessee		ND	ND	355	646	1,960	3,629	24,063	31,290
Texas		20,349	731	12,429	22,404	7,112	50,360	67,406	361,594
Utah	5,168	819	ND	272	400	870	1,158	9,612	18,299
Vermont	24	ND	ND	ND	ND	ND	1,703	3,896	5,623
Virginia	1,543	ND	ND	404	1,748	1,593	4,900	33,251	43,439
Washington	166	1,868	83	166	1,599	1,254	3,176	14,466	22,778
West Virginia	4,493	333	567	1,369	826	928	1,042	9,233	18,791
Wisconsin	ND	ND	126	235	439	849	3,620	23,674	28,943
Wyoming	17,523	861	ND	736	3,823	173	892	4,052	28,060
Total U.S.	403,358	68,427	15,207	40,363	76,155	108,038	244,141	862,064	1,825,703

Source: State Agencies & Bureau of Labor Statistics Note: Reported data only. N.A.I.C. codes used. ND - Non-Disclosure or not available = not included in Total.

Note: State data differ from the Bureau of Labor Statistics national averages (Total US) due to confidentiality rules. Oilfield Machinery included in Wholesale Petroleu. Products. Pipeline Construction and Oilfield Machinery separated out on state pages. State page Refining includes Oil and Greases.

# REFERENCE INFORMATION

#### REFERENCE INFORMATION

#### **Data Sources & Notes**

The editorial staff gratefully acknowledges the following sources of data that appear on the individual state pages.

& World Petroleum Report (Note: Marketed production)

Deepest wells drilled......IHS & State Data

Cumulative wells drilled .....IHS & State Data

Cumulative wellhead value............Energy Information Administration

Cumulative production (marketed)

& Reserves (dry) ......Energy Information
Administration

Wellhead prices and value ...... EIA, IPAA, State Data

End-use natural gas prices......EIA

Severance and production taxes..IPAA survey

Wells and footage drilled ......API, IHS & State Data

Rotary drilling rigs......Baker Hughes, Inc.

Producing wells ......IHS & State Data

Oil and gas production.....EIA & IHS

Number of employees ................IPAA survey & BLS. Refining includes Oil and Greases.

Petroleum reserve position......EIA

Lease & Royalties ......Minerals Management

Service

Marginal wells & Abandonments...IHS & IOGCC

Federal Leases & Royalties....... Department of Interior and Minerals Management Service

**Abbreviations** 

bbl. = barrel b/d = barrels per day

Mcf = thousand cubic feet
MMcf = million cubic feet
Bcf = billion cubic feet
Tcf = trillion cubic feet
BT = British Thermal Unit
NGL = Natural Gas Liquid
LPG = Liquefied Petroleum Gases

NA = Data Not Available ND = Not Disclosable

#### **Energy Conversions**

One barrel of crude oil:

= 42 gallons

= 5,800,000 BTU of energy

= 5,614 cubic feet of natural gas

= 0.22 ton of bituminous coal

One cubic foot of natural gas:

= 7.48 gallons

= 1,030 BTU of energy

= 0.000178 barrel of crude oil

= 0.00004 ton of bituminous coal

One short ton of bituminous coal:

= 2,000 pounds

= 26,200,000 BTU of energy

= 4.52 barrels of crude oil

= 25,314 cubic feet of natural gas

One metric ton of crude oil:

= 2.204 pounds

= 7.46 barrels of domestic crude oil

= 6.99 barrels of foreign crude oil

One cubic meter of natural gas:

= 35.314 cubic feet

#### GLOSSARY

Abandonments- The number of producing wells that have been abandoned during a given time period.

Artificial Lifting - Any method used to stimulate the production of crude oil and/or natural gas in excess of the flow resulting under natural reservoir pressures, e.g. pumping, secondary or tertiary recovery.

Associated Gas - The combined volume of natural gas which occurs in crude oil reservoirs either as free gas (associated) or as gas in solution with crude oil (dissolved).

Barrel - Standard volumetric measure for petroleum, equivalent to 42 U.S. gallons.

Condensate - A mixture of liquid hydrocarbons at atmospheric conditions which occur in a gaseous state underground, sometimes known as distillate or natural gasoline.

Crude Oil - Hydrocarbons in liquid unprocessed form that vary significantly in properties such as API gravity, viscosity, and sulfur content.

Development Well - A crude oil, natural gas or dry hole drilled within an area known to be productive.

Distillate Fuel Oil - One of the petroleum fractions produced by conventional distillate, includes fuel oil and diesel fuel.

Dry Hole - A completed well which is not productive of crude oil and/or natural gas in commercial quantities.

Dry Natural Gas - Natural gas that does not contain dissolved liquid hydrocarbons.

Exploratory Well - A crude oil, natural gas, or dry hole drilled to discover a petroleum formation or its limits.

Gas Well - An exploratory or development well completed for the production of natural gas.

Liquefied Petroleum Gas (LPG) - Butane, propane, and other light products separated from natural gasoline or crude oil by fractionation or other processes. At atmospheric pressure, it reverts to the gaseous state.

Marginal Well - A producing well which pumps or "strips" less than 10 barrels of crude oil or 60 Mcf of natural gas per day.

Marginal Well Reserves - The estimated amount of additional crude oil or natural gas which can be recovered by primary means or secondary recovery methods.

Middle Distillates - A general classification of petroleum products that includes distillate fuel oil and kerosene.

Natural Gas - Hydrocarbons in gaseous form or mixed with crude oil.

Natural Gas Liquids (NGL) - Hydrocarbons found with natural gas that are recoverable by condensation or absorption, such as LPG or natural gasoline.

Non-associated Gas - Natural gas not in contact with significant quantities of crude oil in a reservoir.

Oil Well - An exploratory or development well completed for the production of crude oil.

Petroleum - Includes in its broadest sense the entire spectrum of hydrocarbons - gaseous, liquid, and solid.

Pipeline - A line of tubes with pumping machinery that transports crude oil or natural gas from the wellhead to the storage tank or petroleum refinery.

Proved Reserves - The estimated quantity of crude oil, natural gas, or NGL that is shown with reasonable certainty to be recoverable from known fields under existing economic and operating conditions.

Residual Fuel Oil - The heavy, high-viscosity leftover from the refining process, used mainly for industrial purposes.

Rotary Drilling Rig - A derrick equipped with modern rotary equipment capable of drilling a bore hole with a bit attached to a rotating column of steel pipe, in contrast to a cable tool rig which drills on the percussion principle.

Seismic Exploration Activity -The search for geological structures which are potential petroleum-bearing formations by interpreting data from seismic shocks.

Severance Tax - A tax levied by some states on each barrel of crude oil or each thousand cubic feet of natural gas produced.

Strategic Petroleum Reserve - Crude oil inventories held in government underground storage for use during periods of supply interruptions.

Stratigraphic Test - A hole drilled to gather information about a stratigraphic formation such as the general permeability and porosity of the rocks; includes core tests.

Well - A hole drilled to find or produce hydrocarbons, or to provide services related to their production.

Wet Natural Gas - Volumes of natural gas remaining after removal of lease condensate, and after exclusion of nonhydrocarbon gases where they occur in sufficient quantity to render the gas u nmarketable.

Wildcat Well - A type of exploratory well drilled in an unproven area where there has been no previous production.



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